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Segregation in Domestic Spatial Organisation of the Contemporary Middle-Income Group Apartments of Dhaka

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Abstract: This paper examines 'segregation' in the domestic spatial organisation that has undergone a process of transformation inside contemporary Middle Income Group (MIG) apartments in Dhaka. Questionnaire interview of the female heads from a sample of 50 MIG apartments compliments Space Syntax method analysis. Activity analysis of the family members identify certain spaces as 'gendered' space, used by a gender extensively, and 'shared' spaces used by both genders. Segregation in gendered and shared space is interpreted with the depth and integration values of the spaces found from the justified permeability graph (JPG). Entry penetration and location of the gendered spaces are two important aspects of the spatial organisation to attain segregation in domestic spaces. Symbolic gender aspect segregation, holding a pivotal role in the domestic spatial organization of the urban houses in Dhaka, has gone through a transformation due to the socio-economic changes. Although the role of women has changed in the family due to their participation in the economic activities, women still prefer to preserve segregation from the visitors or outsider's domain. Segregation of gendered spaces is difficult to be maintained in the contemporary compact MIG apartments due to space compaction. It was seen from the study that presence of foyer at the entry creates choice in access and female heads are satisfied with the use of foyer regarding preserving segregation from visitor's area.

Keywords: segregation, gendered space, shared space, middle-income group apartments, Dhaka.

INTRODUCTION

The form of the house is the consequence of a whole range of socio-cultural factors (Rapoport, 1969; Lawrence, 1990). People everywhere produce houses whose spatial organization suits the inhabitants' social life. Social relations and events express themselves through spatial configuration. House form acts as an artefact of culture and reflects the society in relation to a given time. The dwelling reflects ideals and realities about the relationship between women and men within the family and in society. Spatial organisation of the house is a reflection of the life style and the symbolic gender aspects that are the reflection of culture and society (Hanson, 1998; Oliver, 1987).

Hillier (2007, pp.30-31) expresses human societies as a spatial phenomenon. It takes on a definite spatial form in two senses: first, it arranges people in space to understand aggregation and segregation, engendering patterns of movement and encounter between different groupings; and second, it arranges space itself by means of buildings, boundaries, paths so that the physical milieu of the society also takes on a definite pattern. According to Hanson (1998, p.269), houses are more complex phenomena and usually encode a wealth of social and symbolic information which constitute a shared framework of spatial patterns.

Among the symbolic gender aspects 'gendered' and 'shared' spaces are two categories conceptualized with the concentration and segregation of the male and female members of the household. This private-public

territory, as one of the binary codes followed in the organization of domestic space, is governed culturally (Lawrence, 1987). The denotation of 'public' and 'private' implies that some form of spatial pattern accompanied the separation of women and men into different activities. This supported the concept of 'gendered space' originating from a private-public separation model confining women within the private domain of a house in performing the domestic works while secluding from outside public realm (Rendell, 2000, p.103).

The concept of women's sphere was a product of both patriarchy[1] and industrial capitalism (Hayden, 1981, p.296). The inward orientation of the women and the outward orientation of men are reflected in contrast within the house between interior and exterior, dark and light, low and height, back and front, night and day, nature and culture etc. among the anthropological studies so far produced on the use of space, Waterson concludes that the symbolism of gender occupies a prominent place and given the subordinate role of women in many societies. It is, therefore, no surprise to find women persistently relegated to 'inferior' spaces such as back of the house, excluded from the public to private or trapped in a domestic sphere which is intended to be restricted both physically and mentally (Waterson,1990, pp.167-198).

Oliver (1987) finds non-industrial societies to be often separated as women and men within the dwelling. In a typical Purum house, for example, domestic space is divided into right / left, male / female quarters, with higher value attributed to areas and objects associated with right/male and lower value associated with left/female (Lidia,1981, p. 91). The Bedouin tent, the Mongolian nomadic tribe's tent 'ger' provides examples of symbolically differentiated gendered spaces. Each of these single-roomed dwellings is characterized by separate spaces for women and men. The male section contains the possessions of the head of the household and honoured guests: the female section contains cooking utensils and children's possession. The Berber house of the Kabylia, Algeria is simple spaces divided both symbolically and physically into male and female domains.

In the 19th and early 20th century, there was a clear division between front and rear in the English houses. The front room or parlour facing the street was used for receiving the guests and for formal in the family occasions and best furniture was kept there. The kitchen dining was used for eating and performing other household activities like child caring, sewing, resting and other domestic activities. Ozaki's (2003) research initially looks at a link between culture and house plans described in the existing literature on English housing, and provides general ideas on the associations between the two, especially in terms of social status and changing social relations. Consequently, middle-class families developed less formal relationships between husbands and wives, and parents and children, which led to the decline in formality within the household.

Segregation, a symbolic aspect, of male–female domain existed in the life of the family members starting from the early periods of urbanisation in Dhaka. It was expressed in both spatial and behavioural patterns. Female members remained unnoticed from the male and outsiders even in their domestic spaces as their domain was placed at the back or at farther areas from the formal public areas that were the street of the locality. In one of the earliest studies on urban house form in Dhaka by Imamuddin (1982), the binary pairs of front-back, outer-inner, male-female, clean-dirty seem to be present in the organisation of the Bengali houses. He explains this binary concept through a tripartite relationship among formal, family and service part of the consolidated urban house types in the post-colonial period (Imamuddin, 1982, pp. 2.21-2.40). The houses tend to be divided into two separate domains, one section is exclusively used by the inhabitants and the other is reserved for receiving male guests. The front is the street facing side; the public side receives the guests and restricts them to a limited area. This frontal side is maintained and gives an impression of the owner of the house to the outsiders. The male activities were located in this outer zone. Conceptually men are seen as strangers as far as household affairs are concerned. Socio-cultural rules and customs have confined women within the boundaries of the house and they are the back stage performers.

[1] If a society expects males to dominate in all family decision making, it is termed as patriarchy (Schaefer, 2003, pp. 300-311).

