

Portrait of A Duplex Housing by Architect Muzharul Islam and Its Standpoint in Contemporary Perspective

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Abstract

Several buildings of Azimpur Housing Estate (commonly known as Azimpur Colony) were the earliest works of Architect Muzharul Islam, the pioneer of modern architecture in Bangladesh. Among them, building no. 75 consists of twenty duplex units. This particular building is locally known as “*Ajob Building*” (Strange building), probably because of its extremely compact layout & unprecedented character of elevation for continuous duplex units. This paper tries to observe the concept & philosophy of the architect for designing this duplex housing in analogy with the works of three renowned contemporary architects: Adolf Loos, Le Corbusier and Charles Correa, regarding their criteria for designing duplex dwelling units. This paper attempts to look at the characteristics of building no. 75 of Azimpur Housing Estate in light of the educational background of the architect in the Western world and the influence of the modern movement. This paper also considers the design principles followed by the architects, interior layout, and socio-economic context of the users as key variables to compare the particular building with its contemporary counterparts.

Keywords: Duplex unit, design principles, interior layout, socio-economic background, Muzharul Islam

1 Introduction

“You have to be a world man and a Bengali. It’s impossible otherwise. When I mention standing on one’s own oil... it is to find oneself, but not to find oneself and become stagnant. What I am seeking is to stand on one’s feet and then to proceed forward. I have no problem with that. I think that there is no other way of moving forward.” (Foundation, 2013).

Through this statement, eminent architect Muzharul Islam expressed his orientation towards critical regionalism. He wanted to be modern by respecting his culture, tradition and climate. He wanted to move forward with the advancement of knowledge in the field of architecture along with critical consideration for the context of his own region. Despite, his education in the West when modernism was at its peak, he inclined his style towards critical regionalism. For this, he is considered the Grandmaster of regional modernism (Foundation, 2013). Definitely, Muzharul Islam arrived at this standpoint after a certain period of experience in the professional field. However, the particular building discussed in this paper is one of his earliest projects. The construction period of the *Ajob* building is 1952-1954, which means right after his graduation in Architecture from the University of Oregon. Probably it is not rational to assume that the maturity of his work with regard to critical regionalism is reflected in this very project. Rather this building is more likely to follow a modernist perspective given his exposure towards modernism. Also, the absence of texts regarding his own works and philosophy has made it difficult to comment on his works and many aspects are now subjected to assumption.

This paper will discuss the *Ajob* building as a housing of duplex units in analogy with the duplex dwelling units designed by three other contemporary and renowned architects. The projects that shall be discussed are Tristan Tzara house by Adolf Loos (1925), Unite d habitation by Le Corbusier (1947-1952) and Kanchanjunga apartments by Charles Correa (1970-1983).

Adolf Loos (1870-1933), a criticizer of modernism, produced the concept of Raumplan, which focuses on the functional requirements of all the spaces in a building. Tristan Tzara's house, constructed between 1925-26, is surprisingly staging, a collage of materials (fig 1) and a sequence of spaces, balconies and terraces, and room's symmetric and asymmetric annexes (wikiarquitectura, 2013).

Le Corbusier's (1887-1965) concept of Domino and the concept of Plan Libre along with the five points of architecture revolutionized the theory of modernism. He also developed the theory of “modular architecture”, which is reflected in the Unite d Habitation (1947-52), a housing project in Paris. It is noteworthy that Unite d Habitation and Ajob building are constructed in almost the same period. The building contains 58 duplex units per floor (Fig: 2). Corridors run through the centre of the long axis of every third floor of the building with each apartment lying on two levels, and stretching from one side of the building to the other, with a balcony.

Charles Correa (1930- 2015) used to focus on the climate and comfort of the tropical region, particularly in India. This particular paper focuses on his Kanchanjunga apartments (1970-83). Located in Mumbai, the building contains 32 luxury dwelling units, where he combined the notion of rapid urbanization and vernacular architecture in a platform (Fig: 3).

