چو عضوی به درد آورد روزگار
دگر عضوها را نماند قرار
گلستان سعدی

Human beings are members of a whole, In the creation of one essence and soul. If one member is afflicted with pain, Other members uneasy will remain.

Golestan Saadi

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M A+U
FOURTH-YEAR
2022-2023

PROBLEM STATEMENT

In recent years, drought and climate change have destroyed agriculture and animal husbandry, resulting in poverty and unemployment in Sistan and Baluchistan. For this reason and to make a living, many men have turned to fake jobs, mainly fuel smuggling to neighbouring countries. On the other hand, cultural norms and patriarchal culture have multiplied the pressure of life, especially for women, to the extent that this province has the highest number of underage marriages, the most significant factor of which is economic poverty. On the other hand, handicrafts in these areas are several thousand years old and are usually done by women. Still, they are usually forced to sell their products at low prices to Iranian and foreign brokers due to not being allowed to work outside the home and the lack of work facilities near their place of residence in the village. Due to the lack of infrastructural facilities and widespread poverty, many women do not have the chance to present their work directly and have always needed external support for this.

HYPOTHESIS

Establishing inclusive space for women in disadvantaged rural areas of Sistan and Baluchistan empowers them financially and socially by producing and selling traditional crafts. By Involving the local community and utilising local construction methods and materials, these spaces improve the cultural and economic landscape. They also promote social cohesion and sustainability while preserving traditions and enhancing community resilience.

THESIS

In disadvantaged rural areas, many women face the harsh reality of being denied education and employment opportunities and coerced into early and unwanted marriages. This unfortunate situation predominantly arises from the dire economic circumstances within their families. However, many rural women and girls possess valuable skills in traditional handicrafts, albeit limited to personal use due to a lack of proper workspaces, restrictions on travelling to larger cities for employment, and the absence of platforms for direct product sales and lack of training. By establishing placemaking strategies and dedicated spaces where women can produce and sell their traditional crafts, they can attain financial independence and social empowerment.

To ensure the success of such initiatives, involving the local community in decision-making, construction, and administration is crucial. This inclusive approach fosters ownership, encouraging women's participation in the workforce. By improving the cultural and economic landscape, these spaces can prevent community disintegration and rural-urban migration.

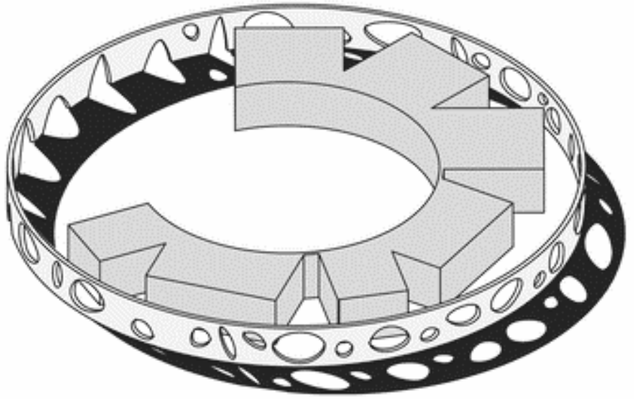
The goal is to create architecturally inclusive spaces that blur gender boundaries, allowing for social interaction and utilising local construction technologies and materials. This empowers villagers to construct, maintain, and expand the areas independently, ensuring sustainability. By incorporating sustainable design principles, these spaces preserve traditions, strengthen community resilience, and empower women economically and socially.

1. BOUNDRY

Architecture is often associated with establishing boundaries, which is a crucial consideration. However, an excessive focus on edges can create a disconnect between the built environment and its natural and contextual surroundings. Creating architectural spaces seamlessly blending with their surroundings can make the boundaries less distinct. This blurring of boundaries extends to social and cultural relationships as well. In patriarchal societies, limitations often serve to restrict and control women. Challenging and blurring these boundaries can strengthen social integration, improving women's social standing.

2. PLACEMAKING

Placemaking in design is a transformative approach that focuses on creating vibrant and meaningful spaces that enhance people's quality of life. It goes beyond functionality and aesthetics, considering a place's social, cultural, and environmental aspects. Through community engagement, collaboration, and a deep understanding of local needs and aspirations, placemaking seeks to foster a sense of identity, belonging, and connection within the built environment. By incorporating elements that encourage social interaction, activate public spaces, and celebrate local culture, placemaking design transforms ordinary places into vibrant and inclusive destinations that reflect the community's unique character.



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ESSAY

ABSTRACT

Sistan and Baluchistan, situated in the southeast of Iran, is the country's second-largest city with a relatively small population. The region has been significantly impacted by climate change in recent years. Prolonged droughts and inadequate management have led to substantial losses in agriculture and animal husbandry, increasing unemployment and poverty rates. Furthermore, the city's proximity to Afghanistan and Pakistan, both unstable countries, has forced residents to resort to risky and illicit activities like smuggling to make a living. The intertwined issues of poverty and religious culture have also directly impacted human relationships, particularly evident in the prevalence of unwanted and early marriages, especially among young girls.
This essay explores the factors contributing to the current situation and proposes a comprehensive architectural solution. Its primary focus is empowering rural women in the province through a place-making initiative. The research draws upon diverse sources such as Google Maps, YouTube documentaries, interviews, literature, and data analysis to investigate the socioeconomic conditions and identify the challenges faced by women in the region. This graduation project endeavours to improve women's economic status while preserving their cultural heritage by establishing a platform for showcasing and selling their traditional handicrafts. The architectural design principles underscore the importance of zero-budget vernacular architecture, community participation, and social interaction.
Ultimately, the goal is to create a sustainable architectural model that can be replicated in similar settings, thereby bringing about positive change in other communities grappling with similar challenges.

Introduction

About two years ago, I had the opportunity to meet a group of young volunteers in Iran who were actively involved in construction projects in marginalised areas. Initially, I was introduced to them through a friend, and together we collaborated to raise funds for purchasing a water tanker to address the drinking water shortage in a village. However, this introduction began a transformative journey, exposing me to the harsh realities of a part of our country that was unfamiliar to me. Most of their work was concentrated in the south-eastern region of Iran, Sistan and Baluchistan. Not only is this province one of the largest in the country, but it is also among the most deprived[1].

As I became more acquainted with the region, I was struck by the pervasive poverty and aridity of the area. Further exploration revealed that the challenges faced by the community ran far deeper than what initially met the eye. Necessities such as toilets, access to clean drinking water, schools, and even food needed to be improved in some parts of the province. The adverse climatic conditions further exacerbated these hardships. On the other hand, in such marginalised regions, women are the most vulnerable group; cultural norms and traditional practices create barriers for women and girls, restricting their opportunities and preventing them from engaging in productive work.

As an architect, I began questioning how I could use my profession to make a meaningful impact and improve the lives of these individuals. This prompted the initial sparks of my graduation project, driven by a desire to create lasting and sustainable change for the community through women. Capable and aware women undergo significant societal changes as they serve as educators for future generations. Their knowledge, skills, and awareness shape individuals' values, beliefs, and behaviours, ultimately influencing a society's overall development and progress.

PROBLEM STATEMENT

Drought in Sistan and Baluchistan region is expanding, causing severe economic pressures. Agriculture, once the primary source of income, is no longer reliable due to reduced water resources. Consequently, many individuals turn to illicit activities, primarily fuel smuggling to neighbouring countries. This illegal occupation directly impacts the region's people, resulting in annual casualties and increased hardships for women and children. The growing rural population in recent years, with around 67% under 30 years old population, emphasises the need for job opportunities. The primary obstacle to women's economic participation in Sistan and Baluchistan is the lack of education for girls. However, as my research progressed, I realised that addressing their financial well-being is even more crucial. The high unemployment rate of more than 51% of women is concerning. Education alone may not be sufficient to bring about significant change in their current circumstances without substantially improving their financial situation. The region's challenging economic conditions and limited financial resources and infrastructure pose significant barriers for women to engage in economic activities actively[2].

Despite possessing diverse traditional handicraft skills passed down through generations, most women in the region primarily engage in these crafts for personal use and struggle to generate income from their talents. This issue is further compounded by the need for a platform to sell or promote their products. While recent initiatives have been aimed at supporting these women in accessing markets, they still need to provide a dedicated permanent space for them to work and showcase their work. Traditionally, women engage in handicraft activities within the confines of their homes or in front of their houses while interacting with neighbours. Apart from schools for girls, no other social spaces are available for women in the villages. The existing communal areas, such as mosques, local cafes, and convenience stores, are predominantly occupied by men, leaving women with few opportunities for social interaction. This lack of social spaces compounds women's challenges in the region, extending beyond the working area to encompass the need for a supportive environment to interact and socialise.

The absence of dedicated spaces for women to gather, share experiences, and engage in social activities further isolates them from the broader community. Women in these villages lack a platform for exchanging ideas, seeking support, and fostering a sense of belonging. The limited social interactions restrict their ability to build networks, access information, and benefit from collective experiences.

Additionally, the challenging circumstances of most of the province, limited transportation options, and security concerns restrict women from venturing into more prominent cities in search of employment opportunities. The absence of a suitable working environment and limited market access significantly impede women's ability to fully utilise their skills and generate income from their handicrafts.

HYPOTHESES

Establishing inclusive space for women in disadvantaged rural areas of sistan and baluchistan empowers them financially and socially by producing and selling traditional crafts. By Involving the local community and utilising local construction methods and materials, these spaces improve the cultural and economic landscape. They also promote social cohesion and sustainability while preserving traditions and enhancing community resilience.

1. https://www.instagram.com/s.slvt

2. The country's statistical yearbook 1395

RESEARCH QUESTION

Which architectural spatial design can effectively address and improve the contextual challenges and issues faced by women in rural areas?

SUB-QUESTIONS

-How can dedicated spaces for women facilitate social interactions, networking, and information sharing?
-What are the potential cultural and economic benefits of involving the local community and utilising local construction methods and materials in establishing these spaces?
-What strategies can ensure these spaces' long-term sustainability and resilience?

How can the establishment of dedicated spaces for women enhance socio-economic conditions?

Establishing a network for rural women is crucial to address the isolation they often experience and foster meaningful social and economic interaction. These networks provide a platform for women to interact, share information, and support each other. By connecting women who have learned handicrafts from childhood, these networks transform their skills into valuable financial resources that benefit their families.
The primary objective of these networks is to create a physical space where women can work, sell their crafts, and engage in collaborative economic planning. By sharing their experiences, expertise, and opinions, women can collectively progress towards earning income and achieving financial independence. The place becomes support, empowering women to overcome challenges and thrive in their chosen fields within a group.
These also play a vital role in preserving traditional arts and crafts. As more women join the network, there is an increased visibility of regional artistic traditions. By showcasing their crafts to a broader audience, these women contribute to the cultural heritage of their communities. The place also serves as a model that can be replicated in other villages, fostering the establishment of similar communication networks.
Networking within these networks provides several benefits. Women can exchange valuable information, market insights, and business opportunities. They can allocate resources effectively and optimise their financial potential through collective economic planning. The networks create a sense of camaraderie, where women support and encourage each other in their entrepreneurial endeavours.
Implementing this model requires physical spaces for work and sales, access to training programs, and marketing support. Additionally, leveraging technology, such as digital platforms and social media, expands the network's reach, facilitating communication and collaboration among women from different geographical areas.

What are the potential cultural and economic benefits of involving the local community and utilising local construction methods and available materials in establishing the centre?

The lack of government support and financial resources poses a significant challenge to initiating new projects in these areas. Therefore, the introduced project must grow organically, utilising available resources and expanding gradually. Itak Village, the central hub for several villages, faces widespread poverty and lacks public social spaces. Any sustainable development project must have a multi-dimensional vision that caters to the needs of women and includes the requirements of other societal groups. Achieving this necessitates cooperation and participation from the village residents in the complex's decision-making, construction, maintenance, and development stages.

The project must leverage local resources and expertise to ensure self-sufficiency and economic viability. By utilising materials available in the area and harnessing the skills of the community members, the project can expand and sustain itself without outsourcing (zero budget). This approach aligns with the economic conditions of the project area and promotes a sense of ownership and pride among the local population. Involving the community in various aspects of the project, such as decision-making and construction, fosters a sense of empowerment and ensures that the project meets the actual needs of the residents. This participatory approach also strengthens social cohesion and builds a shared commitment towards the project's success.
Moreover, incorporating the needs of different societal groups beyond women ensures that the project has a broader impact and benefits the community. It promotes inclusivity and creates a space hub for various activities and interactions(place-making).
"They propose participatory approaches that engage residents in decision-making, empowering them to shape their built environments and contribute to community resilience" [3]

What strategies can ensure these spaces' long-term sustainability and resilience?

Commencing a project in economically disadvantaged areas involves navigating various factors that amplify investment risks. Given the limited capacity of these areas to handle substantial risks independently, selecting an appropriate strategy becomes crucial for securing financial resources. There are multiple methods available, each with its unique characteristics.
The first approach entails seeking assistance from the public sector. This strategy is often known as government-led or top-down development. In this approach, local communities rely on the government to plan, finance, and implement the construction of facilities and infrastructure needed by the community. This development can be subject to bureaucratic processes and administrative delays, which may slow project implementation. While government-led development can provide access to resources, expertise, and accountability, it may limit community participation, flexibility, and responsiveness to local needs. However, the region's conditions indicate a lack of such support and strategy.
Crowd financing, or crowdfunding, gathers small contributions from many individuals online to fund a project. It provides access to diverse funding sources, validates the market, engages the community, and boosts exposure. However, reaching funding goals can be uncertain and demands substantial time and effort. Fulfilling commitments to backers and competing in a crowded marketplace are additional challenges. Project creators should carefully weigh these factors before opting for crowd financing, especially in regions with limited budgets and widespread poverty. This method is best suited for projects with specific budgets and timelines aimed at addressing the identified needs of the area efficiently.
To is often called community-driven or participatory development. In this approach, local people actively participate in planning, designing, constructing, and managing their own social spaces or infrastructure using existing resources and without relying on external funding. This strategy emphasises community empowerment, self-reliance, and utilising local knowledge, skills, and materials to meet the community's needs. This strategy's name or term may vary depending on the context or region. It is often associated with participatory development, community-led initiatives, self-help projects, or grassroots development. The essence of the strategy remains the same: empowering local communities to take charge of their development by utilising their resources and skills to create social spaces that benefit the community as a whole. While community-driven development offers numerous advantages in empowerment, local knowledge, and cost-effectiveness, it also requires careful consideration of capacity-building, inclusivity, and long-term sustainability to address potential disadvantages and maximise positive outcomes. On the other hand, since the cultural norms and patriarchy in Sistan and Baluchistan and barriers often set by men for women, this could create a sense of belonging and ownership, which loosened those barriers for women[4].

3. Angelika Fitz, Elke Krasny.(2019) Critical care, architecture and Urbanism for a broken planet
4.https://www.mehrnews.com/news/4728461 , https://www.asrehamoon.ir/news/143585

Conclusion

Considering the conditions, the chosen strategy is community-driven for the project design. The project will be implemented in three phases, offering advantages such as resource optimisation, community engagement, capacity building, adaptability, risk management, and impact demonstration. This approach ensures that projects are tailored to local contexts, responsive to community needs, and sustainable.
The first phase will start with fewer users and square meters, with a dedicated space for the market and product sales, which can serve as a supplier for the next phase. The buildings in all phases will be human-scaled and operate independently, allowing for integration, expansion, and changes in usage in the future.
To foster social interaction between the women's centre and critical landmarks in the village, the mosque and school, a vibrant marketplace will be introduced as a connector and the core of the complex for collective activities day and night. This design aims to create a dynamic space that promotes community interaction and serves as a focal point for the project.
The subsequent phase offers expanded opportunities, including larger workshops, enhanced training programs, and improved resource access. Additionally, it introduces various socialising spots, fostering greater interaction and community engagement only for women. Implementing the project in phases and incorporating community-driven elements becomes a collaborative effort that maximises resources, engages the community, and ensures long-term sustainability and positive impact.

RESEARCH

METHODOLOGY

Due to the current limitations on travel and site visits in Iran, digital tools such as Google Maps, YouTube documentaries, and Google Earth were utilized to gather information for the study. Desk research involved reviewing literature, articles, and research papers, with additional efforts made to verify and ensure the accuracy of Persian-language sources obtained from government organisations within the country. This phase required extensive comparisons and searches to establish citation credibility. In parallel, two interviews were conducted with a few people with different roles in the area to gain first-hand insights into the challenges and potential of the area. Various maps were also created by overlaying and analysing climate, literacy, population, income, and other relevant data, contributing to the development of the design strategy.

Keywords : Baluchistan, Women, Climate change, living condition, Poverty, Economy

RESEARCH

LARGE SCALE

ABOUT SISTAN & BALUCHISTAN

The province of Sistan & Baluchistan is situated in the South-East of Iran. With an area of 181,726 km2, it is the second-largest province in the country. From the South, the region has a coastal border with the Oman Sea, on the East with Pakistan and Afghanistan, on the North, with Southern Khorasan Province. On the West, it borders Kerman and Hormozgan provinces. Sistan and Baluchestan comprise seven main cities: Zahedan (the capital), Zabol, Khash, Saravan, Iranshahr, Nikshahr and Chabahar. Although the largest province in the country, it is relatively sparsely populated. According to the 2016 census, only 2,775,000 people live in this province, constituting 3.4% of the country's population. About 50.4% of the population lives in rural areas, with the remaining 49.6% living in the cities. In general, desert and semi-desert climatic conditions prevail in the Baluchistan region. In most towns of Baluchistan, the maximum temperature is above 40 degrees Centigrade.

IRAN

SISTAN &BALUCHISTAN

SARBAZ

Miniature Mountains, which are situated near Chabahar*(Tehran Times 2019)*

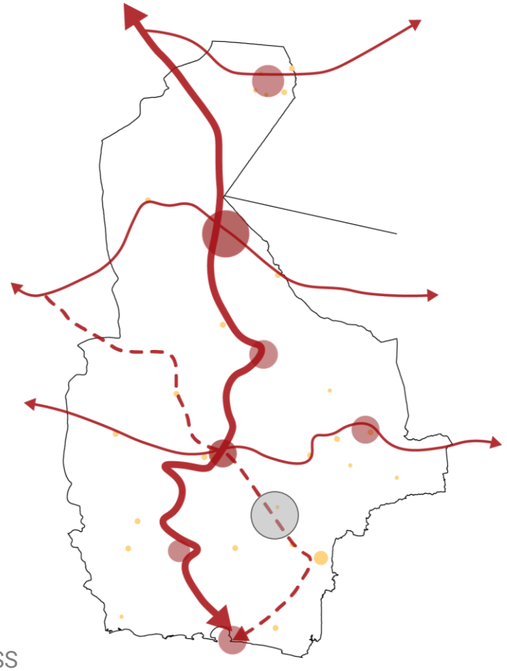
A view of the centuries-old Seb castle in Sistan-Baluchestan province (Tehran Times 2020)

Darak Beach *in Sistan-Baluchestan province (Tehran Times 2020)*

Palm grove in Sistan-Baluchestan province (Khabar online 2014)

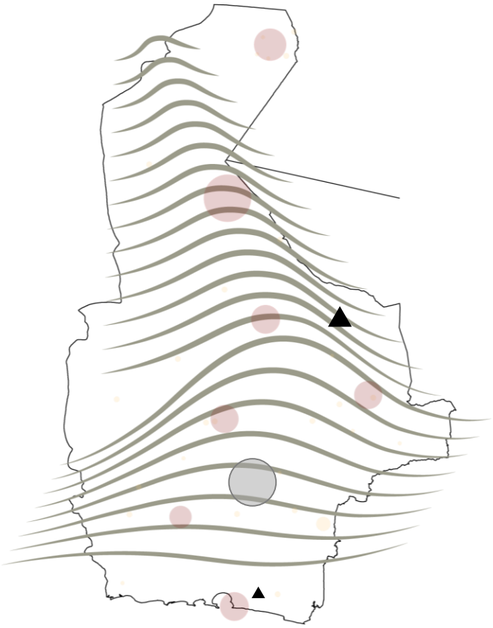
RESEARCH

LARGE SCALE



MAIN ACCESS

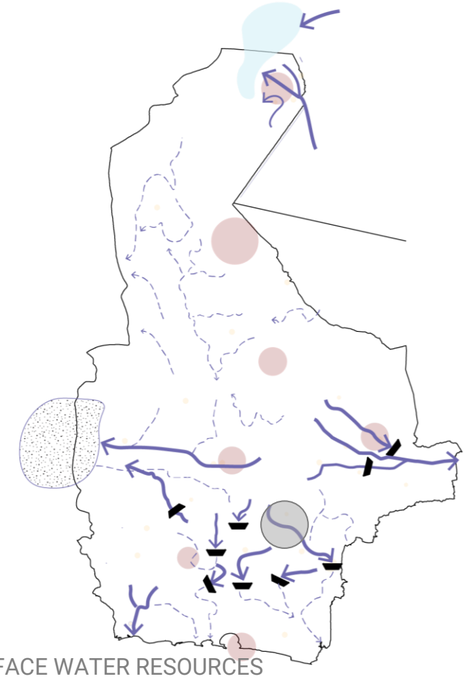
One main road connects the northern part of the province to the south, which goes through the Iranshahr; this city is in the centre. This is an important trading route to the coast of the Oman sea in the south. Three other main roads connect west to east in the area's north, central and southern parts, which also trade routes to Afghanistan and Pakistan. The southeast also goes through the Iranshahr, the most critical west-east connection.



MOUNTAINS

These mountains are compact folds with north and south directions that lead to the Lut desert from the west and to the Sistan plain from the east. The Leopard mountain overlooking the Sistan plain is one of the essential elevations of this area.

Baluchistan Mountains: these mountains spread south of the Sistan Mountains between Chale Lut and Jazmurian, Mashkel desert and Oman Sea coasts. The highest mountain in Balochistan is Taftan where the Taftan volcano is located. its height is 4034 meters above sea level.

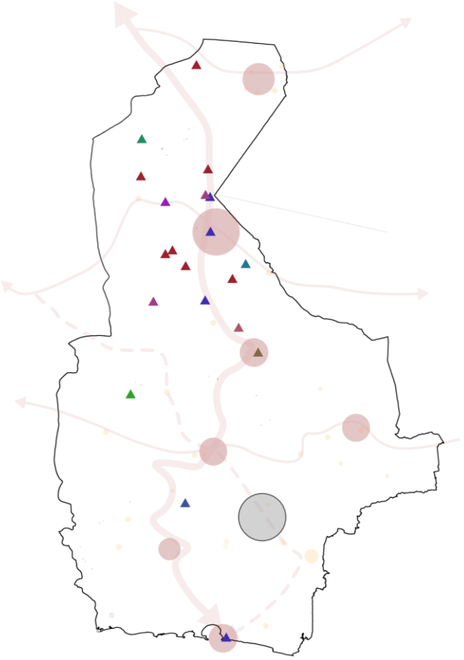


MAIN SURFACE WATER RESOURCES

Jazmurian is located between Kerman and Sistan and Baluchistan, and it receives water from the Halil Rood River from the Kerman and the Bampur river Sistan and Baluchistan. The dams in Kerman province, Sistan and Baluchistan have yet to allocate water rights to this wetland.
Wide parts of the wetland have dried up, and the central and deeper parts have become an area full of mud and are drying up completely. In the past, the Hirmand River flowed in Iran and Afghanistan. But after the separation of Herat from Iran in 1857 and Afghanistan's refusal to allow the Hirmand River to flow to Iran, this issue has always been one of the critical issues between the two countries. Although later, The prime ministers of both countries signed the peace treaty between Afghanistan and Iran related to Helmand in March 1972.As a result of the dam construction in Afghanistan and the drought increment in Iran, Lake Hamon has almost dried up, bringing many environmental consequences for Sistan and Baluchistan.

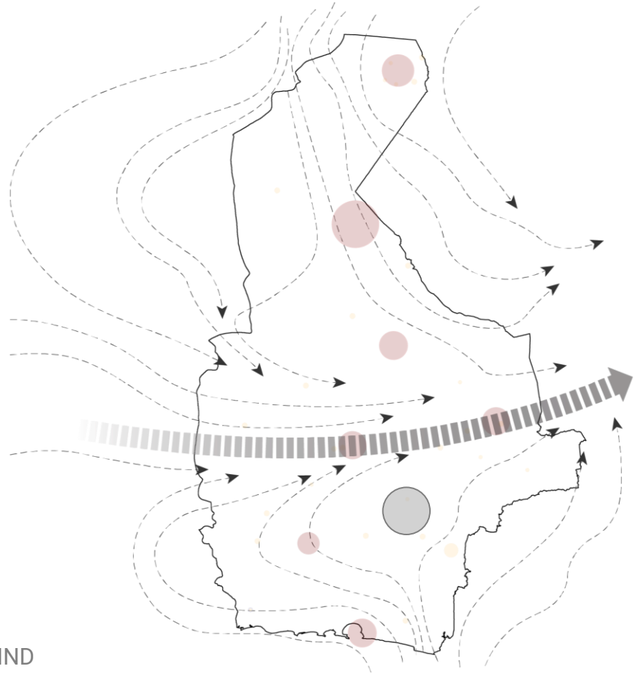
RESEARCH

LARGE SCALE



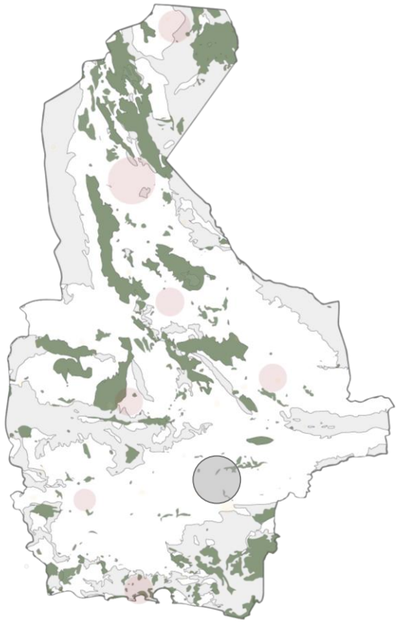
MINES

Sistan and Baluchistan is known as the "rainbow of the country's mines". Currently, 400 different mines have been identified in this province. These mines mainly include metallic and non-metallic minerals and construction materials such as chromite, iron, manganese, granite, rubble, sand, sand and clay, which contain 5% of Iran's mineral reserves.