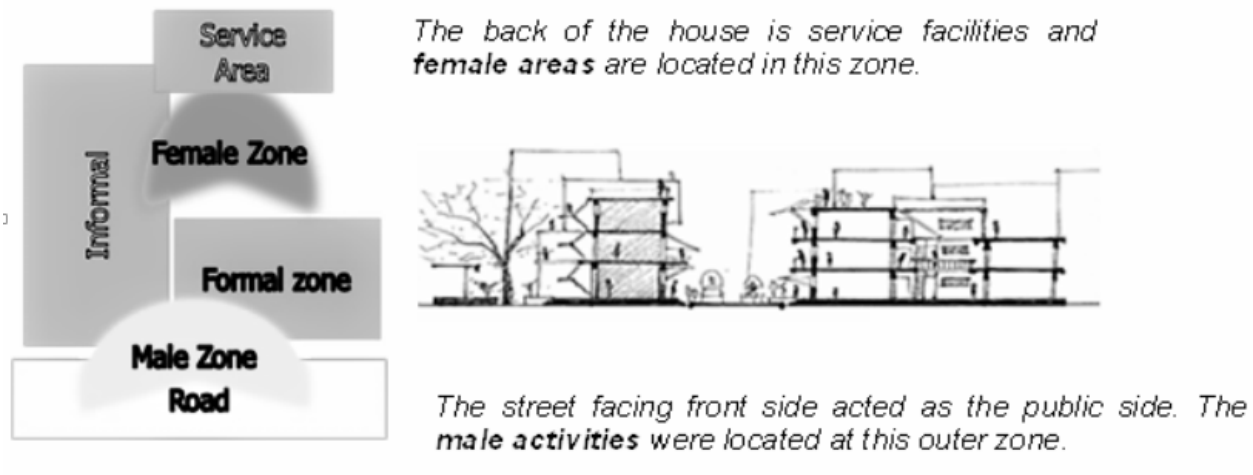


Figure 01: The male and female zones in the Traditional urban houses of Dhaka

METHODOLOGY

This paper focuses on of the women users of the middle-income group with the specific objectives of understanding segregation in the contemporary residential apartments in Dhaka. To address the gender-related symbolic dimension 'segregation' the responses of female heads of the middle-income group, living in apartments in Dhaka, are recorded and quantified to find out their life style and activity pattern in the house. The concept of segregation is addressed with the Justified Permeability Graph analysis [using JASS software] in this research.

Graph[2] theory was first applied to small architectural plans by Levin (1964) in his article, 'use of graphs to decide the optimum layout of the buildings'. Here Levin used access graphs in which the vertices represent rooms and the edges as the connection between rooms. It was March and Steadman 1971 who made a significant contribution to the utilizing mathematical concept of graph theory as an instrument for architectural thinking. Hillier and Hanson took a further step and brought its graph techniques into their spatio-social theory, Space Syntax, to measure and evaluate the property of the built environment. The study of spatial configuration is an approach that reveals the social order embedded in a spatial pattern. Steadman (1983) and Hillier and Hanson (1984) have introduced the analyses of domestic space configuration through architectural morphology.

In Hillier and Hanson's analysis method (Hillier and Hanson, 1988), the morphological characteristics of a plan layout are analysed with the help of graphs called “justified access graphs.” The justified graph represents the permeability of the system. In a justified graph, each space[3] is represented as a circle and doorways and other openings between adjacent spaces and circulation routes are shown by lines linking points. A particular space, which normally is an exterior space, will be selected as a root space and all other spaces will be applied for the depth level from root space. Therefore the level of the root is defined as zero,

[2] A graph is a way of drawing any set of relations between elements; therefore any buildings can be represented by a graph. By incorporating the syntactic structure of each home into one simple diagram a set of otherwise complex spatial relationships can be more easily understood. Spaces within the home have well defined links from one to another and thus the spatial structure can be described by a graph (Hillier and Hanson, 1984).

[3] Bellal (2007) defined a 'space' by the functions rather by physical boundaries. Hence a space has been regarded as a space designated for a particular activity. Areas that are not rectangular in shape such as 'U' or 'L' shape for example, it is used for a single activity has been considered as one space. Rooms with multiple functions for example living and dining area with no demarcation of boundary in between but where different activities happen in designated areas within the same geometrically bounded space has been taken as two spaces.

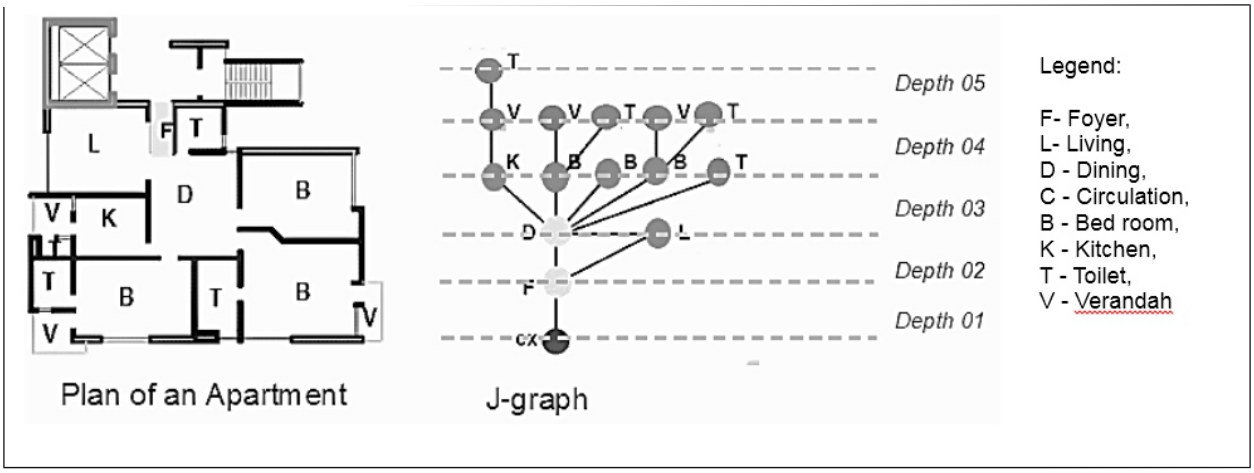


Figure 02: Justified Permeability Graph of an apartment

while the depth level of each space in the diagram corresponds to the steps taken to move from the root to that particular space. Every space in the building is assigned a depth value according to the minimum number of movements that must be taken to get from one space into another space.

Justified Permeability Graph (JPG), which represents the permeability of the system, is used to check the concept of the gendered space by checking integration[4] of spaces and their depth[5] to locate the gendered spaces in the spatial organisation. The relevant analysis shows that spaces are usually connected together in ways that vary the distribution of integration throughout the structure, making some spaces of a house more accessible (public spaces) than others (private spaces). Monteiro (1997) found the more integrated activities as the social ones and the segregated activities as the personal ones. Toker And Toker (2003) concluded that higher integration and lower depth from both the integration core and the entrance space is a reflection of its transformation into a shared space.

In this study Space activity analysis identifies the gendered and shared spaces in the contemporary MIG apartments in Dhaka and integration and depth properties are used for syntactic analysis.

