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PROPOSED COLLABORATION CENTRE FOR TRADING OF ARTS AND CRAFT,
IN KUTCH-GUJARAT By HAYAT FAYYAZ MOTORWALA

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By

HAYAT FAYYAZ MOTORWALA

A REPORT

Submitted in partial fulfillment of the requirements for the degree of
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University of Mumbai

2018

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CERTIFICATE

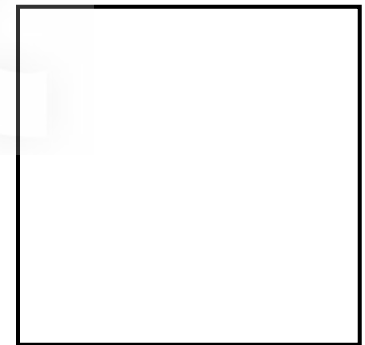
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1. ABSTRACT

Culturally Kutch is very rich, it has different types of handicrafts. Majority of the villages are dedicated to one single craft.

After 2001 earthquake, art and craft of Kutch has changed a lot. It has started moving in positive direction. Artisans are taking it up as their responsibility to enhance and widespread their skills. Apart from practising art and craft just for their livelihood, artisans are taking interest to take the art and craft of Kutch to another level.

As artisans themselves are working for the betterment of their community, because of this the demand of art and craft has increased. Lot of NGO has come up for the promotion of art and craft in Kutch.

As after earthquake certain art and craft has moved to a positive side, others have moved to the point of extinction. There are various factors because of which they have reach the point of extinction. Such as change in landscape, lack of skill craftsmen's, decrease in the market demand, lack of advertisement etc.

To increase and to spread the art and craft of kutch it is important to bring in certain changes in the whole process of designing.

Artisans have their own design type and process, whereas designers have different way to approach a design, so to penetrate urban market, artisans need to create designs which are in demand, hence collaboration of artisans with designers is important. Art and craft of Kutch is so intricately made, that they can get recognition on global level. Skilled craftsmen are required to increase the production of the handicrafts, As the youth is not interested in taking this art and craft as their profession.

Use of technology, to showcase their art and craft is still untouched. With the use of technology, artisans will learn to showcase their work on online market. There are many online markets, which are giving free platform to artisans to present their art forms. To increase revenue of the region, and to bring artisans into picture, it is important for them to understand the use of technology and to work upon it.

Even after all the initiatives taken up by different foundations, artisans on personal level don't want their future generations to practice these art and craft, as they feel that their art and craft is not enough valued by the people.

Keywords: collaboration, handicrafts, revenue.

Meanings:

Collaboration- The act of working together with other people or organizations to create or achieve something.

Source-Cambridge dictionary.

Handicrafts- Activity involving the making of decorative domestic or other objects by hand.

Source- oxford dictionary.

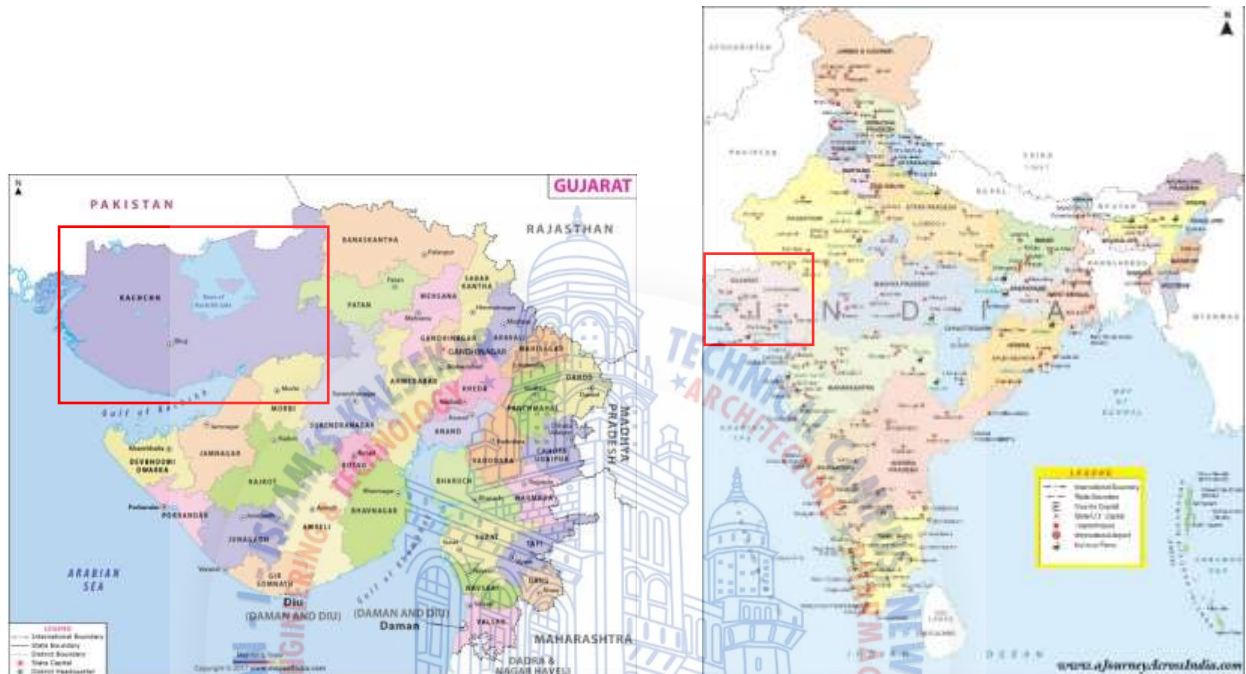
Revenue-the income that a business or government receives regularly, or an amount representing such income.

Source-Cambridge dictionary.



2.1. INTRODUCTION

The history of Kutch can be traced back to prehistorical times. Kutch District, at 45,691.895 square kilometres (17,641.739 sq. mi), is the largest district in India. The administrative headquarters is in Bhuj which is geographically in the centre of district. Kutch is divided into three parts, the dry rann of Kutch desert at one end and the Arabian sea at another end.



Map 1: map of gujarat showing kutch.

Map 2: map of India showing Gujarat.

The region of Kutch is no different, but what makes it special is just how many different types of handicrafts are created in this region. A great range of ethnic communities live in the region, most maintaining traditional dress and crafts of many sorts, including weaving, dyeing, printing, bandhani (tie-dye), embroidery, leather work, pottery, woodwork, and metalwork. Originally, crafts existed integrated into local social systems.

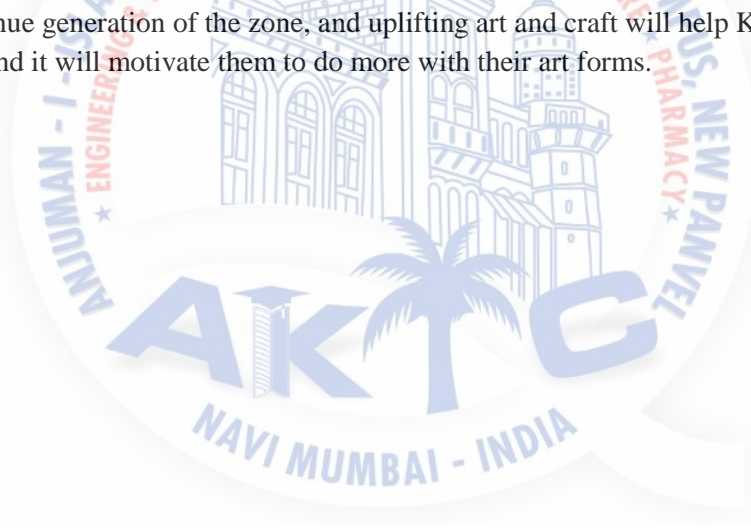
The arid climate has pushed communities here to evolve an ingenious balance of meeting their needs by converting resources into products for daily living. While embroidery has become a craft synonymous with Kachchh, other textile crafts and hard materials crafts give this land colour and identity. Craft is inextricable from the numerous communities, connected by trade, agriculture and pastoralism in Kachchh.

Before art and craft was just a mean of livelihood, but now it has become the identity of the kutch region.

After 2001 earthquake, art and craft of Kutch have undergone tremendous change. Market values are increased, with this demand of supply and new innovations in design has also increased. There are various organisations working for the upliftment of art and craft in Kutch, at different levels. But still there is a need to introduce program for the upliftment of art and craft at international levels.

Introducing use of technology for market penetration is the most important need in Kutch right now. Kutch has vernacular architecture as its core system, and after 2001 earthquake it is the most important need to encourage sustainable architecture.

As local villagers seek cheaper mass-produced functional wares, artisans are compelled to find new markets. Fortunately, sophisticated urban markets have welcomed the concept of traditional crafts. However, traditional work must adapt to the new clientele. In addition, since the market has expanded, innovations must now be faster and less subtle. While enterprising, artisans do not always have adequate information about the tastes of new markets. For a myriad of reasons including social attitudes, they do not have access to the better markets. Commercialization in this situation has induced a downward spiral of declining quality. In efforts to revive quality, it has been recognized that new design is needed to make craft sustainable. But conventionally, this has been perceived as a need for design intervention, in the form of trained designers giving new designs to artisans. The implication is that designers have knowledge, while artisans have skills. When design, or art, is separated from craft, or labour, the artisan is essentially reduced to a labourer, reinforcing the low social status of craft. Further, most commercialized craft aims for quick, standardized and low-cost replication. This emulates the factory model. The strength of hand craft, the personal, handmade quality, is forgotten. The net result is that even when artisans can earn a living by producing contemporary versions, most do not wish their children to be artisans. Hence, enhancing revenue generation of the zone, and uplifting art and craft will help Kutch in gaining back its cultural value and it will motivate them to do more with their art forms.



2.1.1. BACKGROUND STUDY:

Kutch is a district in Gujrat state in western India. People with different culture, tribe, religion and occupation stays here in this district. Kutch is divided into two major parts, with rann of Kutch on its one side and Arabian sea on its other side. The border with Pakistan lies along the northern edge of the rann of Kutch. The Kutch is named as Kutch because, it means something which intermittently becomes wet and dry, because the region of rann of Kutch which is shallow wetland which submerges in water during rainy season and becomes dry during other seasons.

In Sanskrit it means kuccha- tortoise. The district is also famous for ecological important Banni villages, which has marshy wetlands that forms the outer belt of the rann of Kutch. It has nomadic communities living there with animal husbandry as their main occupation. Kutch has both army and air force base.

The people there mostly speak in kutchi language and other than that sindhi and gujrati is also used by some communities as their first language. Bhuj is in the centre of the district. The other towns are Gandhi Dham, rapar, nakhatrana, anjar, mandhvi, madhapar, mundra and bhachau. In Kutch there are ninety-seven small rivers, most of them meets Arabian sea, whereas few of them meets rann of Kutch.

As bhuj being the centre of the Kutch district, it has many tourist places such as aina mahal, prag mahal, bhuj museum, harmirsar lake and others. Rann of Kutch utsav is also the most important festival which is celebrated every year. Many resorts and small residential places have come up because of the rann of kutch utsav and the most famous amongst them is shaam-e-sarad resort. There is huge crowd that come up for these tourist activities.

Kutch is unique in terms of its culture, there are different communities living here and they all have different style of clothing. This is because of the religion difference, or maybe because of the background that they come in from such as the communities living in banni villages, they have migrated from different regions to kutch because of natural calamities, or some other liveability issues. So, the change in the style of clothing is because of various reasons. The three major communities living in kutch are nomadic, semi nomadic and artisan groups. Nomadic communities are only there in banni areas of the kutch whereas semi nomadic and artisans are widespread throughout the kutch region in different villages.

Two earthquakes took place in kutch and that has changed the lifestyle of the people. The earthquake of 1956 that took place in anjar and the earthquake of 2001 that took place in bhuj caused severe destructions. After these two earthquakes, the region has experienced multiple tremors.

Kutch has hot and dry climate. Summers are extremely hot, and winters are extremely cold here in this region. The average annual temperature in bhuj is 26.3 degree Celsius. The rainfall here averages 358mm.

The driest month is April. There is 1mm of precipitation in April. With an average of 155mm, the most precipitation falls in July

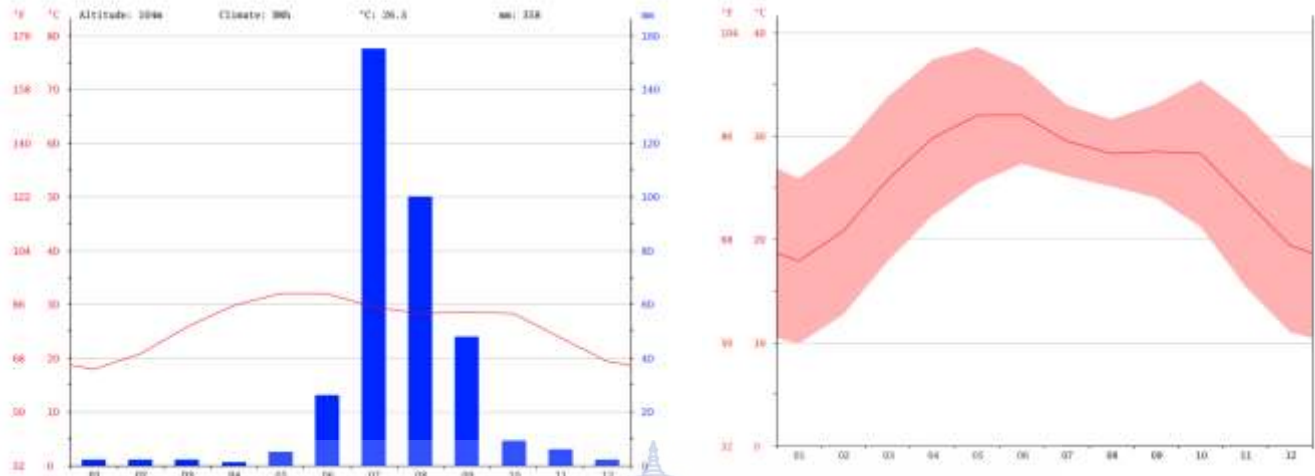


Figure 1 and Figure 2: climatic data of kutch.

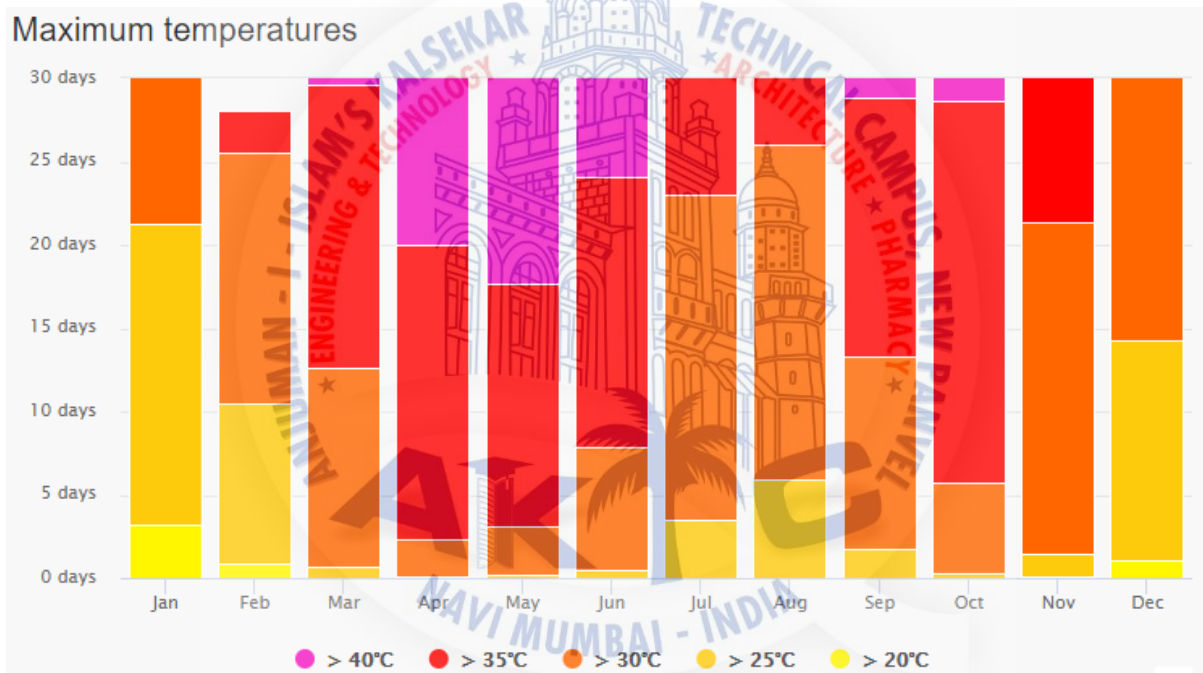


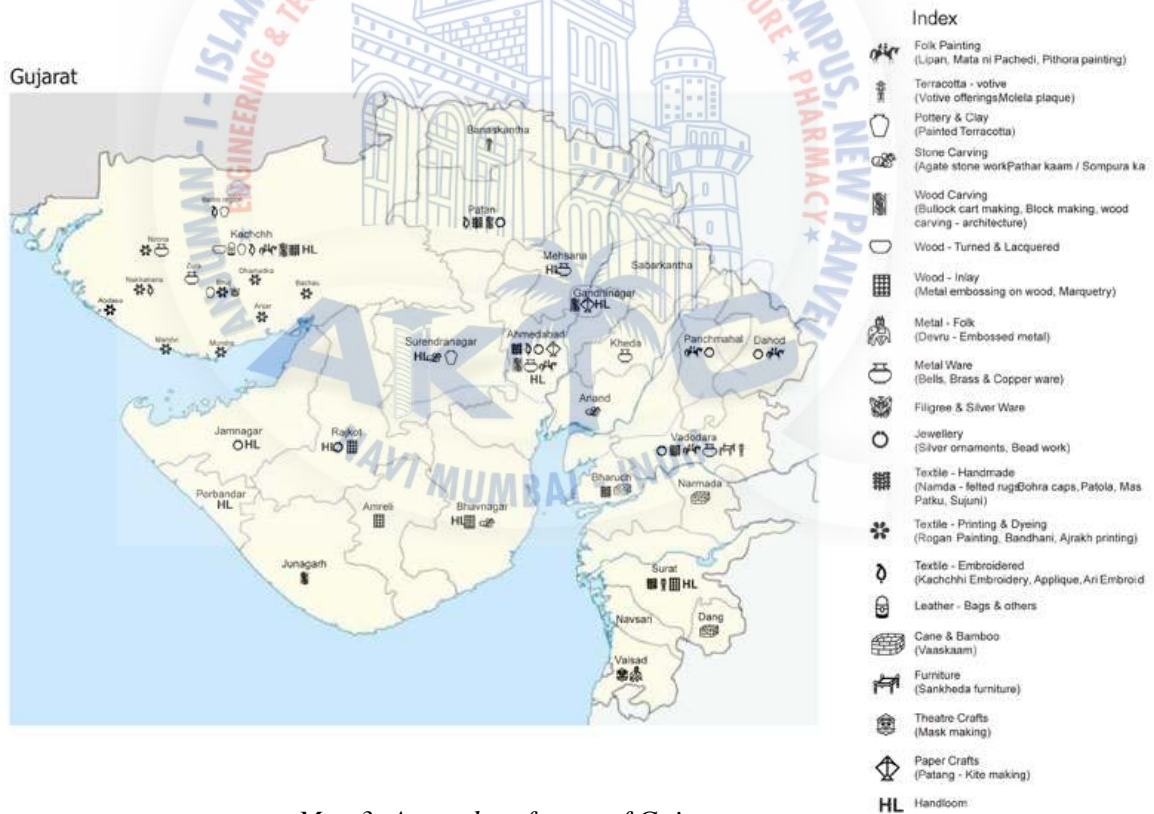
Figure 3: climatic data of kutch showing maximum temperature.

These climatic factors play a huge role in the local architecture of kutch. All the houses are built keeping these earthquake conditions in mind. Locally available materials are used, so that material transportation cost can be reduced. Bhunga houses of kutch are made to resist earthquake, hence they are cylindrical in shape, as during earthquake these cylindrical walls fall in outward direction. Two three bungas are made together at minimum 3 metres, and they share a common plinth which acts as an entrance or gathering space for the people. These bungas are covered with thatch roof, or Mangalore tiles. The walls of these bungas are made with mud, which is locally available in kutch.



Figure 4 and Figure 5: traditional Bhunga houses of kutch.

The walls of bungas are painting and mirror work is done on it. This is done by the mud painting artists of kutch. The main entrance is decorated. Because of the cylindrical shape, the air flow is smooth which results in better ventilation. Timber frame work is used for the roofing which is then covered with thatch or Mangalore tiles.



Map 3: Art and craft map of Gujarat

These artisans are all settled in different villages. In kutch majority of the villages are bifurcated in such a way, wherein one single village is dedicated to one single craft. Such as gundiya is dedicated to pottery, ajrakhpur is dedicated to ajrakh(kapda), Nirona is dedicated to Rogan art, bhuj is dedicated to terracotta

painting, Gandhi Dham is dedicated to wood carving, mandhvi is dedicated to bandhani and bhujodi is the village where handicrafts markets are there, and this village is the tourist spot for shopping.



