

THESIS TITLE

**BRANDING JAMDANI**  
**A PLATFORM FOR JAMDANI WEAVING HERITAGE**



**BY**

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Submitted in partial fulfillment of the requirements for the  
degree of Bachelor in Architecture

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SEMINAR II      ARC 512

February 2019

## **ACKNOWLEDGEMENT**

This thesis would not be possible the support of many people, some of whom I would sincerely like to thank here.

To begin with, I am deeply grateful to Fuad Hassan Mallick, Iftekhar Ahmed and Abul Fazal Mahmudun Nobi for supporting in this interesting topic for investigation and who has been my mentors during my thesis project. Not only they were able to provide useful hints and advice, but they also gave me the chance to develop deeper teaching skills by entrusting me with leading tutor duties. They introduce some techniques to information to going ahead with this topic. They deserve special recognition for their always highly competent remarks and suggestions and particular praise for their openness and their calm and friendly manner which allowed me to convey everything most graciously. Thank you very much.

My resource people really helped me a lot. One of the honorable mentions is Mr. Shah Nuruzzaman, GM of BSCIC.

Furthermore, I would like to thank my batch-mates Sarah, Akif, Salima, Rafid, Mazbah, Sania, Fariha, Simi, Momo, Rangan, Ehsan, Shibly, Rahat. Also, I am delighted to get inspirations and support from Mohona Reza, Tanzina Binta Harun, Tasmia Kamal Proma, Shihab, Sananda, Mebsa, Rafiah, Saba throughout my thesis.

Finally, but first in my heart, my parents and my elder sister are due my deep gratitude for their continued moral and financial support throughout my studies and believing in me, the former being of much greater importance.

## **ABSTRACT**

'Jamdani' is a proud name for Bangladesh as it has established the first GI product tag on behalf of Bangladesh. My research has firmly concluded that instead of this remarkable achievement we are stilling lagging behind to uphold jamdani as a brand of Bangladesh. Proposed as an integrated development catering to the jamdani industry's requirements of Bangladesh as a 'one-stop-solution' which also work as a "Platform". The Project would be developed on a commercially self-sustaining format. Based on this, it was felt that both the jamdani and its artisans should be able to get the exposure as at one place. To flourish jamdani as a brand of Bangladesh in to existence as an answer to advertise it. In other words, which is very much needed for the development of research and branding in Bangladesh. The global scenario of Jamdani fabric business in a liberalized market is another propeller as the competition in quality and pricing is tough to go through. It will help to improvise the tradition as cultural identity and industry globally again of quality design intervention and price because the jamdani manufacturers will be able to go for finest and flawless manufacturing. The Project has been envisaged in view of the current state of marketing of jamdani in Bangladesh and the integrated development would provide commercial and industrial spaces. And to integrate and synergies Jamdani weaving with economic growth of the nation and help it to convert its dream of becoming the largest economic powerhouse of the world in near future, a reality.

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# CHAPTER 01

## Introduction

### 1.1 Background of the Project

Jamdani is one of the finest fabrics in the world and it is also eco-friendly. Because it is made from hand and foot run tool. The historical value of this is immense as it the most priceless handmade fabric to be of great appeal across the world from Bengal to other part of South Asia to Europe to America from thousands of years ago. Sadly, after the British occupation of Bengal there began the decline of jamdani and other hand looms cottage industries and indigo vegetable dyes which were often used to naturally dye jamdani patterns (Khan,2016). During the Mughal empire Jamdani production reached its peak era. On that time wearing Jamdani saree was considered as the sign of nobility and royalty because of its finest material. It is accredited that the ultimate test of its fineness was to pass a sari width through a small golden ring.



FIG: 1.1.A Source: CHRISTIE'S IMAGES / BRIDGEMAN, <https://www.aramcoworld.com>

By the 17th century, Bengali muslin was associated with the power and elegance of the Mughal court in India, as shown in this 1665 depiction of princes Dara Shikoh and Suleiman Shikoh Nimbate (Islam,2016)



FIG: 1.1.B Source: BRITISH LIBRARY, <https://www.aramcoworld.com>

A cloth shop in 18th-century India. As early as the 10th century, one Arab traveler observed that “these garments ... [are] woven to that degree of fineness that they may be drawn through a ring of a middling size.” (Islam,2016).

According to Intangible Cultural Heritage (ICH, 2013), UNESCO announced Traditional art of Jamdani weaving as "Intangible Cultural Heritage of Humanity". The UNESCO said, "jamdani is a time-consuming and labor-intensive form of weaving because of the richness of its motifs which are created directly on the loom using the discontinuous weft technique (Sinha,2013). Jamdani weaving is blooming now a days due to the fabric's demand and reputation for making not only saris but also many other stylish forms of dress at home and abroad. The jamdani sari is a sign of integrity, glory and self-recognition. It always provides wearers with an essence of cultural significance and social cohesion. As UNESCO has already given a declaration about jamdani, Bangladesh itself should also take some measures to branding its own product. Thus, it will ensure clarity and recognition of the socio-cultural significance of the intangible cultural heritage which is expressed in a body of knowledge, practices and traditional craftsmanship. More importantly it gives the acknowledgment to human creativity, also will encourage the local and international buyers.

Jamdani is the only surviving variety of the world-renowned muslin from ancient period. The connection of Dhaka and jamdani is clearly reflected in many global trade and exhibitions in both historical and contemporary times. The government of Bangladesh enacted the

“geographical indicative products (registration and protection) act 2013” on 15 July 2013 and it was passed in national parliament on 5 November 2013 (Iqbal,2013). However, in the meantime India had registered as “Uppada Jamdani”. This attempt of India was illegal and finally jamdani got registered as the first GI product of Bangladesh on 17 November,2016. The next step of Bangladesh should be promoting jamdani as a Bangladeshi brand worldwide. That's people all over the world can know our heritage and traditional finest fabric which is originated from Dhaka as well as Bangladesh.

Bangladesh small and cottage industries corporation (BSCIC) has established a jamdani industrial city at Noapara in Narayanganj district on 1993. There are 409 plots in the jamdani industrial city, 399 industrial plots have already been distributed among entrepreneurs for setting up their industries and already 66 weaver got GI registration tag (Parvez,2017). In some such way our jamdani industry has been revived. But it's to advertise jamdani as a product of Bangladesh and get the full benefit out of it by giving manifestation of this priceless art work.

Based on this, it was perceived that both our traditional vibrancy and economic growth out of jamdani should meet in one place to give highlight all over the world about our heritage fabric and its intangible artwork.

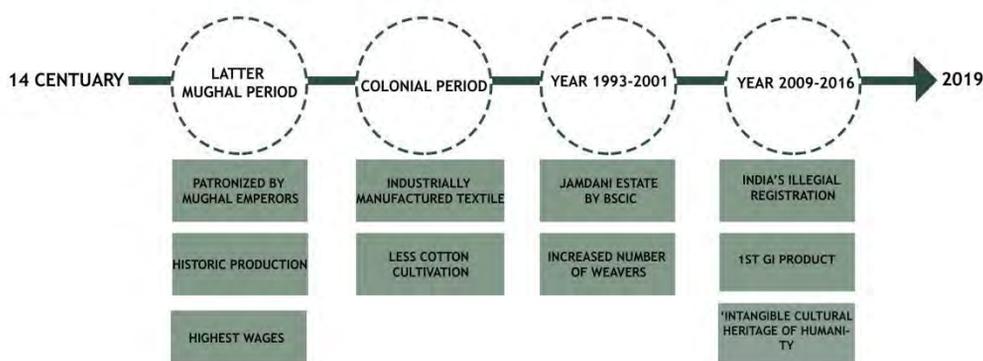


FIG: 1.1.C IMPORTANT PHASES OF JAMDANI BY AUTHOR

## 1.2 Project Brief

***Jamdani, the finest variety of muslin manufactured in the state of Bengal'*** - the Arab geographer Somalian.

South Asia has at least 4000 years of textile heritage. Among all the region in south Asia, the bagel delta as well as Bangladesh has various traditional heritage in every corner of it. "Jamdani" is the proud name to hold this place in Bengal history from the Mughal era till now. Jamdani was one of the best categories of muslin. While muslin has almost been extinguished, 'jamdani' survived. Another name of jamdani is "Dhakai" as the birthplace of this heritage fabric is in Dhaka territory more specially in Naraynjganj.

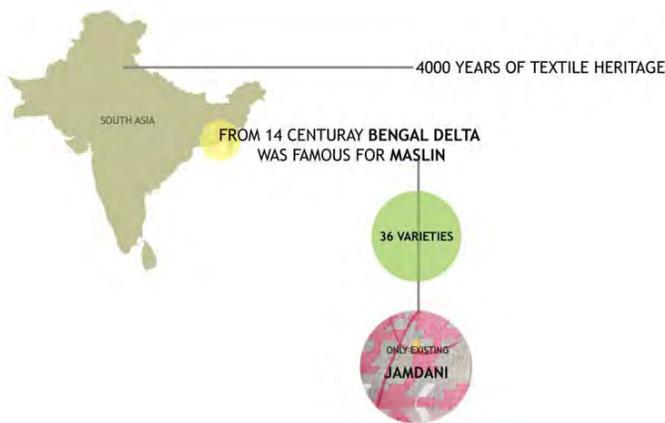


FIG: 1.2.A TEXTILE HERITAGE OF SOUTH ASIA BY AUTHOR

Jamdani is most possibly derived from the Persian word 'jama(e)', which means clothes. 'jamedan' in Persian means a closet or wardrobe (Akbar,1338). My research has firmly concluded that Bangladesh badly need massive branding and promotion of jamdani worldwide to show our rich and priceless heritage fabric. That will also create aperture for the jamdani artisans to be valued their artwork & restore the traditional design which are on the verge to get ruined. As a result, it will integrate our economic growth along with giving exposure to our traditional fabric 'jamdani'.

## 1.3 Aims of the Project

- The aim is to give jamdani a worldwide exposure as a brand of Bangladesh. This project concluded that we highly need to promote jamdani as it is a genuine product of Bangladesh.To ensure that it can utilize the advantages of GI registration tag. For

that, it needs a place where this can facilitate massive branding & marketing of jamdani as world's one of the finest traditional fabric.

