

SPATIAL STRATEGIES FOR DOMESTIC SERVICE ACTIVITIES IN URBAN *KAMPUNG* HOUSES

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ABSTRACT

Domestic service activities as basic dwelling necessities are inevitably required and performed as essential part of living spaces in any house types. The spatial arrangement of domestic service activities might be problematic in dwellings with limited spatial size, as found in housings for low income occupants. This paper examines various spatial strategies for domestic service activities in urban *kampung* houses, through the development of a dwelling typology based on the spatial organization of domestic service space. It attempts to analyze urban *kampung* houses beyond the common differentiation of dwelling space in which domestic service spaces tend to be associated with the back of the house region. It also acknowledges the context of urban *kampung* housing with certain neighborhood social structure and collective uses of spaces. The findings suggest various spatial strategies in allocating domestic service activities within the available space, including the use of the front region of the house, the outdoor extension of house space, as well as collective uses of space for certain domestic service activities. Redefining the typology of houses based on the spatial arrangement of domestic service activities could provide an insight into specific characteristics of urban *kampung* living with specific spatiality for domestic service.

Keywords: Domestic service; House; Space; Strategies; Urban *kampung*

1. INTRODUCTION

Domestic service activities are part of the important elements of dwelling. They represent a primary supporting system that ensures the sustaining of domestic living, regardless of household size, structure, and socio-cultural background. In general, most houses serve similar basic living needs of cooking, eating, entertaining, bathing, sleeping, storage and others; however, throughout different historical periods and different cultures there are various ways in which the house spaces accommodate these activities (Hanson, 2003).

Dwelling space is generally arranged following a certain differentiation of space, such as back/front, clean/dirty, day/night, or public/private differentiation (Seo, 2005; Lawrence, 1982; Goffman, 1990). Back-front separation has become the most common way of spatial arrangement of the houses, where the service spaces are located at the back, separated from the front part of the house that is 'being served'. In the real everyday life, we observe this in the positioning of kitchen, laundry room, servant's cluster, and other service functions at the back of the houses. However, spatial arrangement of domestic service activities might be problematic in dwellings with limited spatial size, as found in housing for low income occupants. Such common spatial differentiation becomes no longer relevant, as there are no

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‘back’ or ‘front’ spaces, with various activities mixed and overlapping one another.

This study will examine the spatial arrangement of domestic service spaces in urban *kampung*s in Indonesia, as the settings of living for a large number of underprivileged groups of people. Many urban *kampung*s in Indonesia are characterized by a large number of rental house units (Hidayah & Shigemura, 2005), occupied by low income workers which could only afford to rent small dwelling units. It becomes necessary to understand the occupants’ capabilities to appropriate the available house spaces for their needs. In addition, the urban *kampung* neighborhood is also characterized by strong social relations, which represent a public realm at a small scale (Harjoko, 2009), with certain social rules determining the social association among the residents. Such social structure might produce certain spatiality that is unique in the urban *kampung* context.

Various analytical studies on dwelling spaces have been conducted in order to comprehend the typology of spatial arrangement of house spaces in different contexts, including the urban *kampung* houses (Funo et al, 2002; Hidayah & Shigemura, 2005). A study on the typology is basically “the study of types of elements that cannot be further reduced” (Rossi, 1982, p. 41). The reduction becomes necessary in order to reveal the most essential aspects, which then could lead to certain classification. Very often the studies of dwelling typology tend to categorize the houses with particular emphasis on the number of rooms and the labels of rooms, rather than acknowledging how the activities are performed in everyday practice. However, the understanding of activities should be of primary concern in studying houses (Seo, 2005; Rapoport, 1990). There is also a need to acknowledge the complexity of the everyday activities, although they seem to appear to be routine, familiar and ordinary (Berke, 1997). They involve various activities that could not be reduced into such general labels of ‘service activities’ or labels of ‘kitchen’ or ‘laundry’ that often represent domestic service spaces. Every single domestic service activity, just as other activities, involves complexities in terms of how they are carried out, how they are associated with other activities and combined into activity systems, and what meaning these bear (Rapoport, 1990). Any attempt to understand the spatiality of domestic service activities would require a comprehension on the details of how the activities are performed.

