

## **A PHENOMENOLOGICAL STUDY OF THE SUNGAI BULOH LEPROSARIUM HERITAGE DWELLING**

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### **Abstract**

The Sungai Buloh Leprosarium is known for its self-sustaining human settlement model for leprosy patients. This study focuses on the dwelling of leprosy patients from a space phenomenology perspective. It adopts spatial analysis and Interpretive Phenomenological Analysis (IPA) to examine the effects of architectural features and spatial attributes of the "cottage," a timber-built heritage dwelling, on the spatial cognition and experience of the dwellers. Five dwellers who live in the cottage as their permanent residence were selected through purposive homogeneous sampling and interviewed to understand their spatial behaviour based on spatial organisation, hierarchy, and perceived significance. Three themes of spatial experience are derived: nostalgic space, solitude space and social space. Dwellers perceived spatial meanings involve the dialectic dimensions of physical and emotive aspects. The findings reveal that the cottage's open space feature allows for a flexible spatial configuration, natural ventilation, and social interaction. Each dweller developed their spatial meanings and space hierarchy based on activity preferences. The cottage was not only designed to meet the personal needs of the leprosy patients, but it also promoted social interaction between the different households. The study suggests that the humane architectural design of the heritage dwelling positively impacts the patients' spatial experience and embodies significant human values in leprosy treatment history in Malaysia.

Keywords: Heritage dwelling, Leprosarium, Phenomenology,

## **1. Introduction**

Leprosy is a contagious disease caused by the *Mycobacterium Leprae* bacteria, and mandatory isolation was commonly used to prevent its spread. Leprosaria were built as leprosy asylums to isolate the leprosy patients from the mass public. However, strict isolation was implemented with little regard for the basic human rights of leprosy patients. The 1874 formation of the 'Mission to Lepers' advocated for a humane isolation policy in response to the inhumane treatment of leprosy patients. The disease was first documented in British Malaya in the late 19th century and rapidly became a public health concern. The colonial government and medical experts attempted to resolve the problem through various interventions, including isolating patients in leprosy settlements and conducting public health campaigns to raise awareness about the disease. The Sungai Buloh Leprosarium, also referred to as the National Leprosy Control Centre (NLCC), is well known for its humane isolation approach in its settlement design during the 1930s. It features a self-sustainable model of the human settlement living heritage, fulfilling the needs for leprosy patients' social and health well-being.

Lim [1] asserted that the settlement planning of the Sungai Buloh Leprosarium was based on the Garden City concept that gained attention during the 20th century. The core principle of Garden City planning lies in integrating open spaces, residences, and agricultural land surrounding towns. The influence of the Garden City movement in the British urban planning approach has resulted in a similar settlement pattern to the Sungai Buloh Leprosarium. The development of social welfare, public health, and urban planning occurred in the 1920s due to attempts to rebuild society following World War One. The development of leprosy institutions was also influenced by nationalist movements and political beliefs [1]. Charles Reade formed the Town Planning Department in 1924 and sought to implement the Garden City approach in Malaya [2]. The Garden City movement influenced the leper settlement at Sungai Buloh, and its planning was directly overseen by Reade and Dr Ernest Travers (an advocate of leprosaria management and planning reforms), who were followers of the movement.

The Garden City planning corresponds to the humane segregation method where three characteristics are highlighted: (1) natural and pleasant surroundings, (2) human-scaled and intimate space, and (3) organic arrangement [3]. They depict the village setting that offers desirable conditions that would benefit the physical and psychological needs of the patients [4]. The 'natural and fair atmosphere' of the Sungai Buloh Leprosarium settlement also represents an external social environment that allows the patients to feel at home [5].

### **1.1. The architecture of the heritage dwellings**

The leprosarium settlement began with the establishment of the Eastern Section in 1930, depicting the idea of Garden City planning. The Western Section settlement was completed in 1934 to accommodate the decrepit dwellers. The Central Section was established in the year 1937. It includes two heritage dwellings known as the "cottage"; one was built with timber, and another with pre-cast concrete blocks. This study focuses on cottage no.508, a representative timber-built typology that features a simple spatial configuration and façade (as shown in Fig. 1). According to Lim, the simplicity of its architectural expression was primarily influenced by functionalism, which emphasised utility and reflected the setting of a medical institution offering refuge [1].