In light of these architectural works, this paper seeks to find out the significance of “Building no. 75 of Azimpur Housing Estate or Ajob building” in the history of the advancement of modernism in the East Bengal region. Since there had been no archival document of Building No. 75, the research included a field survey of the particular building to prepare measured drawings (Plan, Section, Elevation), and conjure up a three-dimensional model to understand the functional and structural module and photographic documentation. The concerned drawings, images, and other relevant information about the other three buildings were taken from literature reviews and secondary sources.



Figure 1. Tristan Tzara house.



Figure 2. Unite d habitation of Marseille.



Figure 3. Kanchanjunga Apartment.

2 Analogy

This chapter shall discuss the projects, the duplex units in particular with respect to the following aspects: the design theories or principles followed by the respective architects, the socioeconomic background of the projects and how their interiors are arranged. In order to continue the discussion in a systematic manner the units as well as the architects shall be mentioned based on the chronology of the construction period of the projects. Therefore, the projects in order are Tristan Tzara House, Unite d habitation, Ajob building and Kanchanjunga apartments.

2.1 Design Principles followed by the Architects

Adolf Loos developed his own concept of *Raumplan*, which depicts that every interior space has its own dimension and ornamentation relating to nature and use that it has been attributed to, so as to create cells with different heights. These cells are interconnected while maintaining visual and physical requirements. Thus, there is a ceiling height constant and small differences in levels with steps saved communicate functionally complementary areas (wikiarquitectura, 2013). Loos never used any construction drawing for constructing a space. He used to change the dimensions of a space by being physically present at the site. Rather than perceiving the space in drawings, he allowed himself to be manipulated, controlled and fractured. Therefore, he is simply not an author (Colomina, *The Split Wall: Domestic Voyeurism*, 1992). Tristan Tzara House is an example of this *Raumplan* Concept. The Ground and first floor are designed as a unit for rental purpose. The owner occupies three floors, where the difference between floor levels can be observed.

Le Corbusier provided his concept of the “*Modulor*” in 1948 in his book “*Le Modulor*”, which is an anthropometric scale of proportion developed by him based on the previous theories of Vitruvius, Alberti and Da Vinci, along with the mathematical theories of Fibonacci numbers and the golden ratio. He wanted to develop a system of proportion to simplify the visual use of the British Foot-inch and French meter. Unite d Habitation is one of the first buildings of Le Corbusier, which has been designed by following the concept of Modulor. This building contains 58 duplex units in a module of three floors. The entire building comprises 337 units on 12 floors.

Muzharul Islam adopted the Corbusian concept of Plan-Libre in his Fine Arts Building at Dhaka University. As he was commissioned as a government architect in his earlier years, most of his works consist of either Institutions or Housing. Probably for this reason, he used the modular system for design (not Le Corbusier’s

anthropogenic modular). The “*Ajob* building”, being a housing, uses a system of modules for arranging its duplex units. The module is roughly a cube, and two consecutive cubes contain two interlocking units (Figure 16). There are two types of units; one with a broader lower floor and a narrower upper floor and another with a narrower lower floor and broader upper floor.

Charles Correa is an advocate of climatic comfort in the building. His theory is solely based on the consideration for environmental determinants of comfort rather than completely focusing on the geometry of the visual perception of the user (sense of scale). Usually, he designs residential units in a traditional manner. But in the case of Kanchanjunga apartments, he had to use a system of modules in order to arrange the units in a high-rise tower. For this particular project, he designed four types of duplex dwelling units.

2.2 Socio-economic background of the projects

Tristan Tzara House was commissioned to Adolf Loos by Tristan Tzara, one of the founders of the Dada movement. By participating in the Salon d'Automne in Paris in 1923, Adolf Loos became famous in the Parisian Avant-garde world and almost immediately received the commission for this particular project. Therefore, this residence is designed for a specific client and, unlike the other projects to be discussed, is not a part of a housing project.