WIND

The 120-day winds of Sistan and Baluchistan usually affect the northern and sometimes central regions from mid-May to mid-September. It used to last between 120 and 130 days in the past, but now, with droughts in the past decades, they can even last up to 180 days. According to environmental experts, drought, water cut of the Hirmand river and drying of Hamoon international wetland have increased the erosive properties of the 120-day winds of Sistan.

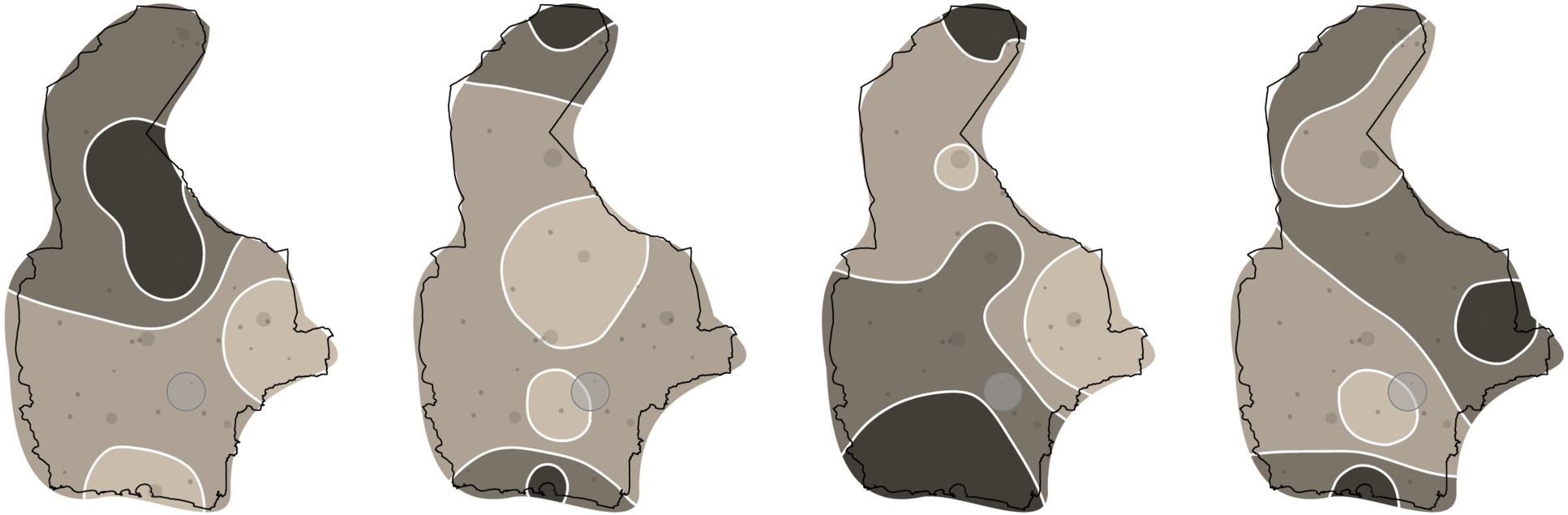


LAND TYPE

As can be seen on the map, the most significant portion of the land, about 94.47%, is poor pasture. The rest of the land respectively is desert-bad land 6.63%, wild green 2.46% and agriculture 0.41%.

RESEARCH

LARGE SCALE



2003 2005 2015 2022

OVERVIEW OF DROUGHT TREND IN THE REGION

According to the studies, the drought in Sistan and Baluchistan is among the most severe droughts. But the research results show that very severe and severe droughts will decrease and moderate and mild droughts will increase. But according to the forecasts, the drought in the project location is becoming more intense

Very sever drought
Sever drought
Moderate drought
Mild drought
Sarbaz region

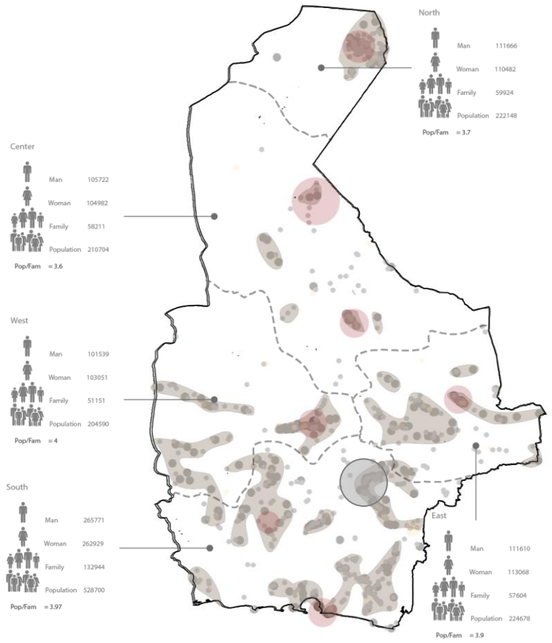
RESEARCH

LARGE SCALE

1956

1976

1996



2016

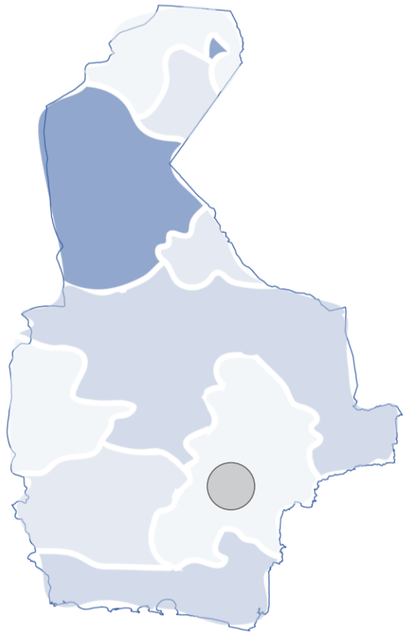
Overview of the rural areas growth

According to the data from the Land Preparation Plan Organization of Iran, the number of villages increased over the past decades. With the growth of the population, the rural population also increased. Sarbaz state has one of the most concentrated villages in the province. 89% of the population live in villages, and only 11% live in cities.

Sarbaz region

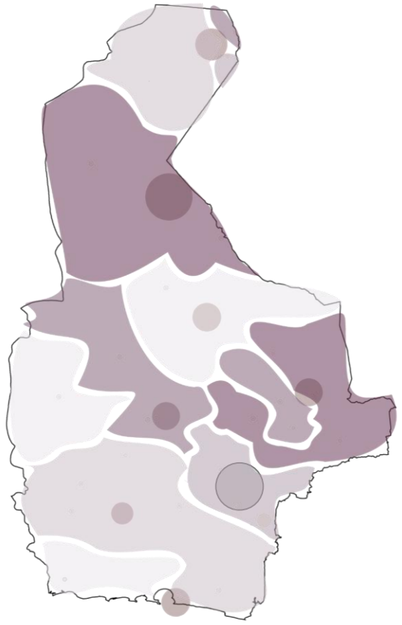
RESEARCH

LARGE SCALE



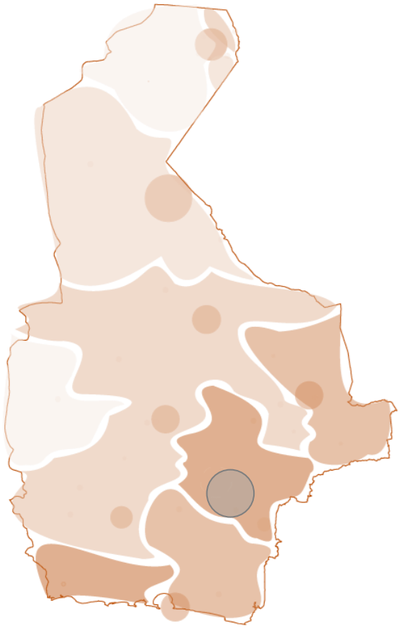
INCOME

- Highest
- High
- Average
- low
- Sarbaz region



TOTAL UNEMPLOYMENT RATE

- 23%>
- 23-29%
- 29-36%
- 36-45%
- 45%<
- Sarbaz region



WOMEN UNEMPLOYMENT RATE

- 51%<
- 49-51%
- 47-49%
- 45-47%
- 45%>
- Sarbaz region

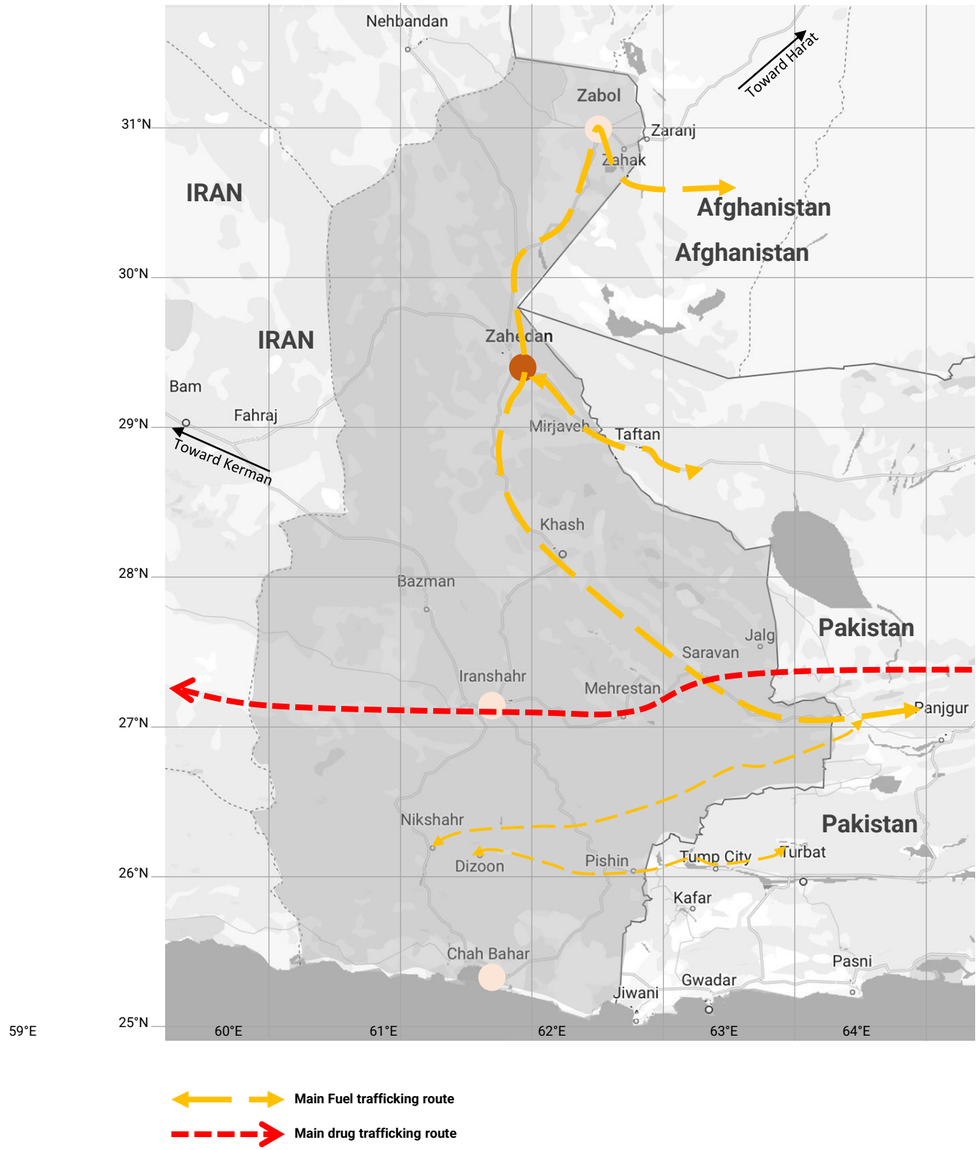
The "Bread versus Life" Dilemma

In Iran, a stark contrast exists between the price of oil products and those in neighbouring borders like Pakistan and Afghanistan. This has led to a unique phenomenon known as fuel selling or transfer, particularly prevalent in areas like Baloch. Typically, individuals, cumbersome vehicle drivers, take advantage of the price difference and transport excess fuel to regions where there is a demand for purchasing fuel outside the government-regulated system.

Despite government bans and their forceful measures to control fuel consumption, Sistan and Baluchistan's lack of suitable employment opportunities drives people to continue buying, selling, and transporting fuel. These individuals argue that they have no choice but to engage in these activities to make a living, despite the government's strict stance.

They frequently encounter horrific circumstances that result in loss of life. High-speed accidents, incidents of shooting by police, and perishing in fires caused by traffic accidents are among the various ways they meet their untimely demise. The challenges they face in their line of duty highlight the risks they willingly undertake to protect others, even at the cost of their own lives.

No official statistics exist on fuel trafficking deaths, but it is reported that at least one person dies daily due to involvement in fuel trafficking.

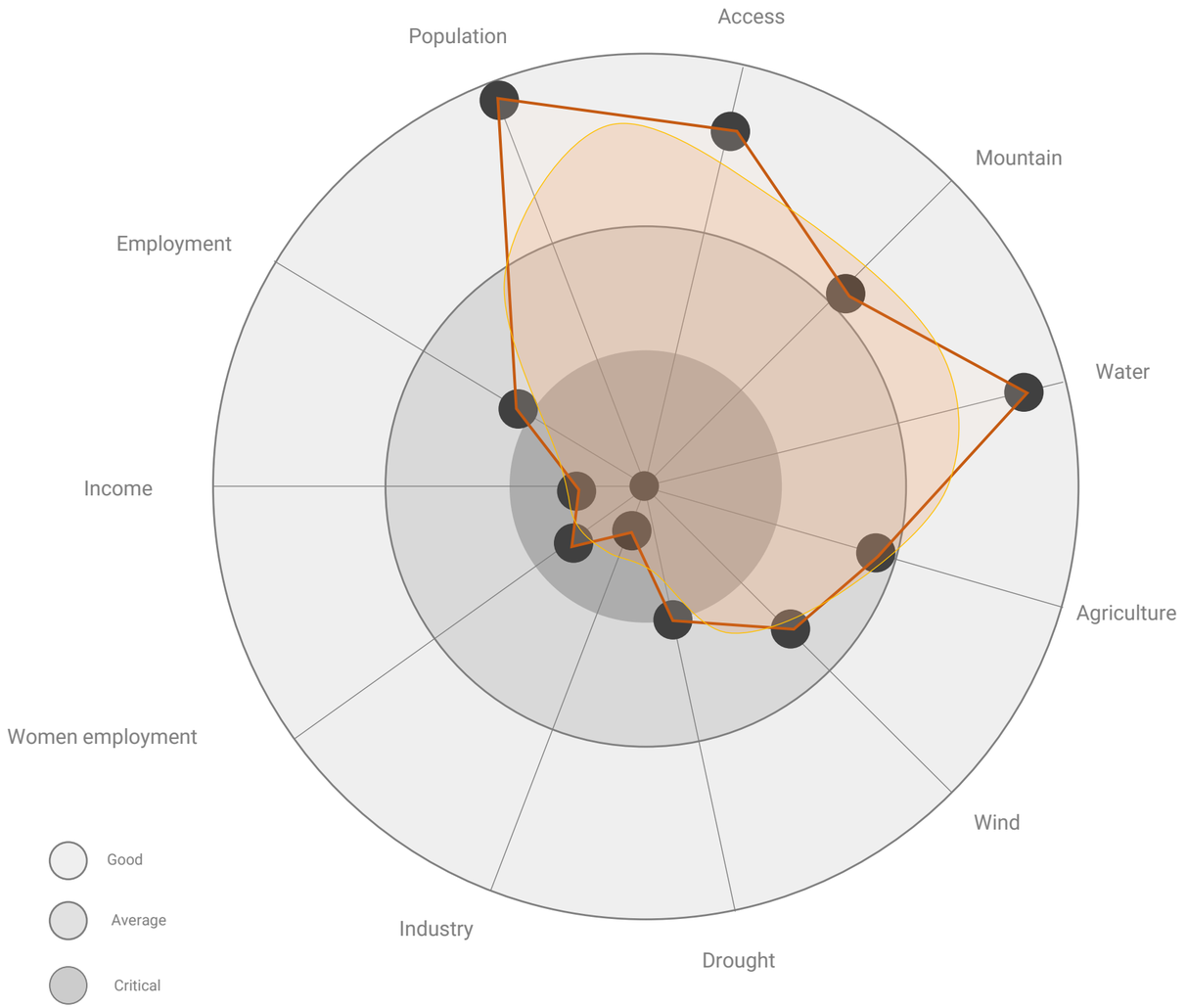


RESEARCH

LARGE SCALE

DATA ANALYSIS

The region's geographical, climatic and demographic data were collected, compared, and rated using the mapping method based on three conditions, good, average and critical in the selected area and related to the bigger context. As is evident in the graph, Unemployment, drought, and poverty are the biggest challenges of the chosen region. In contrast, the amount of rural population access to water (compared to the larger context), accessibility and agriculture are the potentials of the Sarbaz area.



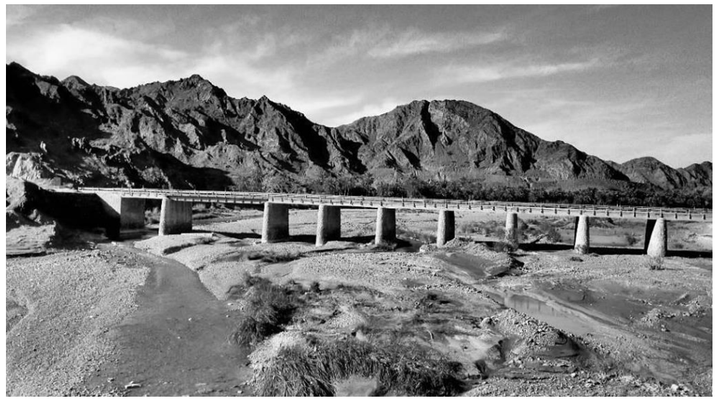
RESEARCH

CONTEXT: MEDIUM SCALE- SARBAZ CITY

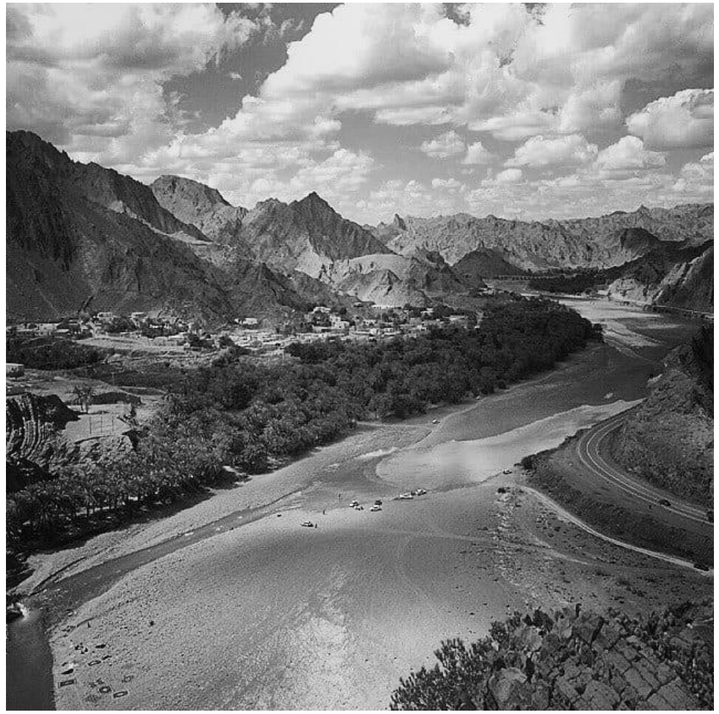
SARBAZ AREA

Sarbaz is located in the southeast of Sistan and Baluchistan province, with the centre of Sarbaz city. This city is bounded by Mehrestan and Iranshahr cities from the north, Ashar district from the east, Rask city from the south, and Qasrqand city from the west, which has an area of 6335 square kilometres. This city consists of 444 villages with more than 191,000 people, of which 200 live in urban areas and 88,980 live in rural areas. Sarbaz city is one of the oldest areas of Balochistan. The climate in the region has caused a variety of fruits, and the presence of a valley and a river of 313 km is the habitat of Iranian short-nosed crocodiles. It has a hot and humid climate; the air temperature rarely reaches zero degrees in winter, and in summer, the maximum temperature reaches 45 degrees.

- Sarbaz city is one of the oldest regions of Baluchistan.
- 89% of the population live in villages, and only 11% live in cities
- Diverse agriculture.
- Most of the agricultural products of Sarbaz are dates
- Habitat of different kinds of fish and Iranian short-nosed crocodiles



Sarbaz bridge



Bandan in Sarbaz city

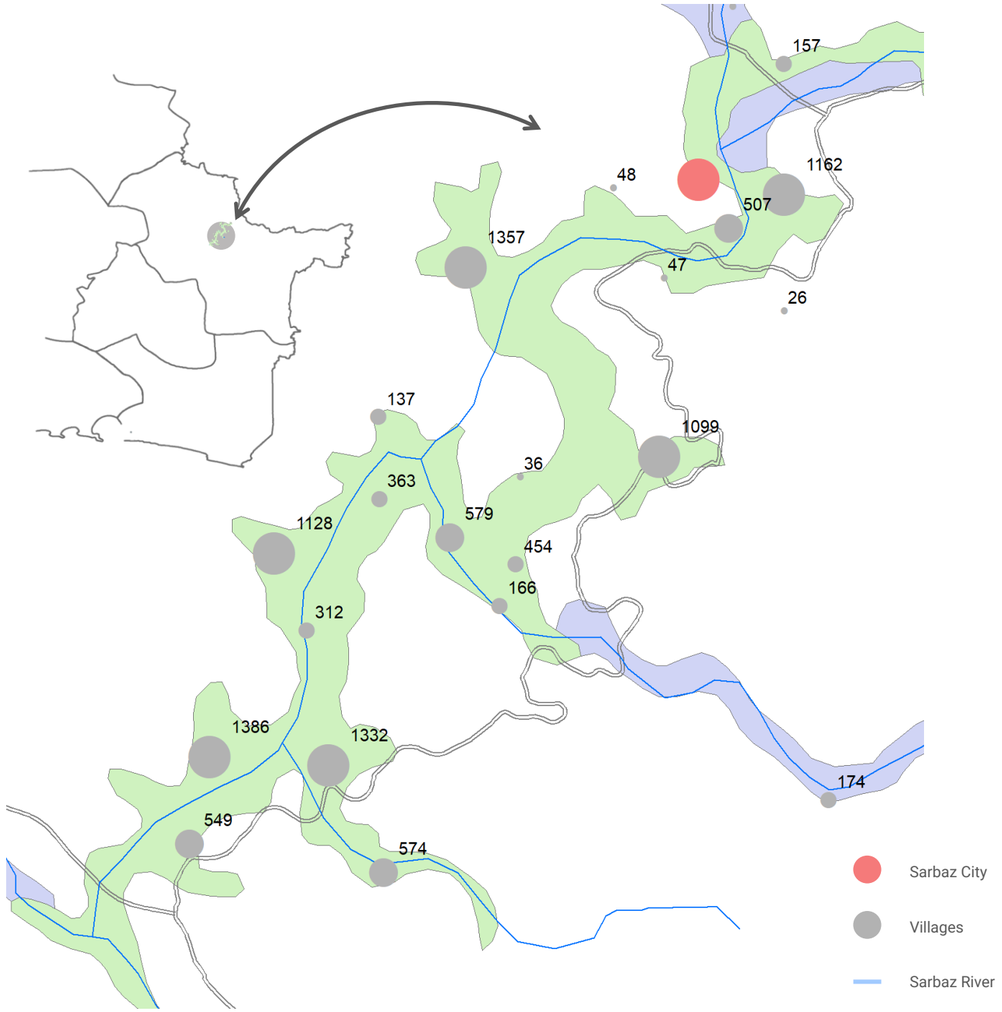
Typical rural house in Sarbaz city

Sarbaz Castle (seeiran.ir)

RESEARCH

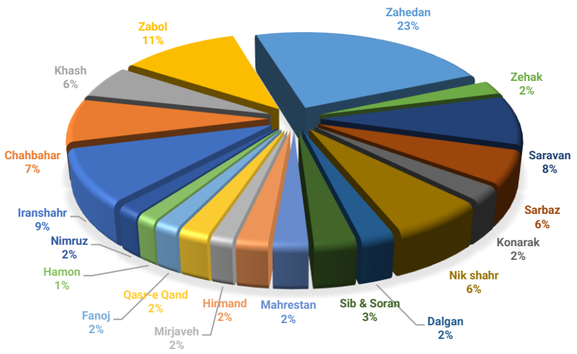
CONTEXT: MEDIUM SCALE

RELATION BETWEEN SARBAZ CITY AND VILLAGES

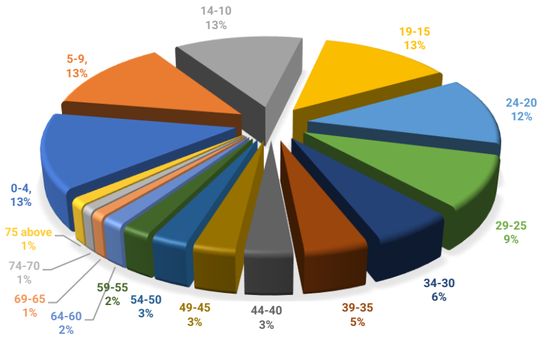


POPULATION DISTRIBUTION IN SARBAZ VILAGES

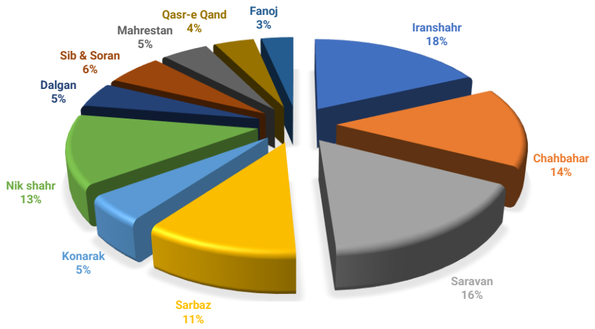
The population of cities in state



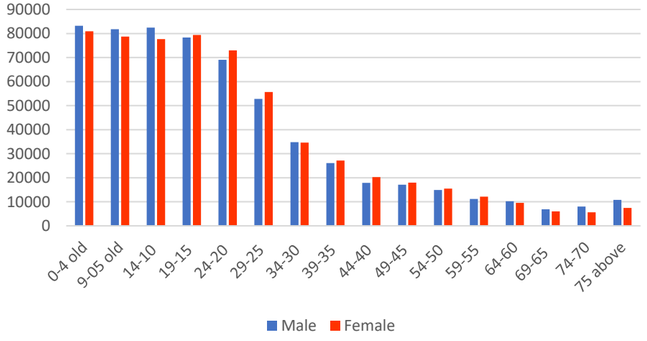
The population as age in the rural area



The population of Baluchistan cities



Population as age



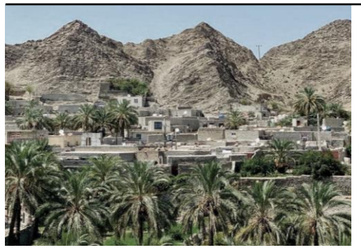
CONCLUSION

In conclusion, the data reveals that a significant majority, over 60 per cent, of the population falls within the age range of 10 to 50 years. This specific demographic aligns with the target group for my project, underscoring the evident demand and necessity for the opportunity I am proposing.

