

Analysis on Placemaking Around High Rise Apartments: A Case on Westar Residency and Sun-City Apartment

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Abstract

Nepal is a developing country where urbanization is taking place at a rapid pace. The urbanization is mostly concentrated at the major cities of the country mainly on metropolitan, sub-metropolitan and municipalities. Kathmandu, being the capital city of Nepal is the most populated urban region of the country, with an estimated population of 2.54 million, and is growing at 6.5% every year. The pressure to accommodate such a large population is resulting into unplanned land use, shrinking open spaces, and haphazard construction. In order to manage such an urban sprawl, it is high time we switch to vertical built environment to live in. However, high rise buildings are often blamed for crimes, anxiety and degeneration of urban morphology as they deform the quality by overloading the density, infrastructures and public realm where the building is standing in. On one hand, high rise are considered responsible for degeneration of urban morphology and on another hand high-rise buildings are today a prime feature of urban living, making up a large proportion of cities, skylines and architecture. The research thereby, explore the contribution of high rise apartments in placemaking of the surrounding neighborhood focusing mainly on the urban setting, socio-cultural and psychological aspects.

Keywords

High rise residences, place-making, neighborhood

1. Introduction

Nepal is a developing country where urbanization is taking place at a rapid pace. Although, Nepal is one of the ten least urbanized countries in the world yet it is also one of the rapidly urbanizing countries in South Asia [1]. The population residing in an urban areas has increased to 20.58% in 2020 as compared to 17.11% in 2011 [2]. In this verse of urbanization, most of the development in Nepal is concentrated in large and medium cities i.e. metropolitan, sub-metropolitan, and municipalities [3]. Kathmandu, being the capital city of Nepal is the most populated urban region of the country, consisting of 24 percent of total urban population[4]. Kathmandu Valley has an estimated population of 2.5 million, and is growing at 6.5% every year [5]. Such an immense pattern of growing population has put the land and housing situation under huge pressure in Kathmandu Valley. The pressure to accommodate such a large population is resulting into unplanned land use, shrinking open spaces, haphazard construction, and poor services [5]. According to Timalsina [6], the growth in urban

population and land expansion of the city is resulting in the increment on land demand for housing and other infrastructure developments.

In order to manage such an urban sprawl, it is high time we switch to vertical built environment to live in. With an increase in population, the construction of high-rise buildings has become an indispensable solution due to the need for housing widely, and preventing the horizontal development of the city [7]. As stated by Apartments in Kathmandu [8], the number of housing and apartments is still not sufficient in comparison to the people shifting to Kathmandu valley. Such high rise housing complexes are responsible to generate new composition of open spaces creating a new set of human-environment relations and a new prospect of urban landscapes [9]. However, high rise residences are often blamed for crimes, anxiety and degeneration of urban morphology as they deform the quality by overloading the density, infrastructures and public realm where the building is standing in [10]. On one hand, high rise are considered responsible for degeneration of urban morphology and on another hand high-rise buildings

are today a prime feature of urban living, making up a large proportion of cities, skylines and architecture [11]. However, little attention has been given to these new spatial configurations and the urban experience they offer [9]. Also, a study have found that as compared to the private residences, the shared community spaces around high rise buildings are associated with the perceived sense of anti-social behavior, lack of control and security concerns g up a large proportion of cities, skylines and architecture [11]. It is therefore, very essential to understand in what ways such high rise residential buildings affect its immediate urban settings to create sense of place so that the factors can be considered for future design of high rise buildings. The research therefore aims to identify the role of such apartments in placemaking of surrounding neighborhood.

2. Research Question

The research have looked into how high rise residences have been affecting to its surrounding neighborhood in various aspects. The main research question of the research is:

1. What is the role of the high-rise residential buildings in the placemaking of neighborhood?
2. How does the high rise residential buildings affect the urban setting of the place?
3. What are the socio-cultural and psychological impacts caused by high rise residences on its surrounding neighborhood?

3. Scope and Limitations

The concept of place making is very vast. Placemaking is both a process and a philosophy that uses the principle of urban design [12]. Placemaking involves numerous aspects such as sociability, uses, activities, access, connections, comfort, and image that creates bonds between people and the place. The research only focus upon the impact of high rise residences on tangible i.e. urban setting and intangible aspects i.e. socio-cultural and psychological aspect of neighborhood. Other aspects such as impacts caused by high rise on economy, environment and so on has not been considered in the research which can be the topic of further study.