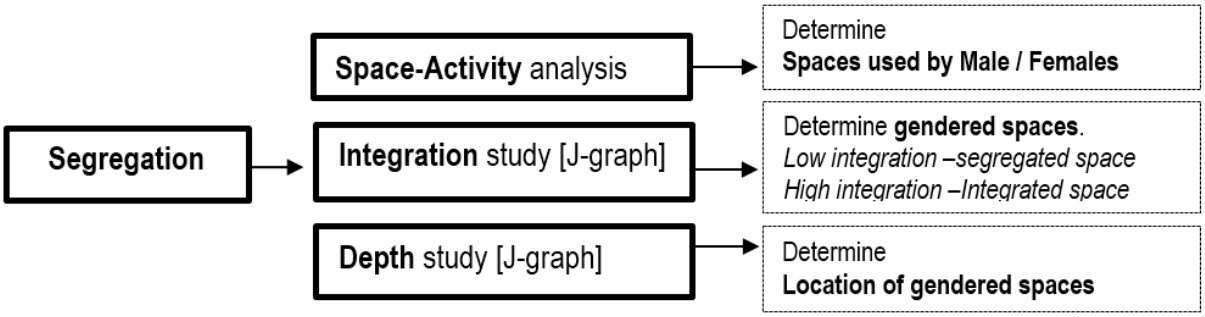


Figure 03: Methodology of Analysing Segregation

[4] Integration of a space expresses the degree to which it is integrated or segregated within a configuration: the more a space is integrated the more it pulls all other spaces in the complex close to it. As remarked by Hanson (1998:32) "Integration has emerged in empirical studies as one of the fundamental ways in which houses convey culture through their configuration".

[5] In these graphs, all spaces of the house are appointed depth values according to a chosen space called "the carrier." The carrier space in the analysis is at the exterior lobby of the studied flats. Depth of space in this study locates the space in the configuration with respect to the exterior.

SPACE - ACTIVITY ANALYSIS

The visitors and inhabitants interactions hold a prime role in the domestic space organisation. The physical division constitutes a social division of two groups: inhabitants as the users of the interior domain, and strangers as the users of the exterior domain. Based on the previous studies on the traditional Bengali houses (Imamuddin,1982; Shabeen,1997; Khan,1999; Islam,2003), it was seen that family activities such as working, eating, sleeping, cooking, etc. are performed in the inner part of the house while formal activities such as socializing, receiving guests, which include participation of the community are performed in the outer part of the house near to the entry. In traditional houses spaces used by male members (outhouse and living) are placed close to the exterior and the spaces those are used by women (kitchen, bed, etc.) are located far from the exterior.

In the contemporary middle-income group apartments, spaces are compactly arranged for bringing the apartment into an affordable range of the middle-income groups. From the study we can categorize the domestic spaces in three groups:

Gendered space	**Shared space**	**Transition space**
Living	Living	Entry
Master bed room	Dining	Circulation
Kitchen	Family living	

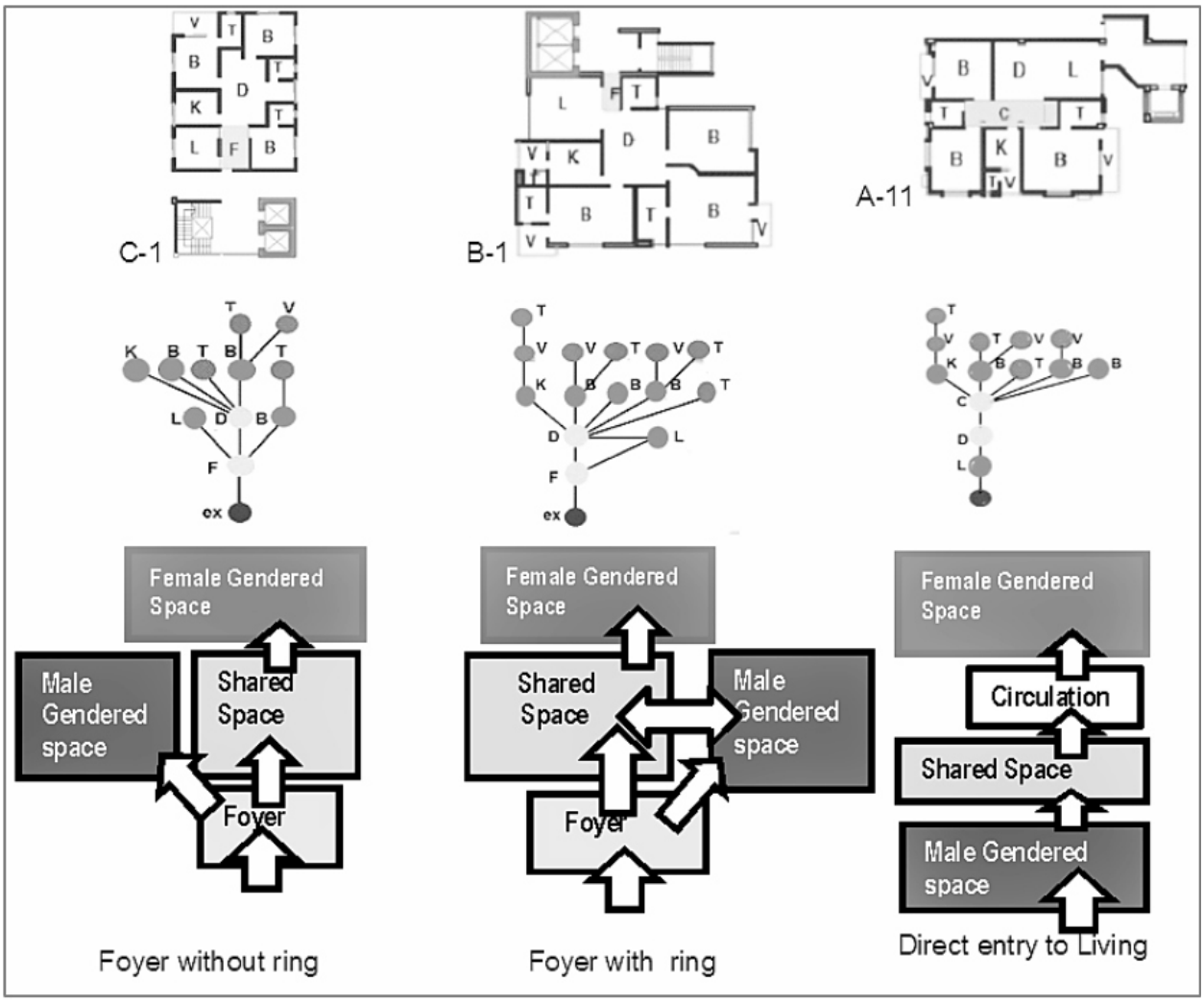
Living space in the contemporary middle-income group apartments is used for receiving and entertaining visitors mainly. Considering this living is symbolically a male gendered space. Unlike the traditional domestic spaces, where outhouse is the guest receiving area, living space in the contemporary middle-income group apartment has a dual character. The study reveals that it is being used by both male and female members of the family nearly equally for other purposes. Considering the activity of the living room it is found as a shared space.