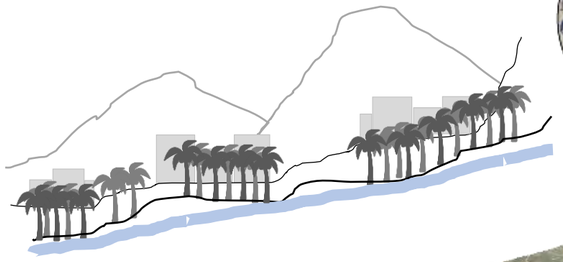
RESEARCH

CONTEXT: MEDIUM SCALE

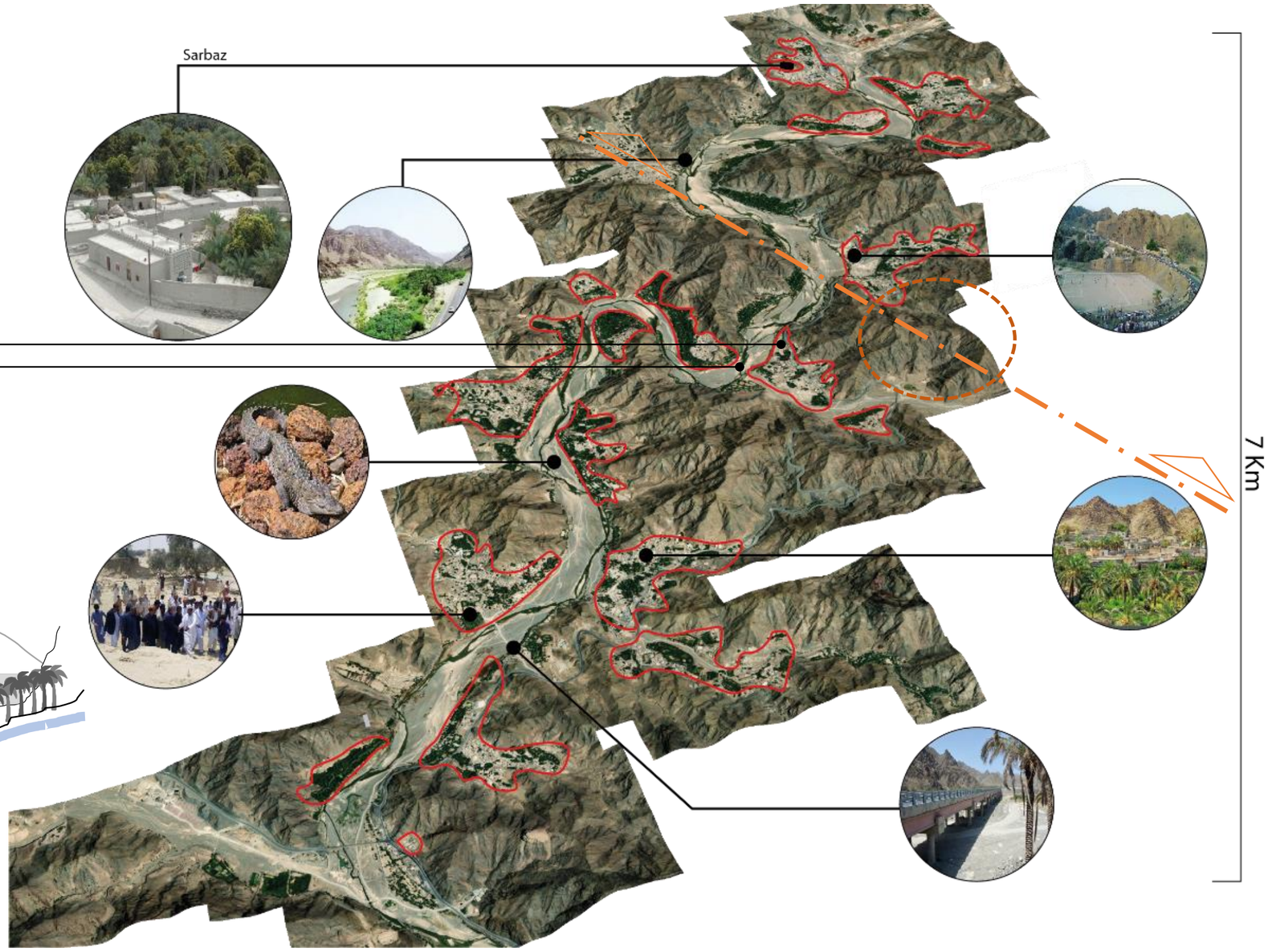
SITE LOCATION – SARBAZ VILLAGES



ITAK VILLAGE



SCHEMATIC ITAK VILLAGE SECTION

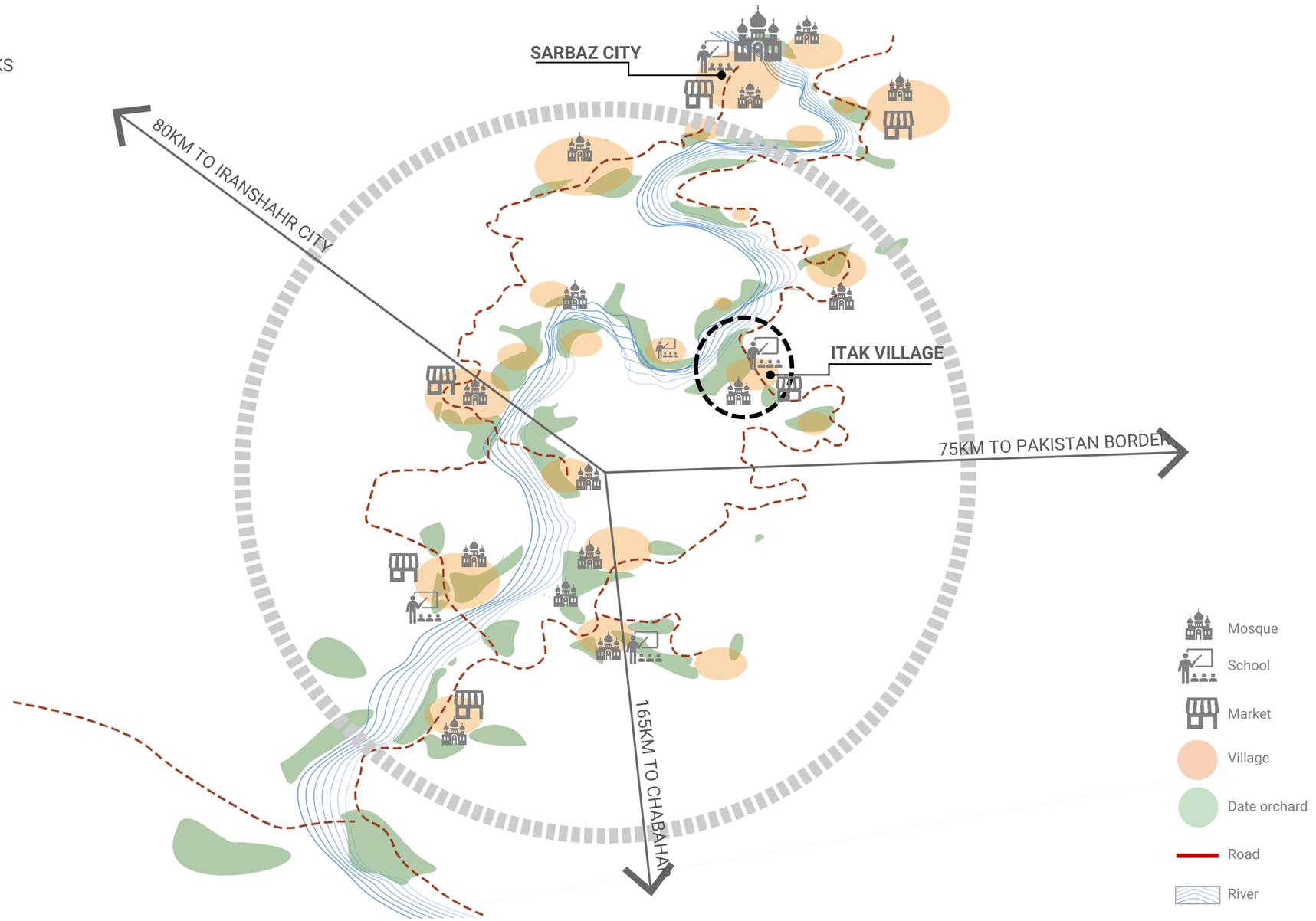


Most produced

RESEARCH

CONTEXT: MEDIUM SCALE

SITE LOCATION – ACCESSBILITY AND VILLAGES LANDMARKS



RESEARCH

CHALLENGES AND OPPORTUNITIES

DROUGHT

POVERTY

MAIN ISSUES

Infrastructure Deficit, Drought, Unemployment and Poverty, Limited job opportunities, Limited Industrialization, Inadequate Education and the Skills gap are the top challenges in Baluchistan. Despite all those challenges, Natural Resources, Strategic Location, Tourism Potential, Agriculture, Renewable Energy and rich Cultural Heritage are the area's potential. Addressing the challenges and capitalising on the opportunities in Baluchistan will require coordinated efforts from the government, private sector, and local communities.

OPPORTUNITIES

Baluch women's ancient and enduring skills in creating native art and handicrafts have been passed down through generations, making them an integral part of the region's cultural heritage. Embroidery, handwoven wool fabrics, mat weaving, and pottery are famous handicrafts in this area, predominantly crafted by women. Specific crafts, such as Embroidery, enjoy strong demand in markets within Iran and neighbouring countries. The young population, coupled with the talented Baluch women, represents the untapped potential of the area.

RESEARCH

SARBAZ ANALYSIS

STRENGTH

Series of villages	22 villages along the river
Young population	More than 67% of the population is under 30 years old
Water	Sarbaz river
Handcraft	Baluchi embroideries and handcrafts with Date leaves are so famous in Iran, Pakistan and India,
Accessibility	Access to 2 main city, Chabahar port and Iranshahr
Agriculture	Diverse products both native and non-native
Potential tourism	Due to the different climate

WEAKNESS

Drought	Increasing
Poverty	Located in the lowest income area
Close distance to border of unsatiable country	75 km to the Pakistan border
Lack of industry	Absence of industry
Irresponsible Authorities	Lack of support from the government
Smuggling	Mainly fuel, to Afghanistan and Pakistan
Unemployment	Located in the range of 36-45% unemployment both for men and women

Conclusion

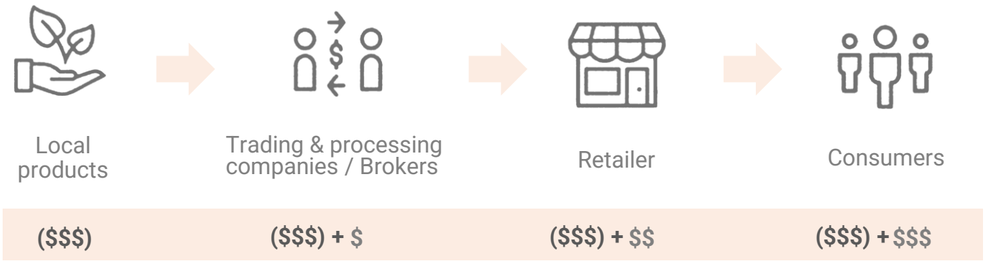
In conclusion, the selected location has both strengths and weaknesses. While many challenges are common in the region, the main draw to this area is the relatively lesser struggle with water scarcity than in other parts of the province. Additionally, young populations in the surrounding villages and direct access to the main road are advantageous factors. Combined with the distinctive landscape, these features contribute to the area's tourism potential.

RESEARCH

CURRENT PRODUCTION SITUATION IN THE AREA

This region has a significant presence of date farms and production. However, despite being sold worldwide under various brands at high prices, the local farmers remain among the poorest. They are constantly indebted to intermediaries, brokers, and businesspeople from Pakistan and other Iranian cities. More infrastructure is needed to ensure farmers sell their products at fair prices. This issue extends to other goods like handicrafts and embroidery, typically made by women at home. Orders are often channelled through brokers who purchase these items at low prices from Baluchi women. The selling price to retailers or end-users can be ten times higher than what the producers initially paid. Diagram 01 compares a healthy product supply system and the typical procedure in Sistan and Baluchistan.

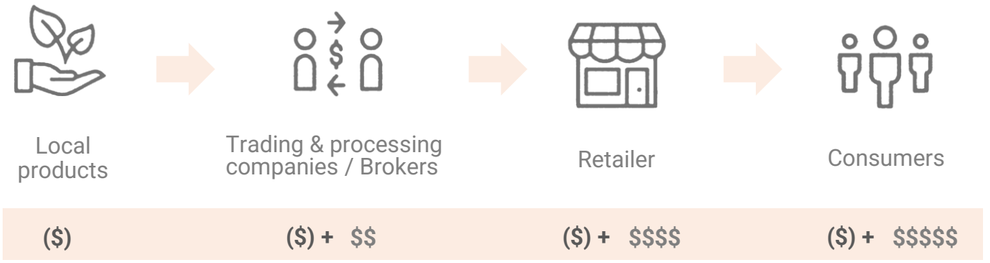
SUPPLY CHAIN DIAGRAM
(COMMON)



PRODUCTION ISSUES

- LOW PRICE OF PRODUCTS IN THE REGION
- LACK OF DIRECT SELLING PLATFORM
- LACK OF AUTHORITY'S SUPPORT
- IRANIAN AND PAKISTANI BROKER

SUPPLY CHAIN DIAGRAM
(IN SISTAN AND BALUCHISTAN)



RESEARCH

INTERVIEW

To gain a deeper understanding of the lives of the people in the area, I had the opportunity to engage in separate conversations with the following individuals:

1. Narges Khezri, a dedicated teacher from Kerman. She embarks on bicycle journeys to remote villages, delivering books to children and assisting in establishing libraries.
2. Sorush Salavatian, a social activist and the organisation's founder, 'Jazmorian is not alone.' For the past five years, he has been actively involved in various projects such as schools, houses, sanitary facilities, water tanks, and more, all aimed at improving the living conditions in the area.
3. NGO's manager, whose name remains confidential, leads a large organisation to raise public funds and construct schools.
4. 30-year-old resident from the Itak village, whose name remains confidential, provided insights and perspectives on the local community.

Throughout various stages of my project, I engaged in discussions that primarily revolved around the following key topics:

1. Women's employment situations
2. Challenges
3. Potentials
4. Needs
5. Current Architectural Typology
6. Finance

Narges Khezri

Sorush Salavatian

Interviews highlights :

- Traditional handicrafts often engage women but struggle to monetise their skills and generate income.
- Poverty contributes to underage marriages, as families see it as a way to alleviate financial burdens.
- The privacy of women is essential and to be respected.
- There is a notable absence of social gathering spaces in villages, which hinders community interaction and cohesion.
- Mosques serve as social hubs for men, where they gather for various activities and discussions.
- Outdoor spaces are often utilised for celebrations and ceremonies.
- Despite strict adherence to cultural norms, there is openness among the community to explore new opportunities.
- The lack of proper infrastructure poses a significant challenge to the development and progress of the area.
- Accessibility, both in terms of physical access and opportunities, is a pressing issue that needs to be addressed.
- Women express a willingness to work, but the lack of suitable opportunities restricts their ability to contribute to the workforce.
- There has been a positive shift recently, with people exhibiting a more favourable attitude towards vernacular architecture.
- Project size and type depend on the funding source, overshadowing villagers' needs.
- While some projects, such as Jadgal School and Kapari School, have successfully integrated into the local community, others have not fully engaged with residents' lives and needs.
- In certain areas, the government's use of cement blocks to construct houses destroyed Kapari villages, and locals transformed those buildings into livestock stables.

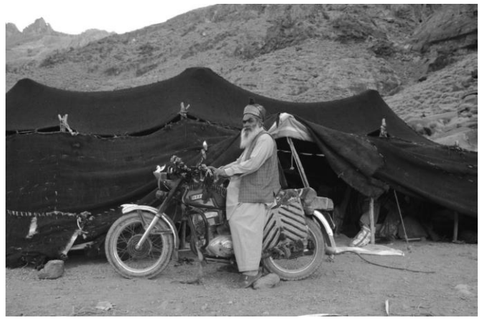
CONCLUSION :

In addition to the wealth of valuable information gathered from these interviews, a crucial conclusion emerged for me as an architect. I recognised that transforming the community's living conditions goes beyond simply providing their basic needs and leaving them to manage independently. Empowering the community by raising awareness about their significance and involving them in their environment's ongoing development and care is essential. This active participation recognised that the community is essential and a fundamental factor in achieving the success of any project aimed at improving their lives.

RESEARCH / DESIGN

RESEARCH / DESIGN

LOCAL ARCHITECTURAL TYPOLOGY



1- GODAM – BALOCHI TENT

2- LOOG – BALOCHI CAPPAR

3- GERD TOOP (TOOP)

4- BAN- SINGLE STORY HOUSE

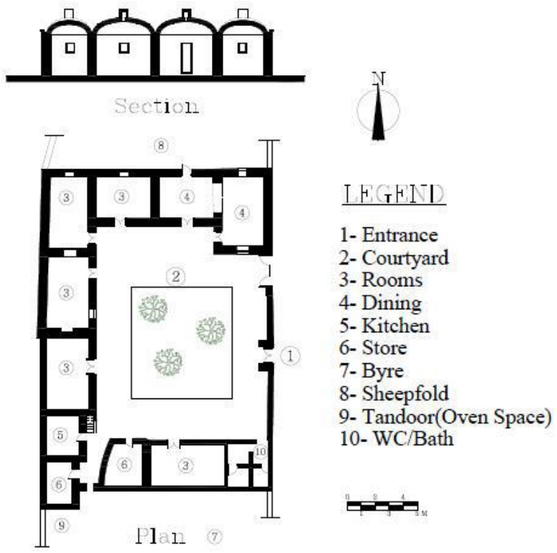
5- DOUBLE STORY HOUSE

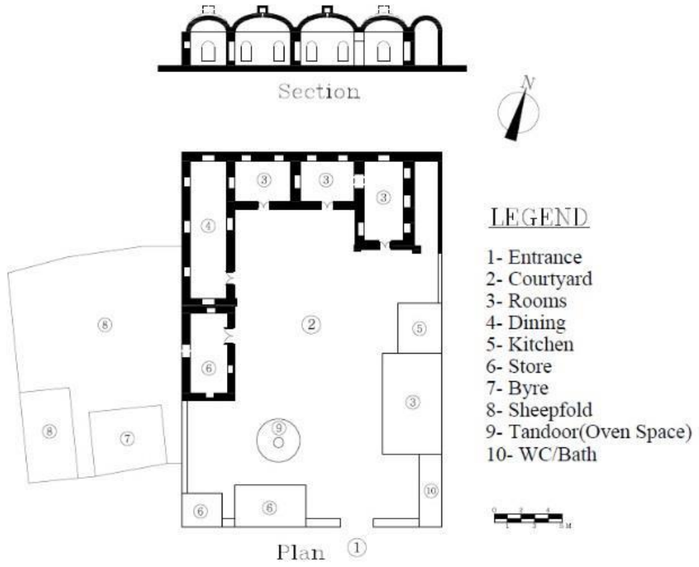
The village lifestyle comprises a blend of long-term and short-term living arrangements. However, there has been a noticeable decline in traditional-style houses within the village recently, as cement block buildings are gradually replacing them. Unfortunately, these modern structures are ill-suited for the area's climatic conditions.

RESEARCH / DESIGN

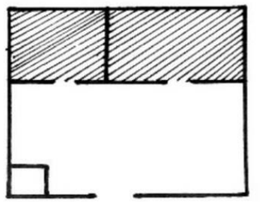
RESIDENTIAL ARRANGEMENT TYPOLOGIES IN BALUCHISTAN

Clustered houses encourage social interaction and a sense of community. The proximity of the houses allows for more accessible communication and shared social spaces, fostering a strong social fabric among the residents.





