

LIVING AND LEARNING DESIGN CENTRE

THESIS

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

By

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**DEPARTMENT OF ARCHITECTURE
SCHOOL OF BUILDING AND ENVIRONMENT**

SATHYABAMA

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

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JUNE 2021



**DEPARTMENT OF ARCHITECTURE BONAFIDE
CERTIFICATE**

This is to certify that this Project Report is the bonafide work of GAYATHRI K(3621024) who carried out the project entitled “Living and Learning Design Centre” under our supervision from January 2021 to June 2021.

Internal Guide

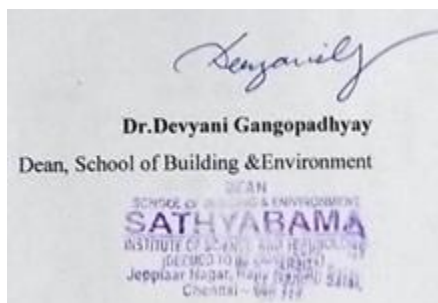
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DECLARATION

I, **GAYATHRI K** hereby declare that the Project Report entitled “**Living and Learning Design Centre**” done by me under the guidance of **Ar. Yusuf Chiniwala** (Internal Guide), **Dr.Devyani Gangopadhyay** (Internal Review Member) and **Ar.Aravind Rangan** (External Guide). Sathyabama Institute of Science and Technology is submitted in partial fulfilment of the requirements for the award of Bachelor of Architecture Degree.

DATE:

PLACE: Chennai
ACKNOWLEDGEMENT

SIGNATURE OF THE CANDIDATE

I am pleased to acknowledge my sincere thanks to Board of Management of **Sathyabama Institute of Science and Technology** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

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ABSTRACT

Art and crafts are results of centuries of patient experiments of man under various circumstances. The world of art and crafts is as valuable as the world of science, philosophy or ethics. Art and craft reflect the state of human society through the individuals. Art is the reflection of the culture in a society- its spiritual and intellectual content. Living and learning design centre is a one-stop craft destination which offers its visitors a unique variety of craft-related activities and programmes. In this centre, visitors will learn about Thanjavur handicraft through craft demonstrations & hands-on interactive sessions. Its visitors will experience interactive handicraft making besides viewing the techniques in which they make such fine masterpieces. It also accommodates various trading units. This project intends to provide spaces with forms and functions to foster the development of crafts that Thanjavur is known for. The art and craft gallery housed in its premises displays wide collections of handicraft products/artefacts based on time-honoured Thanjavur craft traditions. The core concept of this craft gallery is education and highlights the craft heritage of Thanjavur and local handicraft production technologies.

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CHAPTER 1

INTRODUCTION

1.1 OBJECTIVE

- The aim of this centre is to transfer the knowledge between students and artisans.
- To provide a great opportunity to educate the people to make them aware what is available in our traditional crafts as well as giving the artisans a better life.
- This centre will serve as resource and knowledge centre, which will provide incubation and training to designers, artisans and students.
- Providing chance to learn these art forms will increase its chance as a commonly seen art form.

1.2 NEED

- Traditionally, almost every region in India has had its own form of art that includes drawings, paintings, embroideries, carvings, handicrafts, handloom and much more. Different art forms arise out of different social and linguistic groups. Each art form has its own history and cultural significance. Preserving and protecting the knowledge and skills of traditional crafts is a very important step in preserving country's rich heritage.
- There are many art and crafts forms that have been extinct due to lack of awareness and knowledge transfer.
- Some crafts are dying out because of increased modernisation and industrialisation.
- In this fast run world of technology, people have been started to shift their attention from the traditional handloom and handicrafts to new innovations.
- Handmade tales of India are on verge of extinction and getting replaced machine made products.
- With fewer customers, many artisans and craftsman are getting poorer day by day and forced to take up other alternative occupations and some cling desperately without any indemnity of a consistent livelihood.

1.3 CRAFTS OF THANJAVUR

- Thanjavur is the most attractive for its art and architecture that stands tall amidst its busy modern times. Amble through the town still that upholds some of its ancient lineage in music, handicrafts, paintings and valuable pieces.
- Musical instruments such as Tanjore Veena, a four feet long beauty and Nadhaswaram are made.
- Thanjavur Dancing Dolls purely made from wax, paper mache, and such materials.
- Nachiarkoil a town in Thanjavur where over 200 craftsmen are engaged in the thousand-year-old art of lamp making.
- Thanjavur paintings, the art form draws its immediate inspiration and resources way back from about 1600 AD
- Art plates, bronze icons, pith work, Melattur jute craft, Karuppur and Sikkalnayakanpet weaving are other craft forms.
- Most of these craft forms are not taught but picked up.

1.4 METHODOLOGY A.

DATA COLLECTION

- References from library and secondary resources
- Users and activities
- Building standards
- General considerations
- Program and area requirements
- Analysis and inference

B. CASE STUDY

- Literature study
- Comparative analysis between literature studies
- Inference

C. SITE STUDY

- Micro level analysis
- Macro level analysis
- SWOT analysis

D. CONCEPT DEVELOPMENT

- Sketches, 3Ds, concept, model
- Zoning

E. DESIGN EVOLUTION

- Master plan
- General layout or arrangement
- Plans, elevations, sections
- Structural details
- Model/ perspective views

CHAPTER 2

LITERATURE STUDY

2.1 NATIONAL SANSKRITI KENDRA, DELHI

Reason for selection - Acting more as an institute, also comprises of exhibition, classrooms, workshops, residence.

Table 2.1: National Sanskriti Kendra

Location	Anandgram Qutab (Mehrauli) , Delhi
Site area	3 hectares (7.4 acres)
Architects	Upal Ghosh and associates
Landscape architects	Mohammed Shaeer
Type	Cultural center

- A cultural complex that provides *space for* craftsmans to live and work, the Kendra illustrates how traditional spaces can be made relevant to these contemporary times through careful play of material and the creation of unique yet familiar spaces.
- Activities- Art, craft, literature, performing arts and social work



Fig: 2.1 :Traditional spaces



Fig: 2.2 : View of Sanskriti Kendra

1. Banyan courtyard 2. Baithak 3. Charbagh 4. Terracotta terrace
5. Museum of everyday art 6. Museum of textiles 7. Kund 8. Gaon
9. Amphitheatre 10. Artists studio 11. Nature walk 12. Barak Hamba

2.1.1 LANDSCAPE ELEMENTS

Geometric forms, pavements, hedges and paths intersperse the lawns, the Nahar and meandering parks.

- Approximately almost two thousand trees have been planted to predominate the complex.
- The rainwater channel has been converted into linear water body (The Nahar).



Fig: 2.3 : Peaceful environment for artisans



Fig: 2.4 : Kund near textile museum



Fig: 2.5 : A wooden pigeon house

2.1.2 DISTRIBUTION OF SPACES

- Public spaces like museums and office-the governing body comes first with entry.
- Sitting spaces comes next having little bit privacy by planting trees.
- Workspaces: Studios and dormitories- very personal spaces are away from public spaces to avoid any kind of distraction allowing artists to work with concentration in a very natural & fresh environment.
- Services- laundry, washing are placed at the end of the site away from public movement along the service road.

Fig: 2.7 : Lower ground floor plan

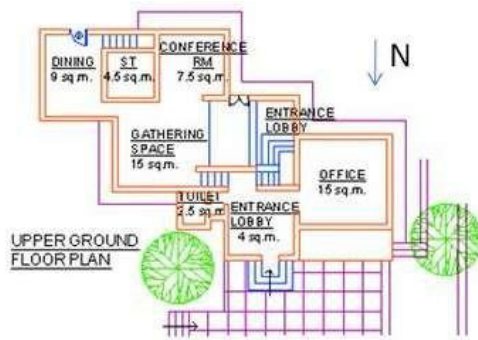


Fig: 2.8 : Upper ground floor plan



Fig: 2.9 : View of conference hall

2.1.4 STUDIOS

- There are eight studios in two blocks that are placed along with Nahar where participants with urban background can live and work.
- The units are small and simple but provide variety of spaces, both indoor and outdoor. These are located far away at the end from other complexes for artisans to concentrate on their work.

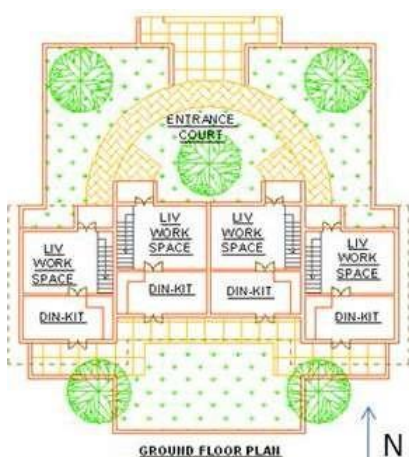


Fig: 2.10 : Ground floor plan

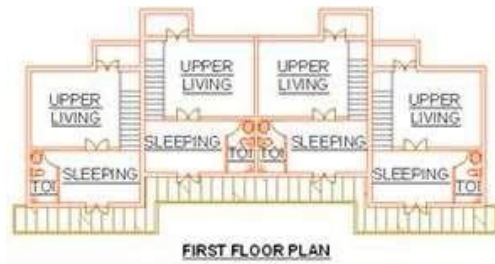


Fig: 2.11 : First floor plan

2.1.5 CERAMIC CENTER

- Ceramic activities and interactions. The programs that are offered- residencies, classes and interactive workshops for ceramicists, talks, slide shows, firings and demonstrations.



Fig: 2.12 : Views of ceramic center

2.1.6 EXHIBITION CENTRE

- Sanskriti Kendra incorporates two museums – sanskriti museum of India terra-cotta and Sanskriti museum of everyday art.
- The most public of all spaces, needed special attention for clarity of movements. The layout of spaces is such that any visitor can move from one exhibit to the next without repeating any.

- Good play with transition of spaces: The module, square plan, has been used in various forms – sometimes as just a platform, room without roof, room with roof but no walls, and sometimes just totally enclosed with regular doors and windows. Layout of spaces is such that any visitor moves from one exhibit to the next without repetition.



Fig: 2.13 : Floor plan



Fig: 2.14 : Open display



Fig: 2.15 : Semi open display



Fig: 2.16 : Closed display

2.1.7 MATERIALS

- The architect took visual cues from rural architecture and chose cement that was made to look like mud bricks with pyramidal terracotta tiled roof.
- Thatch can also be seen in some places.



Fig: 2.17 : Use of traditional materials

2.2 LIVING AND LEARNING DESIGN CENTER

Reason for selection - comprises of museum, workshops, residence.