- Jamdani is a family-based cottage industry. The artisans hold the heritage from generation to generation. Bangladeshi artisans are only getting wages not the premium of the art they produce by their own hands. So, even though number of 'jamdani' sarees sales is increasing that put little impact on the life of the artisans. In this case, they need training and publicity to flourish their precious art work throughout the world.

## Chapter 02

### Literature Review

#### 2.1 Significance of Jamdani

***"their robes are worked in gold, and ornamented with various stones, and they wear also flowered garments of the finest muslins"*** - Megasthenes (Seleucid at the Mauryan court)

Like other traditional heritage of Bangladesh is proudly upholding jamdani's significance in Bengali history from Mughal era till now. The birthplace of jamdani is Bengal more specifically in Dhaka territory. It is assumed that this precious fabric was available in Bengal from the first century A.D.

The significance and production of jamdani bloomed under Mughal emperors because of its richness, royalty, and design. It made of the finest cotton in the world which was originated from Dhaka. Because of its priceless handmade fabric quality, it made great demand across the world from Bengal to China to Turkey to Italy from thousands of years ago.

In Kautilya's book of economics, there is the reference of how Jamdani was the finest weaved muslin not only basis of fabric quality but also for its gorgeous geometric flower designs and colorful patterns in tremendous demand. In the 17th and 18th centuries, jamdani grew into a master of expensive art and desired trade good which exported west to Kabul, Baluchistan, Persia, Arabia and Greece. By undergoing of the archival books and incidents from the East India Company of costly Jamdani Muslin exports to Europe and the West. Records show that in 1787, Jamdani worth 5 million Re was exported to England (Khan, 2016). The Mughal emperors also admired the work of artisans and also valued them.

Jamdani is never out of fashion. Still, it has the same significance as before. Muslin almost has been extinguished but jamdani survived and holding its quality of richness and pride. Nowadays jamdani artisans are scattered all over the Dhaka district and producing 2000 piece of jamdani sarees per week (Khan, 2016). A very good quality Jamdani can take 9 months to weave.

Jamdani sharee step by step production:



FIG: 2.1. A JAMDANI SAREE PRODUCTION TIME BY AUTHOR

Jamdani is nominated as the first GI product of Bangladesh (Newage Busniess,2016). Though this industry is passing through some critical phase of branding jamdani it couldn't lose the significance of this tradition fabric.



FIG: 2.1. B GI LOGO. SOURCE: BANGLADESH SMALL AND COTTAGE INDUSTRIES CORPORATION (BSCIC)

## 2.2 Jamdani's Root to Bangladesh

To explain the evolution of jamdani in Bangladesh as well as in Dhaka region, first one needs to know the context of cotton cultivation. Because this is the main base of Jamdani. Cotton is the oldest commercial crop of Bengal. According to Roxburgh, "that exceedingly fine cotton wool employed in manufacturing the very delicate, beautiful muslins of that place" (Roxburgh 1832: 184). The Bengal delta most importantly the Dhaka region is very famous for producing cotton. This cotton has the unique quality which is the main raw

material of Jamdani. To grow the finest cotton, it requires some specific climatic condition. In other words, " the cotton production found its most fertile ground in the regions around the connecting points between the Old Brahmaputra and the Meghna rivers " (Talukdar: 57). The favorable condition, the soil beside the river, fresh air, the geographical situation is the main root to grow most precious and finest cotton in Dhaka.



FIG: 2.2.A COTTON CULTIVATION AREA. MAP PRODUCED BY MITRA (1978)

The first reason for the centering of jamdani in those locations was focused on the production of cotton which was suitable to prepare Jamdani. Secondly, the river system greatly helped the supply of raw cotton and distribution and marketing of finished products. A third issue based on the quality of waters and the climate of the region. Hunter noted that the water of the Shitalakhya river, with a length of about 50 miles, had a high and wooded bank, which never overflowed and that it was "remarkable for the purity and coolness of its water" for the production (Hunter 1877: 21). After all, for the production and processing of cotton, water was a must a need. Thus, it makes believe that the water of Shitalakhya had a connection with Jamdani production. Fourth, in terms of climatic issues, some writers refer to the level of moisture of the region. There were many processes of weaving which were dependent on the right level of humidity and moisture. For example, lack of humidity could be a cause of warp breakage (Basu 1955: 75). Fifth, most of the Jamdani designs are encouraged by local ecology. It conveys that on the basis of design the weaving practice of

jamdani was very versatile. Over the times the floral designs gave way to a diverse pool of designs, focusing on local flowers and plants, signify local orientation.

Dhaka and jamdani are synonymous with each other. The history and geographical position are certainly that assure that jamdani is the product of Bangladesh. Bangladesh is proud to mark 'jamdani' as the first GI product of Bangladesh on 17 November 2016. Though Bangladesh has to face a long run phase to establish it. India registered Jamdani as "Uppada Jamdani Sarees" (serial number 106 and application number 122) from Andhra Pradesh in 2009. Hence, India's registration of "Uppada Jamdani" under its GI law is illegal and a violation of existing TRIPS regulation (Iqbal,2013). However, the above discussions in this report clearly suggest that there is no combination of geographical, ecological, historical or commercial conditions elsewhere in the world except in Dhaka, where Jamdani would be produced and traded on such vast scale both nationally and internationally (Shahed: 58). Without a strong historical and geographical base, such revival of goods made of unique intangible cultural practice wouldn't have been possible. By understanding the importance of it UNESCO has declared jamdani as intangible cultural heritage on 2013 (Sinha, 2013).

### **2.3 Present Scenario of Jamdani Industry in Bangladesh**

The legendary traditional fabric "jamdani" has declined over past 100 years. Against all the complications, Jamdani has proudly survived when it was facing demolition in colonial period because of British Raj and got courage to revive revived in the postcolonial era. after that, jamdani market started blooming in post-liberation war especially on early 1990s. In recent years, jamdani has to pass another critical phase for establishing GI tag as a product of Bangladesh as India registered it in the name of "Upadda Jamdani" on 2009 before Bangladesh. However, after getting GI tag of jamdani as a Bangladeshi product, Bangladesh is going through some demanding issues regarding the marketing policy and valuing the artisans.



FIG.2.3.A CRAFTSMAN WEAVING JAMDANI. PHOTOGRAPHY BY ZUNAED TANVIR, SOURCE: <http://www.textiletoday.com.bd>

Jamdani is a family-based cottage industry. The artisans of jamdani from generation to generation are involved with this heritage work. The artisans are not getting proper wages and respect of their artworks. Because most of the time there is no direct connection between market and weavers, so they have to depend on the middlemen. There are 5679 jamdani weavers in Bangladesh (Nuruzzaman, 2017). Among those artisans, The Department of Patents, Designs, and Trademarks has given go-ahead to 66 Jamdani weavers to use geographical indication tags to market and brand the traditional fabric at home and abroad (Parvez, 2017). By taking the advantage of GI tag government must take initiative to give more GI tag to artisans to value their works as well as to protect our cultural heritage.

The annual production of Jamdani goods of the estate is approximately 60,000 -70,000 in number and its market price is BDT 12-15 crore (Hossain, 2017). In Noapara, a vibrant jamdani weekly 'Hat' is held where Jamdani traders and weavers are gathered to sell their jamdani saree. In each market approximately BDT. 50 lakhs-1 crore are transacted said Md. Mamunur Rashid (Sajib, 2017). Beyond this there are also so many weavers all over the country who produce Jamdani products.



FIG.2.3.B JAMDANI SARIS BEING SOLD AT A WHOLESale MARKET AT BSCIC JAMDANI PALLI IN DEMRA BY Star/File, SOURCE: <https://assetsds.cdnedg.bluemix.net>

India is the leading importer from Bangladesh. But in most cases there is no official data of exporting jamdani to India. Jamdani production rate in India is high. On the other hand, Bangladeshi jamdani is far ahead in terms of quality and traditional heritage. But Indian entrepreneurs explore marketing scopes, do promotions and get updated. While talking about promotions and marketing opportunities, the most notable appearance was made by Priyanka Chopra who is not only Indian but also an international actor. She received the Padma Shri wearing a lime green Jamdani sari with intricate floral designs. Sadly, Bangladesh is lacking behind in this sectors.



FIG.2.3.C PRIYANKA CHOPRA WEARING A JAMDANI WHILE RECEIVING PADMA SHRI. SOURCE: *Shutterstock*

Currently, this sector and our artisans are facing many challenges. One of them is the selling cycle where the artisans actually are not getting the proper wages.

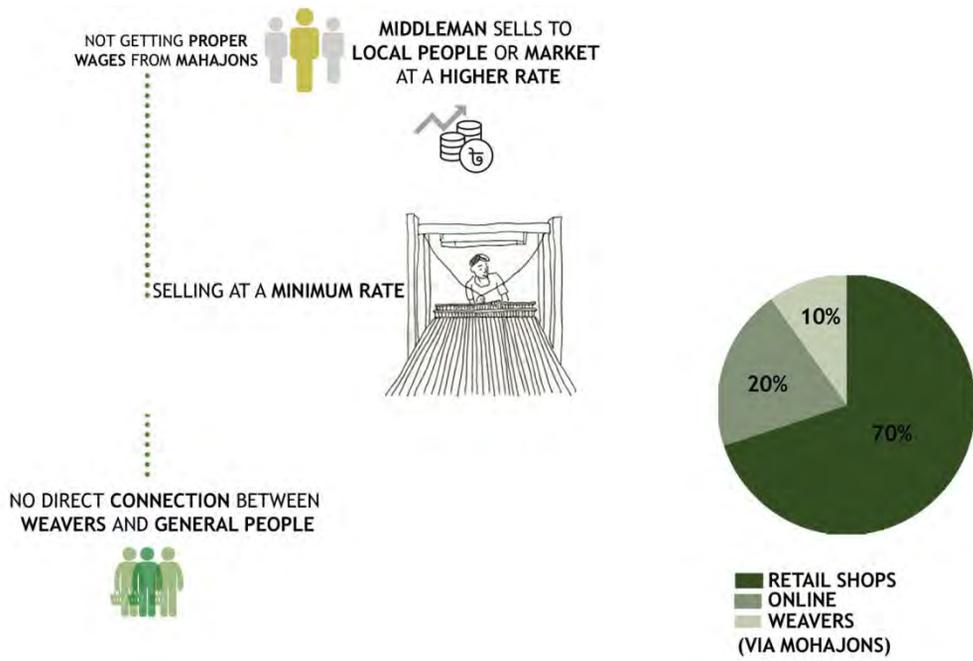


FIG.2.3.D SELLING CYCLE OF JAMDANI BY AUTHOR      FIG.2.3.E BUYING PATTERN OF JAMDANI BY AUTHOR

In terms of exporting to others country the ratio of exporting jamdani is lower than India. Surprisingly, india mainly import jamdani from Bangladesh and export it to others country and most of the import is illegal and not recorded.



