Spatial Characteristics and Functional Changes of Kama Manyang in Residential Houses in North Aceh

Asdiana*[1], Marisa Hajrina[2]

[1]Interior Design Study Program, Department of Fine Arts and Design, Indonesian Institute of Arts and Culture Aceh, Aceh, Indonesia, [2]Architecture Study Program, Almuslim University, Aceh, Indonesia
Email: asdiana@isbiaceh.ac.id

Residential buildings are built environments that reflect the relationship between space, daily practices, and the cultural values of their occupants. One distinctive spatial element found in traditional residential settings in North Aceh is kama manyang, a room characterized by diverse physical features and uses. This study aims to identify the spatial and interior characteristics of kama manyang and analyze its functional changes in relation to household needs. A descriptive qualitative approach was employed, involving five residential houses in Muara Batu District, North Aceh Regency. Data were collected through direct observation, photographic documentation, and interviews with homeowners, then analyzed using a descriptive-comparative approach based on the concept of genius loci. The findings reveal variations in spatial characteristics, including room location, floor elevation ranging from 50 to 80 cm, access arrangements, and floor materials. Four houses located kama manyang at the rear, while one placed it in the middle of the house. Its functions varied, including sleeping, elderly care, childbirth and postpartum recovery, temporary storage, and, in certain cases, washing deceased family members. These findings demonstrate the adaptability of the space to changing household needs and stages of family life. Thus, kama manyang represents an adaptive residential space reflecting the relationship between spatial characteristics and family practices, contributing to the study of interior design based on local cultural values.

Keywords: Kama Manyang; Spatial Characteristics; Functional Changes; Residential Space; Aceh.

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Corresponding Author:
Asdiana
Interior Design Study Program, Department of Fine Arts and Design, Indonesian Institute of Arts and Culture Aceh, Aceh, Indonesia
asdiana@isbiaceh.ac.id

1. Introduction

A house is not merely a setting for domestic activities; its spatial organization also reflects relationships among occupants, daily practices, environmental conditions, and cultural values. Studies of Indonesian vernacular architecture have documented the adaptation of established spatial patterns to contemporary uses [9]–[12], while research on Acehnese houses has addressed ornament, structural transformation, heritage conservation, and the cultural significance of traditional residential elements [5]–[7], [13], [14]. These contributions establish the broader architectural context, but they do not adequately explain how the physical configuration of a specific interior room relates to changes in its use within a household. This unresolved relationship is particularly relevant to kama manyang, a distinctive room recorded in the residential houses investigated in North Aceh.

Kama manyang is a distinctive room within the residential houses examined in this study. Observations and interviews conducted in five houses in Meunasah Drang Village, Muara Batu District, North Aceh Regency, identified differences in room location, floor elevation, access, and flooring materials. Its uses were equally diverse: in some houses it served as a bedroom for older family members; elsewhere it had accommodated childbirth and postpartum recovery, temporary storage, or the washing of deceased family members. In

another case, it remained the owner's bedroom. These variations suggest that use of kama manyang is associated with changing household circumstances rather than a single uniform function.

The research gap is therefore not simply the limited description of kama manyang, but the absence, in the literature reviewed here, of a systematic comparison linking its room location, floor elevation, access, and floor materials with past and current domestic functions. A physical room can persist while its activities change, and similar physical arrangements may support different uses. To avoid treating cultural meaning as a fixed attribute of form, this research distinguishes directly observed characteristics from homeowners' accounts of earlier activities. The relationship between spatial continuity and changing use is interpreted through genius loci, which considers place character in relation to material settings and human experience [3], [4], and is informed by work on adaptable built environments [10], [15], [16].

Earlier research by Asdiana and colleagues [2] approached genius loci through contemporary architecture in North Aceh. By contrast, this study focuses on the interior scale of kama manyang and compares five domestic cases from Meunasah Drang Village, Muara Batu District, North Aceh Regency. Its contribution lies in identifying case-specific spatial differences alongside documented changes in room use, rather than assigning a universal cultural function to kama manyang. This focus enables a more precise discussion of the relationship between material form, household practices, and lived experience.

This study asks two questions: (1) What are the physical and spatial characteristics of kama manyang in five selected residential houses in Muara Batu District, North Aceh Regency? (2) How are differences in the function and use of kama manyang related to household needs and occupants' experiences? Accordingly, the study aims to describe and compare these spatial characteristics and to analyze the variation in room use through the perspective of genius loci. It contributes an empirical account of domestic interior change in a locally specific cultural context.