Table 2.2: Living and learning design center

Location	Kutch, Gujarat
Site area	8.38 acres
Build up	8554 sq. m
Architects	Indigo architects
Type	Cultural center museum
Climate	Hot dry and arid

- The LLDC (Living & Learning Design Center) was primarily, meant to be a 'place' and tactile, visual repository of various crafts of Kutch.

- LLDC is to define its position as a resource center for artisans, the museum being a public face that included galleries for various crafts. Its a multidimensional crafts education and resource centre that which trains and also supports craftspeople.
- The overall master plan has three main components - the museum, the crafts school, the residential enclaves.



Fig: 2.18 : View

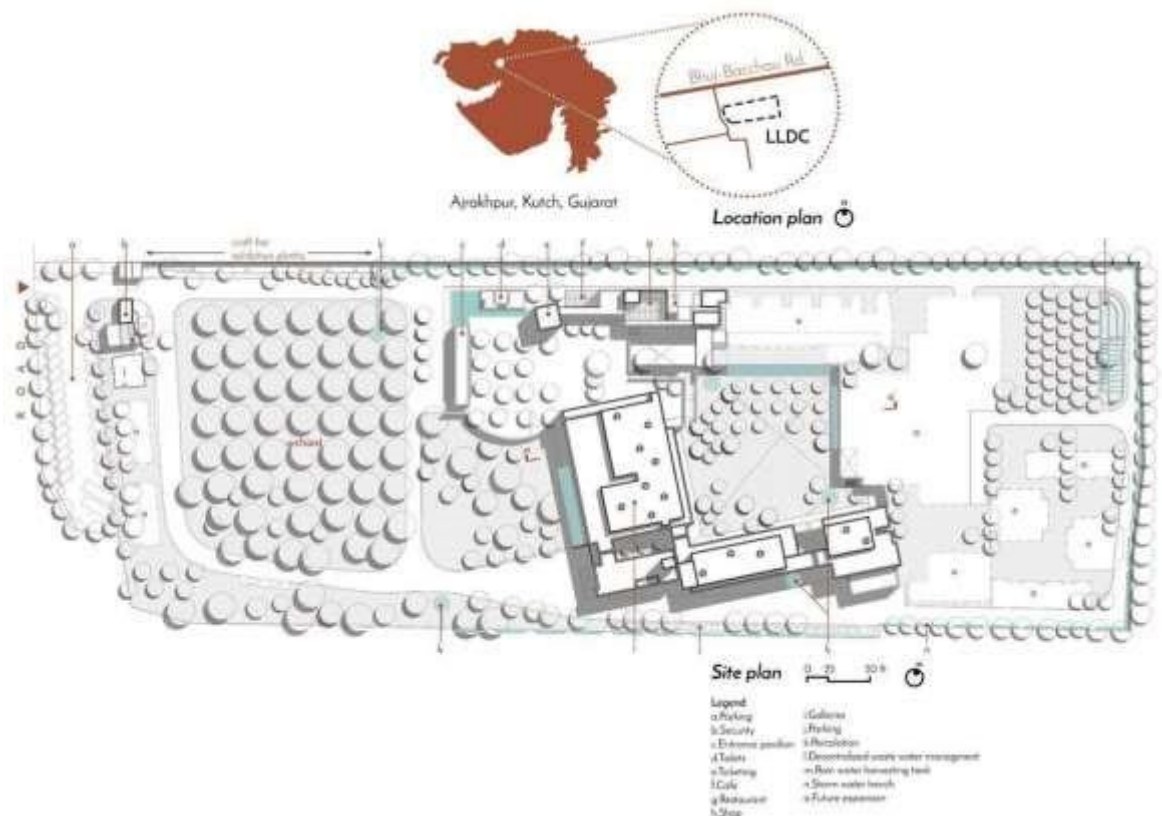


Fig: 2.19 : Site plan

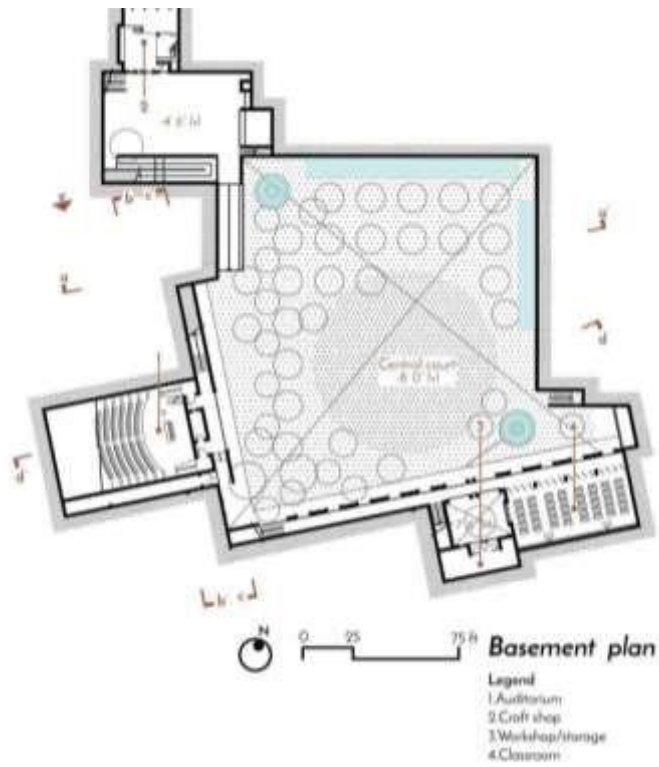


Fig: 2.20 : Basement plan



Fig: 2.21 : Ground floor plan



Fig: 2.22 : First floor plan



Fig: 2.23 : Skylights

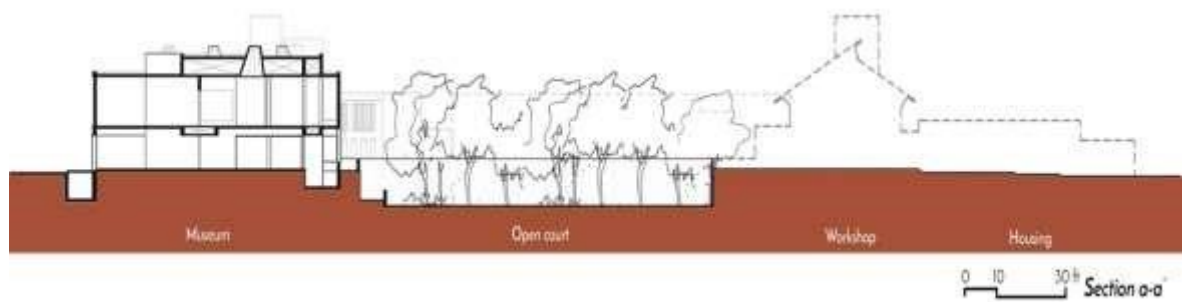


Fig: 2.24 : Section AA

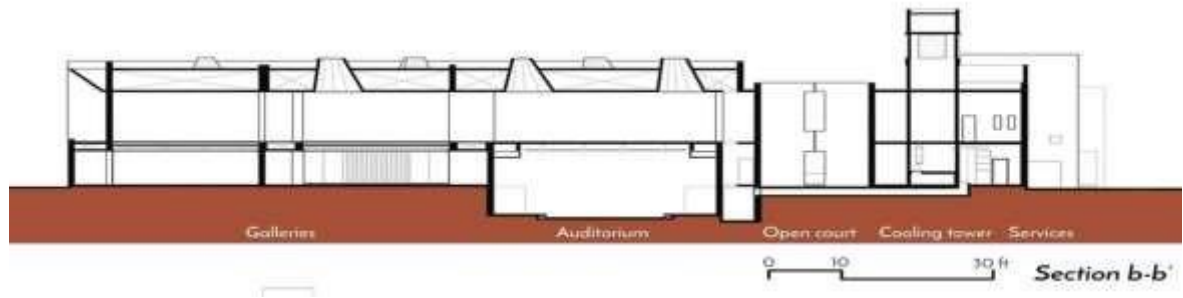


Fig: 2.25 : Section BB

2.2.1 MUSEUM

- The architecture of museum block is series of large solid volumes, that are punctuated by conoidal skylights that cut out elements and also dust. Along with the core, are ancillary passage ways and shaded spaces for craft demonstrations and impromptu workshops.
- The museum comprises of four galleries that includes a temporary exhibit area.

A library for visual, textual resources, instructional auditorium space conference room, classrooms for artisans and public orientation and information kiosks outside galleries, complete ensemble.



Fig: 2.26 : Temporary exhibits



Fig: 2.27 : Library



Fig: 2.28 : Auditorium

2.2.2 WORKSPACE

- Working spaces for every art and craft of Kutch makes it the single largest living and working craft environment in Kutch. The architectural plan organizes some activities along a central movement spine.



Fig: 2.29 : Workspace

2.2.3 MATERIAL

- Locally made sun dried lime-fly ash bricks with lime mortar and lime plaster were used along with dolomite plaster for internal finishes.
- All ceilings are un-plastered raw exposed with RCC using local waste timber planks and steel shuttering.
- The locally fabricated mild steel hollow metal sections were used for all the shutter frames with infill panels of recycled timber sourced from an old local demolished buildings.
- Local yellow polished khavda sand stone used for flooring.
- Natural brown kotah flooring in exterior and river washed brown kotah stone flooring in internal areas.

2.3 NATIONAL CRAFT MUSEUM

Reason for selection - Comprises of museum, workshops

Table 2.3: National craft museum

Location	Pragati Maidan, New Delhi
Site area	4 acres
Climate	Hot and dry climate
Architects	Charles Correa

- Concept: An Indian village street affable, accommodative and actively organised around a central pathway, going from the village to the temple to the palace.



Fig: 2.30 : Site plan

2.3.1 ELEMENTS

- The low lying museum building is a vernacular architecture and fine craftsmanship. Several architectural elements like jharokha, internal courtyards, open and semi open passages, roofed tile arches, craved doors, posts, perforated iron sheets, pillars and all visual delights.
- Apart from the collection the museum also houses research and documentation facilities, library, conservation lab, photo lab, and an auditorium



Fig: 2.31 : Courtyard



Fig: 2.32 : Museum

2.3.2 MOVEMENT

- The craft museum is arranged around such a pathway as one travel down the spine punctuated by village court, temple court and darbar court, one catches the glimpses of principle exhibit or progress through all spaces in a continuous sequence.
- This sequence ends along exit via roof garden with forms an amphitheatre for folk dance as well as an open air display for large terracotta houses and also other crafts.

