

# A Study on the Settlement Pattern of “Dherr” Community in Chittagong, Bangladesh

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**Abstract**— Chittagong is well-known for being the home of different ethnic groups of Bangladesh. These indigenous people have their own individual culture, spiritual belief and lifestyle, which are visible in their habitation. Dherr is one of them who lives in the village named ‘Swapnanagar’ previously called ‘Dherr para’ in Chandanaish upazilla, Chittagong. These people were brought here from Birbhum-Bankura, north-eastern part of India by the British companies to work in the tea estates about 150 years ago. Upon arrival to a new land they were forced to live in a distinct housing system surrounded by hilly area and forest where they face constant fear of wild elephant attack. The wild elephants enter their habitats in search of food and damage their crops and houses. As a result the community adapts some practices and techniques in their housing and built pattern to cope with the wild nature. This paper attempts to investigate the characteristics of Dherr community’s settlement pattern through ethnographic research method. Moreover this study focuses on adaptation of new techniques to enhance the resistance capacity of their houses under hostile situation.

**Index Terms**— Dherr community, Dwelling characteristic, Elephant attack, Ethnic Community, Labour line, Mud hut, Settlement pattern.

## 1 INTRODUCTION

CHITTAGONG is a diverse land where local Bengalis and different ethnic groups live together. Dherr is an ethnic community who are living in ‘Swapnanagar village’ previously known as ‘Deherr para’ located at Chandanaish upazilla in the district of Chittagong (Fig. 1). In the British colonial period a huge labour force belonging to lower Hindu caste were brought from different estates of India to work in the tea estates. Dherr is one of the groups who migrated mainly from Bankura of India to Karunarchara Tea Estate, Chittagong about 150 year ago for better opportunity of livelihood. They were accommodated in ‘Labour line’, a distinct housing pattern developed by the British where houses are arranged linearly along both side of main circulation. The life in the labour line was miserable due to poor salary and absent of basic needs. This ethnic group has gone through few historical events which caused change hands of their ownership. Among them the separation of Indian subcontinent in 1947 and liberation war of Bangladesh in 1971 are mentionable [1]. In Bangladesh they worked under the supervision of Bangladesh National Tea Estate [2]. In 1984 the authority abandoned the tea estate and the workers became jobless. They had no option to return back to their origin because of their financial crisis and became permanent settler in the place with the permission of the authority. At present around 40-50 families are living in the village where some of them moved to the nearby Kodala and Banskhalia Tea Estate in search of better living condition.

Because of the geographical location, the Swapnanagar village is surrounded by small hills and forest. The forests provide habitat for different types of wild animals like snakes, leopards, wild pigs, elephants etc. The villagers always face fear of wild elephant attack which is a frequent incidence in their life. Every year wild elephants come down from hilly forest to the village to find food. This incident occurs due to insufficiency of food in the forest which is destroyed by the villagers. The elephant troop destroys paddy field, pineapple

garden and banana trees around the houses. Sometimes villagers were killed by them. While invading the elephants damage the houses badly by breaking the earthen walls in search of stored food. During the time of attack the villagers take shelter in the nearby villages or the temple situated on high terrain. Moreover to protect themselves from this hazard the villagers alter their original settlement pattern by adapting new technique and built form in their housing.

The present study aims to understand the characteristics of settlement pattern of the Dherr community. Moreover it tries to identify the adaptation and coping strategies of the people in their built form. The study is carried out using ethnographic research method.

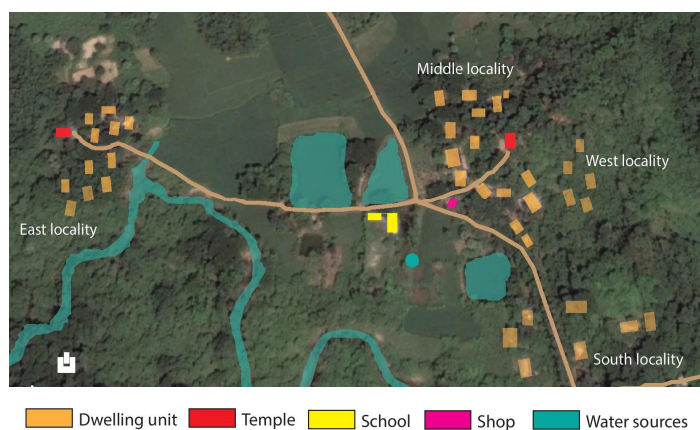


Fig. 1. Satellite image of Swapnanagar village (Google Earth).