Type A



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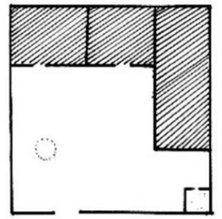

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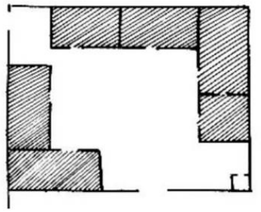

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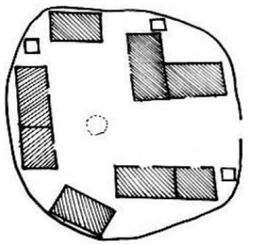
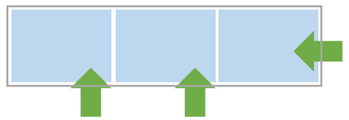


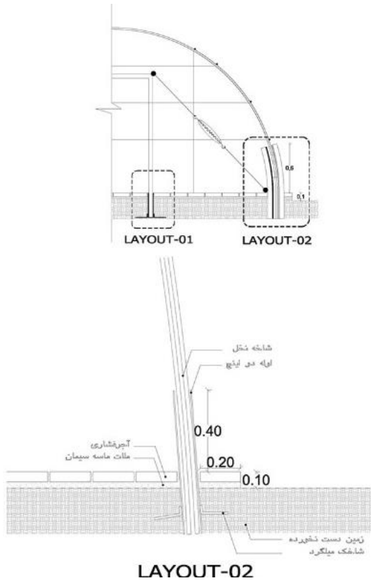
RESEARCH / DESIGN

LOCAL CASE STUDIES

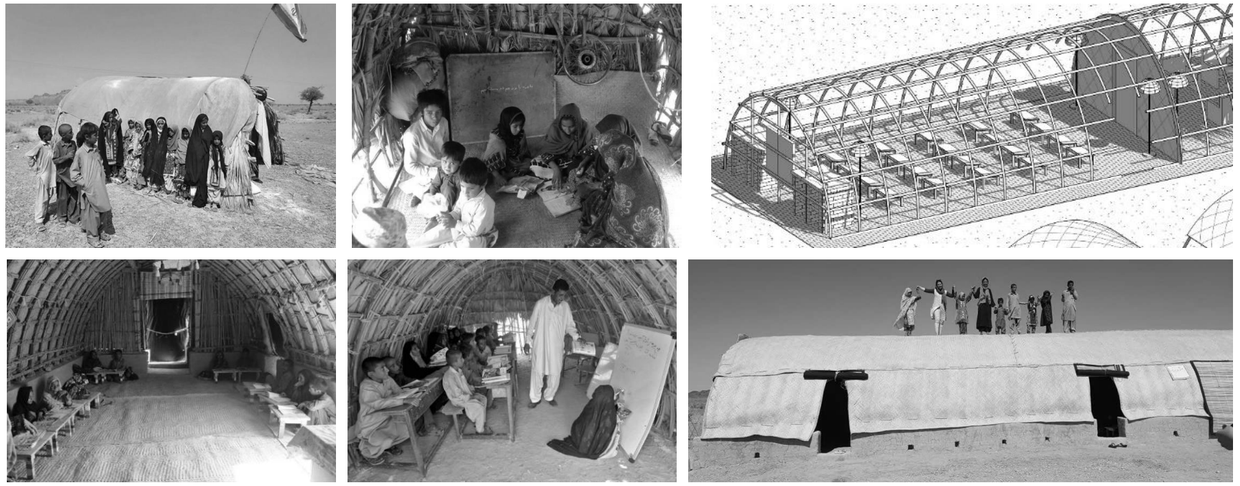
A- New Kapari school

- **Structure:** Palm sticks
- **Roof & wall:** Palm branch and leaf,
- **Floor:** compact soil



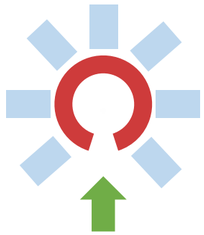


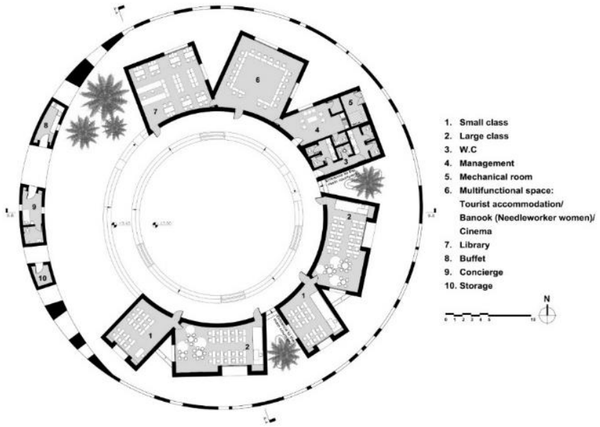
LAYOUT-02



B- Jadgal school

- **Structure: ICF**
- **Roof & wall:** Brick
- **Floor:** Brick





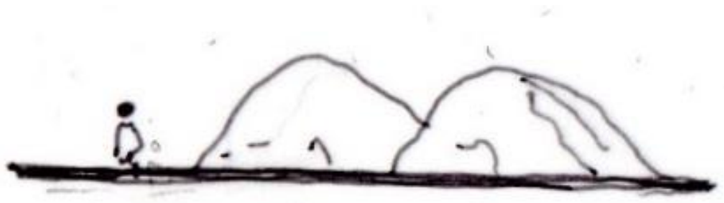
Conclusion: Besides the architectural elements of each project, the critical success of both projects is the local participation in building the project. Jadgal school became a social hub of the village and villagers gather for socializing in the evening after school is closed. Participation could create a sense of belonging to the community.

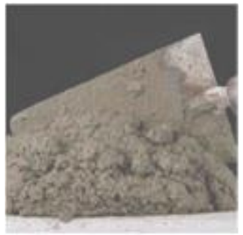
RESEARCH / DESIGN

EXISTING MATERIAL ON SITE

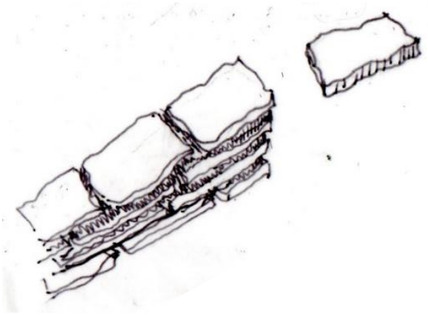
By incorporating local materials into the design process, buildings can blend seamlessly with the landscape and showcase the area's rich cultural heritage.
Furthermore, using local materials reduces transportation costs and the carbon footprint of importing construction materials from distant locations.
It also supports the local economy by utilising resources readily available in the region. Implementing local materials as a design feature enhances the
The aesthetic appeal of the architecture reinforces a sense of place and cultural identity, creating a more meaningful and contextually relevant built environment.

STONE, FROM RIVER AND MOUNTAIN





STONE, FROM RIVER AND MOUNTAIN



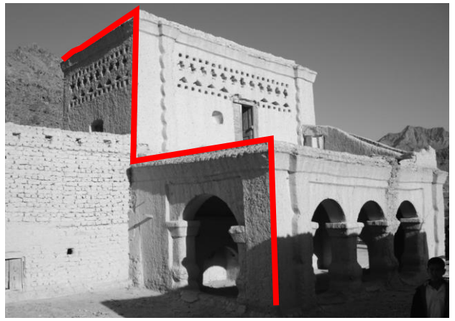
ALL PART OF PALM TREE

RESEARCH / DESIGN

ARCHITECTURAL CHARACTERISTICS

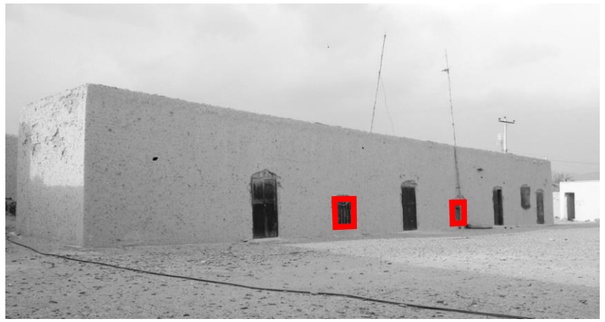
GEOMETRIC CARVING DECORATIONS

CURVE FORM OF KAPAR



TERRACING

SMALL OPEN SPACES WITHIN DENSE FABRIC



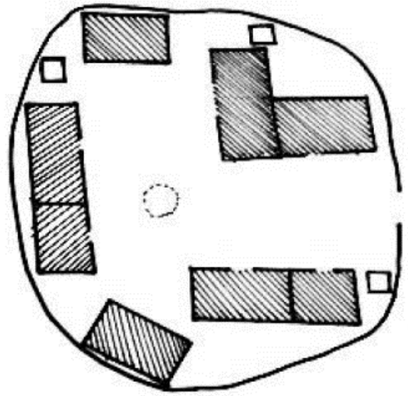
MINIMAL OPENING

NO COLOR IN THE BACKGROUND, INDOOR LIVING SPACES AND WOMEN CLOTHS ARE COLORFUL

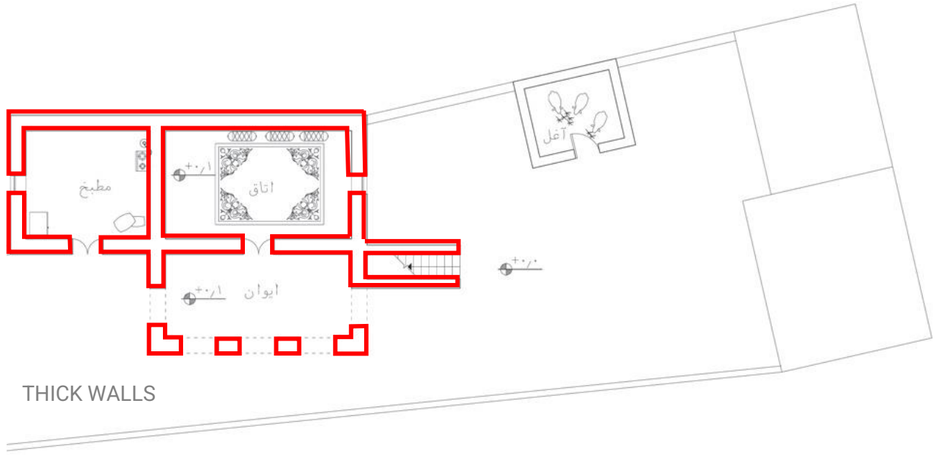
DENSE URBAN FABRIC

RESEARCH / DESIGN

CONCLUSION



CLUSTERED VOLUMES



THICK WALLS

CONCLUSION – ARCHITECTURAL CHARACTERISTICS

Courtyard Houses: Traditional Baluchistan architecture often incorporates courtyard houses as a central design element. These houses are organised around a central courtyard, which serves as an outdoor living space and provides natural ventilation and light to the surrounding rooms.

Thick Walls: Traditional buildings in Baluchistan have thick walls made of materials like adobe or stone. These thick walls help regulate temperature by providing insulation against extreme heat or cold.

Small Windows: Traditional Baluchistan architecture features small windows, which help reduce heat gain and promote privacy. The smaller window openings also help direct airflow and control the amount of sunlight entering the interior spaces.

Terraces: Baluchistan architecture often includes flat roof terraces serving as additional living spaces. These terraces provide outdoor areas for social gatherings and leisure activities and offer panoramic views of the surrounding landscape.

Use of Local Materials: Traditional Baluchistan architecture relies on locally available building materials such as adobe, stone, and wood. These materials are sustainable, durable, and well-suited to the region's climate.

Decorative Elements: Traditional Baluchistan architecture incorporates decorative elements, such as carvings and ornamentation, often seen on doors, windows, and facades. These decorative features reflect the region's cultural heritage and craftsmanship.

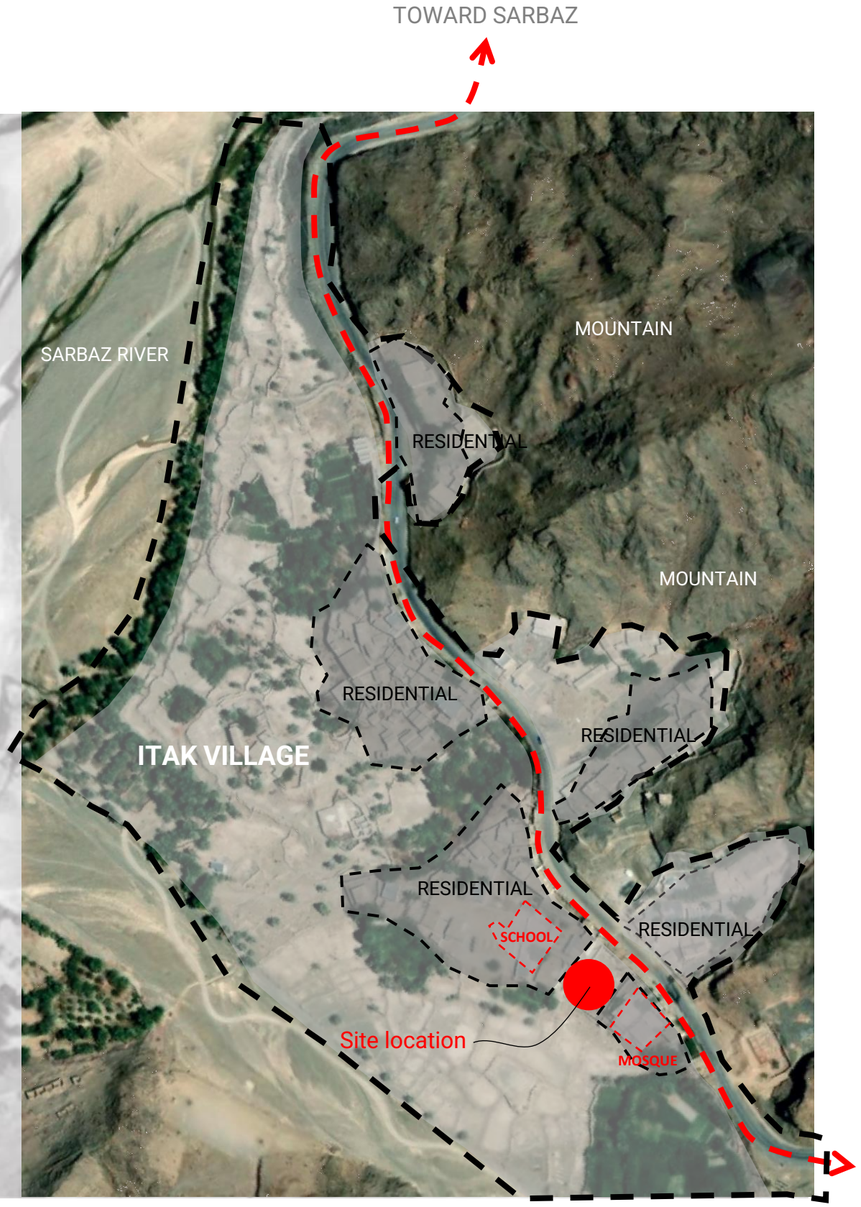
Clustered houses: this design feature, often found in conventional Baluchistan architecture, promotes social cohesion, resource efficiency, security, and climate adaptation while preserving the cultural identity and heritage of the community.

DESIGN

DESIGN

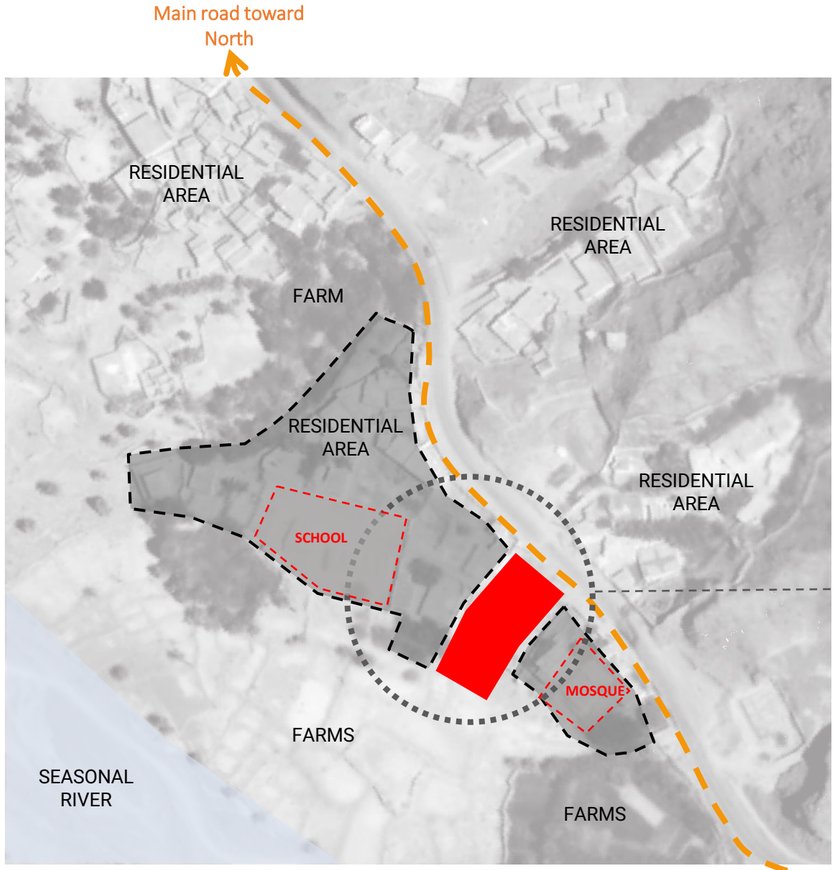
CONTEXT: SMALL SCALE

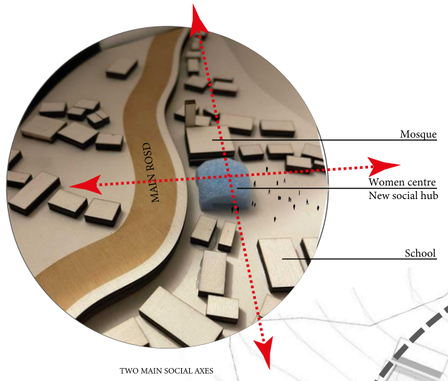
CURRENT SITUATION – ITAK VILLAGE



DESIGN

SITE ANALYSIS

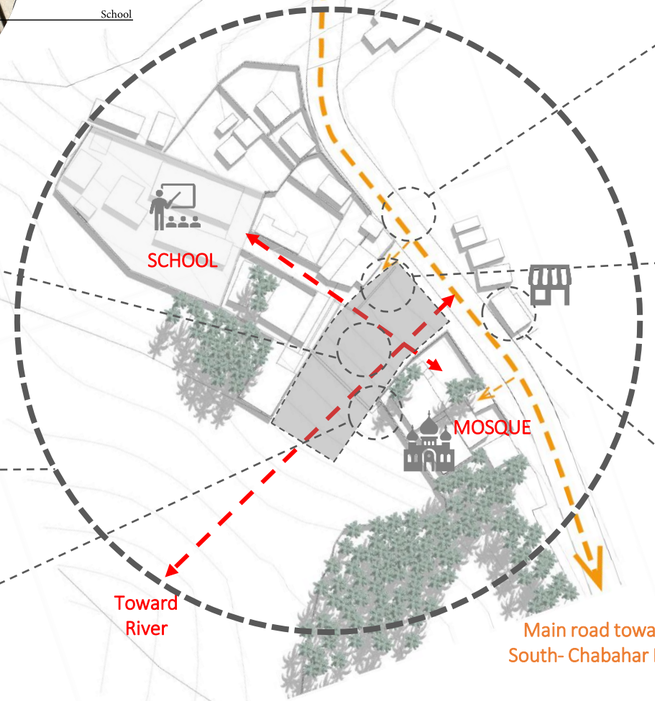




TWO MAIN SOCIAL AXES

View from the site toward river

View from the site toward river



View from the main road toward the side

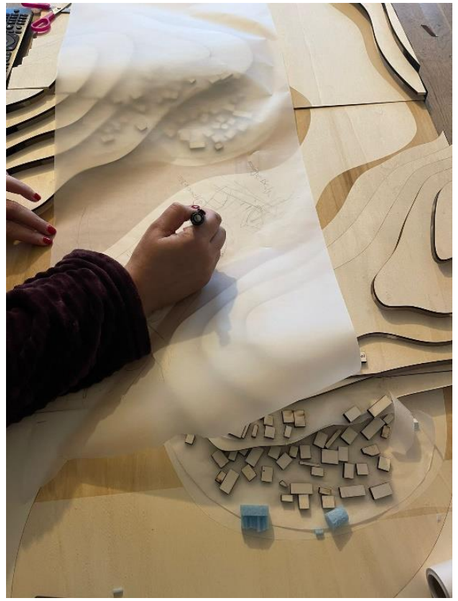
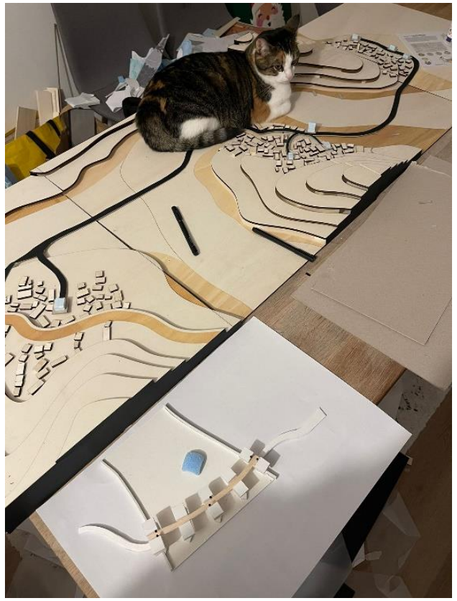
Access to residential and school

Local shop

CONCLUSION

An inclusive axis is created by strategically placing the women's centre between the mosque and school, transcending gender barriers. This arrangement recognises the significance of each institution while fostering communal participation. Additionally, a central axis connects the village gathering place to the main road, promoting interaction and exposure with neighbouring communities and passe-by visitors. This configuration provides women with activity space and facilitates diverse interactions and partnerships. Ultimately, it aims to create a harmonious and accessible social and productive environment that empowers women and encourages community engagement.

CONCEPT DESIGN

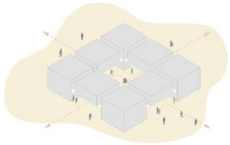
DESIGN

VARIOUS CONCEPT TESTING

CONCLUSION Exposure, interaction, and inclusivity are essential design elements. The concept underwent an evolution process, resulting in the fourth concept that perfectly achieved all the goals.

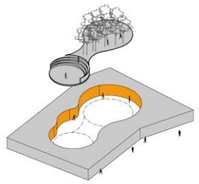
1. CENTRALISED

Pros :
-more privacy
-easy to maintain



Cons:
-potential isolation
-limited internal interaction spaces

2. INTROVERT WITH CENTRAL COURTYARD



Pros :
-more privacy
-easy to control

Cons:
-limited view
-all the spaces depend on one open space
-limited Interaction with External Environments

3. EXTENDED TO THE ROADSIDE WITH CLUSTERED BUILDING(lower than road level)

Pros :
-accessibility
-context integration
-connecting both sides of the site
-Create a social hub

Cons:
-less control

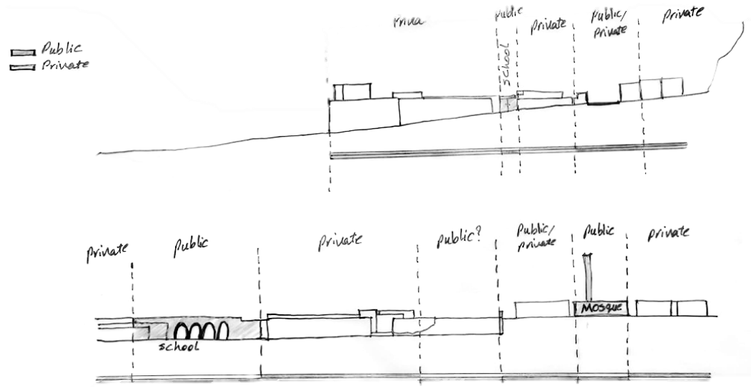
4. EXTENDED TO THE ROADSIDE WITH CLUSTERED BUILDING(at road level)

Pros :
-exposure to potential customers
-accessibility
-context integration
-connecting both sides of the site
-Create a social hub

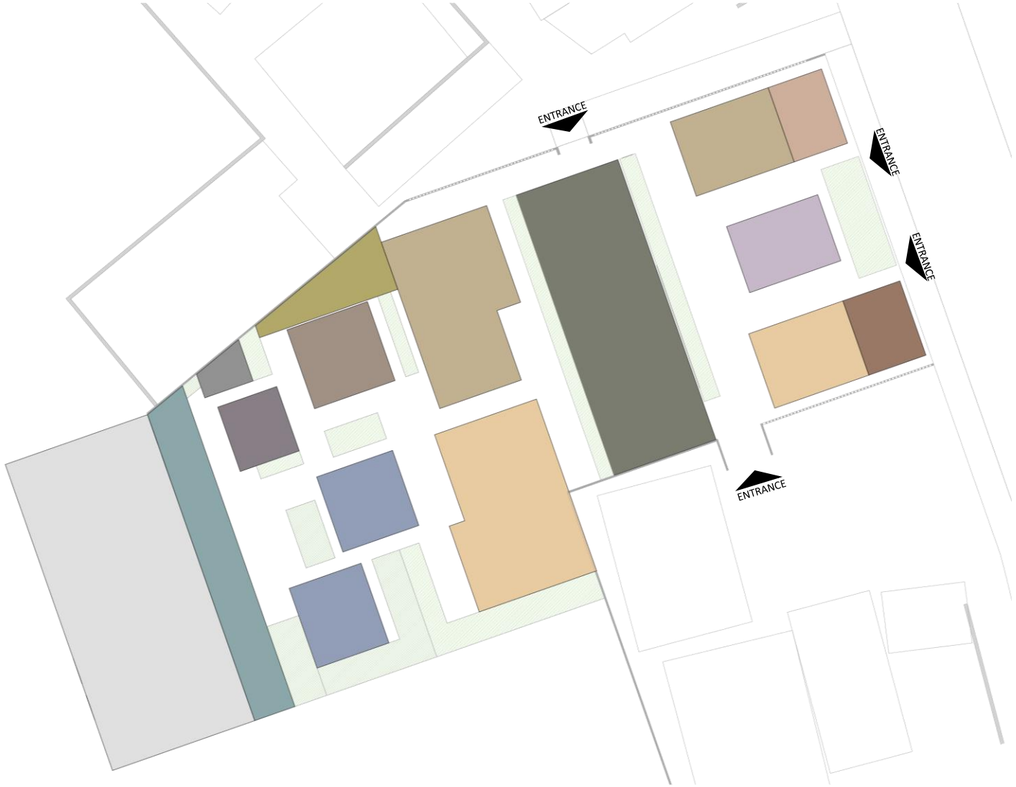
Cons:
-less control

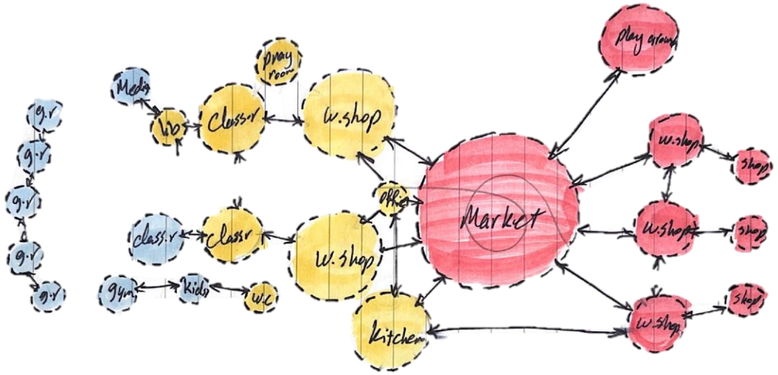
DESIGN

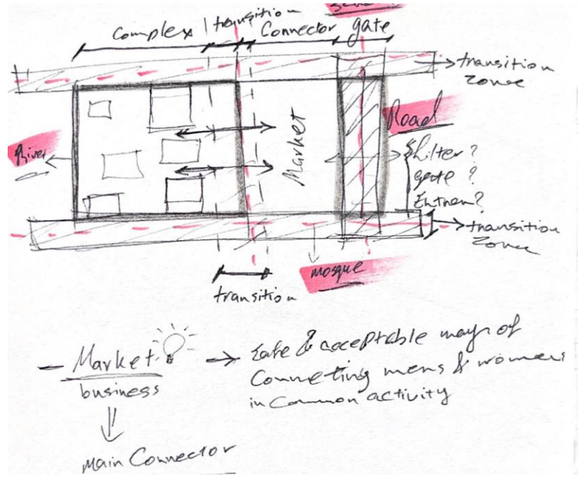
The program is designed to seamlessly transition from public to semi-public and from semi-public to semi-private spaces, utilizing workshops as intermediary zones. These workshops serve as connectors, providing direct access to the lively marketplace. To ensure a peaceful environment for learning, classrooms are strategically located in the quietest area of the centre. The library, computer room, and playground are clustered together, forming a vibrant space dedicated to women and children. Green spaces are thoughtfully distributed throughout the layout, serving as meeting spots and enhancing the overall atmosphere of the centre.