The cottages were designed with pitched roofs with long overhangs in response to the hot and wet climate. Many window openings were provided to allow good ventilation- an essential condition for the healthy living of leprosy patients. The cottages were arranged in a linear manner facing each other. This created a visual connection to the surrounding environment that encourages social interaction, keeping the dwellers in contact with each other rather than staying in isolation.



**Fig. 1. The timber heritage dwellings (cottage no.508 is located in the middle).**

## 1.2. Heritage significance

The mass public has gradually forgotten the Sungai Buloh Leprosarium following the decrease in the prevalence of leprosy in the country after 1969. The demolition of a few heritage dwellings in the Eastern section due to development shocked the public in 2007. The demolition was seen as an attempt to destroy the only home of leper dwellers who had lived there their entire lives, undermining the leprosy settlement's heritage values. This has accentuated the urgency for scholarly studies of the heritage settlement and an effective conservation plan to preserve its significant heritage values.

A plan to nominate the heritage settlement for UNESCO World Heritage Site listing was initiated and undertaken by the Sungai Buloh Settlement Heritage Committee, the National Heritage Department, and the Selangor State Government. In 2019, the Sungai Buloh Leprosarium was successfully included in the UNESCO World Heritage Centre's Tentative List based on the heritage settlement's outstanding universal values where specific selection criteria are displayed [6]. Undoubtedly, the Sungai Buloh Leprosarium's embedded heritage values justify the scholarly study's significance in its multiple facets. This paper focuses on the phenomenological investigation of the heritage dwelling to understand its dwellers' lived experience from a spatial perspective.

## 2. The home: Dwelling and space from a phenomenological view

Phenomenology offers an approach to understanding consciousness in how the things in this world appear to us [7], leading to the recognition of human existence as an embodied being with embedded social and cultural attributes [8]. It concerns the dimensions of temporality and spatiality in understanding the lived experience where meanings of human existence are derived from [9]. This paper focuses on the scope of spatiality, which extends into the experiential realm of the home. The term "home" does not solely mean a "place to stay" but is perceived as the primary manifestation of a human's lived experience and interaction with reality.

This paper proposes that the home encompasses two key components- dwelling and space. Dwelling, in this sense, is described by Heidegger as the natural characteristic of humans: to become human is to dwell, to have a place in the world [10]. In other words, dwelling appears as the condition to become human and to deny dwelling is to alienate humans from who we are.

The true sense of dwelling, according to Bollnow, requires threefold conditions: (1) establishing oneself in a particular place in space by creating a personal space of security, (2) elimination of isolation in one's inner space through inclusivity of the exterior and interior spaces, and (3) entrusting oneself to the greater totality of space [11]. The action of dwelling requires a site, or what Bollnow suggests as a fixed place or fixed point, denoting the spatial concept that allows humans to be rooted in where they belong [11]. Bollnow further elucidated the significance of the fixed point: "... man must ground himself at this point; to some extent, he must dig his claws into it, to assert himself against the onslaught of the world which may dislodge him again from this place." He also suggested that this space is where humans may "retire and relax the constant alert attention to possible threats" [11].

Drawing from Bollnow's theory, a dwelling contains three elements: firstly, attributes of rootedness; secondly, the sense of security and thirdly, the disposition of the dialectical relationship in the spatial construction. It is crucial to consider the dwelling conditions for the development of human life where the home was seen beyond the physical and geometrical entities but also encompasses the intangible aspects constituting the meaning created from dwelling.

In the phenomenological sense, the home offers a dwelling to fulfil human existence and being in the world through the spatial experience that exhibits rootedness and a sense of security in its spatial construction, where it accommodates human activities that build, grow and nurture things [10].

## **2.1. The home as the lived space of the Leprosy patients**

In healthcare, this study focused on how the home is relevant and vital to leprosy patients. In general, a patient may be in a space with specific settings for treatment purposes. There may be certain restrictions to what a patient may do within the confinement of that space. The leprosy patients, however, may suffer more in terms of spatial confinement, segregation, and isolation. The spatial experience of the patients is different from that of being at home and subsequently affects their well-being.

The effect of patient isolation is of great concern in scholarly studies. Eqylan et al.'s [12] study revealed that isolation might overwhelm patients' physical, emotional, social, and spiritual health. Biagioli et al.'s [13] study suggested that protective isolation contributes to patients' suffering from psychosocial distress. Isolation for disease control may be necessary, but this may also negatively affect patient care [14]. The reported adverse effects of the isolation for disease control on patients require attention towards a more humane approach to treatment. Therefore, the spatial experience of the patients should not be undermined and must be recognised as a crucial factor in their healthcare [15, 16].

