

## Spatial Warmth in Adaptive Reuse of Historic Buildings as Hospitality Spaces

Jo Annecca Suresh<sup>1</sup>, Prof. Nimisha Varghese<sup>2</sup>, Dr. Vishnu Prakash<sup>3</sup>, Dr. Harshalatha AP<sup>4</sup>

<sup>1</sup>Jo Annecca Suresh, Student, Christ University, Bengaluru, jo.annecca@arch.christuniversity.in

<sup>2</sup>Prof. Nimisha Varghese, Guide, Assistant Professor, Christ University, Bengaluru, nimisha.varghese@christuniversity.in

<sup>3</sup>Dr. Vishnu Prakash, Assistant Professor, Christ University, Bengaluru, vishnu.prakash@christuniversity.in

<sup>4</sup>Dr. Harshalatha AP, Associate Professor, Christ University, Bengaluru, harshalatha.ap@christuniversity.in

\*\*\*

**Abstract** - Adaptive reuse has emerged as a prominent architectural approach in enhancing the building life cycle while maintaining cultural identity and promoting sustainable development. In urban areas, buildings such as historic bungalows, colonial buildings, and aged residential buildings are increasingly being reused to develop hospitality spaces such as cafés, restaurants, and creative studios. These spaces generally have a sense of comfort, familiarity, and emotional attachment to users. This phenomenon is referred to as spatial warmth in this research study. These reused spaces have gained popularity over time, but little research has been conducted to assess the architectural elements in adaptively reused buildings that influence spatial warmth.

The research aims to investigate the phenomenon of spatial warmth in adaptively reused hospitality spaces using a qualitative research approach in Bengaluru, India. The research includes a combination of a literature review and primary research based on a survey among forty-six participants and user interviews, along with comparative studies of adaptively reused spaces such as Dyu Art Café, Ajji House by Subko, and Water Monkey Café. The research identifies architectural parameters that influence spatial warmth and proposes a Spatial Warmth Framework for adaptively reused spaces.

**Key Words:** Adaptive reuse, spatial warmth, user perception, environmental psychology, hospitality architecture, heritage buildings.

### 1. INTRODUCTION

Adaptive reuse is a concept that has been gaining significant importance in the field of architecture today. It is a concept where the environmental and cultural consequences of rapid urbanization are considered. Instead of demolishing buildings, the concept of adaptive reuse is a way of extending the lifespan of buildings by adapting them for the purpose of reuse.

Buildings with the concept of adaptive reuse have been seen in many parts of the world. For example, buildings with the concept of adaptive reuse have been transformed into hospitality spaces such as cafes, restaurants, stores, and cultural spaces. Such places not only serve the purpose for which they were developed but also offer a unique spatial atmosphere with the concept of architecture.

A common feature that is often noted in these environments is that of spatial warmth. Spatial warmth is a term that is used to denote the comfort that is felt by the user of a particular architectural space. This is affected by a variety of parameters, such as texture, lighting, and proportions, as well as the retention of character in the space.

While the issue of adaptive reuse has been extensively researched, particularly with respect to sustainability and heritage, the impact of architectural design in such environments has not been extensively researched. This is particularly relevant to the context of hospitality architecture, where spatial warmth is a key factor that impacts user engagement and interaction. This research

aims to explore the relationship between adaptive reuse and spatial warmth through the context of reused hospitality environments in Bengaluru, India.

## 2. LITERATURE REVIEW

### 2.1 Adaptive Reuse and Architectural Sustainability

Adaptive reuse refers to the process of changing an existing building to meet new uses without compromising the integrity of the architectural elements. Scholars such as Bullen and Love (2011) have highlighted the importance of adaptive reuse in terms of its contribution to sustainability. Adaptive reuse contributes to sustainability through reduced consumption and the extension of the lifespan of buildings.

According to Douglas (2006), adaptation in buildings is a dynamic process in response to changing social and functional demands. Adaptive reuse of buildings acknowledges the fact that architecture evolves over time. Instead of seeing buildings as static entities, adaptive reuse of buildings acknowledges the fact that architecture evolves through layers of change and adaptation.