2. Literature Review and Problem Statement

Vernacular architecture is shaped by social practices and cultural meanings, not merely by construction techniques. Rapoport discusses the communicative meaning of the built environment [1], while Oliver examines the cultural dimensions of vernacular dwellings [8]. Research on traditional Acehnese houses identifies responses to natural conditions and local wisdom [7], while more recent studies address architectural ornaments [6], residential change [5], and transformations of traditional houses [9], [14]. These studies provide a basis for considering kama manyang as both a physical interior and a setting for domestic life.

The concept of genius loci emphasizes the relation between the character of a setting and lived experience [3], [4]. Recent discussions of heritage interpretation and place identity [17], [18], together with studies of ageing in place [20]–[23], help interpret the cultural and practical relevance of interiors. However, the changing uses of kama manyang within the five investigated houses have not been documented in these sources. This study therefore asks how its spatial characteristics vary between houses and how room functions respond to changing household needs.

3. Method

This study used a descriptive qualitative, multiple-case approach to examine five houses containing kama manyang in Meunasah Drang Village, Muara Batu District, North Aceh Regency, Aceh Province. Cases were selected purposively to capture variations in spatial configuration and domestic function rather than to

provide a statistically representative sample. Each house was treated as a case unit, and the room itself was the principal unit of spatial analysis.

Data collection took place in February 2026 through direct observation of the houses, photographic documentation, and interviews with homeowners. Observation identified the location of kama manyang in the spatial layout and its observable physical features. Photographs recorded the condition of the buildings and the spaces under investigation. Interviews provided information on the year of construction, number of bedrooms, earlier uses of kama manyang, and its function at the time of the study.

The five cases were the houses associated with Mrs. Hindun, Mr. Salamun Raja, Mrs. Fathimah, Mrs. Mariana, and Mr. Anwar. Their reported construction dates range from 1975 to 2015. Differences in construction period and household use enabled a cross-case comparison of the functions of kama manyang. Accounts of previous uses came from homeowners' interviews, whereas descriptions of physical conditions were based on observation and photographs.

The analysis combined descriptive coding and cross-case comparison. For each house, observation and photographs were examined together to describe the position of kama manyang, level differences, access, and flooring. Homeowner interviews were used to establish reported past and current functions. These distinct sources were compared in a cross-case matrix (Tables 1 and 3): physical descriptions were checked for consistency between observation and photographic records, while statements about previous uses were identified as interview-based accounts rather than independently observed events. In this limited sense, the analysis involved cross-checking between data types; the available record does not establish that repeat interviews or formal member checking were conducted. The cases were then interpreted through genius loci to consider how continuity of physical setting relates to changing household activities [3], [17], [18].

The findings are confined to five houses and the available field observations, photographs, and homeowner accounts. Retrospective accounts of former functions cannot establish precise dates of transitions where these were not recorded. The materials available for this manuscript also do not document an explicit respondent-validation procedure or informed consent for publishing identifiable homeowner names and house photographs; these matters require confirmation from the original field records before publication.

4. Results and Discussion

Physical and Spatial Characteristics of Kama Manyang

Kama manyang is an enclosed room found within the residential houses studied in Meunasah Drang Village, Muara Batu District, North Aceh Regency. Observations in February 2026 identified features distinguishing it from surrounding spaces, particularly floor elevation, placement within the house, access arrangements, and flooring material. Although the rooms shared several characteristics, their configurations and dimensions varied between cases.

A prominent feature was the raised floor of kama manyang relative to adjacent rooms. The observed elevation difference ranged from approximately 50 to 80 cm. The houses associated with Mrs. Hindun, Mrs. Fathimah, and Mr. Anwar had elevations of approximately 80 cm, whereas those of Mr. Salamun Raja and Mrs. Mariana had elevations of approximately 50 cm. The resulting stepped or platform-like condition distinguished these rooms within the interior.