## 2 SOCIO-ECONOMIC CONDITION

The Karunarchara tea estate was out of business since 1984. After that the workers of the garden lost their permanent job. Some of them stayed in the village and other migrated to nearby tea estates looking for source of earning. The people who become permanent settler try to earn their living by working as domestic worker of other local community. They

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started working in the abandoned tea garden which is used as guava, pineapple and lichi cultivation. Because of dominant local Bengalis, the community has little access to the farm land around their village. Hence they clean nearby hilly areas for cultivation purpose, locally known as "Jhum Cultivation". The male family members of the community earn money by selling chopped wood which they collect from the hill. They also work as day labourer in the local areas. On the other hand the female member mainly farm cattle and poultry. They also cultivate banana, mango, jackfruit, pine apple etc. around their homestead. Moreover they plant timber trees like Teak, Mahogany, Acasia which is another source of earning.

### 3 SOCIO-CULTURAL ACTIVITIES

The Dherr community belonging to low Hindu caste mostly practices their ancestors' religious belief. They mainly adore 'Kali Devi', 'Mansha Devi' and 'Vishnu'. The village has two temples named 'Kali Mandir' and 'Narayan Mandir' where they usually worship two times a day. Apart from this every house has a sacred space dedicated for worship purpose. The villagers celebrate some common festivals like Durga puja, Kali puja, Mansha Puja, Holi etc. During the time of festivals they pray and sing religious songs in the temple premises. Sometimes they gather to sing mythical ballad with musical instruments like 'Dhol', 'Flute'. Moreover they enjoy other festivals with the neighbouring villagers.

The marriage system is similar like other local Hindus. They generally marry in the same caste. It is seen that they arrange marriage with the people who were moved to other tea estates. Local Hindu people are not interested to build up relation with them though they are of the same caste. Being lower caste they are always dominated by the local Bengalis. The local group considers them untouchable and tries to uproot them so that they can control the land. In the village they have a leader called 'Sardar' who works under an administration body named 'Panchayet' [4]. Saradar is responsible to take care and solve internal problem of the community. The administration body also arranges social and religious events.

### 4 SETTLEMENT PATTERN

The 'Dherr para' was established during the time of British colonial period when The British brought these people from India to work as tea worker. They were accommodated in a new housing system in the garden. This housing system known as 'Labour line' was a common worker accommodation pattern in all the tea estates at that time. In the labour line houses were placed side by side facing a common circulation [3]. After the shutdown of the tea estate the community became jobless and faced insecurity about their land where they used to live in. They got the permission from the authority to continue living in their homestead. Among the workers a group migrated to other tea estates and the remaining group changes their settlement characters according to their need. In the course of time their linear pattern transformed into clustered arrangement. The village is situated alongside a small shallow canal and surrounded by the paddy fields, garden and hills. There are four localities in the village which are

called "Para" i.e., 'Pub para'(east locality), 'Poschim para'(west locality), 'Majh para'(middle locality) and 'Dokkhin para'(south locality). Fig. 2 shows the settlement plan of Dherr Community.