Unite d Habitation is the first large-scale housing project in France. After World War II, the need for housing was at an unprecedented high. Le Corbusier was commissioned to design a multi-family residential housing project for the people of Marseille that were dislocated after the bombings in France. Completed in 1952, the Unite d' Habitation was the first of a new housing project series for Le Corbusier that focused on communal living for all the inhabitants to shop, play, live, and come together in a “vertical garden city” (Kroll, 2023).

Ajob Building is also a public housing facility, situated in the Azimpur Colony area for fourth class government employees. It is obvious that the birth of a new nation (East Pakistan) created the necessity for a new workforce and, from that, the solution of the housing problem for officials who came from out of the city. Muzharul Islam had to be very minimalist in order to minimise the cost of the project and also limit the number of users to a minimum.

Kanchanjunga Apartments contain 32 luxury apartments are located southwest of downtown in an upscale suburban setting. The project is solely dedicated to the higher-income group of society. The Kanchanjunga Apartments are a direct response to the present culture, the escalating urbanisation, and the climatic conditions for the region (Pagnotta, 2023). The principal challenge for the architect was to incorporate thermal comfort without mechanical means while preserving the view towards the west, which also allows the maximum radiation of the sun during the day.

Therefore, we can observe that the projects we are discussing all originated from different social and economic perspectives. So it is not rational to compare them on the same scale. Nevertheless, we shall discuss their internal layout and criteria for the interior and view as decided by the respective architects.



Figure 4. Interior View of Tristan Tzara House.



Figure 5. Interior View of Tristan Tzara House.



Figure 6. Furniture arrangement within Tristan Tzara house.

2.3 Interior

Probably the most important element of an interior is the window. The window is also an important medium for connecting inside and outside of a space by means of view. George Teyssot has described it as “an element of the outside and an aspect of innerness.” (Risselada, 2008) The internal layout of dwelling space is dominated by the requirement of view, light, ventilation and, of course, functional necessity.

According to **Adolf Loos**, “A cultivated man does not look out of the window. The window is a ground glass; it is only to let the light in, not to let the gaze pass through (Corbusier, 1925). Loos’s windows were not only opaque or covered with curtains, but the organisation of spaces and the disposition of the built-in furniture also created an obstacle to accessing them. No exchange of views is allowed through the window. To him, architecture is not simply a viewing platform that accommodates the viewing subject. It is a viewing mechanism that produces the subject. According to Corbusier, Loos’s sentiment for the window can be explained by the distressing images of disorder in congested city life. He often used mirrors along with the windows to return the gaze to the interior. The photographs of Loos’s interior suggest that someone is about to enter the room (Fig: 4).

According to Loos, the idea of comfort is not only sensual but also psychological. The sense of security is achieved by placing the sofa in front of the window so that an intruder shall face difficulty recognising the sitting person. Also, comfort in many spaces is achieved through intimacy and control. The interior space shown in Figures 5 and 6 of Tristan Tzara house depicts that the inhabitants of Loos's house are both actors and spectators of the family scene. There is a theatre box inside the house overlooking the internal social spaces. This theatre box acts as a stage where the family scene takes place. It is placed in such a manner that this space assumes the character of a sacred space and of a point of control which provides protection and draws attention. The dining space is the 'theatre box', and the saloon is the space for spectators in the case of Tristan Tzara house. One can gaze through the entire depth of the interior towards the entrance from the theatre box (Fig: 5). Domesticity is achieved in the interior by the use of furniture (Figure: 6), fabric and elements typically found in an ordinary home. Loos described the interior as a female and the exterior as a male component of the house (Risselada, 2008).