Figure 6: ajrakh block print



Figure 7: Nirona bell making

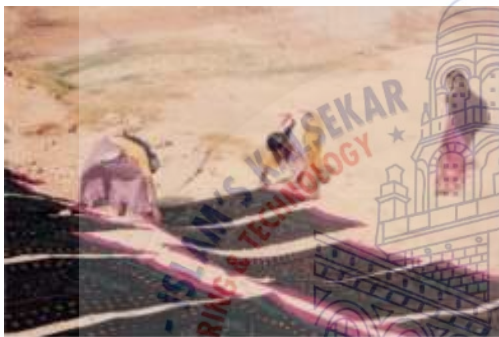


Figure 8: bandhani art form



Figure 9: wood carving



Figure 10: Embroidery



Figure 11: leather art

All these crafts are going under some or the other problem. Many organisations are trying up their level best to cater to these issues and to improve the conditions of all these art and craft in urban markets.

Long ago printers use to go to dhamadka river, to dye and wash their cloths with ease. Now, the dhamadka river has dried up and the major shift that has happened in water tables in kutch due to the seismic activity have reduced the availability and quality of water. The artisans are finding it difficult to find proper water facilities at their villages, few artisans of bhachau and rapar lack proper water facilities at their villages. In dhamadka the water in bore wells has a high iron content in it which affects the colour

quantity of natural colours extracted out of vegetables. In comparison to all these villages, ajrakhpur is still in better condition, but even its water tables are changing.

Block printing causes pollution because of the chemical dyes which are used in it. Various toxic dyes and chemicals are disposed of in village field without any form of treatment. These chemical dyes are very much in use nowadays as they are cheap and affordable and can be easily made in bulk. Today few printers are left who use natural vegetable dyes.

Earlier, the block printers had a close friendship with their local clients. Now, with the introduction of more affordable synthetic cloth and a shifting market place, those communities' linkages have broken. As a result, many traditional forms of dress and patterns are extinct. The traditional lungi is rapidly losing its share.

The **bandhani tie and dye** is facing the same problem, the introduction of chemical-based dyes has drastically altered the craft, and the natural vegetable colour such as extracted out of pomegranate is not in use. Many of the artisans are still not aware about the technique of extracting natural colours from vegetables.

Batik print is practiced in kutch since ages. the issue which batik printing art is facing that, the old designs are not much accepted by the urban marking. The new designs for batik print need to be taken into consideration. And the use of synthetic wax should be avoided, to revive the originality of the art.

The **maldaris or camel herders** of kutch practice the art of **wool weaving** and making of shawls, handbags and jackets. As the camels have reduced, and the use of synthetic fabrics instead of wool has resulted into the decrement of this craft. This art is valued for its natural colour and its texture, as the camel wool is warm and soft, it can provide great resistance during winters. It has huge scope, and many other products can be made from it such as ropes and carpets. If this art is revived again, it will provide additional income to camel breeders, spinners and weavers, facilitating a value chain managed at the local level. it will also re-establish the utility of the camel- a species that is essential in arid regions like kutch.

Kala cotton weaving is becoming extinct after 2001 earthquake, because of the rapid industrialization. The weavers have reduced and there are only two practitioners left of this art form. Small- scale weavers could not buy raw materials in bulk- and faced great difficulties in integrating with changing markets. There is a clear need to develop a local value chain to insulate these weavers from external market fluctuations in raw material

Kala cotton is indigenous to kutch and organic, as the farmers do not use any pesticides and synthetic fertilizers. It is rain purely fed crop that has a high tolerance for both disease and pests and requires minimal investment.



Figure 12: kala cotton of kutch

Kharad weaving is a diminishing craft. Out of ten families only one family is practicing this craft now.

In this craft carpets are made with goat and camel wool. Maldaris and rabaris shear the hair from camels and goats. It is then processed and used by the artisans. A Kharad product can easily last up to 100 years.

But as this craft is diminishing with time, these two artisans' families are also finding it hard to get regular orders. The reasons are many. The local linkages have completely broken. Local communities no more buy Kharad products. And after partition, the artisans lost the highly lucrative Sindh market.

The value chain of maldaris giving wool to spinners, the hand-spinning of wool and the Kharad artisans using the wool for the production has broken down. The hand spinning of camel and goat hair into wool has become extinct today in kutch.

Today, the Kharad artisans are dependent on external markets both for buying the wool and selling their products. The artisans are not able to reach the right market segment who can appreciate the work involved and are willing to pay good amount for it.

2.1.2. AIM:

To promote art and craft of Kutch at global level, to increase its revenue generation and make a sustainable model of craft centre.

2.1.3. OBJECTIVES:

- To study and understand the art and craft of Kutch.
- Study the lifestyle of the artisans and the changes that took place after 2001 earthquake.
- Study process of interactions between artisans and designers.
- Studying the space requirement for individual art and craft.
- Study and Understand the demand of urban markets for better designs.
- Documentation and study of existing building practices.

2.1.4. SCOPE:

- Understanding the history of existing art and craft before earthquake.
- Understanding their earning system before earthquake and the changes that took place after earthquake.
- Understanding the art and craft which has gone extinct post-earthquake.
- Site selection must be done based on the region which has much better facilities in comparison to other zones.
- Accessibility of the artisans from their individual villages to proposed projects need to be taken into consideration.

2.1.5. LIMITATIONS:

- Collaborations will happen for the artisans that fall within Kutch region.
- Artisans from other regions can come for exhibition purpose only.
- The prime focus is only artisans of Kutch region.
- The workshops regarding art and craft will be conducted by artisans of Kutch only.
- major focus will be given to extinct art forms.

2.1.6. RESEARCH METHODOLOGY:

Visiting kutch and studying the existing organizations and the level of work they are doing.



Interviewing the authorities of those organizations and understanding the needs and concerns of the region.



Interviewing artisans and to understand what their needs are.



Studying the demand of learning art and craft by the students of different regions.



Studying the existing institutions in terms of their program/space.



Comparative and Swot analysis for the same.



Live and book case studies.



Understanding construction details and material , and their use in modern context



Design program



Site selection based on the accessibility, neighborhood context and climatic conditions.

2.1.7. HYPOTHESIS

India known for its culture and rich art and craft, along with increasing demand of other sectors, art and craft also needs to get develop. The focus needs to shift from larger pockets to these smaller pockets, which holds lot of potential.

Just providing them with better facilities will not solve the problem.

In case of kutch, which is full of art and craft, just providing them with basic infrastructure will not cause major changes, the need is to change the way they approach a design/product.

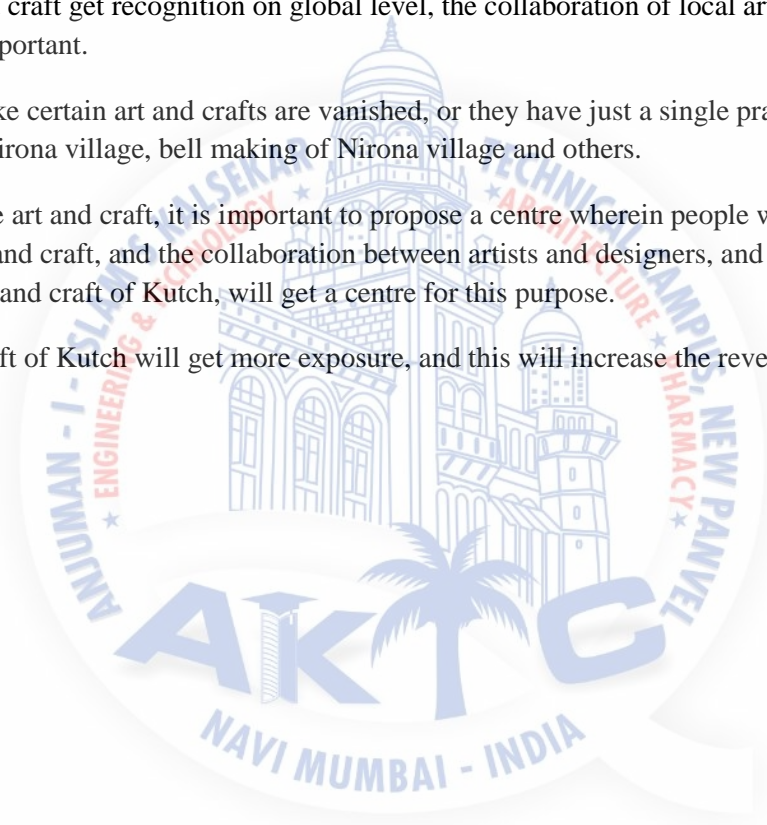
By just providing infrastructure, they will work within kutch region only and it will land up nowhere.

To help art and craft get recognition on global level, the collaboration of local artists with urban market designers is important.

After earthquake certain art and crafts are vanished, or they have just a single practitioner left, such as Rogan art of Nirona village, bell making of Nirona village and others.

To revive those art and craft, it is important to propose a centre wherein people will come to know about the extinct art and craft, and the collaboration between artists and designers, and even people who wants to learn the art and craft of Kutch, will get a centre for this purpose.

The art and craft of Kutch will get more exposure, and this will increase the revenue of the region.



2.2. LITERATURE REVIEW:

2.2.1. DEFINATIONS and DESCRIPTIONS:

Arts and crafts: a movement in European and American design during the late 19th and early 20th centuries promoting handcraftsmanship over industrial mass production

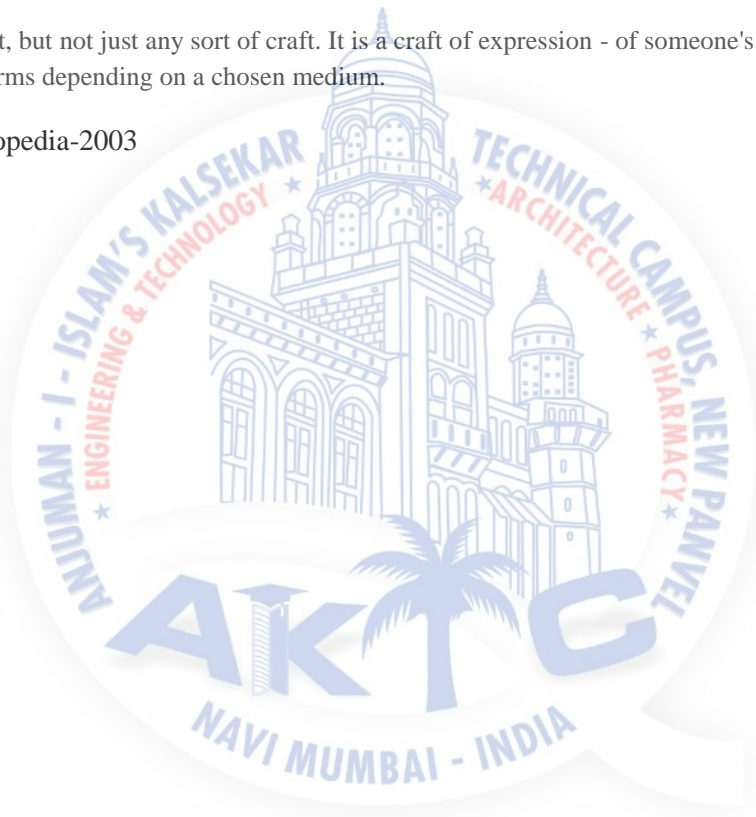
Source: Merriam Webster.

Arts and crafts: decorative handicraft and design, esp. that of the **Arts and Crafts movement**, in late nineteenth-century Britain, which sought to revive medieval craftsmanship

Source: Collins dictionary.

Art: Art is a craft, but not just any sort of craft. It is a craft of expression - of someone's feelings or thoughts, and it can take many forms depending on a chosen medium.

Source: Encyclopedia-2003



2.2.2. ARTICLES BY OTHER AUTHORS AND INTERVIEWS

THE ARTS AND CRAFT MOVEMENT 1880 TO 1910

Art and craft movement took place in 1880 to 1910. The people involved in this movement, promoted items such as furniture, ornaments, pottery which are manufactured through good craft techniques.

It was a rebellious act against the age of mass production, and in a way, it was a return to traditional methods of craft.

Products were to be made by individuals or small groups rather than being mass produced. All the artisans were inspired by this movement.

This movement got developed from the views of people such as William Morris (1834-1896). By profession he was a poet and an artist. He believed in combining simplicity with good design and craft work. According to him industrially manufactured products lacked the honesty of traditional craft work.

After him, many people supported his views and even they raised their voice. The famous person amongst them was John Ruskin (1819-1900), he was a socialist by profession.

This movement supported economic and social reforms, as this was a simple way of attacking the industrialised age. Many organisations and art and craft associations sprung up in this period to support this movement. Many associations were formed during this period such as, the arts and crafts exhibition society, formed in 1887 and the guild of handicraft in 1888.

The main concern behind this art and craft movement was that the industrial revolution had made humans less creative as their craft skills has been removed from the manufacturing and designing process.

The focus of this movement was to put humans back into the design and manufacturing process.

This arts and crafts movement inspired many arts movements such as Bauhaus and modernism, which believed in simplicity of design. These movements believed in designs which are affordable by all.

Author: V. Ryan.

Source: <http://www.technologystudent.com/prddes1/artscrafts1.html>

THE LINK BETWEEN MODI, OBAMA AND THE VILLAGE OF NIRONA IN KUTCH!

The prime minister Narendra Modi gifted a couple of exquisite handcrafted Rogan paintings to US president, Barack Obama during his visit to US in 2014.

Rogan in Persian means oil. In this art form, paint is extracted from thick brightly coloured castor seed oil and it is used to paint on the fabric.

Castor is commonly grown in Kutch, and it is locally available.

The process of the art form is such that, foremost castor oil is heated in a vessel and continuously for 1 hour till it catches fire, but it shouldn't get burnt. So, the paint maker keeps on stirring it continuously to avoid burning of the oil. Once it is done, it is mixed with cold water until it thickens into a sticky elastic paste called as Rogan.

It is then mixed with vibrant natural colours and immersed in water, as this helps the paint to retain its texture for painting.



Figure 13: natural vegetable Colour used for Rogan painting.

Rogan paintings are mostly painted with artists own imagination and design skill. Oversized blunt needles are used to stretch strands on fabric, and as the pattern is made on one side, it is then mirrored on the other side of the fabric.

The most important factor of this art form that makes it unique is, that throughout this process, the blunt needle never meets the cloth.



Figure 14: Rogan painting on cloth

Once it is dried, it is used for many purposes, such as sarees, paintings, table cover, pillow covers, wall hanging and even as bedsheet and pillow covers.

The details or motifs which are drawn such as geometric flowers, peacocks, the tree of life etc, so they are taken as inspiration from the history and folk culture of the Kutch region.

Before earthquake, this art form was used for bridal trousseau and was the exclusive preserve of the male members of the Khatri family of Nirona village. As now time have changed and in the last few years they have started teaching this art form to females.



Figure 15: Rogan art on cloth

It is practised in Nirona village, by a single family and the head of family Ghafoor Khatri, told in one of his interviews that,

Rogan paintings now adorn the walls of the white house but, back home artisans of these crafts are finding it difficult to earn their livelihoods. Though Ghafoor Khatri and his family have held on to Rogan art for eight generations, they lack the human capital and product diversity required to cater to the demands of the modern market.

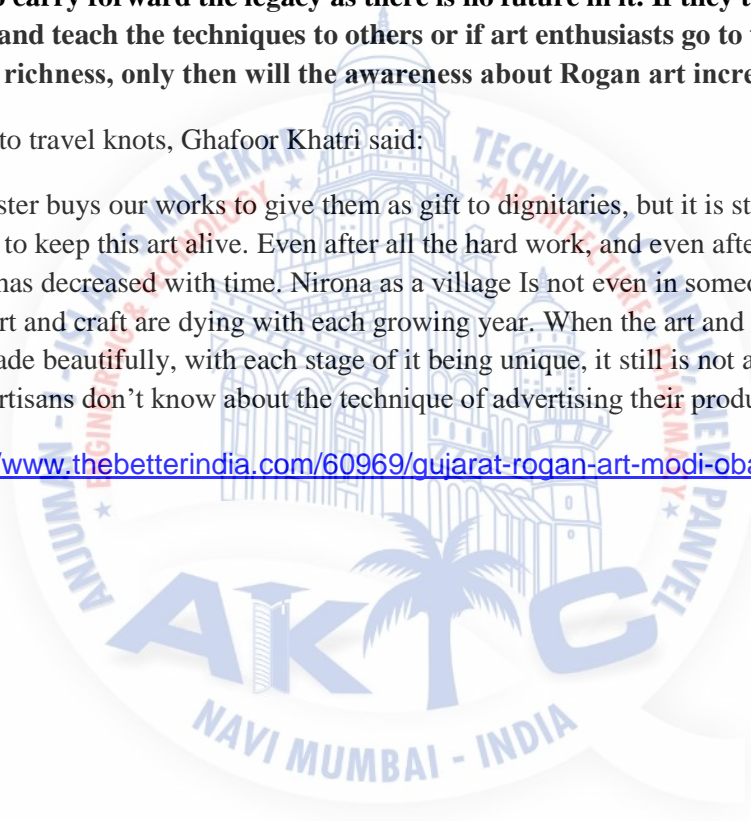
Artist Papiya Mitra, founder of makers club India, in an interview to Sakaal times said:

“Even though there is a huge market for Indian art and crafts abroad, the means to sell them are very limited. The Rogan artists have limited themselves to the Kutch region and the next generation is not willing to carry forward the legacy as there is no future in it. If they travel to different parts of the country and teach the techniques to others or if art enthusiasts go to them and learn it and help spread its richness, only then will the awareness about Rogan art increase.”

In an interview to travel knots, Ghafoor Khatri said:

The prime minister buys our works to give them as gift to dignitaries, but it is still not recognised. We must work a lot to keep this art alive. Even after all the hard work, and even after creating beautiful art work, its value has decreased with time. Nirona as a village is not even in someone's itinerary to visit. The village and its art and craft are dying with each growing year. When the art and craft is so rich, Rogan paintings are made beautifully, with each stage of it being unique, it still is not able to penetrate urban market, as the artisans don't know about the technique of advertising their products.

Source- <https://www.thebetterindia.com/60969/gujarat-rogan-art-modi-obama-nirona/ss>



CHANGING LANDSCAPES, DYING ART AND CRAFT OF KUTCH!

Indian art and craft depend on natural resources to stay alive. There are many endangered art and crafts of India, and particularly Kutch. The biggest example of this is Rogan art of Kutch. The Rogan form of textile painting from Kutch, is known for interweaving bright colours and intricate designs. There is only single practitioner left for the same. They use traditionally boiled castor oil as solvent. Since the fumes from castor oil can turn toxic in the arid environment, artisans would travel to the closest forest to burn it, using the dense coverage of the trees to absorb its toxic fumes.



Figure 16: Rogan art on cloth

As now, owing to deforestation Rogan artists can no longer burn natural ingredients, and use artificial colours and solvents instead. This affects the longevity of their products, and even increases the material cost for them.

Many of the craftsmen's have given up their craft and are trying to pursue more monetarily beneficial professions or they are working as labourers in metropolitan zones. As making handicrafts take a lot from them, which They don't get in return.

Visual arts researchers Vaishnavi Ramanathan and Brijeshwari Gohil, in their interview to Hindustan times said:

“The deeper we dig through traditional handicrafts in this country, the more we can (gauge) the impact of our actions, not only on the ecology but also on its subsequent culture. We can start by not bargaining from craftsmen. There are no middle-men. They should earn what they create. Secondly, we need to raise as much awareness as possible about the intersectionality of ecology and culture. There is a need to act in an ecologically conscious manner, even if it's something as simple as refraining from using plastic or conserving water. The repercussions of damaging the environment eventually falls on the rich culture we are all striving hard to maintain.”

Source- <https://www.thehindu.com/entertainment/art/changing-landscapes-dying-crafts/article18951177.ece>

POST-QUAKE, KUTCH HOBBY DEVELOPS INTO FINE ART!

Kutch being the one of the largest districts of India and has only about two million people has changed after the earthquake of 2001. It has got access to the market for salt business and trade, investors are interested to invest in Kutch. The significant products that could go out of Kutch were salt and handicrafts.

Handicrafts had somewhat limited market access to the outside world, but some NGOs are working in that area. While handicrafts of Kutch were quite famous, there was no creative identity associated to it. To use the language of patents or markets, Kutch did not seem to have a product that would fetch a geographic identity such as tajore for paintings or kanjeevaram for silks.

Kutchi embroidery was famous for long time, as anything that gets famous has its clones- so as these embroideries got famous china started created clones of it which were machine based and cheap. But that was not enough to threaten the livelihoods of the artisans.



Figure 17: Embroidery work of kutch

The artisans of Kutch region are versatile than specialised. For instance, leather artisan Ramji makes one single saddle for a whole month, for one single horse. To keep his livelihood going, with no market knowledge and no analysis of more designs.

Rogan artists in Nirona village have reduced in large number. Almost one single family in Nirona village.

The wadhas did their own lacquer ware straddling between shaping babul wood and adding colour. Their market is again limited and vanishing with time because of the limited range of products they produced.

After earthquake, the art and craft of Kutch has gained their identity back, they are working hard on their design skills, the attention from different NGOs has helped the local hobby to develop into a fine art with inputs from designers.

Source- <https://economictimes.indiatimes.com/wealth/personal-finance-news/post-quake-kutch-hobby-develops-into-fine-art/articleshow/18457272.cms>

DIMINISHING CRAFT-BELA PRINTING.

Bela prints are bold and graphically very strong. They can grab one's attention with vibrant palette of printed colours on a white background. Natural and vegetable dyes are used. Rajasthan is the most for this art form, after that Kutch started this art form and it is going on from last many decades. These were used as dowry gifts during old times in Kutch.