The study have looked into the urban design features of surrounding neighborhood and have looked into the

experiences of people to understand how the high rise have affected their life. Samples were only taken from the neighborhood of the high rise who have directly been affected due to the construction of apartment nearby. The research does not cover the experiences and perception of people living within the high rise due to limitation of time. The researchers further can conduct their researches focusing on the other aspects of good place making.

4. Related Literature

High rise building is defined as a structure with small footprint, small roof area and tall façade[8]. The word apartment came from the French word “appartement”. The word was derived from the Italian version of the word, “appartamento” with the root part of the word “appartare” meaning “to separate”[10]. As per Government of Nepal [13], buildings with more than 25m and below 100m falls under high rise building. High rise includes buildings that are beyond the reach of normal firefighting provision on the ground. In case of emergency the rescue operation shall require the use of fire lifts in the upper floors [13].

A neighborhood is a place where a person has certain inherent personal and property rights, such as sovereignty over his or her home or company and its near vicinity [14]. As per a research by Lansing & Marans [15], around one-third of the inhabitants of sample communities rated neighborhood on the degree of openness, plenitude, and interest. The relationship between building heights and street width and setbacks, as well as the amount and size of trees on the street, can all impact the neighborhood quality [15].

4.1 Place making

“Place is where dimension formed by people’s relationship with physical settings, individual and group activities, and meanings”[16]. “Placemaking is the process of creating quality places that people want to live, work, play and learn in [17]. Placemaking is rooted in immersive, inclusive design and the experience of the humans who use it [18]. Placemaking is the way that each of us, as human beings, transforms the locations where we find ourselves into places where we dwell. Building and demolishing structures, farming the land and growing gardens, cleaning the kitchen and redecorating the office, creating neighborhoods and mowing lawns,

occupying structures, and comprehending cities are all part of it. It is a fundamental human action that can be both dramatic and almost unnoticeable at times. Renovation, upkeep, and representation of the places that support us on a daily basis are all part of placemaking[19]. Placemaking is an empowering process, which is used to shape an environment by facilitating social interaction and ultimately promoting inhabitant's quality of life[20].

The dimensions of placemaking includes physical and non-physical aspects. Physical dimension in placemaking deals with the visual structure of space. As stated by Lynch [21] in his book, "The Image of City", the synchronization of five elements path, district, nodes, landmarks and edges create the sound visual order in any place. From the literature above, it is evident that the non-physical dimension deals with the social and cultural dimension of the place. Similarly, when individuals of various ages, abilities, and socioeconomic backgrounds are able to not only access and enjoy a place but also play a significant role in its development, identity, and upkeep, then we are witnessing true placemaking in action. Below are few things that needs to be taken care off while design a high rise residences.

Overall architecture and site planning

The design of building and the site it is standing in is important factor to be considered. The factors like scale, proportion, ratio of mass to void etc. should be carefully examined for the design of any building. The architectural elevation should be harmonious with certain degree of unity. Unity makes the different elements and components of the elevation seem to be one, a whole instead of parts. Unity can be achieved through repetition of an element throughout the elevation or by continuity of a line literally or visually, or maybe the continuity of a pattern, forming a sort of a grid and so on.

Scale and Proportion

According to Kodmany [22], tall buildings support a sense of place and improve the imageability of cities by producing legible and memorable environments. They can help in the creation of better pedestrians and motorists that can further help in the process of mental mapping. Also, tall buildings that effectively respond to the human scale i.e. tower base, tower articulation, and overall architectural and site planning design can successfully contribute to the place making. For this, architects have provided several design approaches.

Paul Rudolph suggested that the architectural design and perceptual characteristics of the first 30 m (98 ft) of any high rise building should respond to the human scale and contain intricate architectural treatments that can be appreciated by viewers at the street level [22]. Ludwig Mies van der Rohe suggested employing a simpler visual treatment by providing transparency, which invites the viewer to look through the base. This can be achieved by recessing the exterior walls of the ground floors and fronting the ground level with floor to ceiling windows.

Also, the proportion of high rise to street shall be maintained to achieve the imageability of the place. Imageability requires a certain proportion, such as the height-to-width ratio of the building. When this ratio is too low, the street feels excessively broad, and the street's imageability suffers. The roadway will appear excessively narrow and the path will feel claustrophobic and canyon-like if the ratio is too high [22].

Coherence

The architectural design, style, and facade treatment should all be considered so that they blend in harmoniously. While design variety is encouraged, the path's cumulative imageries should transmit a coherent, clear, and memorable image. To reinforce visual conformity and continuity, adjacent structures in a group should blend in with one another. This is also true when new buildings are erected in close proximity to existing structures in a district or neighborhood.