The study by Norlyk et al. [17] reported that a healthcare institution's institutional structures and cultural and social conventions might give the patients an unfamiliar dimension to the experienced space. The patients' home contrasts this as the space provides a sense of belongingness, tranquillity, and close personal

relationships. Their findings highlighted how the lived space containing both physical and existential aspects affected patients' well-being.

The lived experience of leprosy patients may be associated with the spatial experience where they receive treatment. In contrast with the institutional segregation of patients, the humane segregation approach in designing the leprosarium displays the open-space natural village setting, which eventually becomes a community-driven settlement [3, 4, 18]. This resembles the home mentioned above, providing dwelling and the spatial experience for a sense of rootedness and security, as well as accommodating the self-sustenance economic activities of the leprosy patients.

As most studies about leprosy patients' lived experiences concern their socioeconomic and community relationships [19-21], there are limited studies on leprosy patients' lived experiences from the perspective of spatial experience.

The leprosy patients' lived experience of the home may be examined in two layers: (1) the macro layer of the settlement patterns and organisation and (2) the microlayer of the individual dweller's spatial experience. Whilst many studies have focused on the settlement planning aspects [3, 5, 18], this study takes a different approach to study the dwelling of leprosy dwellers from the perspective of the phenomenology of space. The spatial experience of leprosy patients residing in the heritage dwellings at the Sungai Buloh Leprosarium is a necessary but understudied aspect of the humane segregation strategy adopted in the settlement's planning. Understanding their experience is vital for learning how the planning of the settlement fulfilled the dwellers' needs for crucial human development.

This study investigated the architectural features and spatial attributes of the timber-built heritage dwelling to understand its effects on the spatial cognition and experience of the leper dwellers to answer the following research questions: (1) how do the inhabited spaces accommodate the dwellers' social and cultural activities? (2) how do the dwellers develop spatial cognition of the inhabited spaces? (3) what are the meanings perceived of the inhabited spaces?

### **3. Methods**

The study involved two key aspects: (1) spatial cognition and experience of the leper dwellers, and (2) their correlation to the heritage dwelling spatial attributes. Cottage no. 508 was selected as the representative typology of the leprosarium heritage dwelling. The study employed spatial analysis to study the significant features of the inhabited spaces to accommodate the dwellers' social and cultural activities. Its physical and spatial attributes were documented through measured drawing, providing data for the subsequent spatial analysis. This method identifies the spatial functions supporting the dwellers' living experience.

The dwellers' living experience was investigated using a phenomenological approach as it evaluates the person-environment relationship based on its complex and multi-dimensional structure [22]. The study adopted the Interpretive Phenomenological Analysis (IPA) to analyse the leper residents' dwelling experience. IPA studies a person's lived experiences and the corresponding meaning of experiencing a specific phenomenon [23-25]. It concerns the significance of personal experience and attempting to make sense of its corresponding meaning [26].

Purposive homogenous sampling was used to identify five dwellers who occupied the timber-built cottage as their permanent residence and agreed to participate in the interview. There was no set sample size for IPA as organisational limits, level of case study analysis and reporting, and richness of individual cases determine it. IPA prioritises quality over quantity, aiming for a detailed account of individual experience. A small number of cases was preferred to enable meaningful participant comparisons [24].

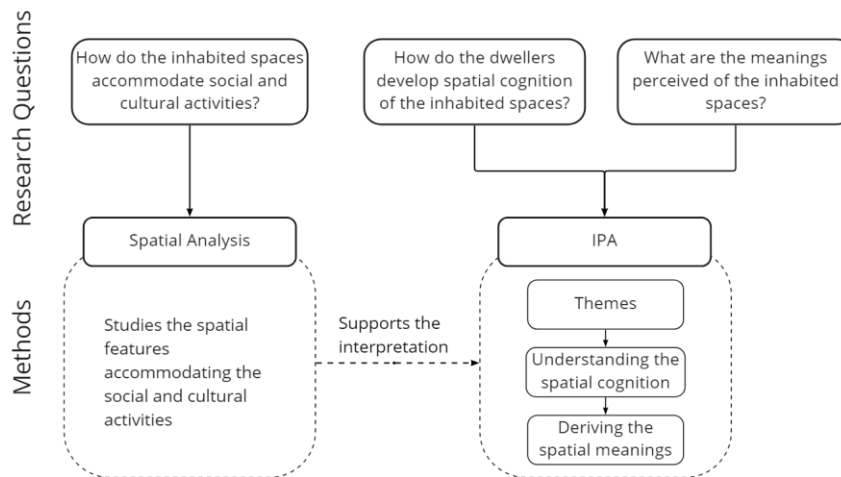
This method derives the themes on how the dwellers interact with their inhabited space, revealing their spatial cognition (how the spaces are recognised in terms of organisation, functions, and hierarchy) and the perceived spatial meanings (how the spaces are associated with a specific functional or emotional attachment).