Le Corbusier had totally opposite conception about the interior. As opposed to Loos, Corbusier used large horizontal strips of windows which are always kept open in order to embrace the view (Figure: 7 and 8). He used to create a series of overlapping frames to enjoy the view. According to him the horizontal window provides better lighting condition and also creates a free-floating view without connection with the ground. 'View' is so important for Corbusier, that he described the house as a mechanism for collecting views whereas the house is a camera and the window is a lens. According to him, the building should be placed to see the site, not on the site. In *Unite d Habitation*, Corbusier had less freedom than in his previous projects for providing long horizontal strips of windows. Yet, he provided the view on both ends of the elongated axis: one side with a single height opening and the opposite with double height. Whereas the photograph of the interior of Loos gives the impression that someone is about to enter, Corbusier's interior photographs suggest that someone was just here. This impression is enhanced by the evidence of several male objects (hat, coat, lighter etc.) left on the tables and also by the open door (Figure: 8). The interior of Corbusier significantly lacks the touch of domesticity. The wooden staircase is the only physical connection between the two levels, which does not provide a visual connection (Risselada, 2008).



Figure 7 (Left) and 8 (Right). Relation between indoor and outdoor in *Unite d Habitation*.

Muzharul Islam used continuous horizontal apertures by placing four traditional windows side by side in the *Ajob* building. Only the front side of the lower floor of the units is provided with a small vertical window along with the door, probably to maintain privacy from the public corridors. The toilet and kitchen on the front side also contribute to separating the inner space from the front corridor. Therefore, the lower floor of each unit receives light and ventilation only from the south. A direct visual connection to the outside is blocked by a layer of the screen placed right in front of the horizontal windows (Figure: 9). It is understandable that the southern windows are provided with screening in order to protect themselves from the direct sun, but the northern windows on the upper floors of the units are also blocked in the same way. The connection is, therefore, angular, i.e. an outsider can only see the ceiling of the upper floor from the front. The height of the ceiling is kept very low in relation to the proportion of the compact plan (Figure: 10). Probably, the most striking aspect of these duplex units is that they are provided with only two spaces instead of rooms. The floors have no visual connection. The narrow staircase is the only medium of physical connection. Therefore, privacy has been successfully maintained between inside and outside the house but the privacy within the occupants has been compromised.

Charles Correa considered the view along with climate. It was challenging because the view towards the Arab sea and the principle direction of wind is to the West, which is at the same time the direction of the maximum radiation from the Sun during daytime. Therefore, the architect had to incorporate the traditional concept of Bungalow, where large depths of verandahs are continued around the spaces of the house (Figure: 11). So, the principle openings of the house are characterized by deep terraces, which also act like a shading device. The interior has changes in floor levels and the visual connections between the levels are very significant. The changes in scale of the spaces are organized so as to enhance the connection between interior spaces along with the view towards outdoor (Figure: 11). The bedrooms are isolated from the other spaces of the units in order to provide sufficient privacy but also placed in such a way to enjoy both the view and natural resources.



Figure 9 and 10: Relation with outdoor in *Ajob* building, screen blocks view towards outside.

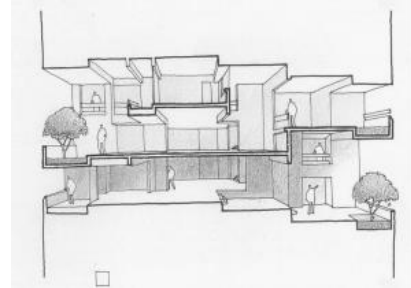


Figure 11: Deep verandah and subtle change in floor levels.

3 Discussion

Although the later works of Architect Muzharul Islam exhibit his position towards critical regionalism, *Ajob* building, located in Azimpur as one of his earliest exercises, can be described as Modern. Except for considering the cardinal orientation for better natural light and ventilation and the significant use of screening for privacy, there is no other consideration regarding the culture or tradition of the region.