Analytical studies of dwelling spaces should consider a house not merely as a collection of activities or rooms, but as a pattern of spaces, their connections and sequences, as well as how the activities might be combined or separated (Hanson, 2003). Such analysis could reveal the spatial domestic strategies which cannot be separated from their social and cultural contexts. Activities in the houses are organized in space as well as in time (Rapoport, 1990); it is necessary to study not only the spatial distribution of activities but also how the activities are performed throughout time. In particular, consideration of the time dimension becomes crucial in the studies of urban *kampung* houses since the limitation of space might often generate certain strategies of ‘temporal space’, by superimposing different activities into a single space (Wongphyat, 2009). It is necessary to examine how the available spaces could accommodate a variety of domestic service activities.

The objective of this study was to identify various spatial strategies for domestic service activities, through the development of a spatial typology of urban *kampung* houses based on domestic service space. By developing this kind of typology, the study of dwelling space could go beyond the mere categorization of activity space; it recognizes the everyday practice of domestic service activities and how they are contained within spaces as well as the performance of activities in everyday practice.

2. METHODOLOGY

The study was conducted in a neighborhood unit of urban *kampung* in Kelurahan Semper Barat, Kecamatan Cilincing, North Jakarta. The area was in one of the poverty pockets in Jakarta, where the majority of the residents are tenants occupying rental housing units. The neighborhood consists of blocks of small-sized houses, with small alleys as the main circulation space between the houses. Forty house units located throughout the neighborhood were chosen as the samples for the study, to represent a range of the spatial arrangement of the houses. Twenty houses were located in RW 04, and another 20 houses were located in RW 12. From these 40 samples, 24 are rental units and 16 are occupant-owned units.



Figure 1 Semper Barat Neighborhood (RW 04 and RW 12)

The data were obtained through the observation of the physical environment of each dwelling unit, including the recording of house spaces and their functional uses in everyday living. The observation was complemented by interviews with the occupants to reveal the spatial issues and spatial strategies practiced by the occupants. The analysis was conducted by classifying the houses units into categories based on the general spatial organization of the dwelling and by examining the strategies of allocating the domestic service activities within the available spaces. The analysis was primarily to identify the everyday spatial strategies regardless of the number of occupants and the house sizes. The emergence of strategies in relation to the spatial organization of domestic service activities becomes the focus of the study.

3. RESULTS

3.1. General Spatial Organization of the Houses

Based on their general spatial organization, the houses in Semper Barat neighborhood could be classified into four distinctive categories: one-room, two-room, multiple-room and compound types, as described below.

One-room houses are the house units that consist of only one room, which only fulfill the very basic needs of the occupants for sleeping and resting. Two-room houses are basically similar to one-room types, with the space divided into two rooms instead of only one. The second room might be allocated for different functions in different houses. It could function as a space for sleeping or as a service space. Both one-room and two-room houses are rental units. The owners of these types of house units usually own several units that are located next to one another. In these two types, there are no sanitary facilities, and the occupants use the communal bathroom provided as the public facilities for the whole neighborhood. An exception is found in some two-room houses in which the second room functions as a bathroom. From the housing samples studied, the size of one-room houses ranges from 4 to 9 m² and the houses are occupied by 1-2 people, while two-room houses have sizes ranging from 9 to 21 m² that are occupied by 1-4 people.

Multiple-room houses consist of three or more rooms, and there are many variations within this type. The most common form consists of four rooms: a front room, a room in the middle or

back of the house, a kitchen and a bathroom. Variations were found in terms of the number of the rooms and how these rooms are used for various living functions. Variations also exist in terms of the number of storeys: one-storey and two-storey houses. Compared to the two previous types of house units, houses that belong to this type have their own private bathroom/toilet and thus the occupants do not need to use the communal sanitary facilities. A kitchen is usually provided near or next to the bathroom. Both the kitchen and the bathroom are usually located at the back of the house. This type might be either owner-occupied houses or rental houses with various sizes and are occupied by 2-6 people.

A compound house is basically a collection of a number of dwelling units that form a compound with certain functions provided as collective facilities. Usually the collective facilities consist of the bathroom and spaces for service that are used for the occupants of the compound only. These collective facilities are different from the common facilities that could be used by anyone in the neighborhood. Inside the compound dwelling the house units are usually one-room or two-room houses.

