

THE USERS' NEED FOR DIVERSE APARTMENT DWELLING UNIT PLANS

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In Korea, the apartment¹ has been considered one of the main housing types for only the past 35 years. Despite the harsh criticism focused on the physical qualities of apartments such as high-density, high rise, and standardized floor plan formation, apartments continue to grow in popularity. Need for effective land use and mass housing led to the early stages of apartment development. On the other hand, during the past three decades, Korea has experienced rapid economic growth and social and cultural changes. Apartment residents now have more housing needs and desires than before and want diverse housing plans to meet their diverse needs.

Since the 1980s, the Korean National Housing Corporation has pursued the quality improvement of apartment housing environments as well as the diversification of dwelling unit plans. Researchers have endeavored to find out apartment residents' housing needs. (Cho, S., 1994; Park, S., 1994; Huh, Y., 1997).

To reflect the diverse housing needs of residents in apartment dwelling unit plans, the household characteristics and needs must be systematically studies and understood from an economic point of view. A study which aims to investigate and analyze the residents' characteristics and preferences based on dwelling size is desirable, because urban Koreans generally consider their financial status to be the most important constraint when choosing housing, and therefore limited finances result in restricted dwelling size. Actually, apartment dwellings have been developed with little variation in floor plan according to dwelling size: they can be classified into a few groups (60m², 85m², 102m², 135m²).

¹ The concept of "apartment" is used in a somewhat different manner in Korea. Often, in the United States of America, "apartment" refers to "a set of rooms rented as a unit, usually in a multi-unit building" (Morris & Winter, 1978; p. 121). However, in Korea, apartments do not mean simple rental housing, but multi-unit dwellings with condominium ownership. In other words, each apartment unit in a multi-unit dwelling is purchased by individual households, and they retain title to their own apartments. Additionally, individuals hold areas such as elevators, hallways, or ground in undivided common ownership, and they are responsible for their own taxes (Yang, S., 1995; p. 22).

The purpose of this study is to define occupants' diverse housing needs. This is done by finding the residents' characteristics according to dwelling size, and by examining the relationships between occupants' satisfaction and preferences, and the size-based space organization.

For apartment housing research, post-occupancy evaluation (POE) is a systematic evaluation method used to find possible matches and mismatches between occupants' needs and the space organization of dwellings. Therefore, POE is the main method of this research. POE is a phase in the building process that follows the sequence of planning, programming, design, construction, and occupancy of a building. The term evaluation, contains a form of the word value, which is critical in the context of POE, since an evaluation has to state explicitly whose values are used in establishing evaluation criteria. To be a meaningful evaluation, the focus should be on the occupants' values or needs for their environment. These usually can be measured by satisfaction or preference for the surrounding environment.

First, commercials and brochures from housing construction companies relating to such things as dwelling size and types of space organization in dwelling units were analyzed to obtain information for this research.

Second, the structured questionnaire survey was carried out by trained assistant researchers and tenant representatives during August, 1997. Approximately 800 questionnaires were collected, 696 were used for analysis, and the rest were deleted due to missing information.

The following variables were included in the questionnaire: (1) satisfaction with room size; (2) number of rooms and space organization preferences; (3) space usage in dwellings; and (4) household characteristics (demographic variables: the number and age of family members; socio-economic variables: household income, educational background, and professional status of husband and wife). The data from the survey were analyzed by statistical procedures.

The major findings are:

1. The number of rooms and the space organization² of apartment dwellings are standardized according to dwelling size. Korean apartments tend

² The space organization has been analyzed using a technique which regards the dwelling as composed of a range of 'places'. These 'places' are meaningful segments of domestic space. The plan signified a set of categories such as individual areas (bedrooms), community areas (living room, dining room. And kitchen) and the access points between them. The number of rooms is the

to be organized such that larger dwellings have more rooms and more differentiation of space, so that one room can be assigned for each function.

2. The analysis of household characteristics revealed that among socio-economic variables, household income differed significantly by dwelling sizes, although other variables did not. Apart from socio-economic variables, all demographic variables showed significant differences among different dwelling sizes as well as within the same dwelling size. Thus, the important household characteristics to consider when creating various dwelling unit plans were identified as family life cycle, the number of family members, and household income.

3. Preference analysis interpreted in terms of behavior with regard to the satisfaction with space size for each room and the usage of bedrooms allows several patterns of dwelling models for each dwelling size: 2 or 3 bedrooms in 60m², 3 bedrooms in 85m², and 3 or 4 bedrooms in 102m² and 135m².

4. Space usage analysis showed that balcony space may be designed as an extended interior space for plants, lounging area, child's work or play areas, or storage rooms. The expression of preferences concerning the way extra rooms would be used revealed that they may be a child's work or play room, a study or hobby room, or a closet or storage room.

5. The preference in space organization for the living room (L), dining room (D), and kitchen (K) was revealed to the LDK³ in 2 bedrooms - 60m², the LDK and the united DK in 3 bedrooms - 60m² and 85m², and the LDK, the united DK, and the separated DK in 102m² and 135m².

In summary, the analysis of residents' satisfaction and preference regarding the number of rooms and the space organization of their dwelling unit showed that residents had diversified needs within the same dwelling size as well as among the different dwelling sizes. Therefore, it is necessary to diversify the number of bedrooms and types of space organization within a certain dwelling size, according to household characteristics and their needs.

number of separate rooms for individual areas excluding bathrooms, living, dining, kitchen, and balconies.

³ The types of space organization of the living room, dining room, and kitchen in this study are as follows:

- LDK: an open space type for living room, dining room, and kitchen;
- united DK: a type of differentiation of space assigning one room as a living room, separated from the LDK open space;
- separated DK: a type of differentiation of space for each function

References

Barbey, G. (1993), "Spatial Organization of the Domestic Interior: The Italian Home" in 'The Meaning and Use of Housing', edited by Arias, E. G., Avebury.

Cho, S., Huh, Y. (1994), "Post Occupancy Evaluation for the Design and Planning of Apartment Housing in Pusan", Journal of Korean Architectural Institute of Korea, 10(1).

Cho, S., Huh, Y. (1994), "A Behavioral Study for the Space Organization of Dwelling Unit for Apartment", Housing Research Journal, 5(2), pp. 141-148, Korean Housing Association.

Cho, S. (1994), "A Study on the Users' Housing Need for Dwelling Unit of Apartment", Journal of Korean Architectural Institute of Korea, 10(12).