Colours for the fabric were chosen based on its drying capability. Hence black and red colours were used the most.



Figure 18: Bela printing of kutch.

Till 2016 there were many Bela-style printers, but today only one remains. Mansukh Bhai Khatri, a Hindu printer based in Rapar taluka. He uses traditional designs blocks that belonged to his grandfather.

As machine-based fabric have come up on large scale, Bela style and Rogan art vanishing with time.

Source- <http://www.khamir.org/crafts/bela-printing>

DIMINISHING CRAFT-NAMDA.

In the 11th century, during the reign of the Mughal emperor Akbar, a man named nubi created a covering for the king's horse. After that people have been making this covering from the sheep's wool.

The craft is firstly practised by pinjara and mansuri communities, Sama Muslims native to Kutch.

These communities create these types of felted namda from indigenous sheep wool. The process is like, wool is collected, cleaned, dyed and compressed into sheets, after this artisan create colourful and intricate designs on it. Which are sometimes embroidered and sometimes they are used without embroidery.



Figure 19: Namda craft of kutch.

Namda is still used to create saddle blankets for horses and camels in local nomadic communities. These namda are also used to create prayer mats for Muslims.

Only three practitioners are left in Kutch today. They have moved from their central core to gagodar and Mundra. The market for namda craft is located primarily in saurashtra where darbars, patels and marvadis buy products regularly for their horses.

Namda serves as a sole source of income for the artisans, who feel that the craft is sustainable.

Source- <http://www.khamir.org/crafts/namda>

2.2.1. DATA COLLECTED THROUGH INTERVIEWS:**How is the village condition after earthquake?**

- Villages are improving after earthquake, but there are certain villages which are still in danger such as Nirona.

**Is there any organisation which is working towards the betterment of art and craft?
And where are they lacking?**

- Khamir and LLDC are working for the betterment of the crafts people even after all the efforts there are still few crafts which are on the verge of extinction. Understanding their needs and problem is the most important need right now in kutch.

Why are these art forms not flourishing like others are doing?

- Technology has over powered hand skills of the artisans and because of this artisan don't want their future generations to learn this art and they are okay if their generations become labourers in a metropolitan city like Mumbai.

What is the impact of industrialization in kutch?

- Industrialization has served kutch in positive manner, but it has negative impacts too. Industrialization has reduced the hand skills and machine-based handicrafts are serving no good to kutch region.

How are women's contributing towards the art and craft?

- Women's have great embroidery skills, but they don't want to work on large scales.

Why is art and craft still not known in other zones outside kutch?

- Certain international exhibitions had called out for kutchi art works, but artisans couldn't participate because of less space at their homes and more products demand in the exhibition.

Are other people and students interested in learning these art forms?

- Yes, they are interested, but the region lacks proper infrastructure for them to come, stay and learn simultaneously.

2.2.3. CASE STUDIES:**CASE STUDY- HUNNARSHALA, BHUJ-KUTCH**

Map 4: location of hunnarshala and landmarks near it. I.e. shan-e-Punjab dhaba and shiv mandir

HISTORY:

Map 5: 2002- The land was not occupied. No construction took place. The land in neighbourhood were also unoccupied.



Map 6: 2015-The project got completed and even neighborhood got developed.

WHY HUNNARSHALA CAME INTO PICTURE?

- After 2001, earthquake, 300 thousand people lost their homes and their earning sources.
- Hence, there was a need to teach people and to empower them, to build their own homes.
- Hunnarshala with the help of local artisans and nav nirman abhiyan, came into picture.

CLIMATIC CONDITION OF KUTCH:

- Kutch has hot and dry climate.
- After 2002 earthquake, the whole zone has experienced earthquake tremors multiple time.
- As the summers are extreme, using passive cooling technique are important.
- The materials used are locally available and are used based on their properties.

SUSTAINABLE ASPECTS:**MATERIALS USED IN THE STRUCTURE:**

- Mud roll technique.
- Mangalore tiles.
- Thatch roofing.
- Stone rubble masonry.
- Rammed earth.
- Ships old wood.



Figure 20: The roof made by using mud roll technique



Figure 21: The roofing made from waste timber, which is collected from old ships from mandhvi port



Figure 22: The stone rubble masonry



Figure 23: Roofing made from thatch. Which is supported on timber and steel members.



Figure 24: The Mangalore tiles used as a roof cladding.



Figure 25: The entrance to the structure.



Figure 26: The workshop area



Figure 27: The karigharshala



Figure 28: The experimentation done on the roofing using rubber tube.



Figure 29: The rammed earth mould



Figure 30: Column made from wooden log used as a structural member joined with concrete base



Figure 31: The precast column.

FLOOR PLAN AND SECTIONS:



Figure 32: The site plan of hunnarshala and the pedestrian and vehicular entry to the structure.

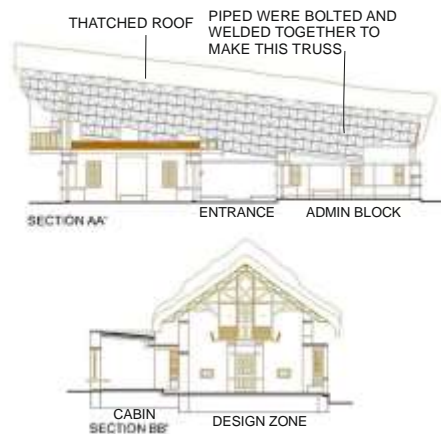


Figure 33: Sections.

SPACE PROGRAM OF THE PROJECT:

- Admin block
- Karigharshala
- Reception
- Pantry
- Toilets
- Manager office
- Design cell
- Workshop area

PURPOSE OF THE CASE STUDY:

As hunnarshala focuses on the use of locally available material for construction, the prime focus was to understand these construction techniques, and to understand how climatic conditions of kutch are taken into considerations.

SWOT ANALYSIS:

<p>STRENGTHS:</p> <ul style="list-style-type: none"> • The structure focuses on the sustainable aspects of the area. • The climatic conditions of kutch, has been catered very well. • The bifurcation of open, semi open and closed spaces creates multi functional spaces within the structure. • The structures acts as a solution for all the issues related to locally available material. • The structure provides opportunities to all the artisans and drop out students. 	<p>WEAKNESSES:</p> <ul style="list-style-type: none"> • The structure lacks enough parking for the visitors. • The date is too small. • residential facilities are lacking. • The structure lacks signages.
<p>OPPORTUNITIES:</p> <ul style="list-style-type: none"> • The structure has space for future expansions. • Residential facilities for students and visitors can be added. 	<p>THREATS:</p> <ul style="list-style-type: none"> • The structure doesn't have much structures in its surrounding.

INFERENCE:

- The structure doesn't have residential facilities for the interns or trainees.
- The pantry is small as compared
- The parking area is there only for staff and not for the visitors.
- No signage available within the structure.

CASE STUDY- TRADITIONAL HOUSING OF KUTCH, BHUNGA

- Bhunga are unique traditional housing typology of kutch.
- The walls of the houses are circular in shape and it has thatched roof.
- It is well known for its structural stability during earthquake and for being climate responsive.
- As it has circular walls, it also provides protection against sandstorms and cyclonic winds.



Figure 34 and 35 the Bhunga housing typology of kutch.

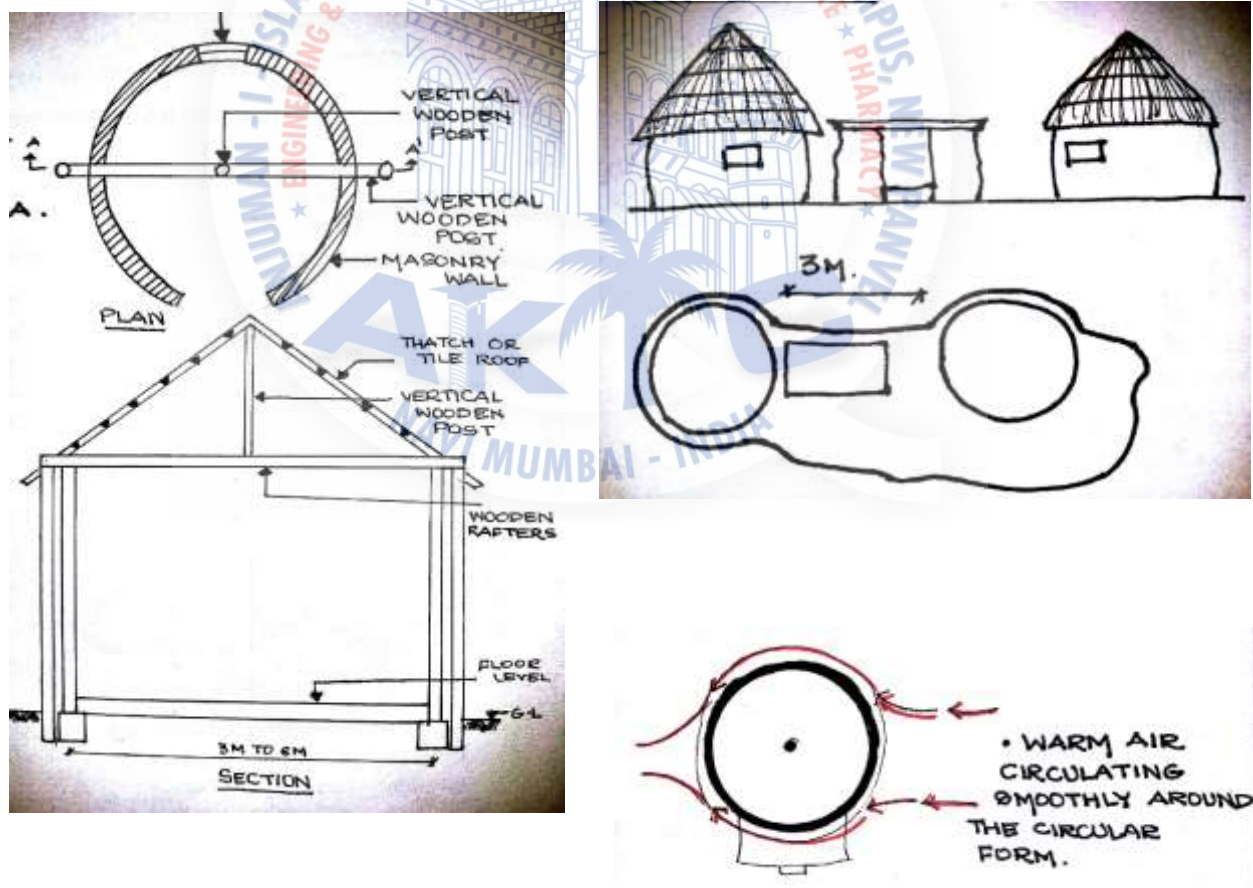


Figure 36, 37 and 38: The plan and section of a typical Bhunga house and its construction

- It is constructed using locally available materials i.e. bamboo, clay and timber.
- The windows are placed on the lower level for cross ventilation.
- The roof is supported on two thick wooden posts.
- As the roofs are low, they cover walls from direct sunlight.
- The walls are made of rammed earth.
- The Bhunga requires maintenance on regular basis, such as applying lipai or lime plastering to the walls and floor.
- The walls of Bhunga are decorated with mud paintings and mirror work.



Figure 39 and 40: The construction detail and mud painting on the walls of Bhunga

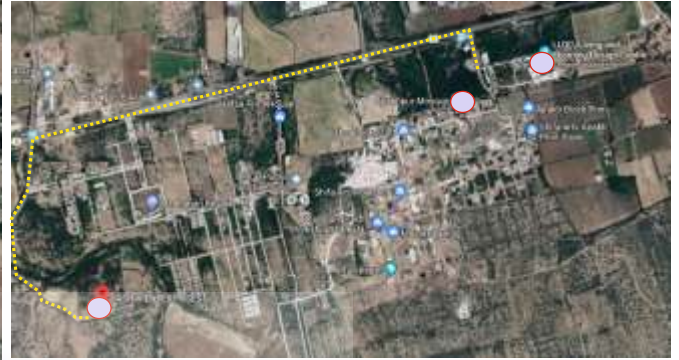
- The building does not share common walls with its neighbouring buildings.
- Distance between two bhungas is 3.0 metres.
- Main door of the building is the only means of escape.
- A typical house has the area for men and its external space, the veranda and the space for women and child.
- The walls of Bhunga are designed in such a way, that during earthquake the walls fall outside rather than falling inside.

PURPOSE OF THE CASE STUDY:

- Bhungas are the traditional housing typology of kutch, it was well thought and designed to resist earthquake, and to deal with harsh climatic conditions of kutch.
- The prime focus while studying this housing typology was to understand the hierarchy, use of semi open and closed spaces and to understand the use of form and materials to resist earthquake.

CASE STUDY- KHAMIR CRAFT PARK-KUKMA, KUTCH

Map 7: Location of Khamir craft park (kukma-kutch), main bhuj-bhachau highway and the internal kutch road



Map 8: The important landmark i.e., Ildc (ajrahpur) and ajrahpur mosque

HISTORY:

Map 9: 2005-The land was not occupied. No construction took place. The land in neighbourhood were also unoccupied.



Map 10: 2008- The land was under development. Construction for the center was in process.



Map 11: 2015-The project got completed.

TOPOGRAPHY AND LANDSCAPE:

- Khamir craft park is situated at village kukma, which is around 20km from bhuj.
- Situated on a hill and having no other buildings nearby, this institute marks its presence in its context from the distance.

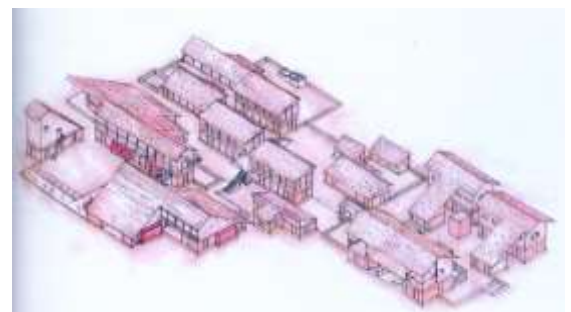


Figure 41: The aerial view of the complete structure.

ABOUT THE SITE:

CLIENT: kachchh nav nirman abhiyan
And the nehru foundation for
Development.

ARCHITECTS: Ar. Neelkanth chhaya.

COMPLETION YEAR: 2015

CLIMATIC CONDITION:

- Kutch has hot and dry climate.
- After 2001 earthquake, the whole zone has experienced earthquake tremors multiple times.
- As the summers are extreme, using passive cooling technique are important.
- The materials used are locally available and are used based on their properties.

SUSTAINABLE ASPECTS:**MATERIALS USED:**

- Rammed earth.
- Mangalore tile.
- CSEB
- Steel columns.
- POP as in-fill rafters.
- Bamboo.
- Wooden twigs.

EARTH CONSTRUCTION TECHNIQUE:

- Rammed earth.
- Stabilized earth block.
- Wattle and daub.



Figure 42: Pop and compressed earth blocks wall during construction.

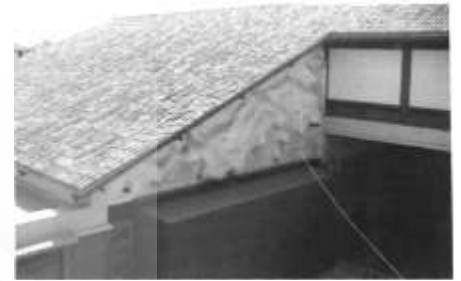


Figure 43: Pop and compressed earth blocks wall after finishing.

RAIN WATER HARVESTING:

- gable steel roofs were constructed.
- Roofs were constructed in three layers I.e, GI sheets were laid with maintaining a slope. And these sheets were then covered with 30mm perlite filling and then Mangalore tiles are placed.
- Water channels are provided at the end of the roof, which collects the rain water which is later transferred to the tank and can be used throughout the year.



Figure 44: the gabled roof construction with layer of 30mm perlite filling and Mangalore tiles as a final finish

PLANNING CONCEPT

- The pattern of Mohalla has been followed to design the craft centre.
- The functions of the building are arranged as public, semi public and private areas.
- Two or three modules share one common open space

SPACE PROGRAM:

- Four craft resource centers.
- Six workshops.
- 3 residential units for senior artisans.
- Shops
- Cafeteria
- Toilets.

FORM AND SHAPE:

- The institute requires variety of spaces as per the functional needs.
- As the construction technique used in his structure is rammed earth, hence only squares and rectangles are used.
- The reason behind this is that shuttering can be re-used multiple times which reduces the construction cost.
- Each unit has been built with having a module on the corners that encloses semi open spaces in between and acts as a column making the corners stronger enough to take the load of the roof.

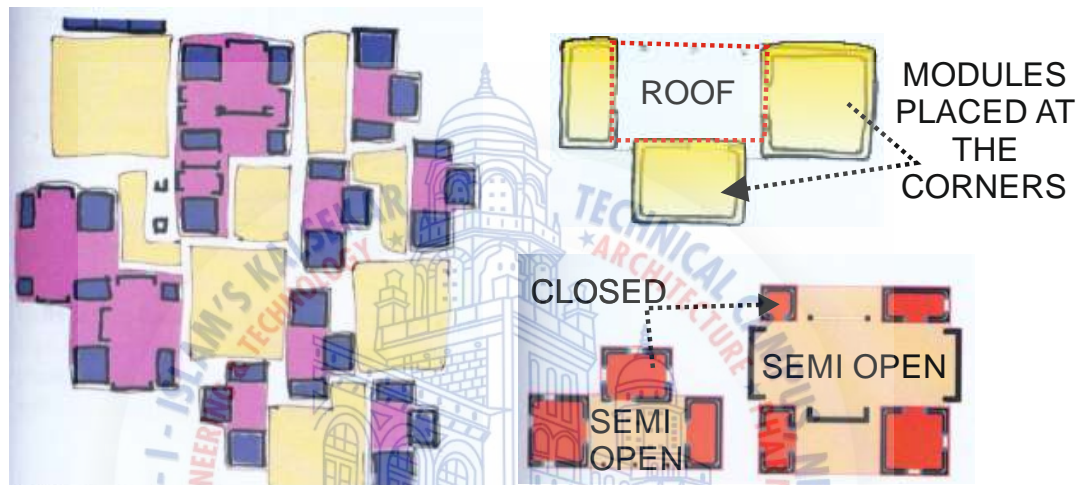


Figure 45: Image showing various spaces

Figure 46: showing various modules

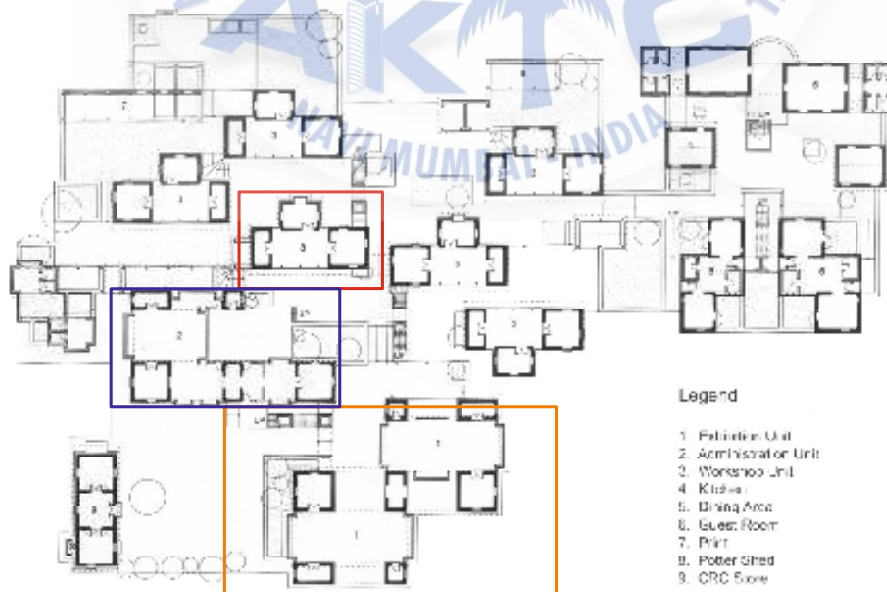
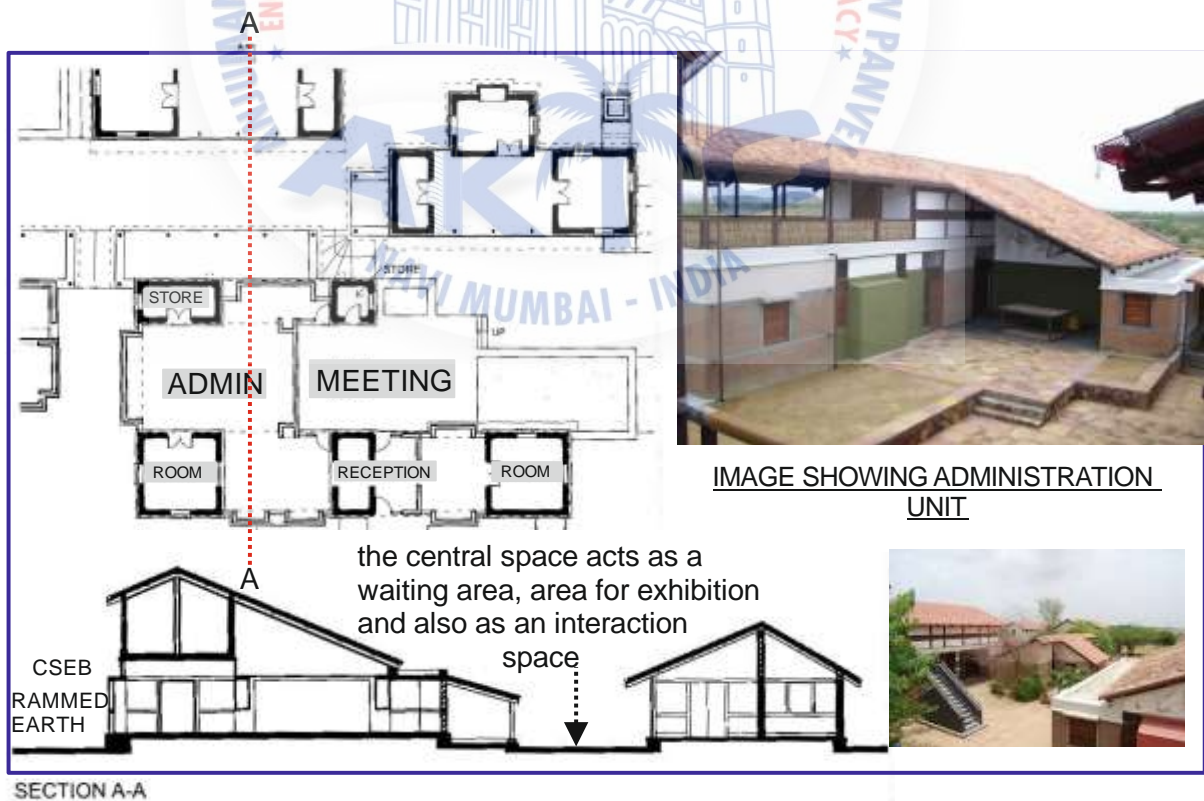
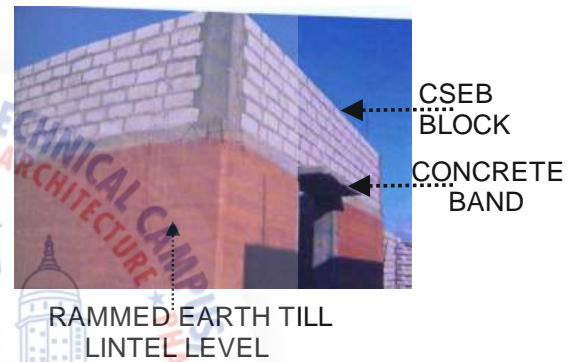
FLOOR PLANS AND CONSTRUCTION DETAIL:

Figure 47: Site plan-Khamir



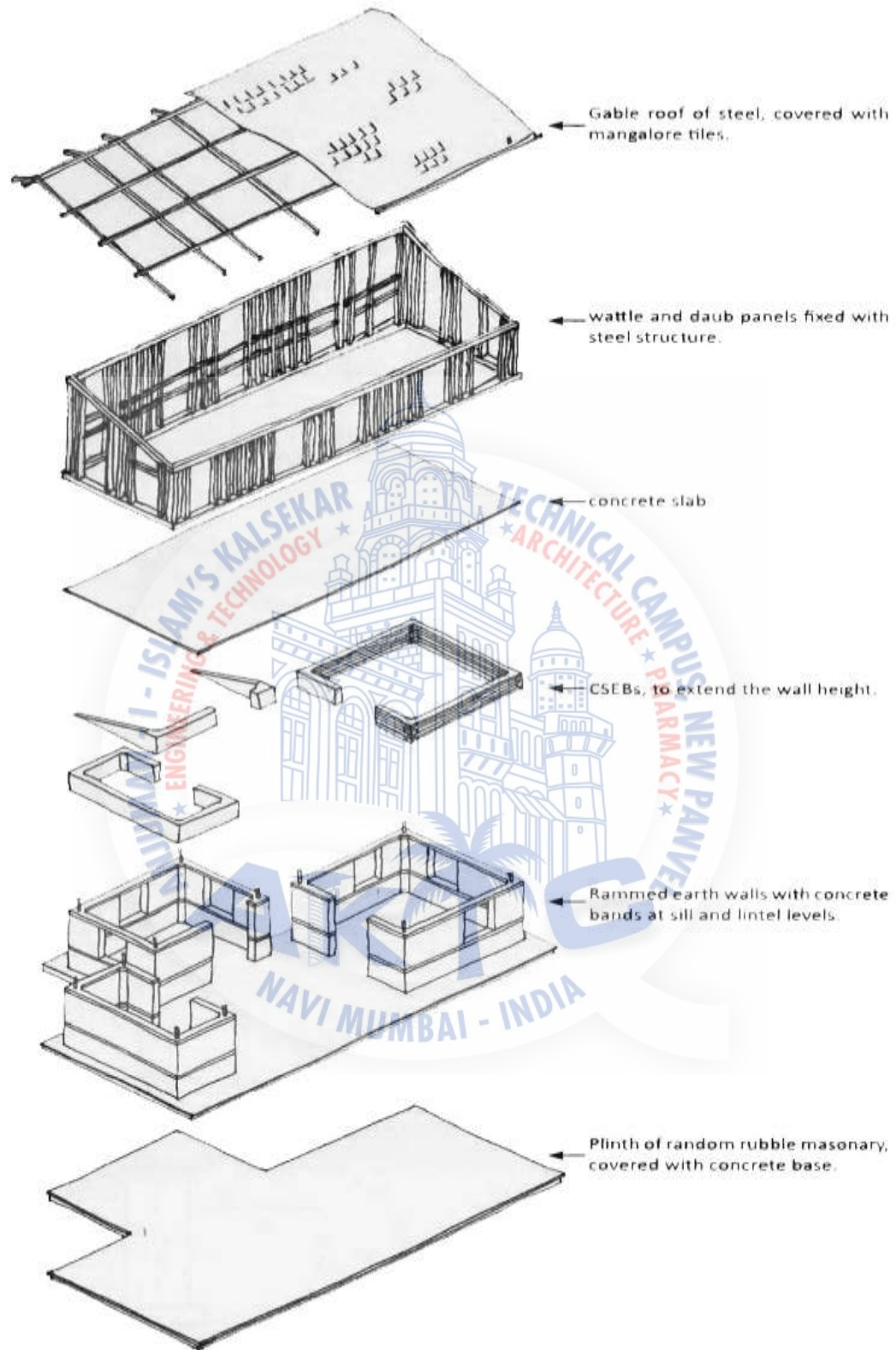


Figure 52: Extruded axonometric view



Figure 53 and 54: semi open and close spaces

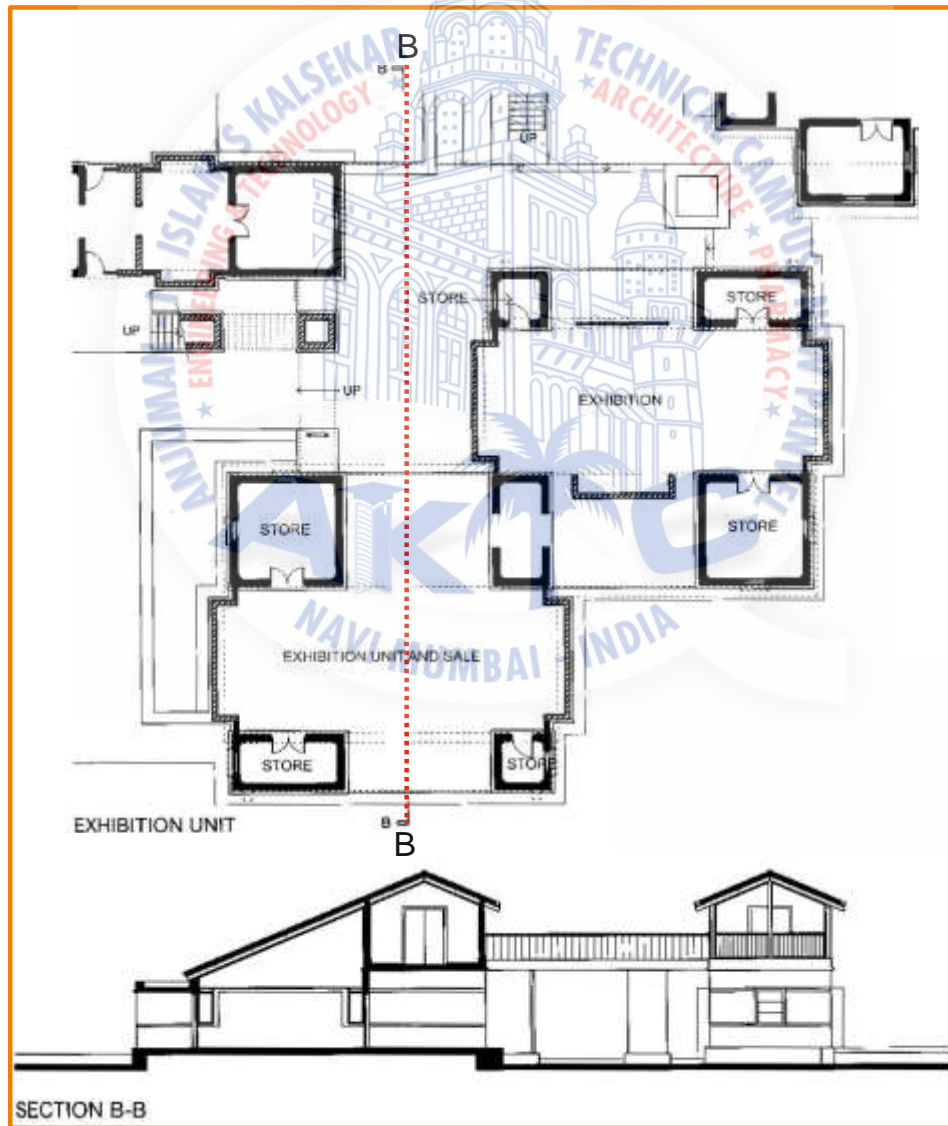


Figure 55: Plan and sections of exhibition unit



Figure 56: the wattle and daub technique.

- Wattle and daub technique were used on the first floor at certain places.
- To use this technique firstly bamboos are woven between the wooden members and then daub made of soil, cow dung and rice husk with proportionate water was applied over it.
- They were then plastered with lime.

PURPOSE OF THE CASE STUDY:

- As Khamir caters to the art and craft of kutch, and it has innovative constructions techniques as well, such as wattle and daub, the prime focus was to understand the spaces required for crafts.
- To understand the working of artisans.
- To understand the construction techniques used.

SWOT ANALYSIS:

<p>STRENGTH:</p> <ul style="list-style-type: none"> • Innovation in construction technology. • The structure is designed in such a way, that it caters to the harsh climate of kutch. • The structure provide good opportunities to the artisans. 	<p>WEAKNESSES:</p> <ul style="list-style-type: none"> • The structure lacks parking. • The cafe is too small. • residential facilities are only for major artisans. • The structure lacks signages.
<p>OPPORTUNITIES:</p> <ul style="list-style-type: none"> • The structure has space for future expansions. • Residential facilities for students and visitors can be added. • Cafe can be increased, so that people can rely on this structure completely during their visit. 	<p>THREATS:</p> <ul style="list-style-type: none"> • The structure doesn't have much structures in its surrounding. • As the structure doesn't stand out, not much people know about it.

INFERENCES:

- There is no parking facility. Hence that needs to be added in design program.
- Residential units are only for major crafts, hence more residential units are needed.
- The structure lacks landmark.
- The structure lacks signage.
- The accessibility to the structure is not easy.
- Cafeteria is not enough to cater the crowd, during festivals and rann of kutch festival.



CASE STUDY- LIVING AND LEARNING DESIGN CENTER-LLDC, AJRAKHPUR- KUTCH

Map 12: location of llde campus (ajrakhpur- kutch), main bhuj-bhachau highway and important landmarks.

HISTORY:

Map 13: 2008-the land was not occupied. No construction took place. The land in neighborhood were also unoccupied.



Map 14: 2016- the first phase of the project got completed.

TOPOGRAPHY AND LANDSCAPE:

- The 8-acre parcel of land with well-planted mango, chickoo and coconut palm trees.
- There was also a large patch of land that was non-arable due to the presence of sub soil water, a unique characteristic of the site.



Figure 57 and 58: landscape elements within the structure.

ABOUT THE SITE:

CLIENT: living and learning design centre
 ARCHITECTS- Uday andhare and mausami andhare
 SITE AREA- 8 acres
 BUILDING AREA- 1.2 lac sq. Ft
 COMPLETION AREA- 2015

SUSTAINABLE ASPECTS:**MATERIALS USED:**

- Lime and fly ash bricks were used, and they were manufactured on site.
- Lime mortar was prepared on site by slaking lime in large ponds and grinding it with sand and crushed brick.
- Gauged lime mortar was used in the masonry work and natural lime plaster using traditional methods in three coats in some areas.



*Figure 59: the materials used
 Concrete, lime and fly ash bricks were used.*

FENESTRATIONS:

- Meticulously details windows and cut-outs on the west and south allow the winter sun to warm the interiors while keeping out the summer sun.
- A simple strategy to ensure ventilation without effecting thermal gain.

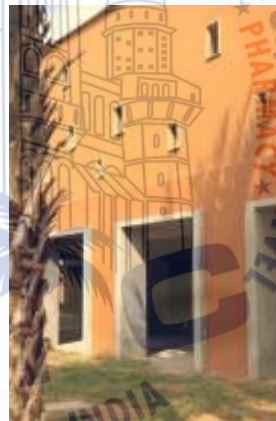


Figure 60 and 61: fenestrations in the structure.

RAIN WATER HARVESTING:

- Rain water harvesting tanks were integrated in the design to collect about 7 lac liters of rain annually.
- Use of cooling pipes (radiant cooling) on terraces is planned as a way of using insulating the roof from the heat, to attain stable temperatures throughout the year.



Figure 62 and 63: solar panels and drainage system.

FLOOR PLANS

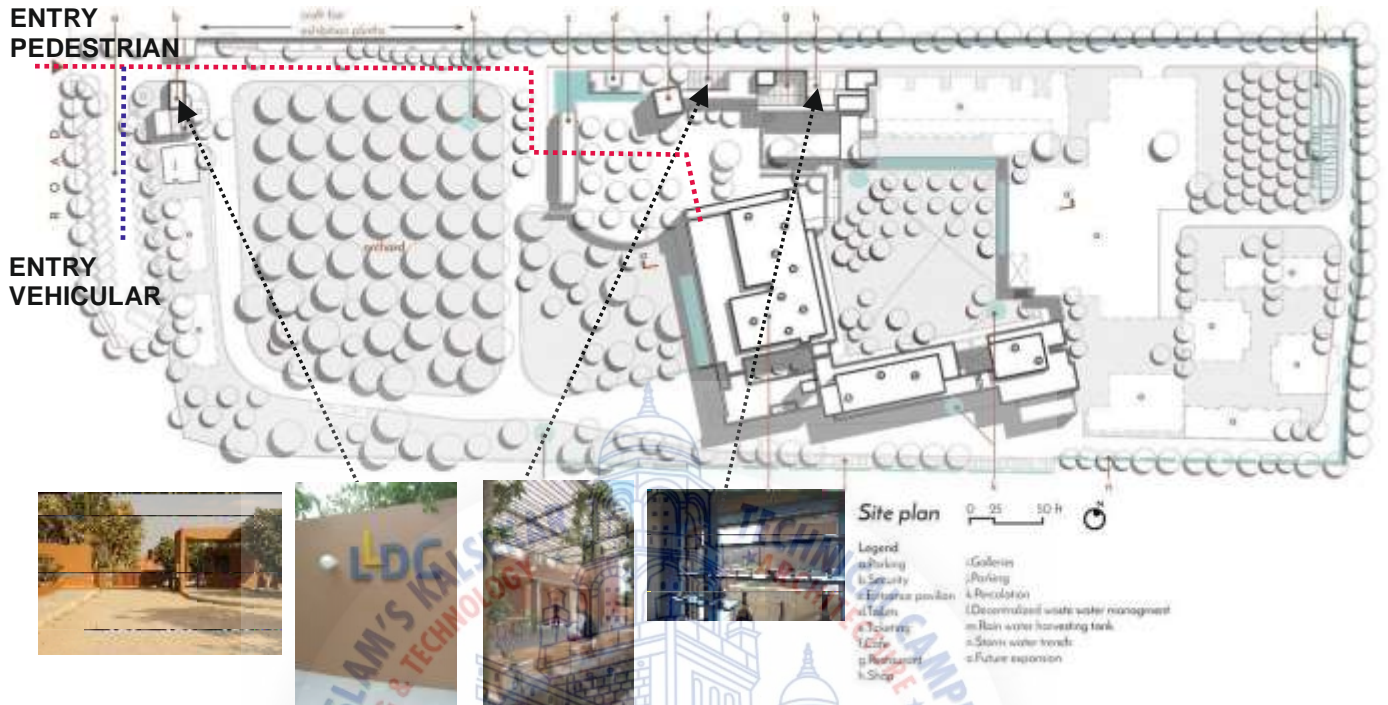


Figure 64: Site plan



Figure 65: Ground floor

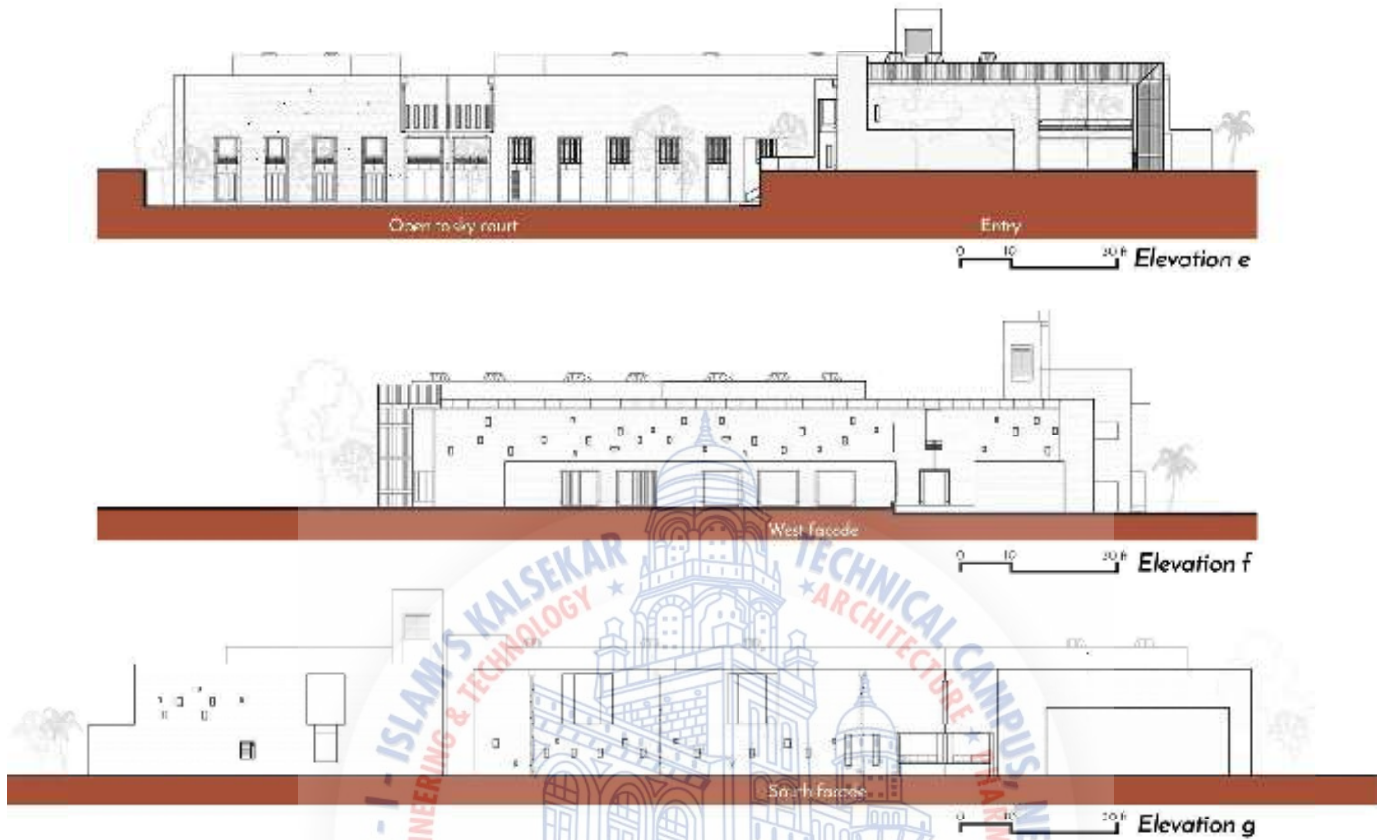


Figure 66: Elevations

the oculus are provided on the ceiling level of all the permanent galleries. they are covered with glass, and provides natural light inside the galleries.