Figure 2 illustrates the four types of general spatial organizations that are commonly found in urban *kampung* houses, with some variations that exist within each type. It also illustrates another categorization in relation to how the everyday practices of domestic service are accommodated within the spaces. In terms of the provision of service space, the house units could be categorized into the following groups: house units with no provision for service space at all (one-room type or two-room type with a second room as a bedroom), house units with provision of some service space (a two-room type with bathroom) and house units with provision of service spaces for most service activities, either provided in each individual unit (multiple-room type) or provided collectively for several units as shared spaces (compound type).

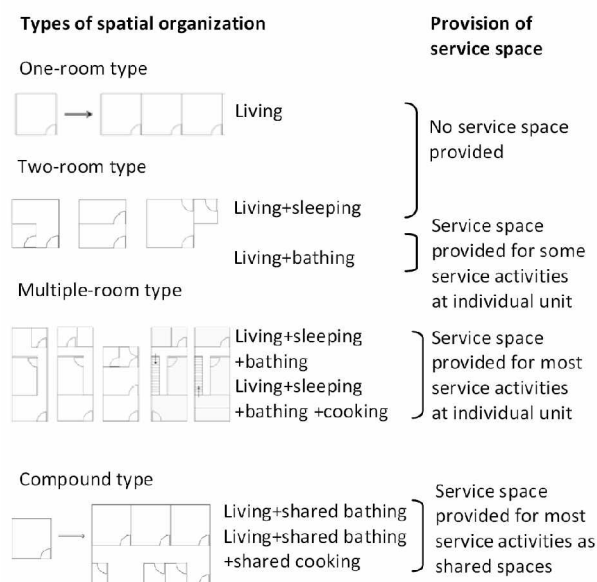


Figure 2 Different types of house spatial organization

3.2. Domestic Service Spatial Organization

The following analysis will illustrate further various possibilities of the utilization of the spaces for domestic service activities in different types of houses. In general there are five types of domestic service activities included in this analysis: cooking, dishwashing, clothes washing, clothes drying, and bathing. General storage is considered as an integral part of living space,

however, when there is an allocation for storage for a relatively large number of items in specific space, it is also considered as a part of the domestic service space.

3.2.1. Domestic service spaces in one-room houses

Since this house type only consists of one room, there are basically no provisions for service activities. To accommodate the needs for domestic service in the available space, there are generally two strategies employed by the occupants. The first one is by utilizing the outdoor space in front of the house for various domestic service activities, while the indoor space is reserved for sleeping or resting. The second one is by conducting certain domestic service activities inside the dwelling unit and certain activities in front of the house. For common domestic activities, cooking is conducted inside the house while the outdoor terrace in front of the house becomes a space for drying clothes. Washing could be conducted either in the outdoor space or in the communal bathroom, as these activities are highly dependent on the availability of a water source. Often the occupants conduct washing activities around the time when they are bathing in the communal bathroom.

The use of outdoor space in front of the house becomes prominent in this type of house in which the available space is very limited. It becomes the only available space for the outdoor service space, sometimes it is the terrace, but most often times it is the alleyway that actually functions as a circulation space for the public. Houses at the end of the row have a benefit of extra outdoor space at the side of the unit which could be utilized for service activities. The extent to which the outdoor space is used for service activities also seems to be related to the number of occupants. A house, with only one or two occupants, tends to use the indoor space for service, while the house with more occupants will need more space inside for living and the occupants tend to conduct more service activities outside and use more outdoor space. In certain cases, there are also possibilities for sharing the space in front of the house that will be utilized together. For example, the space in front a unit might also be used by the occupants of the nearby unit for their service activities.