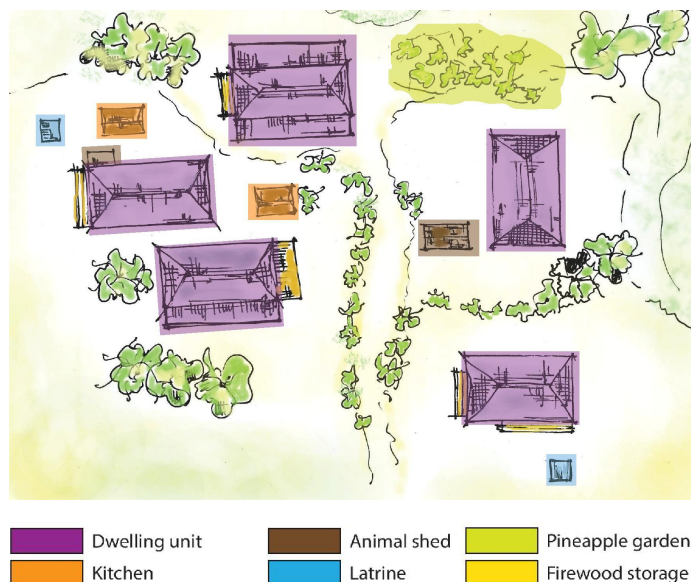


Fig. 2. Settlement plan of Dherr Community.

**Road Network:** In the village the road network system is in very poor condition. The main road which connects the village with the Kanchannagar is constructed with brick soiling. All 'Para' are connected with walkways which are unpaved causing big problem during rainy season. The village has no transportation facilities. They have to walk a certain distance to reach nearby village.

**Education and Healthcare Facility:** Since the British period this ethnic community was deprived of proper education and healthcare facility. In the year of 2004 villagers built their first primary school named 'Swapnanagar Biddanikaton' with the help of a group of university students (Fig. 3). At first they had no particular space for class room. House courtyard, open spaces were used for taking classes. Later they used the abandoned tea factory field and built a bamboo structure classroom there. At present they have a masonry one storey building where classes are being conducted. In case of higher education they go to the nearby village secondary school.



Fig. 3. Swapnanagar primary school.

In the Swapnanagar village there is no medical center. When villagers get sick they use medicinal plant for treatment which they grow around their houses. In case of emergency they have to go to Kanchannagar for better medical care.

**Water supply and Sanitation:** In the village there is insufficiency of drinking water source. They used to collect water from a well which was constructed during British period. At present the village has a tube well which becomes the only drinking water source during summer when the well is unusable. The other water sources like ponds and a shallow water canal are mainly used for bathing and household wash. The village has no proper sanitation system. Most of the villagers use either pit latrine or open spaces located at the backyard of their houses. Fig. 4 shows common water sources in Dherr Community.



(a) Tube Well

(b) Pond

Fig. 4. Water sources in Swapnanagar village.

**Community spaces:** The village temples are the main gathering place for the community. The Kali Mandir is located on the top of a hill at the beginning point where Narayan Mandir is placed at the ending point of the village (Fig. 5). The villagers arrange small programs on the temple premises during the time of festivals. Moreover they take shelter on the Kali Mandir when elephants come down to the village. There is a small tea stall in the entry point of the village where the male members of the community generally pass their leisure time by chatting. Marriage ceremonies and other celebrations are arranged in the open spaces around the houses.



(a) Kali Mandir (Temple)

(b) Narayan Mandir (Temple)

Fig. 5. Temples in the village.

## 5 HOUSING UNIT

### 5.1 Physical Condition

In the village houses which are located on the high terrain are generally single storey mud hut. The usual size of a typical house is 14 feet by 24 feet. The roof is covered by CI sheet or

thatch. On the other hand the houses on the flat land near hill are most vulnerable to elephant attack. In this land houses are generally double storey mud hut. They extend their house on either side of the main unit. Generally they built addition walls which provide protection in the time of elephant attack. The dwellers use vegetation around their houses to mark their boundary and ensure privacy. Fig. 6 shows the present types of dwelling unit in the village.



(a) Single storey mud hut

(b) Double storey mud hut

Fig. 6. Dwelling unit in the village.