Existing dwellers were interviewed to understand their spatial behaviours in relation to the research questions, which were established around the themes of (1) dwellers' spatial organisation, (2) dwellers' spatial hierarchy, and (3) dwellers' perceived spatial significance (as shown in Table 1).

**Table 1. Interview questions.**

<b>Dweller's Spatial Organisation</b>	<b>Dweller's Spatial Hierarchy</b>	<b>Dwellers' Perceived Spatial Meaning</b>
How do you organise the living area/ sleep area/ dining area?	Where do you spend most of your time in the house?	What does the space mean to you?
Why do you place the bed/ dining table/ armchair here?	Why do you like to spend time in this particular space?	In what sense does this space show significance to you?
What do you do on the porch?	Where do you spend most of your time in the house?	What does the space mean to you?

The interview transcript was analysed to identify the emerging themes. Based on these themes, features of the inhabited spaces derived from the spatial analysis were used to interpret the perceived meanings of the inhabited spaces, as illustrated in Fig. 2.



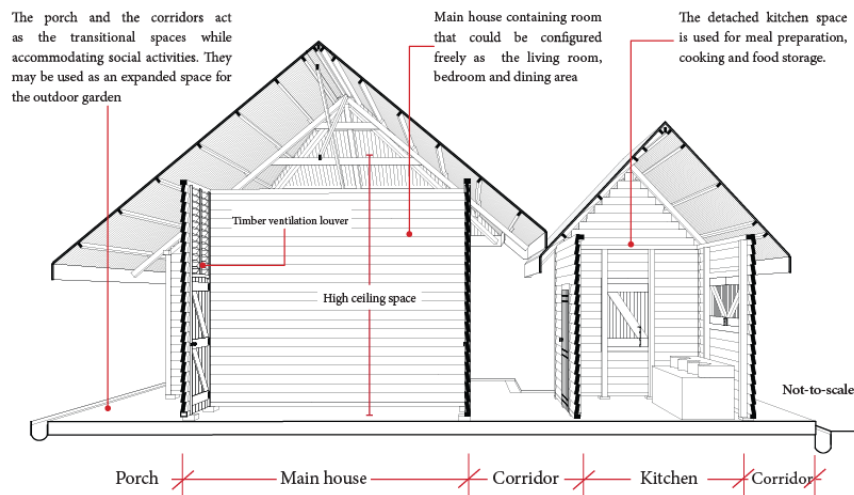
**Fig. 2. Research framework.**

## 4. Results

### 4.1. Spatial functions and attributes of the heritage dwelling

The inhabited spaces were perceived as spaces that supported the users' living. As shown in Fig. 3, spaces of this dwelling type include the porch at the entrance, the room in the main house, the detached kitchen and the corridors surrounding the building and between the main house and the kitchen. The room of the main house features an open space which may be configured freely as the living room, bedroom, and dining room, based on the preference of each dweller. The separate kitchen provided the space for meal preparation, cooking, and food storage. The porch and the corridors served as transitional spaces. The porch marked the entrance to the main house and offered a space for social interaction. Dwellers may use the porch and the corridors as an extended space for the outdoor garden where flowerpots may be placed.

Besides the spatial configuration, living comfort was achieved through the provision of good ventilation features. The dwelling had a high ceiling space and used timber louvres ventilation to allow natural airflow. Sufficient openings were also provided to achieve good daylighting and ventilation.



**Fig. 3. Inhabited spaces of the dwelling based on the representative typology of cottage no.508.**

### 4.2. Spatial experience themes

This section presents the investigation outcome of the dweller's user experience of their dwellings using cottage no.508 as the representative typology. Despite being given the same spatial setting, dwellers may experientially curate inhabited spaces according to distinctive behaviours, activities, lifestyles, and habits. The spatial cognition of the inhabited spaces was developed to generate different perceived spatial meanings among the dwellers.