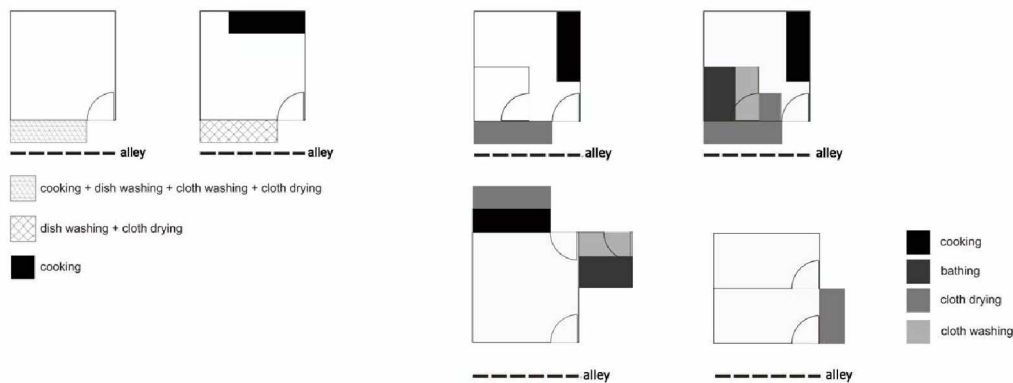


Figure 3 Domestic service spaces in one-room and two-room houses

3.2.2. Domestic service spaces in two-room houses

There are two different types of spatial arrangements found in two-room houses in terms of the availability of service space. The first type is the two-room house where the second room functions for other activities (usually sleeping or working), exclusive of service activities. This type is basically similar to the one-room houses which have no provision for service activity spaces at all with similar strategies (see 3.2.1). The second type is the two-room house where the second room functions as a service space (usually the bathroom), however, the spaces for other service activities are not yet available. In this type, the occupants employ the strategies of utilizing the bathroom for clothes washing, while cooking and drying clothes could be conducted either inside the house or outside the house. While conducted inside the house, these

activities utilize the main living space, alongside other living functions in that space. Similar to what happens in one-room houses, the outdoor space plays an important role to fulfill the needs of various service activities. The outdoor space in this two-room type might be found in front of the house, at the back of the house (for units that are not located back-to-back) as well as beside the house (for the corner unit).

3.2.3. Domestic service spaces in multiple-room houses

Multiple-room houses are the type with the most complete provision of living space. Although there are many variations within this type, in terms of the spatial organization of service activities there are certain patterns that could be identified. In general the occupants maximize the use of indoor space provided for service activities. Almost all service activities are conducted inside the house, usually at the kitchen and bathroom space at the back part of the house. The service activities that are occasionally appear outside the house are clothes drying and clothes washing. The clothes drying area is sometimes allocated on the house terrace either in front, at the side or at the back of the house, or on the balcony in the case of two-storey houses. Meanwhile, clothes washing could be conducted either inside the bathroom, in spaces around the bathroom or in outdoor spaces near the clothes drying areas. Often the clothes washing is conducted in the same space as dishwashing, as these two activities both require water. Cooking and dishwashing are usually conducted in the kitchen space provided inside the house.

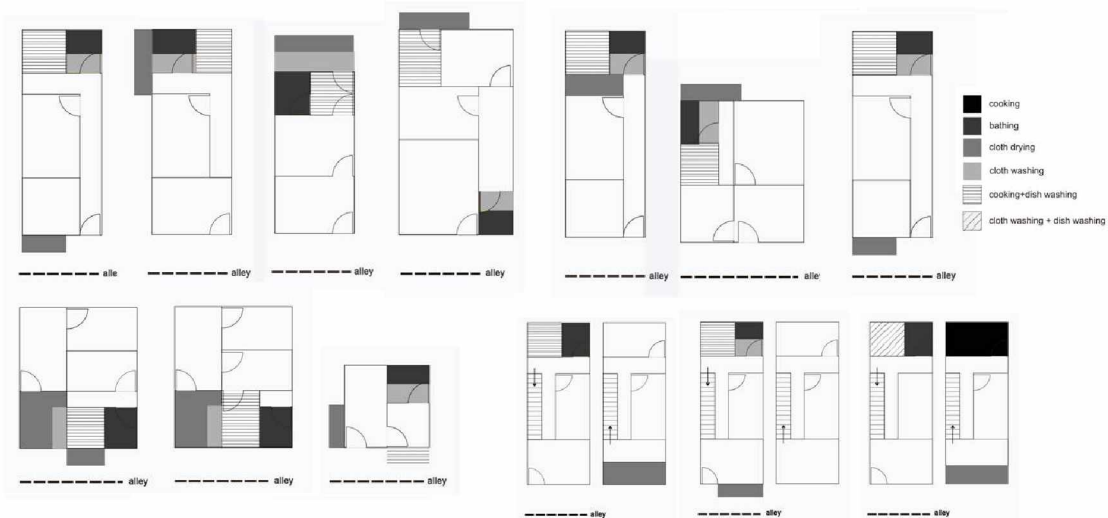


Figure 4 Domestic service spaces in multiple-room houses

Compared to what happens in one-room and two-room dwellings, the use of outdoor space in front of the house is less evident in the multiple-room dwellings. This might be due to the adequate space inside the house for service activities as well as the presence of outdoor space at the back of the house. Therefore, the occupants could have a choice to allocate the service activities in the space located at the back of the house, hidden from the public view. This is particularly true in houses where the front room is utilized as the guest room or for certain entrepreneurial activities. When service activities are conducted in front of part of the house, usually this happens on the second storey. The sharing of space for service activities, as commonly happens in one-room houses, is not present in this house type.