Adaptive reuse discourse has been expanded to include cultural and experiential aspects. Plevoets and Cleempoel (2011) have argued that adaptation in interior spaces plays an essential role in mediating between history and the present.

### 2.2 Environmental Psychology and Spatial Experience

Environmental psychology is an essential theoretical framework in the understanding of human perception of architectural environments. Hernandez & Hidalgo (2001) note that place attachment is an integral part of emotional relationships between individuals and architectural environments.

Lewicka (2011) argues that spatial familiarity, material character, and symbolic meaning all contribute to place attachment. These concepts are significant in reused environments, where the layers of architectural history can give a sense of continuity.

Vischer (2008) points out that spatial comfort is an integral factor in the behavioral patterns of individuals in architectural environments. Lighting, spatial proportions,

and material textures can greatly impact the perception of architectural environments.

### 2.3 Research Gap

Despite extensive research carried out regarding adaptive reuse and environmental psychology, little research has focused on the relationship between adaptive reuse and spatial warmth perception. Existing research has focused mainly on structural adaptations, sustainability, and conservation.

Most research carried out regarding adaptive reuse has focused on European and East Asian countries, while little research has focused on adaptive reuse of hospitality spaces in Indian cities.

This research aims to bridge the existing gap by addressing the following research question:

Little research has focused on the impact of architectural parameters of adaptively reused spaces on spatial warmth perception.

## 3. RESEARCH METHODOLOGY

### 3.1 Research Approach

This study employs a qualitative interpretivist approach to research. This approach emphasizes understanding how people view and interpret their spatial environments. This is because spatial warmth, in essence, is an experiential and subjective phenomenon.

### 3.2 Data Collection Methods

Three main data collection methods are employed by the research:

1. Online survey
2. Semi-structured interviews
3. Case study observation

By using a combination of the above methods, the research is able to incorporate user perception and architectural characteristics.

#### Survey

An online-based survey was created with the title "From Old to Inviting: Perceptions of Warmth in Reused

Spaces." The results of the survey were gathered from a total of 46 participants.

The online-based survey aimed to understand the participants' awareness of adaptive reuse, perception of spatial warmth, influence of architectural materials, and spatial comfort.

#### Interviews

Semi-structured interviews were conducted among visitors of the three case study sites. The sites include:

1. Dyu Art Café
2. Ajji House by Subko
3. Water Monkey Café

The interviews aimed to understand the emotional and sensory responses of the participants in the spaces.

#### Case Study Observation

Field observations of the case studies aimed to understand the architectural aspects of the spaces. The architectural aspects include:

1. Material authenticity
2. Spatial layout
3. Lighting conditions
4. Indoor/outdoor relationships
5. Historical elements

#### 3.3 Data Analysis

Collected data was analyzed using thematic coding. Collected information through interviews was coded and grouped according to themes representing architectural parameters affecting spatial warmth.

Comparative analysis was done on the three case studies.

## 4. RESULTS AND DISCUSSION

### 4.1 Survey Findings

From the results of the survey, it was clear that users have a strong preference for spaces with reused elements and unique architectural features.

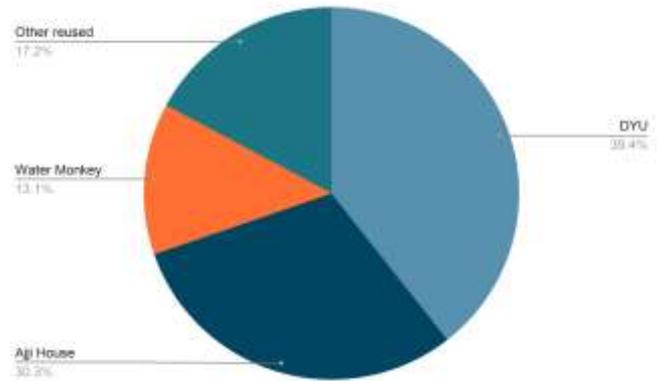


Fig. 1: Survey Response Distribution. (Author, 2026)

Some of the findings include:

1. 82% of users said they feel comfortable in spaces with reused elements rather than new commercial spaces.
2. Natural materials like wood and brick were seen to play an essential role in creating a warm space.
3. Natural light and plants were seen to have a strong association with users' spatial experiences.