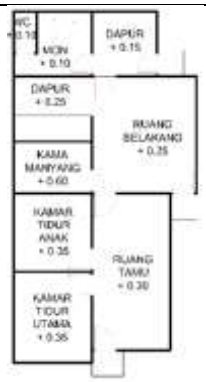
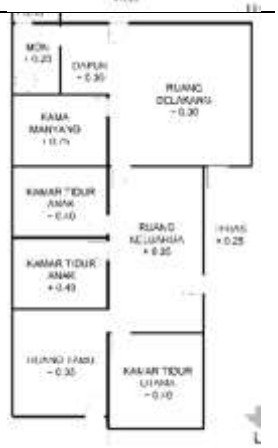
Table 1. Physical and Spatial Characteristics of Kama Manyang in Five Houses in Muara Batu District

Aspect	Case 1	Case 2	Case 3	Case 4	Case 5
Homeowner	Ibu Hindun	Bapak Salamun Raja	Ibu Fathimah	Ibu Mariana	Bapak Anwar
Owner age	82 years	50 years	80 years	52 years	68 years
Year built	1975	2010	2015	2004	1990
House type	Semi-permanent contemporary	Contemporary	Contemporary	Contemporary	Contemporary
Number of bedrooms	2	3	2	3	3
Number of kama manyang rooms	1	1	1	1	1
Kama manyang location	Middle of house	Rear of house	Rear of house	Rear of house	Rear of house
Floor elevation	80 cm	50 cm	80 cm	50 cm	80 cm
Floor material	Timber boards; 10 cm measurement ambiguous (width or spacing)	Closely fitted timber boards, about 20 cm	Closely fitted timber boards, about 20 cm	Closely fitted timber boards, about 20 cm	Closely fitted timber boards, about 20 cm
Step access	Three steps inside room	No dedicated steps	Three steps outside room	No dedicated steps	Three steps; exact position not documented

Four of the five houses placed kama manyang toward the rear: those of Mr. Salamun Raja, Mrs. Fathimah, Mrs. Mariana, and Mr. Anwar. In Mrs. Hindun's house, the room was located centrally. Its location therefore did not follow a completely uniform spatial pattern but differed according to the layout of each house.

Table 2. Documentation of Five Houses: Exterior Views, Kama Manyang Interiors, and Floor Plans

No.	Homeowner	Front view of house	Kama Manyang Interior	
1.	Mrs. Hindun's house (82 years)			

No.	Homeowner	Front view of house	Kama Manyang Interior	
2.	Mr. Salamun's house (50 years)			
3.	Mrs. Fathimah's house (80 years)			
4.	Mrs. Mariana's house (52 years)			
5.	Mr. Anwar's house (68 years)			

Access arrangements differed across the five houses. Mrs. Hindun's room had three steps inside, and Mrs. Fathimah's had three steps outside the room entrance. The houses of Mr. Salamun Raja and Mrs. Mariana had no dedicated steps. Three steps were recorded in Mr. Anwar's house, but the field material available for this manuscript does not establish whether they were inside or outside the room. Consequently, the

access comparison indicates a difference in step provision but does not support a definitive conclusion about the position of Mr. Anwar's steps.

Timber-board floors were recorded in all five kama manyang rooms. The field notes associate approximately 10 cm with the boards or their arrangement in Mrs. Hindun's house, but do not unambiguously establish whether this value refers to board width or spacing; that dimension is therefore not treated as a verified board width. In the other four cases, the descriptive record reports closely fitted boards approximately 20 cm wide. Toilet facilities were also reported in association with kama manyang, although their configuration and presence in individual cases require separate verification before comparative conclusions can be drawn. The combination of floor level, access, and internal facilities is relevant to potential activities, but does not independently demonstrate why each household adopted a particular use.

Overall, kama manyang exhibited recognizable spatial features—a raised floor, varied placement, different access conditions, and timber-board flooring. However, these characteristics did not constitute an identical design across all five houses. The findings illustrate a locally recognizable room type that accommodates variation between residential settings.

Functional Changes and Uses of Kama Manyang

Interviews with the homeowners revealed varied histories of kama manyang use, shaped by household needs and changing family circumstances. Respondents linked the provision of this room to the care of family members, particularly older people. A dedicated room with basic facilities was perceived as useful for residents with reduced mobility when performing everyday activities, including personal hygiene and sanitation. Research on ageing in place similarly highlights the importance of domestic accessibility and supportive interiors [20], [21], [22].

In this context, kama manyang was not solely a bedroom but could also support care at particular stages of life. Interview accounts indicated that some rooms had been used for childbirth and postpartum recovery. The amenities within the room were perceived as helpful during recovery, particularly when movement and physical activity were limited.