FIG.2.3.F EXPORT RECORDS

Even, the working and living quality of artisans is not in a better position. Existing environment does not really inspire them to work and sell their work directly. It does not help them to get the exposure.

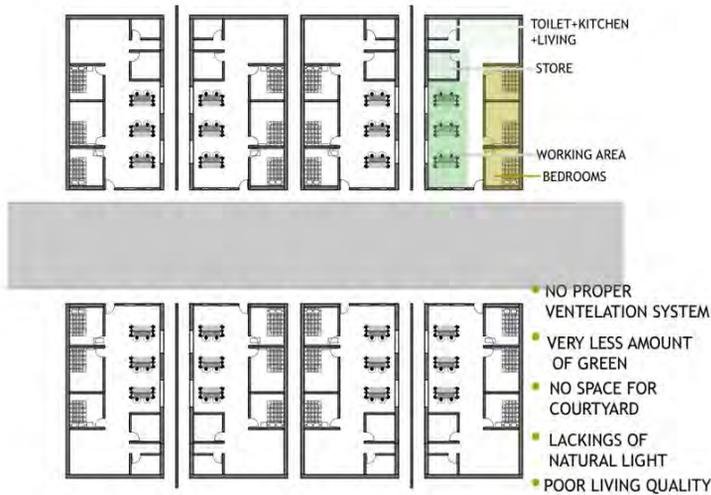


FIG.2.3.G EXISTING WORKING AND LIVING UNITS OF ARTISANS BY AUTHOR

Like this, we are failed to promote our own heritage fabric. We need to find out the solutions and new branding and promotional ways to highlight our intangible heritage jamdani.

## 2.4 World’s Knowledge about “Dhakai Jamdani”

Jamdani is a proud name of Bangladesh.’Dhaka and Jamdani’ this two words complement each other.It is exported to south Asians country and some of the European countries also.(Khan,2016)

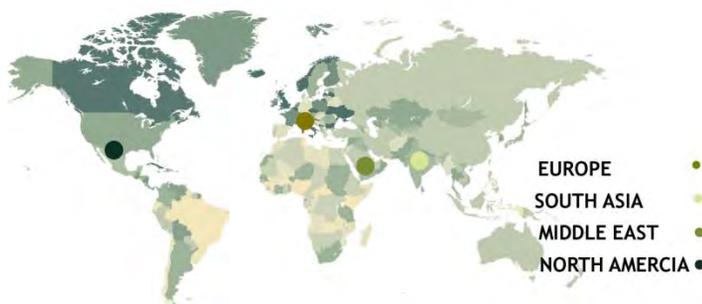


FIG: 2.4. A JAMDANI EXPORT AREA FROM BANGLADESH

BSCIC jamdani industrial area, Noapara head MD.Shahidul Islam (personal communication, August 6,2018) was able to confirm that every year one or two researcher comes to Bangladesh to have their research on jamdani.

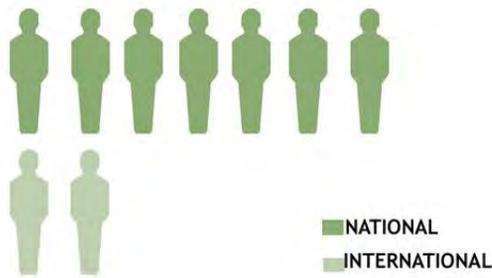


FIG: 2.4. B JAMDANI BASED RESEARCH (PER YEAR) IN BANGLADESH

Jamdani is known for its expression of aristocracy. But how much world know about its origin and artisans of this masterpiece who stay behind the scene. Most of the people don't know the name behind jamdani which is Bangladesh.

Famous travel write and editor published a journal at 2015 on the beautiful textile around the world which has which has rich history and heritage. There is no mention of our jamdani. However, Indian "khadi" took place on that list. In addition, Nat Geo, BBC and many other travel bloggers, writers, editors cover the world famous traditional or rich or elegant fabric around the world but none of this mention about jamdani.

There are lot more world famous fashion designers who works with jamdani. They make fashionable and modern dress with jamdani fabric. However, most of them consume jamdani from India. For example, US based famous clothing accessories company DOSA consume all of its jamdani from India. It is a grate disappointment for us as we produce the best quality and original jamdani. But foreigners are far way to know the consume jamdani from us running out of proper branding and promotions.



FIG.2.4.C FASHIONABLE DRESS FROM JAMDANI DESIGNED BY DOSA. PHOTOGRAPHY BY CHRISTINA KIM.  
SOURCE: <https://dosainc.com>

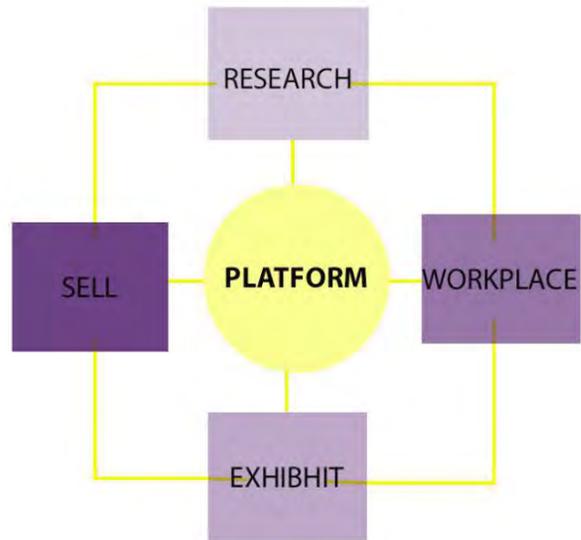
## 2.5 The Structure of the Thesis

**A platform to flourish Jamdani as a brand of Bangladesh will act as HUB will become a point of contact for journalists, entrepreneurs, buyers, manufactures, retailers, designers, students and Jamdani artisans.**

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† FIG: 2.5.A SEPERATE FUNCTIONS(NOW)

Right FIG: 2.5.B FUNCTIONS WORKFLOW WITH RESEARCH PROPOSAL, BY AUTHOR.

In order find out how flourishing jamdani as brand of Bangladesh will act as hub, I am working on different approaches to create a framework. Here, I will be focusing on comprehensive theories, theoretical traditions, innovative marketing polices, Entrepreneurial studies etc. which will help me for my further design approach.

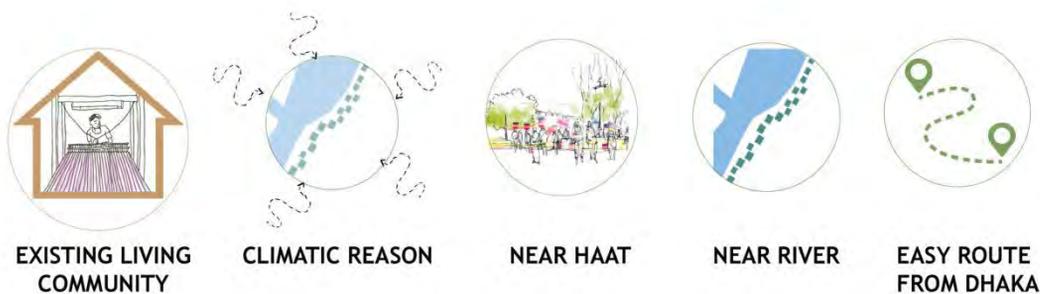
## Chapter 03

### Site Appraisal

#### 3.1 Selection of the Site

Initial consideration for the site was to have a very well connected with historical root and a place which still holding their jamdani weaving industry, so as it can attract as many people as possible. Also, another consideration was to locate the project adjacent to a zone that has proper climatic and geographical indication of jamdani weaving with existing weaving community. The site required visitors can come and explore jamdani and its magnificent work as it is. Considering all these Noapara, Narayanganj is selected as the focus zone.

#### SELECTION OF SITE



POTENTIAL TO SELECT THIS SITE BY AUTHOR

FIG: 3.1.A

#### 3.2 Location of the Site

The site is located in Noapara village, Tarabo, Rupshi, Narayanganj district. The area is located in the bank of Shitalakkhya river. This area is already known for textile mills mostly as "Jamdani palli". It takes 1 hour to reach this site from Dhaka.