3.2.4. Domestic service spaces in compound houses

There are two different types of compound houses. The first one consists of one-room house units with no provision for service space inside the individual units and the second one consists

of multiple-room house units with some service spaces provided inside the individual units, although this type is rare. In general the owners of the compound houses provide collective spaces that could be shared by the occupants for various service activities. The collective space is located in the part of the compound which could be accessed by each individual unit.

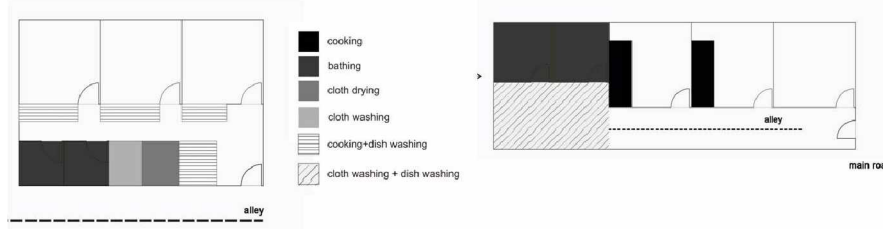


Figure 5 Domestic service spaces in compound houses

In houses found in compounds in this study, the collective spaces consist of shared bathroom units and the multi-purpose space used for dishwashing, clothes washing and clothes drying. In the case where the individual house units have a kitchen, dishwashing is conducted in the kitchen, while in the one-room units, it is performed in the spaces in front of the bathroom, close to the source of water. For cooking activities, the multiple-room units tend to perform these activities in the kitchen provided in each unit. Meanwhile in the compound house consisting of one-room units, cooking activities might be performed inside the individual units or in the shared space. This strategy is similar to that in the one-room house type; however, the space outside the units does not belong to the public space but falls within the shared territory that is only accessible to the occupants of the compound, not to the public.

4. DISCUSSION

The above analysis of different types of the houses suggested some strategies of utilizing the limited spaces that are available within the house. The following discussion includes some important findings regarding the spatial strategies of accommodating domestic service activities in different types of urban *kampung* houses.

4.1. The use of the 'front zone' as service space

The findings suggest that the common back-front spatial differentiation that tends to allocate service activities at the back of the house do not apply in urban *kampung* houses in this study. This is particularly true in the context of one-room house types with very limited space. The utilization of the space in front of the house means the service space is located in the front zone, with the service activities exposed to the public and not hidden as commonly expected. When space allows, however, certain attempts to 'hide' the service space were performed, by locating the activities at the back terrace of the house, or on the outdoor space at the second storey of the house that is not directly accessible to the front part of the house. The findings suggest that the domestic service activities are not always associated with the back part of the house, but they may occupy the front zone as well.

4.2. The use of outdoor space as service space

The findings also challenge the notion of service space beyond the predefined organization of the space. In most cases of the houses found in this study, it is clear that the variety of service activities performed by the occupants require much more space than commonly provided. Even in the multiple-room dwellings that already provide for a kitchen and a bathroom, certain service activities are still performed outside the dwellings, utilizing the terrace or the street in front of the house. The use of outdoor space is more prominent in one-room and two-room dwellings, in which outdoor space caters for different activities, from cooking and dishwashing to clothes washing and clothes drying.

Some activities are highly relevant to being located in the outdoor space, such as clothes drying. However, the allocation of certain activities to outdoor spaces might be problematic, especially for those requiring many props. For example, cooking activities performed outside require cooking items to be organized outside the house too. This often results in the piling up of domestic service items, taking up spaces that are actually for use by other people too. On the other hand, the allocation of service activities outside the house also allows possibilities for sharing the space for the occupants from different house units, as will be discussed below.

