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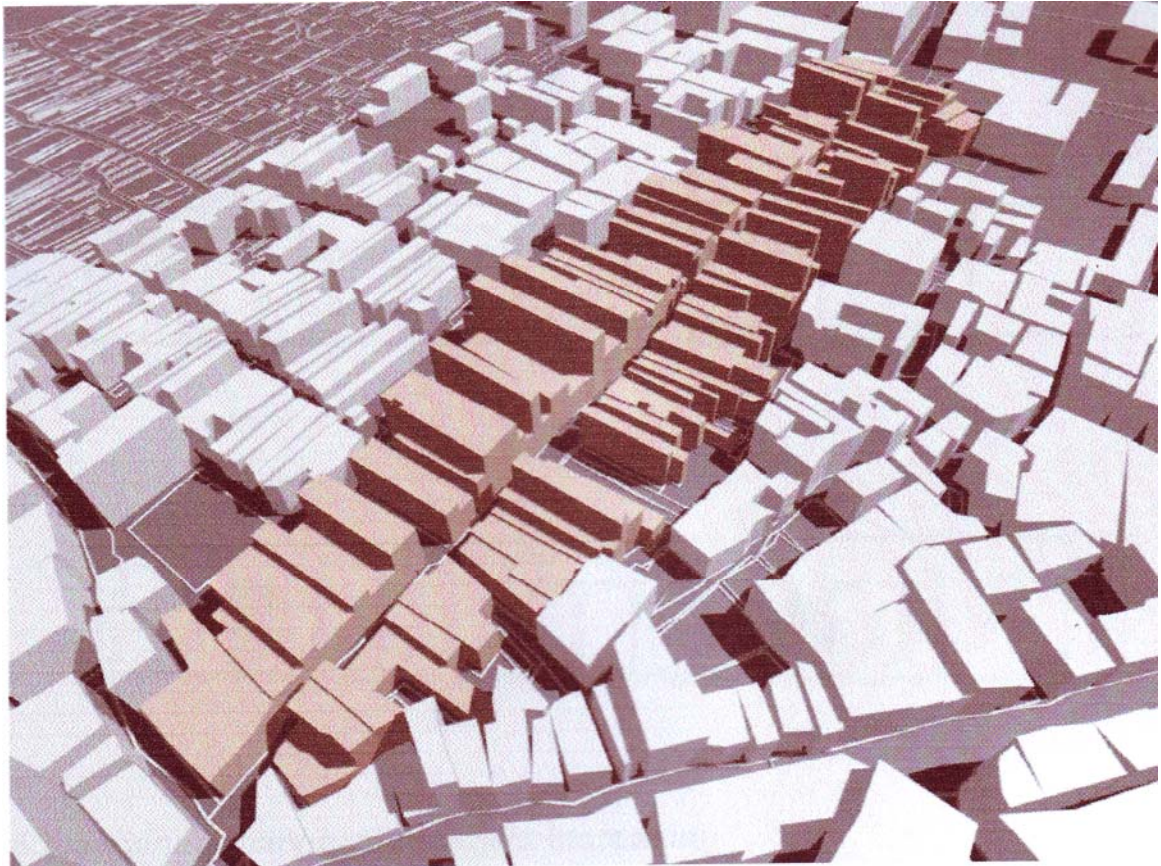
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Conservation and Management of Historic Buildings
Advanced International Training Programme

Conservation of Shakhari Bazar



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Abstract

Shakhari Bazaar is a significant historical quarter, where a traditional community has lived for centuries but existing living environment of this area is vulnerable. Their quality of living environment needs to develop. For achieving this objective a comprehensive plan has been prepared considering two major parameters as one is providing necessary services in the area and developing the total area as a ideal conserved area by restoring of existing building but that also survive the traditional culture and heritage, shape and size of this area. For encouraging the cultural tourism, the road would be converted in to a pedestrian walkway. The visitors or tourist by car or jeep will enter in to Shakhari bazar through Islampur raod and park the vehicles in the proposed parking lot. Beyond the Parking space, the existing main street towards Jonson road would be a pedestrian walkway. The visitors may pass their leisure time in a pleasant way walking or sitting on both sides of the walkway.

A financial plan and cost involvement for the restoration work of the selected two old housing units, conversion of the existing main street into walk way, providing urban utilities services and other ancillary works has been prepared for the conservation of the area. It is assumed that the government will provide financial support for the above mentioned work.

Introduction

The conservation of urban historical sites must be one of the basic aims of urban planning, seen as a continuous and permanent process, supported by a proper understanding of those mechanisms that generate and influence the formation of spatial structures. The conservation of urban historical sites demands the integrated action of federal, state and local entities, and also the participation of the community concerned with planning decisions as part of the full exercise of citizenship. Within the preservation process of urban historical sites and as part of the analysis and evaluation of prevailing conditions, inventories are basic tools leading to a better knowledge of cultural and natural property. The participation of the community in inventorying is revealing as to the value it attaches to the property relevant and stimulates its concern as regards such property. Legal protection of urban historical sites is to be achieved through different procedures, such as cataloging, inventorying, urban regulations, tax exemptions and incentives, listing as to cultural interest and expropriation. With the conservation it is very much important to improve the quality of living environment of citizens. In the Purpose of conservation of an area some option should be incorporated to promote a urban space where citizen can live with required urban services or living environment and continuing their culture and practice.

Shakhari Bazar is a historic quarter, and has been a sanctuary of a specific ethnic (business) community for more than three centuries. Observed life-style has a long history, and is part of a tradition that dates well beyond the age of these ruinous buildings. The pace and practice of life found there mix and mingle with other parts of Old Dhaka with due harmony. The exuberant diversity of life and its colorful expressions, in part, give that part of Old Dhaka a true sense of urbanity. Living and living environment in Shakhari Bazaar have long reached an unsustainable state, due to inadequate and non-existent services and sanitation, crime and violence, and economic hardship. But there is a prospect to survive the Shakhari and conservation of that area



Background

The *mohalla* belongs to the Shakhari Community, who borrowed their name from *Shakha*, a richly decorated bangle crafted from slices of *Shankha* or conch-shells. *Shakha* is the symbol that indicates that a Hindu woman is married. Besides *Vadya Shankha* used as a trumpet, for *mangal-dhoni* (tune of good women), other crafts include *Jal-shankha* for offering holy water to the deity and other decorative ornaments. Almost every use of *Shakha* has some sort of a religious connotation.



(Shakarīs at work)

Apart from *Shakha* a number of other traditional crafts are widely seen in the *mohalla*, to name a few are, musical instruments, paper crafts, *Shola-pith* or crafts using jute straw and Styrofoam sheet, Clay Statues for *puja* or other religious purpose, stone craft etc. In recent times there has been a remarkable rise in the goldsmith shops in Shakhari Bazar.



(Tools used by Shakaris)



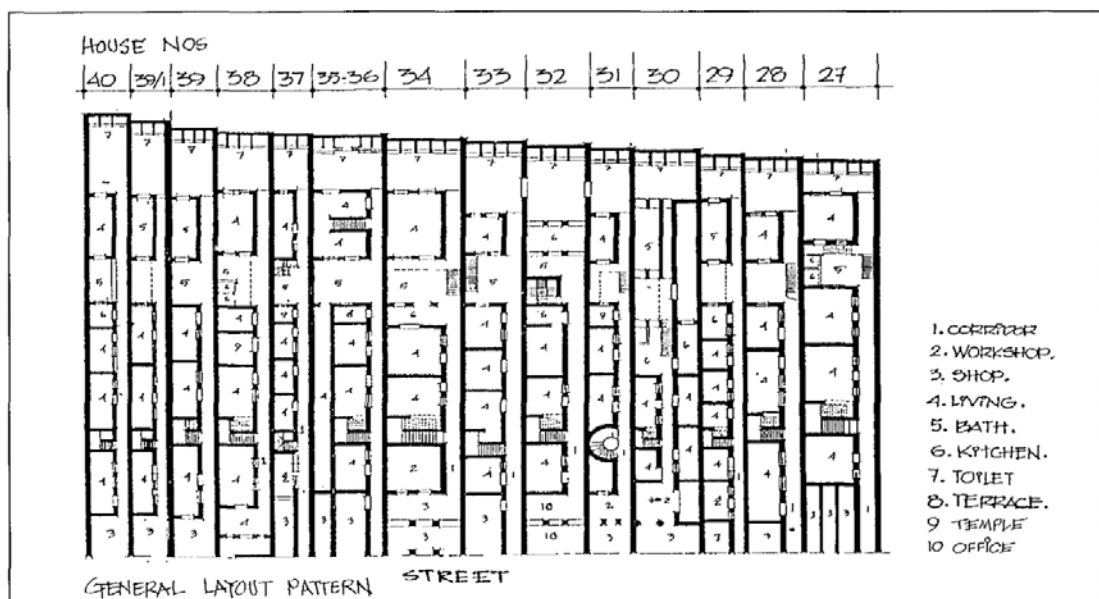
(Shakaris at work)

Many temples dot this narrow street. Over the ages Shakhari Bazar has been elevated to the level of the most popular centre for religious festivities. As one of the most densely populated areas in the world Shakhari Bazar also has the largest concentration of the Hindus in Dhaka. At present there are about 10,000 people living in Shakhari Bazar and that within an area of 4.6 acres of land makes it one of the highest density areas of the world.