Although master bed room is a shared space but considering female heads' activity and domain, master bed room is restricted for female visitors and in this respect master bed room is symbolically a female gendered space. The kitchen is used for cooking solely and used by the female members of the families. In the study, it was found that cooking is done by the female members. Male participation in cooking is very negligible. Thus the working or service zone kitchen in the contemporary apartment is female gendered space.

Some of the domestic spaces are solely shared spaces which are used by the both male and female members of the family like dining and, family living spaces. The transition spaces for connecting function holding spaces and for movement is used by both genders.

SPATIAL ANALYSIS

In this study, the 'space' is defined by the functions rather by physical boundaries. Hence space has been regarded as a space designated for a particular activity. Areas that are not rectangular in shape such as 'U' or 'L' shape, for example, it is used for a single activity has been considered as one space. Rooms with multiple functions for example living and dining area with no demarcation of the boundary in between but where different activities happen in designated areas within the same geometrically bounded space has been taken as two spaces.



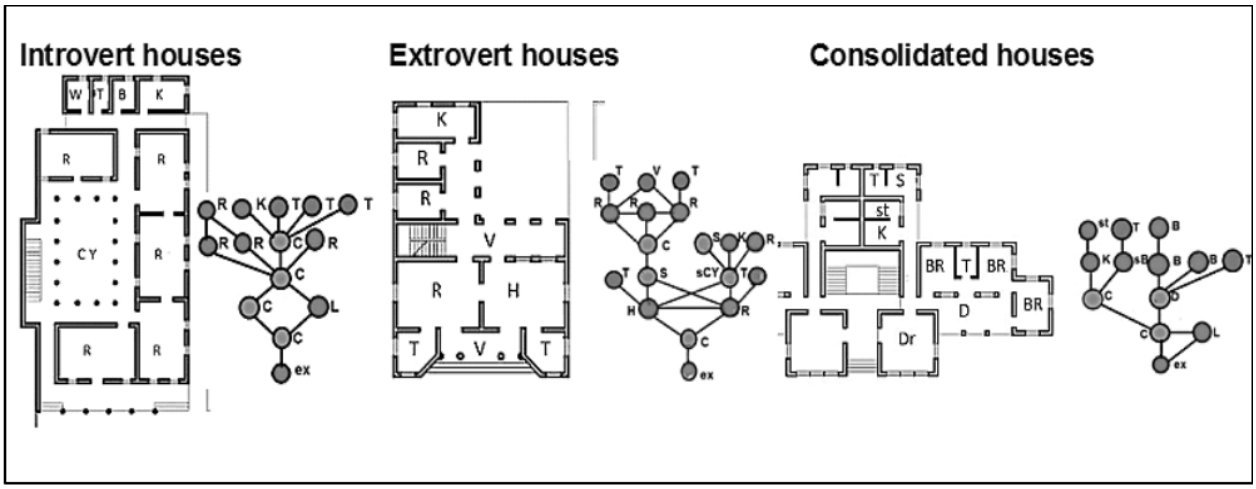
Legend: L-Living, D - Dining, C-Circulation, R - Room, K - Kitchen, T - Toilet, V – Verandah

Figure 04: Ringyness in Foyer (transition), Dining (shared) and Living (gendered)

In the spatial organisation of the MIG apartments of Dhaka, significant numbers of houses (44%) have Tree–like configurations while ringyness appears more predominant as 56% has a ring in their configuration. Ringyness at the entry seems a crucial point as it segregates the visitors and the inhabitants (shown in figure 4).

In the Traditional introvert type plans, entry plays an important role in segregating the user according to gender in the house. Entry is through a verandah and it leads to the outhouse that is used by the male members of the house to interact with the community (guests/Visitors) within the house. The main entry to houses was from the front road to the outer male zone devoted to guest and outsiders. Usually, in urban houses of Dhaka, a secondary entry was for female folks and service which was indirect in nature and led to the inner part of the house without crossing the outer public and male zone.

From Figure 5 it is seen that in the Introvert, extrovert and consolidated urban houses of Dhaka choice of movement created with ringyness of the configuration is a characteristic (Gomes, 2014, p.116). From the exterior the entry to the house gives two choices: one for the formal zone and the other for the informal zone which is connected by a circulation space, and the other in the inner part of the house connecting the



Legend: OH-Out House, CY -Court Yard, H-Hall, L-Living, D - Dining, C-Circulation, R - Room, K - Kitchen, T - Toilet, V – Verandah

Figure 05: J Graphs of the Introvert, extrovert and consolidated type urban houses in Dhaka [Source: Gomes, 2014]

courtyard circulation and the individual rooms. With choice in movement at the entry and around the courtyard helps to segregate female members of the house from the male outsiders and visitors. Different spaces in the urban houses of Dhaka follow a characteristic: Shared spaces are highly integrated and gendered spaces are segregated.

The spatial organisation of the traditional Introvert type houses in the context of Dhaka courtyard was a highly integrated space and acted as the shared space. The outhouse which was used as the guest receiving space and used by male members of the family is segregated with lower integration values. The cell-like rooms, used for sleeping and another purpose, were also segregated and mostly used by the female and family members. Kitchen the women's space was gendered and segregated having lower integration. (Gomes and Nilufar, 2012, pp. 362-365).

SEGREGATION IN MIG APARTMENTS

Segregation in gendered and shared space is interpreted with the depth and integration values of the spaces. It was found from the study of the middle-income group families that in contemporary urban apartments the living room is for the outsiders and visitors. Male members of the family interact with visitors in the living room which is located near to the entry of their house. Thus considering the stair lobby as the exterior point, from where the apartment is accessed, depths of different spaces are calculated and from it the percentage of each space according to depth are placed in Table 1 below.