Alignment

A minimum distance between high rise buildings should be maintained to enable appropriate light, air, access, and view for upper-floor residential units. A minimum distance of 25 meters (80 feet) is required by several city design laws [23]. Tall buildings along a path should be arranged in a structured and balanced manner. A dispersed arrangement of tall buildings along a path will likely weaken imageability and may convey chaos and disorder [22]. One of the most important elements of the public realm are the streets. They account for about 80 per cent of public open space in urban areas and accommodate a large portion of the citizens' lives.

Rhythm

Architecture's repeating forms, components, and spaces are arranged according to a particular rhythm.

When elements are repeated, the spaces between them produce a sense of rhythm. Patterns, elements, or motifs at irregular or regular intervals are what give architecture its rhythm. Our body may move through a series of places as we travel through them with our bodies, or our eyes may move as we follow parts in a composition. Architecture's repetition of shapes, components, and space is organized into a rhythm [22]. In context of high rise residences, the rhythm of buildings should be taken in consideration. Changes in building heights along a path should be carefully examined. A sensation of out-of-rhythm disorder may be conveyed by abrupt height shifts, whereas gradual transitions are more likely to maintain consistency [22].

5. Research Methodology

The methodology utilizes observation and analysis of the study area with the help of structured questions to evaluate the outdoor qualities of the high-rise surroundings. This research uses the mixed-method approach (quantitative and qualitative) to access the impact of high-rise residential buildings on its surroundings. This research thereby, falls under pragmatic paradigm where questionnaire are used to evaluate the attitudes, opinions and perceptions of people which further was validated through the interview among neighboring people of selected area.

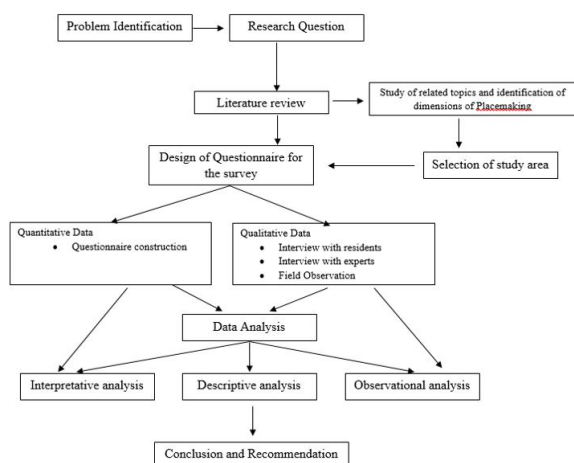


Figure 1: Research Methodology

First, the literature review was carried out to understand different units related to placemaking and established literature in placemaking indicators. Based upon the literature review, main indexes and indicators to measure placemaking was established.

The indicators were then empirically tested using surveys to establish the validity of indicators in our context. The indicators were then analyzed by both the statistical method, and interpretative method on the case area. The result is then finally illustrated. Semi-structured qualitative interviews were conducted with the residents to evaluate their perception regarding the construction of high rise at their neighborhood, especially focusing on the parameters of place making that are derived from literature review. The study mainly focuses on the residents of community around the apartment i.e. Westar residency and Sun-City apartment. Furthermore, close ended questionnaire survey was conducted among the neighboring residents where respondent choose one of the answers according to his/her opinion. Open ended questionnaires was conducted among the experts in order to verify and support the observation of the study area. The research comes under the probabilistic sampling where the population was divided into multiple groups (clusters) for research.

The sampling basically focuses on the immediate neighborhood of the apartment where the sample distance can vary from 0-200 m from the nearest building of the apartment. The residents living at the immediate neighborhood of the apartment building were taken as the sample for the questionnaire survey. However, for an interview, the sample population using the place for a significant number of years were taken along with the experts in the related field. 30 samples were taken for the questionnaire survey i.e. 14 from neighborhood of Westar residency and 16 from neighborhood of Sun-City apartment and 5 residents of surrounding neighborhood of apartment were taken for the interview. Also interview among three architects was taken so as to verify the analysis based on the observation of the site area. Design approaches for creating better living environment were also discussed among them.

5.1 Social, Economic and Demographic Character of respondents

The larger group of people involved in the responses were under the age group of 20-40 i.e. 56.67% and smallest being the age group of above 60 i.e. 3.34%. 17 male and 13 females were involved in the survey. The respondents who were involved in the survey had different occupational background. 24% of people were involved in services. 50% of them were either

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retired or housewife and students. Only 3% of respondents were involved in government sectors. Only 20% of people have tendency to visit the apartment only after permission of the residents of the apartment while others do not visit the apartment site unless there is some special purpose. 67% of surveyed people are not satisfied with the available setback and rest 33% are satisfied. The satisfaction of people towards setback highly depended upon which side of the apartment they are living in. The buildings on southern side of apartments do not have much problem with the setback however, the houses that has been highly affected by the tall building standing nearby complaint about the lack of proper setback. When surveyed, it was found that all of the surveyed buildings has been designed by either engineer or architects yet the major design consideration was found to be just the strength and function of building rather than aesthetic and consideration towards surrounding.