Morphological Development Process

A striking characteristic of the area is the oblong and linear plots with very narrow frontal widths. The following factors may have been responsible for the development of such plot shapes

1. Each original allottee may have received a plot with street frontage so that living and trading could be practiced together. However, as business flourished, the living quarters could only expand backwards. Such expansions could only proceed up to 70 to 80 feet as similar backward growths from an opposite lanc set limlis.
2. Security aspects such as threats of burglary or robbery may have encouraged Shakhari to build closely-packed houses along narrow streets whose only two openings could easily be sealed, shutting off the whole area if necessary. Narrow houses approachable only through narrow dark corridors and unexpected stairways were perhaps deliberately designed to confuse intruders.
3. Another reason for narrow plot sizes could be the subsequent divisions among successors each requiring a street frontage.



Plan showing the general layout pattern of the houses with dispositions of the functions in the various rooms

House Patterns and Characteristics

In spite of the piecemeal and sporadic growth of the community over centuries, most buildings in Shakhari bazar exhibit the following common features:

1. Houses are divided into three segments: the commercial part facing the

street, the residential area in the middle and the service precinct, consisting of toilets and washing areas, in the open courts at the rear.

2. Access to the inner part of the house is through a corridor placed at the side of the house. Corridors are usually divided by a party wall to provide access to other rooms and to upper floors through stairways. Corridors ultimately terminate to service areas at the rear.

3. Upper floors are mostly used for residential purposes. No separate cooking spaces are provided in buildings; cooking is mostly done within family bedrooms.

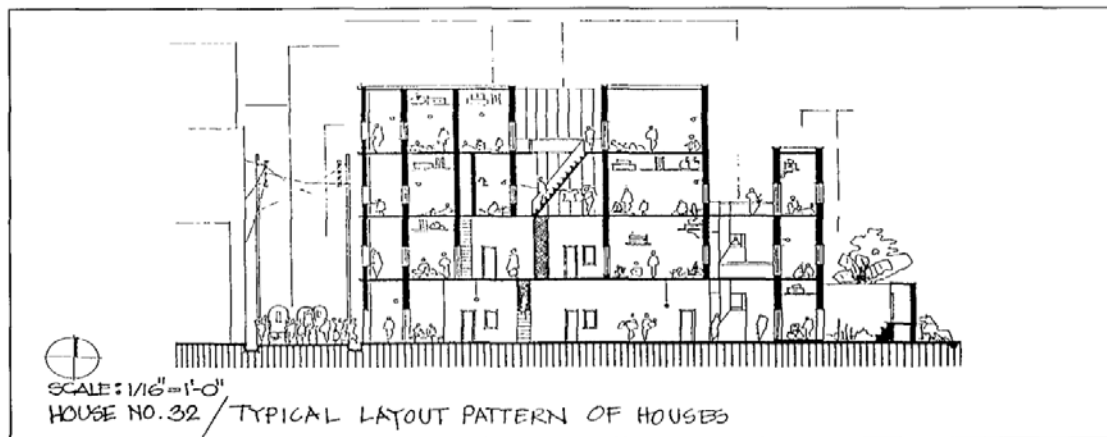
4. Rooms are arranged within two parallel party walls along a narrow corridor from which two stairways lead to the upper floors.

5. Absence of Light-wells in the ground and first floors results in poor lighting and ventilation. Light penetration in these two floors is through the building's front and rear only.

In addition to the above, many houses contain *mandirs* or small temples on the topmost floors and many have balconies on the upper floors overlooking the Shakhari bazar buildings, is found in almost all the houses. Narrow plot configurations street. It is interesting to note that a few houses which have been built very recently over old plots follow the same old patterns.

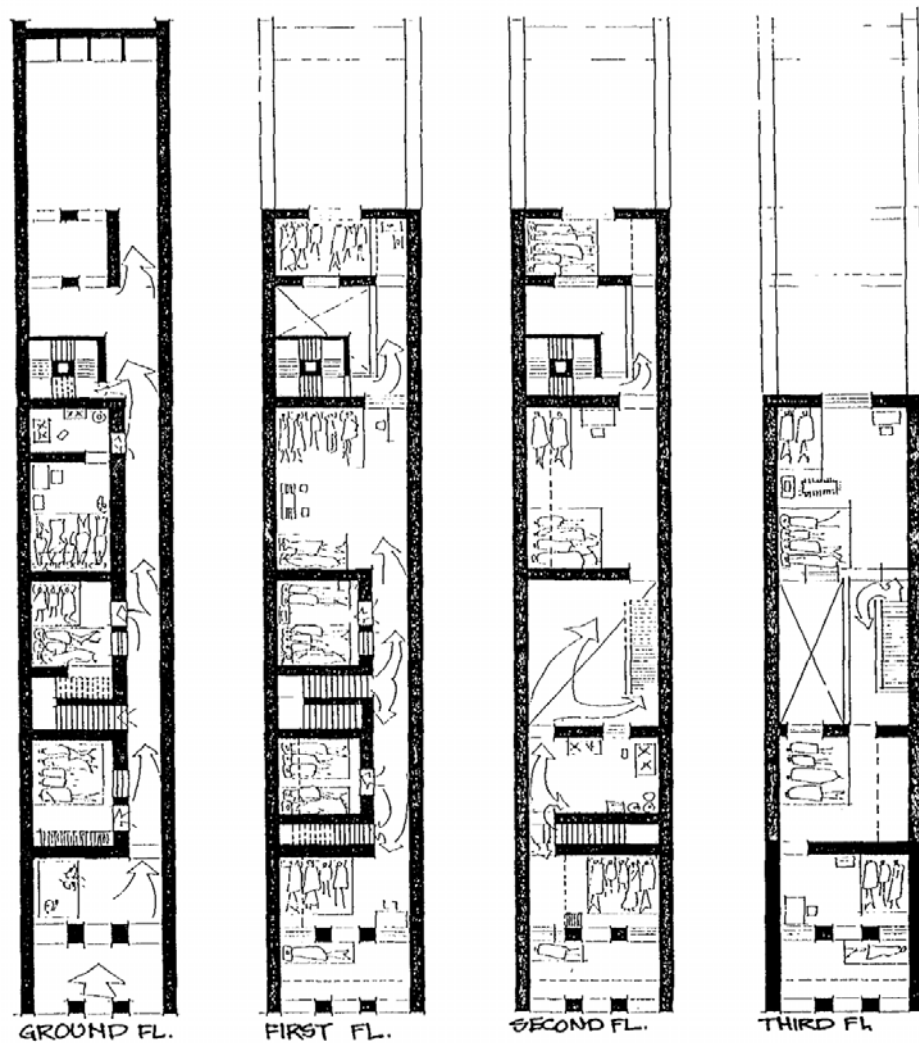
The narrow frontage with extensive depth, the unique characteristic of have imposed so many restrictions on building expansion that the people were left with very limited choices. This typology appears to be a natural outcome of the very socio-physical conditions which created the community.

Shakhari bazar now appears as no more than an inner-city slum inhabited by a poor section of the Hindu community. In the past, however, undertaken by the users themselves, incorporating in the process modern and technological amenities as demanded by present day urban living.



Section through a typical house showing height and disposition of rooms Each house is occupied by many families

built in successive phases. This, in a way, can be termed as a conservation work



Plan of the interior

Building Arts, Materials and Techniques

The buildings of Shakhari bazar trace the history and evolution of building crafts, construction and materials of Dhaka for the past few hundred years. Most of the old buildings were built with load-bearing walls; only the recent buildings follow the post and lintel construction system. The walls of the old buildings are 20 to 24 inches thick and are built with brick, lime and mortar. Brick sizes vary from building to building and in fact are useful means to assess the construction period. The simple rule is, the smaller the brick size, the older the building. In general 1.5 x 4 x 6 inch sizes indicate an early period; 2 x 4 x 8 inch sizes a middle period and 3 x 5 x 10 inch sizes indicate the contemporary period of construction. In old buildings the common practice was to plaster and paint. Arched openings were made over doors and windows and niches were recessed inside the walls to create storage spaces as well as to keep deities and other objects. Various types of columns with ornate capitals were used to decorate facades and inner courts. Some older buildings have vaulted roofs. The rafter and purling technique for roof construction was commonly found in buildings, for which steel I-beams and wooden beams were equally used. Most buildings have high plinths two to three feet above street level. However, there seems to have been no common agreement regarding ceiling heights. They vary widely from building to building in some extreme cases even the minimum head room clearance is not provided.