- Embroidery showroom/store
- Embroidery showroom/store
- Mat weaving showroom/store
- Mat weaving showroom/store
- Market square
- Library
- Playground
- Classroom
- Media room
- Toilet
- Planting boxes
- Landscape
- Future phase



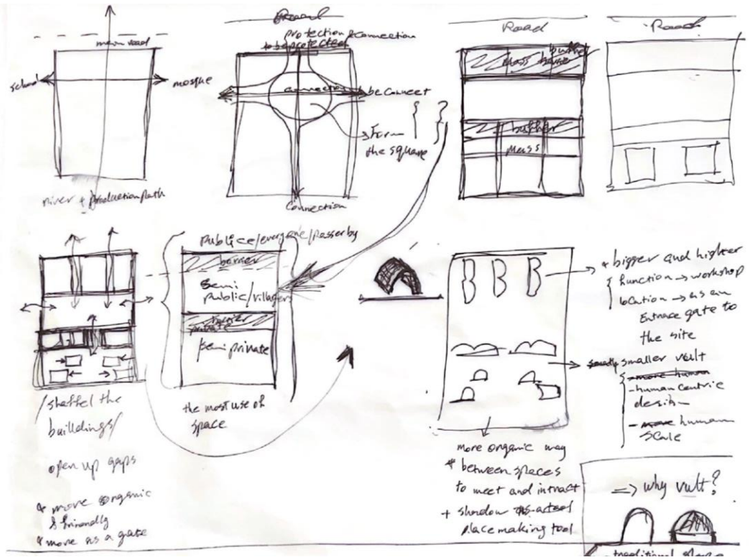




DESIGN

PHASING

The project is divided into three phases, with financial support provided initially to drive the subsequent steps. This approach facilitates continuous development and learning at each stage, ensuring the long-term sustainability and effectiveness of the project.



PHASE I
Users: 10-15 women

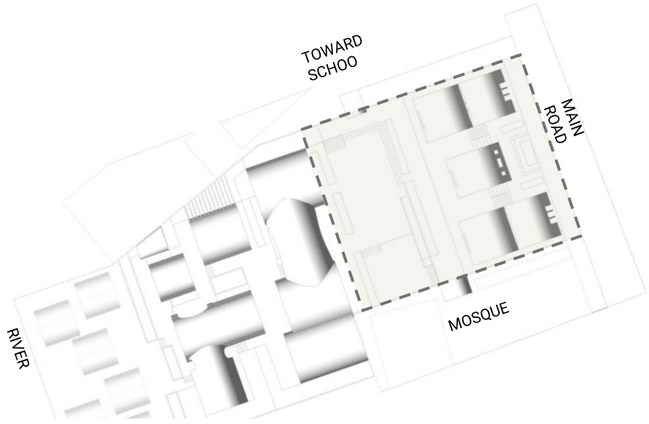
Function:
- -Embroidery and Mat weaving workshop with attached showroom/store
- -Cafe
- -Open square/market

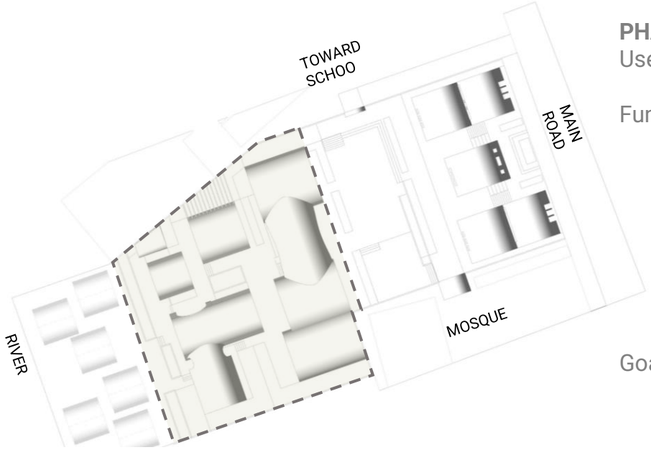
Goal:
- -Establish a women's cooperative
- -Create a marketplace to increase their visibility and exposure to potential customers.
- -Partner with local organisations

PHASE III (future phase)
Users: above 30 women and tourists

Function:
- -Guest rooms
- -Gym
- -Nursery
- -Pray room, etc.

Goal:
- -Improve their physical and mental health
- -Improve their social connections
- -Create women's guest room for external visitors

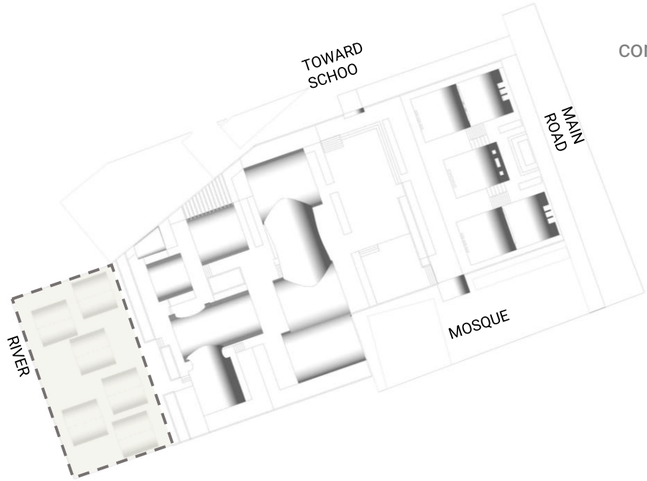




PHASE II
Users: 15-30 women

Function:
- -One Embroidery and one Mat weaving work-shop (each has two attached workspaces)
- -Library and Computer room
- -Classrooms
- -Playground
- - Toilet
- -Storage

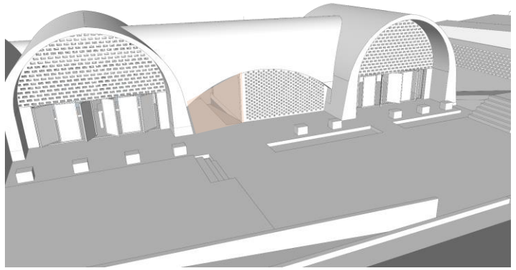
Goal:
- -Provide training and resources
- -Create a supportive community
- -Providing a safe playing zone and access to the library for community member's kids and students from the school
- -Attract external visitors/ tourist

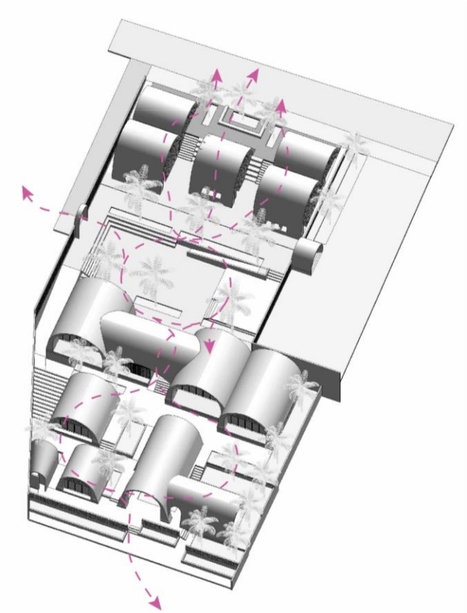


DESIGN

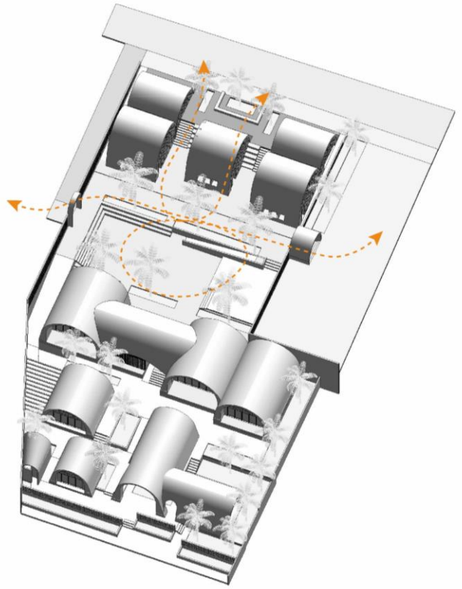
DIFFERENT USERS PATH

The site users can be divided into four categories: men from the mosque, students and children from the school and residential area, women, and passer-by visitors. The diagram illustrates the designated areas where each category is allowed to access. While the women's centre is not a restricted area with a "no entry" sign and not any physical barrier, the way that the entrance is set backed and lowered down in height gives the impression that it is not an open space for everyone to enter.

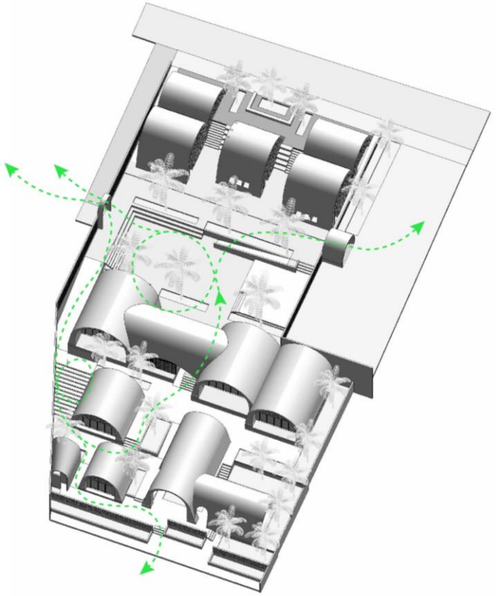




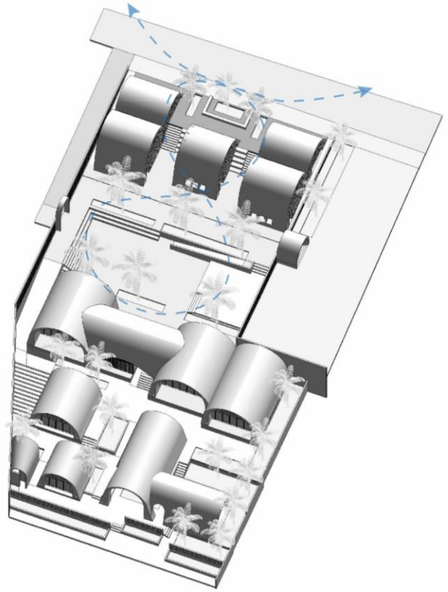
Women



Men from mosque



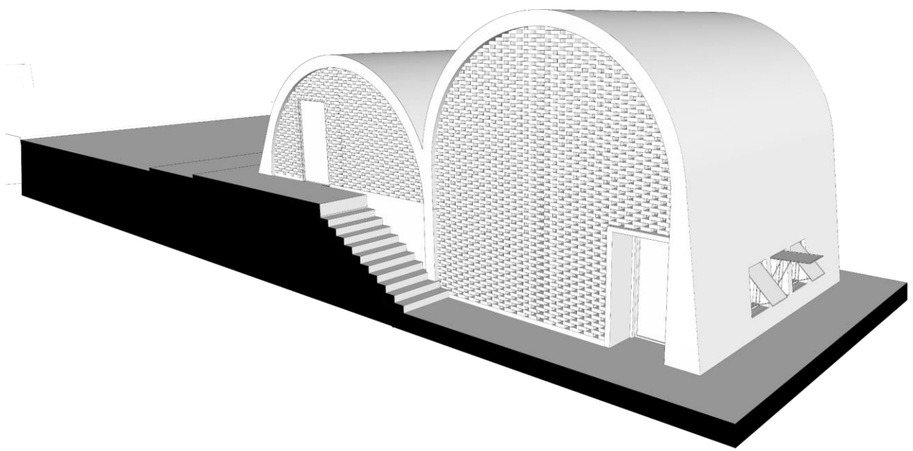
School students/childre



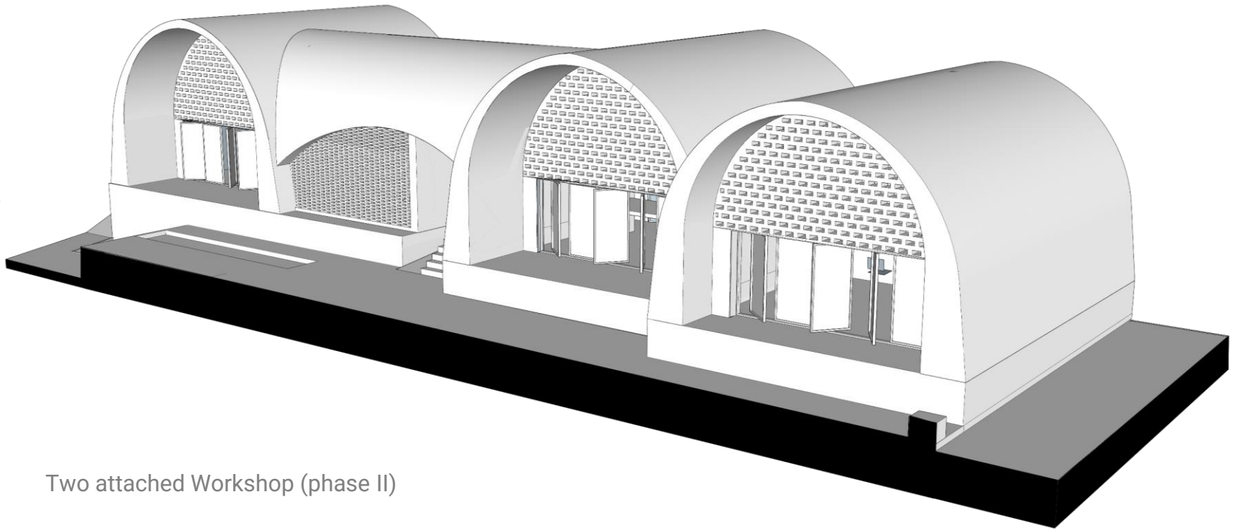
Passer-by/visitor

VAULT TYPOLOGY

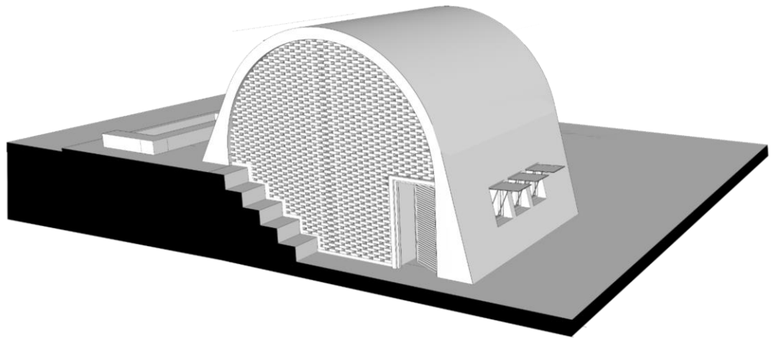
BUILDING TYPOLOGY



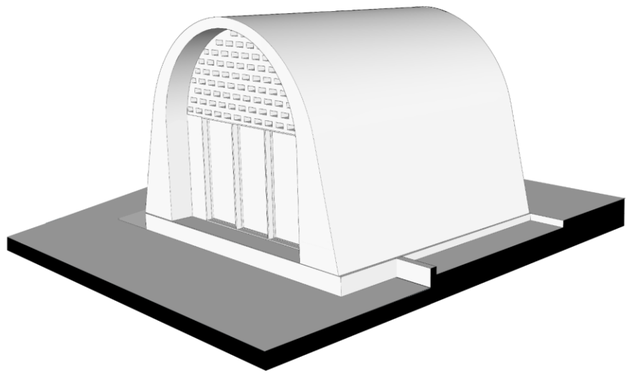
Workshop with attach store (phase I)



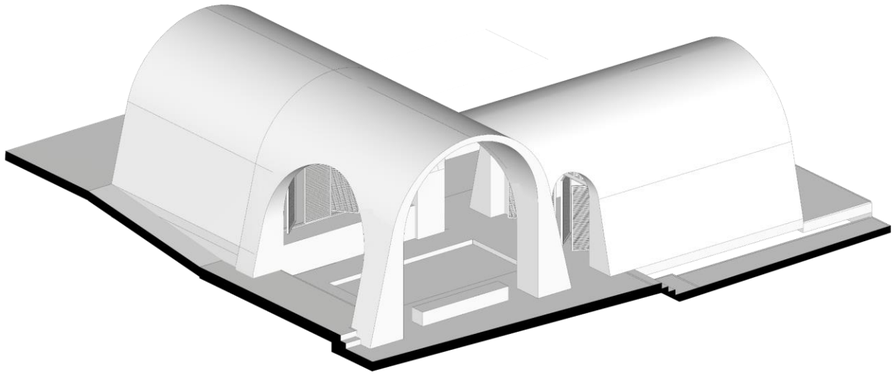
Two attached Workshop (phase II)



Caffe (phase I)



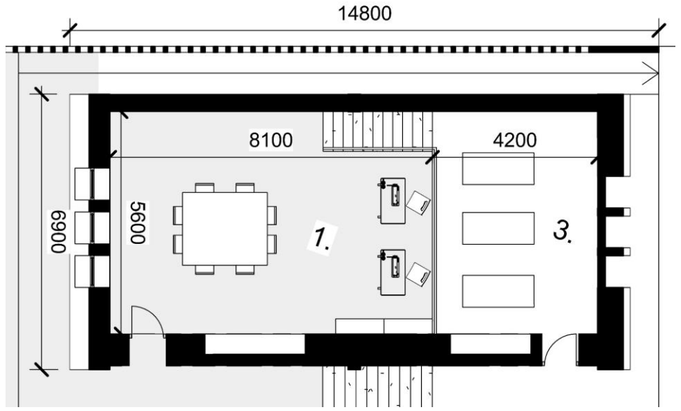
Library and computer room (phase II)



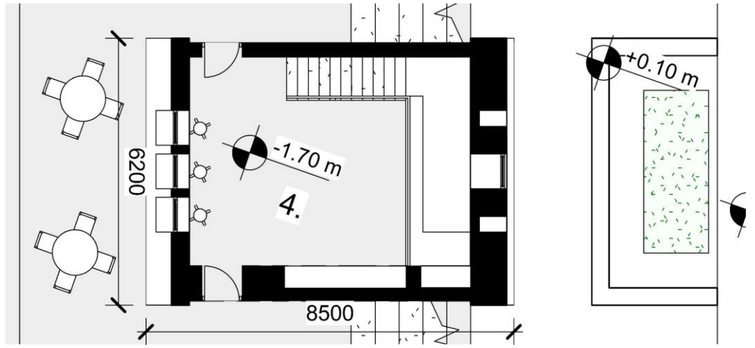
Classrooms (phase II)

VAULT TYPOLOGY

BUILDING TYPOLOGY_PLAN

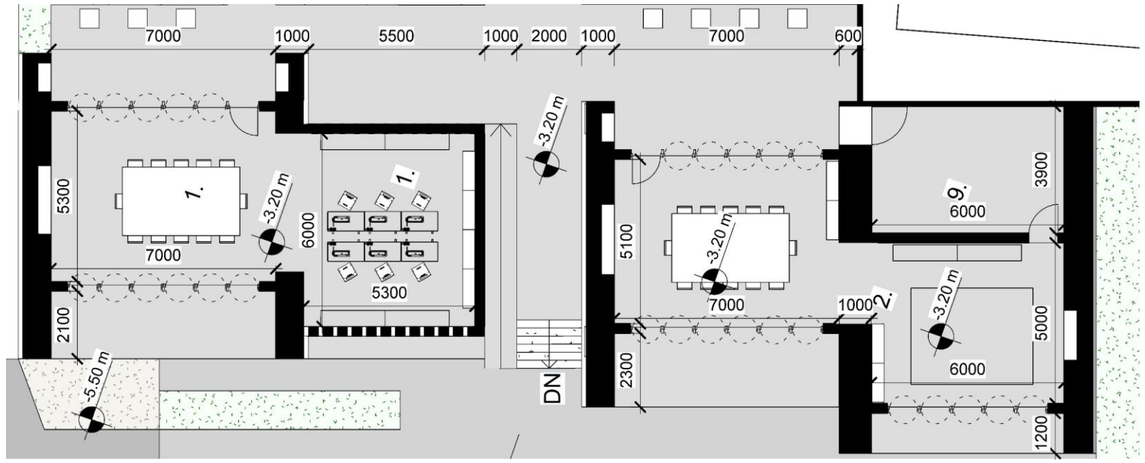


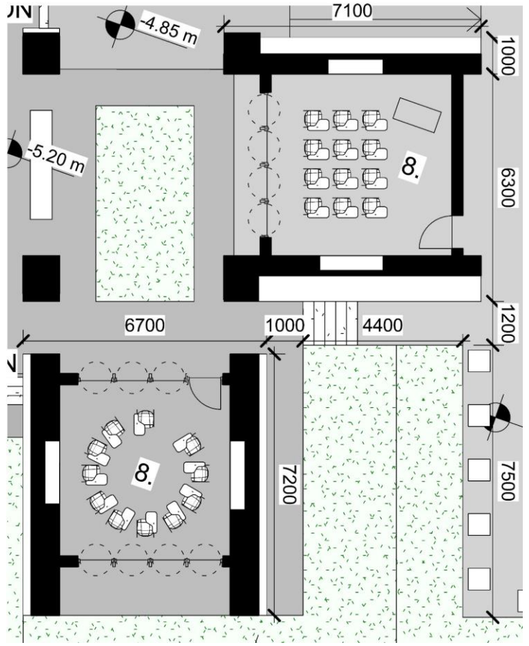
Workshop with attach store (phase I)



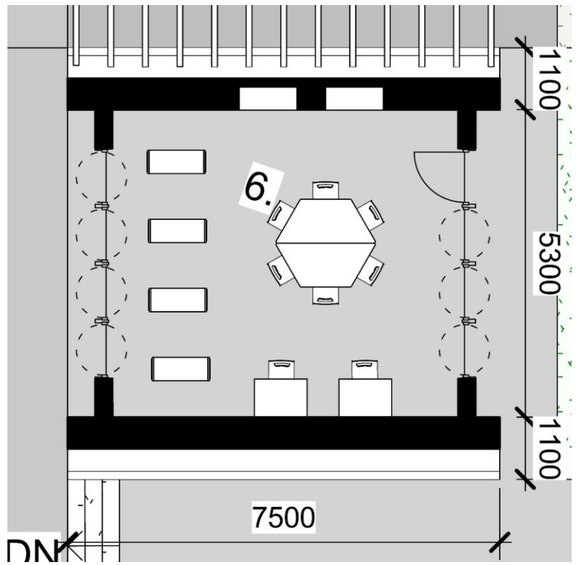
Caffe (phase I)

Two attached Workshop (phase II)





Classrooms (phase II)



Library and computer room (phase II)