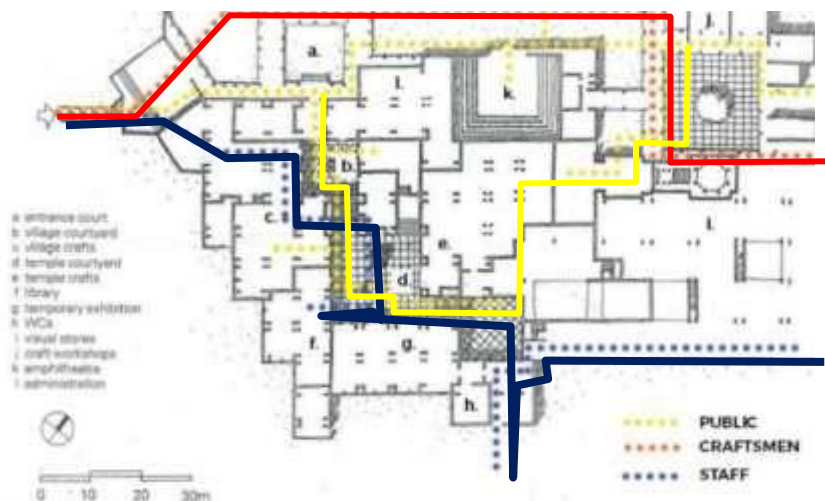


Fig: 2.33 : Circulation

2.3.3 SCALE

- On one side of the crafts complex is Purana Qila, an old historic monument. The entrance axis is aligned to this structure. Hence when one walks into the complex one is automatically aware of the monument.
- The volumes are a harmonious build up to the exquisite chattries of Purana Quila.
- The scale of the built form in no context is over empowering, it respects the magnanimity of the historic monument around it.

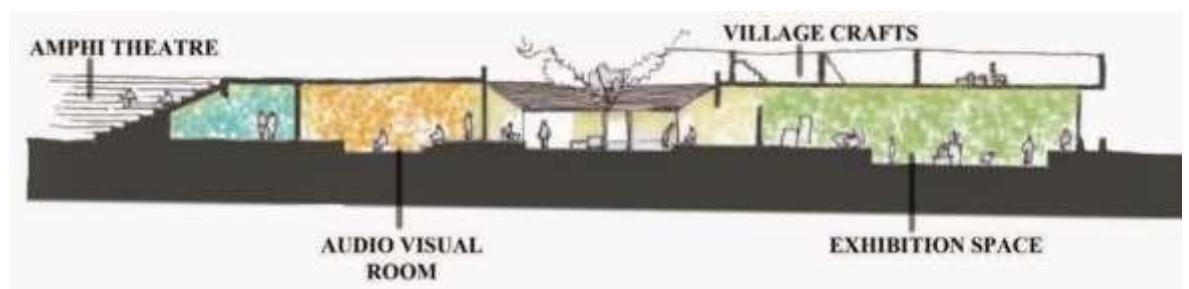


Fig: 2.34 : Section

2.3.4 MATERIAL

- Local materials like terracotta tiles, clay, wood, brick etc have been used. They invoke a strong sense of Indian architecture. Material varied according to the display of region they belonged to.



Fig: 2.35 : Thatch roof

2.4 JAWAHAR KALA KENDRA

Reason for selection - comprises of museum, learning spaces

Table 2.4: Jawahar Kala Kendra

Location	Jaipur
Site area	9 acres
Type	Cultural museum
Architects	Charles Correa

- **Concept-** The plan is inspired by original city plan of Jaipur, consisting of nine squares with a central square been left open. The navgrah concept with its energy values their favorable color, quality and also favorable functionality to each planet with square kept in mind while designing and allocation of spaces. Partly open courtyards and traditional design elements of Rajasthan have been incorporated in complex.



Fig: 2.36 : Site plan

2.4.1 RESPONSE TO CLIMATE

- Material: Red stone and white marble.
- Small punctures on wall for ventilation.
- The light shafts have step profiles with marble capping. Light shafts at the corner of each unit.
- Central courtyard bring in light and air.



Fig: 2.37 : Library



Fig: 2.38 : Museum

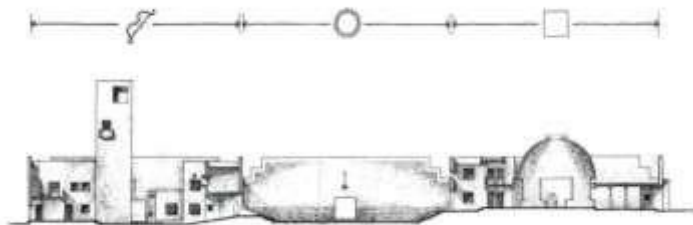


Fig: 2.39 : Section

2.4.2 PLAY WITH LIGHT AND SHADOW

- The significant feature which was been adopted in the library square was the spectacular play with the light and the shadow. As this square is *partially open to sky* and the particular side had *full height glazing* in it the *partial open roof* was treated with the architectural feature '*pergolas*'. The cut out was designed in such how the corridor will always remain in shade and has the pond in corner which might reduce the effect of the harsh sun to the library.

- Each square was linked to each planets as per its characteristics of the particular planet and its astrological values and the functionality of the square. This particular square was linked with 'Jupiter' the characteristics were matched in such how Linked planet 'Jupiter' Favorable color gamboge, Quality planet Knowledge, Functionality allotted Library.



Fig: 2.40 : Light and shadow

2.4.3 MADHYATRI OPEN AIR THEATRE

- Theatre was located and placed so well in the layout and planned such that the rest of 8 square were well connected to the central open theatre and the best part of it were the stepped platforms which might be used as seating areas. The same were surrounded by the 8m high walls and therefore the design stepping was incorporated within the corners of two walls to form them more interacted to every other. The stepping and therefore the walls were clad with red sandstone the locally available material.



Fig: 2.41 : Circulation



Fig: 2.42 : Open air theater

2.5 DHAKSHINACHITRA

Reason for selection - comprises of living museum, workshop, residential enclaves

Table 2.5: Dhakshinachitra

Location	Muttukadu, Chennai
Site area	10 acres
Build up	3 acres
Type	Cultural living museum
Architects	Laurie Baker, Benny Kuriakose

- Dakshinachitra, an exciting cross cultural living museum of art and craft, architecture, lifestyles, and also performing arts of south India.
- The wide spread sprawling ten acres campus is divided into four prominent states of the south-Kerala, Tamil Nadu, Karnataka and Andhra Pradesh further emphasising on their respective culture in terms of house architecture that is re-modelled district wise-brahmin house, potters house, merchant house etc., textile and handicrafts found in temples, art exhibitions and more, other activities at the centre include performing arts, music, research and academic programs with workshops and heritage trips which connect the neighbouring villages at the centre.



Fig: 2.43 : Site plan

2.5.1 MOVEMENT

- Pedestrian paths were paved using stones with trees on either side. Pedestrian flow is clearly demarcated from paths used for commercial purposes. The pedestrian flow gets branched out from entrance to varied state's houses.
- The vehicular flow is restricted at entry level plaza itself. The parking sheds also are provided in traditional style roofing.

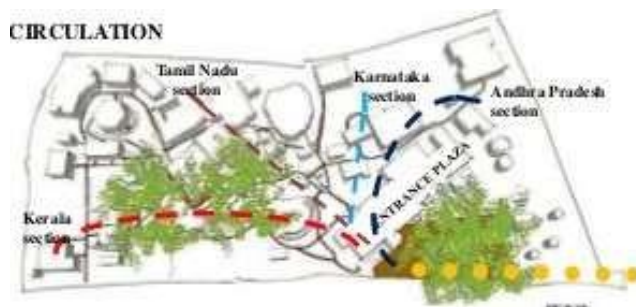


Fig: 2.44 : Circulation

- There were the archetypal pillars , thatched roofs and richly carved doors which effectively restricts the view into the interiors ,thus leaving the imagination to us. And the inside art is well worth hiding ,once you enter the village the world is entirely different from the urban setting outside

- The various play with bricks at entrance, compound wall, façade etc. bore witness to involvement of brick master within this design.

2.5.2 ARTISANS COMPLEX

- This area was restricted for artisans



Fig: 2.45 : Residence

2.5.3 EXHIBITION AND MUSEUM SPACES

- Museum showing various religious architecture, textile industry, folk arts were shown in various settlement of different states.



Fig: 2.46 : Textile exhibits



Fig: 2.47 : Museum

2.5.4 ACTIVITY HUT

- This permanent structure is where students have regular art classes going on to learn the traditional arts.



Fig: 2.48 : Activity hut

2.5.5 CHILDRENS PLAY AREA

- This area is lined with tall trees giving good shade even in the day time.

Pavilion and kalyana mandapa:

- Pavilion and kalyana mandapa is in chettinadu style with restaurant next to it. Gable roofs are used with mugappu (kerala style). Columns and doors are of traditional chettinad style.

Craft bazaar:

- A permanent structure for temporary artists. Stone carving workshop is found next to craft bazaar.



Fig: 2.49 : Craft bazaar

2.6 AVADH SHILPGRAM

Reason for selection - comprises of exhibition and workshops

Table 2.6: Avadh shilpgram

Location	Lucknow
Area	29784 sq. m
Architect	Archohm
Type	Socio-cultural institution

- The aim is to provide the local craftspeople with a place where they can share their ideas, teach, learn and sell their work directly to the customers.



Fig: 2.50 : Top view

2.6.1 MOVEMENT

- From the entrance courtyard, a spiralling structure lined with craft shops leads visitors gradually towards the open plaza at centre of a curving building.
- The elliptical form enables smooth corner-free circulation
- It narrows down as it spirals inward, and emulates density and vibrancy of traditional Lucknowi bazaars, which have streets that get progressively narrower.