The repetition of common building features and the uniformity in architectural treatment creates an harmony and continuity in the overall development of Shakhari bazar area. For example, in the treatment of ground floor facades, triple arches are common to almost all old buildings. Only the ornate works surrounding the arches vary widely from building to building. It is interesting to note that while the rear portions of most buildings are usually left unfinished or in an incomplete stage of construction, the street front of each building invariably possesses a finished appearance. There seems to be an inherent desire and a concerted effort on the part of the inhabitants to provide this completed look to the buildings when viewed from the street. To achieve this, decorative parapet walls have often been constructed to terminate buildings. The building crafts also show a high level of development which is evident: from the intricate designs visible in the cast-iron balcony railings, the

brackets and the column capitals.

In contrast to the decorative building fronts, the interiors of the rooms are relatively simple and unadorned. Only the niches or recesses in the thick walls contain elaborate carving. The interiors are mostly painted over lime mortar. Most of the doors and windows of the buildings were originally made of expensive wood with decorative designs, and have now been replaced by low quality wood, steel or mill steel sheets. Old cast-iron railings with their ornate work have been replaced in many buildings with ordinary metal grills.

Analysis

Socio economic condition of Shakhari community

Increase in population, accompanied by highly skewed ownership pattern and low affordability, results in the additions of floors above an inadequate foundation instead of redevelopment. The inevitable outcome is dweller's living with death. The community is in the vulnerable position. Overall the economic hardship is caused by declining business of Shakhari and dilapidated condition of houses. The conservation and regeneration of Shakhari bazar would mean a socio physical conservation in this context.

Demographic Status

Demographic status is one of the major indicators to analyze a community in its socio economic as well as historical perspective. Demographic characteristics replicate the culture, belief and tradition of a community. Shakhari is a unique ethnic group so the demographic characteristic relies on their ethnicity.

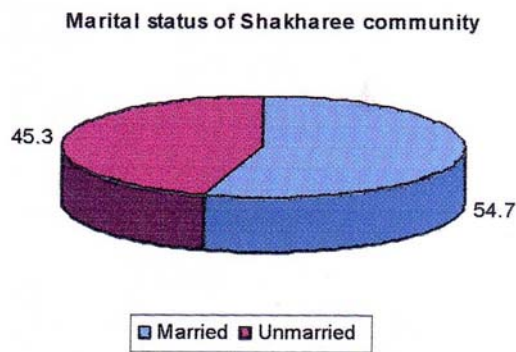
Table 1: Age-Sex Structure of Shakhari Community

Age Range	Frequency	
	Male	Female
Less than 10	95	57
10 to 20	146	91
20 to 30	165	96
30 to 40	170	88
40 to 50	101	52
50 to 60	44	26
60+	14	6

The above table shows that middle age group (20-40) population is comparatively more than the others group who are abide at Shakhari community in Dhaka. This age group population may be responsible for the additional population growth of Shakhari community. The future generation (age group less than 10-20) is not in small quantity. This age group will continue the population growth in near future. Analyzing the demographic characteristic of Shakhari community the increasing population growth is in alarming way which arrives in additional load on the community.

The term demography simply sates the study of human populations means the study of human populations, including their size, growth, density, and distribution, as well as statistics regarding birth, marriage, disease, and death. Total population of this study area is around six thousand (6000).Growth rate is moderate. Density of population is very high. Living condition is miserable. Male headed family is dominating this community.

Marital status is one of the main factors for population growth. This table shows that the percentage of married person is comparatively more than unmarried person at Shakhari community. Early marriage is belonging in their culture



Educational Status

The livelihood of shakhari community basically depends on business. As because they are out off from the thirst of education the above table shows that below primary level occupied higher percentage. In sprite of having better opportunity, many businessmen did not get higher education of their child. The social status at Shakhari community depends on rich in the property and business. The household head retire from the business their son involve this profession which hinder higher education of Shakhari community. Some portion of the community living on their livelihood hands to mouth, they work others shops. So socio- economic condition of them hinders higher education.

Occupational Status

The economy of Shakhari community depends on business activities. Most of the household be persistent their livelihood on business. Business is the heritage and oldest profession of this community. Now in present some people are involve in services. Women are not involved in direct economic activities; they are working in house for cooking, child rearing etc.

Table 2: Occupation Pattern of Shakhari community

Category	Frequency	Percentages
Business	103	48.8
Service	9	4.3
Teacher	3	1.4
Doctor	1	5
House wife	66	31.3
Student	29	13.7
Total responses	211	100.0

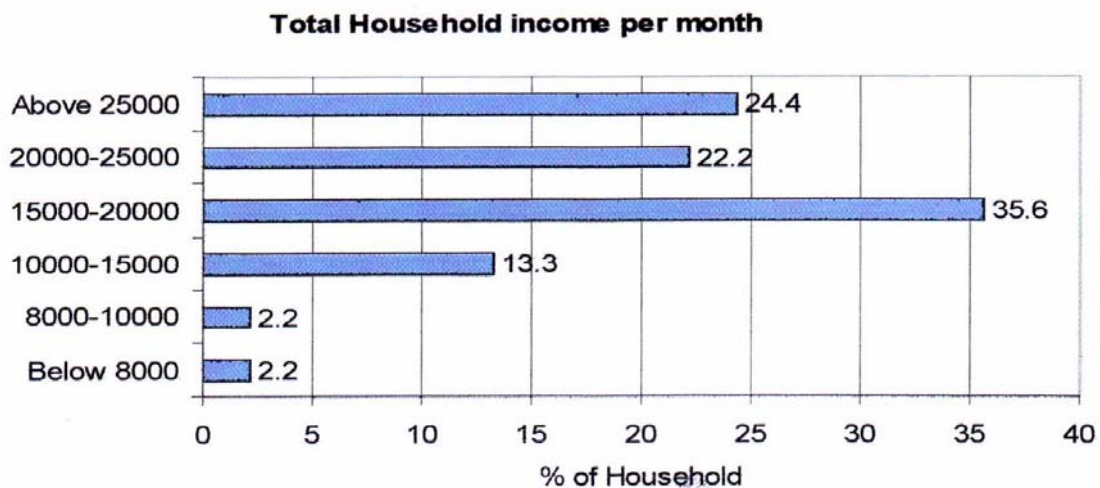
Income Status

Shakhari Bazaar is one well-known business center of old Dhaka, which plays an important role of economic activities. The above table shows that the percentage of moderate income class is more than other income group. The economic condition of the community depends on business.

Table 3: Individual Income Pattern of Shakhari community

Income Range	Frequency	Percentage
Below 5000	15	13.2
5001- 7000	26	22.8
7001-9000	53	46.5
9001- 11000	11	9.6
11001- 15000	5	4.4
Above 15000	4	3.5
Total responses	114	100.0

Joint family is a remarkable heritage and natural characteristic of Shakhari community. Most of the household consist equal of two or more single families. In nature large household member find most families of Shakhari community. Two or more person is month for each household.



Monthly Expenditure Pattern

Different types of Social function abide by the community, as a result household expenditure comparatively more than other communities of Dhaka. On the other hands most of family consists of large number amount of people. So in general, the expenditure pattern all around the year is above 10000 TK. Per month for most households.

Table 4: Expenditure Pattern of Shakhari community

Total Expenditure	Frequency	Percent
Below 8000	2	4.4
8000-12000	11	24.4
12000-16000	18	40.0
16000-20000	14	31.1
Total	45	100.0

Arts and Cultural status

Arts means something that created by human endeavor rather than by nature and Culture means shared attitudes, a particular set of attitudes that characterizes a *group* of people or people with shared beliefs and practices, a group of people whose

shared beliefs and practices identify the particular place, class, or time to which they belong or the arts collectively, such as art, music, literature, and related intellectual activities. The Shakhari Bazaar has come out from the artisan who were skill in making Conch shell ornaments and those who were directly or indirectly involved with this business. By religion they were Hindu. Hence they had come from south of India so their culture was alike them.

Dress

Their traditional dress is Dhuti with panjabi or fatua or a simple unstitched scarf for gents and for ladies that is simply a sari (High class family generally worn silk sari with white and red color combination and those who can't afford much they usually try at least cotton sari).