Three themes related to the dweller's spatial experience were drawn through the interview contents analysis: nostalgic space, solitude, and social space.

#### 4.2.1. Nostalgic space

This theme emerged from the user's attachment to spaces that hold significant memories with the family members. One particular observation is the behaviour of decorating the living space of the main house with family portraits for one of the respondents (dweller B). Aside from fulfilling the function as a living room, this space allowed her to relive the moments she had with her husband and daughter while they were alive. The family portraits were a mediator to connect the dweller with her lived experience with her family members. She also filled the room with furniture and collectables. The room of the dwelling, in this case, presented itself as a nostalgic space and a memory container.

*'I place their photos here and remember the moments we spent together. Even though they are no longer here, I remember we always ate together.'*  
(Dweller B)

#### 4.2.2. Solitude space

This theme emerged from the user's state of living alone or attaining a sense of tranquillity from being alone. Two examples illustrate this spatial theme. One of the respondents (dweller C) lived alone and liked spending time in the living area, where he was comfortable. The living area provided a space of solitude where he could enjoy his daily activities with little interaction with other dwellers. He also used the perimeter corridor as the extended outdoor garden. All the activities were carried out without the need to interact with others.

One of the respondents, who did not live alone (dweller A), used the open space in the main house to place his favourite plants. This behaviour relates to his garden experience, where living with flowers and plants becomes inseparable from his life. The main house thus offered a solitary space for him to enjoy the comfort and tranquillity he needed to carry out his favourite activities.

*'I don't usually talk to my neighbours; this is where I sit and play with my mobile phone. I could spend the whole day in this space as it is comfortable, and I can do things without interacting with others.'*  
(Dweller C)

*'I enjoy planting. This is where I usually spend my time throughout the day. I feel comfortable here, it is not noisy compared to the outside.'*  
(Dweller A)

#### 4.2.3. Social space

This theme emerged from the user's engagement with the space for social activities. The respondent (dweller D) perceived the porch as a meaningful space because he liked interacting with the neighbours or enjoying the outdoor scene sitting on the porch. The porch offered a comfortable space sheltered from the sun and rain with extended roof eaves. Besides, the dwellings were arranged in a linear form facing each other, creating a visual connection to the surrounding environment that encouraged social interaction, keeping the dwellers connected rather than staying in isolation.

The kitchen also served as a social space where dwellers could see each other through the openings to engage in social activities. The respondent (dweller E) primarily used the kitchen for meal preparation and cooking. She felt the separate



kitchen with good ventilation features helped to keep the main house's indoor living space clean. She spends most of the time here and enjoys cooking for the family and conversing with the neighbours.

*'I like sitting here (on the porch) talking to my neighbours. I could see what they are doing and engage in conversations with them. I feel relaxed sitting here after returning from work.'*

(Dweller D)

*'This is where I cook, it is cleaner (to cook here). I spend most of the time here to prepare meals for my family. I could see my next-door neighbour here and we always have a chat while preparing meals.'*

(Dweller E)

### 4.3. Spatial hierarchy and meaning analysis

The spatial hierarchy arrangement varies for every dweller due to differences in their spatial cognition and perceived spatial meanings.

For dweller A, the open space of the main house offers a solitary space to take care of his flowers and plants. This space was an essential part of the dwelling in relation to his experience as a gardener. A space for personal indulgence serves as the perceived spatial meaning.

For dweller B, the living room at the main house was her most engaged space where the family portraits were found, providing the attachment to her memories with her family members who have passed away. This space was a container of memories where the artefacts mediated her connection with the experience.

For dweller C, the main house's living room offered a space of solitude where he engaged with his daily life undisturbed by the outside world. This space offers comfort and protection where one can retreat and feel at ease.

For dweller D, who lived alone, the porch was the platform for social engagement with other dwellers. This space connected him to the outside world, where he felt accompanied and fulfilled. This was where he spent most of his free time, resting and relaxing after returning home from work. Accompaniment and relaxation served as the perceived meaning of this space.

The kitchen was essential for resident E to fulfil her responsibility to prepare meals for her family. In addition to socialising with her neighbours, she utilised this opportunity to showcase her exceptional culinary skills. The perception of the space centred on familial and social relationships.