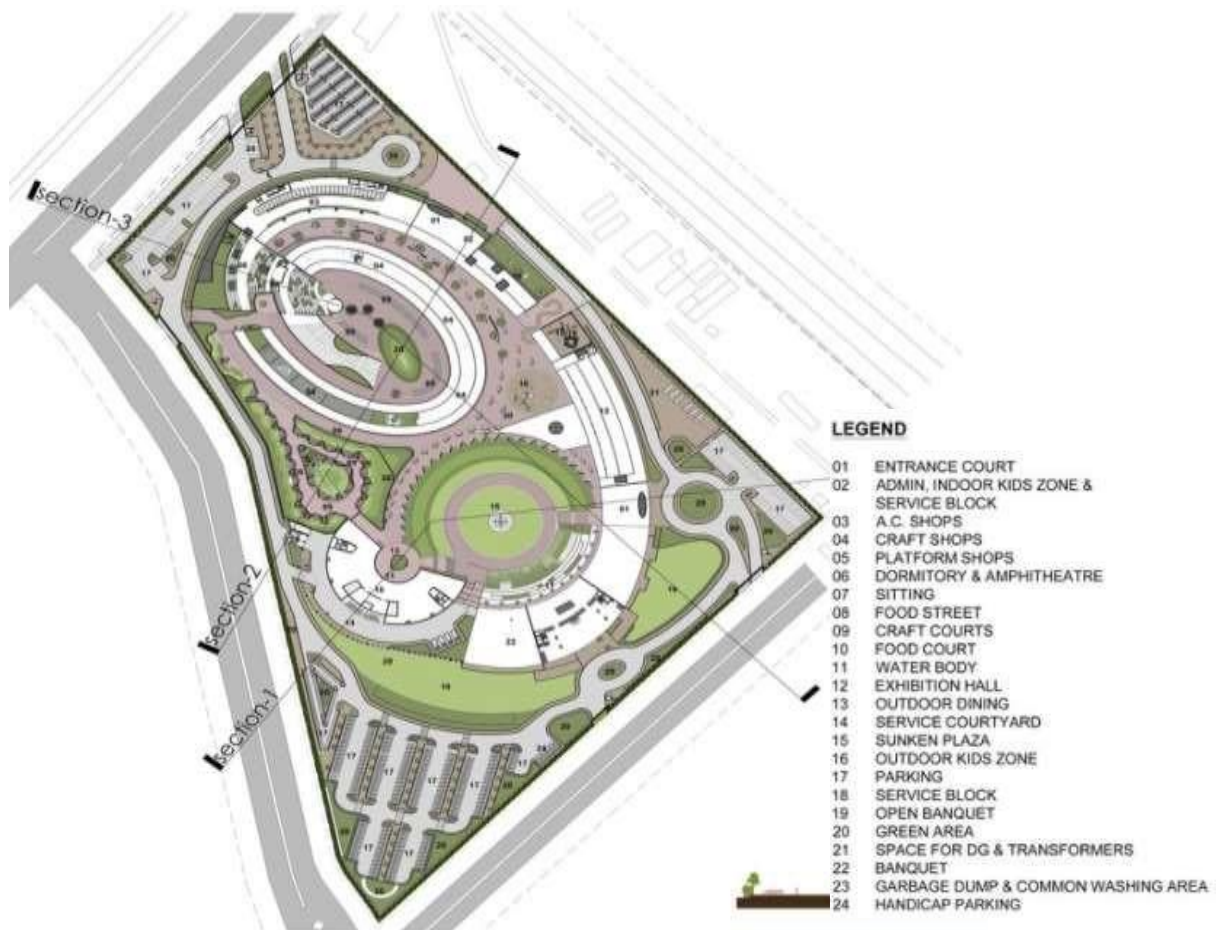


Fig: 2.51 : Plan



Fig: 2.52 : Ground floor plan



Fig: 2.53 : First floor plan

- The open area at centre of the complex contains stepped amphitheatre that incorporates planted beds. A paved ramp provides access to upper level, which looks down towards circular stage.
- Outside the main spiral building, cluster of stone-walled structures with rounded turf-covered roofs acts as demonstration areas in which artisans can conduct workshops observed by groups seated on benches incorporated into the inner walls.
- Elsewhere on the campus there is an arc-shaped exhibition hall and food court that look onto a circular lawn along with a fountain at its centre.



Fig: 2.54 : Ramp to upper level



Fig: 2.55 : Craft spaces



Fig: 2.56 : Amphitheater



Fig: 2.57 : Exhibition space

2.6.2 MATERIALS

- Every main building were clad with red Agra sandstone that helps to unify their diverse forms and functions.
- The steel frames of the double-height arches are from the concept of jaalis.

- The intricate patterns carved into the jalis are based on traditional Chikan embroidery and some elements inspired from the arches of Agra's Buland Darwaza.



Fig: 2.58 : Arch shaped jalis

Table 2.7: Literature study analysis

1. Sanskriti Kendra	Site and location	• Though it is located in the outskirts of Delhi, in a peaceful environment amidst farmhouses, there are no proper public transport to this location.
	Form and massing	• Strong relation exists between built mass and its surrounding open spaces as they are highly interactive in nature.
	Organisational layout and sequence of spaces	• Circulation inside the complex is limited to pedestrians. • Layout is based on the hierarchy of spaces • The building holds a deserted look as most of artisans are not seen around.
	Structure and elemental assembly	• Various levels have been incorporated in the design to add a new dimension to the simple plan layout. • Context going with cultural setting

	Material	- Traditional spaces made relevant to these contemporary times through the careful play of material. - Architect could have gone with mud blocks instead of cement blocks.
2. Living and learning design center	Site and location	- Easily accessible through public transport - Located opposite to settlements of Ajrakpur printers makes the artisans travel to the complex easier.
	Form and massing	- Simple, solid and contemporary form - Large entry volume
	Organisational layout and sequence of spaces	- Organized loosely around a courtyard that allows people to congregate in large numbers on occasions. - Purposefully reticent and non hierarchic. - Smooth flow in the movement between all programs. - Services on heat gain side.
	Structure and elemental assembly	- A solid façade and porous layered inner spaces ensure breathability - Truncated conical skylights - Detailed windows and cutouts on the west and south
		Load bearing system with confined masonry using reinforced columns.
	Material	Judicious use of materials and sustainable design strategies aimed at thermal comfort

3. Craft museum	Site and location	Located in Pragati Maidan complex attracts more people but there is not a separate parking area for Crafts museum.
	Form and massing	Form is kept simple and on village context. Not over empowering.
	Organisational layout and sequence of spaces	- Courtyards which form the transition spaces between various spaces. - Circulation is kept non axial and a sense of meandering is evoked through the organization - Circulation is casual yet well defined. - Not well maintained
	Structure and elemental assembly	- The breakup of spaces is achieved by level difference, subtle difference in paving green and hard courts. - Built in accordance with regional construction and authentic structures.
	Material	Traditional local materials of different regions have been used, with strong sense of Indian architecture.
4. Jawahar Kala Kendra	Site and location	- Located within Jaipur city, easily accessible. - Enough amount of vehicle parking is available within the site.
	Form and massing	- Central void space between tall walls makes the space claustrophobic. - Simple, solid and contemporary form

	Organisational layout and sequence of spaces	- Circulation and planning is Grid iron planning with connectivity - Hierarchy: well defined, based on program it occupies.
	Structure and elemental assembly	- Small punctures on wall for ventilation - Pergolas and cut outs to reduce harsh sun. - Lack of covered areas.

	Material	• Use of available local materials.
5. Dhakshin achitra	Site and location	• Located in outskirts of Chennai and easily accessible
	Form and massing	• Form based on village context of different regions
	Organisational layout and sequence of spaces	• Circulation flow without any repetition. • Activity hut is very congested and the classes where much disturbed with the tourist coming to visit the place.
	Structure and elemental assembly	• Buildings were efficiently planned based on climatic factors of Chennai. • Context going with cultural setting. • Individuality in each structure and harmoniously surviving.
	Material	• The construction was with locally available material and hence the maintenance was quite easy and economically viable.
6. Avadh shilpgram	Site and location	• Located in a busy urban area, creates an urban scope that inserts itself within a different reality. • Though constructed in 20 acres of land it is insufficient to host big exhibitions. Congested.
	Form and massing	• Naturally ventilated • Well oriented building form • Elliptical form enables smooth corner free movement
	Organisational layout and sequence of spaces	• Programs are well segregated and zoned according to their uses.
	Structure and elemental assembly	• The double height nature lets one experience the grand feeling of arches. Contemporary style with traditional elements like jaali and arches • Lack of seating space under covered areas • Access of amphitheatre to roof could be dangerous

		• Unsecure kids play area on first floor
	Material	• Both traditional and conventional materials were used.

CHAPTER 3

SITE STUDY

3.1 KUMBAKONAM, THANJAVUR

- Kumbakonam (temple town/ city of temples) being a tourist destination, it has potential to attract a large number of domestic and foreign art connoisseurs.
- Narasingapettai, Karuppur, Swamimalai, Thirubuvanam, Nachiarkovil are places where artisans live and work. These places are located in and around Kumbakonam.

3.2 ANALYSIS

- Location- Dharasuram, Kumbakonam
- Velar bus stop, 0.5 KMs
- Dharasuram station, 0.4 KMs
- Trichy airport, 98.8 KMs
- Site area- 32177 sq. m (7.95 acres)
- Climate- Tropical climate, Warm and humid
- Temperature- min 20.7°C, max 31.7°C
- Precipitation/ rainfall - 178 mm
- Humidity- 75%
- Wind- From SW direction
- Seismic zone- Zone 2, low risk zone



Fig: 3.1 :Site location

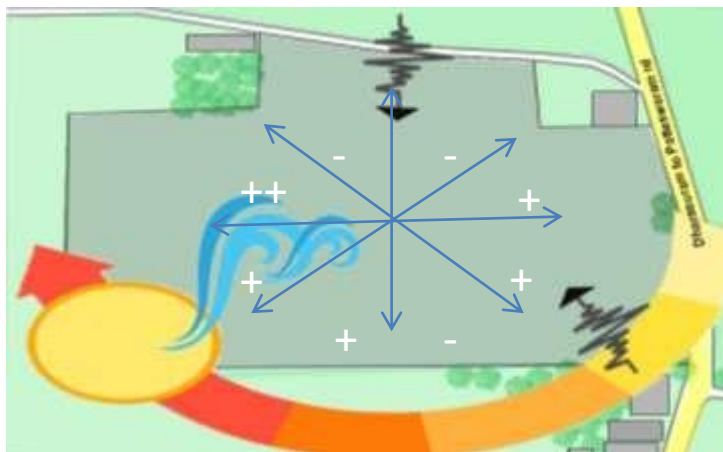


Fig: 3.2: Site analysis

- Fauna of Cauvery Delta is limited to cattle, goats.
- This region is mainly covered with alluvial or black soil which is conducive for rice cultivation. Other crops grown in this region include mulberry, cereals and sugarcane.
- Soil type- Alluvial or black soil.
- Foundation type - Alluvial soils formed by deposition of sediments by river, as this is a weak soil and prone to liquefaction either Raft foundation or Pile foundation can be provided.
- Important locations around the site - Sri vellai Pillaiyar kovil, Arasalaru river, Paradise resort, Sri Veerabhahdra swamy temple, Airavateswara Temple.