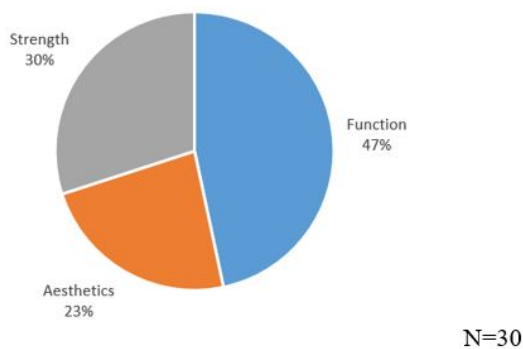


Figure 2: Design consideration

When people were asked if they would prefer the shared communal spaces with residents of high rise, 80% of people responded that they would prefer it.

6. Study Area

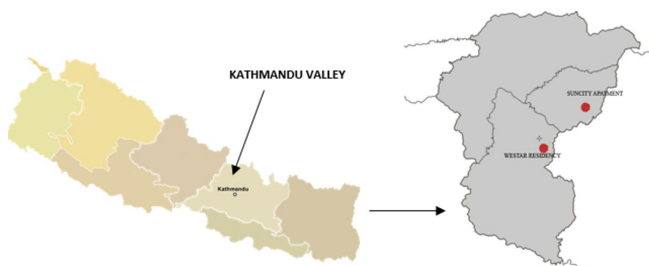


Figure 3: Location of site

Balkumari and Pepsicola are experiencing rapid growth in population density each year as more and more houses are being constructed. With the increase in population density, Kathmandu valley is slowly experiencing change in its urban form resulting more of a town planning areas and apartments. Westar residency is located at Balkumari, Lalitpur which is 1.5 km away from energetic city of Patan. i.e. Patan Durbar Square. The residency consists of more than 70% of the entire property dedicated to open skies, lush landscaping, water bodies, a playground, a jogging track, an open-air theater, and top-notch amenities. Pepsicola on other hand is closely connected to Sano Thimi and Bhaktapur which are historical and culturally rich cities. It also lies in the junction of three major districts of valley namely Kathmandu, Bhaktapur and Lalitpur [24]. This newly built settlement is close to the old Newari settlements like Thimi and Bode. “Replacing the agricultural land of these traditional settlements, now this place is valued for its serene environment as well as a preferred neighborhood” [25]. Sun City is an apartment township located at Pepsicola that is the first and the largest of its kind in the country with around 500 apartments in 5 towers.



Figure 4: area of study (Westar residency (left), Sun-city apartment (right))

7. Analysis and Discussion

Since, placemaking is both a process and a philosophy that uses the principle of urban design, urban design has been analysed on the basis of numerous factors derived from the study of literature. So as to answer to the research questionnaire, other factors has also been analysed as per the demand of the research question itself.

7.1 Urban Design

7.1.1 SITE

The design of building and the site it is standing in is important factor to be considered. The overall layout of both the apartment buildings were analyzed so as to confirm if these buildings are in compliance with the national bye-laws. Furthermore, the satisfaction of residents living around each of these apartments was measured through the questionnaire survey.

Westar Residency

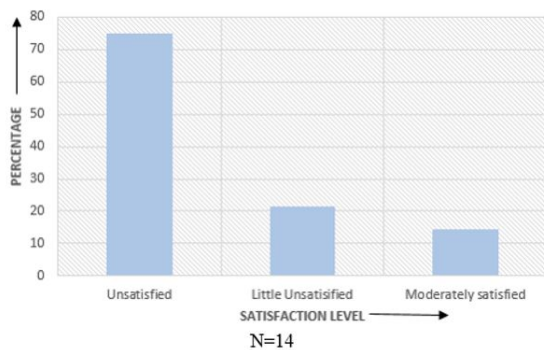


Figure 5: Satisfaction towards setback of Westar residency

As per the national building bye law 2064, there should be minimum setback of 6m on front side of high rise and 4m on the side and rear side of the building inside the ring road area. The Westar residency has set the setback of 4 m on side and 6 m on frontal part of the site. The bye laws of our nation allows 50% of the site to be covered with built up. The apartment seem to have followed the designated bye-laws of the nation however, when residents of the neighborhood were asked if they are satisfied with the setback provided majority were not satisfied with the available setback. The respondents who reported that they are moderately satisfied with the available setbacks were the ones who do not like to have interaction with their neighbor by any means. The result shows that there ought to be some modification on existing bye-laws that would not just cater the people living in apartment but also the people living next to it.