the open space between admin and workshop area serves as a interaction space

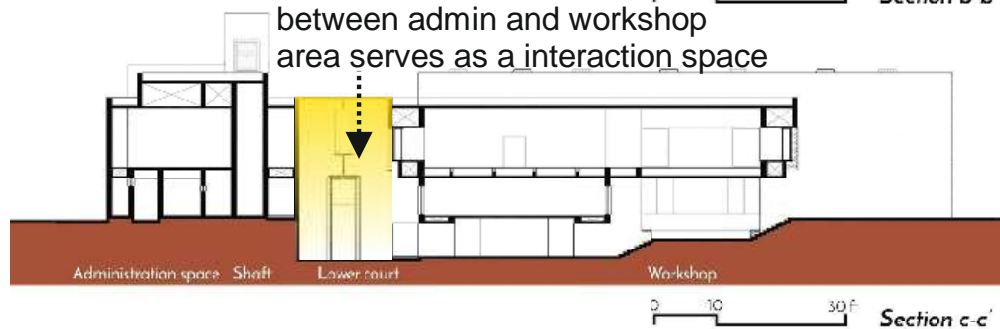


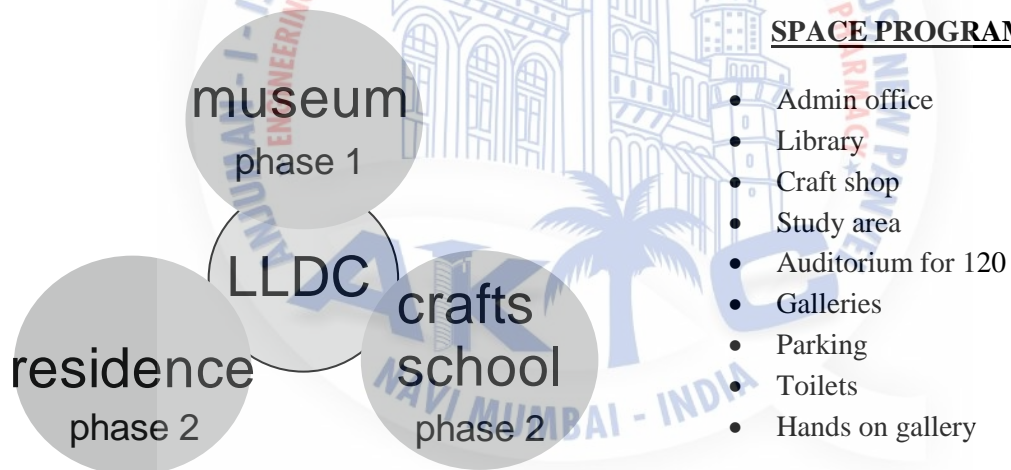
Figure 67: Sections

NEIGHBOURHOOD CONTEXT

Figure 68: The agriculture field adjacent to the site



Figure 69: The industrial area adjacent to the site

**ARTS AND CRAFTS:**

- Embroidery
- Lippan work
- Pottery
- Lacquer art
- Aari work
- Leather
- Bandhani
- Music
- poetry



Figure 70: The complete structure



Figure 71 and 72: The entry to the structure

PURPOSE OF THE CASE STUDY:

- Leaving and learning design centre in ajrakhpur, focuses on the upliftment of artisan community.
- The purpose of this case study was to understand how museum spaces and auditoriums works.
- The other prime focus was to understand the orientation of structure on site based on climatic conditions, and the measures taken to cater to extreme climatic condition of kutch

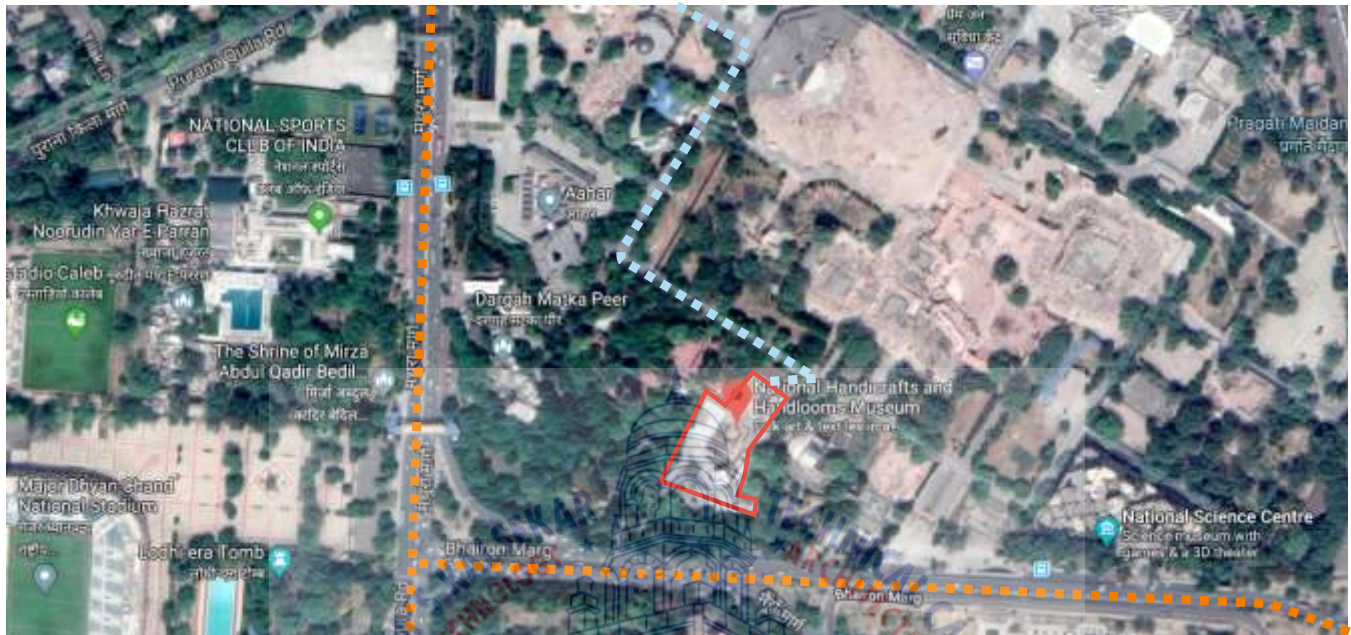
SWOT ANALYSIS:

<p style="text-align: center;">STRENGTH:</p> <ul style="list-style-type: none"> • Innovation in construction technology. • The structure is designed in such a way, that it caters to the harsh climate of kutch. • The structure stands out, and is known to people. 	<p style="text-align: center;">WEAKNESSES:</p> <ul style="list-style-type: none"> • The structure lacks parking • The structure lacks signages.
<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> • The structure has space for future expansions. • The facilities that the structure is providing can help in increasing the revenue of area. 	<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> • The structure doesn't have much structures in its surrounding.

INFERENCES:

- As the temperatures in kutch are extreme in all the three seasons, it is important to use sustainable design techniques.
- Not much development is there in the neighbourhood, so a proper landmark should be there.
- The phase 2 of the project which is residential enclave and craft school are still not constructed, which are the important factors.
- The structure lacks signages.



CASE STUDY- NATIONAL CRAFTS MUSUEM, NEW DELHI

Map 15: location of the national crafts museum (new Delhi), Mathura Marg and the main accessibility to the structure.



Figure 73: The entrance to the structure

TOPOGRAPHY AND LANDSCAPE:

- The site is in New Delhi, opposite to pragati maidan.
- The site has national sports club of India in its neighborhood.
- The site is a flat land.

ABOUT THE SITE:

CLIENT: TRADE FAIR AUTHORITY OF INDIA.

ARCHITECTS: CHARLES CORREA

BUILDING AREA:6800SQM

PROJECT DESCRIPTION:

The main aim of this museum is to bring artists from whole world to come and portray their art and craft, and to increase the knowledge of people regarding the art and craft of various state of India

ARCHITECTURAL ASPECTS:

- In this structure Charles correa has very well explained the meaning of open to sky spaces.
- In this structure, the concept of INDIAN STREET is introduced-along a diagonal axis are three courtyards of different scale and intensity.
- The spaces are divided with open and semi open spaces.
- The passages are covered with tiled roofs and lined with artifacts.
- The route through the structure is constantly changing in an intricate kaleidoscope of space and light.



Figure 74: The exhibition spaces.



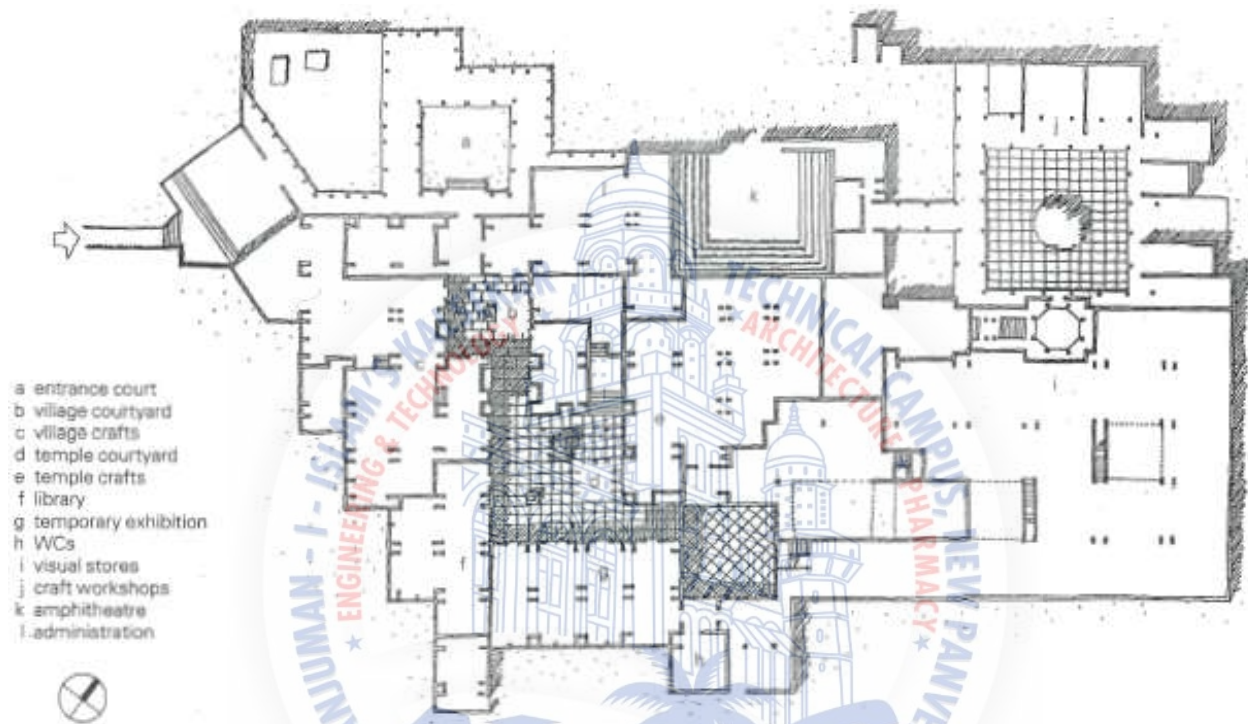
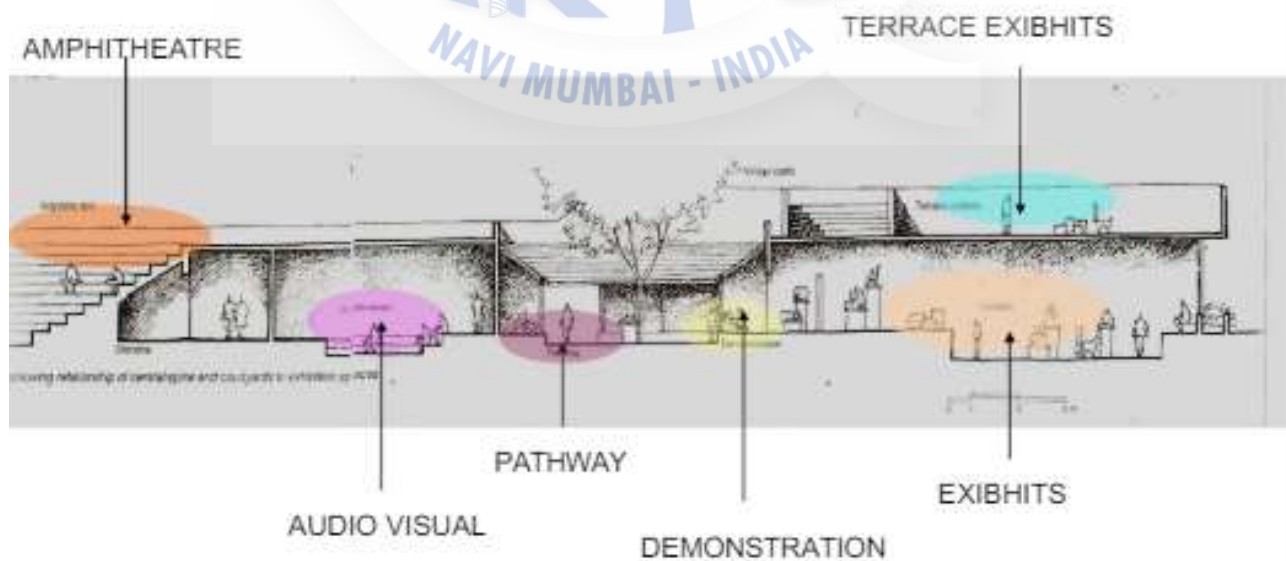
Figure 75: The artifacts displayed in the pathway



Figure 76 and 77: The common spaces between other spaces, which acts as a gathering space for the artisans

CLIMATIC CONDITIONS:

- Delhi has extreme climatic conditions
- Studios and covered gallery spaces are oriented in such a way, to avoid harshest sun.
- Overhanging roof sections helping to shade the outdoor areas.

FLOOR PLANS:*Figure 78: Ground floor plan**Figure 79: Schematic section*

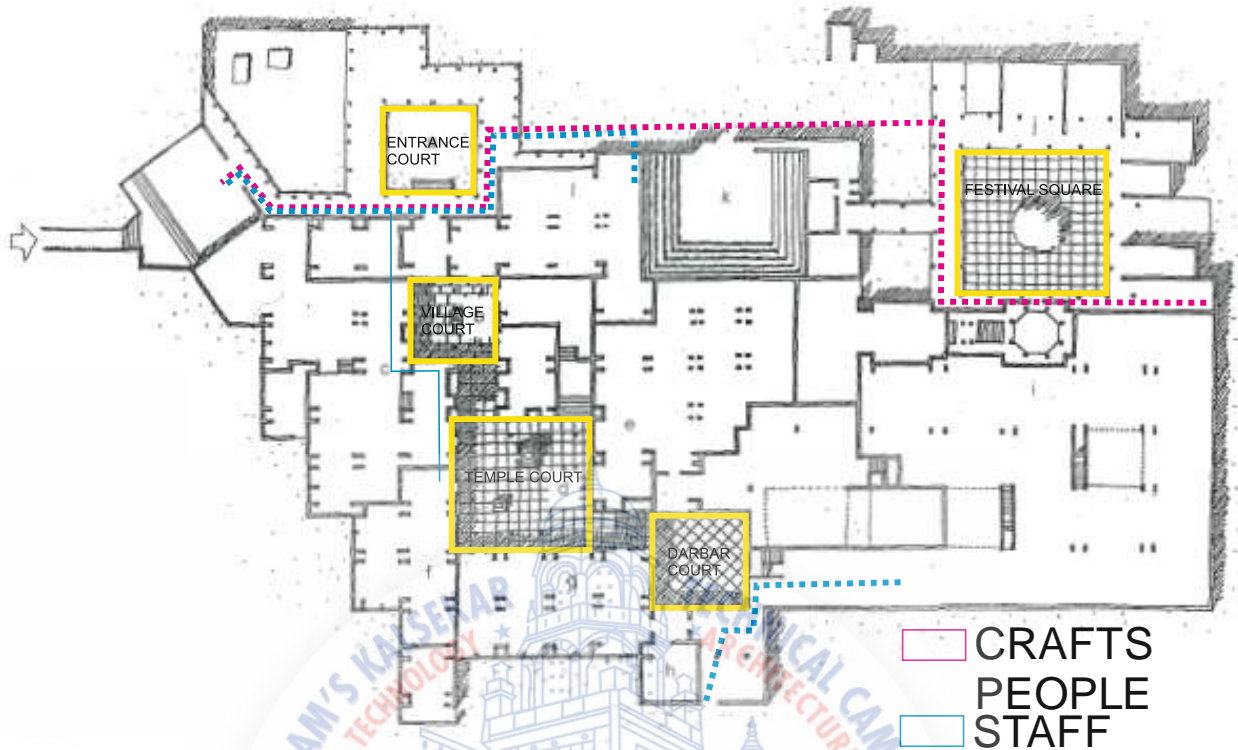


Figure 80: Type of open to sky court

Each month the museum invites around 50 craftspeople, except monsoon period of three months when only 10 craftspeople, to be in residence, to demonstrate their skills and sell their wares, and to explore new design and market possibilities.

Occasionally the programme has a theme, when a craft is displayed in all its variety.

SPACE PROGRAM

UNITS	AREAS IN SQM
Administration	50
Shop	40
Butta sculptures	60
Fold and tribal art	100
Village court	60
Temple court	140
Cultic object	125
Courty craft	500
Darbar court	60
Temporary exhibition	130
Library	110
Reserve collection	100
Conservation lab	50
Amphitheatre	140
Craft demonstration	2000
Village complex	3000



Figure 81: The artist village
And the bungas houses of kutch



Figure 82: The cafe(lotta) and the museum
attached to it.

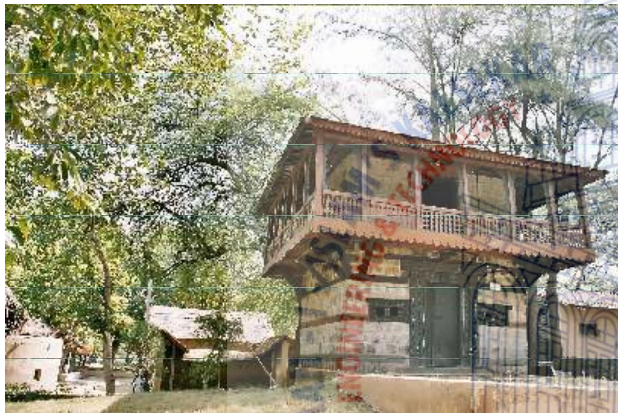


Figure 83: The traditional houses of different
region.



Figure 84: The craft demonstration area.



Figure 85: The exterior semi open space of
the cafe.



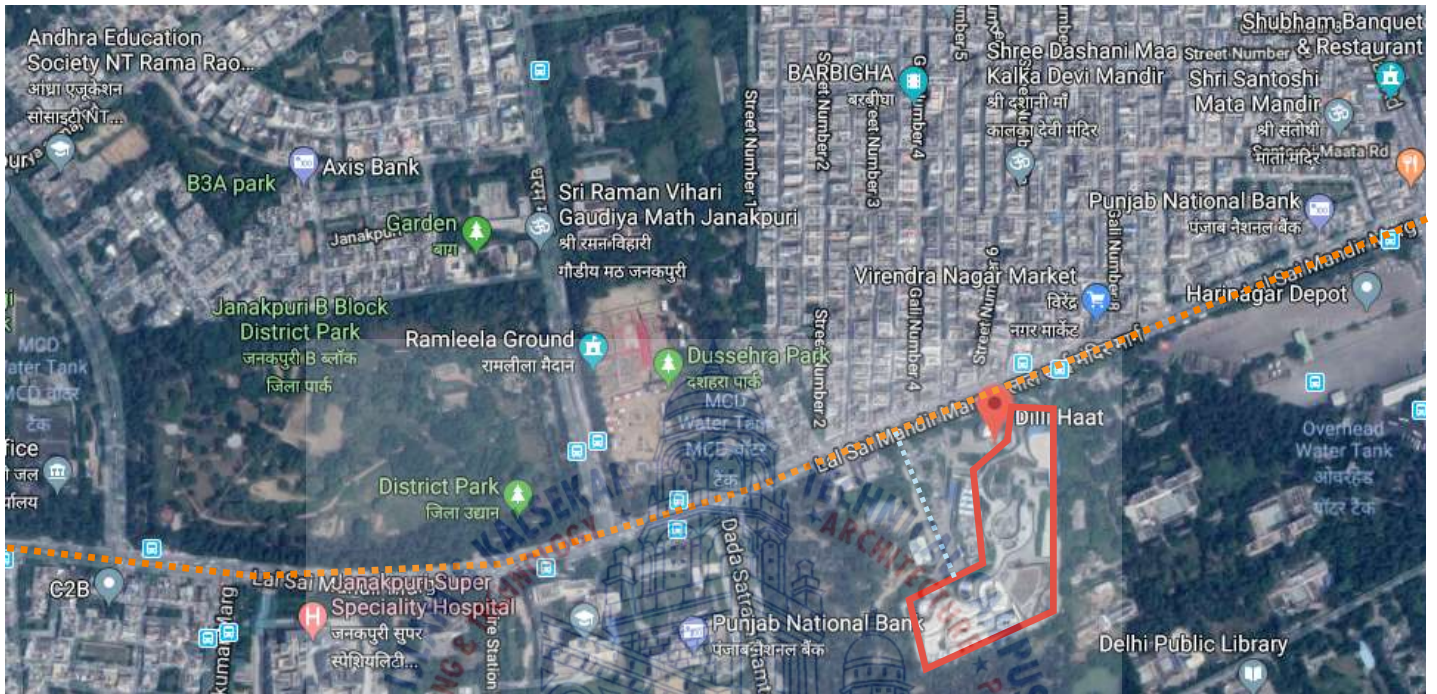
Figure 86: The craft workshop and shop area.

INFERENCES:

- The buildings are composite type of structures.
- The spaces are well bifurcated, and there are multi-functional spaces, which reduces the built form.
- The open-air amphitheatre caters to more than 850 people, and it is used for cultural events.
- structures blend perfectly with its neighbourhood.