Table 01: Depth of the different spaces in the studied apartments

	depth (1)	depth (2)	depth (3)	depth (4)	depth (5)	depth (6)
Foyer	**44%**					44%
Living	46%	54%				
Circulation		10%	24%			
Dining	32%	68%				
Kitchen		18%	60%	22%		
Family Living		08%	20%	08%		
Master Bed Bed-2 Bed-3		14% 10% 38%	40% 48% 36%	38% 36% 16%	08% 06% 02%	
Toilet (with M bed)			14%	42%	36%	08%
Veranda(with M bed)			14%	42%	36%	08%

Studying the order of depth a pattern is observed in the studied apartments. The living which is considered as the location for visitors in the studied cases is located near to the entry at depth one or depth two. In the studied apartments, 46% entry leads directly to the living. In 54% apartments, living is located at the second depth from the entry. Shared space dining and family living are after the living and in the configuration, it is at the central position. In 32% studied apartments shared spaces are at depth 01 near the entry. The female gendered spaces are located at a deeper location far away from the entry. Kitchen and bedroom are found to be located farther away from the entry in the study at depth 03 and in depth 04. Spaces used individually like toilets are terminal spaces and located at the end of the spatial configuration.

While analysing the depth of the studied apartments the depth of living becomes second in the spatial organisation when transition "Foyer" is used at the entry point. With a choice of access from this point of Foyer, segregation between the visitors and the inhabitants is achieved. Foyer, the transition space, creates ring among the male gendered space shared space and entry giving choice to a person while entering. Survey reveals that the respondents are satisfied with the privacy of the female gendered spaces from the visitor's area in the apartments where foyer is present. Where entry is to the living or dining directly the female heads expressed a desire to have separate entries so that the visitors cannot see the inner part of her house that is used mostly by female members of the house.

INTEGRATION OF SPACES IN THE MIG APARTMENTS

The activity pattern study denotes some spaces as male gendered space for having a concentration of activities of male members of the family and some spaces as female gendered spaces. By converting the RRA (Real Relative Asymmetry) values of different spaces from the J graphs constructed by using JASS software, the integration values of the different spaces are obtained for creating order of integration:

Dining(2.20)> Circulation(1.92)> F.liv(1.41) > Foyer(1.16) > Bed(1.15) > Kitchen(1.11) > Living(1.07)
shared transition shared transition female gendered male gendered

The living is considered as a male gendered space in this study which has a lower value of integration (average value 1.07). The female gendered spaces in the spatial organisation are located farther away from the entry and the integration of the female gendered spaces is lower compared to the shared space's integration values. Kitchen (average value 1.11) and Master Bed room (average value 1.15) have a lower value of integration.

The shared spaces in the spatial organisation are located at the central position of the spatial organisation and Integration of the shared spaces (Dining, Family living) are the highest in a spatial organisation (average value 2.20). The shared space Dining has the highest integration in 76% cases. Transition spaces (foyer and circulation) have high integration values as they are connecting the gendered spaces and shared spaces. Circulation is highly integrated (average value 1.92) in apartments and in some cases have the highest

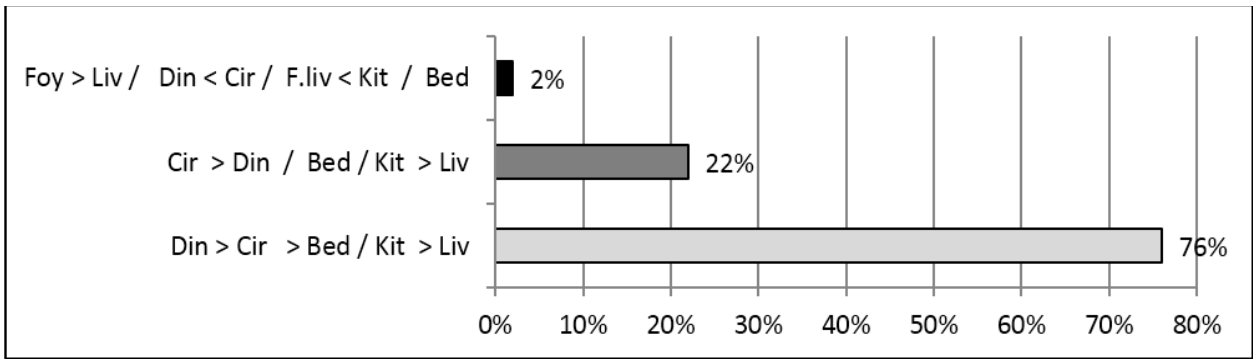


Figure 06: Orders of Integration [Source: Gomes, C. D., 2014]

integration values where circulation is a dominant element in the spatial organisation. Foyer itself is an integrated space (average value 1.16) and has higher integration values than the gendered spaces. The following graph shows different alternative orders of integration that prevail among the samples.

Thus the findings from the spatial analysis of the MID apartments lead to the conclusion that shared spaces (Dining, Family living) and transition space (circulation and foyer) are highly integrated and gendered spaces (Kitchen, Living, and Bedroom) are segregated in their configuration.

TRANSITION SPACES EFFECTING SEGREGATION

Transition space has become an important element as it impacts the affordability of the owners and at the same time it influences upon the symbolic aspects of the domestic space. Three types of spatial organizations are seen in the MIG apartments based on the presence or absence of the transition space: First, Apartments without Transition Space; Second, Apartments with Transition Space-Foyer and Third, Apartments with Transition Space-Circulation.

In apartments where foyer is absent at the entry (Figure 7), one enters directly to the living from the exterior lobby space. 36% apartments of this type are tree-like and rest 64% have ringy type configuration. The configuration of this type is shallow because of the absence of transition spaces. Shared space is observed between the male gendered space and the female gendered spaces. Dining as the shared space in this type configuration is the most integrated space. Gendered spaces living and master bed room have lower integration than the shared spaces. Kitchen, the female gendered space, is the most segregated space in the configuration.
In the apartments where Transition space is absent, the order of Integration follows a pattern:

Dining (3.17)	>	F.Liv (1.43)	>	M.Bed (1.37)	>	Living (1.25)	>	Kitchen (1.19)
		shared		gendered (F)		gendered (M)		gendered (F)

