

**Paper ID: ARCH 0131**

# **The transition from old to new residential neighborhoods: the case of Rajshahi**

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## **Abstract**

The neighborhood is a fundamental unit of urban development as well as a primary reflection of people's culture. It is the physical expression of harmony between people, context and daily activities. These neighborhoods can go through a continuous process of transformation to complement urbanization and population influx. Due to its huge population and rapid growth this scenario is more obvious in developing countries like Bangladesh. Being the third largest metropolitan area of Rajshahi had a tremendous shift in the neighborhood. At the early phase of Rajshahi, neighborhoods were formed in the bank of Padma. To adapt with increasing need and more people to habitat the urban sprawl increased and new neighborhoods began to form in the city outskirts, which have some unique characteristics in contrast to the early ones. Proper analysis and mapping of these neighborhoods are essential to define the developmental pattern. So, a qualitative method is used to identify and map Rajshahi's early and new neighborhoods and a thorough inquiry is carried out over the selected cases of old (sagarpara, kumarpara) and new neighborhoods (padma residential area, uposhohor residential area) neighborhoods, to demonstrate transformations or changes have taken place over the decades to establish the tone of current practice. And it is hoped that this work may open up new research possibilities in this field.

**Keywords:** *Old neighborhoods; New neighborhoods; Transformation; Rajshahi.*

## **1 Introduction**

Neighborhoods have gradually been come to form by their need compatible with social norms, values and lifestyle. It is considered as the basic planning unit and also defines the fabric of the city. Neighborhoods also showcase the inner stage of the residents in the form of dwelling units and layout. Moreover it can express social connectedness by its built environment. The lifestyle, daily activity pattern, social interactions all rooted within the built forms of neighborhood (Gopinath & Kulkarni, 2014). But the neighborhoods and its elements are not constant in nature. They can go through a continuous process of change, readjustment and evolution.

There is a rapid urbanization trend prevailing all over the world. Thus the urban sprawl is increasing along with a huge population influx. The city need is also evolving to keep pace with this global trend. To accommodate this population and increasing need new neighborhoods are coming to form in the city outskirts. These new neighborhoods are blessed with the concept of globalization and have a tendency to adopt the global practice rather the prevailing traditional ones. The population size along with the urbanization trend of 28 percent makes these scenario very frequent in Bangladesh especially in the metropolitan areas like Rajshahi. The city outskirts gradually began to urbanize and the influx of the people began to settle there. Thus the new neighborhoods began to form in the peripheral area of the old town. These new neighborhoods were not similarly developed as the older ones and had quite a few differences. This change occurred so rapidly that it represented replacement rather than adaptation.

The organic roads and water body centric settlements of Rajshahi were transformed into pre planned neighborhoods. The built form began to be more privatized and spatial arrangement began to facilitate the limited potential for varied lifestyles. And also the apartment buildings became prevalent. Even the neighborhood size, residential units has also increased. So there has been a considerable amount of change in the physical characteristics of the neighborhoods. The physical appearance of dwellings has changed thoroughly, the living habits and lifestyles have not changed with the same pace (Mirmoghtadaee, 2009) but all these changes

had a huge impact over the lifestyle and daily activities from individual to communal level. When the environment itself is not changeable, residents have to adapt themselves to their new conditions; consequently, some social values and norms would be lost forever(Eben Saleh, 2002).

Moreover tracking these transformations are very important as they can also define the urban development pattern(Defilippis, 1997). That is why this paper focuses on these transformations and tries to point out the particular changes that had taken place over the last few decades to form the neighborhoods in Rajshahi. And it is hopes that this paper will widen the window of further research in this field.

## 2 Methodology

The formation of new neighborhood is an inevitable fact. These new neighborhoods complement the growing need but at the same time a major drift from the traditional practice is very evident. But as the concept of neighborhood is not universal, the changes or transformations that take place with time can also not be generalized. That is why a study area must be selected and then some systematic steps must be taken to observe the specific transformations over a particular area.