Fig: 3.3: Nearest police station



Fig: 3.4: Nearest hospital



Fig: 3.5: Nearest fire station



Fig: 3.6: Chronology 2000



Fig: 3.7: Chronology 2010

Fig: 3.8: Chronology 2020

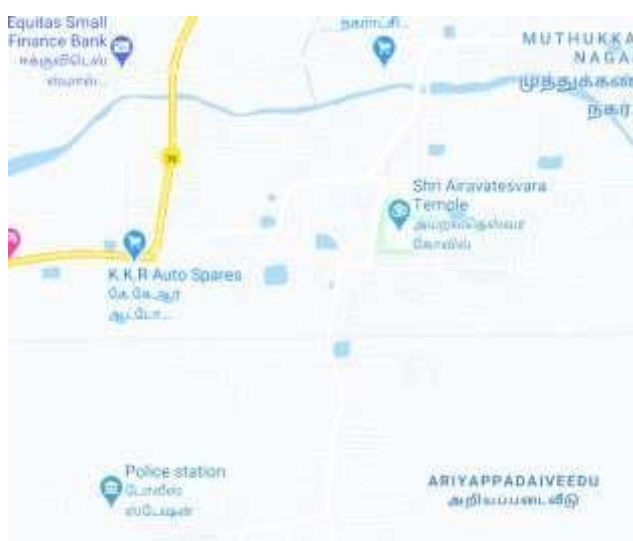


Fig: 3.9: Water bodies around the site

- Architectural style and elements - Entrance gates or doors, lean-to roofs, horizontal cornices, pilasters, arched windows, ornamental parapets, and pot tiled roofing. Temple architecture by Cholas.

Table 3.1: SWOT analysis

S	• Important religious tourism and cultural center. • Site located in a quite and calm area which is a suitable environment for LLDC • Easy accessibility. • Fire stations, hospital are located within few kms.
W	• Less interest of young people in craft industry.

	The development of urban infrastructures, the changing building use patterns, the adoption of new architecture styles, and the lack of policy and guidelines for protecting built heritage create a negative background.
O	- There is a rising demand for handicraft products in developed countries. - Added development to domestic and international heritage and cultural tourism sector
T	- Increased and better technological support in competing countries. - Because of fast phase of urbanization, existing cultural structures are replaced by the modern building either by the owner or a new owner.

Table 3.2: Passive design strategies

Plan form	Semi open spaces such as balconies, verandahs and porches can be used advantageously for daytime activities as well as give protection from rainfall.
Colours	The use of appropriate colours (light colours) and surface finishes is a cheap and very effective technique to lower indoor temperatures.
Streets and orientation	Streets should be oriented parallel to or within 30 of the prevailing wind direction during summer months to encourage ventilation in warm and humid regions. Northsouth direction is ideal from the point of view of blocking solar radiation.
Humidity	Humidity levels should be reduced as much as possible

3.3 REQUIREMENTS

Table 3.3: Program and area formulation

No	Space	No. of users	Area in sq.m
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1A	Reception		
	Entrance lobby + waiting (0.5 sq.m per person)		150
	Information center		14
	Ticketing		10
	Cashier office		30
	Toilets		24
			<u>228</u>
B	Administration		
	Reception		35
	Directors office		20
	Managers room		14
	Accounts section		18
	Marketing section		18
	Meeting room	15 persons	25
	Toilets		20
			<u>150</u>
2	Arts and crafts gallery		
A	Gallery permanent collection		500
	Store area	4@ 25 sq.m	100
	Curators office		15
	Toilets		40
			<u>655</u>

3	Crafts section		
A	Wood carving		
	Display area		25

	Raw material store		30
	Seasoning		25
	Equipment room		50
	Design room		15
	Carving big	10 craftsman	80
	Carving small		16
	Assembling and finishing		20
	Finish store		32
	Staff area		20
	Learners area		20
	Toilet		16
	Pantry		6
			<u>355</u>
B	Metal craft		
	Display area		25
	Raw material store		20
	Design		10
	Waxing /moulding		30
	Kiln (2)		40
	Assembly		15
	Finishing		10

	Polishing		10
	Store		30
	Staff area		20

	Casting		10
	Learners area		20
	Face painting		30
	Toilet		15
	Pantry		6
			<u>285</u>
C	Clay craft		
	Display area		25
	Clay storage		20
	Mixing		25
	Design room		10
	Work area	15 artisans	250
	Kiln (2 outdoor kilns)		20
	Unglazed item store		25
	Staff area		20
	Learners area		20
	Toilet		15

	Pantry		6
			<u>436</u>
D	Textile weaving		
	Raw material store		20
	Design room		10
	Cone roll		30
	Beam roll		15
	Weaving (10 looms)		160
	Cutting/check		18

	Packing		18
	Packing		18
	Store		20
	Staff area		20
	Learners area		20
	Toilet		16
	Pantry		6
			<u>353</u>
F	Stone craft		
	Raw material store		20
	Kiln		40
	Welding		15
	Engraving		42
	Polishing		6.8
	Plating		38
	Painting		30
	Design room		13

	Lab		6.5
			<u>258.3</u>
G	Painting		
	Work studio		100
	Raw material storage		20
	Preparation		45
	Store		10
	Toilet		10
			<u>185</u>

4	Multipurpose hall	400 people	
	Main hall		600
	Projection control room		25
	Store		12
	Green room		36
	Toilets		35
			<u>708</u>
B	Open air theater		
5	Design training and reasearch		
A	Admin		115
	Conference		75
	Product development		70
			<u>260</u>
B	Training halls- computer lab, drawing room, A/V room		<u>150</u>
C	Library		<u>425</u>
6	Restaurants		
	Dining area	70 people	140
	Kitchen		50
	Store		20
	Counter		15
	Toilets		20
			<u>245</u>
7	Shops		<u>150</u>
8	Residential enclaves		
	Staffs quarters	8 rooms	880

	Dormitories	2 dormitories	480
	Common area		110
			<u>1360</u>

3.4 AREA CALCULATION

- No. of staffs/ artisans= 80
- No. of students= 50
- No. of visitors per day= 800
- Build up area= 6203.3 sq. m
- Circulation space @35% of buildup area= 2171.15 sq. m
- Total build up= 8374 sq. m
- Parking @ 7.5% of site area
- According to by law, max ground coverage= 40% of site area

3.5 BUILDING STANDARDS

Table 3.4: Planning Parameters of Institutional Buildings

Sl. No	Description	Continuous building areas	Other areas
A	Minimum road width	7.20m	min. 9 m
B	Maximum Height	18.30m.	18.30m.
C	Normally Permissible FSI	2.0	2.0
D	Minimum Setbacks		
	Front Setback	6m	6m
	Side Setback	Nil	6m
	Rear Setback	Nil	6m

3.5.1 FIRE SAFETY OF MUSEUMS —CODE OF PRACTICE

IS 14850:2000

- Adequate and reliable water supply for fire fighting and also within easy accessibility from the nearest fire fighting station.
- Sufficient space around the site to provide a natural fire break.
- Roof covering of the museum building and window frames also required to be of non-combustible material.
- The type of construction for exterior walls shall be 4 hour rating
- Proper compartmentation should be made to the extent possible for the display of exhibits.
- The escape route is always kept clear of all obstructions, and mechanical ventilating system is fully functional to exhaust all smoke in case of any fire outbreak.
- Museum should limit storage of materials to the minimum quantity in one particular room, and spread over the exhibits in different adjoining rooms/halls with properly segregated fire walls and fire doors.
- Lighting installation, should in general conform to National Electrical Code.
- In case of an emergency all the entry gates shall be also available for exit in addition to the main exit gate. All the doors of the hall of museum should be lockable type only from inside.

3.6 GENERAL CONSIDERATIONS

- Freedom and flexibility of space- Large ventilated rooms, with high ceiling and transitional areas such as courtyards or open to sky spaces should be well appreciated in the studios and work areas for ideal working conditions. The link between indoor and outdoor space should be maintained as far as possible.

- Visual environments- Studios must have good amount of natural day light, with high level windows equal to atleast 20-30% of floor area.
- Buffer zones- It is possible that the noise producing workshops can affect the others, so buffers can be created by additions of walls and vegetation.
- Locating spaces with respect to activities- Work which requires huge machinery or material supply should be placed on the lower levels.
- Safety measures- Fire hazardous activities should be separated and isolated from other activities.
- Space inter-relation-MSpaces should be inter related- studios, cafes, gallery, outdoor space should be interesting and inter related as communication and transition spaces.
- Studios- General foundation level studios require floor area of about 50 sq. ft. per person and height about 3.8m.
- Drawing studios- Drawings can be carried out in general studio space. No special machinery is required. As a rule dust proof cubicle and store is required with a spray room of about 30 sq. m. An area of 120 sq. m is sufficient for 20 students. Benches should be 4'6" length and 2'8" width per student.

CHAPTER 4

DESIGN EVOLUTION

4.1 CONCEPT

- Imbibing traditions, traditional principles and materials

STRUCTURE/ FORM



Traditional spaces to be made relevant to contemporary times through the creation of unique yet familiar spaces.