Some respondents also reported that kama manyang had been used to wash the bodies of deceased family members. Occupants considered the raised floor helpful for this activity, including water management. However, this use was reported only in certain households and should not be treated as an inherent or universal function of kama manyang.

Homeowner accounts identify different sequences of use, although calendar dates for the transitions were not recorded. In Mrs. Hindun's house (built in 1975), kama manyang was reported to have served as temporary sleeping accommodation and, on an occasion reported by the homeowner, for washing a deceased family member. During fieldwork in February 2026, it functioned as a bedroom for a grandchild caring for the house. The sequence suggests reuse of a familiar interior for changing family responsibilities; the available evidence does not establish the exact dates or duration of the earlier uses.

In Mr. Salamun Raja's house (built in 2010), the room was reportedly used for childbirth and postpartum recovery before functioning as temporary storage in February 2026. In Mrs. Fathimah's house (built in 2015), kama manyang remained the owner's private bedroom, with no functional transition reported. These contrasting cases are important: functional adaptability is evident in some houses, but it should not be presented as a change that necessarily occurs in every kama manyang.

In Mrs. Mariana's house (built in 2004), the room was used as a bedroom for the homeowner's elderly mother at the time of fieldwork; the available account does not identify a previous contrasting function. In

Mr. Anwar's house (built in 1990), the room reportedly served first as his elderly mother's bedroom and later as a place for washing her body after death; by February 2026, it was used as temporary sleeping accommodation for the homeowner's son. This is a reported relative sequence rather than a dated chronology. Across the cases, the evidence connects change in use to circumstances such as care, childbirth, bereavement, and accommodation, without establishing a uniform schedule or a single causal explanation for every household.

Table 3. Previous and Current Uses of Kama Manyang in Five Houses

Case	Previously reported uses	Use during fieldwork
Ibu Hindun	Temporary bedroom and washing of deceased family members	Bedroom for the grandchild caring for the house
Bapak Salamun Raja	Childbirth and postpartum recovery room	Temporary storage
Ibu Fathimah	Owner's private bedroom	Owner's private bedroom
Ibu Mariana	Bedroom for the homeowner's elderly mother	Bedroom for the homeowner's elderly mother
Bapak Anwar	Bedroom for elderly mother, later used to wash her body after death	Temporary bedroom for the homeowner's son

The cross-case comparison shows that physical distinctiveness and functional change are related but analytically separable. The raised floors and differing access arrangements persisted as recognizable spatial characteristics, whereas household activities varied. The two rooms reported as accommodating elderly family members illustrate a care-related use, but the presence of a raised floor should not be assumed to make access easier for older occupants; steps may also create accessibility barriers [20]–[22]. Similarly, the reported use for washing deceased family members cannot be inferred from floor elevation alone. The empirical point is that households adapted a distinctive interior to particular situations, while the reasons for each decision remain grounded primarily in the interview accounts.

This distinction also prevents the term "functional flexibility" from implying unrestricted suitability. A room may be reused without substantial reconstruction, but the adequacy of access, sanitary facilities, and circulation for each activity requires separate assessment. The cases therefore demonstrate documented diversity of use rather than proof that every spatial configuration is equally appropriate for every function.

Synthesis of Findings Through the Perspective of Genius Loci

The concept of genius loci understands the character of a place through more than physical configuration alone: human relationships with, activities within, and experiences of the setting also matter. Recent discussions of place identity and cultural heritage likewise emphasize the interaction of material settings and lived or interpreted meanings [17], [18]. The analysis of kama manyang thus considers the connection between physical characteristics and everyday household practices.

In the five houses, kama manyang was physically distinguished by its higher floor, different positions in the house plan, varied access arrangements, and wooden flooring. Four rooms were located at the rear of their houses and one in a central position. These differences indicate that a recognizable spatial character may coexist with substantial variation in architectural configuration.

Interviews further indicate that the character of the room is intertwined with occupants' experiences and needs. Reported uses ranged from sleeping and elderly care to childbirth, postpartum recovery, and, in some houses, washing deceased family members. Its subsequent use as temporary storage or

accommodation for other household members indicates the capacity of a relatively stable physical room to respond to changing domestic requirements.