This research first identified the specific settlements to study. Then the location of the old and the new residential neighborhoods were identified in respect to the study area. Through meticulous observation and on-site investigation, a thorough understanding of the selected neighborhoods was obtained. Based on the acquired information, a comparative analysis was conducted to assess the transformation of space and elements from the residential units to the neighborhood level, specifically focusing on the transition from older to newer residential neighborhoods. These will aid in understanding the characteristics of the neighborhoods as well as revealing the changes that have occurred over time in the chosen instance of the specific study area.

All these will help to understand the characteristics of the neighborhoods and also reveal the changes that have taken place over the time on the selected case of a particular study area.

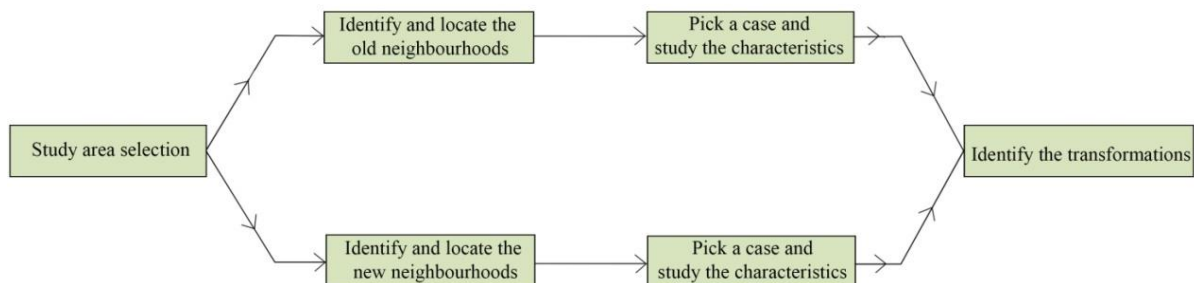


Figure 1: Methodology flow chart (source: by author)

## 3 Study area justification

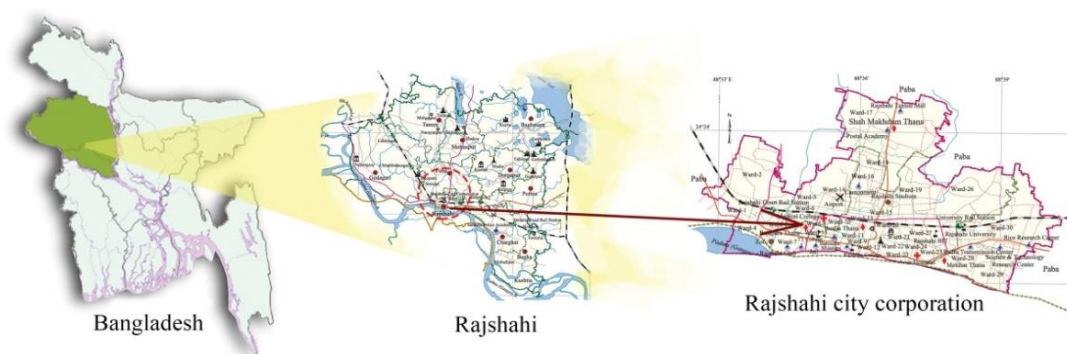


Figure 2: Location of the study area (source: by author)

Rajshahi is the third largest metropolitan of Bangladesh and also can be considered as the most important city of northern region. It has a significant historic background and this city was initially developed on the bank of river Padma (Asaduzzaman & Hameem, 2021). But with the rapid urbanization rate and sudden influx of population this city began to grow and increase its sprawl. As a result the neighborhood initially was established within the old settlement area close to Padma, and the comparatively newer neighborhoods began to establish in the adjacent periphery. Thus Rajshahi possess a perfect blend of “old and new” neighborhoods which makes this city a potential study area for this research.