Worship

In Hinduism and Indian mythology there are many deities according to their power and nature. This is as because this mythology acknowledges that there are many paths by which people may seek and experience religious understanding and direction. It also claims that every individual has the potential to achieve enlightenment. So, every community chooses one god believing that they will be in peace if they worship of him. This community generally worships in their respective houses because there is at least one temple in it. If one fail to keep a temple of his own in that cases three or four houses collectively keep a temple for them in this way they keep on their daily worship.

Architecture

The architecture of Shakhari Bazar is unique. A creative approach to the problem of congestion is evident especially in the ways the courtyards have been built which are used not only for functional efficiency but as devices to incorporate the environmental factors like ventilation, light etc.

Shakhari Bazaar displays a blend of different architectural styles belonging to different periods starting from the Mughals, to the Raj. Stylistic variations in Shakhari Bazar reveal at least three major stages based on chronologically identifiable features- the late Mughal , early colonial and the Raj. Though the Mughal and colonial style dominated the forms and the geometry of the buildings, motifs from Hindu legends

and mythologies are widely found in the surface decorations and architectural details of the buildings. But there are certain architectural elements like the temple courtyards and the juxtaposition of the courts at different levels, which are unique to this *mohalla*.

By the late 19th century a stylistically distinct neo classical style could be seen in Shakhari Bazar. The architecture varied depending on the house type mentioned earlier. The architecture of this style reflected more of the classical elements in the decoration of the buildings. Use of classical orders in the columns, Pilasters, engaged columns, cornices, entablatures, stylised dentils all reflect a shift toward this new style. Among the different orders used, the preference for the Corinthian style is easily visible. Intricately decorated wrought iron columns, carved wooden posts, use of wrought iron railings are among other features that gives this period a distinctive style. In some of the houses the contemporary British influence can be seen in the Edwardian vocabulary used in the elevations.

During this period Shakhari Bazar went through a wave of refurbishment in the front facade of the buildings. Roadside verandahs came in as a new architectural element, covering up the setback spaces or Ro-aaks at street levels.

Existing Problem Considering Architectural Site Analysis

Plot distribution

At the beginning, in every plot there was a single family or single household but day by day when the family was increased then there was a need to divide the plot. That time this plot was divided by linear shape by passing time every family was increased as a result this linear shape building was increased vertically. Now a days every floor is dividing according to their need.

Building Space use in different Time

At the first time these buildings was 3-4 storied. Due to increasing population or household size these buildings height was increasing to 5-7 storied. 2-3 storied are added to every old building. These old building was built about 100-250 years ago. And new building or 2-3 storied are added to these old one about 10-20 years ago.

Vulnerability of Building is increasing

Vulnerability of these building is increasing day by day because most of these buildings are built about 100 to 250 years ago. Most of the buildings are unplanned and linier. Their living condition is not well. More over building construction rules are not followed in these areas. As a result most of the buildings are vulnerable.

Low level of ventilation and Lighting

As every plot is linier and they are very closer to each other so there is a problem of ventilation and lighting. Proper air and light can not enter to each floor which is very important for living. More over the window and the door is very small which is not sufficient for proper ventilation and lighting. As a result now a day these buildings are not suitable for living.

Lack of open space

In shakhari bazer there is lack of proper open space. Every building is very close to other building. In the study areas there is no open field or play ground. As a result the mental and physical growths of the children are not growing sufficiently which is very important for the child.

Inadequate accessibility

In the study area there is lack of proper road network. Most of the roads are very narrow. As a result at the time of emergency vehicle are not entered in this area.

Threats

With the absence of adequate legislative framework for the protection of historic areas or area conservation per se and also lack of statutory financial support and a blanket lack of awareness compounded by the inadequate development control regulations and the lack of resources, the historic urban fabric of the *mohalla* is facing complete extinction. The shifting socio-economic aspiration of the people, allured by speculative redevelopment being fiercely promoted by informal developers has

expedited the process of erosion of heritage assets and degeneration of the physical environment of the *mohalla*.

Absence of adequate development control rules, complicated by discriminatory land ownership laws compounded by illegal extensions and constructions has resulted in a very complex ownership pattern. Lack of maintenance and repair has resulted in a worn out appearance. Some of the buildings have actually degraded due to lack of routine repair & maintenance.

The steadily deteriorating state of the art of *Shankha* making and other traditional crafts has resulted in the diminishing incomes and impoverishment of the *Shankha* artists. Over the last 15 years the wage and the income of the *Shankha shilpi* has effectively, decreased, rendering the Shakhari poorer and economically marginalised.

With interventions in the built environment, we need to revitalise the other traditional crafts along with *Shankha-shilpa* and also the development of sustainable livelihoods for the artisans. To create new investment and employment opportunities as well as increased revenue generation development of cultural tourism needs to be targeted. To achieve a holistic conservation plan, the problem should be addressed at different levels

Legal and policy Issues

At the root of the complex tenure ship pattern lays the issue of the Vested Property Act. It is complicated due to multiple ownership from inheritance and endless legal conflicts over ownership. Any effort to solve the problems of Shakhari Bazar needs to solve this problem first. Then there will be other issues regarding building by-laws, covenanting for conservation etc.

Economic issues

For a successful outcome of the project economic interventions are required for businesses, crafts, housing, and in the form of financial incentives for conservation as exemption of municipal taxes, income tax rebate soft loan etc. Financial support shall be required to compensate for the maintenance cost of the listed buildings. The cultural tourism can be incorporated in the planning as a means of generating the

revenue, which at the end can play a very significant role in the creation of new investment, income & employment opportunity. The financial supports for businesses need to have a bias for the existing and traditional crafts and businesses. To encourage leveraged investment from the private sector, public sector investments need to be very carefully planned.

Physical developments

For a Sustainable Conservation Plan, we should remember that we are dealing with real people and a real community; any conservation measure must take into account, their economic / financial capability/ affordability to participate in the maintenance of the restored buildings. It is important to remember that these people have been living in these buildings and continue to do so in future, accordingly provision for the maintenance for the regular upkeep of the buildings and repairing of damages if any in future, should be taken into account.

Proposal

In the urban context of Dhaka city Shakhari bazar is a significant area with its own tradition and culture. This area is economically important due to Shakhari business and an important heritage site of Bangladesh. The study proposed a comprehensive plan for conservation of the area. People are interested to conserve the area provided government ensures necessary support in the project. Then this will be a pilot project for a cultural community conservation and cultural tourism.

Through four centuries the whole area was inhabited only Shakharis, today a wide variety of traders such as goldsmith, artists and businessman reside within this locality. Shakhari bazaar offers a unique roads cape through repetition of common building features and through uniformity in architectural treatment. This gives a harmony and continuity in the overall development worth conserving, which is now being threatened by modern interventions. The settlement, along with its unique socio-cultural heritage, is now in a state of chaos and configuration. There is a general degradation of the whole area. The complex nature of ownership patterns, one of which is “Ownership due to prolonged occupation” has resulted in each house being owned by several families. Ownerships have now reduced to rooms only with rights to use other services. This has generated a sense of insecurity of ownership and subsequent reluctance on the part of owners to improve the condition of their

property. The overall economic hardship caused by the decline in the Shakhari business is primarily responsible for the dilapidated condition of the houses. This results in a poor rents structure leading to a vicious cycle of poverty. Therefore, conservation of Shakhari bazar would mean a conservation of the craft and the community because one is not possible without the other. By careful planning, cultural tourism can be employed as a means of generating the much needed revenue, which ultimately can play a very significant role in the creation of new investment opportunities as well as new employment opportunities.

A financial plan and cost involvement for the restoration work of two old housing units, conversion of the existing main street into walk way, providing urban utilities services and other ancillary works has been prepared and proposed for the conservation of the area. It is assumed that the government will provide financial support for the above mentioned work.

Method

Information & data collection

For this study both Primary and secondary data have been collected. Primary data includes reconnaissance survey and consultation with experts working on this area. Secondary data have been collected from different governing authorities, books, journals, newspaper and other reports of different organizations. The possibility of bringing any changes in the study area is ensured by the land use survey. Land use survey indicates what kind of change is possible at present and in future in the surveyed area.