DESIGN

TEST MATERIAL

PALM LEAF

SAND

CLAY

100% CLAY + WATER

40% SAND
+

40% CLAY
+

10% PALM LEAF

60% SAND
+

30% CLAY
+

10% PALM LEAF

70% SAND
+

20% CLAY
+

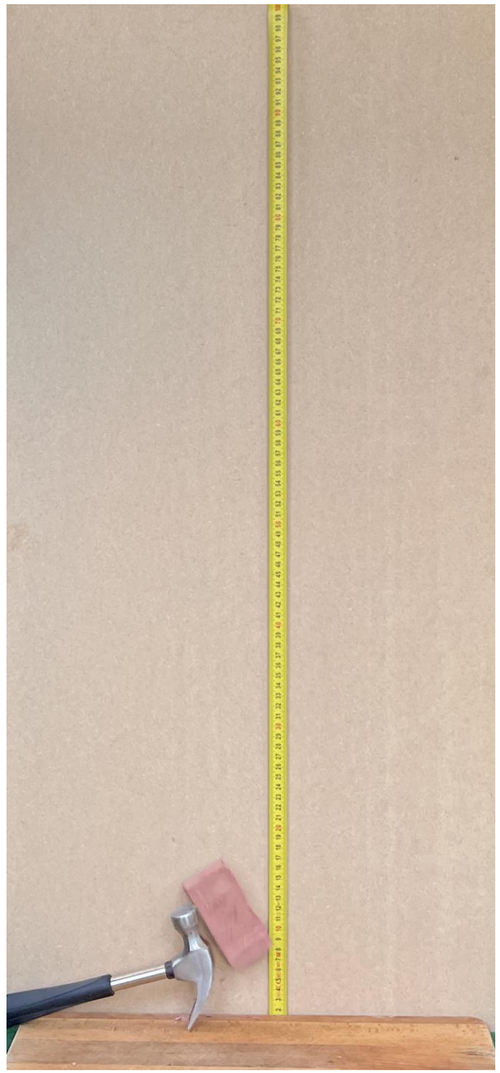
10% PALM LEAF

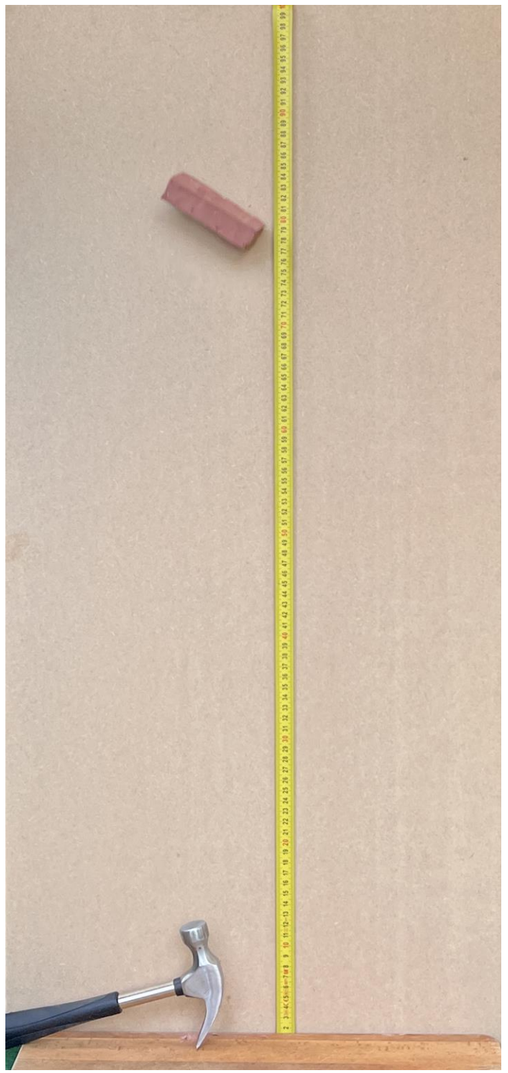
CONCLUSION

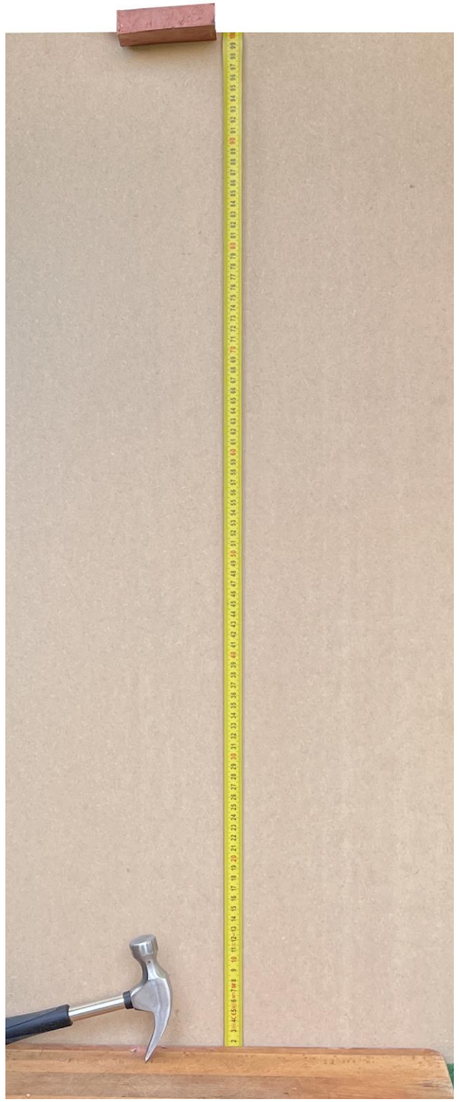
During my experiment in a kitchen laboratory setting, I conducted a scratch test, dropped the blocks from a specific height, and even used a hammer to smash them. The purpose of this at-home test was to determine the strength of the blocks. As a result, it was observed that the type 4 block, which contained more sand and less clay, demonstrated the highest strength among all the blocks tested. Additionally, all the blocks were sun-dried for seven days before the experiment.

DESIGN

TEST MATERIAL- ADOBI TYPE 1- 100% CLAY

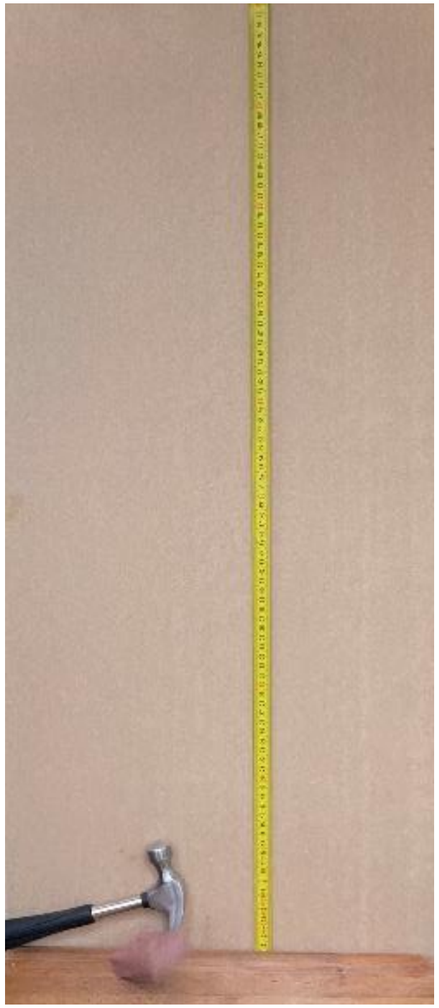


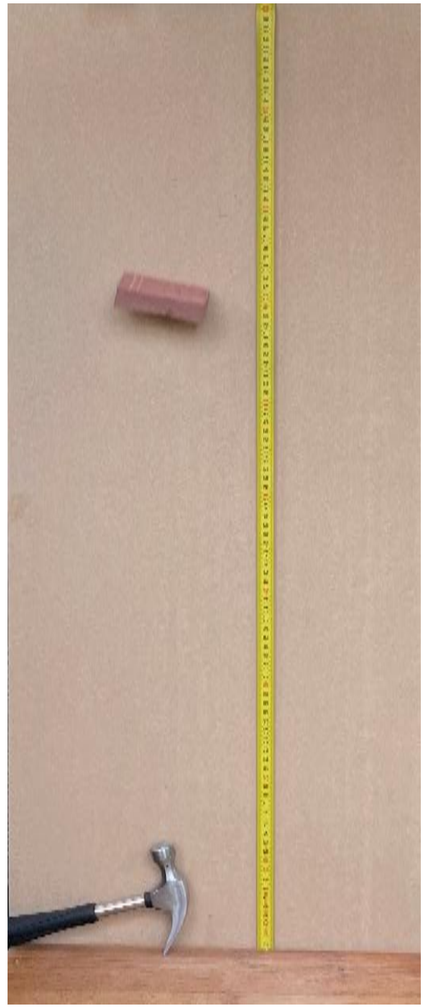




DESIGN

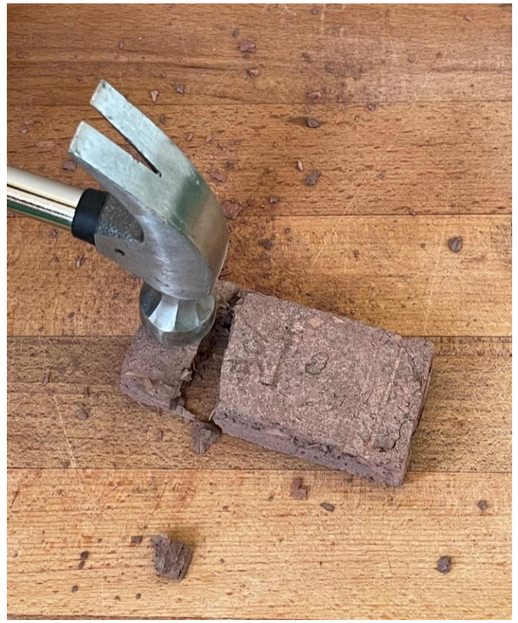
TEST MATERIAL- ADOBI TYPE 2- 50% CLAY + 50 % SAND

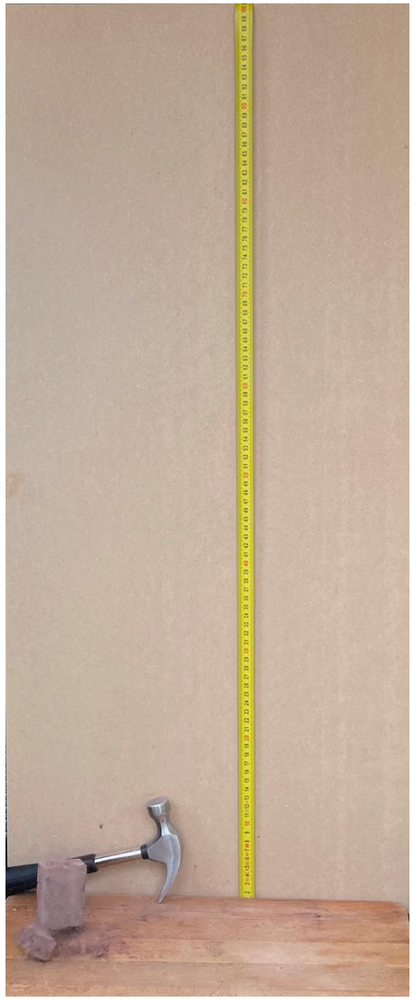


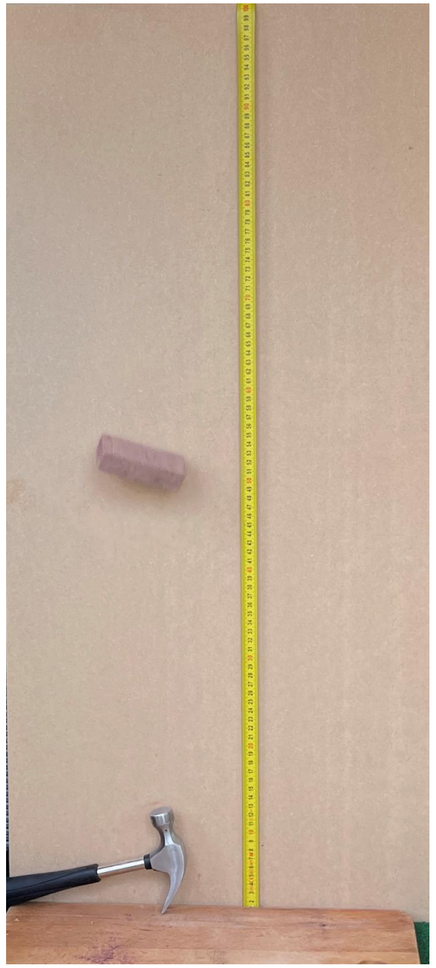


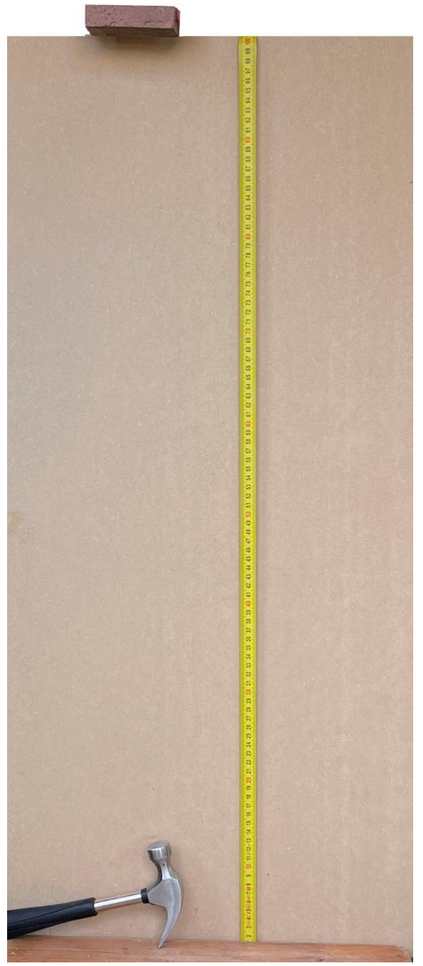
DESIGN

TEST MATERIAL- ADOBI TYPE 3- 60% CLAY + 30 % SAND + 10 PALM LEAF



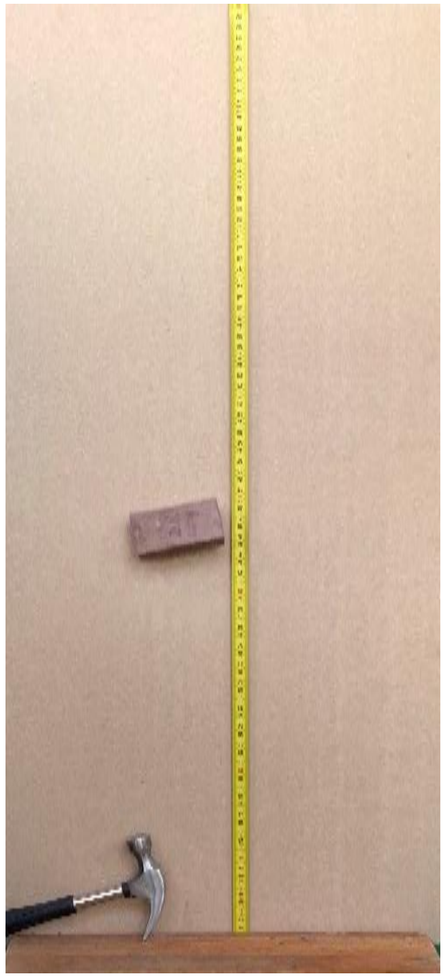


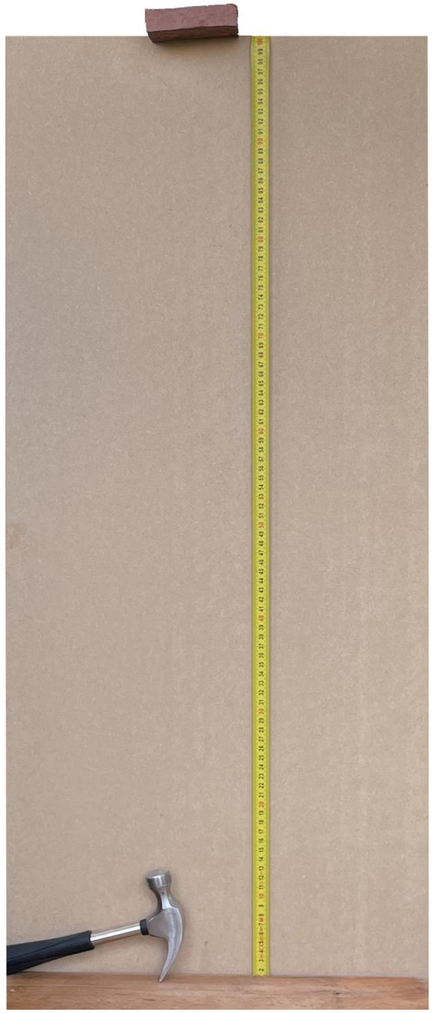




DESIGN

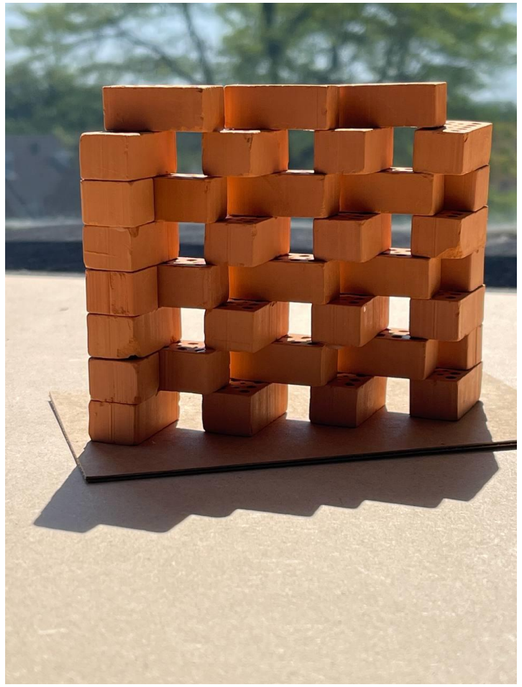
TEST MATERIAL- ADOBI TYPE 4- 70% CLAY + 20 % SAND + 10 PALM LEAF