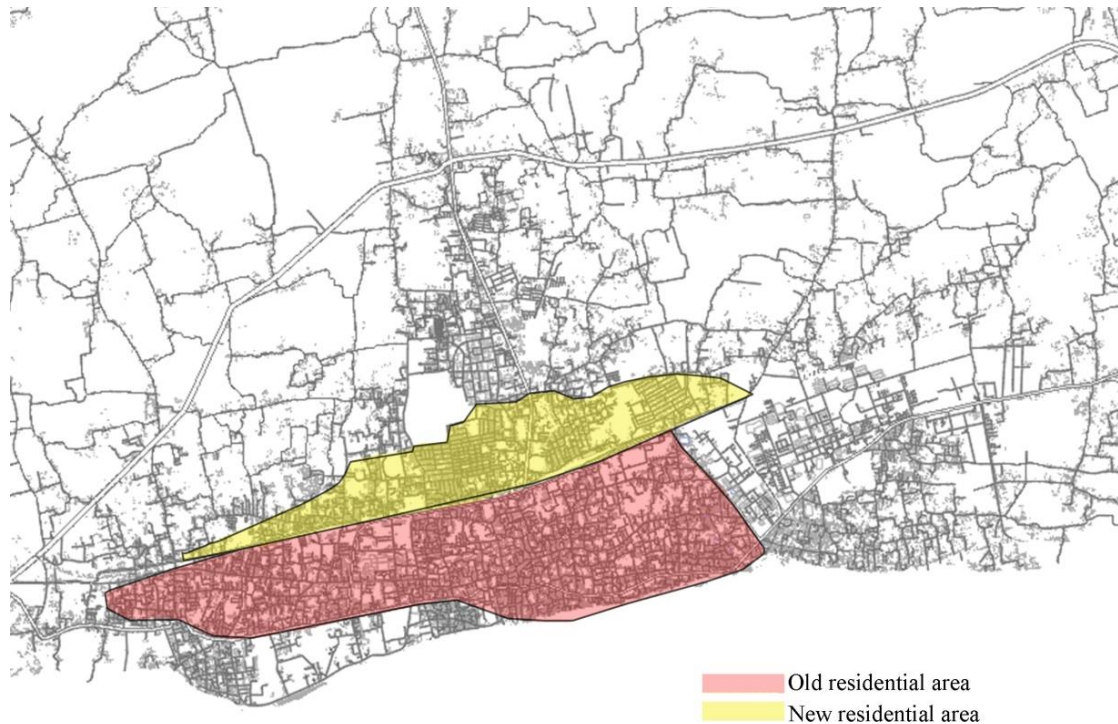


Figure 3: old and new residential areas of Rajshahi (source: by author)

#### 4 Old neighborhood

Rajshahi has a long history from British colonial rule to Mauryas, Gupat and their ruling powers. But these traces don't exist today only the some elements of the preceding century can be found. It is a known fact that most of the cities were initially formed on riverbank, which is “Padma” in case of Rajshahi. So the oldest part of the city is bounded within the Greater road and river Padma respectively, where the old neighborhoods like Sagarpara, Kumarpara, Dorgapara, Ghoramara, Ganeshpara, Goshpara exists. (Bin-Doza, 2008). Among these old neighborhoods Sagarpara and Kumarpara are prominent ones and taken into consideration for further study and investigation to develop the idea of old residential neighborhood practice of Rajshahi.

##### 4.1 Sagarpara:

Sagarpara is one of the oldest neighborhoods existing today. Some of the existing structures are more than hundred years old. The area of Sagarpara is almost four square kilometers. This neighborhood has an organic development pattern with hierarchical road layout. Sagarpara also have some day to day activity pattern and variant responsive social spaces within it.

##### 4.2 Kumarpara

Kumarpara consist of three square kilometers and located on the river bank. Kumarpara also has an organic development pattern with curved narrow roads, like Sagarpara. Water body centric development is very noticeable in Kumarpara and these water bodies complemented with greens became the vibrant social interactive spaces within the neighborhood.