Data Analysis

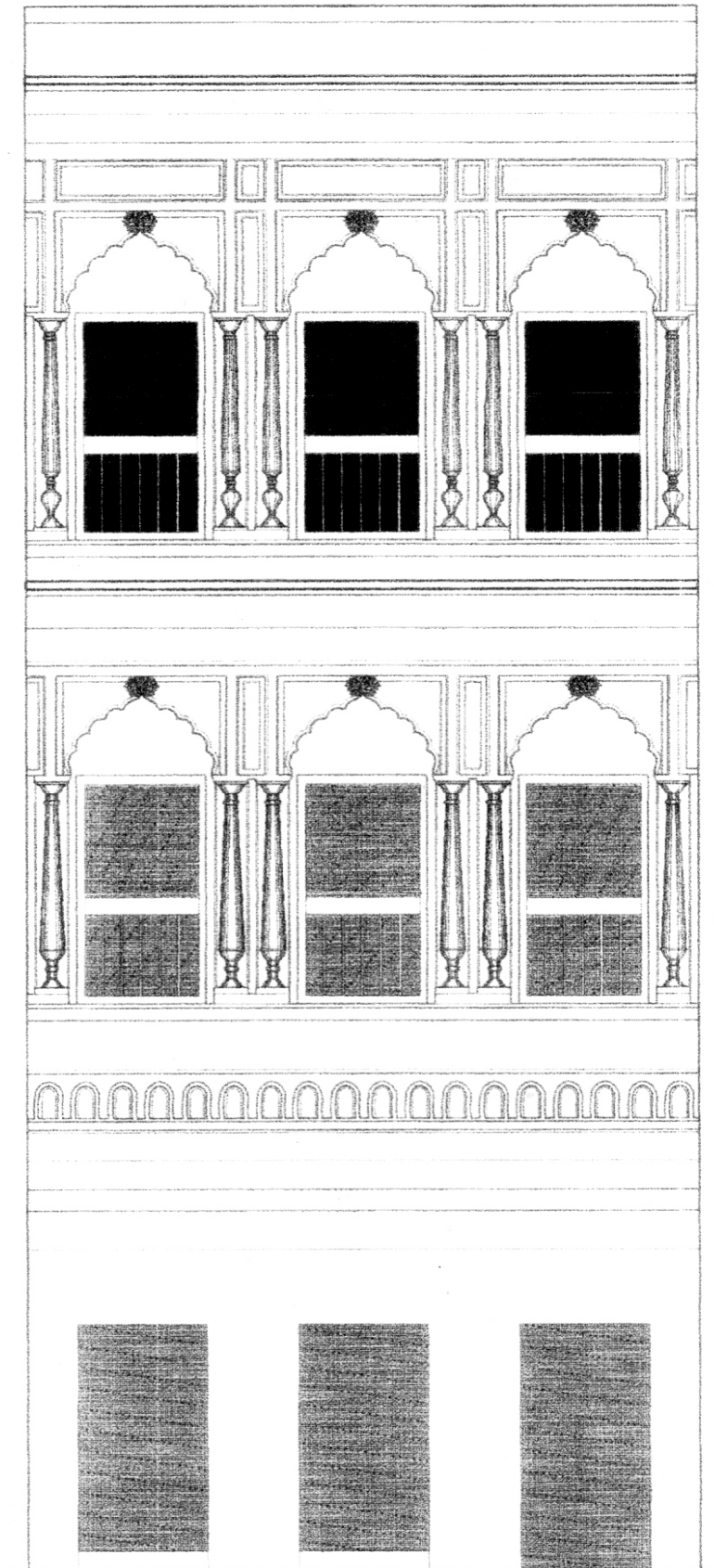
As the modern traffic is incompatible with the narrow street of Shakhari bazar, the street is converted in to a pedestrian walkway. No vehicular traffic is allowed to pass through this street. The pedestrian walk way will be built with paving block to give a touch of heritage value. The Shakhari Community will be provided with basic utilities services like sewer, drainage, gas and electricity. The drainage and sewer line provision will be supported by the government for upgrading the Shakhari bazar area particularly ensuring pollution free, environmentally friendly conserved area. The other utilities services will be organized by individual house owner.

At night the Shakhari bazar area is plunged into darkness due to the want of streetlight. The provision of street lights will also be provided by the government for easy transaction of business and travelling of the tourists at night.

From the field survey of the site, estimated cost for (1) The conversion of main street of Shakhari bazar is to walkway, (2) Providing main drainage, sewer line for the community, (3) Providing street light on both sides of the walk way were prepared following the rate of schedule of Public Works Department of Bangladesh. The total cost stands at US\$ 1,75,993.00 (Engineer's Estimate in the Appendix-1).

The front façade of house no 61 is badly degraded but it is possible to restore the previous façade by employing well-experienced mason under precise supervision of architect & engineer.

The elevation of the front façade of the building after the restoration work will be of the following shape.

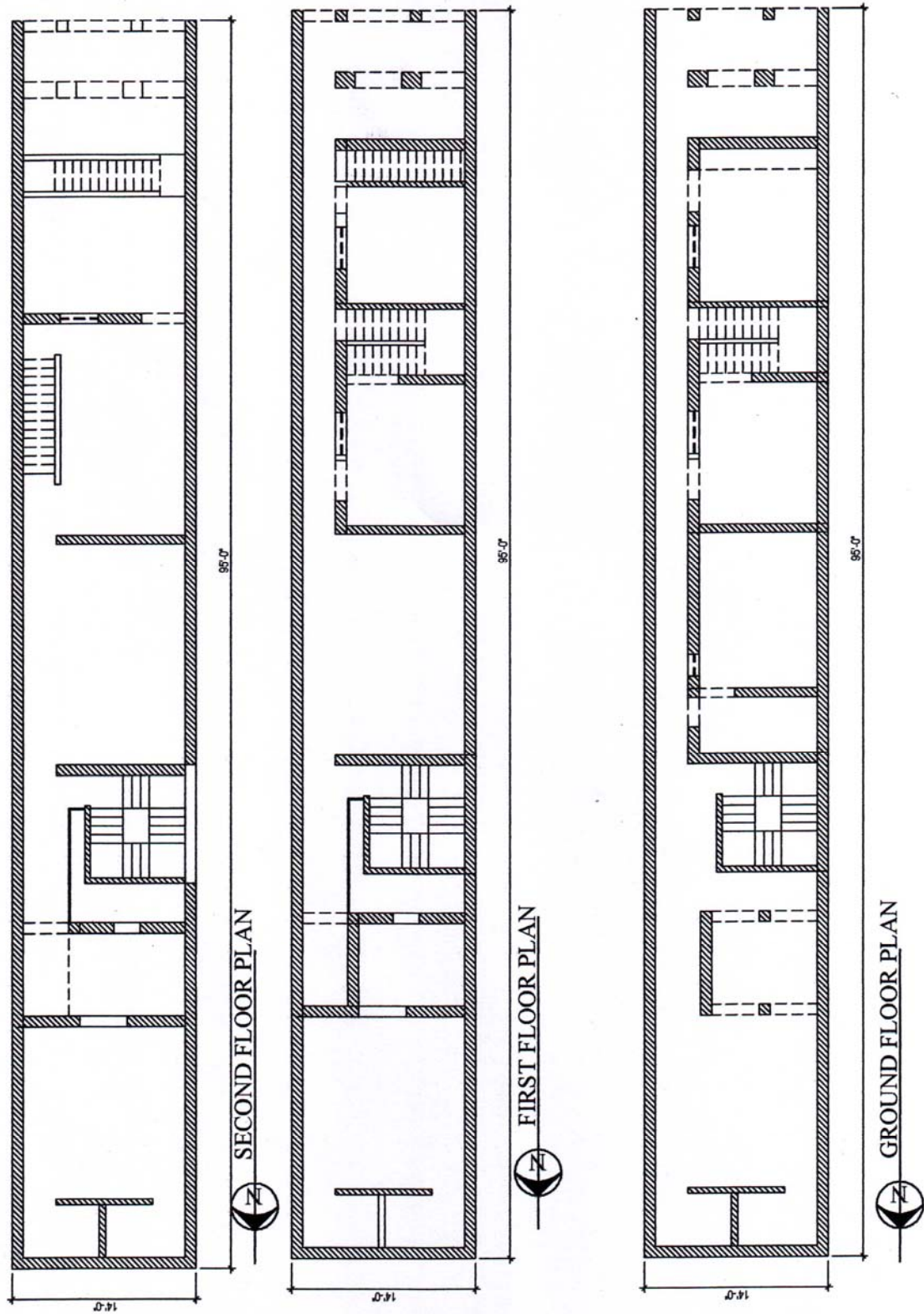




Proposed for Restoration House # 61, House # 62



House # 61



Interior plan of the House # 61 & 62

The house no-62 is apparently in good shape particularly the front façade for both of the buildings interior work is limited within the removal of damaged plaster in wall & ceiling, brick work, RCC work, new plastering work in the damaged area, renovation of sanitary, water supply line & lime washing only. The estimated cost for the restoration work of house no-61 is US \$ 9,682.00 and house no-62 is US\$ 7,858.00 respectively (Engineer's Estimate in the Appendix-2, 3).