CASE STUDY- DELHI HAAT-JANAKPURI



Map 16: location of the national Delhi haat (janakpuri), lal sai mandir marg and the main accessibility to the structure.



Figure 87: The view of Delhi haat

ABOUT THE SITE:

Client: Delhi tourism and transportation development corporation
 Architects: Sourabh Gupte
 Building area: 16000sqm
 Site area:32375sqm
 Completion year: 2014

PROJECT DESCRIPTION

- The project comprises of two adjacent sites with green belt.
- Delhi haat occupies the larger 6-acre site.
- To blend culture with craft is the main aim of this project.
- Free flowing open spaces bind various activities on two levels.

ARCHITECTURAL ASPECTS:

- In this structure there are formal and informal shops to sell crafts and celebrate culture.
- Music as a theme was used.
- The complex has two entries and a separate entry for pedestrians to enter directly into craft zone.
- Different technology-based innovations were done during construction.



Figure 88: The craft workshop spaces.



Figure 89: The multifunctional space.



Figure 90: The amphitheatre.



Figure 91: The art gallery.

FLOOR PLANS:



Figure 92: Site plan



Figure 93: Zoning of the structure.



Figure 94: Section aa



Figure 95: Section bb

SPACE PROGRAM:

- Administration
- Shop
- Food court
- Art and craft demonstration unit
- Exposition hall
- Banquet
- Multifunctional spaces

MATERIAL PALLETTE:

- Tensile fabric
- Stone
- Bricks
- Kota stone
- Bamboo
- steel



Figure 96: 8ft high bamboo cladding



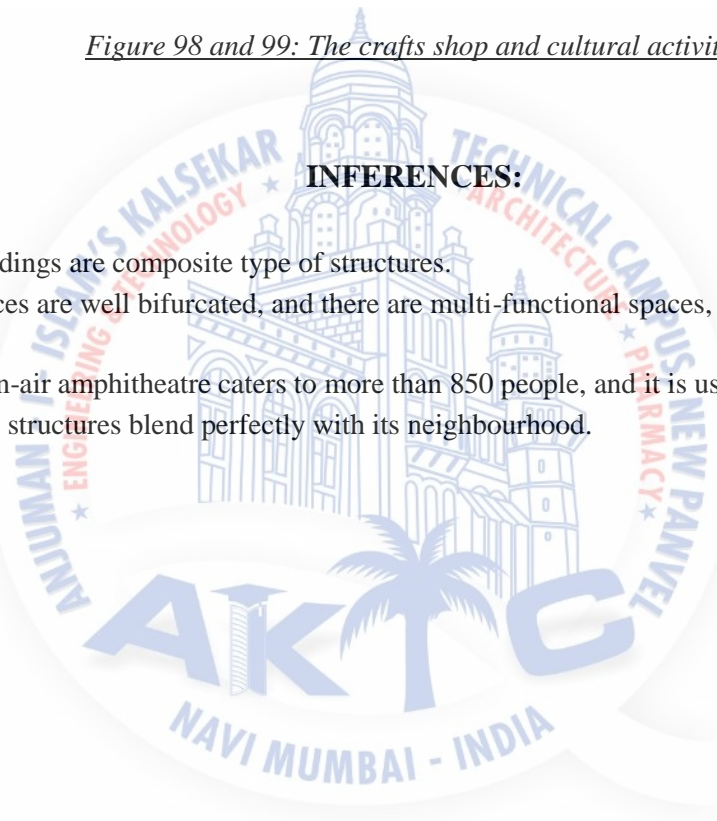
Figure 97: vaults use in the structure.



Figure 98 and 99: The crafts shop and cultural activities

INFERENCES:

- The buildings are composite type of structures.
- The spaces are well bifurcated, and there are multi-functional spaces, which reduces the built form.
- The open-air amphitheatre caters to more than 850 people, and it is used for cultural events.
- Both the structures blend perfectly with its neighbourhood.



CASE STUDY- ARTIST RESIDENCY AND CULTURAL CENTER THREAD, SENEGAL

Map 17: location of thread centre (sinthian-tambacounda, Senegal), koular village and the main accessibility to the centre.

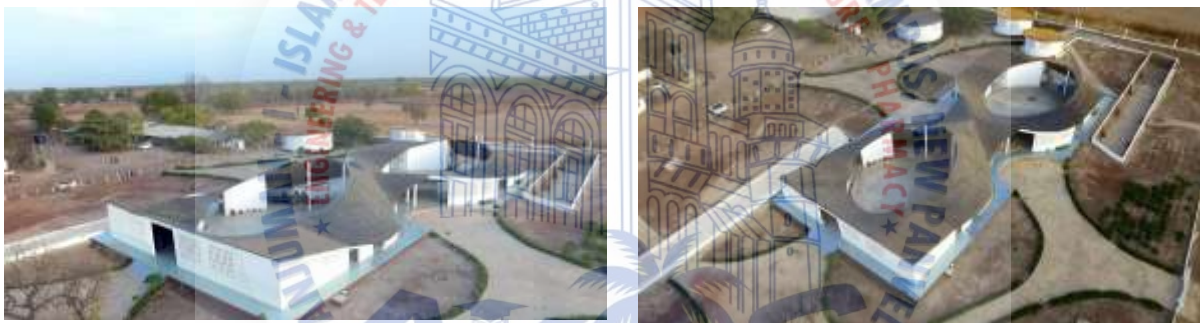


Figure 100 and 101: Image showing the view of the structure.

TOPOGRAPHY AND LANDSCAPE

- The site is in sinthian, a rural village in tambacounda, which is the southeaster region of Senegal.
- The structure has less development in its surrounding.
- The landscape in its surrounding is flat with small houses.

ABOUT THE SITE:

CLIENT: JOSEF AND ANNI ALBERS
FOUNDATION.
ARCHITECTS: TOSHIKO MORI ARCHITECTS
SITE AREA: 6232sqm
BUILDING AREA: 1048sqm
COMPLETION YEAR: 2015

PROJECT DESCRIPTION:

THREAD offers artist residencies and other spaces which provides the people of sinthian and the surrounding region with the opportunity to discover new forms of creativity and cultivate their skills.

SUSTAINABLE ASPECTS:

- Bamboo framework was used for the structure.
- compressed earth block bricks were used for the wall.
- Thatch roof technique was used.
- Broken recycled tiles were use throughout the structure.



Figure 102 and 103: Bamboo framework and thatch roof

- Rain water harvesting is done with the help of customary pitched roof.
- Finally, the roof collects and retains rainwater, creating a viable source for 40% of the villages domestic water needs.
- The water is collected in adjacent water basins.
- The roof and basin system can provide for a wealth of new agricultural opportunities.



Figure 104: The compressed earth block bricks used for the wall.



Figure 105: The broken recycled tiles used throughout the structure for the flooring.

RAIN WATER HARVESTING:



Figure 106: The slope of the roof.

CLIMATIC CONDITIONS:

- Senegal has dry season for eight months.
- Studios and covered gallery spaces are oriented in such a way, to avoid harshest sun.
- Overhanging roof sections helping to shade the outdoor areas.

FLOOR PLAN

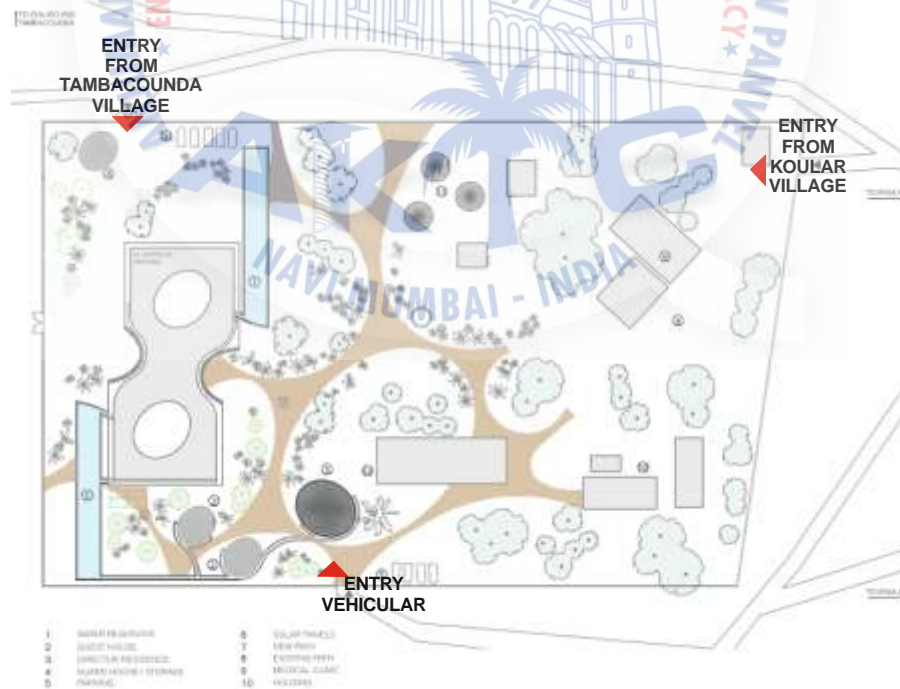


Figure 107: Site plan

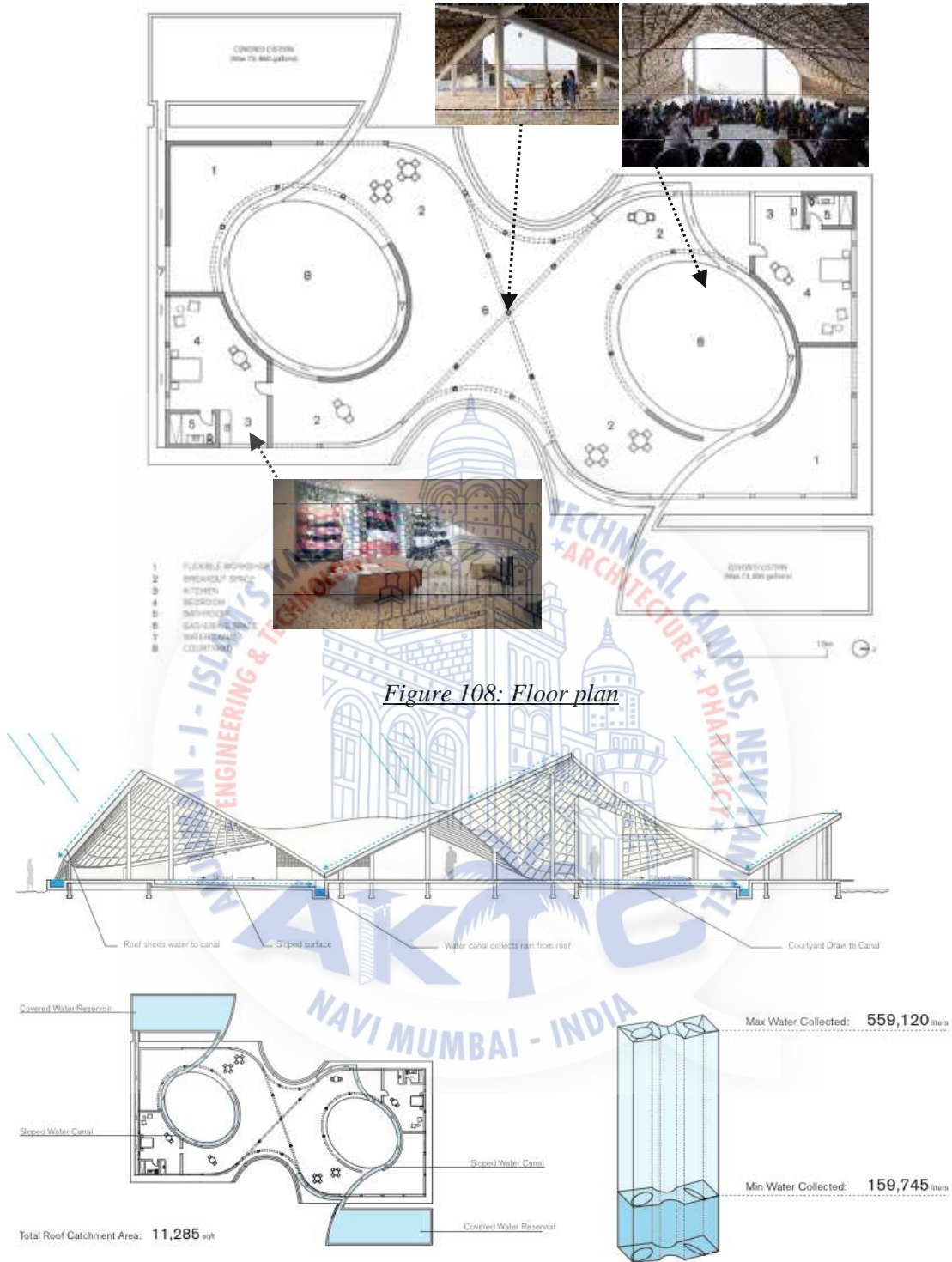


Figure 109: Sections

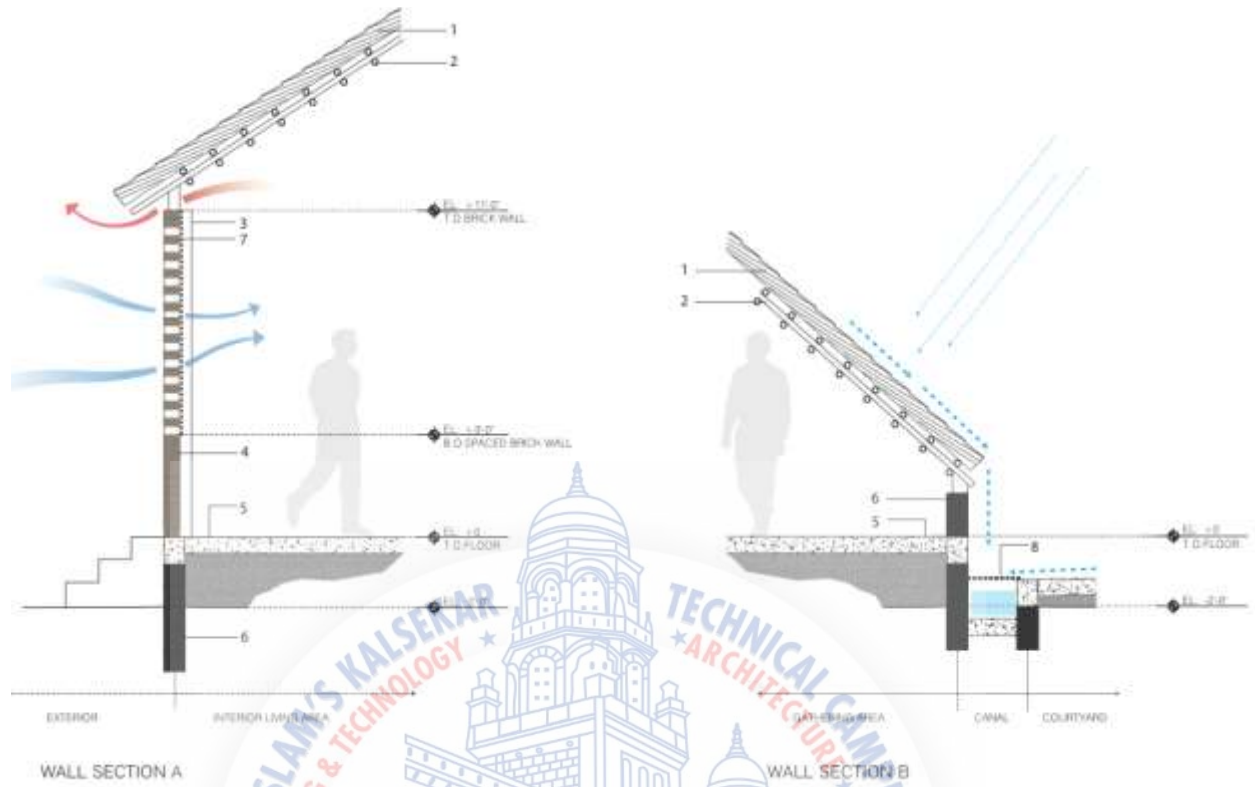


Figure 110: Sections

Roof framing comprised of two bamboo layers
Roof structure slopes to courtyard water canal

Roof overhang provides shading
Roof structure slopes to courtyard



Figure 111: Roof construction technique

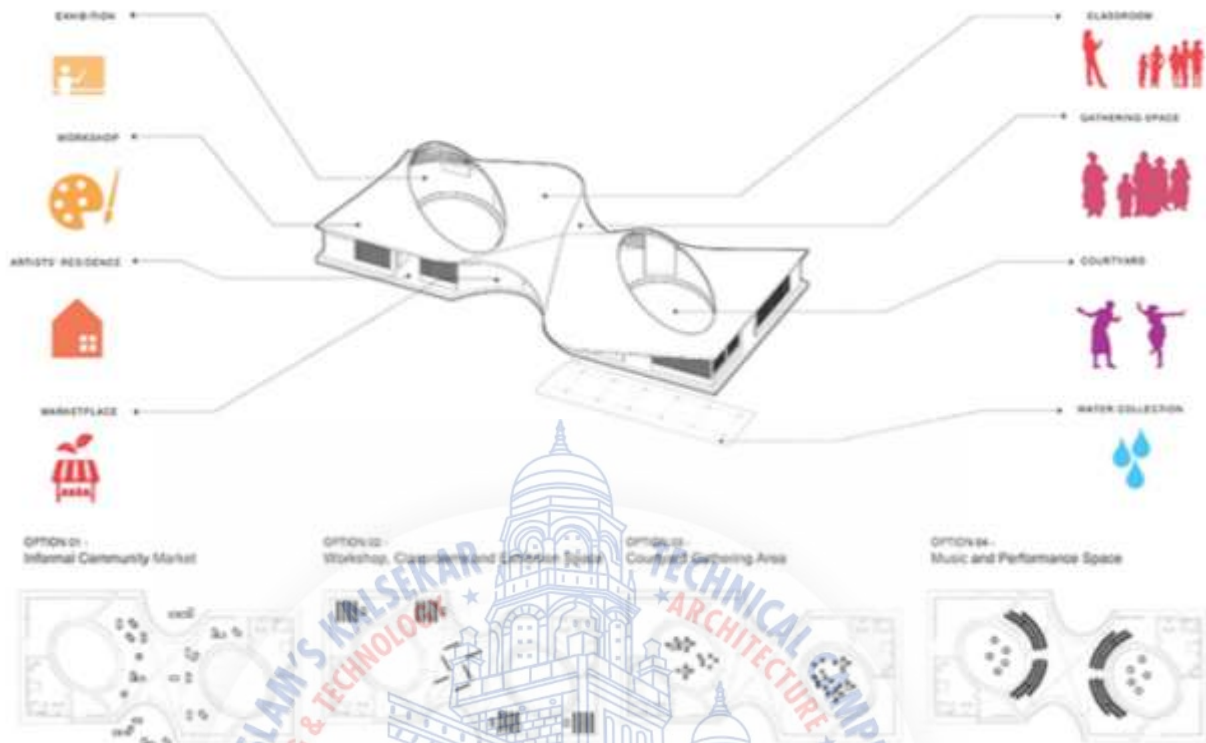


Figure 112: Bifurcation of spaces

SPACE PROGRAM:

- Agricultural hub
- Community farm
- Water source
- Exhibition
- Performance area
- Cultural centre
- Local library
- Children play gym
- Village cell phone charger room.



Figure 113: internal space



Figure 114: View of the structure

INFERENCES

- The structure has well designed rain water harvesting system, which can be used in kutch context as well.
- The spaces are multi-functional.
- Climatic conditions are very well catered, use of locally available material has been taken into consideration.
- Use of locally available material reduces the cost of material transportation, making the structure more environmentally friendly.

2.2.4. COMPARATIVE ANALYSIS OF THE CASE STUDIES:

	HUNNARSHALA, BHUJ-KUTCH	TRADITIONAL HOUSING OF KUTCH-BHUNGA	KHAMIR CRAFT PARK-KUKMA,KUTCH	LIVING AND LEARNING DESIGN CENTRE-LLDC, AJRAKHPUR-KUTCH	NATIONAL CRAFTS MUSEUM, NEW DELHI	DELHI HAAT-JANAKPURI	ARTIST RESIDENCY AND CULTURAL CENTRE-THREAD, SENEGAL
USE OF LOCAL MATERIALS	✓	✓	✓	✗	✓	✗	✓
CIRCULATION	✓	✓	✓	✓	✓	✓	✓
CLIMATE RESPONSIVE	✓	✓	✓	✓	✗	✗	✓
LANDSCAPE	✓	✗	✓	✓	✓	✓	✗
OPEN/SEMI OPEN AND CLOSED SPACES	✓	✓	✓	✓	✓	✓	✓
COMMUNITY INTERACTION	✗	✓	✓	✓	✓	✗	✓
NATURAL VENTILATION	✓	✓	✓	✓	✓	✓	✓
USER SPACE EXPERIENCE	✓	✓	✓	✓	✓	✓	✓
WORKSHOP DESIGNS BASED ON CRAFTS	✗	✗	✓	✗	✗	✗	✗
IN CLOSE PROXIMITY FROM AIRPORT/RAILWAY STATION	✓	✗	✗	✗	✗	✗	✗
MULTIFUNCTIONAL SPACES	✗	✗	✓	✓	✗	✗	✓
RAIN WATER HARVESTING	✓	✗	✗	✓	✗	✗	✓
SOLAR PANELS	✗	✗	✗	✓	✗	✗	✗
ORIENTATION OF THE STRUCTURE ON SITE BASED ON SUN PATH	✓	✗	✓	✓	✗	✗	✓
PROVISIONS FOR FUTURE EXPANSION	✓	✗	✓	✓	✗	✗	✓
RESIDENTIAL FACILITIES	✗	✓	✓	✗	✗	✗	✗
PARKING AREA FOR VISITORS	✓	✗	✗	✓	✗	✗	✗
TOILETS	✓	✓	✓	✓	✓	✓	✓
SELF SHADING THROUGH PLANNING AND VOLUME	✗	✗	✗	✓	✗	✗	✗
EARTHQUAKE RESISTANT	✓	✓	✓	✓	✗	✗	✓
SEPARATE VEHICULAR AND PEDESTRIAN ENTRY/EXIT	✓	✓	✗	✓	✗	✓	✗
INNOVATION IN CONSTRUCTION	✓	✓	✓	✓	✗	✓	✓
INNOVATION IN SPACE PROGRAM	✓	✗	✗	✗	✓	✓	✓

Table 1: comparative analysis of case studies.