Figure 4: Figure ground map of a) Sagarpara, b) Kumarpara (source: by author)

These two cases from the old neighbourhoods were thoroughly investigated. The detailed study not only helped to understand the features of Sagarpara and Kumarpara but also the generic characteristics of the old residential neighbourhoods of Rajshahi. Such as:

- These residential neighborhoods have Organic growth pattern and fabric
- Water body centric development and building frontage are towards the water bodies.
- The landing pier of the existing ponds serves as the vibrant and responsive neighborhood space.
- Water bodies surrounded with greens keeps the balance of natural and man-made setup.
- Homogenous residential development with two or three storied houses
- Uneven distribution pattern and size of built forms.
- The layouts of the built forms are mostly responsive to social, spatial and climatic need.
- Courtyards and open spaces is a common feature of the built forms also the dwelling units starts after the preparatory space or approaching frontages.
- Hierarchy or roads and the intersectional nodes are the most vibrant interactive spaces.
- Minimal frontages and narrow lanes create a human scale streetscape which then opens out to a later, wider street pattern of winding nature. (Bin-Doza, 2008)

## 5 New neighborhood

The new residential neighborhoods began to develop in the early 90's due to the rapid expansion of the city. Rural to urban migration began to take place and the old neighborhoods were not sufficient for the increasing population. Rajshahi, Rajshahi Development Authority (RDA) took multiple residential projects like Padma, Chandrima, Mahananda, Parizat, and Chayanir Residential Area (Rakib et al., 2020). Thus the new neighborhood began to form in the city outskirts of that time. And those neighborhoods are still developing. Padma residential area and upshohor residential area are prominent ones and considered as cases for further study to find out the characteristics of these new neighborhoods.

### 5.1 Padma residential area:

The territory of the Padma residential area is located almost two kilometers from the old residential areas. This is a well planned residential neighborhood formed due to the initiative taken by the Rajshahi development authority (RDA). This residential area has approximately 565 plots and consisting of 28250 people (Rakib et al., 2020) and these numbers are still increasing. But Padma residential area has some unique to in contrast to the old residential neighborhoods.

### 5.2 Upshohor residential area

Uposhohor residential area is situated in 6 square kilometers. It is considered as the first planned residential areas in Rajshahi. It is located in the periphery of the city and that's where it had its name as city Uposhohor meaning city-peripheral residential area. The Uposhohor residential area has some unique characteristics too.

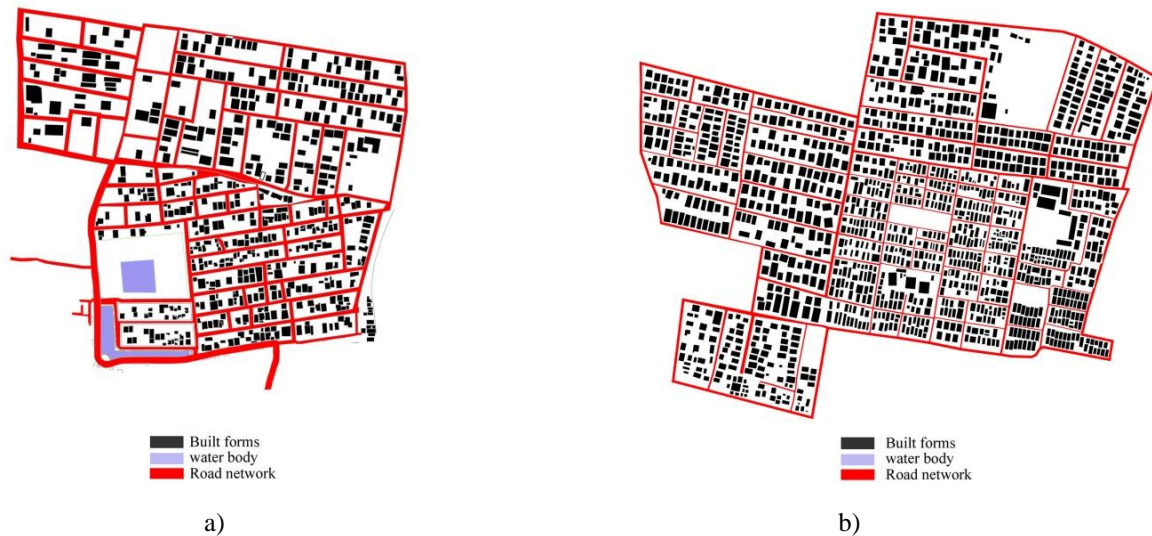


Figure 5: Figure ground map a) Padma residential area b) Uposhohor residential area (source: by author)