The analyses revealed that the same space of the dwelling might serve different functions and signify different meanings for specific individuals. The main house was the most engaged space for dwellers A, B and C but served different meanings to each one of them. Social engagement takes place more frequently in the spaces adjacent to the outdoors. The linear arrangement of the dwellings and the provision of the openings encouraged social interaction among the dwellers.

All respondents unanimously acknowledged how the well-designed ventilation features of the dwelling contributed to the comfort of their living. Table 2 summarises the associated spatial experience theme, spatial significance, and the corresponding perceived meaning for all the respondents.

**Table 2. The associated spatial experience theme, spatial significance, and the corresponding perceived meaning for all the respondents.**

Respondents	Spatial Experience Theme	Most Significant Space	Perceived Spatial Meaning
A	Solitude	Main house	Personal indulgence
B	Nostalgic	Main house	Container of memories
C	Solitude	Main house	Retreat from the outside world
D	Social	Porch	Accompaniment and relaxation
E	Social	Kitchen	Familial and social relationships

## 5. Discussion

Based on Bollnow's proposition of the dwelling elements, the home must provide a sense of rootedness and security to allow the "nurturing and growth" of the dwellers' spatial construction. The home gives meaning to physical, social, and psychological transactions by creating a sense of identity and place in the world [27]. The act of dwelling mediated the human intentionality towards consciousness, which was directed to the home, as Bollnow explained.

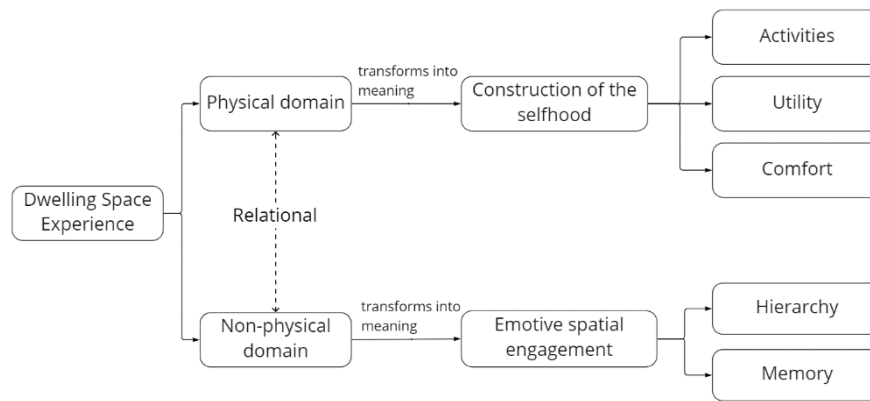
"... man is not a thing among other things, but a subject that reacts to its surroundings and which to that extent can be characterized by its intentionality" [11].

Dwelling space is relational to the spatial experience of the dwellers [11]. Dovey postulated that spatial meaning results from the dialectic process of mutual and relational interaction of the binary opposites, leading to a dynamic progression of spatial experience [28]. Dovey used the term "spatial dialectic" to illustrate how the "home-journey", "order-chaos", and "inside-outside" opposite polar experiences constructed the spatial meaning associated with the home.

This perspective resonates with Bollnow's view of the dialectical spatial experience, which encompasses the physical domain and the non-physical domain. The spatial experience of the dwelling is not restricted to the physical disposition of the dwelling, as non-physical dimensions of space may indicate the mental association to the spatial experience [29]. The consciousness of one's existence is a manifestation of the directedness of the mental state to the object of the state (in the context of this study, it is the home) [30]. The significance of the mental state in a person's intentionality must therefore be examined in the phenomenological study of the home. Drawing reference to the dialectical spatial experience, the analyses of the leper dweller's spatial experience reflected the dialectic spatial meanings related to the physical and emotive domains, as illustrated in Fig. 4.

### 4.4. Spatial meaning of the physical domain - construction of the selfhood

The physical aspect of spatial meanings results from the construction of the selfhood, which Pink [31] explained as "a process and an activity rather than something predetermined, fixed and final". It involved practices of home-making that mould one's understanding of the self, leading to self-identification, and reflecting how people perceived themselves through the intended image projection [32]. Pink asserted that experiences derived from the interaction with dwelling space lie in the practices or activities engaged by the dwellers. The multiplicity of experiences resulting from different activities can then be used to extract the underlying themes and meanings.