### 5.2 Space Organization of Housing Unit

**Single storey unit:** Single storey dwelling unit is the common type seen in the village. A typical single storey unit has two rooms partitioned by mud wall or bamboo mat wall. One room is used for sleeping and the other has multifunctional uses. There is a worship space in the unit at the corner of a room facing east or north. The guard wall is erected around the house. The spaces inside the guard wall are mainly used as domestic purposes like cooking, dining, storage, cattle space and other household chores. Fig. 7 represents the typical functional arrangement of a single storey unit.

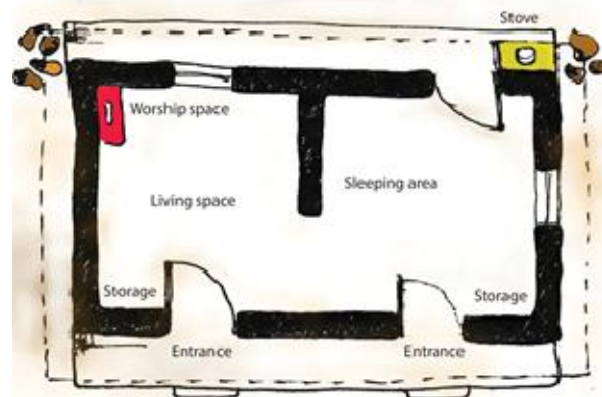


Fig. 7. Typical plan of a single storey unit.

**Double storey unit:** In the village double storey house is constructed to provide shelter during the time of elephant attack. In this type the main unit which serves the private zone is similar to the common single storey dwelling unit but the guard wall is higher than the typical one. The inner zone surrounded by the guard wall is semi-private in nature. The height of the upper floor is generally half of the lower floor which is used for sleeping area as well as storage. They use bamboo or wooden ladder to access the upper floor. There are number of windows in this area for ventilation. During the elephant at-

tack the dwellers take shelter and store their valuables on the upper floor. A typical double storey unit plan is shown in Fig. 8.

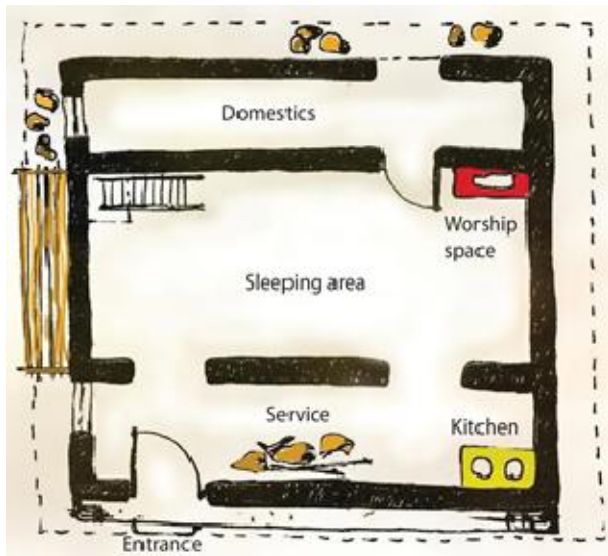


Fig. 8. Typical plan of a double storey unit.

**Kitchen:** Usually each household has earthen stove located at a corner of room. In some of the homestead they separate the kitchen from the main unit to the front yard or back yard.

The separate kitchen unit has bamboo mat wall and thatch roof without window. The perforations in the bamboo mat wall serve the ventilation purpose.

**Storage:** The Dherr community uses different technique to store goods. In almost every house they stack firewood to the exterior side wall of the dwelling unit using bamboo or wooden post. In the interior mud wall they made alcoves and insert wooden post to store household objects (Fig. 9).

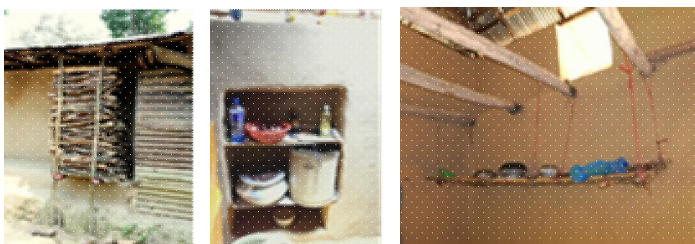


Fig. 9. Storage techniques.