Sun-City Apartment



Figure 6: Site plan of Sun-city apartment

The site was used as an agricultural land before the construction of the apartment. The site consists of 5 tower blocks with total ground coverage of 20%. Out of rest of the spaces 16% of land has been provided for the parking space and rest of the site area has been provided with a soft and hard landscape. In contrast to Westar residency, when people were asked if they are satisfied with the available setback, most of them replied that they are moderately satisfied with the setback. The reason behind their satisfaction is analyzed to be associated with the layout of buildings and the way they are placed within the site. The buildings has been placed in such a way that it carves out maximum open space within the site area.

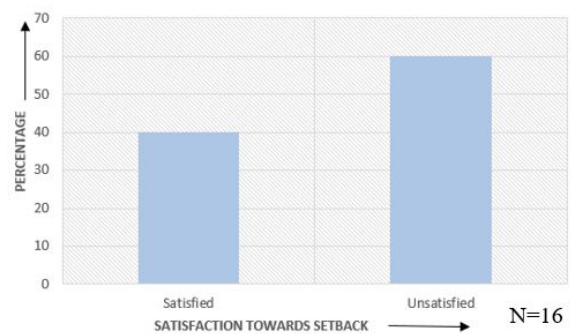


Figure 7: Satisfaction towards setback of Sun-City apartment

7.1.2 ENCLOSURE

The research looked into the periphery of the high rise apartments. Enclosure in the research basically pointed towards the enclosure of the site area which was mainly found to be the low rise residences and streets.

Westar Residency



Figure 8: Enclosure of Westar residency

All four sides of the apartment has been provided with set back where patches of greenery has been provided. The residency have set its enclosure through the boundary walls on all the sides. As per the survey, people from the neighborhood are not allowed to go inside the confined area except for the special cases. As compared to traditional residential planning layout where communal space is directly connected with the street and shared private spaces, the apartment itself along with the neighborhood buildings are seem to have confirmed its periphery with boundary walls. They do not share any common spaces as the result of which people lack the communal spaces.

The apartment buildings has been enclosed by the low rise buildings of its surrounding. The transition of vertical height from these low rise residential buildings to Westar residency are very high. The site is around 70 m inside the main road as a result of which there is no perceived sense of claustrophobia in the main road of the selected apartment. However, on the supporting streets, there is perceived sense of claustrophobia due to the large vertical scale transition of building. As per the survey, around 70% of people living around Westar residency have the sense of claustrophobia living around the high rise. When observing the apartment from all the four sides, it was analyzed that although the set back of the apartment is provided in compliance to our national bye-laws, the low rise residences on its periphery is getting affected due to its scale such as formation of very narrow streets and impacts such as lack of proper sunlight, blockage of vision and so on. The interview suggested that the guidelines shall be set for the design of high rise that not just priorities the high rise

residences itself but rather the buildings next to it. As stated by a architect, “We need to look into the impacts of high rise residences into its immediate neighborhood and adopt proper design strategies for its reduction. Having said this it is our responsibility to not just over look to one individual problem but rather create a solution that can serve all the parties involved in high rise residences be it the residents, the neighbors or the investors”.

Sun-City Apartment

Sun-city apartment is closed to its own boundary similar to that of Westar residency. However, in contrast to Westar residency where all three sides of the apartment was surrounded by the low rise residences, the Sun-City is surrounded by few institutional buildings leaving low rise residences on only side of the apartment. This is why 8 residents responded that they do not have sense of claustrophobia while living near the high rise.



Figure 9: Enclosure of Sun-city apartment

However, rest 8 responded that they feel uneasy due to the presence of the apartment. The setback of 8 m and 10 m has been provided on the periphery of the apartment which is more than that of Westar residency and bye-laws itself. However, leaving setback more seem to have affected the psychology of people in a positive way.

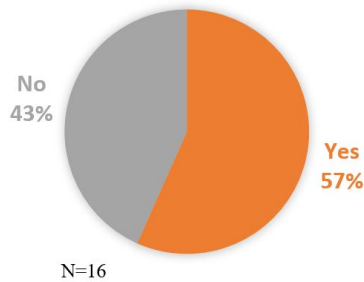


Figure 10: Perceived sense of claustrophobia

7.1.3 Coherence

Coherence holds things together. It resists separation. The selected site areas have been evaluated to understand how well the surrounding buildings merge with the high rise residences standing nearby. The evaluation have been made in terms of building design, materials and approaches of design.