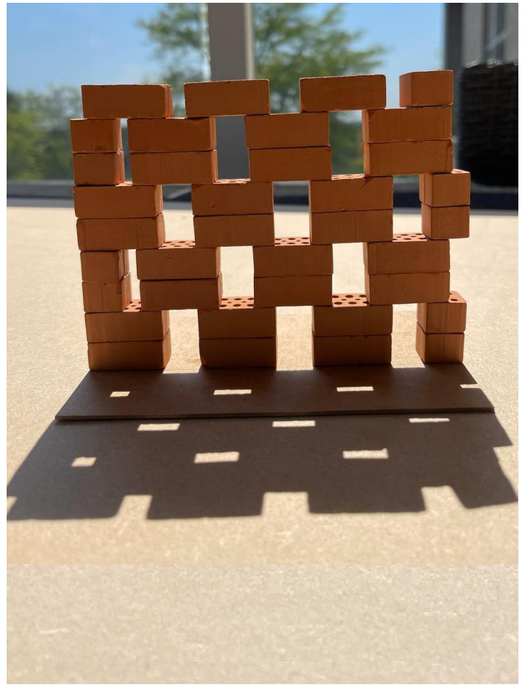


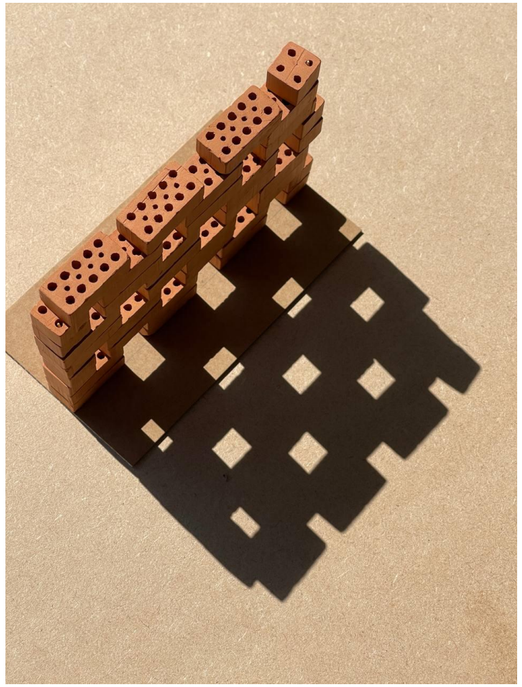


DESIGN

WALL PATTERN AND LIGHT STUDY

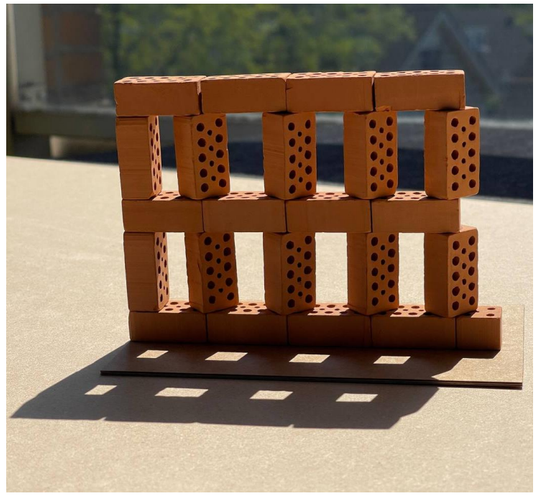


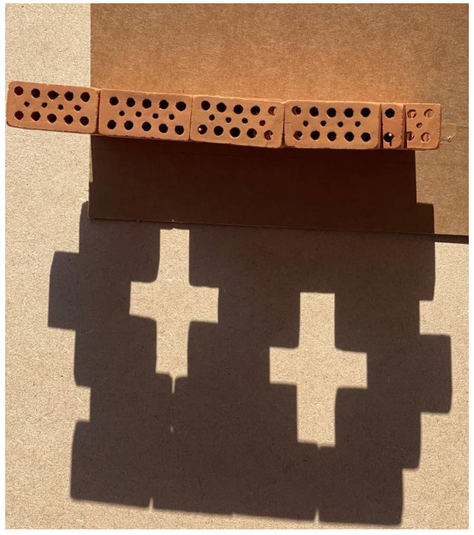




DESIGN

WALL PATTERN AND LIGHT STUDY

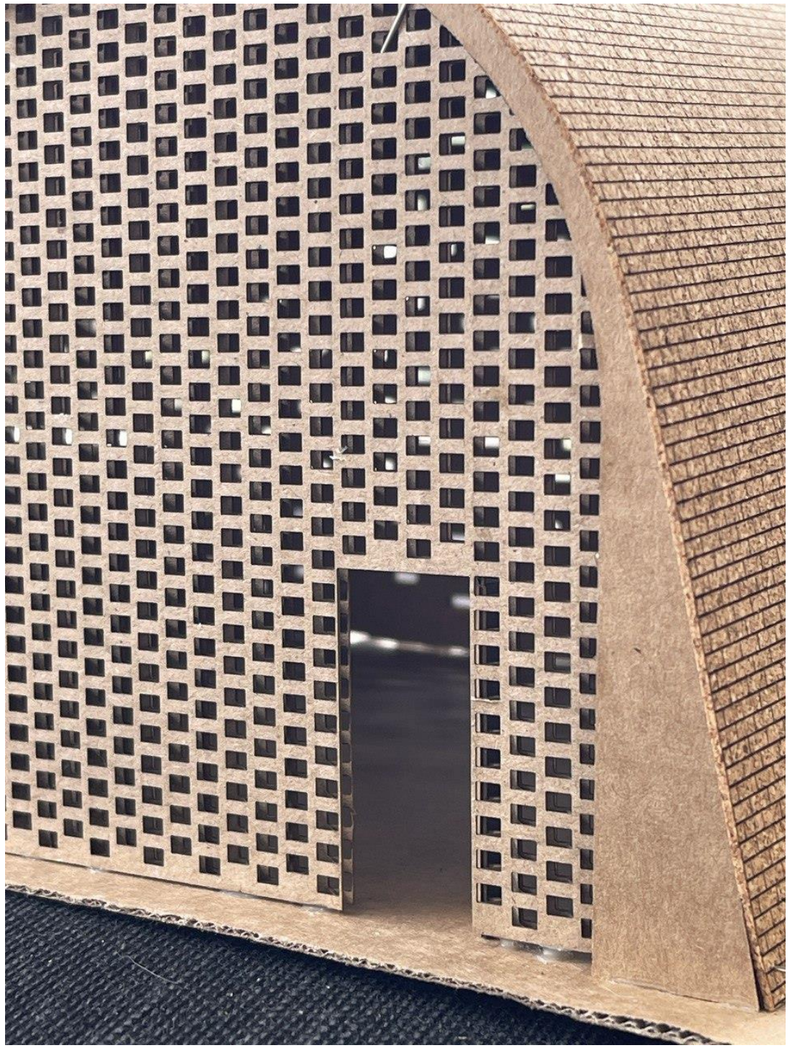




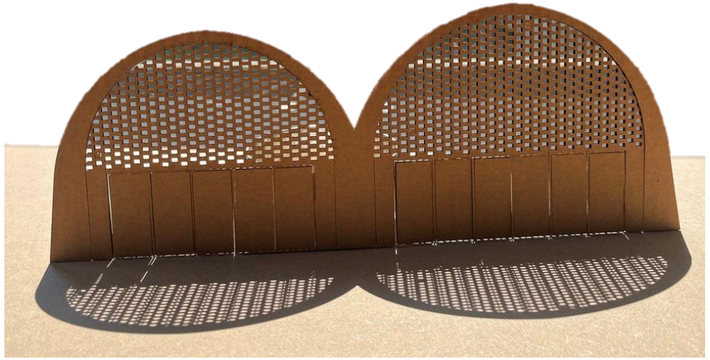
DESIGN

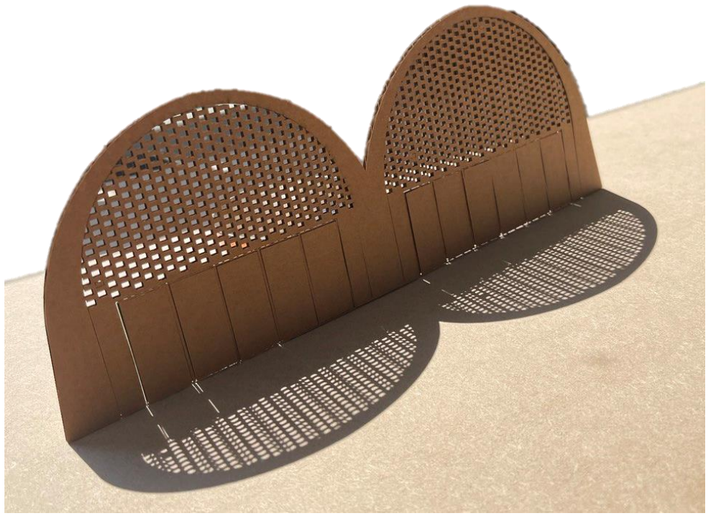
WALL PATTERN AND LIGHT STUDY

North face walls



East and West

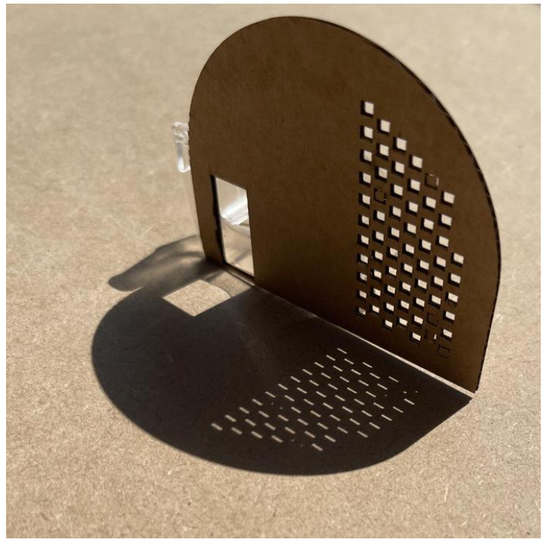


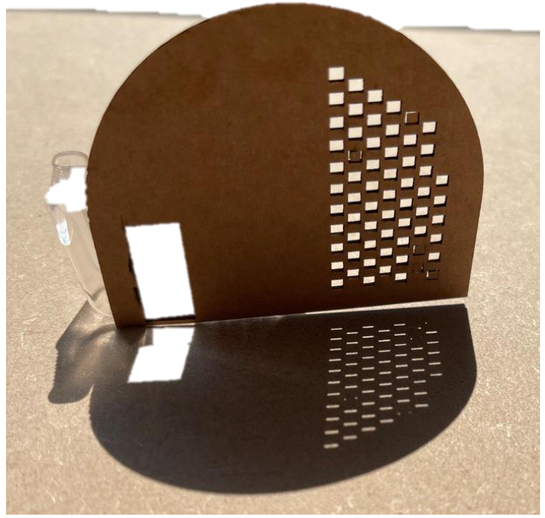


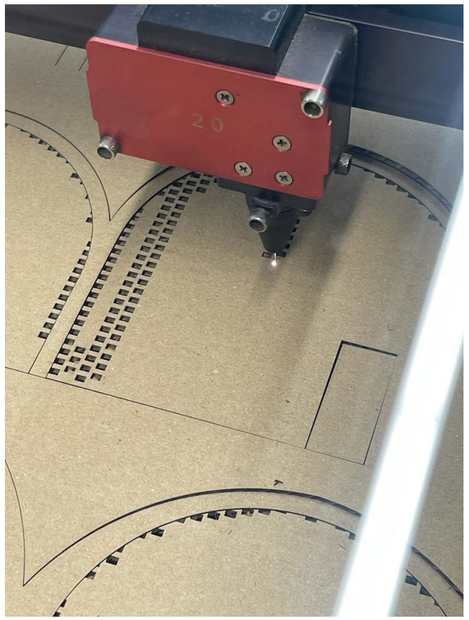
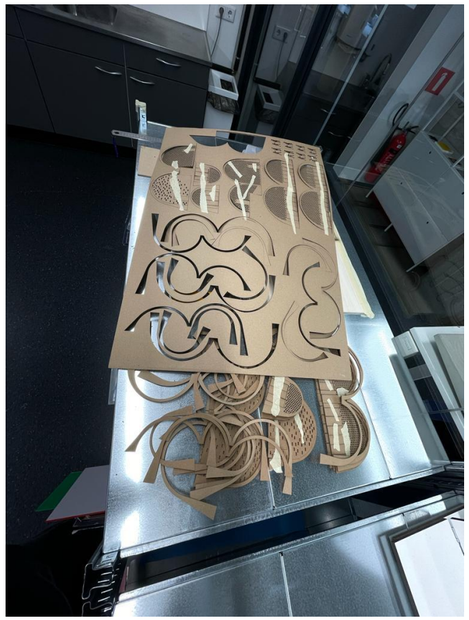
CONCLUSION

As a result of pattern testing to optimise the daylight in the space, all the North faced walls are fully perforated same goes for the east and west. The initial idea of having it half-punched didn't work regarding the amount of daylight needed in the space.

Initial Idea





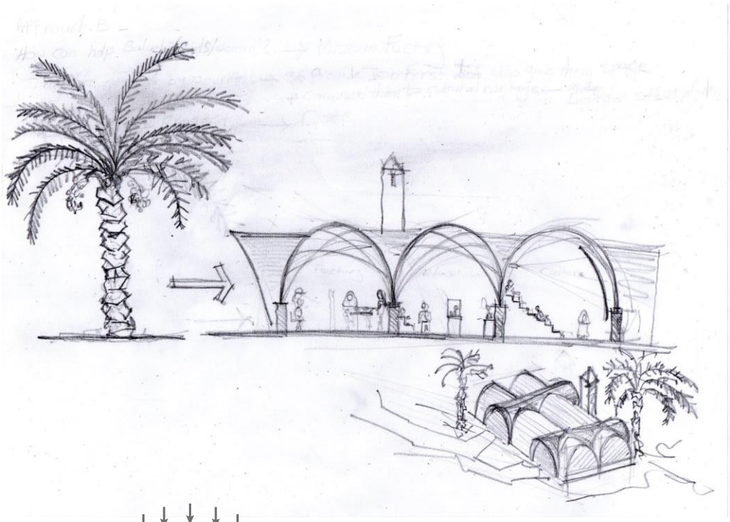



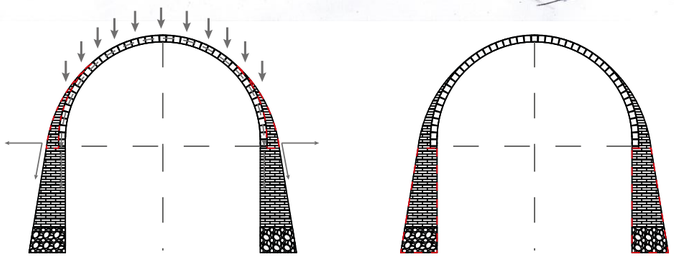
DESIGN

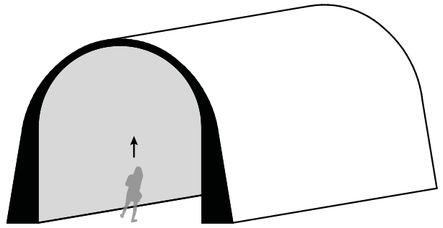
VAULT STUDY

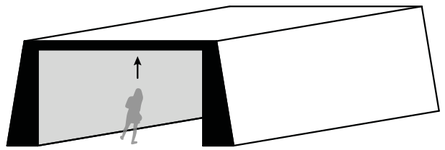
VAULT

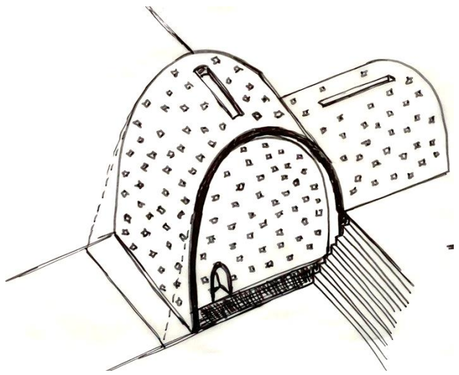
- A vaulted ceiling creates the illusion of making smaller rooms into bigger ones.
- Good ventilation.
- generating coolness.
- flexible with almost all types of interior design styles.
- can utilise dead space/open spaces in ceilings by creating vault ceilings.







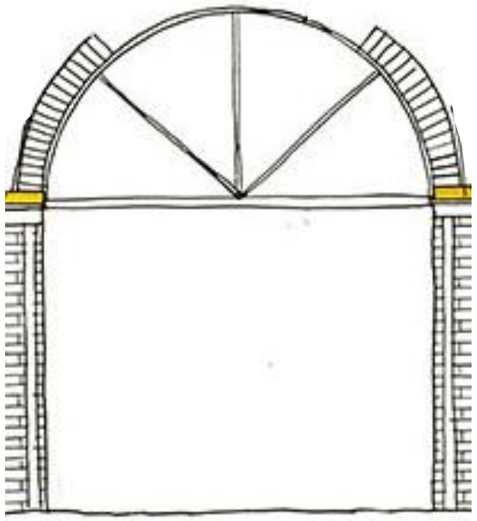




In traditional construction, vaults were built without moulds or support frames. However, using a wooden frame as a temporary guide during construction is common, which can be removed later. Alternatively, a frame made of wooden sticks can be used as a guide to constructing the vault underneath it.

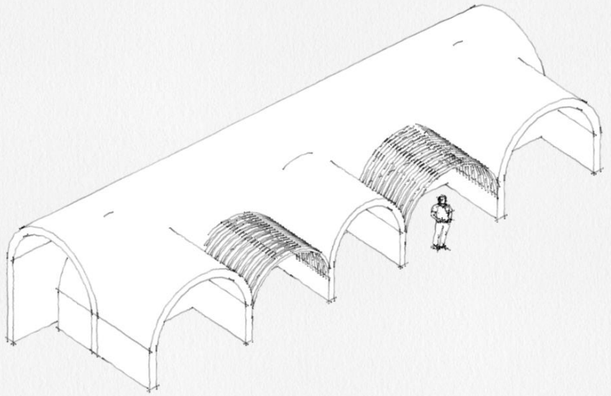
Ardeshir Palace, Firoozabad

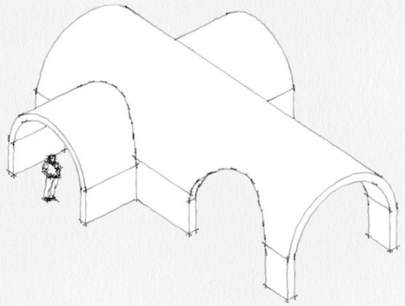
Volta House / Ambrosi I Etchegaray

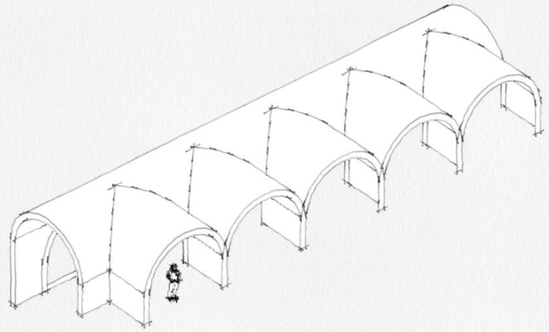


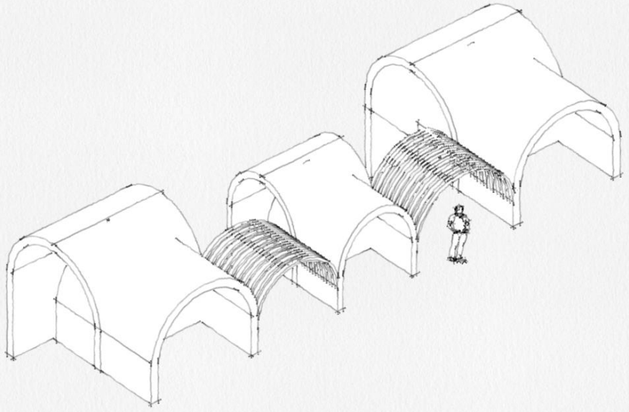
DESIGN

VARIOUS VAULT COMPOSITION



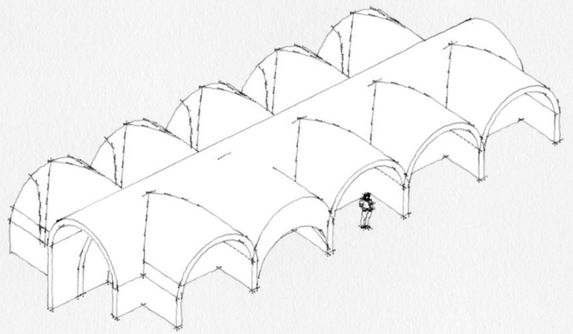






CONCLUSION

These are part of my vault configuration testing to get the most welcoming entrance. In conclusion, I realized that repetition of the forms, even with different materials, cant emphasise the sense of welcoming entrance that I expect and have in my mind. Therefore modularity was not an option, yet the same architectural language with unique impressions still is the critical element.



DESIGN

DOOR AND WINDOWS TYPE

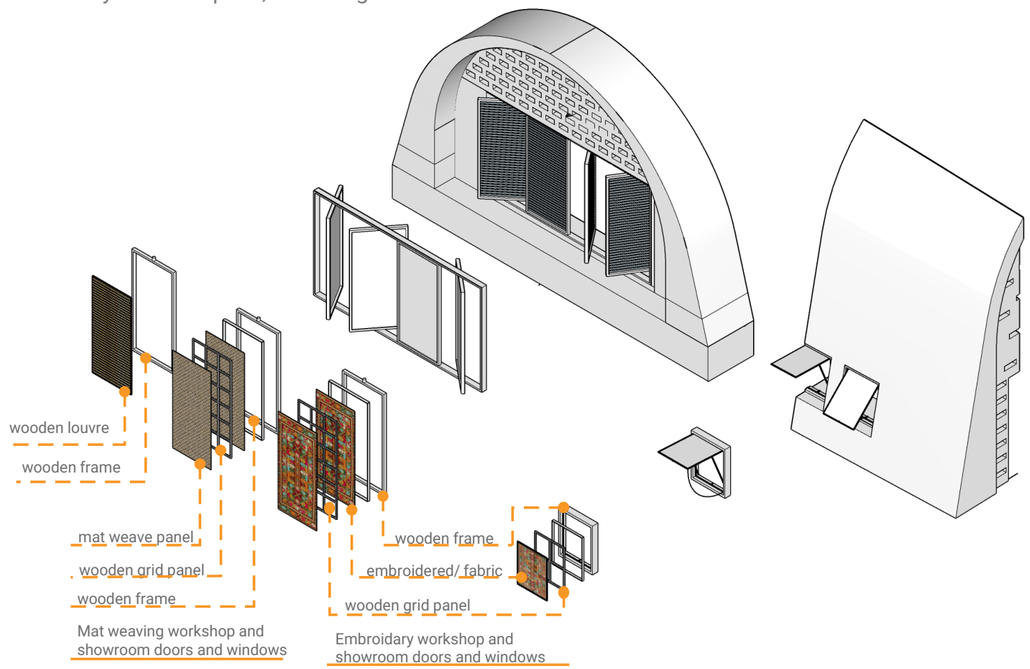
Keeping the design simple, flexible, and elegant is crucial. Handmade doors add individuality to each space, reflecting its purpose.

INSPIRATION

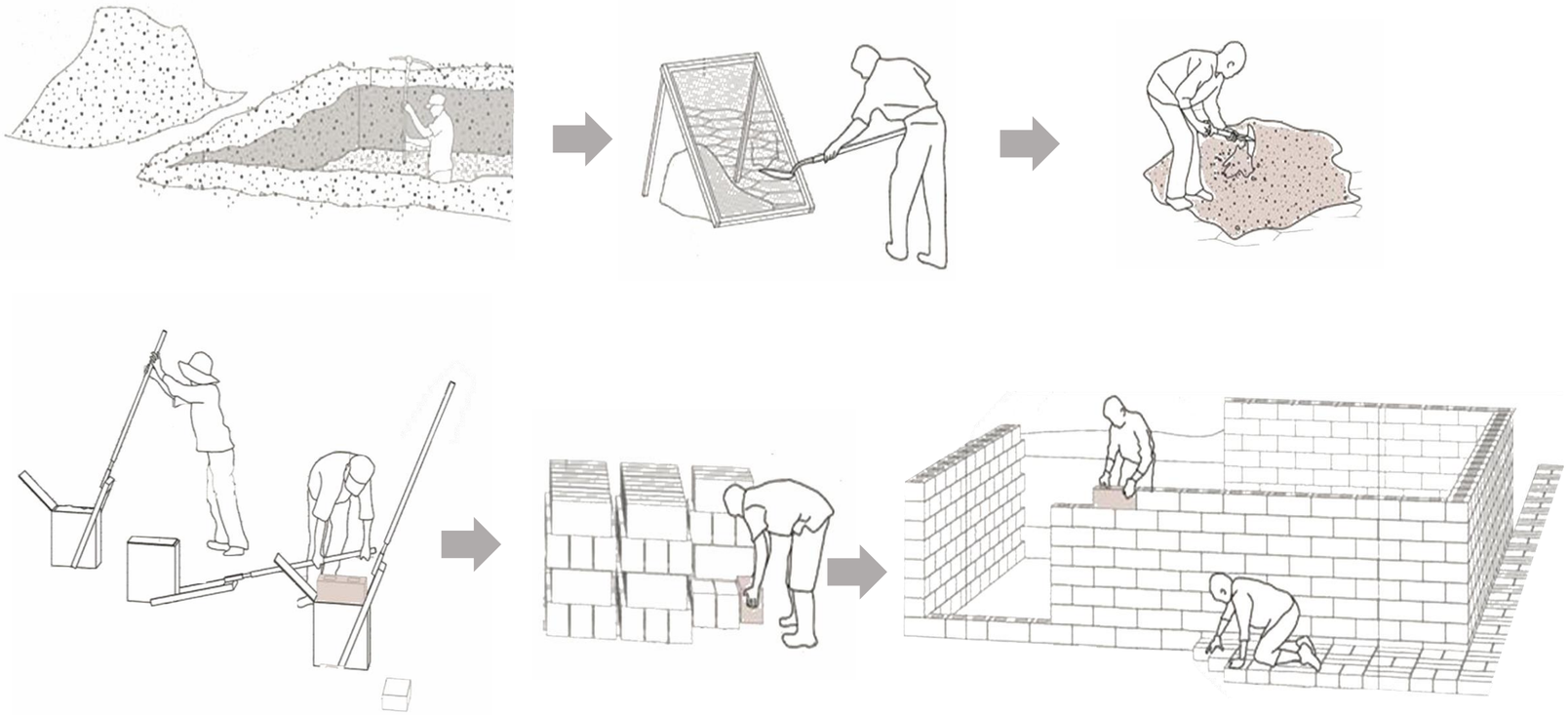
The Totora Cube, Otavalo, Ecuador

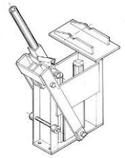
Kalì Pavilion, Ashanti Region, Ghana

DOOR AND WINDOWS TYPOLOGY



Compressed Earth Brick (CEB) making process on site





COMMUNICATING TO NEIGHBOURS

Buildings communicate with their context and neighbouring structures through:

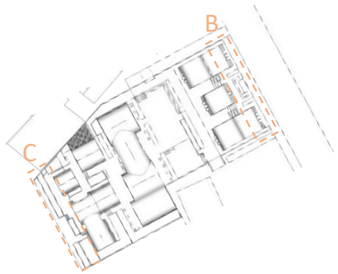
- architectural style
- open spaces
- visual relationships
- Materials
- Scales

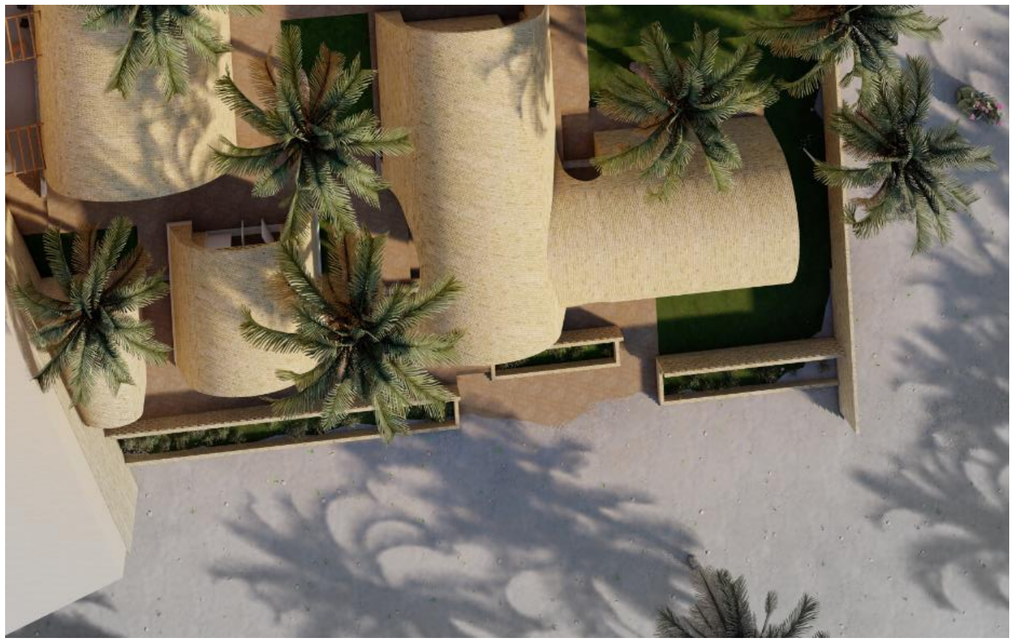
These considerations aim to establish a harmonious and meaningful dialogue between the built environment and its surroundings, creating a sense of place and enhancing the overall urban fabric.