Arches, pilasters, pillars, cornices, lean to roofs

Fig: 4.1: Structure/form

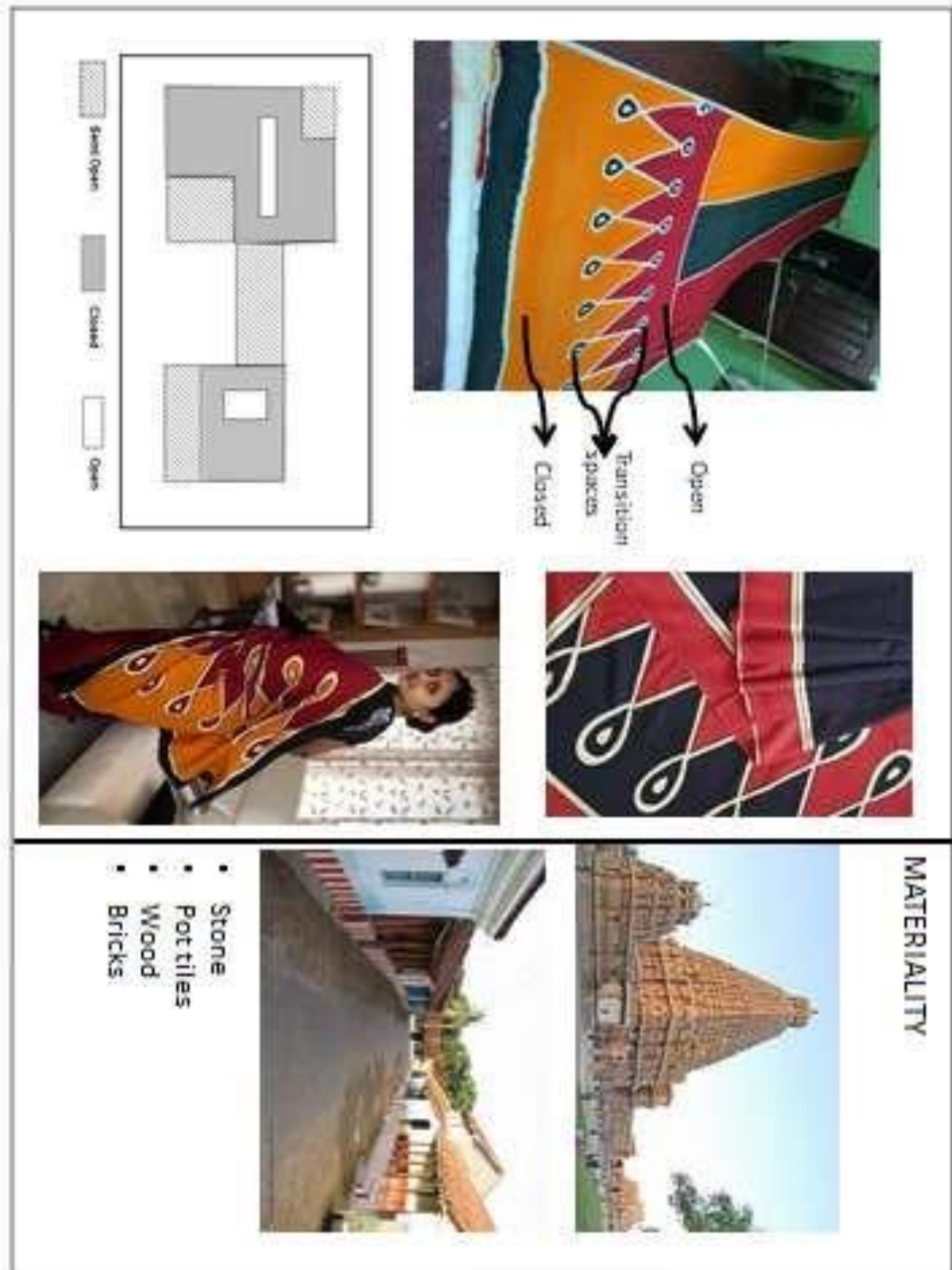


Fig: 4.2: Materiality and transition of spaces



Fig: 4.3: Imbibing vibrancy of the town

4.2 ZONING

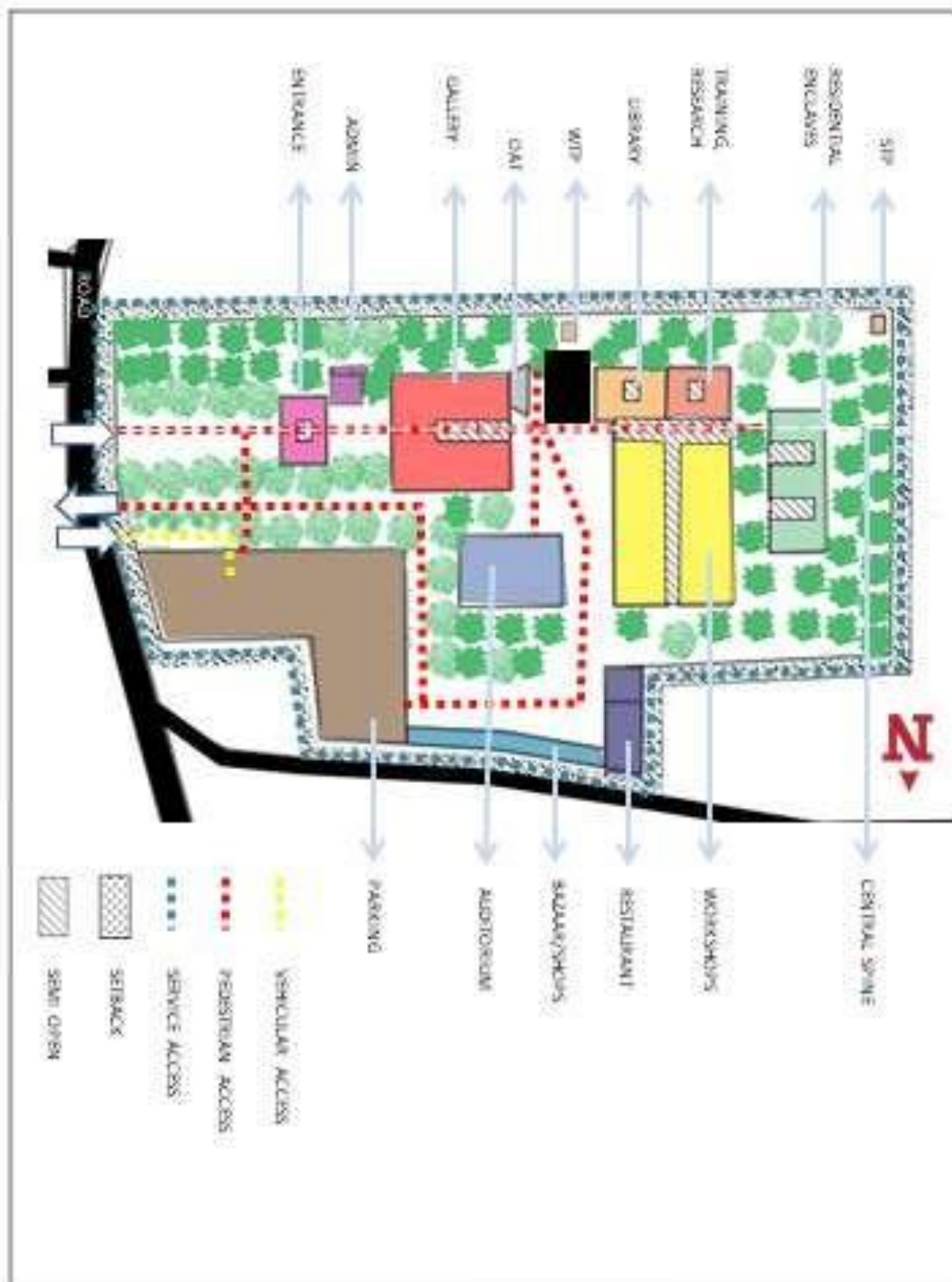


Fig: 4.4: Site zoning