Westar Residency

All façade treatments and elevations must be taken into account while creating the overall design of the apartment complex.. The overall design of high rise i.e. Westar residency is simple where voids are created through the use of windows, louvers and other architectural design. The apartment and its neighborhood although lies approximately 1.5 km away from the heritage site i.e. Patan Durbar Square yet do not resemble the traditional architectural style of the area. The apartment itself is 50 m high with window to wall ratio of approx. 0.4 which is considered fair enough as per the study done by[21]. Few design elements has been integrated that also act as a sun shading device. While looking into the architecture feature of the buildings in its surrounding, most of the buildings have a regular geometric shape and are mostly 2 to 3 storey high. The ratio of opening to wall in the surrounding buildings is approximately 0.4. These openings seem to be placed entirely for functional purpose rather than any aesthetic purpose. Both the apartment and the surrounding buildings resembles similar kind of opening ratio and typology. The integrity of materials used can be seen in between the apartment building and its surrounding buildings. The materials used for construction are basically cement, bricks and RCC. Similarly, the surrounding buildings does not seem too use any one definite architectural style but rather the building plans and façade are purely guided by the functional purpose. The design of these buildings does not seem to be influenced by the design of apartment itself. The

survey showed that all 100% of buildings has been planned by engineers or architects however, when people were asked regarding their major consideration while designing their house; their major focus was function and strength of building rather than its surrounding. The design of each individual was found to be completely guided by the need of people rather than need of the urban space. The size of openings in high rise are intermediate due to which they are complementing the surrounding buildings. The maximum built up has been achieved through the continuous stack of the floor. The building neither seem to have created the landmark nor have addressed its background to form a better skyline.

Sun-City Apartment

After the field visit and observation of apartment, it won't be much difficult to state that the proportion of human has not been much taken into consideration especially in the design of base of apartment. Although the set back from the street is in compliance with the bye-laws i.e. 8 m, the building feels to be too bulky and dominating the street next to the main entrance of apartment.



Figure 11: Façade treatment of the apartment

A proportion, such as the ratio of the building's height to street width, is needed for imageability. When this ratio is too low, the street will feel too wide and imageability of the street is lost. If the ratio is too high, the street will be perceived as too narrow and the path is going to feel claustrophobic and canyon-like. As the proportion of the building to street was found high, the sense of narrowness could be sensed in the streets nearby. The scale of apartment therefore was dominating the scale of low-rises next to it. Horizontal bands of balconies has been provided so as to minimize the sense of height. Similar to the

Westar residency, it is found that no attention has been provided to the surrounding while designing the low rise residences although the design has been done by the architects and engineers. The materials used for construction is RCC. The size of openings are intermediate however, the quantity of openings are more due to which the entire façade looks monotonous.

7.1.4 Alignment and Rhythm

There is the sudden shift of height in both the selected survey area from low rise to high rise due to which the residents living in the surrounding find the building scale huge. The design of apartment does not incorporate the strategies such as formation of tower base or use of horizontal bands to minimize the effect of vertical scale of building. As stated by a respondent Ram Krishna Basnet, “The building is too close to ours. We therefore feel too small as compared to the building. Also we fear of building falling into us during the earthquake”. The sudden shift of scale of building is affecting its surrounding neighborhood in different ways primarily being blockage of sun and vision.

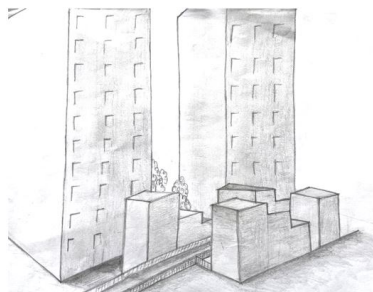


Figure 12: Rhythm of building

The blocks of Westar residency has been properly arranged on the linear alignment that is guided by the shape of the site. As the site is oriented towards north to south direction, the façade of all 4 towers are too elongated towards N-S direction. The orientation of buildings is purely guided by the shape of the site area. However, the towers of Sun-City has been placed so as to carve the landscape out of its form of layout. Few people were found to be affected from fear of structures collapsing during earthquake especially after the horrible experience of earthquake 2015. Some people even mentioned that they would be very happy if the building could be reduced to smaller height.