The layout of the units comprises two extremely compact spaces on two levels (Figure 12 and 13). There are no separate rooms for the occupants. This phenomenon might have been common in the modern Western world, where people had already started to live in metropolitan cities, breaking into single nuclear families. But in the oriental region, great percentages of the city people were still living in joint families or at least have one or two elderly members other than the core members. Understandably, the units were designed keeping in mind a family of a maximum of three persons. But, until its abandonment in recent years, each unit comprises at least five or six persons. This practice of living with kin gives rise to the need for privacy. Therefore, in almost all units, the occupants have divided the space with metal or board partitions and compartmentalised the verandah in the south to be used as a room or service area. Probably, the architect's intention was to provide the privacy by vertically separating the spaces for which the duplex units were created; the use of RCC stairways may not have been economical. There are 20 individual RCC stairways (Figure 14, 15) apart from two others for going to the upper duplex units. A non-structural stair with lightweight material could reduce the construction cost significantly.

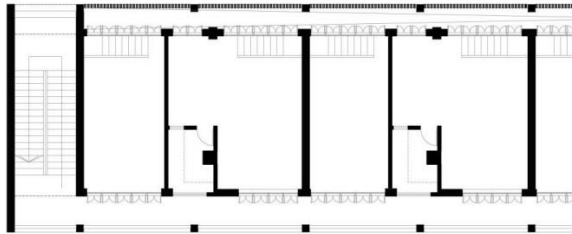


Figure 12. Enlarged Plan of Dwelling Units (Ground Floor) of Building No. 75

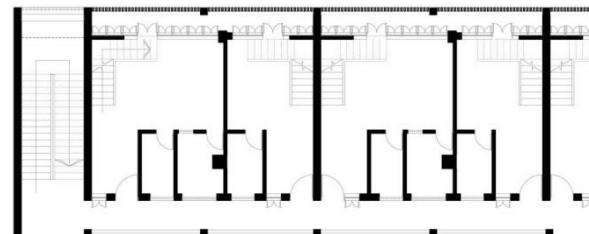


Figure 13. Enlarged Plan of Dwelling Units (First Floor) of Building No. 75

To ensure the natural resources from the south, the architect had to place the toilet and kitchen at the north, which is at the same time, the front of the building. Therefore, the windows of the kitchen and toilet open at the public corridor for approaching the units. Surprisingly, the windows are positioned at eye level, which poses a serious privacy problem, for which many of the windows were permanently kept closed. Although the organization of the dwelling units is modular, where two interlocking duplex units merge and then multiplied horizontally; the grid of the exterior fenestration does not reflect the functionality and often takes a conflicting position with the interior arrangement. The interior columns or partition walls are not aligned with the external column grid (Figure 12 and 13).

The interior of the building does not have a complex arrangement as described by Adolf Loos in his *Raumplan* concept. The spaces attempt to take shape according to their functions but are not spacious enough to allow a central stage for the family; the economic class of the users may be taken into consideration in this regard. However, the lack of an enclosed room and vertical separation of spaces can be observed as an innovative experiment. These small units were provided with continuous horizontal windows in the same manner followed by Le Corbusier in his *Unite d'Habitation*, which was also unprecedented in the contemporary architecture, but also restrict the view towards the site with the use of screens. The screens were used for climatic reasons. The depth of verandah used in the south is also contributing as a shading device which can be related with the deep terraces used by Charles Correa. In short, this particular building has some character defining elements which can portray it as an architecture of the modern era.

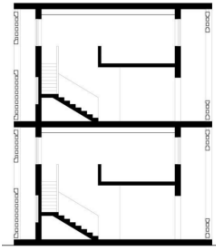


Figure 14. Transverse Section.

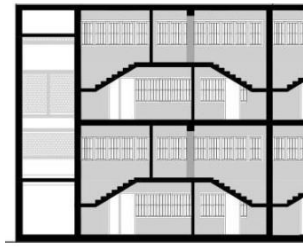


Figure 15. Portion of Enlarged Longitudinal Section.