CHAPTER 5 FINAL DESIGN

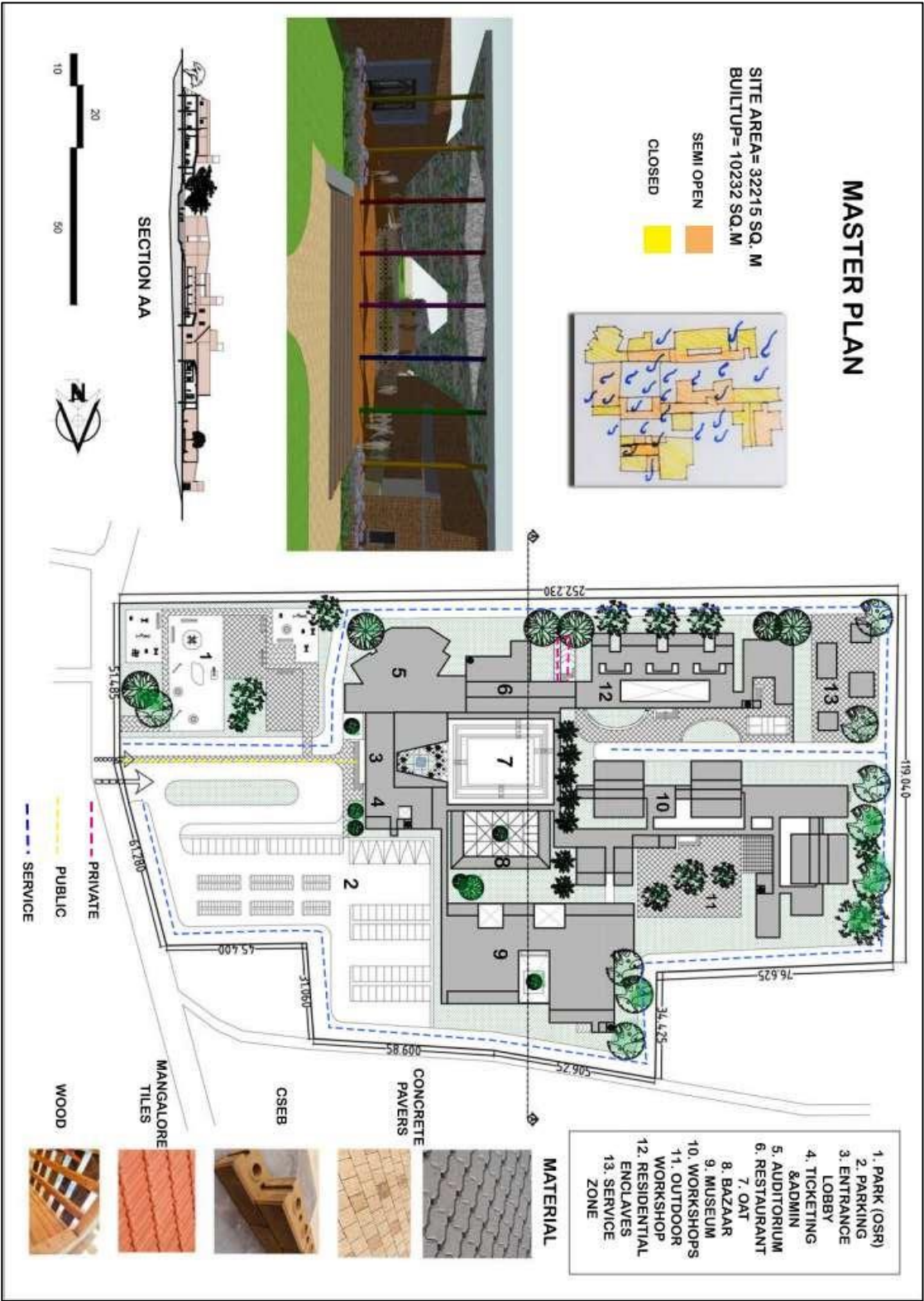


Fig: 5.1: Master plan

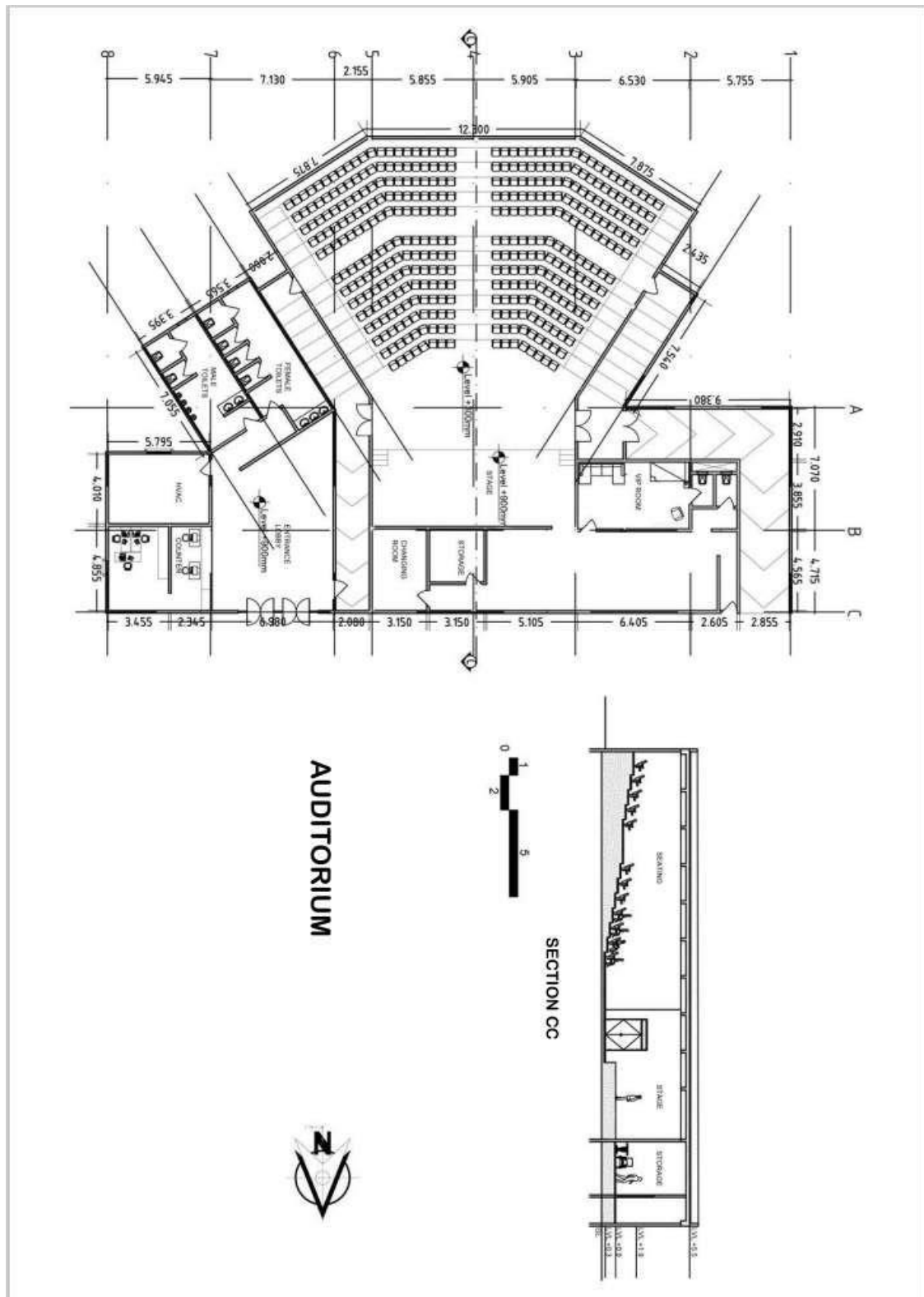


Fig: 5.3: Auditorium

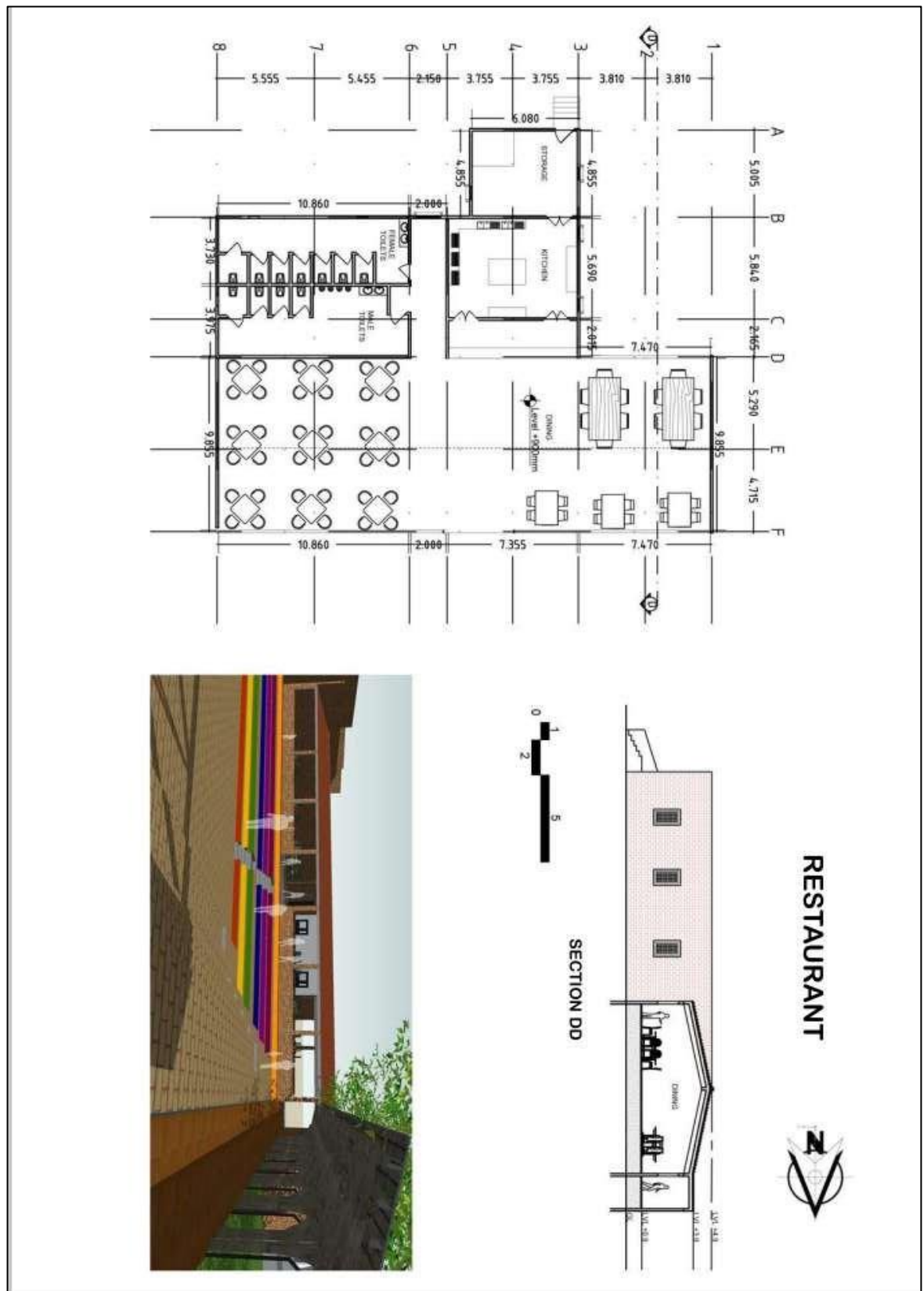


Fig: 5.4: Restaurant

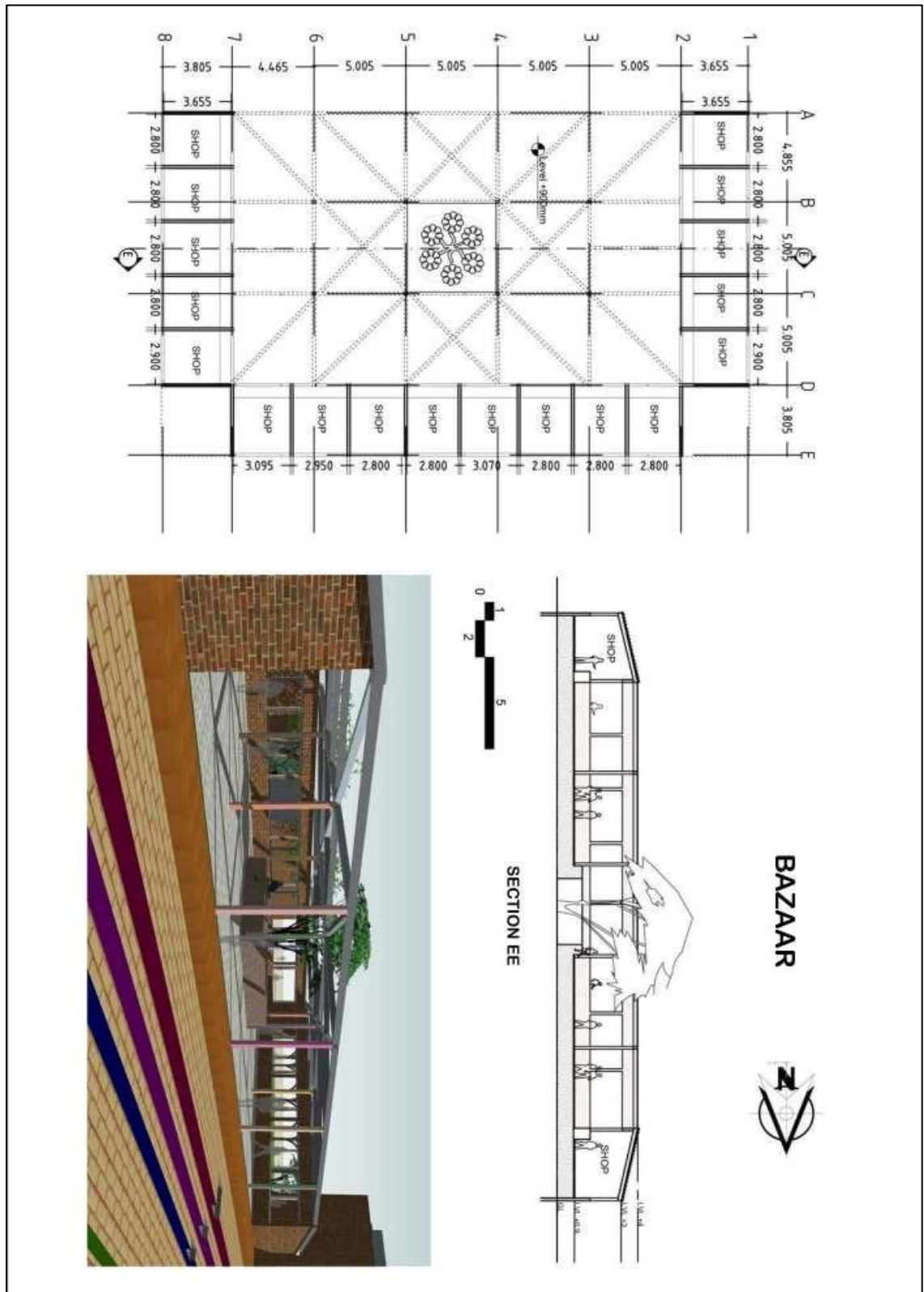
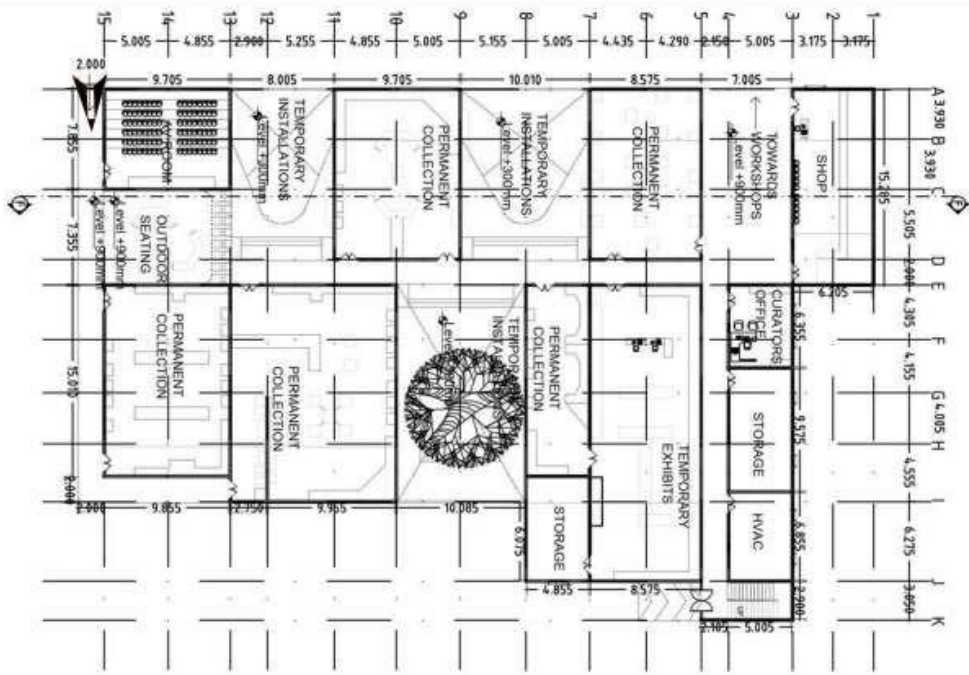