Figure 13: Alignment of buildings in site

7.1.5 MASS and VOID

Mass is a matter of presence, and void is absence of it. Mass to void ratio can vary based on the location of the site area. It is generally specified by the government bodies through the FAR and ground area coverage.

Westar Residency

The ratio of space to mass in site plan of apartment is approx. 0.3 i.e. 30% of area is covered by the building footprints. The ratio seems to be in compliance with the national bye-laws. As per the research by Alkhresheh [26], the most preferred range of void-to-mass ratio in residential façade is 0.4-0.5. The elevation seem to have fair ratio of void to mass. The ratio of void to mass in the apartments is approx. 0.4 which is considered to be fair enough for the design of façade. The voids has been achieved through the use of windows, louvers and the planning layout of the building itself. The balconies are projected out of surface and the buildings are freely standing producing the unconfined voids. The shape of the plan of apartment is achieved in such a way that the voids formed can guide proper lighting within the units of apartment.

Sun-City Apartment



Figure 14: Mass and void in elevation

The ratio of space to mass in site plan of apartment is

approx. 0.2 resulting in the ground coverage of 20%. The mass and void therefore, on the site of Sun-city apartment is balanced as the apartments are built in compliance to the bye laws of the country. The buildings layout seem to have been done in such a way that it would carve a proper open spaces where the flow of people can be properly managed. The open spaces seem to be carved out of the building mass as a continuous flow linking interior and exterior spaces. The entry foyer space establishes the important transition from common territory to semi-public domain. As per the research by Alkhresheh [26], the most preferred range of void-to-mass ratio in residential façade is 0.4-0.5. The ratio of mass to void in building façade is approx. 0.4. The balconies are projected out of surface and the buildings are freely standing producing the unconfined voids.

8. Socio-Cultural Factor

The construction of apartment in a place causes rise in population density of the place as a result of which there will be certain impact caused by such high rise apartments in socio-cultural dimension of place making. So as to evaluate the impact few open and close ended questionnaire were made among the residents around the selected site area. When people were asked how often they interact with their neighbors and where, 76% of respondents replied, “wherever we meet be it in street, shop or through the balconies of our houses”. Also some of them responded that they meet their neighbors on their workplace rather than their society. Through the survey, it was clearly evident that there is very minimum interaction of the people living in the low rise neighborhood with those who live on high rise. One of the prime reason for having minimal interaction was found to be the lack of proper spaces for interaction. It was found that the neighbors have interaction among each other from balconies and terrace of their houses or from the street due to lack of place. Social activities such as walking, jogging, etc. are performed within the street and rather than this there are no such interaction among neighbors.

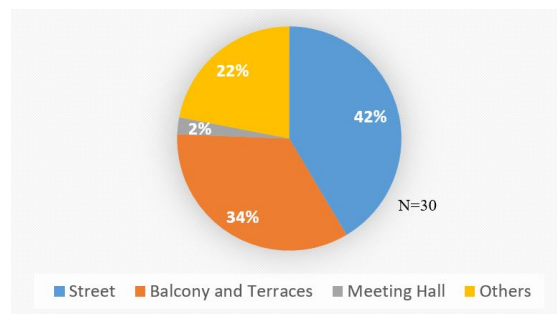


Figure 15: Places for social activities

Similarly, when people were asked do they interact with the neighbors from apartment, majority answered as NO. When asked what are the causes of not having interaction among those living in high rise, majority pointed out on the difference on class of people living in high rise apartments and not having the common spaces to interact. A question was thrown to them if they would prefer having shared communal space within the apartment site area, majority of which were found to have positive attitude on it. A resident of neighborhood of Westar residency stated, “We are facing major issues due to the construction of high rise at such a close proximity including ground settlement, blockage of sun and wind and many others. It was the sole duty of the committee of apartment to provide us some facilities and open spaces to use as a compensation. But we are completely forbidden to enter to the premises of apartment by any means.” Security surveillance by the randomly dispersed small business or vendors, and the fact of residents peering out their windows forming “eyes on the street”, are significant social consideration of the entry in Sun-City apartment.

9. Psychological Factor

As stated in literature by Baiz et.al. [27], high rise buildings can make people experience the sense of claustrophobic by creating a rat-cage mentality. So as to understand if the statement is true to our case or not few questions were asked that would highlight the experiences and perception of people with respect to their psychology.