Any Conservation measure must take into account the economic, financial capability and affordability of the community peoples those who are participate in the maintenance of the restored buildings. So the socio-economic parameters like demography, income, expenditure, educational status, occupational status were analyzed. It is found from socio-economic survey that two or more person is involved in income generating activities which build-up moderate amount of money per month for each household.

At present approximately 2000-3000 tourists without any promotional measures visit each year. By careful planning the number of tourists visiting the area can be raised up to 15000-2000. Tourism and conservation activities should benefit the host community; tourism programs should protect and enhance national and cultural heritage characteristics.

Comprehensive Plan

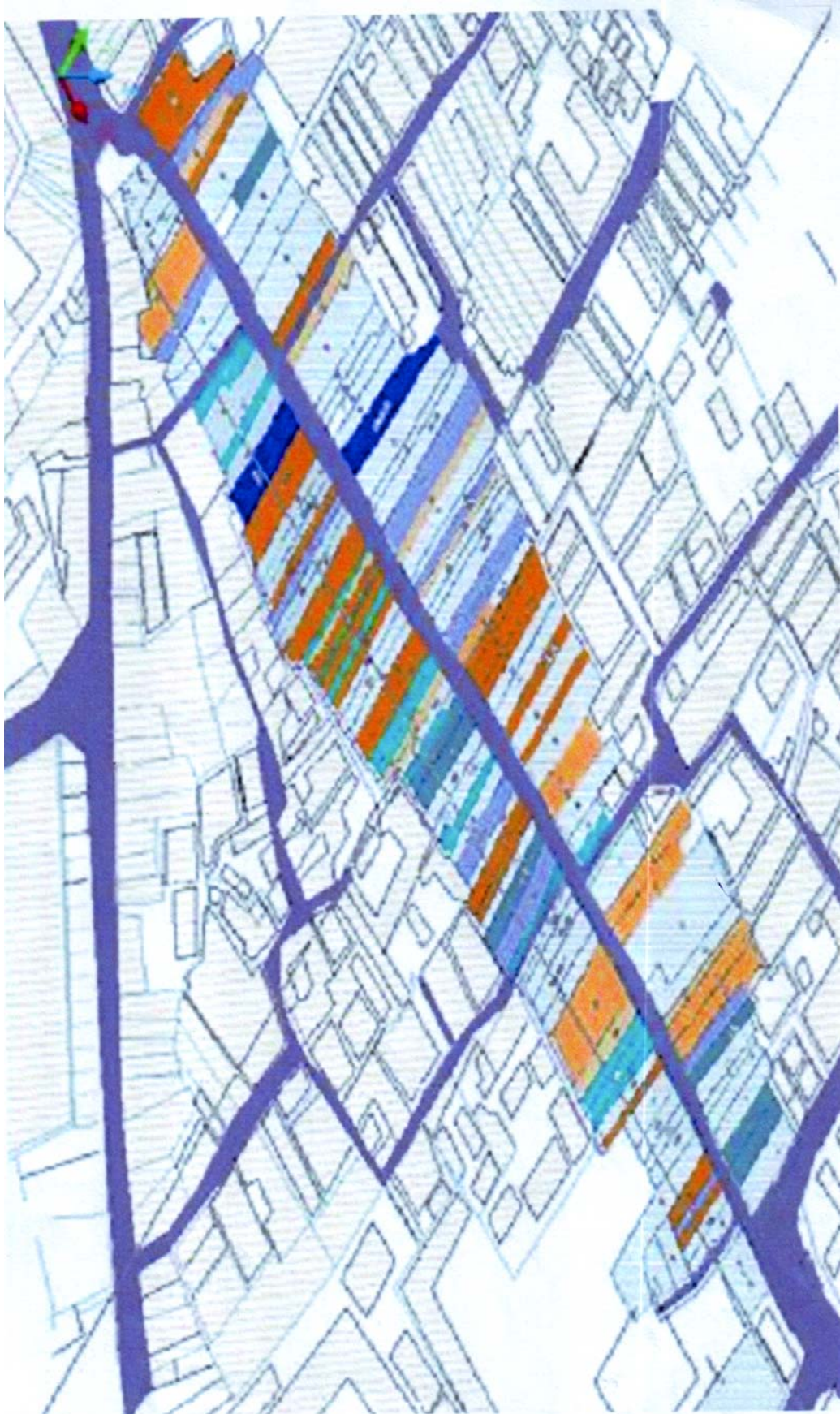
The objective of this is also to promote and manage tourism in ways that respect and enhance the heritage and living cultures of the host communities. to provide the conservation area a well managed opportunities for tourists the accessibility in to the area should be enhanced. For this purpose a multi-storied parking space is proposed for facilitating the parking space of the tourist's vehicle of Main Street of Shakhari bazar in to pedestrian walkway to extend an experience for the tourist who is enjoyable, respectful and educational. It is found that the Plot # 56 is currently lying vacant which is now used for community festivals. It is proposed for a parking space for the vehicles of the tourist. The parking space will be provided in a multistoried building and festivals of the community may be accommodated in the top 2-story of the building. The settlement at Shakhari bazar has grown along a narrow road 14'-0' wide connecting Islampur road with Nowabpur road, along a distance of

about 1000 feet. For encouraging the cultural tourism, the road would be converted in to a pedestrian walkway. The visitors or tourist by car or jeep will enter in to Shakhari bazar through Islampur raod and park the vehicles in the proposed parking lot. Beyond the plot # 56 towards Jonson road the existing road would be a pedestrian walkway. The visitors may pass their leisure time in a pleasant way walking or sitting on both sides of the walkway. Modern traffic is incompatible with the narrow street of Shakhari Bazar. The street has a pleasant pedestrian scale and therefore should be converted to a pedestrian lane. The tourists can walk safely along the walkway while watching the Shakharis at work. At night the illuminated street lights on the walkway will give a different abstract feelings and touch to the entire neighborhood which will be more attractive for the tourists or visitors. One famous sweet-meet shop is already located in Shakhari Bazar and beside that shop a coffeehouse with snacks may be opened for the visitors.

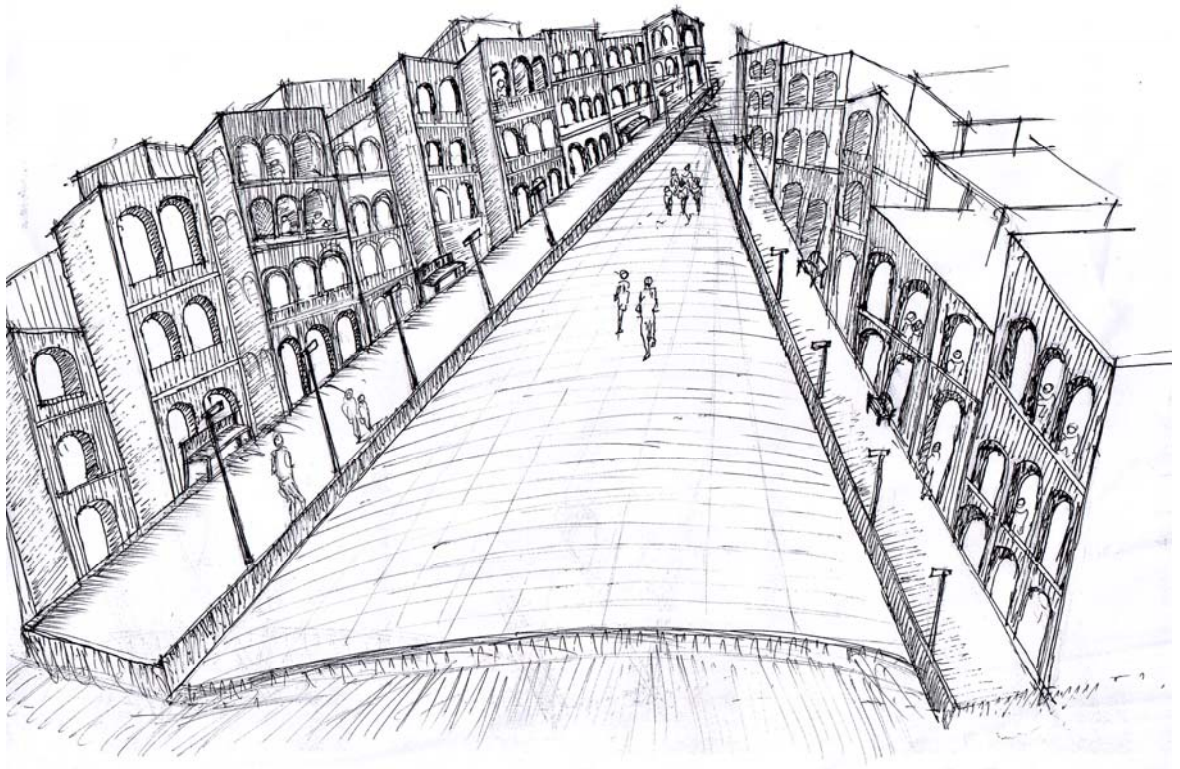
Indiscriminate use of bill board: The traditional pattern of the business of Shakari Bazar is that the shop owner's erected lot of bill boards in their buildings. The architectural styles of the buildings are not visible for the display of the bill boards. The Shop owners should be made aware regarding the bad impact of this so that they can be motivated for removing the unnecessary bill boards from the building.