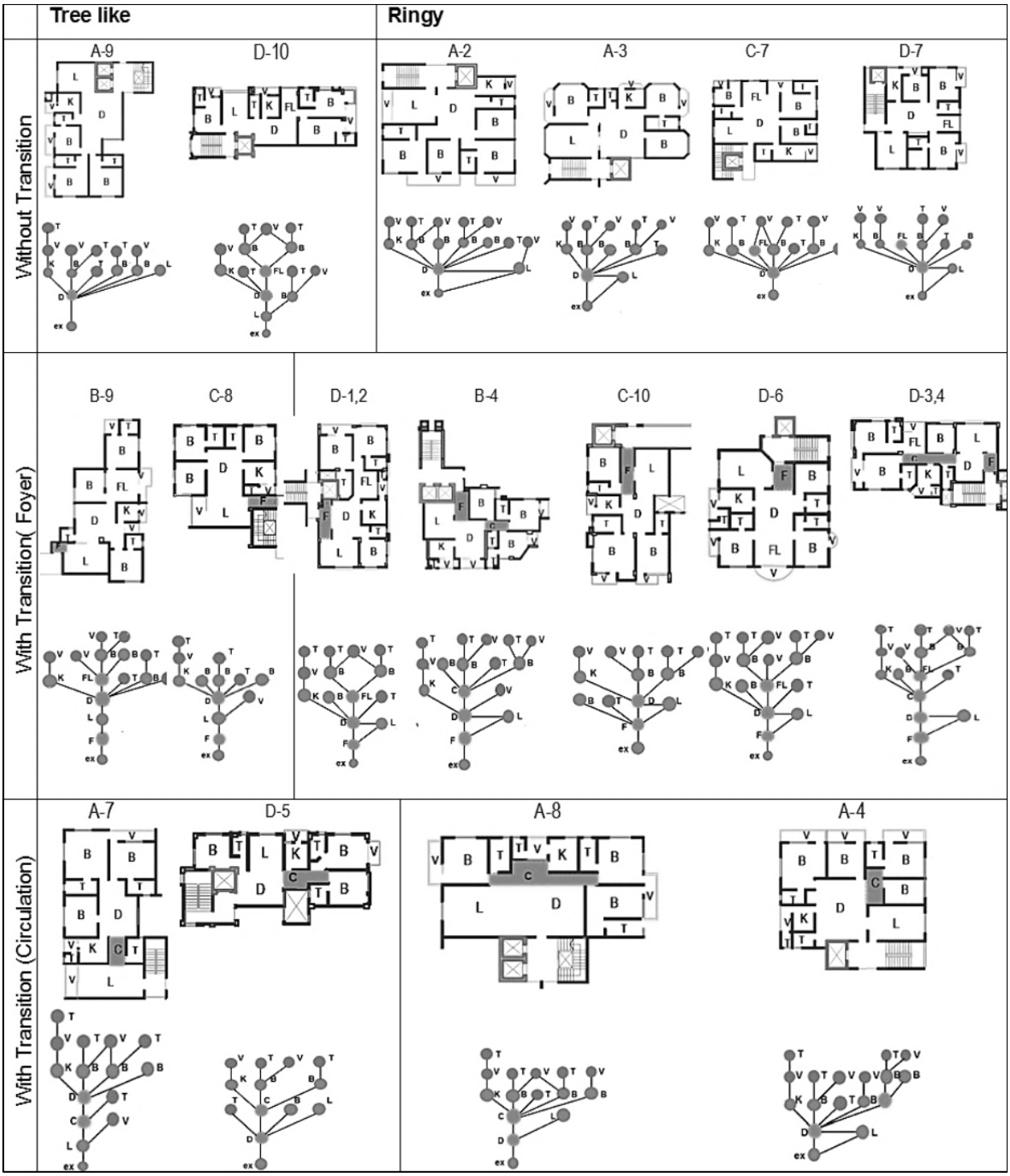
In apartments where foyer is present (Figure 7), it acts as a node to the exterior and living, guest bed room and dining spaces. In 27% cases, foyers do not create ring among the spaces and have tree-like configurations. 73% of the apartments with foyer ring among the living, dining and foyer space creates choice in access. When foyer is present the integration of dining is highest in the configuration. Gendered spaces, living and master bed room, have lower integration than the shared spaces. In the apartments where foyer is present, the order of Integration follows a pattern:

Dining(2.06)	>	Cir (1.67)	>	F.liv(1.44)	>	Foyer (1.15)	>	Kitchen (1.11)	>	Living (1.09)	>	M.Bed (1.07)
Shared		transition		Shared		transition		gendered (F)		gendered (M)		gendered (F)

Circulation acts as insulation between the gendered space and shared space in the apartments where circulation is introduced in the central position, connecting the internal female gendered spaces with the shared spaces. The order of Integration follows a pattern:

Cir (2.00)	>	Dining (1.74)	>	M.Bed (1.15)	>	Kitchen (1.06)	>	Living (0.93)	>	MI (0.88)	>	Toil (0.70)
transition		shared		gendered (F)				gendered (M)				

Comparing the three types of configurations, it can be concluded that when the transition is absent in the apartments, dining acts as the most integrated space in the configuration. The presence of the transition space makes the male gendered space 'living' more segregated in the configuration. While conducting the survey and interview with the respondent's segregation created with entry was becoming emphasized by the respondents.



Legend: F- Foyer, L- Living, D - Dining, C - Circulation, B - Bed room, K - Kitchen, T - Toilet, V – Verandah