### LOCATION OF SITE

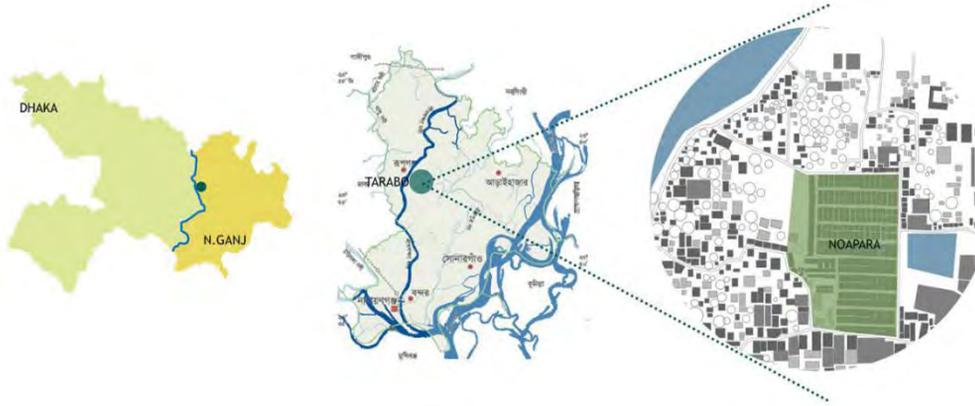


FIG: 3.2.A SITE LOCATION BY AUTHOR

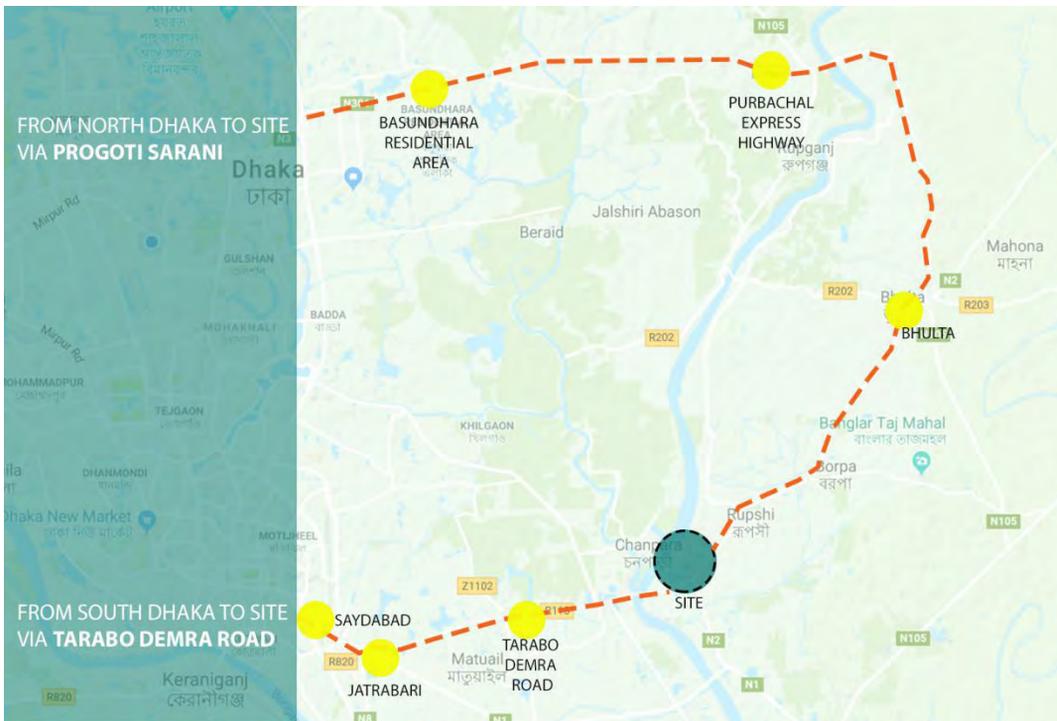


FIG: 3.2.B ROUTE MAP FROM DHAKA TO SITE SOURCE: GOOGLE MAP MODIFIED BY AUTHOR

### 3.3 Surrounding Area Study

Out of the potential spots, this was chosen as it is near to the Shitalakkhya river and Jamdani industry is already established here by government. It will help the visitors coming to this area get to experience of both Jamdani art and its making environment. The settlement characteristics allow further tourist activities and working zones help in promoting Jamdani and its artisans.

There are many influential structures around the site. It has impact on the site and jamdani industry has its impact on them too. Significant two bazars are there, Tarabo and Borabo bazar. along with jamdani weaving centers some cotton mil factory. Shitalakkhya river is flowing west side of the site which is very essential for jamdani weaving industry for the climatic and geographical reason. Dhaka Sylhet highway and Dhaka Derma highway connected in a node near the site.

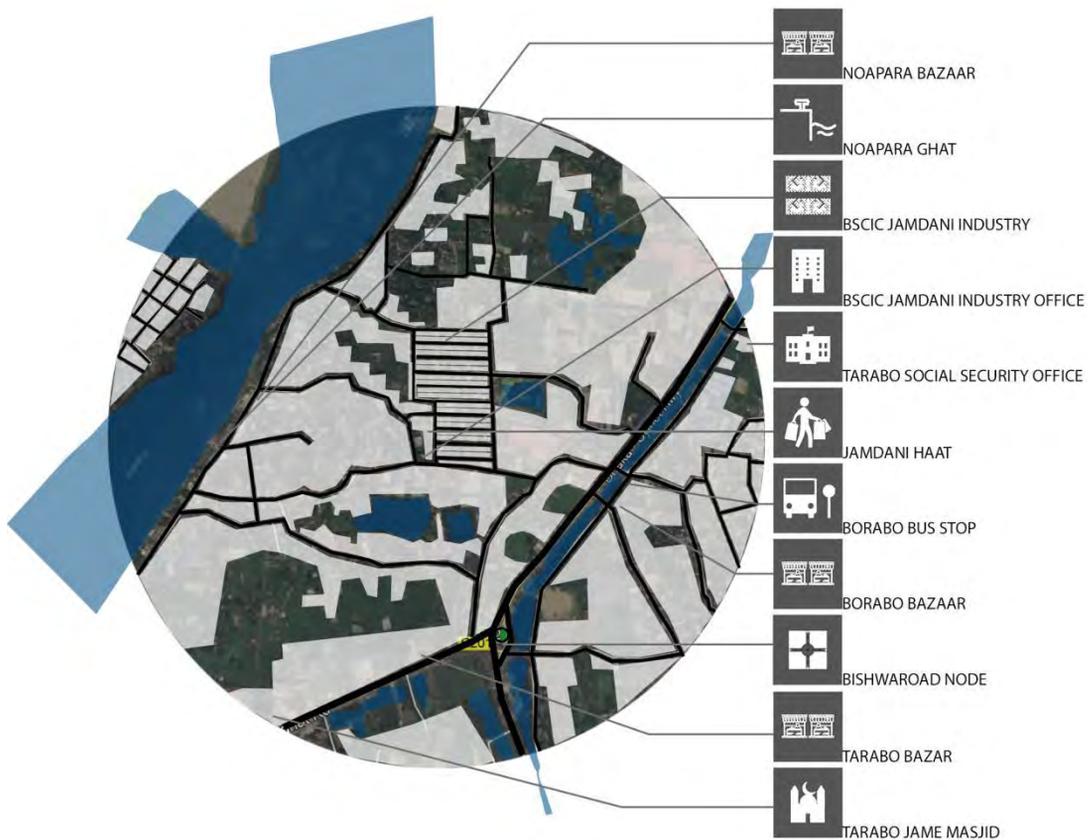


FIG: 3.3.A IMPORTANT STRUCTURE SURROUNDING THE SITE BY AUTHOR

The site surrounded by two major highways. On the north-east side there is Dhaka Sylhet highway and on south side there is Dhaka - Demra highway. Both of them makes an important node ,Bishwaroad. The internal road conditions are average. The width of internal roads is 18 to 22ft.



FIG: 3.3.B ROAD CONNECTIONS OF THE SITE BY AUTHOR

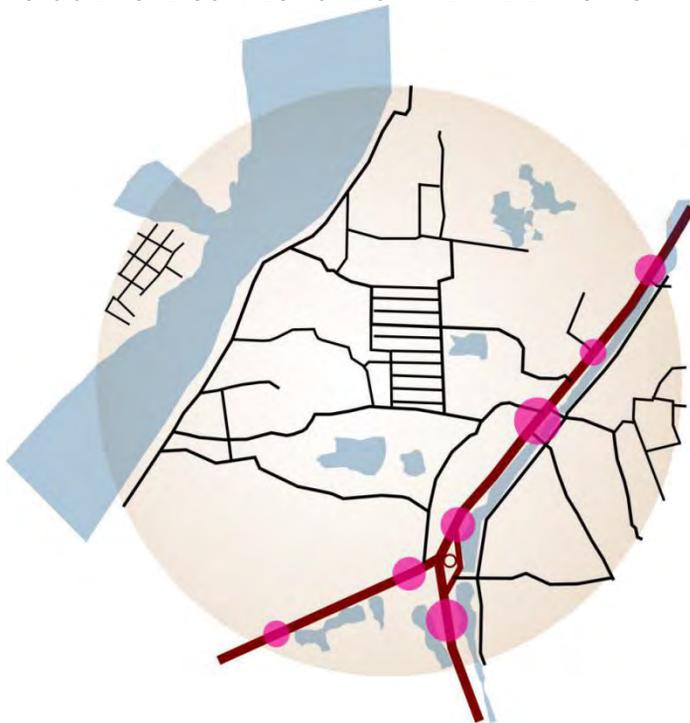


FIG: 3.3.C TRAFFIC CONGETION AREA OF THE SITE BY AUTHOR

There is a dense development surrounding the riverfront, a lot of commercial structure and a very few open spaces.

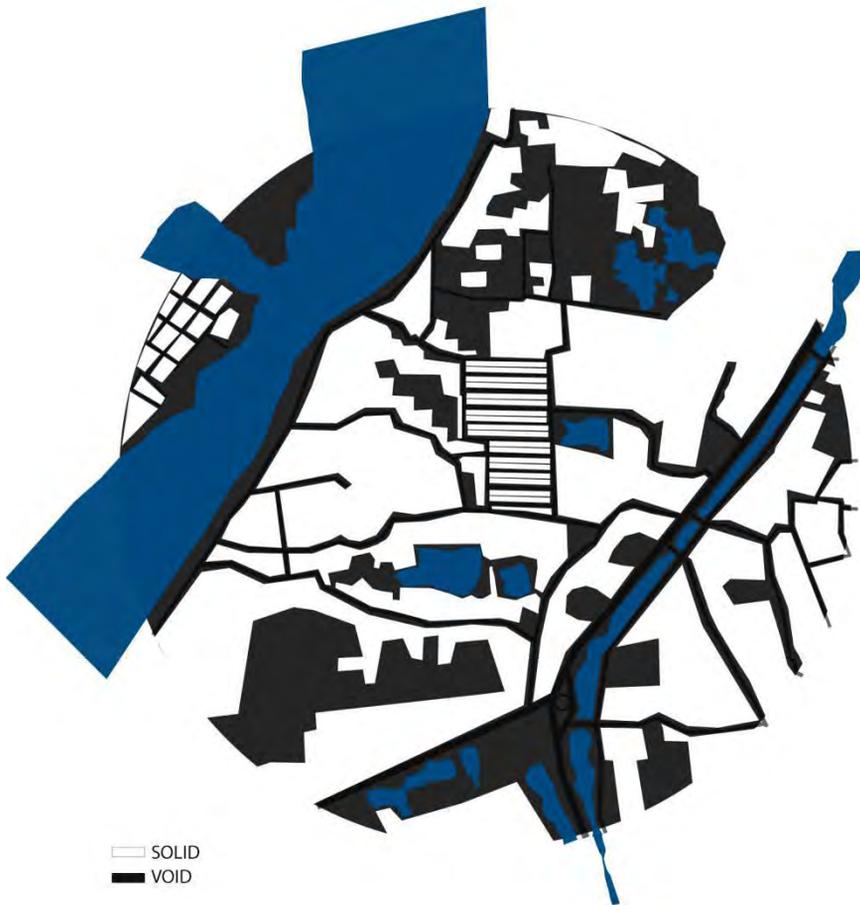


FIG: 3.3.D SOLID-VOID BY AUTHOR

The surrounding fabric shows variety, interrelated and integrated development industrial, commercial and residential zones. The different zones have a very distinct flavor of the built environment, locality, and community. The site also creates very interesting relationships with other public and spaces.