Figure 16. Three-dimensional model and principles for arranging of dwelling units of Building No. 75.

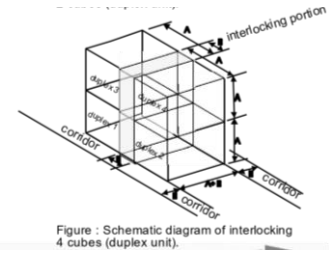


Figure : Schematic diagram of interlocking 4 cubes (duplex unit).

The *Ajob* building has successfully drawn the attention of the local people as a new element. The concept of duplex housing was new to this region and a duplex apartment without any room clearly came as a surprise to those who never imagined such a thing. Also, the exterior with double-height corridors along with the unprecedented use of traditional screening system in a modern way may also contribute as a reason for naming this building as a 'strange' one. The 1950's started to see the rise of modernism in East Bengal through the works of Muzharul Islam. The *Ajob* building is clearly the beginning of his venture along with the Faculty of Fine Arts building. As a pioneer and teacher, he had to develop himself through experience. Therefore, despite all its limitations, the *Ajob* building has to be seen as the early work of a master which may not have been perfect but shook the notion of architecture among the local people. Muzharul Islam proved his ability as an architect at that age may not by *Ajob* building but through the design of Faculty of Fine Arts building.

4 Conclusion

Building No. 75, or the *Ajob* building, may not be a masterpiece of architecture, but it depicts the stress and strain of experimentation of a very modern architect to adapt a new language to his local context. This building obviously has its limitation, for which this kind of architecture has not been continued later, but this is probably one of the first buildings where we can observe certain features of modern architecture in this country. The discontinuation, in another way, has made it a unique piece of work.

Western architects have a long tradition of documenting and publishing their works, thoughts and philosophy regarding their works. There may be appreciation or criticism of the theories, but nevertheless, the overall knowledge is increased, which eventually results in progress. The architects of Bangladesh are somehow maintaining a distance from writing except for a few ones. Also, the disregard for documenting the works both by the architects and the concerned authorities is a common phenomenon. Even for a master like Muzharul Islam, the absence of sufficient text has given rise to many theories and incidents regarding his life.

Also, his works should be properly conserved. Currently, the *Ajob* building is in a state of structural danger. Although other works of Muzharul Islam are being carefully taken care of, this particular exceptional piece should be brought in light as one of his earliest works. Probably this is the only evidence of the earliest public housing with duplex units in this region.

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References

- Colomina, B. (1990). Intimacy and Spectacle: The Interiors of Adolf Loos. *AA Files*, 20, 5-15. Retrieved from <http://www.jstor.org/stable/29543700>
- Colomina, B. (1992). The Split wall: Domestic Voyeurism. In B. Colomina, *Sexuality and Space* (pp. 73-130). New York: Princeton Architectural press.
- Corbusier, L. (1925). *Urbanisme*. Paris: Les Editions G. Crès & Cie.
- Foundation, M. I. (2013, 09 29). *Muzharul Islam archive*. Retrieved from [muzharulislam.com:](http://www.muzharulislam.com/)
- Kroll, A. (2023, 06 09). *Architecture Classics: Unite d' Habitation / Le Corbusier*. Retrieved from ArchDaily: <https://www.archdaily.com/85971/ad-classics-unite-d-habitation-le-corbusier>
- Pagnotta, B. (2023, 06 09). *AD Classics: Kanchanjunga Apartments / Charles Correa*. Retrieved from ArchDaily: <https://www.archdaily.com/151844/ad-classics-kanchanjunga-apartments-charles-correa>
- Risselada, M. and De, V. (2008). *Raumplan versus plan libre : Adolf Loos / Le Corbusier*. Rotterdam: 010.
- wikiarquitectura. (2013, 09 23). *tristan-tzara-house*. Retrieved from [en.wikiarquitectura.com:](https://en.wikiarquitectura.com/building/tristan-tzara-house/)