Fig: 5.5: Bazaar



MUSEUM



SECTION FF



ELEVATION



Fig: 5.6: Museum

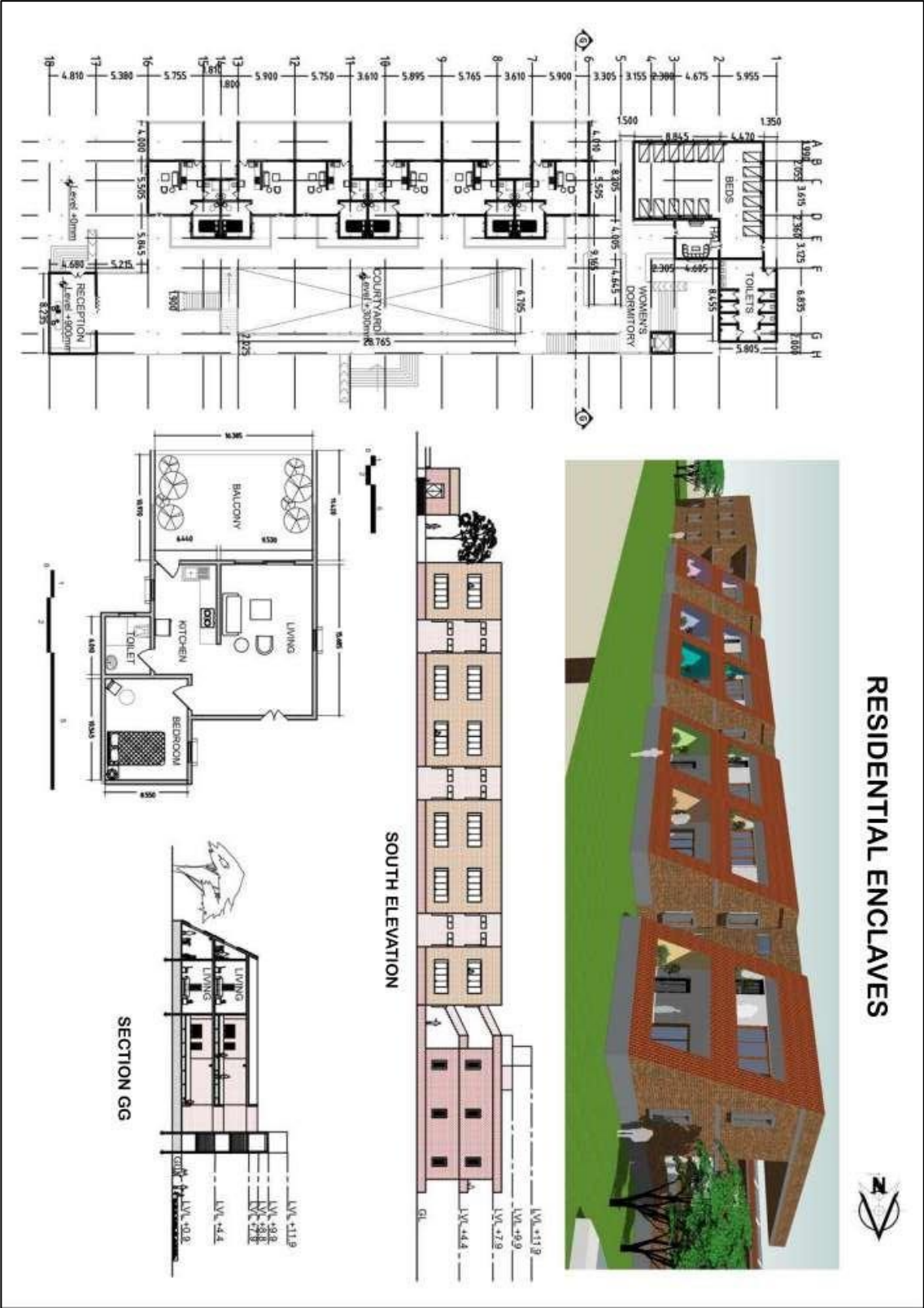


Fig. 5.7: Residential block

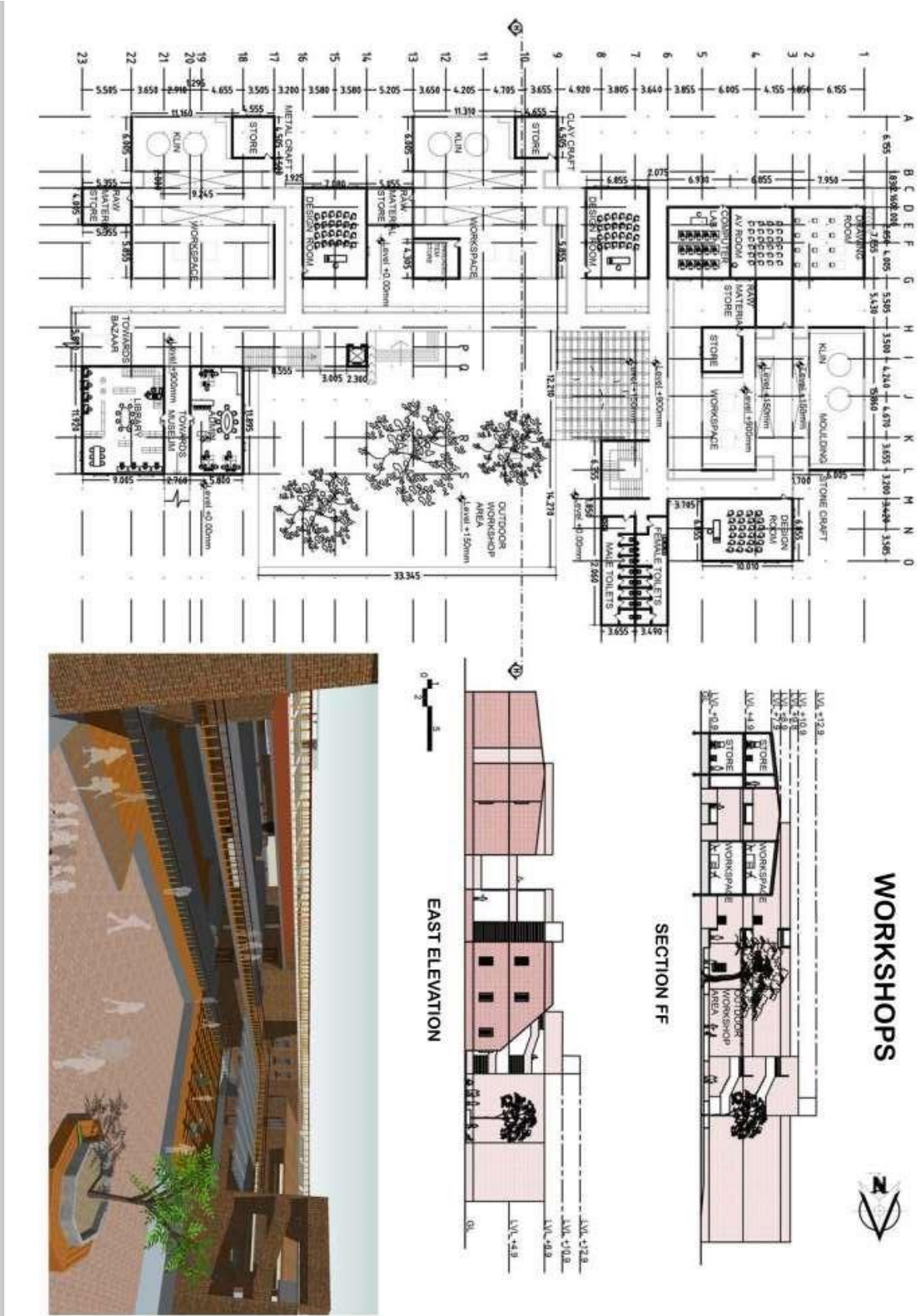


Fig: 5.8: Workshops

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