### 4.2 Case Study Analysis

#### Dyu Art Café

Dyu Art Café uses a restored residential bungalow with exposed brickwork, woodwork, and an open courtyard. The space provides natural light and ventilation to improve the comfort of users.

Users have described the space as "cozy," "home-like," and "calming."

#### Ajji House by Subko

Ajji House uses a restored heritage residential space with unique architectural features. The space incorporates elements of history with contemporary hospitality elements.

Users have described the space as nostalgic and authentic.

#### Water Monkey Café

Water Monkey Café is housed within a reclaimed residential space that features outdoor seating areas and lush landscaping.

Users emphasized the significance of the presence of greenery and the spaciousness of the space.

### 4.3 Comparative Analysis

Through the three case studies, the following architectural parameters were identified as significant:

1. material authenticity
2. human-scaled spatial proportions
3. natural lighting
4. indoor-outdoor continuity
5. historical character

These parameters, when present, create a warm space.

Table -1: Theme Frequency Table. (Author, 2026)

## 5. SPATIAL WARMTH FRAMEWORK

Theme Category	Sub-Theme	Frequency	Percentage (%)
Material Authenticity	Exposed brick, aged wood, texture, patina	21	27.6%
Natural Light	Daylight quality, filtered light, courtyard light	18	23.7%
Human Scale	Intimate room size, low ceilings, enclosure	15	19.7%
Greenery / Nature	Courtyards, gardens, plants, indoor-outdoor flow	12	15.8%
Historic Character	Visible memory, retained structure, old detailing	10	13.2%

As a result of this analysis, the research introduces a Spatial Warmth Framework that comprises five architectural elements:

#### 1. Material Authenticity:

The utilization of natural and historical materials such as wood, brick, and stone.

#### 2. Human-Scaled Spatial Proportions:

Spaces that promote residential scale and intimacy.

#### 3. Natural Lighting:

The utilization of natural light to improve comfort and emphasize material texture.

#### 4. Indoor-Outdoor Connection:

The utilization of courtyards, gardens, and outdoor seating to improve spatial experience.

#### 5. Historical Character:

The utilization of original architectural elements to improve emotional experience.

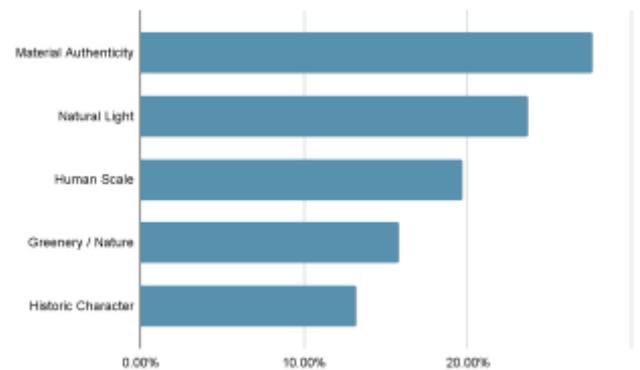


Fig. 2: Importance of Architectural Elements. (Author, 2026)

The survey had 46 respondents from adaptively reused café environments in Bengaluru. The results indicated that the majority, 72%, knew that these environments are used in already existing buildings. The respondents also indicated that 63% had noticed the original architectural features, such as exposed walls, timber, and texture in the adaptively reused environments. The use of natural materials and their weathering was also found to evoke feelings of comfort and authenticity, as 50% indicated that the original materials made the environment more welcoming. The scale of the environment was also found to influence the warmth, as 54% indicated that the smaller scale of the domestic rooms was “intimate and cozy.” The presence of natural light and weathered materials was found to evoke feelings of warmth, as 61% indicated this as a factor in the adaptively reused environments. The adaptively reused environments were also found to evoke more emotional and personal feelings, as 57% indicated this compared to newly built environments. Thematic analysis of the results indicated five major architectural parameters in the adaptively reused environments, which influence the warmth in these environments, including

the presence of natural materials, natural light, scale, greenery, and historical character.