A. INTERNAL COMMUNICATION ELEMENTS

Different buildings within the complex communicate with each other and public spaces with three main elements :

- Centre pivot doors could extend the visual and physical connection
- Top hang outward windows
- Perforated walls for visual connections





B. MAIN ROAD

The complex communicates to the main road in the East through :

- Set back and create a welcoming kind of square
- Exposed doors of the shops to cars and passersby from both directions
- Visual connection through various openings

C. RIVER AND NEXT PHASE

The complex communicates the context and future phase through :

- Planting box with a low perforated wall, which keeps the physical and visual connection toward the river and future phase
- Level differences

D. MOSQUE

The complex communicates with the mosque mainly through the marketplace:

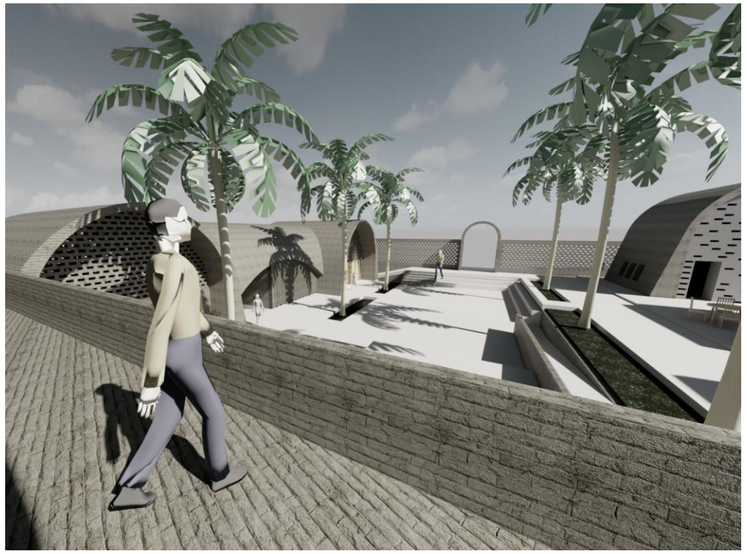
- Visual visually through Perforated wall
- physical trough Stepped entrance

E. RESIDENTIAL AND SCHOOL ENTRANCE

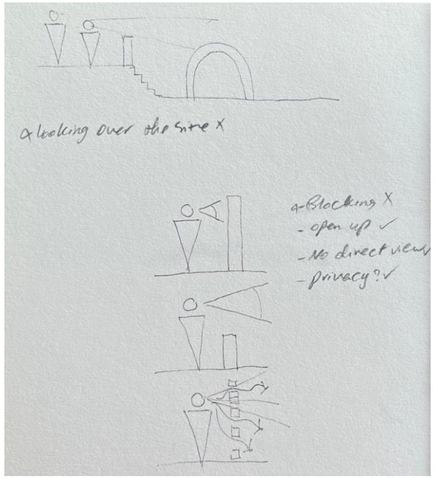
The complex communicates with schools and residential through :

- Visually through the perforated wall
- Physically with an entrance and a dedicated ramp leading children to the playground

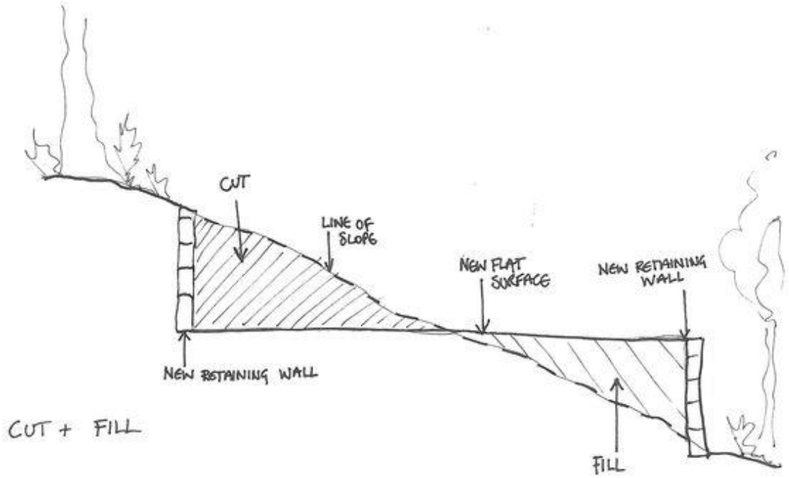
VISUAL CONNECTION TESTING

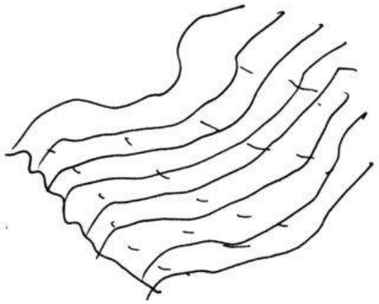


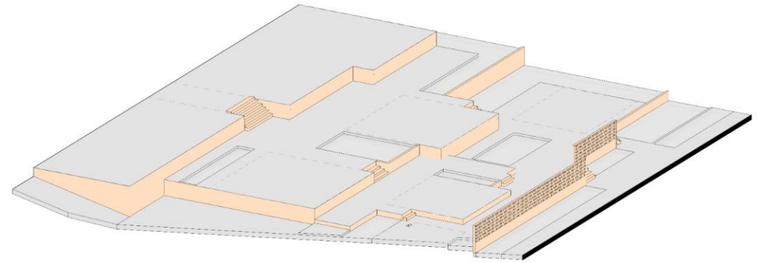
Exploring different transparency levels to establish a visual connection focuses on the relationship between a mosque designated for men and positioned higher from a women's centre level. The goal is to create a visual connection while respecting privacy(soft boundary).



TERRACE TERRAIN







Retaining walls

A terracing system is an effective solution for dealing with slopes.

It involves creating a series of levelled and stepped platforms on

the slop, which helps control erosion, improve stability, and optimize land use.

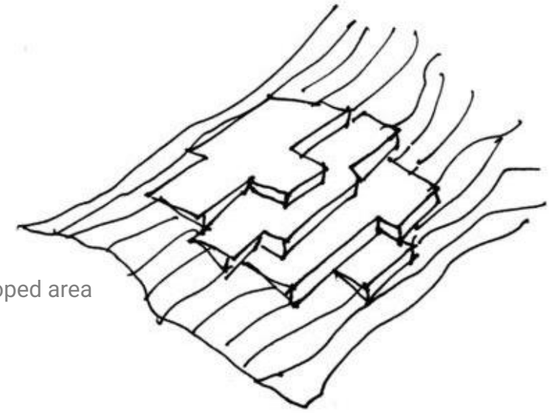
Some critical aspects of implementing a terracing system:

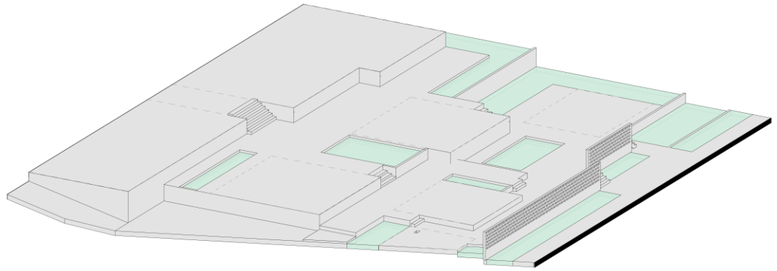
- Retaining Walls to support and stabilize the terraced platforms
- Proper grading and Drainage to allow water flow
- Staircases or Pathways allow for easy access and movement throughout the sloped area

-creates dynamic space

-Providing kind of connection corridors between buildings

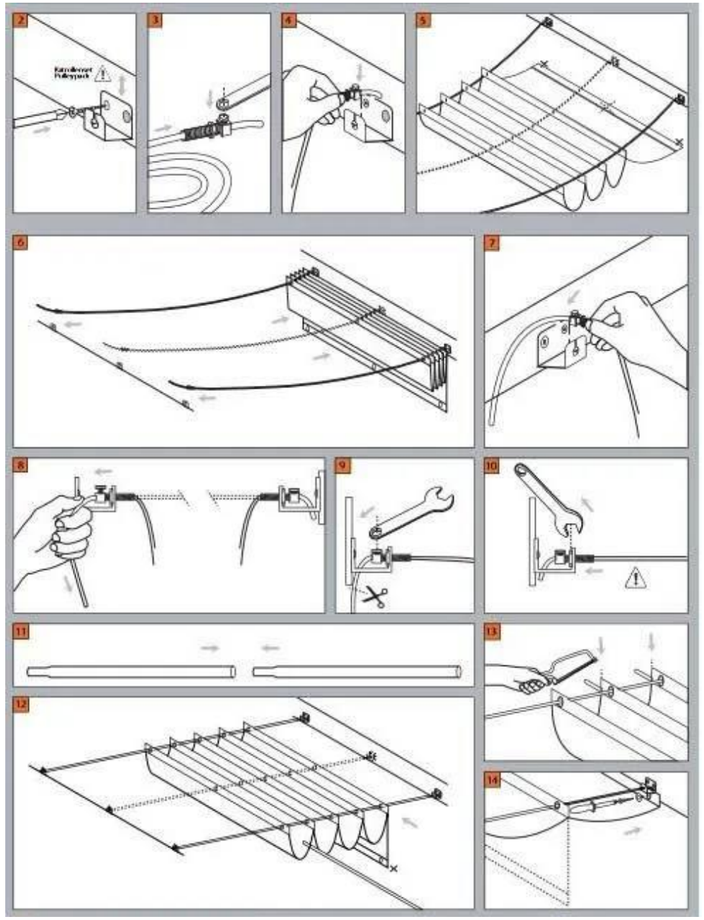
* Excavated soil can be used in the compressed earth brick process

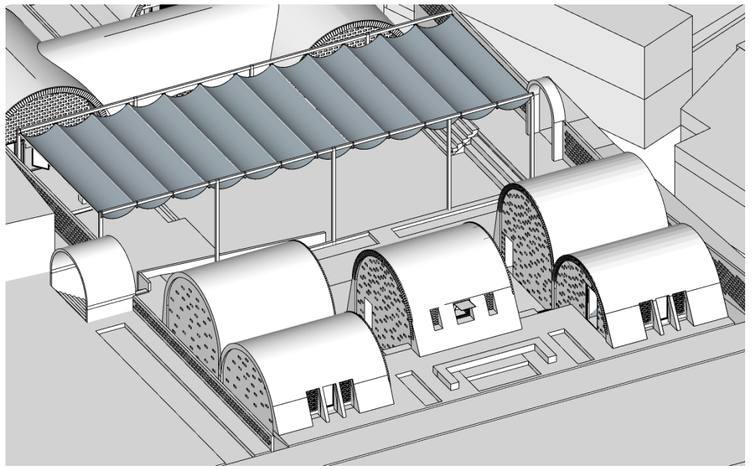




Ggarden

MARKET CANOPY





During the day, the retractable canopies provide a delightful shade, but they can be quickly drawn back at night, transforming the area into an open space. These canopies are composed of colourful fabric shades, intentionally emphasizing the significance of women's clothing as the brightest element in the context, thus symbolising a distinct feminine feature.

DOCUMENTARIES

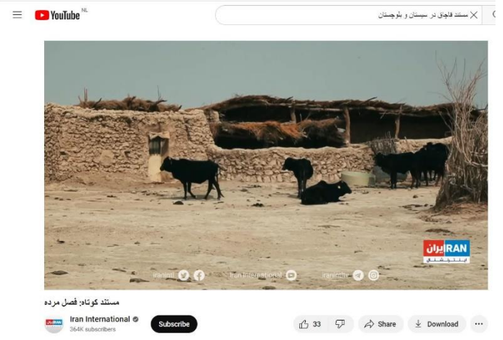
About Baluchistan

https://www.youtube.com/watch?v=nIB8Ha5jdNw&t=1714s

Rose Lady documentary

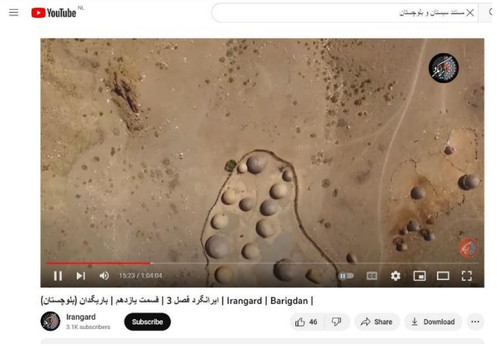
https://www.namasha.com/v/4IcJ9aDU/%D9%85%D8%B3%D8%AA%D9%86%D8%AF_%D8%A8%D8%A7%D9%86%D9%88%DB%8C_%DA%AF%D9%84_%D8%B3%D8%B1%D8%AE_%DB%B1%DB%B3%DB%B8%DB%B7_%D8%B4%D9%87%DB%8C%D9%86%E2%80%8C%D8%AF%D8%AE%D8%AA_%D8%B3%D8%B1%D9%84%D8%AA%DB%8C_%D9%87%D9%85%D8%A7%DB%8C%D9%88%D9%86_%D8%B5%D9%86%D8%B9%D8%AA%DB%8C%E2%80%8C%D8%B2%D8%A7%D8%AF%D9%87_Lady_of_the_Roses_

Dead Season



https://www.youtube.com/watch?v=3utiTAwn7GA

Irangard Season 3 - Episode 11 - Barigdan (Baluchistan)



https://www.youtube.com/watch?v=pkQ6DsK4SMk

EXPERTS

Hossein Ranji is a structural engineer based in Toronto

Sorush Salavatian is a social activist based in Sistan and Baluchistan

Arvand Pourabbasi is an artist, architect, educator, and maker based in Rotterdam

Negar Sanaan Bensi.(my research tutor), Lecturer and Researcher at TU Delft

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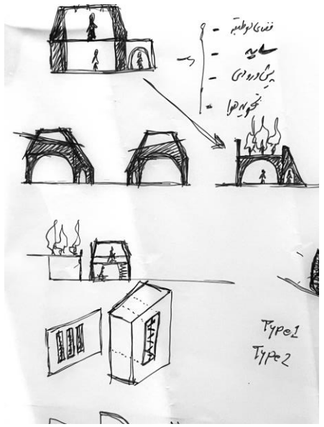
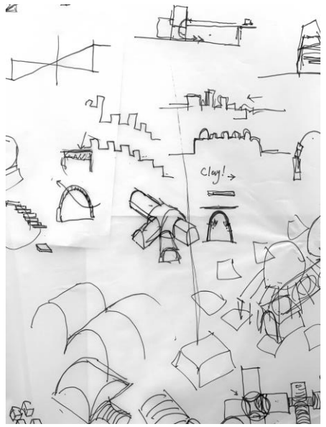
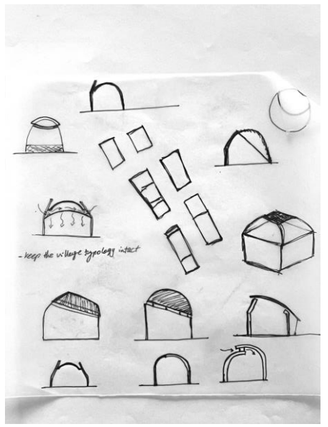
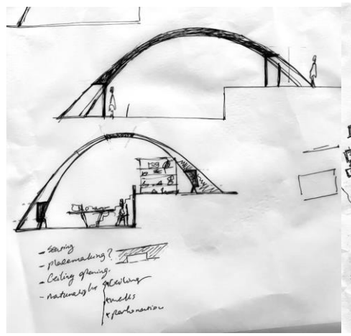
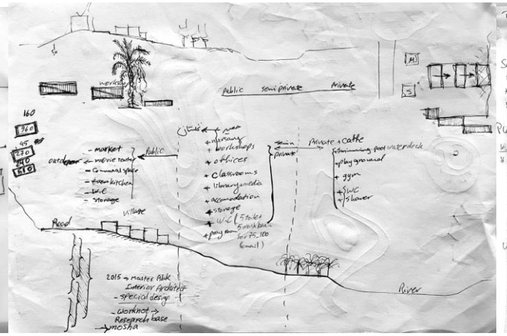
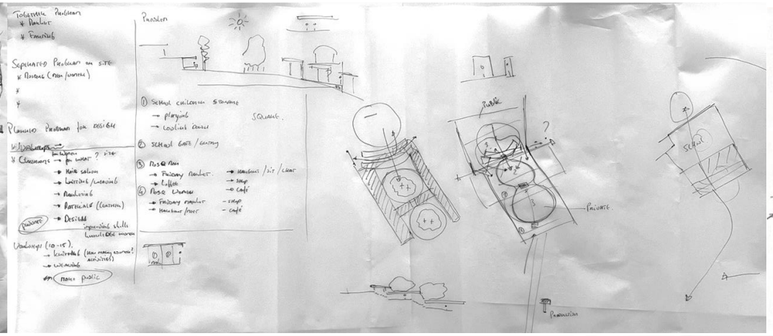
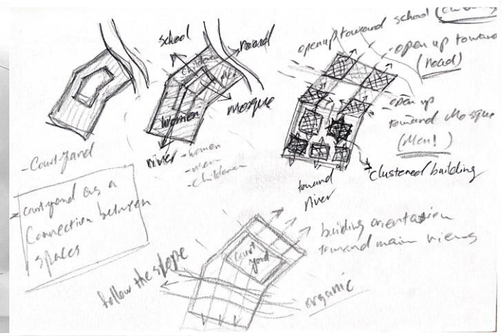
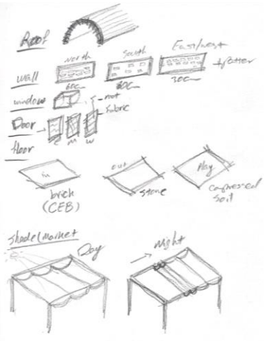
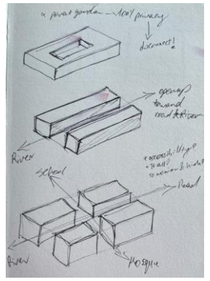
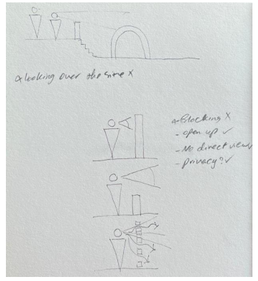
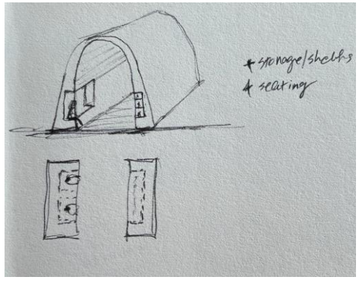
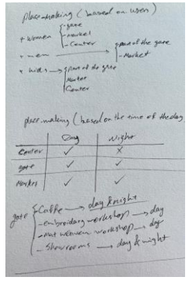
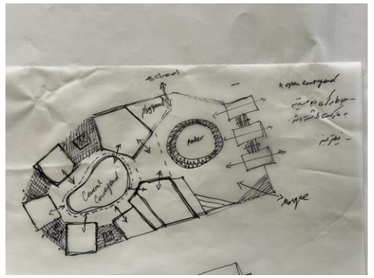
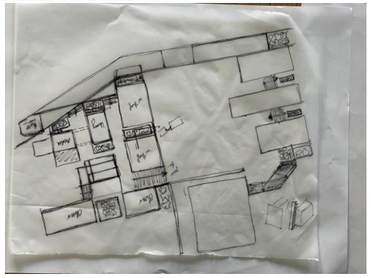
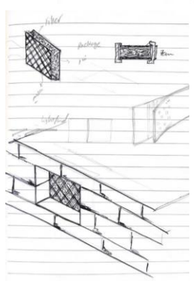
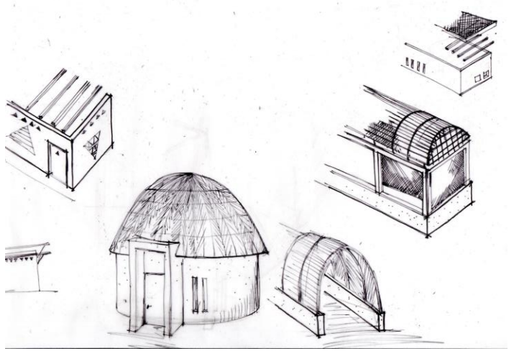
DESIGN

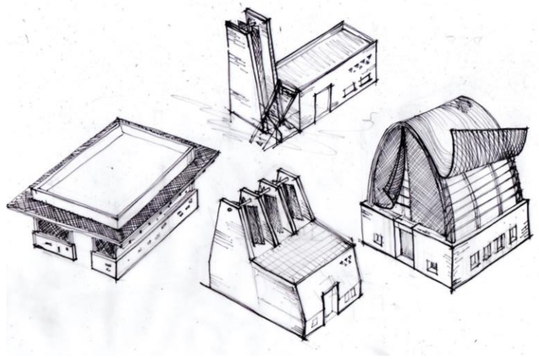
PART OF MY THINKING, SKETCHES AND NOTES

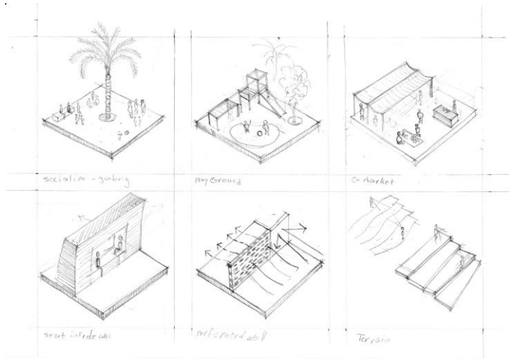




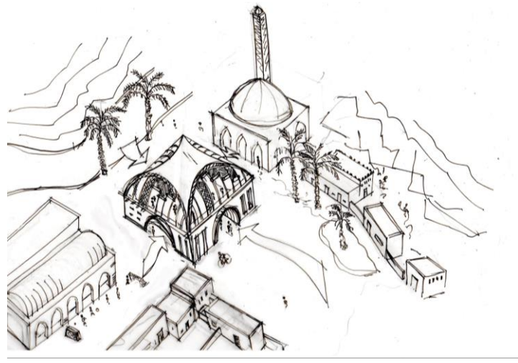












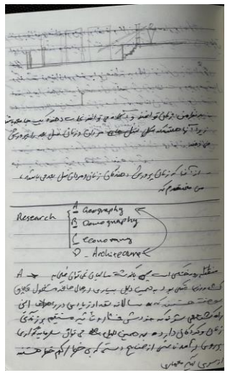
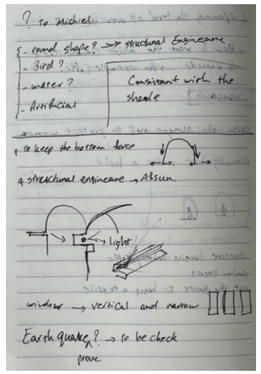
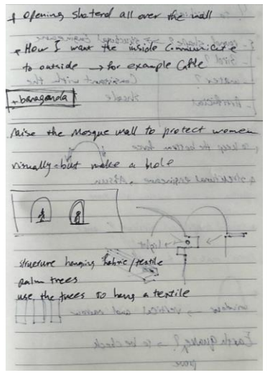
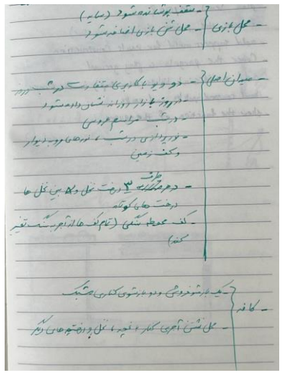
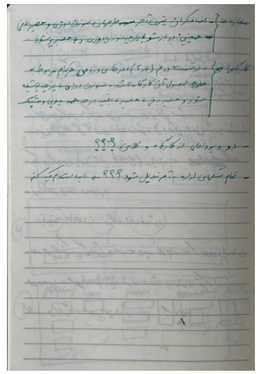
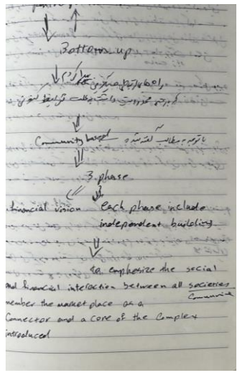
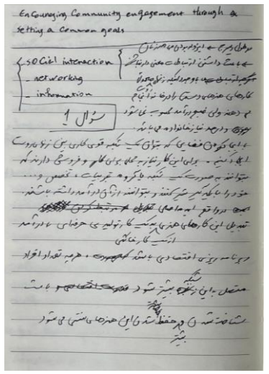
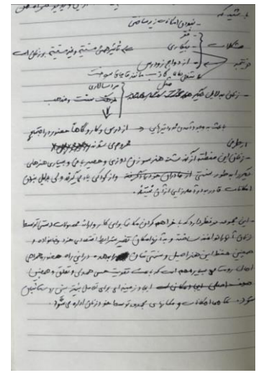
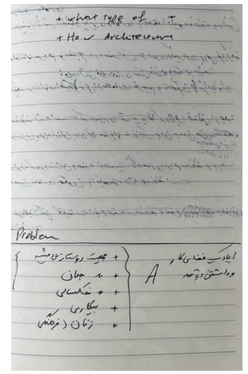
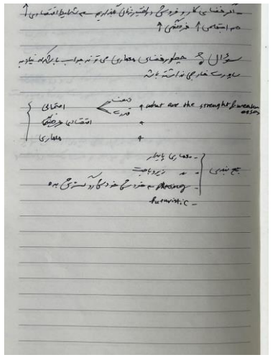
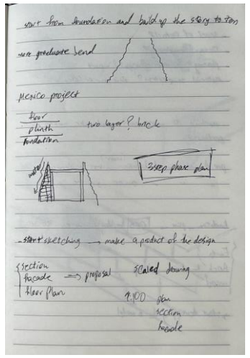
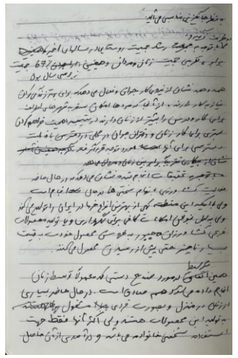
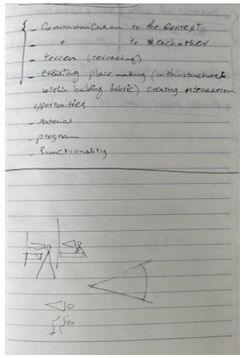
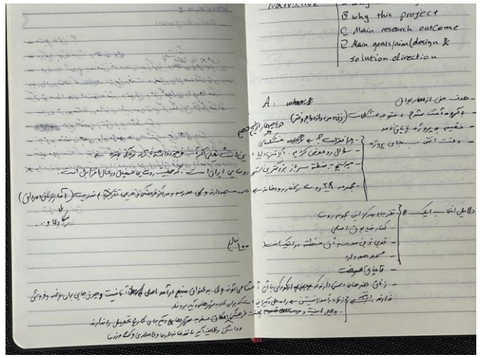
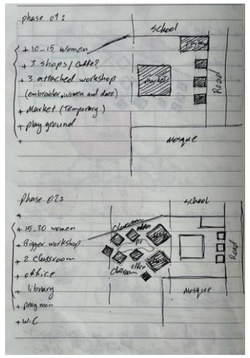
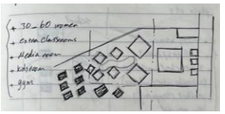










THANK YOU