2.3. RESEARCH DESIGN:

2.3.1 STANDARD AND DATA COLLECTION:

Museum and art galleries:

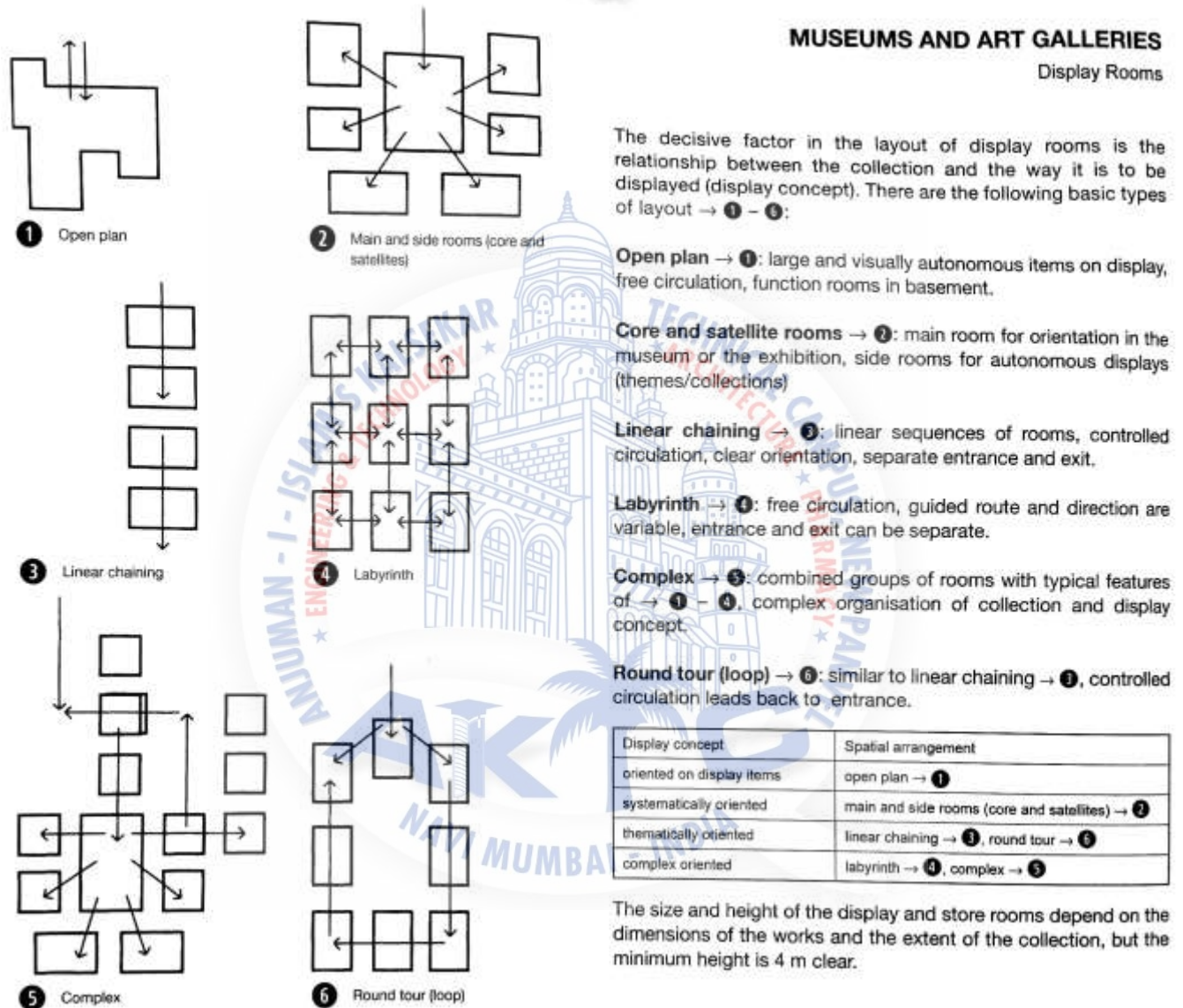


Figure 115: Displaying the standards for art museum and galleries, and the circulation pattern

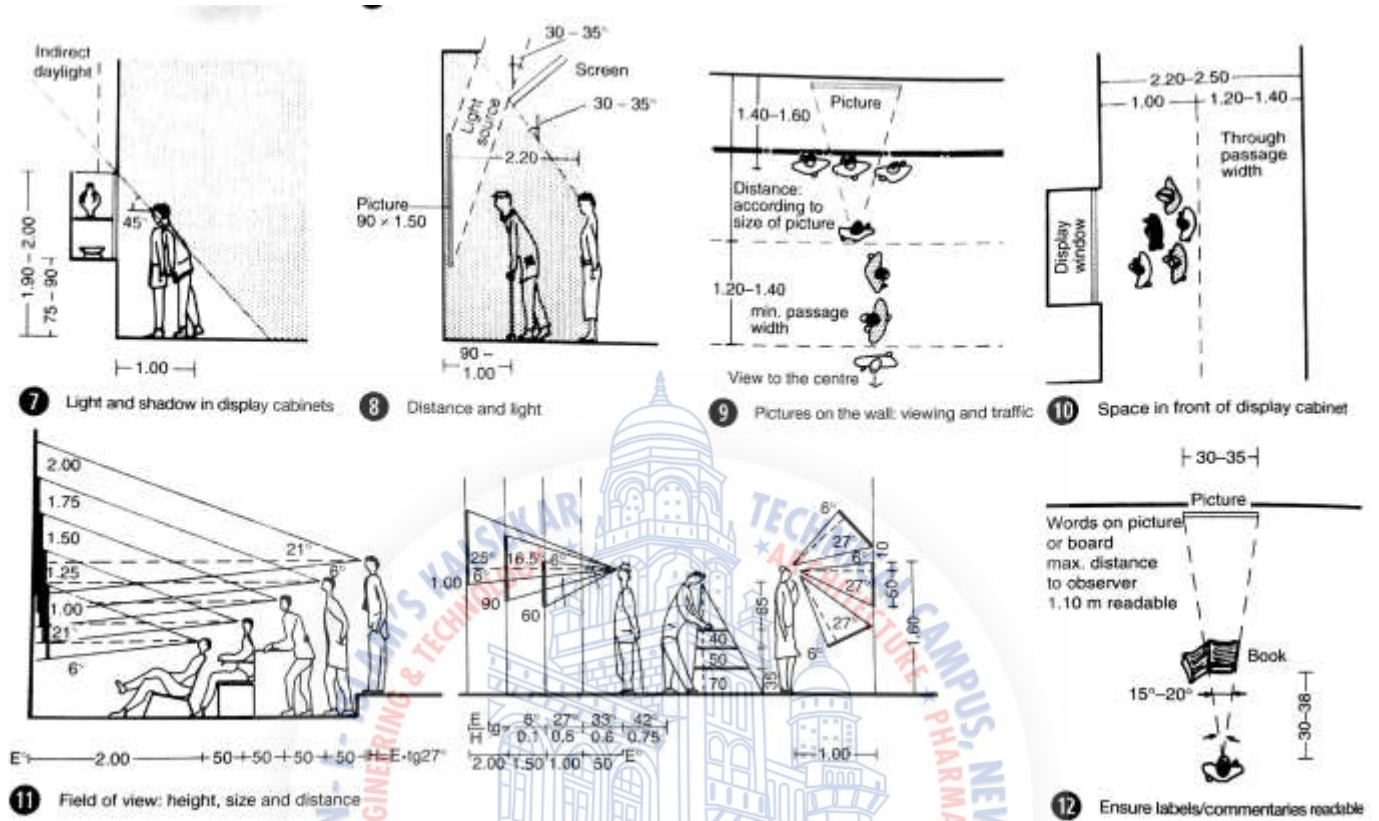


Figure 116: standard of displaying work in the exhibition room and their angles.

Café and restaurant:

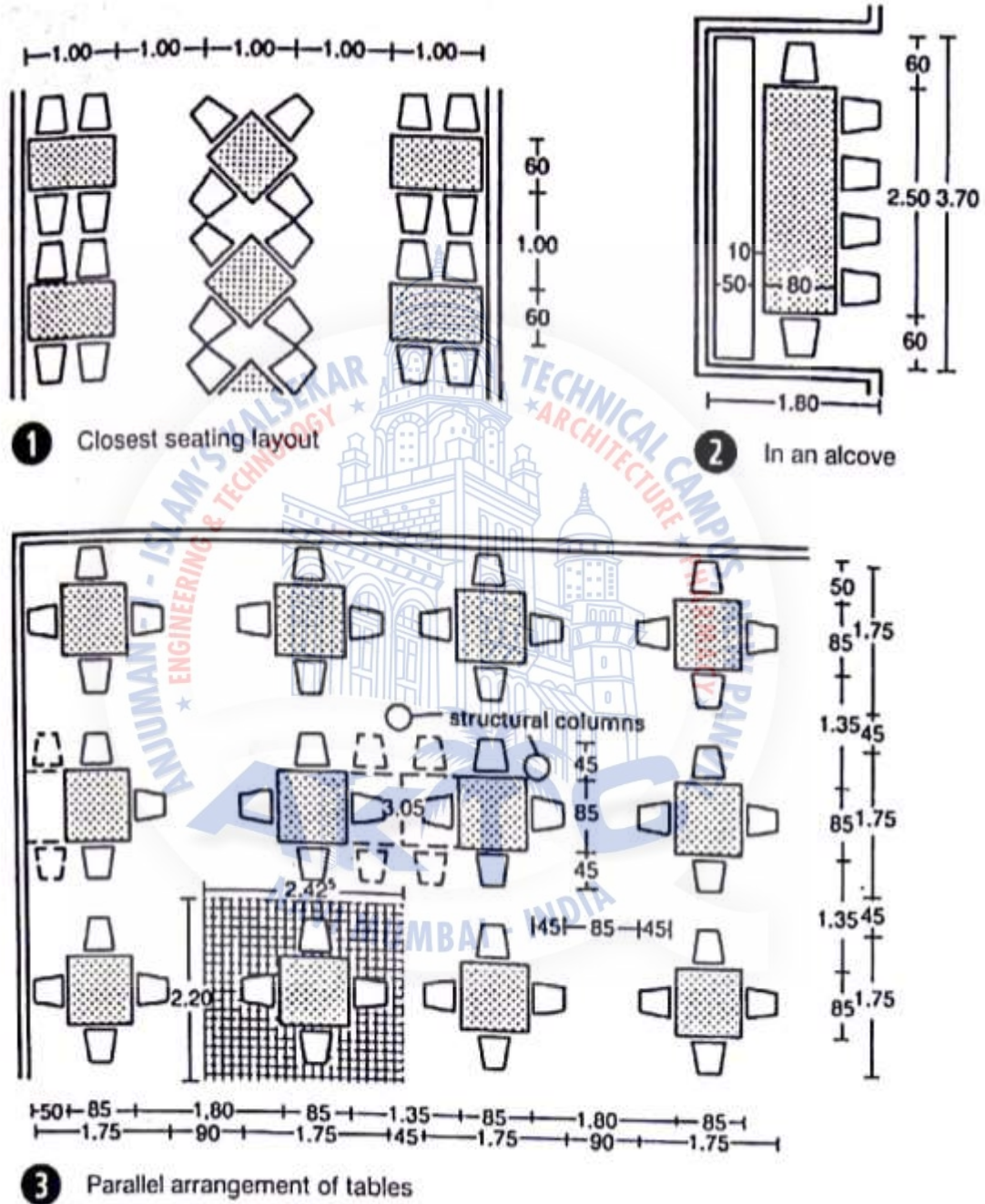


Figure 117: seating layouts.

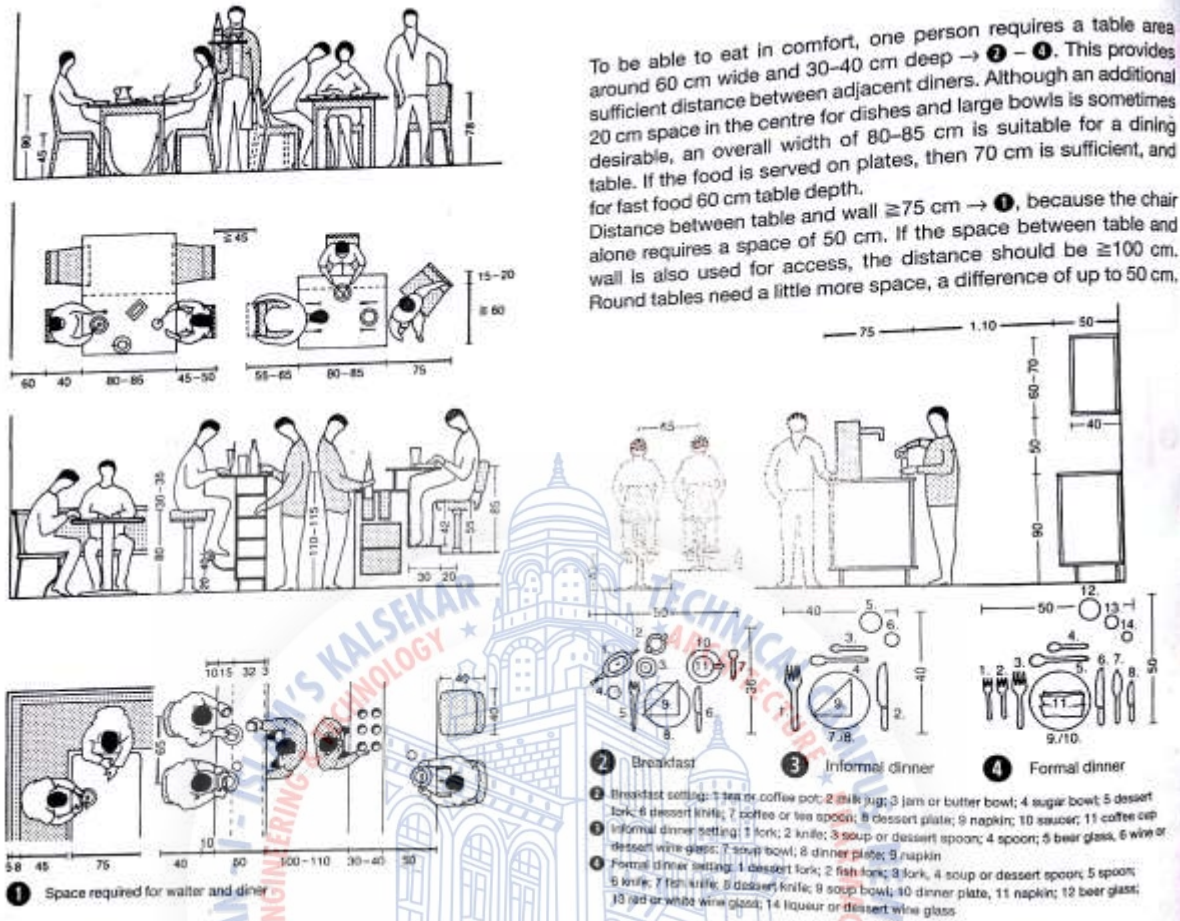
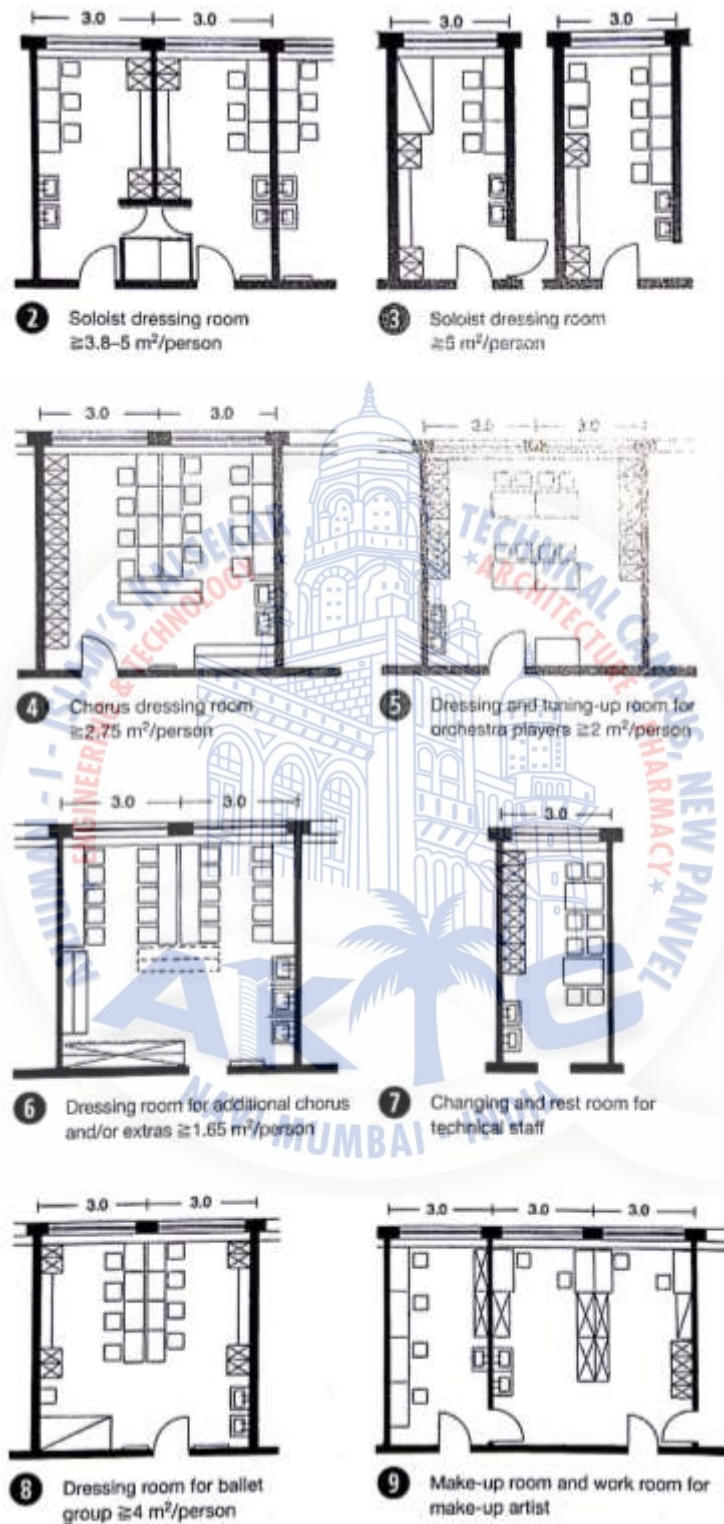


Figure 119: seating's layout

Workshops and staff rooms:*Figure 120: Dressing and staff room.*

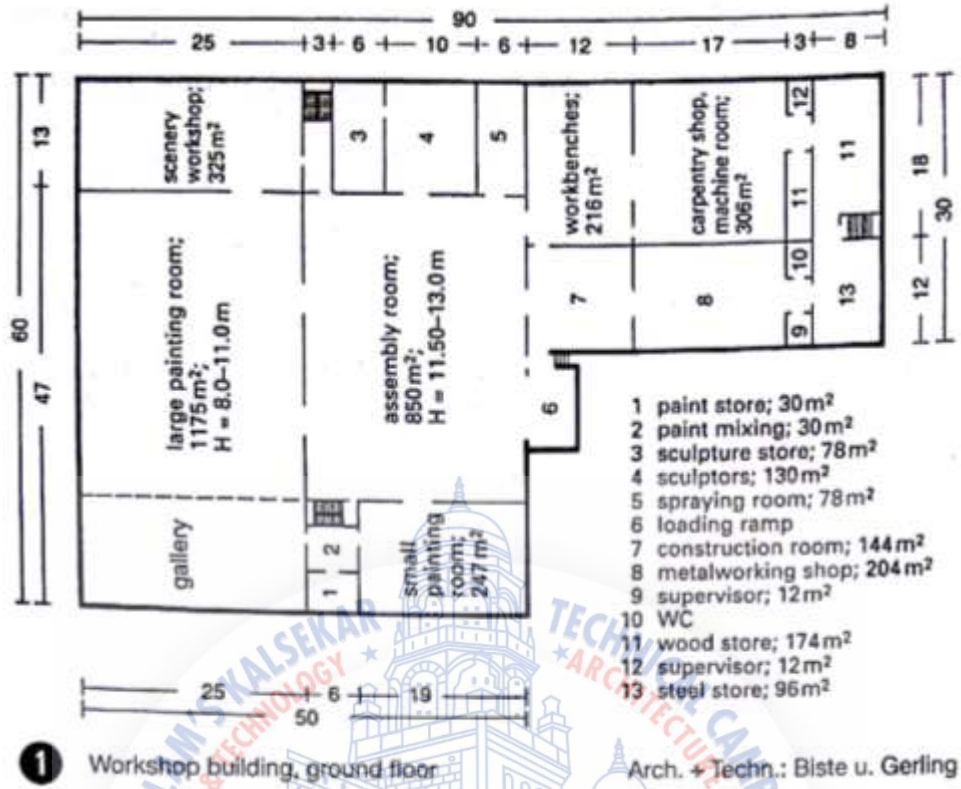


Figure 121: workshop area



Auditorium:

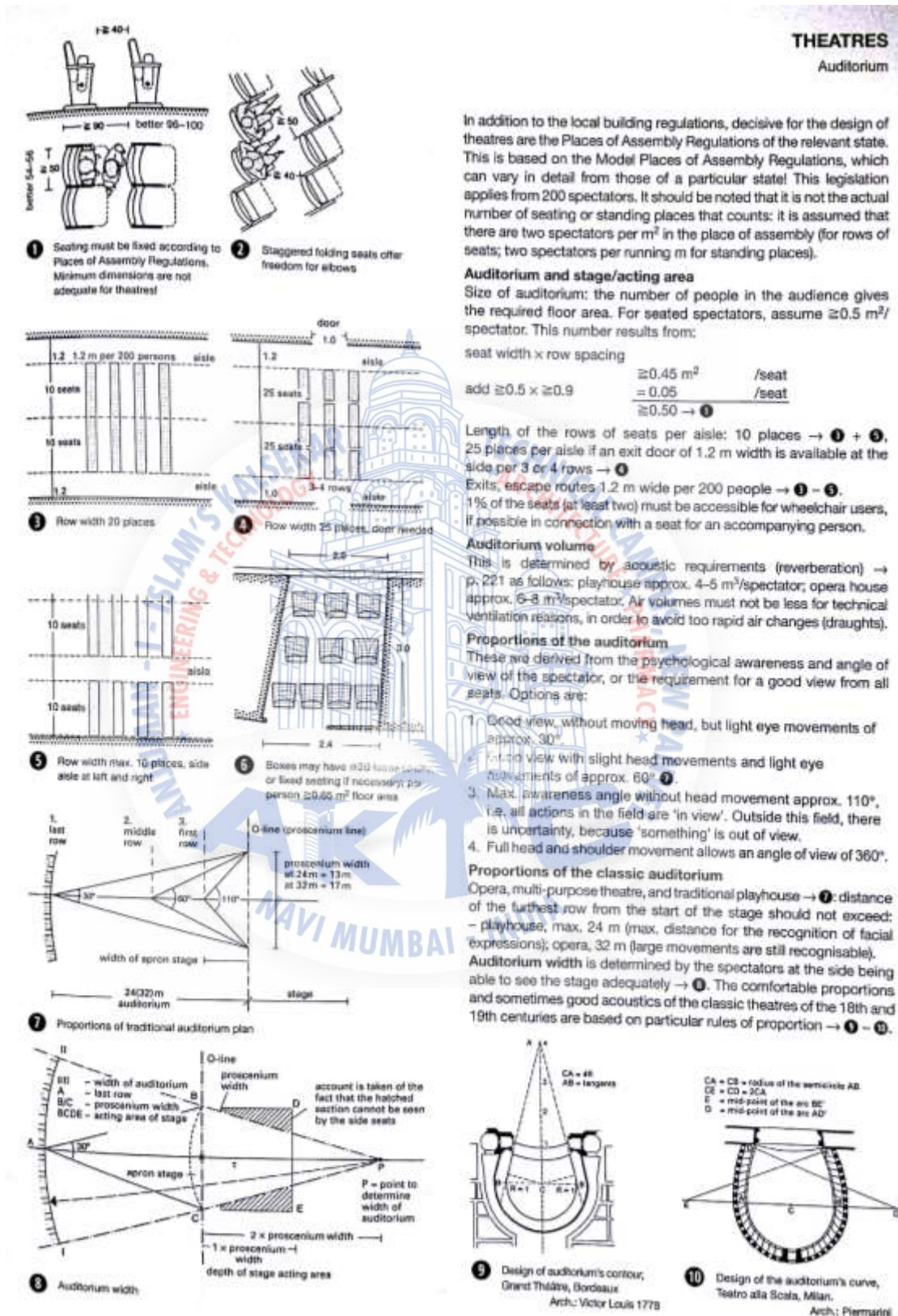
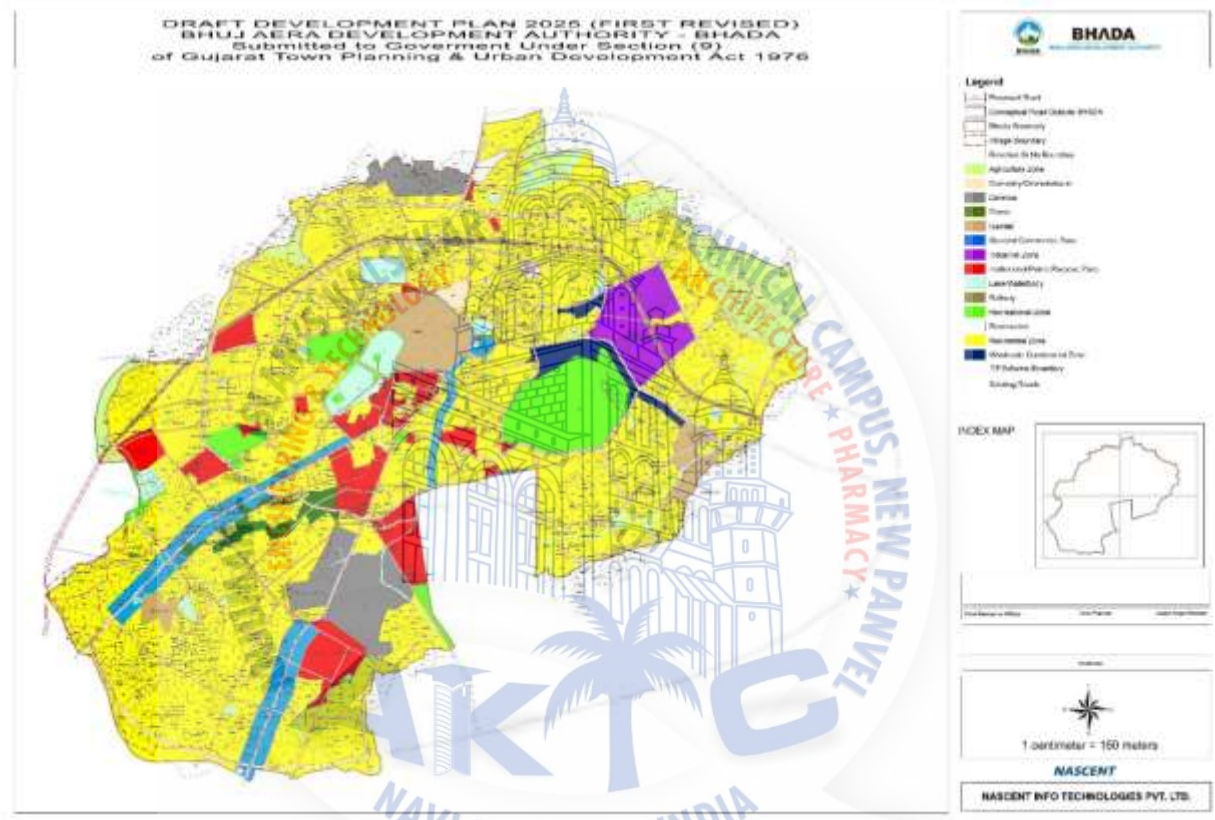


Figure 122: auditorium standards

2.4. SITE SELECTION AND JUSTIFICATION:

- Kutch is culturally very rich, it has many villages. Some of them are completely developed with all facilities, whereas some are still developing.
- Bhuj is the most developed zone of kutch, which has all facilities.
- The central portion of bhuj is under development authority, whereas after airport road, the zone is under gram panchayat.



Map 18: The development plan of bhuj and its boundaries.

- As the proposed project demands the collaboration at global level, the accessibility to the site plays an important role.
- The site is selected in bhuj, as bhuj is the developed zone of kutch.
- It has all facilities, in terms of transportation, accommodation and food facilities.
- The railway station and airport are also near this zone.
- The site has Khari nadi adjacent to it, which is the tourist spot during winters and rainy season.



Map 19: The proposed site, which has airport ring road at one side and Khari nadi on its other side.

- Distance from airport: 12 minutes.
- Distance from railway station: 23 minutes.
- As it is a collaboration centre, lot of people will be coming from different zones, hence airport and railway station plays an important role.



Map 20: The accessibility of the airport from the site.

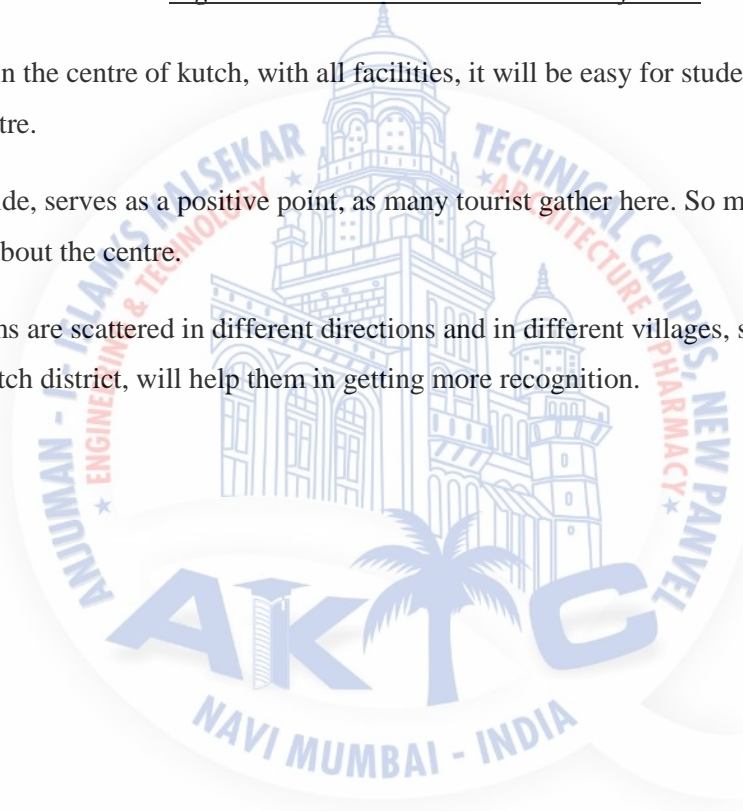


Figure 123 and 124: The Khari nadi of kutch

As bhuj being in the centre of kutch, with all facilities, it will be easy for students, visitors and artisans to come to the centre.

Khari nadi on side, serves as a positive point, as many tourist gather here. So more and more people will come to know about the centre.

All the arts forms are scattered in different directions and in different villages, so bringing them in the centre of the kutch district, will help them in getting more recognition.



3.0. DESIGN BRIEF:

Art and craft are the spine of kutch, Gujarat. It serves as the revenue generation for the district and provides livelihood to the artisans. As seen in kutch, these artisans practice their art and craft within their houses. There are few organizations which are working towards the upliftment of these artisans and to widespread these art and crafts.

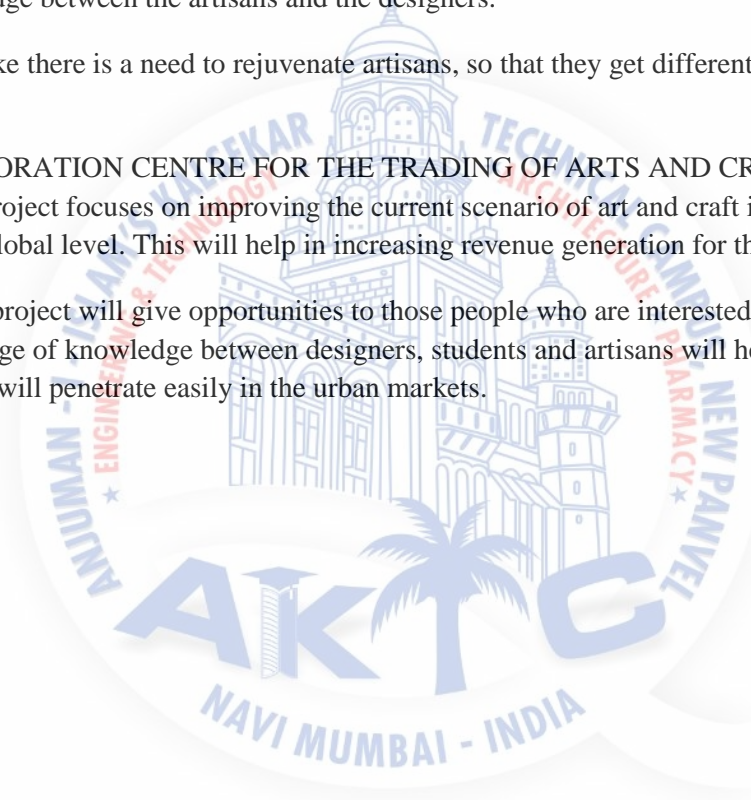
Penetrating urban markets, creating new designs based on the demands and to revive the extinct art and crafts of kutch, these artisans needs to step out of their houses and should work towards the upliftment of their community.

Art and craft center do not necessarily need to cater just particular zone or district, it can also act as a connecting bridge between the artisans and the designers.

After earthquake there is a need to rejuvenate artisans, so that they get different viewpoints towards their own skills.

The COLLABORATION CENTRE FOR THE TRADING OF ARTS AND CRAFT proposed in kutch, Gujarat. The project focuses on improving the current scenario of art and craft in kutch and to widespread their skills at global level. This will help in increasing revenue generation for the district.

The proposed project will give opportunities to those people who are interested in learning such art forms, and the exchange of knowledge between designers, students and artisans will help in creating unique designs which will penetrate easily in the urban markets.



3.1. TENTATIVE ARCHITECTURAL SPACE PROGRAM:

SR.NO	SPACE	SUBSPACE	NO.OF SUBSPACE	NO.OF USERS	MIN AREA (SQM)	QUALITY OF SPACE	TYPE OF SPACE	CHARACTER OF SPACE
1	ENTRY	WAITING CARRY	2	2	2.5	NATURAL VENTILATION	PRIVATE	CLOSED
2	ADMINISTRATION	RECEPTION	1	2	10	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		WAITING AREA	1	10	30	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		BACK OFFICE	1	10	40	NATURAL VENTILATION	PRIVATE	CLOSED
		MANAGERS CABIN	1	1	30	NATURAL VENTILATION	PRIVATE	CLOSED
		TOILET	1	AS PER REQUIREMENT		NATURAL VENTILATION	PRIVATE	CLOSED
		PANTRY	1		5	NATURAL VENTILATION	PRIVATE	CLOSED
		SERVER ROOM	1		5	NATURAL VENTILATION	PRIVATE	CLOSED
		CONFERENCE ROOM	1	10	30	AIR CONDITIONED	PRIVATE	CLOSED
3	TOILETS	MALES	4	AS PER REQUIREMENT		NATURAL VENTILATION	PUBLIC	CLOSED
		FEMALES	4	AS PER REQUIREMENT		NATURAL VENTILATION	PUBLIC	CLOSED
		JANITORS ROOM	2		15	NATURAL VENTILATION	PRIVATE	CLOSED
4	SOUVENIR SHOP	STORE ROOM	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
		DISPLAY AREA	1		40	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		CASH COUNTER	1		10	NATURAL VENTILATION	PUBLIC	CLOSED
5	EXHIBITION AREA	OPEN EXHIBITION	1		80	NATURAL VENTILATION	PUBLIC	OPEN
		SEMI-OPEN EXHIBITION	1		80	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		CLOSE EXHIBITION AREA	1		80	NATURAL VENTILATION	PUBLIC	CLOSED
		LOBBY	1		15	NATURAL VENTILATION	PUBLIC	CLOSED
		SHOPS	6		30	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		TOILETS	1	AS PER REQUIREMENT		NATURAL VENTILATION	PUBLIC	CLOSED
		HELP DESK	1		5	NATURAL VENTILATION	PUBLIC	SEMI OPEN
6	WORKSHOPS/ARTISANS-STUDIANTS	RECEPTION	1		10	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		WAITING AREA	1	10	30	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		WORKING AREA	1	100	100	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		TOILETS	1	AS PER REQUIREMENT		NATURAL VENTILATION	PUBLIC	CLOSED
		DISPLAY AREA	1		40	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		DYEING AREA	1		20	NATURAL VENTILATION	PUBLIC	OPEN
		CHANGING ROOM	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
		STORE ROOM	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
7	OPEN AIR AMPHITHEATRE	ORCHESTRAS	1		10	NATURAL VENTILATION	SEMI PUBLIC	CLOSED
		TOILETS	1	AS PER REQUIREMENT		NATURAL VENTILATION	PUBLIC	CLOSED
		BAR	1	5	5	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		TICKET BOOKING	1		15	NATURAL VENTILATION	PUBLIC	CLOSED
		CONCIERGE	1		10	NATURAL VENTILATION	PRIVATE	CLOSED
		SERVER ROOM	1		5	NATURAL VENTILATION	PRIVATE	CLOSED
8	AUDITORIUM	CHANGING ROOM	1		5	NATURAL VENTILATION	PRIVATE	CLOSED
		TOILETS	1	AS PER REQUIREMENT		NATURAL VENTILATION	PUBLIC	CLOSED
		PROJECTOR ROOM	1		10	AIR CONDITIONED	PRIVATE	CLOSED
		SERVER ROOM	1		5	NATURAL VENTILATION	PRIVATE	CLOSED
9	FOOD COURT	FOOD STALLS	6		100	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		CAFE	1		100	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		RESTAURANTS	1		100	0 AIR CONDITIONED	PUBLIC	CLOSED
		TOILETS	1	AS PER REQUIREMENT		NATURAL VENTILATION	PUBLIC	CLOSED
		KITCHEN	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
		STORE ROOM	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
		SERVER ROOM	1		10	NATURAL VENTILATION	PRIVATE	CLOSED
		WAITING AREA	1	10	30	NATURAL VENTILATION	PUBLIC	SEMI OPEN
10	RESIDENTIAL UNITS FOR ARTISANS	ROOMS	20	1	10	NATURAL VENTILATION	SEMI PUBLIC	CLOSED
		TOILETS	2	2	5	NATURAL VENTILATION	SEMI PUBLIC	CLOSED
		PANTRY	2	2	5	NATURAL VENTILATION	SEMI PUBLIC	CLOSED
		WORKING AREA	2	2	10	NATURAL VENTILATION	SEMI PUBLIC	SEMI OPEN
		STORE ROOM	1		20	NATURAL VENTILATION	SEMI PUBLIC	CLOSED
11	TRADING UNIT	RECEPTION	1	3	10	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		PACKAGING UNIT	1	10	40	NATURAL VENTILATION	PRIVATE	CLOSED
		COMPUTER ROOM	1	10	40	AIR CONDITIONED	PRIVATE	CLOSED
		CONFERENCE ROOM	1	10	30	AIR CONDITIONED	PRIVATE	CLOSED
12	COLLABORATION CELLS(ARTISANS+DESIGNER OR ARTISANS+ARTISANS)	SERVER ROOM	1		5	NATURAL VENTILATION	PRIVATE	CLOSED
		DISPLAY AREA	1		40	NATURAL VENTILATION	SEMI PUBLIC	SEMI OPEN
		WORKING AREA	1		10	NATURAL VENTILATION	SEMI PUBLIC	SEMI OPEN
		PROJECTOR ROOM	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
		CONFERENCE ROOM	1		30	NATURAL VENTILATION	SEMI PUBLIC	CLOSED
13	MULTIPURPOSE HALL	WAITING AREA	1	10	30	NATURAL VENTILATION	PUBLIC	SEMI OPEN
		BAR	1		5	NATURAL VENTILATION	PUBLIC	SEMI OPEN
14	RESIDENTIAL UNITS FOR VISITORS	STORAGE	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
		TOILETS	1	AS PER REQUIREMENT		NATURAL VENTILATION	PRIVATE	CLOSED
		RECEPTION	1	3	10	NATURAL VENTILATION	PUBLIC	SEMI OPEN
15	TEMPORARY EXHIBITION	STORAGE	1		20	NATURAL VENTILATION	PRIVATE	CLOSED
		DISPLAY AREA	1		40	NATURAL VENTILATION	PUBLIC	SEMI OPEN
16	GENERAL MEETING AREA	MEETINGS	1		10	NATURAL VENTILATION	SEMI PUBLIC	SEMI OPEN
		TOILETS	1	AS PER REQUIREMENT		NATURAL VENTILATION	SEMI PUBLIC	CLOSED
17	PARKING	TWO WHEELERS	AS PER DESIGN	AS PER REQUIREMENT			PUBLIC	SEMI OPEN
		FOUR WHEELERS	AS PER DESIGN	AS PER REQUIREMENT			PUBLIC	SEMI OPEN
18	AUTO STAND	DROP OFF POINT	1	AS PER REQUIREMENT			PUBLIC	SEMI OPEN
		SEATING	1		10		PUBLIC	SEMI OPEN

Table 2: Tentative architectural space program

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