Overhanging telephone and electrical cable: The T&T and electrical cables are overhanging along and across the building. The overhanging cables undermine the aesthetic view, heritage image of the area. So there should not be any cables overhanging the buildings rather the cables should be concealed under the main walkway.

The members of the host community have to understand the local heritage and culture at first hand and in this way the indigenous people should be involved in planning for conservation and tourism.



Proposed walk way at Shakhari Bazar



Proposed walk was (no vehicular traffic is permitted)



X- section of the proposed walkway showing the underground utilities provision

Proposal for restoration of the buildings: As there are 140 numbers of buildings in the neighborhood, out of those two numbers of buildings are selected for conservation through restoration of the building façade and maintenance/ repair work of the interiors. These are house number 61 and 62 respectively. The other buildings in the area are more or less of the same nature. The building has narrow frontage with extensive depth, the unique characteristic of Shakhari Bazar buildings, is found in almost all the houses, House no 61 and 62 each measures 14 ft×95ft and is located on a plot 105 ft deep. This gives a built up area of 91%.

Both of the buildings have the elevation in 3-bays along with tri-foil, multi-crisp arches is a Mughal legacy. The short decorative free columns with bell Shaped capitals, round pedestals and intricate surface decorations suggest a linkage that goes back to the architecture of Dewan-I-Khas. The value exercises of the two buildings were conducted following the Unnerbuck system and the Exner system for assigning value (enclosed in annexure).

Area Conservation

By definition area conservation is intended to protect ensembles, or group of buildings and the more modest buildings that contribute positively to the character of a place with their cultural significance. Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.

All buildings should be categorized depending on the degree of stabilization and modifications required for making them functional under present requirements.

A- Type: No modification should be allowed other than retrofitting and restorations.

B-Type: Upgrading the housing units to be allowed by the addition of toilets and kitchens.

C- Type: Complete internal modifications should be allowed keeping the elevation intact.

Area conservation in Shakhari Bazar shall involve:

1. Restoration of the historic elevations and other architectural elements.
2. Reconstruction of part of elevations in significant buildings.

3. Providing necessary modern utilities and services.
4. Renovation, targeted renovations will be required to bring back the spatial and environmental qualities.
5. Adaptation by shifting to different functional uses relevant to the area.

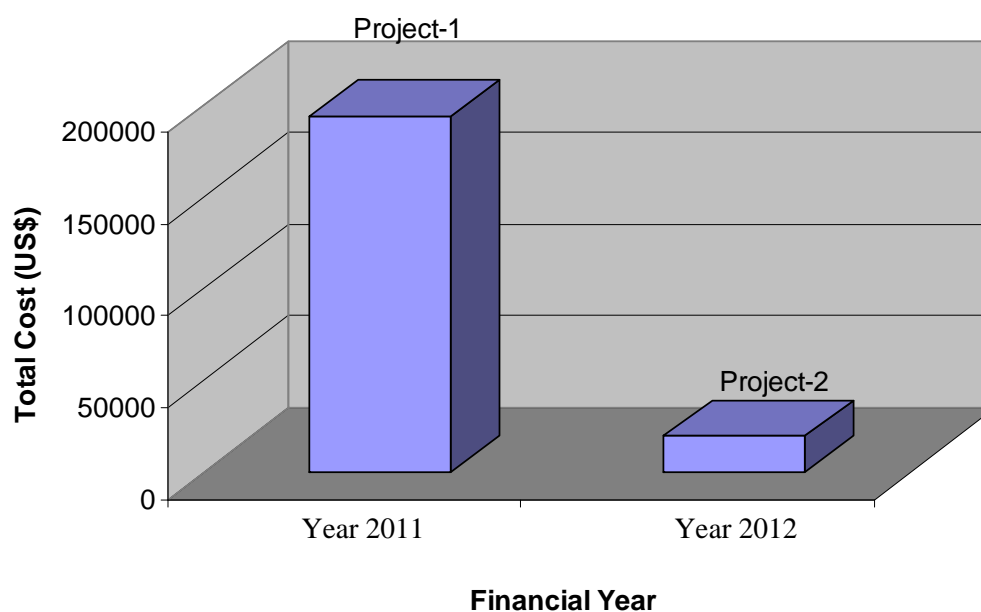
Financial Plan

The Financial implication for the implementation of the proposed plan is summarized below:

Name of works	Engineer's Estimate (US\$)	Cost for Design, Supervision & Administration (US\$)	Total Cost (US\$)	Implementation Period (Year)
Project-1 (1) The conversion of the main street of Shakhari bazaar in to Proposed walkway (2) Providing main drainage , sewerline for the Shakhari bazar (3) Providing street light on both sides of the walkway	1,75,993.00	17600.00	1,93,593.00	1
Project-2 (a) The restoration work of Shakhari Bazar House # 61 (b) The restoration work of Shakhari Bazar House # 62	17,540.00	1,754.00	19,294.00	0.5

The total fund requirement of Plan (project-1 & 2) is US\$ 2,12,887.00 The work will be implemented within 2 (two) financial years. In the first year, Project-1 will be implemented and in the following financial year, Project-2 will be executed. It is assumed that the financial support will be provided by the government and the Plan will be completed by 2012.

Schedule of Financial Plan



Results

Conservation of Shakhari bazar would mean a conservation of the craft and the community because one is not possible without the other. By careful planning, cultural tourism can be employed as a means of generating the much needed revenue, which ultimately can play a very significant role in the creation of new investment opportunities as well as new employment opportunities. The accessibility towards Shakhari bazar may be well organized by converting the main street of Shakhari bazar in to walk way. In a vacant plot, a multistoried parking lot may be constructed for providing parking facilities to the tourists. The tourists can walk safely along the walk way while watching Shakharis at work. By this an urban environment is created while preserving the traditional urban fabric alongside the conservation of heritage buildings & area. The people of Shakhari bazar must have access to basic urban utilities, services and amenities. It is important to remember that these people have been living in these buildings and continue to do so in future, accordingly provision for the maintenance for the regular upkeep of the buildings and repairing of damages if any in future, should taken in to account. Two old housing units are selected for conservation through restoration work. It is believed that observing the better exterior outlook of the restored buildings and interior facilities and provision of the degraded building. The community people will be intensely interested and motivated to replicate the same in their own buildings. At the end the whole area will be conserved through the restoration work of the degraded buildings of the area with the direct participation of the community people. The community in this way will undertake the conservation work by themselves, incorporating in the process modern and technological amenities as demanded by present day urban living.

Discussion and Conclusions

In the urban context of Dhaka city Shankhari bazar is a significant area with its own tradition and culture. The government listed Shakhari bazar as historically important conserve area by a gazette notification on February 12, 2009. This area is economically important due to Shankha Business and an important heritage site of Bangladesh. Unfortunately recent observation by conducting this study it has been proved that the environment of the area is deteriorating day by day due to lack of urban utilities & services. It is observed that the degraded buildings in the conserved

area should bring under immediate restoration & maintenance program. From study it reveals that the socio-economic condition of the community is vulnerable.

This study proposed a comprehensive plan for conserving the Shakhari bazar area as a heritage site and develops the area for cultural tourism with the increased accessibility and other amenities for the tourists. The study also has proposed for enhancing basic utilities & services which mainly includes drainage & sewerage line of the area.

The Shakhari bazar area should be considered as an artisan's village for the traditional craftsmanship. The Shakhari community is living in these age-old buildings and we have to make the provision that they should continue to live in this area in future period. For this restoration of the building for regular upkeeping of the buildings against the damages may be maintained. The restoration work of two buildings in the area should be carried out by the government for encouraging of the community for such a restoration drive for their individual house. Through the community participation, involvement and initiative the Shakharis would be able to restore all the degraded buildings. The expenditure incurred in the implementation of the restoration work will be realized from the owners of the building. The Government will grant the money as an interest free loan to be realized from the owners.