The surrounding developments are mostly textile industrial factory and commercial and mixed-used zone. Basic utilities like gas, water & electricity are available. The existing condition will be better understood by the following photographs of the site and its surroundings. The most important aspect of the site is its direct relation with the Shitalakkhya riverfront because of historical and climatic connection with jamdani weaving practice.



FIG: 3.3.E LAND-USE MAP BY AUTHOR

The site is located at a very strategic location of the riverfront as well as the Dhaka city. One other important factor is the locality and its nature.



FIG: 3.3.F GREEN SPACES & WATERBODY MAP BY AUTHOR

The existing condition will be better understood by the following photographs of the site and its surroundings.



FIG: 3.3.G WHOLESALE MARKET AREA, PHOTOGRAPHS BY AUTHOR



FIG: 3.3.H SHITALAKKHYA RIVERFRONT, PHOTOGRAPHS BY AUTHOR



FIG: 3.3.I WORKING ENVIRONMENT OF JAMDANI ARTISANS, PHOTOGRAPHS BY AUTHOR

### 3.4 Historical and Social Backgrounds of Site

The birthplace of Jamdani is Dhaka region and geographical. social, local position is the reason behind it. All the markets (aarongs) were, therefore, on the river banks. Hossain (2010: 141-144) and Allen (1912: 7) mentioned the following markets: Barmi, Kapasia, Lakhipur, Jamalpur, Kaliganj, Rugganj, Murapara, Demra, Siddhirganj and Narayanganj. As there was no allocated site for the project, two of the sites were initially chosen (Tarabo, Narayanganj & Sonargaon) as both the sites have strong connection to jamdani. In the early 20th century, the home of this craft began shifting from Sonargaon to Rugganj. The bank of Shitalakkhya River that was also a part of Dhaka in the past still remains as a popular location for Jamdani craftsmen. Now a days the biggest wholesale market and the jamdani weaving industry by BSCIC is established in Noapara, Tarabo. Also, there are so many private weaving industries has been flourished in that area. Some of that are here for a long time. Despite of that Shitalakkhya river proves the historical trace of jamdani weaving community on that area. Glassie (2000: 403) was informed that there were two to three thousand Jamdani looms in the region, “nearly half of them in the villages that run together, north of Tarabo, along the bank of the river”.



FIG: 3.4.A LOCATION OF JAMDANI WEAVING PLACES. MAP PRODUCED BY (IQBAL,2013)

### 3.5 SWOT Analysis

#### Strength

- Major road connections with Dhaka city (both from north and south Dhaka)
- Wide pedestrian
- Strong historical root
- Beside Shitalakkhya river which has historical, climatic and geographical root to jamdani
- proposed govt. plots for weavers
- strong jamdani community

#### Weakness

- Pedestrian condition
- Near industrial development, resulting in slightly hotter average temperature and polluted air.
- No distinction between industrial and residential zone.

#### ● Opportunities

- Pedestrian condition can be developed
- Pedestrian can be connected with riverfront and locality and greens
- Proper maintenance and create scopes for vibrant pedestrians and public spaces.
- Maximize the utilization of the area by Incorporating the green spaces and create large open spaces, parks, gardens, landscaped plaza, etc.
- Exposure to jamdani artisans and their art

#### Threats

- Severe threat of waste from factories,mills,households.
- Unplanned commercial establishment
- Unplanned development can create adverse environmental impacts hamper the waterfront and public experience of visiting jamdani city
- Industrialization near jamdani estate.

## Chapter 04

### 4.1 Museum of Handcraft Paper

The reason behind analyzing this case study was to have the similar essence of concept and site appraisal as my thesis topic.

Location: Yunnan, Tengchong, Xinzhuang Village, China

Architect: TAO (Trace Architecture Office) – HUA Li

Project Area: Floor Area: 361 sqm.

Plot size: 300 sq.m

#### Site

The museum of handcraft paper is located in a field next to Xinzhuang village under Gaoligong Mountain of Yunnan, a world ecological preserve area in southwest of China( Frearson,2012).The site is surrounded by the predominantly rapeseed fields. The site is accessible from the village road, the Museum is situated in front of a group of village houses. The village has a long tradition on handcraft paper making. The site is next to the main road which is the entry of the village. The museum functions like a preview window of the village, in the sense that the whole village will function as a big museum because each home in village will open to the visitors showing papermaking process. The museum is thus conceived as a micro-village, a cluster of several small buildings. The building scale is with unity of adjacent landscape and village ( Frearson,2012).



FIG: 4.1. A UNINTERRUPTED VIEWS CHARACTERIZE THE AREA

FIG: 4.1. B CLUSTER MODEL

Source: <https://static.designboom.com>

## **Evolution of design concepts**

### **1. Response to physical constraints**

The architect chose the site with the clients. They had to go through several processes since there is no ownership of the land. Instead, the land belongs to the village from which definite approval was needed. A site next to the road in front of the Longshang sub-village was chosen because it provides a perfect setting in the landscape. The distance to other groups of buildings also meant the Museum stands out prominently.

The climate is quite cold and humid. The building provides pleasant rooms that function well. Holes through the lower part of the stone wall on the ground floor were designed to provide sufficient cross ventilation throughout the interior. Every room has openings to allow each space to breathe and enough light during daytime.

Occupying almost 100% of the given plot with its stone base, the Museum does not destroy the density of the environment since it sits in the middle of a rapeseed farm.

### **2. Response to user requirements**

The requirements were all provided in the design, given the fact that all the rooms still serve their initial function.

### **3. Purely formal**

Massing is arranged in a balanced equilibrium to accommodate the function required. The open space in the middle surrounded by the galleries provides a clear orientation to the layout. Visitors are invited to explore not only the objects exhibited, but also the architecture, which offers several locations that provide views over the surrounding landscape.

### **4. Landscaping**

Given the beautiful landscape setting, there was nothing more to be done.

## **Program & Concept**

The design is aimed at making a building rooted in local environment. This leads to the concept that the construction is to maximize the usage of local materials, construction method and traditional craftsmanship and to be built completely by local builders. Yet it also employs the modern materials and technique available in local context. Thus, the construction of museum will be both a preservation and transformation of local building tradition. It is an architectural attempt of combining modern quality with regional character by using local resources and suitable techniques in the rural context of contemporary China.

The spatial concept is to create a visiting experience alternating between exhibition inside and landscape outside when visitor walks through the galleries on ground level, so as to provoke an awareness of the inseparable relationship between paper making and environment. On second level, there is an open work space and meeting room. Through an outdoor stair, one can walk up to roof terrace with a view to the bamboo roofscape of galleries below, and a glass roofed veranda space facing east where one can have a panoramic view to Gaoligong mountain.

**Functional requirements**

• exhibition gallery • bookshop • workshop • meeting room • tea room • kitchen • curator's office • guest rooms • bathrooms

functions open up towards courtyard or balcony passages to enjoy the landscape through gallery