**Fig. 4. The dialectic dimensions of spatial meaning.**

The physical space's meaning was determined by the activities it accommodates, such as sleeping, dining, socialising, cooking, etc. Spaces such as the porch and the kitchen were designated with specific activities: one could be resting on the porch, and the kitchen could be used for cooking meals. Spaces in the main house were generally used for sleeping and dining. The open-space setting offers flexibility for configuration and expansion of spatial territory based on how the dwellers carry out their activities.

The second physical spatial meaning informs the space's utility or functionalities. This was evident in the kitchen's spatial meaning, where dwellers used it primarily for meal preparation and food storage, while socialising with neighbours may become a secondary function. The porch and the corridor may have originally served as transition spaces for circulation. Some dwellers transform these spaces into utility spaces for storage, plants, and flowerpot placement to support their daily gardening work.

The level of physical comfort, which correlated with ventilation and daylighting, also defined the physical aspect of spatial meaning. This attribute was perceived differently in each dwelling space by the dwellers. Some found the main house to be more comfortable, while others preferred to sit on the porch for its perceived comfort level.

The process of self-identification may also lead to space appropriation-claiming ownership of a space and actively using it, leading to meaning creation and attachment to the physical environment [33]. Interaction between the space and the user develops attachment and significance and transforms the user's identity in relation to the space [28, 34]. It was observed that space appropriation is a common practice among many households. A particular example is the expanded dwelling space taking over the space adjacent to the kitchen.

#### 4.5. Emotive spatial engagement

Emotive spatial engagement is based on the connectedness with the people, place, past and future in the spatial experience [28]. Emotive spatial meanings of the dwellers were revealed through spatial hierarchy and memories associated with the space.

Spatial hierarchy refers to the affective appraisal of spaces and their corresponding disposition and order based on individual preferences. This resembles the place connectedness where one finds the orientation in the space and develops a

sense of identity from each space [28]. The hierarchical organisation of spaces within the home reflects the sense of centrality that Bollnow denotes as “the reference point emerging to the rootedness of human beings in space” [11]. The perception of centrality relativises every spatial point of reference against the one with the highest order in the spatial relationship. Each dweller develops a distinctive sense of centrality in defining their space hierarchy based on activity preferences. Those spending more time cooking may find the kitchen the most engaging space, while some may perceive the main house as the most crucial space to acquire a sense of solitude by engaging in their favourite activities without external interruption.

As Dovey explained, memories related to the space show spatial experience familiarity and continuity evoked by the memory attached as a home place [28]. The sense of familiarity may be associated with specific events or incidents in a particular period of one’s life [34]. The attributes of continuity were often associated with an act, ritual, or object of the temporal referent. As Douglas argued, a building holds a distinctive capacity for memories, making the dwelling an organisation of space over time [35]. In this study, Dweller B best exemplified how her dwelling space carried this capacity of memories and demonstrated the sense of familiarity (such as remembering doing an activity with her family members) and attributes of continuity through the display of her family portraits.

## **5. Conclusion**

The lived experiences of the leprosy patients are embedded in their home-dwelling with spaces not defined as a concrete existence but of a relationship built upon the multiple layers of interaction with the surrounding. Based on Bollnow’s theory of spatial phenomenology, this study argues that the attributes of rootedness, a sense of security and the disposition of the dialectical relationship of spatiality affect how leprosy patients construct their spatial cognition and affection. Dwellers’ interaction with their dwelling space reflected a dialectic process of spatial relationship. Therefore, led to generating the perceived spatial meanings involving dimensions of physical and emotive aspects.

The architecture of the Sungai Buloh Leprosarium settlement plays a pivotal role in developing the lifestyle and spatial experience of its inhabitants, providing a sense of inclusivity, acceptance, and normality. The findings of this study reveal that the open-space feature of the heritage dwelling allows a flexible spatial configuration suiting the lifestyle of each dweller. It also promotes natural ventilation alongside good design features for health purposes. Each dweller developed their spatial meanings and space hierarchy based on activity preferences. The dwelling was designed to fulfil the leprosy patients’ personal needs and encouraged household social interaction. This study suggests that the humane architectural design approach of the heritage dwelling positively affects the dwellers’ spatial experience.

The heritage dwellings embody the leprosarium’s core values in Malaysia’s history of leprosy treatment. To bring hope to the lives within its walls through its sanitary environment, fostering of social interactions, and a lifestyle without discrimination caused by the disease. Understanding the patients’ spatial experiences of the dwellings informs how architectural design may help accommodate patients’ physical and psychological needs under isolation or segregation. The spatial experience of dwellers of the other dwelling type may be the subject of future studies.

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