**Front yard and Back yard:** Every house has entry from the front yard. This space is mainly used for household chores by the female member. Furthermore it also serves as relaxing space and playing area of the children. On the other hand the animal shed and toilet are located in the backyard. This area is also used for food preparation, cleaning, firewood storage etc. Sometimes dwellers grow vegetables and flower plants around their houses.

## 6 HOUSE CONSTRUCTION TECHNIQUE

All most all the houses of the Dherr Para are made of mud which is available and economic material. They generally collect mud from nearby hill. In order to build the mud house they follow the same process like the local people. They use moulded mud which is placed in layers to complete the wall. Each layer takes a certain period of time to dry. Wooden logs are inserted horizontally into the wall to provide structural stability. Over the wooden logs wooden planks are placed to create the upper floor in double storey dwelling unit. They keep small apertures for doors and windows where wooden frame is used. Roofs are usually constructed with wooden frame and covered with CI sheet. The wooden frame is connected with the horizontal logs by vertical members. The mud wall is plastered with mud slurry. Sometimes they decorate the outer wall with colorful mud or paint (Fig. 10).

Because of frequent elephant attack they construct additional layer around their house to protect their main unit. Generally these layers are built with mud block. The spaces inside the guard wall are temporally used for domestic purpose. The roofing materials over the spaces are kept similar to main unit.

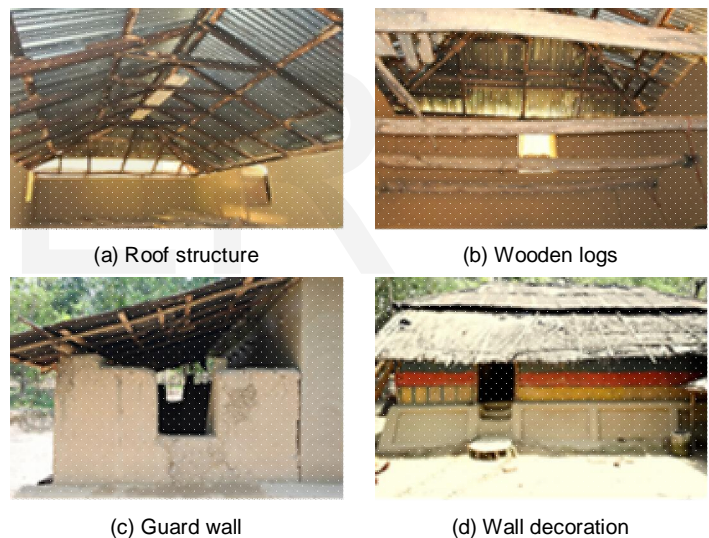


Fig. 10. House construction elements and decoration.

## 7 COMPARATIVE ANALYSIS

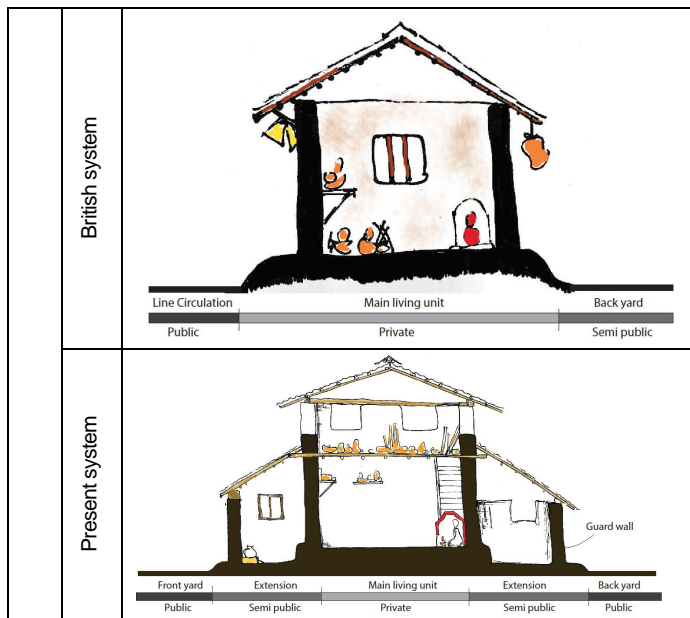
Dherr community originated from Birbhum, Bankura district of India moved to Kanchannagar with their own socio-cultural background. In their original ancestors' land they used to live in a pattern where courtyard or verandah system was followed. In the British period they were forced to settle in the tea garden workers' housing known as 'labour line' where single housing units are placed linearly with absence of courtyard. After the abandonment of the tea garden these people are living in the land because of their own interest of survival. In the present settlement pattern they arrange their houses in a cluster where small open space in front of the house serves the courtyard function. The new topographical conditions at new terrain have influences on their built form. They have adapted