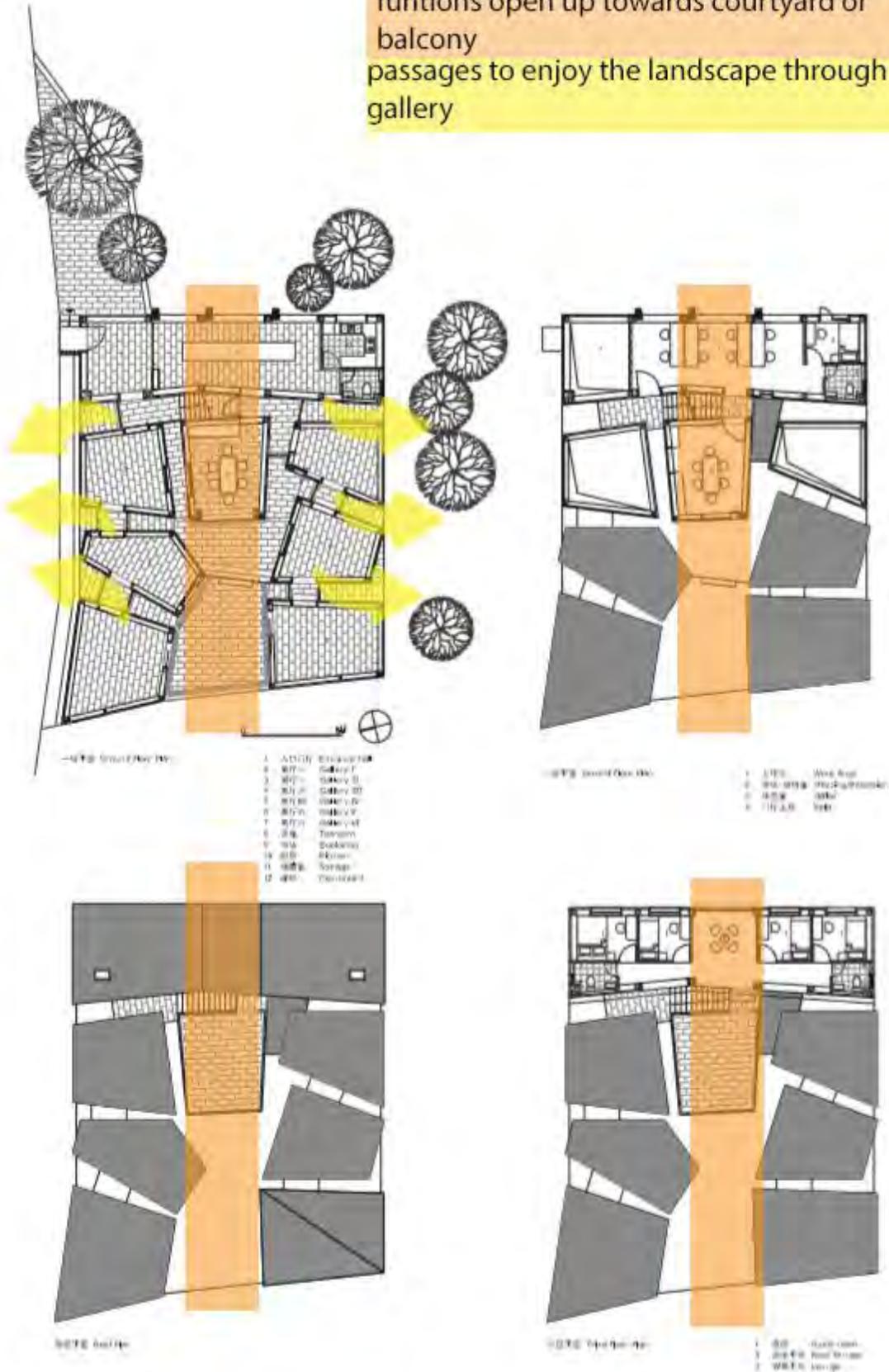


FIG: 4.1 C FLOOR PLANS BY Trace Architecture Office ,MODIFIED BY AUTHOR

**Structure**

The building is designed with traditional Chinese wood structural system featuring nail-less tenon (SunMao) connection, which can be skillfully built by local builders. Local materials such as fir wood, bamboo, volcano stone and handcraft paper are used for exterior finish, roof, floor and interior finish respectively. With time passed, these materials will wear and fade into a more harmonious color with the landscape. These living materials hint a sense of time on building. On facade, the exterior wall stops at the bottom of beam level and exposes beam and part of columns at the corners. Also, with exposed roof structure at interior space and the stone column base on facade, these details reveal that the building is supported by the column and beam system instead of wall. The handcraft paper on interior finish is applied on a wood frame with 45cm by 45cm square module (limited by the paper size but guarantees the smoothness of wall). The exhibition niche layout based on this module is integrated into the wall. The white paper wall in galleries creates a soft and warm atmosphere and keeps the space abstract.

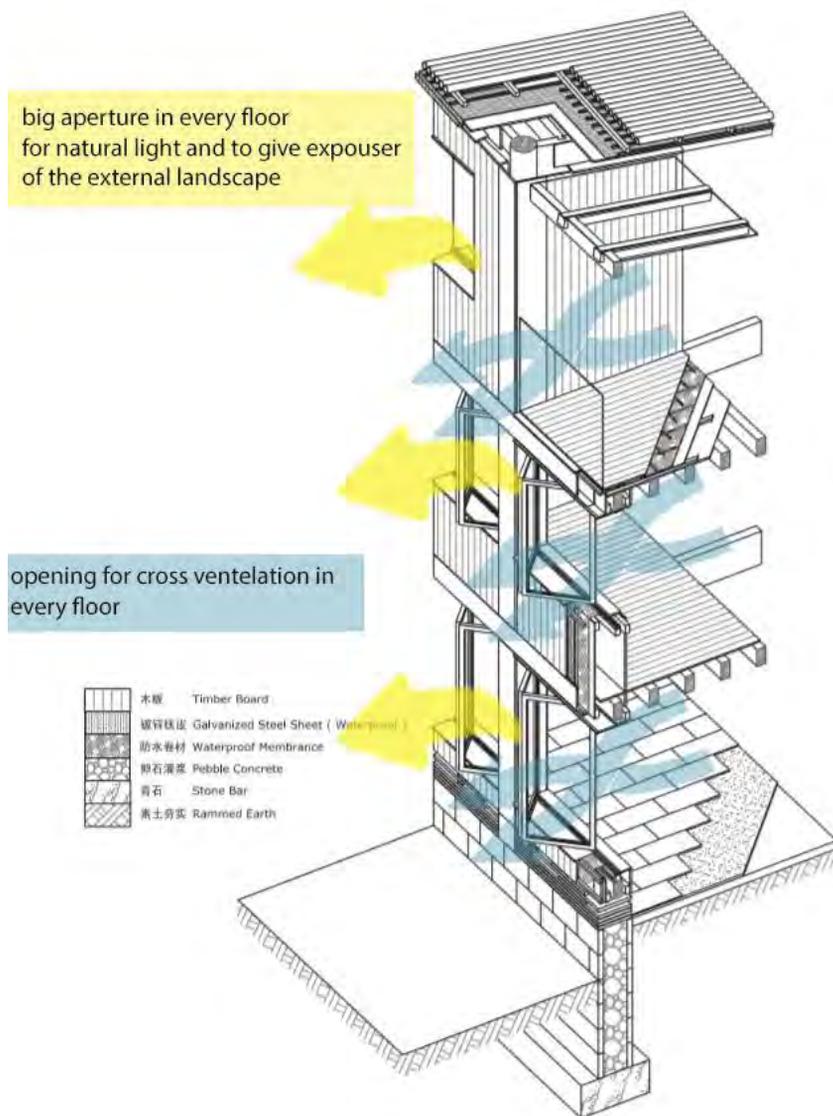


FIG: 4.1 C STRUCTURAL SECTION BY Trace Architecture Office ,MODIFIED BY AUTHOR



FIG: 4.1 D WORKSTATION  
SOURCE: <https://www.archdaily.com>

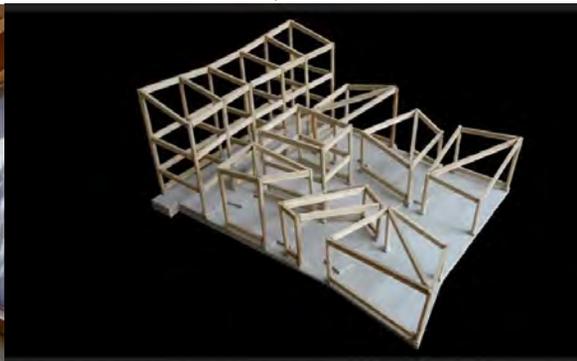


FIG: 4.1 E STRUCTURAL MODEL

### Findings

- essence of tradition while designing the museum.
- making the museum as a doorway of this heritage village.

- merging the site and landscape with the museum by giving aperture.
- creating a dialogue between traditional site and modern building by using local material and technique.
- site responsive building.
- climatic responsive building

## **4.2 Pearl Academy of Design, Jaipur**

I choose this project as case study because the concept is unique on the matter of make this building sustainable by using fusion (old building technique and modern technology). Moreover, the interesting fenestration create dialogue with context of the building.

Client: Pearl Academy of Fashion

Year of Complete on: 2008

Built-up Area: 2,15,278 Sq.m

Climate: Hot-Dry

### **Site**

Creating a sustainable building was a fusion of old-school building techniques and modern technology in the design for the Pearl Academy of Fashion. Designed by Morphogenesis, an architecture firm based in New Delhi and Pune, the academy is extremely energy efficient thanks to its use of cooling methods traditionally found in buildings in the hot-dry desert climate of Rajasthan. Situated in Jaipur, India, the finished structure is a sight to behold and looks like an incredible place to go to school.



FIG: 4.2 A EXTERIOR PHOTOGRAPH

Photography: Andre J Fanthome SOURCE:<http://www.howarchitectworks.com>

### Concept

The architecture of the academy needed to be a confluence of modern adaptations of traditional Indo-Islamic architectural elements and passive cooling strategies prevalent in the hot-dry desert climate of Rajasthan such as open courtyards, water body, a step-well or baoli and jails (perforated stone screen). All these elements have been derived from their historic usages but will manifest themselves through the built form and become an intrinsic part of the daily life of the design student.

INNER COURTYARD BASED ON SUN'S DIRECTION  
POCKET FOR IT

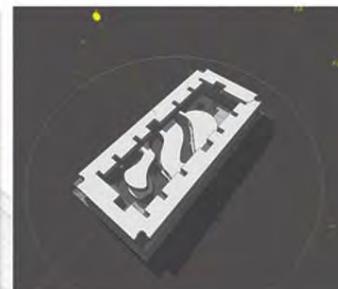
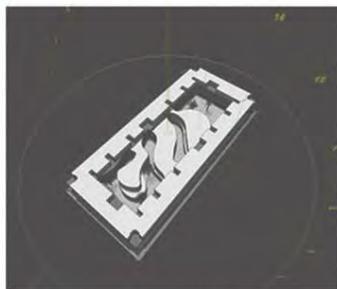
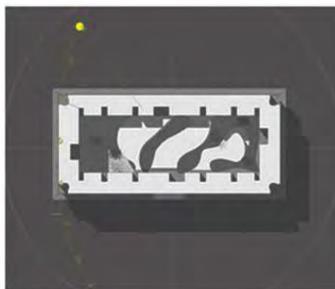
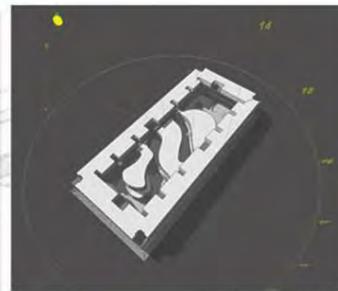


FIG: 4.2 B SUNPATH DIAGRAM BY Morphogenesis, MODIFIED BY AUTHOR

Source: <https://www.posts.architecturelive.in/Pearl-Academy-Morphogenesis.jpg>

The building is protected from the environment by a double skin which is derived from a traditional building element called the 'Jaali' which is prevalent in Rajasthani architecture.

The double skin acts as a thermal buffer between the building and the surroundings. The density of the perforated outer skin has been derived using computational shadow analysis based on orientation of the facades.

The scheme relies on self-shading sliver courts to control the temperatures of internal spaces and open stepped wells while allowing for sufficient day lighting inside studios and class rooms. The entire building is raised above the ground and a scooped out under belly forms a natural thermal sink which is cooled by water bodies through evaporate cooling. This under belly which is thermally banked on all sides serves as a large student recreation and exhibition zone and forms the anchor for the entire project. During the night when the desert temperature drops this floor slowly dissipates the heat to the surroundings keeping the area thermally comfortable. This time lag suits the staggered.