4.3. Collective strategies for service activities

The findings also illustrate that the service activities could be organized beyond individual house spaces. It is possible to share the use of space among different house units. This could be seen in the practice of sharing the same space for bathing, clothes washing, clothes drying and cooking. The use of shared space could be conducted at different times through the alternate use of space, either for the same kind of activity or for different kinds of activities.

For example, collective space in front of the shared bathroom in compound houses could be used for clothes washing and then later on used for clothes drying when not used by anybody else. Another example is the use of space in front of a one-room unit for cooking, which is shared by the rental occupant with her daughter-in-law that occupies another rental unit nearby. They use the space for cooking alternately, only using it when it is not being used by others. However, in the case of compound houses, the occupants, who work as food vendors, usually use the space together for preparing different types of food; however, there is a clear agreement on the spaces used to cook and to store the cooking-related items. These examples illustrate the strategies to organize service activities not only in space, but also in time.

4.4. Specific practices of different service activities

Very often the description on the spatial organization of the house spaces simplify the service activities under one label 'service space' or 'service area'. This labeling assumes that all service activities share similar characteristics as supporting activities, usually located at the back part of the house. In fact, by scrutinizing the allocation of different service activities in different spaces, we could identify how certain service activities might be different from others in terms of spatial requirements and characteristics. Each service activities might be considered specific and therefore have different space requirements. Clothes washing, dishwashing and bathing are all dependent on a water source, although bathing requires more privacy than other activities. Clothes drying require spaces with access to open air and sunlight. Cooking is a complicated activity which involves different actions and various items, depending on the types of food prepared. Those different requirements of space become problematic when the space is limited.

This study found that the spatial strategies in urban *kampung* houses were performed not only by combining different activities into a single space, but also by distributing those activities in different parts of the house spaces that could accommodate the specific requirements. In this way, the choice of whether to allocate the space inside or outside the house, and to combine or to separate activities should be seen as strategies to deal with different requirements of different service activities. Another difference between activities is to the extent in which an activity could be performed in an individual space or in shared space. In general we consider bathing as the most personal activity compared to other activities. However, it is interesting to find that in the practice of space sharing, the occupants share bathing space, but maintain individual cooking space. This suggests that bathing and cooking might be considered 'personal' in different ways. Bathing is personal in terms of the need for privacy to perform this activity

away from other people's view but the way to perform the activities is common and therefore a single space may cater for different individuals. Meanwhile cooking is personal in terms of the different ways of cooking among different individuals. The occupants tend to keep an individual space for cooking, either inside or outside the house, regardless of whether it is a large or small space. This finding illustrates the need to consider carefully how shared spaces could be appropriately allocated for certain activities, but not for others.

5. CONCLUSION

The findings of this study illustrate certain spatial strategies in accommodating the needs for various domestic service activities in available house spaces. These findings challenge some common understanding of domestic service spaces. First, the front region of the house might become a setting for domestic service activities, as opposed to the common tendency to allocate the service activities at the back of the house region. Second, the outdoor space plays an important role as the extension of indoor space of the houses to accommodate certain domestic service activities. Third, domestic service activities could be accommodated through collective spatial strategies. However, there is a need to acknowledge that collective strategies of space sharing might be suitable for certain activities, but not for others.

The findings above may have some implications in the spatial design of housing, especially small house units for low income groups. The design of the house units should not focus only on the provision of the indoor space, but also to consider the potential of outdoor space as an extended space for service activities. There is also an issue in determining the orientation of the house units, which often results in the existence of back and front regions of the house. The findings of this study suggest the need to anticipate the possible use of the house spaces for service activities, not only the spaces at the back, but also spaces in the front region. This would lead to the irrelevant separation of the back-front region for small house units. In designing shared spaces and allocating different activities, it is important not to assume that all service activities could be conducted in shared spaces. Different ways and personal preferences in performing domestic service activities might result in the need for separated spaces.

This study was a preliminary exploration on how different domestic service activities could be accommodated in houses with limited space. It has identified general patterns on the domestic service space and generated a spatial typology that is primarily based on the spatial strategies in organizing domestic service activities. It would be necessary to expand the study for further examination of the specific ways of performing service activities, which may vary across different cultures, habitual routines and personal preferences. These might lead to more detailed understandings of spatial strategies for domestic service activities in different contexts.

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