The detailed study of these two cases from the new neighbourhoods study not only helped to understand the key features of Padma residential area and Uposhohor residential area but also but also develop a holistic overview of the new residential neighbourhoods of Rajshahi as follows:

- These new neighborhoods follow are pre-planned development pattern.
- This layout consist of Wider and straight parallel roads and adjacent plot
- Roads are mostly vehicular with solid hard surfaces with no hierarchy in road widths.
- Multistory buildings are sprouting up with mixed use development.
- Planned layout for amenities like water electricity & gas supply, drainage & sewerage system is there.
- Multifamily apartment house and Most of the users are renters
- Buildings with solid boundary walls make the streetscape un-interactive and un-inviting.
- Confusing streetscape due to the similar road layout, lack of hierarchy and same size plots.
- Plot based developments were introduced.

## 6 Result and discussion

There has been a considerable amount of transformation for the neighborhoods of Rajshahi. These changes happened in a remarkable rate and are mostly adaptive in nature in respect to the needs and demands. They are not only focused to planning perspective but also to the residential unit level. along with the new features new social system also have been adopted(Çıkış, 2007). So it can be said the evolution of the new neighborhoods from the older ones has taken place in following comparative sectors:

- The organic development has been transformed into a pre-planned neighborhood
- The narrow hierarchy of roads changed into some fixed parallel roads
- Average area of the neighborhoods has increased in compared to the older ones.
- The courtyard based open building layout changed in to enclosed dwelling units.
- Social and communal spaces and buildings are not seen in the new neighborhoods
- The gender domain spaces of the early neighborhoods became lost.
- Introduction of mixed use development in place of homogenous residential development
- Up-to-date construction technologies and materials have been adapted.
- More amenities and living facilities are provided compared to the old neighborhoods.

This discussion regarding the transformation is more qualitative in nature. But some of these mentioned transformations can be quantified. Quantification will more help to relate with the changes.

Table 1. Comparison of old and new residential neighborhoods (Source: Author)

	<b>Factors</b>	<b>Old residential areas</b>	<b>New residential areas</b>
Neighborhood level	Road	About 7 to 10 feet wide	About 12 to 20 feet wide
	Solid void ratio	Nearly 40%	About 50%
	Water percentage	About 10%	Almost 2%
Residential unit level	Average Building height	Two to three storied	Five to ten storied
	Building age	Most of the building are about 50 to 60 years of age	10-15 years of age and still developing
	Ownership pattern	70% to 80% percent are owners	70% to 80% are tenants

So, transformations of these neighborhoods are obvious and they will continue evolving and adapt with the unforeseen needs and requirements (Liu & Li, 2021). Some aspects of the traditional aspects were valuable and rich, but the same system cannot be followed today because the conditions under which traditional architecture evolved have changed and no longer exist today. There are some scopes to explore especially about the impact of changes in neighborhood over daily activity or lifestyle and how to measure these impacts. Also a survey based analysis can help to understand the people perception about changing neighborhoods. So, further research in several areas and context with more extensive level can help to resolve these facts.

## 7 Conclusion

This study has adopted an analytical framework to investigate changes and it reveals that the neighborhoods of Rajshahi have faced a noticeable amount of it. These transformations had a mix impact. It cannot be denied that these newly developed neighborhoods provide better amenities and living facility but the price is being paid by losing social interactions. Individuality has risen above community. The households are seen as an individual unit rather than a social unit. The communal interactions and belongingness are at a decreasing trend in the new residential neighborhoods. The old neighborhoods of Rajshahi had dedicated spaces and structures used to serve the social needs. The small scale neighborhood spaces like the courtyards, dharmashava, roadside shops, tea stalls, water bodies and their stepped landing piers were the most vibrant in terms of public interaction. But the traces of these elements are not found in the new residential neighborhoods.

On the other hand we just cannot hold the old residential neighborhood practice and stay detached from the current trend and not be responsive to the increasing needs. But we should not just replace the traditional praxis rather work together to incorporate current features with the prevailing practices without compromising the social values. Meticulous planning is required to pinpoint the specific needs and then innovative design strategy both in residence and neighborhood level can play vital role in achieving the balance between old and new.

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