### Construction Techniques

Morphogenesis was able to develop two passive-cooling control methods to keep the work. Spaces and courtyards cool at 27 degrees Celsius even when it is 47 degrees Celsius outside. First, the entire building is elevated off the ground, sucking air in around the edges of the building which is eventually released up through the open-air courtyards. A large stepped well in the center of the building also plays a role in lowering the temperature of the air as it enters under the belly of the building. Fed by recycled water from the on-site sewage treatment plant, the well creates a cooler microclimate through evaporation.

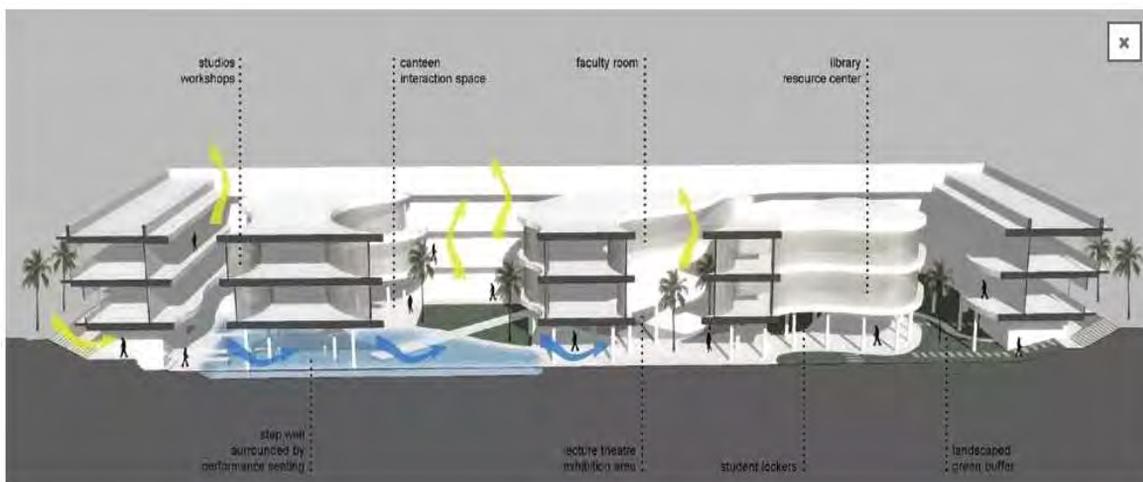


FIG: 4.2

SECTIONAL PERSPECTIVE BY Morphogenesis, MODIFIED BY AUTHOR

Source: <https://www.posts.architecturelive.in>

The second control method is the use of a traditional Rajasthani architectural motif called the 'jaali' (or jali), which is a stone screen. In this particular building, the screen is used as a thermal skin between the building and the surroundings. A 4-foot gap between the screen and outdoor wall of the classrooms reduces direct heat gain. Drip

channels on the inside of the screen also provide more evaporative cooling. The traditional building technique was modernized as computer models were used to determine the optimum density of screen pattern to provide the most cooling.



FIG: 4.2 USE OF JAALI IN FACADE

Source: <https://www.archdaily.com/pearl-academy-of-fashion-morphogenesis>



FIG: 4.3.D INNER COURTYARD WITH POND

The Pearl Academy of Fashion also incorporates local stone and mosaic tiles in the construction of the building. The inner, amorphous-shaped courtyards provide ample daylight to classrooms and studio space, reducing the need for artificial light. And all rainwater and waste-water are recycled for on-site use in the building's very own waste water treatment plant.

The building uses traditional Rajasthani motifs including a "jaali" pierced stone screen and an open courtyard. It features passive cooling techniques to combat the desert climate. Given the nature of an institution, budgetary constraints on the project necessitated the use of cost effective design solutions to keep within the price points set by the client and yet be able to achieve the desired functionality and effect.

The adverse climate makes it a challenge to control the micro climate within the project thus incorporating various passive climate control methods becomes a necessity and also reduces the dependence on mechanical environmental control measures which are resource hungry functioning of the institute.

### **Design Approach**

Besides having become a very successful model for cost effective passive architecture in desert regions the design and facilities of the campus complement the ideology of the Pearl Academy of Fashion – a cutting edge design institute with a sustainable approach. The Pearl Academy of Fashion is an exemplar of an inclusive architecture which intends to

accommodate all the heritage values while positioning it within the contemporary cultural and architectural paradigm.

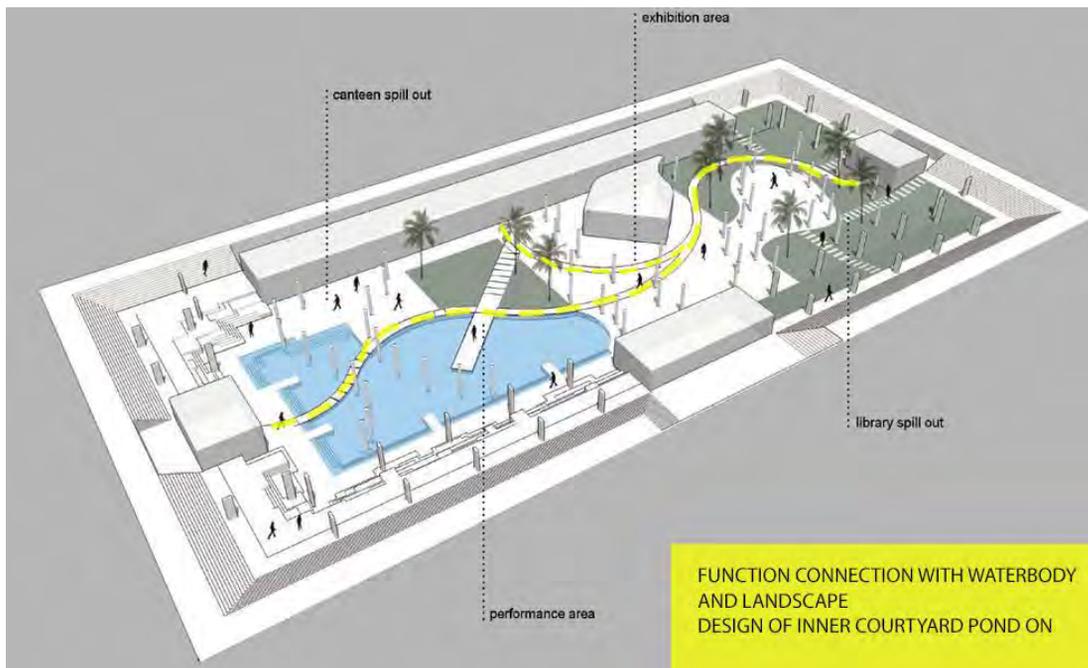


FIG: 4.2 E AXONO PLAN BY Morphogenesis, MODIFIED BY AUTHOR  
source: <https://www.posts.architecturelive.in>

## Findings

- Energy efficient building
- Using fusion method
- Passive cooling system
- Climate concerned building
- Traditional element (jaali) work as fenestration
- Use of local material in construction

# Chapter 05

## Program and development

### 5.1 Rationale of the Program

To flourish Jamdani as a brand of Bangladesh will consolidate the Jamdani Industry with intellectual inputs, human resources, market information, trends and forecasting etc. all of which are coming together in a platform. The intelligent building concepts are integral to every component of this platform. This will enable dynamic networking of every dimension within the Park, internally as well as globally through the dedicated exposure and infrastructure. We divided this platform into two major zones.

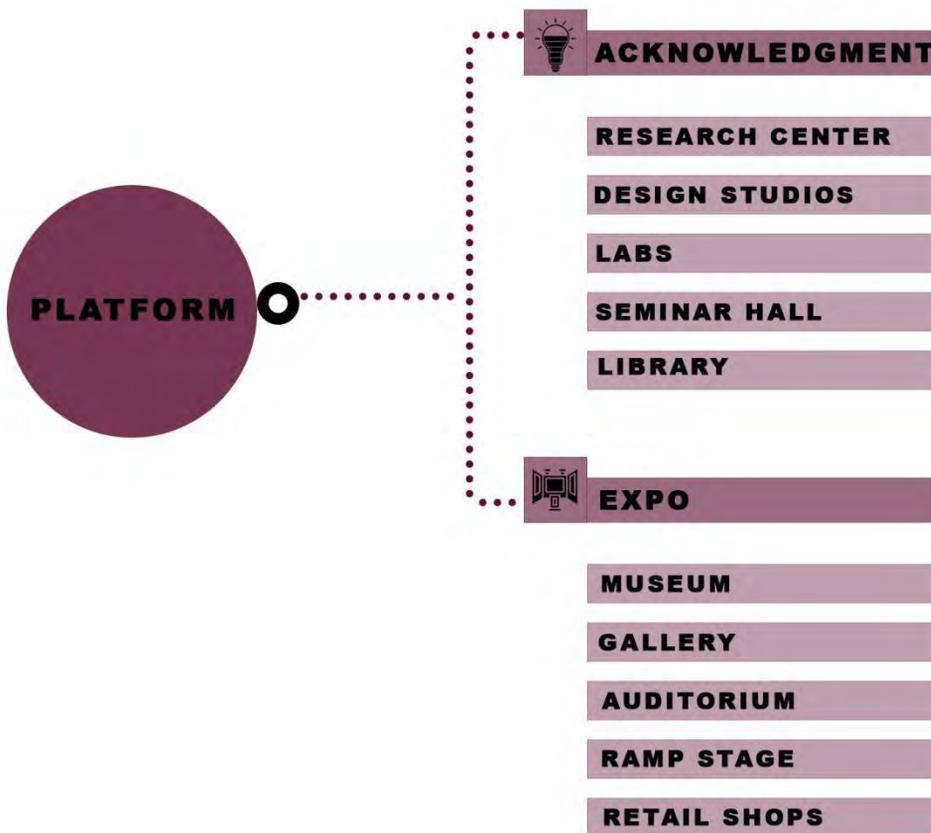


FIG: 5.1 A PROGRAM ANALYSIS BY AUTHOR

The Acknowledgement Zone comprises of research center, design studios, labs, library, seminar hall and temporary exhibition space for students. The Exposition Centre will house nationally and internationally recognized fashion design houses. The facilities offered in the Exposition Centre of the Park will suit companies of every magnitude domestic, international, global and multi nationals.