Proposed area reflects the continuity of old Shakhari Bazaar, conservation process will enhance the significance of Shakhari bazar, it will be developed as a cultural urban area.

People are interested to conserve the area. It is assumed that government will sanction the requisite fund for the conservation of the area because government has declared this area as conserve area. If government provides necessary support then the whole project will be a pilot project for a cultural community conservation and redevelopment.

To conserve this area following recommendations are proposed:

1. The Shankha business must receive official support like other cottage industries, may be from government or NGOs or other international organizations.
2. Tourism and conservation activities bring about benefit to the host community,

imposing development and encouraging local employment.

3. Some kind of official ownership rights should be given to the users, on the basis of which loans can be advanced for property improvement. Any plan for development will simply fail without users' participation in Shakhari bazar.
4. The host Communities and indigenous people should be involved in the sanctioning and disbursing process and procedure of the interest free loan from the government particularly for the restoration work of their buildings.
5. Technical assistance necessary to restore the houses should be made available. Better houses will improve the rent structure which will eventually help lower the density.
6. Modern traffic is incompatible with the narrow street of Shakhari bazar. The street has a pleasant pedestrian scale and therefore should be converted to a pedestrian lane, so that one can walk safely while watching the Shakharis at work.

Estimated cost for (1) the conversion of the main street of Shakhari bazaar in to Proposed walkway

(2) providing main drainage , sewerline for the Shakhari bazar

(3) providing street light on both sides of the walkway

Middle part of the walkway

Sl No	Description of item	Unit	Quantity	Rate	Amount in Taka	
1	C C Work	Cum	42.51	4749.00	201879.99	
2	Paving block	Sqm	557.41	926.00	516161.66	
3	Street light	Nos	40.00	20000.00	800000.00	
				Total Taka	1518041.65	1518041.65

Two side of the walkway

Sl No	Description of item	Unit	Quantity	Rate	Amount in Taka	
1	10" Brick work	Cum	564.62	3636.00	2052958.32	
2	Soling	Sqm	1114.82	234.00	260867.88	
3	C C work	Cum	85.03	4749.00	403807.47	
4	Paving block	Sqm	1393.52	926.00	1290399.52	
5	900 mm R C C pipe	Rm	1219.51	4000.00	4878040	
6	Soling for R C C pipe	Sqm	743.21	234.00	173911.14	
7	C C work for R C C Pipe	Sqm	28.34	4749.00	134586.66	
				Total Taka	9194570.99	9194570.99
				Total Taka		10,712,612.64
Add other unforeseen expenditure 15% of the total cost=						16,06,892.00
Grand Total Taka=						1,23,19,505.00
=						US\$ 1,75,993.00

Estimated cost for the restoration work of Shakhari Bazar House # 61

SI No	Description of item	Unit	Quantity	Rate	Amount in Taka
1	Striping of Unsurvices plaster	Sqm	720	12.00	8640.00
2	R C C in column	Cum	13.16	5860.00	77117.60
3	M S Rod	Kg	472.43	72.00	34014.96
4	5" Brick work at Toilet	Sqm	33.44	542.00	18124.48
5	12 mm plaster work	Sqm	720.00	188.00	135360.00
6	Patent stone flooring	Sqm	362.87	364.00	132084.68
7	White wash	Sqm	685.61	12.00	8227.32
8	Long pan	Nos	9.00	1953.00	17577.00
9	Plastic lowdown	Nos	9.00	1450.00	13050.00
10	Bib cock	Nos	9.00	530.00	4770.00
11	Angle stop cock	Nos	9.00	614.00	5526.00
12	Piller cock	Nos	9.00	632.00	5688.00
13	1.5 dia G I pipe	Rm	50.00	513.00	25650.00
14	1 " dia G i pipe	Rm	80.00	391.00	31280.00
15	0.75" dia G i pipe	Rm	95.00	292.00	27740.00
16	Glass self	Nos	9.00	462.00	4158.00
17	Toilet paper holder	Nos	9.00	270.00	2430.00
18	Soap case	Nos	9.00	149.00	1341.00
19	Towel pail	Nos	9.00	463.00	4167.00
20	Food grade Water tank	Nos	1.00	12365.00	12365.00
21	Pump 2.5 HP	Nos	1.00	20000.00	<u>20000.00</u>
Total Taka=					589311.04
Add Other unforeseen expenditure 15% of the total Cost=					88,397.00
Grand Total Taka=					6,77,708.00
=					US\$9,682.00

Estimated cost for the restoration work of Shakhari Bazaar House # 62

Sl No	Description of item	Unit	Quantity	Rate	Amount in Taka
1	Striping of Unsurvices plaster	Sqm	729.00	12.00	8748.00
2	5" Brick work at Toilet	Sqm	33.44	542.00	18124.48
3	12 mm plaster work	Sqm	720.00	188.00	135360
4	Patent stone flooring	Sqm	362.87	364.00	132084.68
5	White wash	Sqm	685.61	12.00	8227.32
6	Long pan	Nos	9.00	1953.00	17577.00
7	Plastic lowdown	Nos	9.00	1450.00	13050.00
8	Bib cock	Nos	9.00	530.00	4770.00
9	Angle stop cock	Nos	9.00	614.00	5526.00
10	Piller cock	Nos	9.00	632.00	5688.00
11	1.5 dia G I pipe	Rm	50.00	513.00	25650.00
12	1 " dia G i pipe	Rm	80.00	391.00	31280.00
13	0.75" dia G i pipe	Rm	95.00	292.00	27740.00
14	Glass self	Nos	9.00	462.00	4158.00
15	Toilet paper holder	Nos	9.00	270.00	2430.00
16	Soap case	Nos	9.00	149.00	1341.00
17	Towel pail	Nos	9.00	463.00	4167.00
18	Food grade Water tank	Nos	1.00	12365.00	12365.00
19	Pump 2.5 HP	Nos	1.00	20000.00	<u>20000.00</u>
Total Taka=					478286.48
Add other unforeseen expenditure 15% of the total cost=					71,743.00
Grand Total Taka=					5,50,029.00
=					US\$ 7,858.00

Valuation Exercise

The Unnerback System

Identification: House # 61 Shakhari Bazar	Identification: House # 62 Shakhari Bazar
Building history: No	Building history: No
The building was built in the 18 th century as a copy of a late Mughals.	The building was built in the 18 th century as a copy of a late Mughals.
Patina: Yes The building is degraded for lack of maintenance.	Patina: Yes The building is degraded for lack of maintenance.
Architecture: Yes Craftsmanship was good.	Architecture: Yes Craftsmanship was good.
Society: Yes From very inception it was a shop cum residential house.	Society: Yes From very inception it was a shop cum residential house.
Social: Yes It is linked to society because it is a part of bazar that has traditional craft of Shakha.	Social: Yes It is linked to society because it is a part of bazar that has traditional craft of Shakha.
Continuous: Yes It has continuity from very beginning a shop at the entrance of ground floor and remaining is used for residential purpose.	Continuous: Yes It has continuity from very beginning a shop at the entrance of ground floor and remaining is used for residential purpose.
Personal: No Aesthetic : Good	Personal: No Aesthetic : Good
Architectural: Yes Craftsmanship was good	Architectural: Yes Craftsmanship was good
Artistic: No	Artistic: No
Patina: Yes Construction is degraded and front façade is damaged.	Patina: Yes Construction is degraded
Identity: No	Identity: No
Continuous: Yes	Continuous: Yes
Symbolic: No	Symbolic: No
Rareness: Local	Rareness: Local

2. The Exner System

Identification: House # 61 Shakhari Bazar	Identification: House # 62 Shakhari Bazar
1. Originality	1. Originality
a) The form of the buildings Exterior: The building is degraded. There is few new materials used in the building. Interior: The building is not 100% original.	a) The form of the buildings Exterior: The building is degraded. There is few new materials used in the building. Interior: The building is not 100% original.
b) The Function The building is in its original function. Originally it was residence and a shop in the ground floor.	b) The Function The building is in its original function. Originally it was residence and a shop in the ground floor.
c) Authenticity Not Authentic	c) Authenticity Not Authentic
d) Identity No Architectural identity	d) Identity No Architectural identity
e) Narrative: The building is readable. It tells history of an area especially its influence from Mughal period	e) Narrative: The building is readable. It tells history of an area especially its influence from Mughal period
f) Reversibility There is addition and subtraction in the building.	f) Reversibility There is addition and subtraction in the building.

Pictorials:

Appendix-6



Apart from Shakha other traditional crafts





Working hour in Shakhari Bazar



Interior Court Yard



Corridors are narrow but usually provide private access to all of the many families occupying these sub-divided dwellings



A housewife cooking inside Chipa Bari, a house only 5 feet wide

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