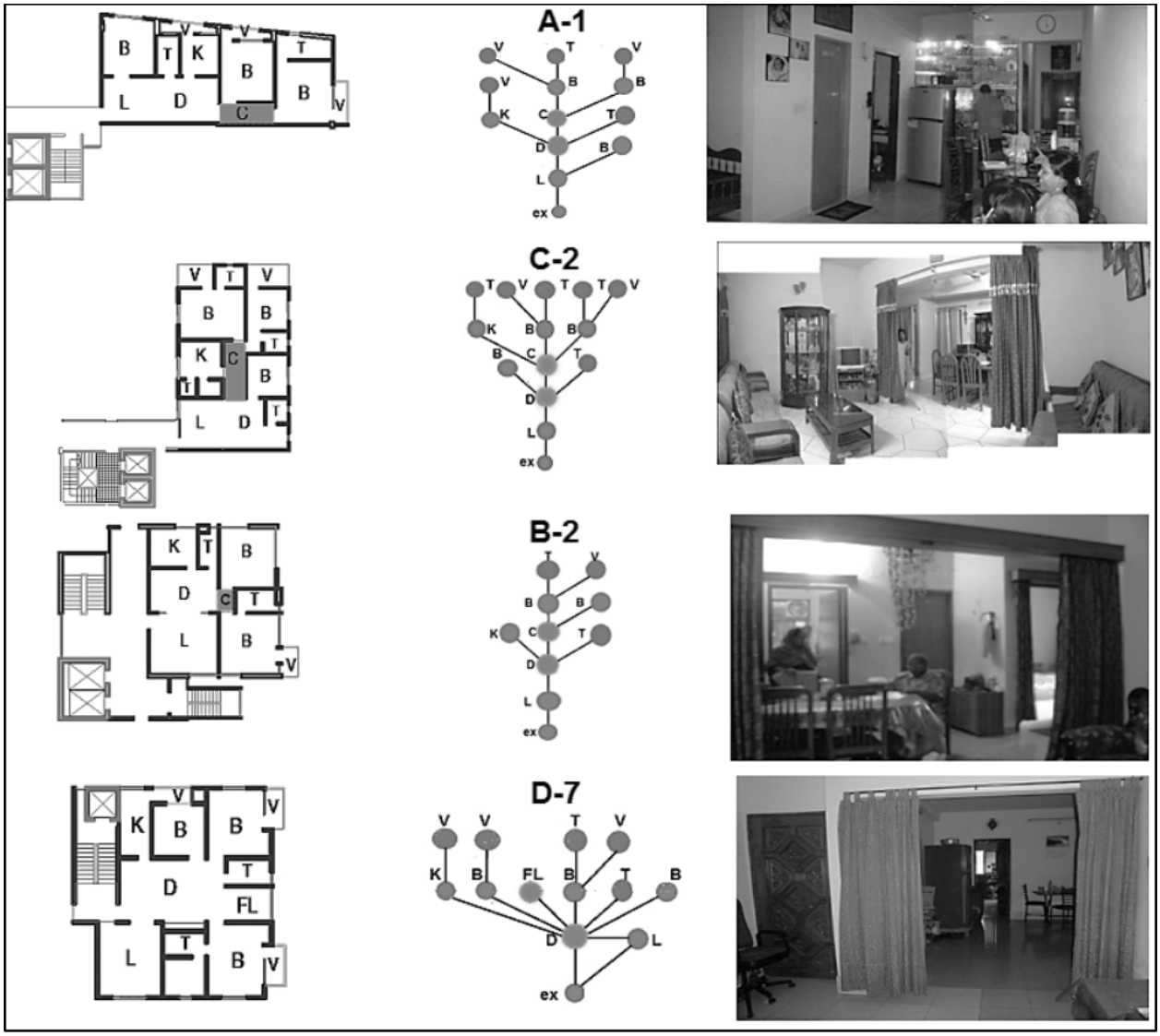
Figure 07: Configuration of the Apartments without Transition Space, with Transition Space Foyer, with Transition Space Circulation [Source: Gomes, 2014]

Mainly two types of entry penetration to the domestic space from the exterior lobby are seen in the middle-income group apartments of Dhaka. These are concerned with the presence of foyer–that is an ante-space distributing access to the domestic space. In the study, 44% samples were with foyer and remaining 56% of

the sample was without foyer, where entry was to the living (28%) or dining (16%) or to both (12%). When foyer is not present the access to the domestic spaces are direct to Living and Dining or two both from the exterior. The presence of foyer creates ring among the spaces and gives choice in access which impacts greatly on the segregation of genders in the domestic space while entering. In some apartments these foyers are present but they do not create the ring and cannot provide choice in access.

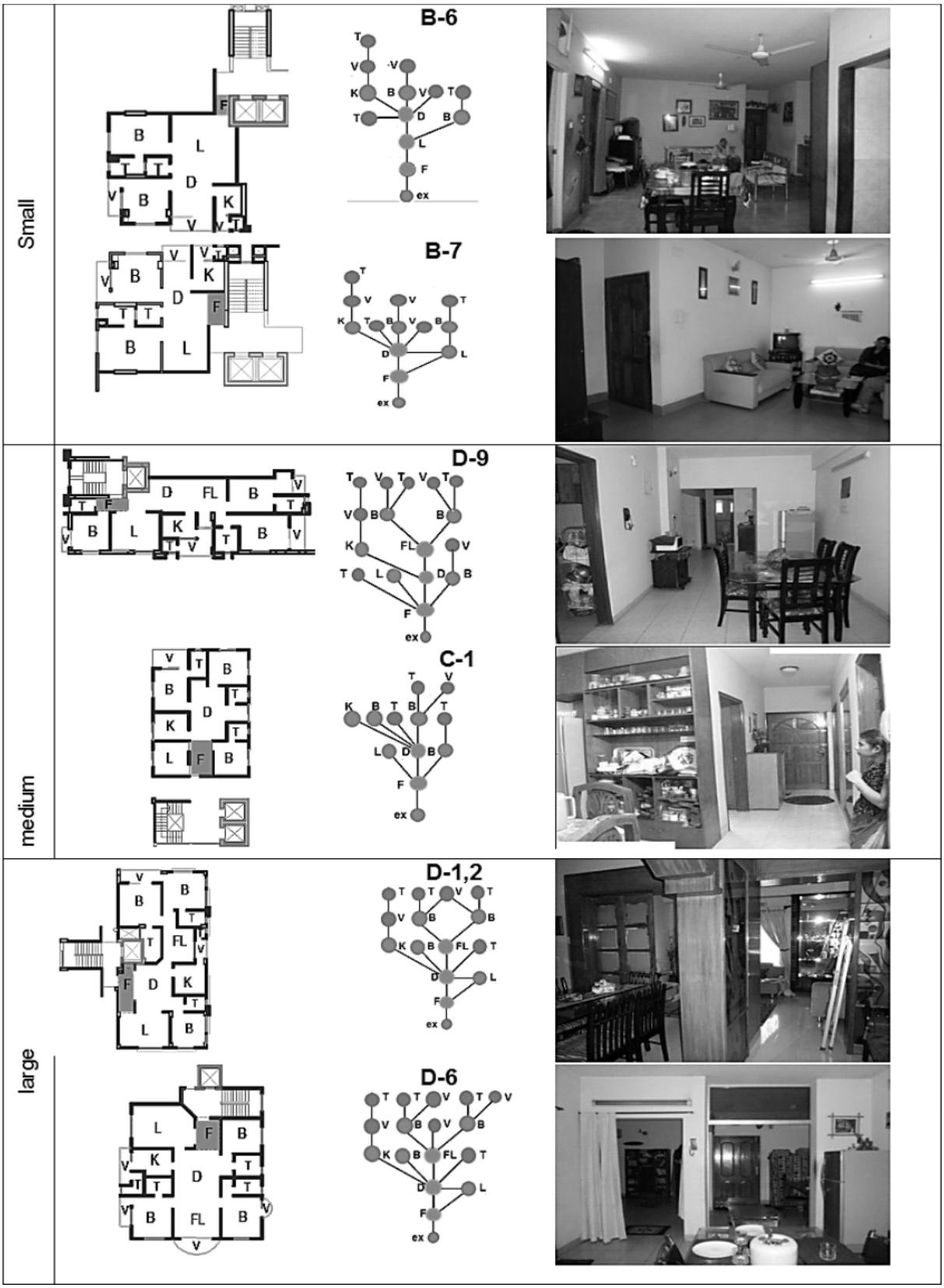
In the contemporary MIG apartments, transition space has become an important element as it impacts upon the symbolic aspects of the domestic space. The presence of the transition in the spatial organisation creates depth and choice of movement with ringyness and helps to segregate male and female gendered spaces. Analysing the depth of the studied apartments it is seen that:

- The male gendered spaces in the MIG apartments are located near the entry. The living which is considered as the location for visitors in the studied cases is located near to the entry at depth one or depth two.
- When a transition “Foyer” is added at the entrance space it creates a choice in access and brings the male gendered space at depth 02.
- The female gendered spaces are located at a deeper location far away from the entry.