The Expo Centre will be the main function of the park. As visitors will experience the artisan's work as live museum without interrupting them. There also would be a part of museum where from the oldest one to new collections of jamdani will be showcasing. These face a beautifully landscaped central platform containing an open amphitheater. The amphitheater along with open plaza would provide a platform for cross cultural exchanges. These exchanges will create the flavor and ambience of a global branding and marketing of jamdani art and its artisans. The gallery, auditorium, ramp stage, retail Infrastructure, Exhibition Hall, Conference facilities and the Bonded Warehouse around the Plaza will position the park as a destination for national and International branding and Trade.

# Chapter 06

## Conceptual stage & Design development

### 6.1 Concept Development

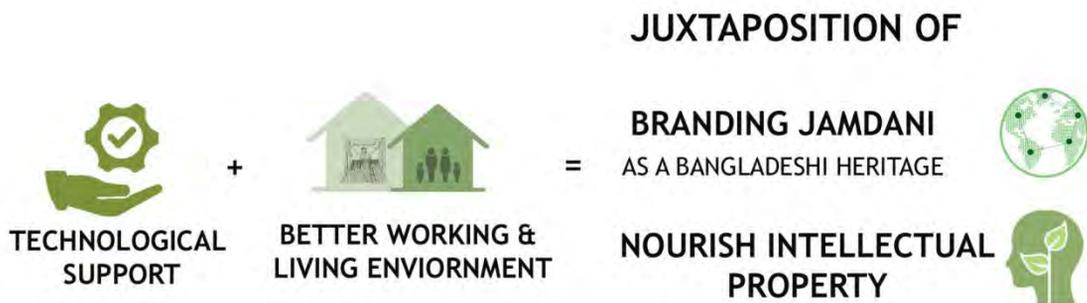


FIG: 6.1 A CONCEPTUAL STAGE

I intend to design a platform where artisans will be benefited, researchers will find new possibilities to make jamdani enriched, buyers and visitors will experiencing artisans works.

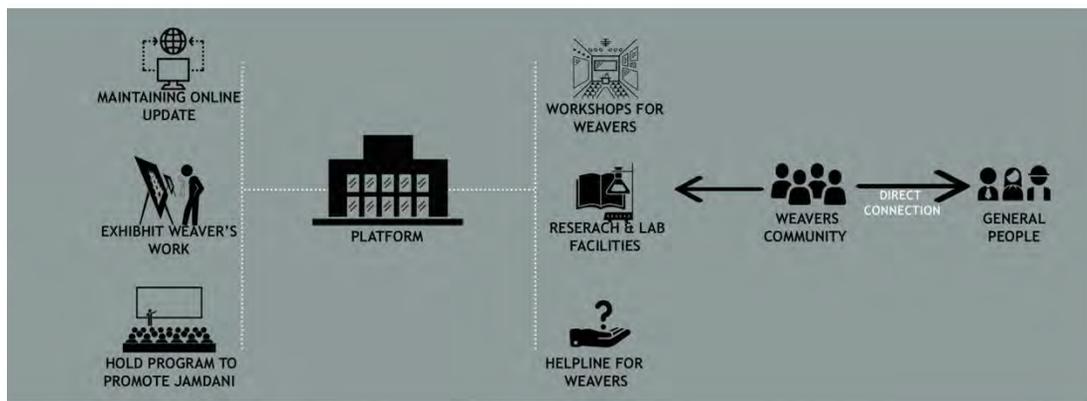


FIG: 6.1 B ROLES OF PLATFORM

## 6.2 Design Decisions

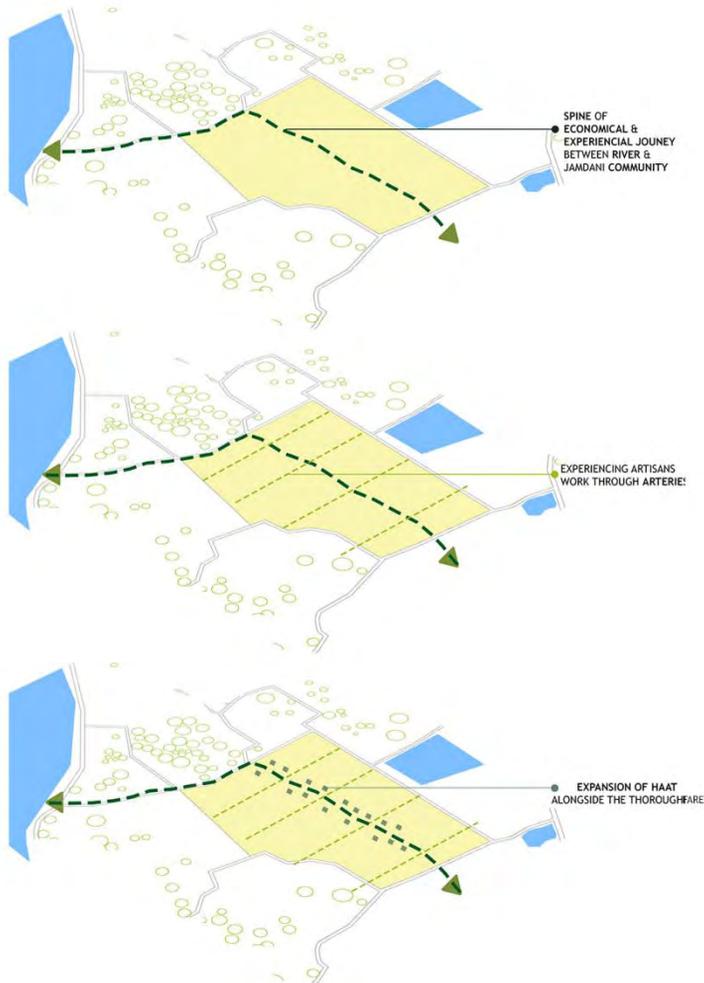


FIG: 6.2.A MAJOR MASTERPLAN DECISIONS



FIG: 6.2.B ZONING ON MASTERPLAN

### 6.3 Final Design Drawings



FIG: 6.3 A ROOF PLAN




**MASTER PLAN**  
 SCALE : 1/32" = 1'-0"

FIG: 6.3 B ROOF PLAN



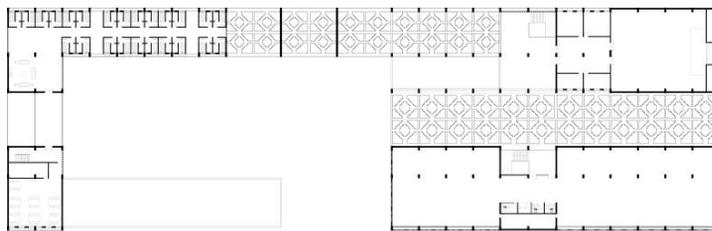
**SECTION AA**  
 SCALE : 1/16" = 1'-0"

FIG: 6.3.C SECTION AA ( SITE SECTION)



GROUND FLOOR PLAN  
 FACILITATION CENTER  
 SCALE: 1/16" = 1'-0"

FIG: 6.3.D FACILITATION CENTER ( GROUND FLOOR PLAN)



FIRST FLOOR PLAN  
 SCALE: 1/16" = 1'-0"

FIG: 6.3.E FACILITATION CENTER ( FIRST FLOOR PLAN)



FIG: 6.3.F SECTION BB (THROUGH FACILITATION CENTER)



FIG: 6.3.G SECTION CC (THROUGH FACILITATION CENTER)

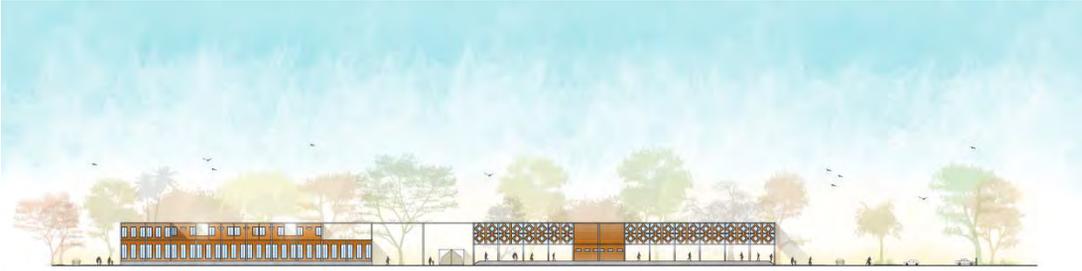


FIG: 6.3.H SOUTH ELEVATION

### Housing Typology for Artisans

**UNIT TYPE A : 2 FAMILY**  
(1450 SFT PER FAMILY)

**UNIT TYPE A : 2 FAMILY + 1 SMALL FAMILY**  
(1450 SFT , 1920SFT & 410SFT FOR THE SMALL FAMILY)

**UNIT TYPE A : 2 FAMILY +2 SMALL FAMILY**  
(1420SFT ) (410SFT )



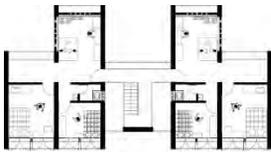
GROUND FLOOR PLAN  
SCALE : 3/16" = 1'-0"



GROUND FLOOR PLAN  
SCALE : 3/16" = 1'-0"



GROUND FLOOR PLAN  
SCALE : 3/16" = 1'-0"



FIRST FLOOR PLAN



FIRST FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



SECOND FLOOR PLAN

FIG: 6.3.I HOUSING TYPOLOGY FOR ARTISANS

## Perspective Snaps



FIG: 6.3.J FACILITATION CENTER



FIG: 6.3.K ARTISANS HOUSING UNITS ALONG WITH WORKING AREA & PERSONAL DISPLAY



FIG: 6.3.L SEMI-PRIVATE COURTYARD ACTIVITY OF ARTISANS

## **Conclusion**

The learning acquired through this journey of making this project meet its ultimate end, only hopes to ensure the branding of Jamdani worldwide and people realize the true worth of our traditional heritage fabric. It dedicated to all those people related to this Jamdani weaving industry. The design of Jamdani is a contemporary and abstract interpretation of the elements that make our hand loom textiles so very unique. Such a project only entails to bring proper attention and provide a strong platform for showcasing the delicate and glorious past and present of our Jamdani weaving industry and have a strong positive impact in its future.

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