Westar Residency

When people were asked how safe do they feel living around the high rise, majority of people in a way or other feel unsafe. So as to determine what are the factors that make people feel unsafe, other questions were formulated. Regarding the street safety, all of the

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respondents replied that they feel safe walking in the main road. The cause of it was mentioned to be the sufficient street width. Also, they have no fear regarding the invasion of outsiders as they mentioned that people living in high rise do not spend much time in their units and if they do, they do not have much to do with their low rise neighbors. Almost all of the respondents mentioned their fear towards the earthquake and the possibility of high rise building falling over them. The survey indicated towards the fact that most residents have adapted to their surroundings. As they have been living at close proximity to high rise since long period of time, they do not have major psychological issues with the high rise. However, the dominating structure of high rise is contributing to the perceived sense of claustrophobia among the people. As per the survey, around 70 % of people have the sense of claustrophobia living around the high rise. While looking closely on the type of people who do not have perceived sense of claustrophobia, it was found that either the building is not directly affected by the apartment or else the people living in the building do not have tendency to interact to his/her surrounding neighbors. 17% of the surveyed people responded that they do not have much interaction with their neighbors.

Sun-City Apartment

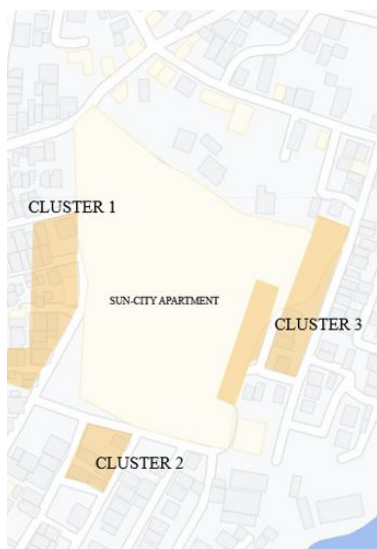


Figure 16: Cluster of sample

While asking the people regarding how safe they feel to travel during night time, all of the respondents were found to feel safe. While doing further enquiry on the reason, the availability of security option within apartment was found to be one of the reasons. One of

the respondents mentioned, “The apartment is available with CCTV as well as security guards due to this I feel completely safe while travelling during night too”. The perception of people regarding the streetscape and the street safety was found different as per the location of sampling. Cluster 1 that basically resides on the proximity of main entrance to apartment found the street to be small and unsafe. The survey on cluster 1 has pointed out that there is the need of larger street for the efficient movement of people and vehicles.

According to a resident of neighborhood of Sun-City apartment, “The footpath is only on one side and the flow of vehicle is large due to the accommodation of larger group of people in apartment. The footpath not just are used as a walking space but rather different activities takes places including the parking, vegetable display and so on. Due to this I feel the street congested and there is need to increase it.” Similarly, the survey on the cluster 2 and 3 have expressed their satisfaction towards the available streetscape as the location for sampling was purely residential neighborhood. In contrast to Westar residency, most people do not have perceived sense of claustrophobia. The major reason for this was observed to be the proximity and direction of low rise with respect to high rise.

10. Conclusion

From the survey, it was clearly evident that the life and living style of people has been affected by the high rise. The objective of the research was fulfilled after the survey among the residents around selected high rise apartments.

Question 1: How does the high rise residential buildings affect the urban setting of the place?

Most of the life has been affected by the scale of building as they develop the sense of fear due to high rise nearby. The lack of proper guidelines that could direct the urban setting of the place towards better place to live in is causing chaos in the physical environment. Although the apartments have followed the bye-laws of the country, the harmony among its surrounding neighborhood buildings was found lacking due to lack of proper concern. The factors such as sudden shift of height, random spacing between the apartments are causing the neighborhood suffer from numerous aspects major being lack of proper sun light and wind.

Question 2: What are the socio-cultural and psychological impacts caused by high rise residences on its surrounding neighborhood?

Although, the setback of the apartments are as per the bye-law of nation,

yet 67% of residents are not satisfied with it and wished for larger setback. People seem to have no problem regarding the rise in density as they are not directly affected by the high density but rather it is contributing to their economy. They feel safe traveling in the main streets and do not fear from the outsiders. However, due to construction of such high rises, it was found that people lack open spaces where they can interact as a result of which people have tendency to interact from balcony and terraces of their residence. People are mostly affected by the scale of high rise as they fear falling of apartment during earthquake. Also, the scale of high rise is contributing in creating sense of claustrophobia among people. The high rise residences contribute to the place making through many different ways. The construction of high rises nearby changes the perception of people regarding the space. The research pointed out that the scale of building not just has the physical contribution to the space but rather also contribute to the other aspects such as social aspects, psychological aspect and so on.

The research may work as a foundation for future research that aims at exploring regulations and codes for placemaking with high rise residential buildings.

Acknowledgment

The authors are grateful to the community members for their cooperation, support, and kindness during the site.

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