## 6. CONCLUSION

This research aimed to explore the concept of spatial warmth in adaptively reused environments of hospitality through a qualitative research study carried out in Bengaluru. As adaptive reuse is becoming more prevalent in contemporary cities, especially in the context of transformed older residential buildings into cafes, restaurants, and creative spaces, the need to understand the experience of such environments is of utmost importance. Through the integration of various sources of information, such as a literature review, survey responses from forty-six participants, user interviews, and detailed case study observations of Dyu Art Café, Ajji House by Subko, and Water Monkey Café, this research sought to understand the impact of architectural characteristics on the experience of adaptively reused environments of hospitality.



Fig. 3: Adaptive Reuse → Spatial Warmth → User Experience conceptual model derived from survey responses (n = 46), interview thematic coding, and comparative case study analysis. (Author, 2026)

From the results, it can be seen that spatial warmth is not generated by a specific architectural feature but rather through the interaction of various spatial parameters. Material authenticity, such as the presence of exposed brickwork, aged wood, and tactile materials, was found to have a strong influence on the generation of

authenticity and warmth. Human-scale spatial proportions, derived from residential spaces, have been found to provide spaces for intimacy and relaxation. Natural light, in association with materials, enhances the atmospheric quality of space. Spatial connections between indoor and outdoor spaces, such as the incorporation of a courtyard, verandah, and garden seating, improve the sensory quality of space. Finally, the maintenance of historic character in spaces provides users with a sense of continuity and narrative, thereby creating an emotional association with the space.

Together, these parameters contribute to an environment that is seen to be comfortable, inviting, and socially engaging, thereby underlining the role of these spaces in the concept of third places in contemporary urban settings. The research indicates that adaptive reuse can transcend the technical aspects of conservation and sustainability to deliver environments of experiential significance.

Based on the findings of the study, a Spatial Warmth Framework has been proposed. This framework integrates the architectural parameters identified in the study into a conceptual design model. This framework provides a reference model for architects and designers who are undertaking adaptive reuse projects. This reference model promotes a design approach to adaptive reuse that emphasizes experience, authenticity, and intimacy. By including experience in adaptive reuse design, hospitality environments can be developed that are not only environmentally sustainable but also socially vibrant and culturally relevant.

Although the present research offers significant insights into the concept of spatial warmth in the context of reused hospitality spaces, the scope of the research is restricted by its particular focus on a particular building typology and setting. Future studies may seek to expand the scope of the present research by exploring other building typologies such as boutique hotels, galleries, and cultural centers, and other settings besides Bengaluru. Comparative studies on the concept of spatial warmth in other cultural settings may help further refine the Spatial Warmth Framework.

## ACKNOWLEDGEMENT

The author is grateful to CHRIST (Deemed to be University), Bengaluru, for academic guidance and support. The author is grateful to the participants who contributed to the survey and interviews conducted.

## REFERENCES

1. Bullen, P. A., & Love, P. E. D. (2011). Adaptive reuse of heritage buildings. *Structural Survey*, 29(5), 411–421.
2. Douglas, J. (2006). *Building adaptation* (2nd ed.). Oxford: Butterworth-Heinemann.
3. Hernandez, B., Hidalgo, M. C., Salazar-Laplace, M. E., & Hess, S. (2012). Place attachment and place identity in natives and non-natives. *Journal of Environmental Psychology*, 32(4), 310–319.
4. Hernández, B., & Hidalgo, M. C. (2001). Place attachment: Conceptual and empirical questions. *Journal of Environmental Psychology*, 21(3), 273–281.
5. Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*, 31(3), 207–230.
6. Oldenburg, R. (1999). *The great good place: Cafés, coffee shops, bookstores, bars, hair salons, and other hangouts at the heart of a community*. New York: Marlowe & Company.
7. Plevoets, B., & Cleempoel, K. V. (2011). Adaptive reuse as an emerging discipline: A historic survey. *Reinvention: The Journal of Undergraduate Research*, 4(2), 1–15.
8. Vischer, J. C. (2008). Towards an environmental psychology of workspace: How people are affected by environments for work. *Architectural Science Review*, 51(2), 97–108.