Legend: L- Living, D - Dining, C - Circulation, B - Bed room, K - Kitchen, T - Toilet, V - Verandah

Figure 08: Entries directly to the living and dining [source: Gomes, 2014]



Legend: L- Living, D - Dining, C - Circulation, B - Bed room, K - Kitchen, T - Toilet, V - Verandah

Figure 09: Small, Medium and Larger apartments with Foyer [Source: Gomes, C. D., 2014]

Integration values of the different spaces of the studied apartments show that mean integration of different spaces follows a pattern:

- Shared spaces (Dining, Family living) and transition spaces (circulation and foyer) are highly integrated.
- Gendered spaces (Kitchen, Living, and Bedroom) are segregated in their configuration.
- Toilets, verandah those are terminal spaces are the most segregated spaces in the configuration.

Comparing the integration values of the different spaces in three types of configurations considering transition space, it was seen that when the transition is not present in the apartments the spaces in the spatial organisation have higher integration compared to the other two types.

- In the compact apartments where transition (foyer and circulation) is absent living, the male gendered space is less segregated than in the apartments with foyer and circulation. The presence of the transition creates depth and makes the male gendered space 'living' more segregated in the configuration.
- Transition reduces the integration of the shared spaces. Shared space dining acts as the node and the most integrated space in the configuration. It is less integrated into the configurations where circulation is present.
- Kitchen, the female gendered space, is a segregated space in all type of spatial organisation and presence of transition makes it more segregated in the configuration.

STATUS INFLUENCE ON SEGREGATION

Socio-economic status of women, as a social dimension, influences on house plans. Socio-economic changes bring consequent changes in the lifestyle and act as causes for changes in the symbolic dimensions and synchronize with the change in the spatial organisation. The social status of middle-income group women depends largely on their economic status in the urban context of Dhaka. In the case of studied urban houses of Dhaka, a development in the status of women is evident that can be interpreted by the change of educational status and women's participation in the economic activities. The female heads of the MIG families in this study are found to be educated and the majority of them having a higher education above graduate level (Gomes, 2014). This has an influence on the symbolic perception of women regarding segregation.

To check the impact of the status of the female heads regarding segregation responses of the economically active and economically non-active female heads are compared with the spatial findings. Preference of segregation with foyer is found to be relatively high in contemporary middle-income group female heads in Dhaka. From Table 2 it is seen that the respondents, those who have foyer at their entry point, are satisfied with the foyer of their apartment mostly regarding preserving segregation from visitor's area and family area in their house. In apartments where Foyer is not present and entry is to the living or dining directly the female heads expressed a desire to have separate entries so that the visitors cannot see the inner part of her house that is used mostly by female members of the house.

Table 02: Comparative study of the responses regarding segregation with Foyer

	Apartments with Foyer	**Apartments without Foyer**
Economically non-active	Satisfied with the foyer 75% Not Satisfied with the foyer size 25%	Needs Foyer 82%
Economically active	Satisfied with the foyer 50% Not Satisfied with the foyer size 50%	Needs Foyer 82%

In the domestic spatial organization of the MIG apartments kitchen is the most segregated space. A desire was seen in few female heads regarding open type kitchen to have better control from there. This issue needs further elaboration as it tends to generate a different type of domestic spatial organisation in the context of Dhaka.

CONCLUSION

The spatial organisation in the context of Dhaka has gone through a transformation and at present has resulted in a specific apartment type due to land scarcity along with other reasons. The price of the apartment has increased; still, researchers found that the need to live close to the work space and schools of their children are making the middle-income group families inclined towards owning an apartment in Dhaka (Begum, 2010; Zahur, 2007). Flats are made affordable to middle-income group by compromising the size and location of the apartments. Designer and developers are making adjustments with the cultural issues present in the middle-income families while making it compact to provide within the affordable limit to them.

Segregation between male and female members in the domestic space remained with some alterations in the contemporary MIG apartments due to compaction of spaces. Although their socio-economic status is raised from that of the traditional society still they seek for segregation from the male visitors. Due to change in the family composition, the interface between male and female family members has become reduced. But in terms of the visitors-inhabitants interface, this segregation is followed in a subtle way. Spatial organisations of the MIG apartments are becoming compact by reducing the transition spaces to minimize apartment area. Study findings support the fact that existence of the transition spaces at the entry of the house offers segregation of the female inhabitants from the visitors. The transition space –foyer- in the spatial organisation increases the depth and create ring among the male gendered space and shared spaces. Male gendered spaces in the MIG apartments are located near the entry and female gendered spaces are located at deeper depth away from the entry. With respect to segregation aspect foyer acts as a spatial component that creates depth to segregate the gendered spaces in the spatial organisation. This spatial component which is necessary for creating segregation in the Domestic spatial organisation is omitted in the compact apartments for space minimization. Using foyer at the entrance to segregate the visitors is one of the preferred options found in the contemporary apartments that has become effective and desirable from the female head's point of view. The female heads, those who have a foyer in their apartment acting as transition space to give choice in access, are satisfied with respect to segregation. When the apartment is too compact providing a satisfactory foyer is difficult. Yet in some small compact MIG apartment's foyer exist serving the need for segregating the visitors from the inhabitants. There is a demand in the present female users of these apartments regarding this spatial component foyer to maintain segregation in their domestic space. In the densely populated city, Dhaka, the developers are making the MIG apartments compact in order to bring the apartments within affordable range; while doing this they are negotiating with the socio-symbolic demands of the middle income group women. This need of segregation and maintaining privacy in the contemporary apartments should be given more emphasis while designing since it is the reflection of the lifestyle and need of the contemporary women living in the apartments in Dhaka.

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