some techniques to protect the house from wild nature. Their original single mud house has turned into double storey house where upper floor is used for shelter in the time of elephant attack. Moreover houses are surrounded by additional walls which protect the main living unit from direct attack. There are no major changes observed in the use of materials in their housing unit. At present in most of the houses CI sheet is used as roofing material rather than thatch/straw. The house decoration which was a part of their enriched culture has been diluted in course of time. Presently a few number of houses are found with traditional decoration where colourful mud is replaced with artificial paint. Table 1 represents comparative analysis among original, British system and present settlement pattern.

**TABLE 1**  
**COMPARATIVE ANALYSIS AMONG ORIGINAL, BRITISH SYSTEM AND PRESENT SETTLEMENT PATTERN**

Analysis	
Settlement pattern	<p>Original system</p> <p>Paddy field</p> <p>Legend: Dwelling unit (purple), Kitchen (brown), Animal shed (orange), Pond (blue)</p>
	<p>British system</p> <p>Line circulation</p> <p>Legend: Dwelling unit (purple)</p>
	<p>Present system</p> <p>Legend: Dwelling unit (purple), Kitchen (brown), Animal shed (orange), Latrine (blue)</p>

Layout plan	<p>Original system</p> <p>Entrance</p> <p>Animal shed</p> <p>Kitchen</p> <p>Front yard   Verandah   Main living unit   Verandah   Back yard</p> <p>Public   Public   Private   Semi public   Semi public</p>
	<p>British system</p> <p>Entrance</p> <p>Storage</p> <p>Worship space</p> <p>Sleeping area</p> <p>Kitchen</p> <p>Line Circulation   Main living unit   Back yard</p> <p>Public   Private   Semi public</p>
	<p>Present system</p> <p>Entrance</p> <p>Animal shed</p> <p>Front yard   Extension   Living unit   Extension   Back yard</p> <p>Public   Semi public   Private   Semi public   Public</p>
Space sequences	<p>Original system</p> <p>Front yard   Verandah   Main living unit   Verandah   Back yard</p> <p>Public   Public   Private   Semi public   Semi public</p>



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## 8 CONCLUSION

Dherr community is one of the deprived groups in Bangladesh. These people migrated to this foreign land to work as tea workers with a dream of better life. Unfortunately their dream did not come true because of exploitative British rule and social exclusion from local Bengali people. The British forced them to live in a new settlement system which differed from their original one. Through many historical events these people became jobless and for survival some of them moved to other places and rest of them settled permanently in the garden. In the garden their life was more miserable because of unfavorable topographic conditions and wild elephant attack. The wild elephants which come down from nearby forest destroy their houses to find food. To protect themselves from this unfavorable situation they adapt some techniques and built pattern in their housing system. They construct their houses with dual layer. The outer layer is used as shield to protect the inner unit from direct elephant attack. In some cases they build upper floor which is used for storage and shelter place during the time of attack. The present study aims to identify the characteristics of settlement pattern of this ethnic people. Moreover the study investigates the adaptive techniques which are used by them for protection of their houses from wild nature. As the community is small and very few people know about them, more research work should be carried out to help the government for taking initiatives to improve their living condition.

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