Interpreted through genius loci, kama manyang's place character can be understood as an interaction between a recognizable physical setting and the activities associated with it [3], [17], [18]. The contrast between Mrs. Fathimah's continuing bedroom use and the successive functions reported in Mr. Anwar's house is especially informative. It suggests that continuity of place does not require continuity of activity: a room can remain a distinct part of the dwelling while acquiring new associations through family care, death, and later accommodation. Conversely, the presence of similar floor elevations in different houses does not establish identical meanings. Because direct interview evidence concerning emotional or symbolic associations is limited in the reported material, these interpretations concern documented practices and should not be elevated into claims about universal sacredness, status, or ritual significance.

Two findings emerge from this synthesis. First, a raised timber-floored room with variable location and access is identifiable across the five cases, although it is not a standardized architectural configuration. Second, its recorded uses depend on household circumstances and may change or remain stable. The theoretical significance lies in examining place character as continuity of material form combined with potentially changing practices, rather than treating either the architecture or a traditional function as sufficient on its own.

These findings provide an empirical account of kama manyang as part of the domestic environment of North Aceh, where the character and use of space are connected to family experience. In these five cases, spatial configuration, functional change, and occupants' accounts offer a basis for discussing cultural continuity within interior design. The interpretation remains context-specific and cannot be generalized to all houses in North Aceh.

5. Conclusion

The five residential cases in Meunasah Drang Village, Muara Batu District, North Aceh Regency, show that kama manyang is characterized by a raised timber-board floor, with elevations of approximately 50–80 cm, differing positions within the dwelling, and varied access arrangements. Four rooms were located toward the rear of the house and one near its center. These shared features identify a recognizable room type but do not constitute a uniform design.

The interviews show that kama manyang supported sleeping, care for older family members, childbirth and postpartum recovery, temporary storage, and, in particular cases, washing deceased family members. Some rooms changed function as household circumstances evolved; others retained their bedroom use. Thus, the study identifies both continuity in spatial character and diversity in domestic use, within the limits of five purposively selected cases and primarily retrospective accounts.

6. References

[1] A Rapoport. 1990. The Meaning of the Built Environment: A Nonverbal Communication Approach.
[2] Asdiana, M. N. Loebis, and H. T. Fachruddin. 2020. "Genius Loci in Aceh Utara Contemporary Architecture." in IOP Conference Series: Earth and Environmental Science. Vol. 452. Institute of Physics.
[3] C Norberg-Schulz. 1980. Genius Loci: Towards a Phenomenology of Architecture.
[4] Edward Relph. 1976. The Paradox of Place and the Evolution of Placelessness. London.

[5] Hasbi, Rahil Muhammad, Purnama Salura, and Indri Astrina Fitria Indrarani Wirakusumah. 2026. "The Residential Structure of Aceh Communities in the Context of Change." ARTEKS : Jurnal Teknik Arsitektur 11(2):545–66. doi:10.30822/arteks.v11i2.4926.

[6] Helmi, Rahil. 2023. "Analysis of Functions and Semiotic Meanings of Traditional Acehnese House Ornaments." LITE 19(2):140–49. doi:10.33633/lite.v19i2.9073.

[7] Izziah, Izziah, Laina Hilma Sari, Erna Meutia, and Mirza Irwansyah. 2020. "Traditional Acehnese House: Constructing Architecture by Responding to the Power of Nature in Relation to the Local Wisdom Values." Aceh International Journal of Science and Technology 9(3):132–39. doi:10.13170/aijst.9.3.17323.

[8] Paul Oliver. 2007. Dwellings : The Vernacular House World Wide. Phaidon Press.

[9] D. Wulanda, A. Jamil, and P. A. Kesuma, "From house to café: A comparative study of adaptive reuse in two Rumoh Aceh," Jurnal Desain, vol. 13, no. 4, pp. 1338–1361, 2026, doi: 10.30998/jd.v13i4.3577.

[10] I. G. N. Antaryama and A. T. Dianagri, "The Resilience of Traditional Indonesian Architecture: A Review of Existing Research," DIMENSI: Journal of Architecture and Built Environment, vol. 53, no. 1, pp. 35–48, 2026, doi: 10.9744/dimensi.53.1.35-48.

[11] D. P. Sari, M. Sudirman, and Y. S. Chiou, "Modernity in Javanese tradition: adapting vernacular design and local culture to Indonesian urban living," Architectural Science Review, vol. 67, no. 2, pp. 105–119, 2024, doi: 10.1080/00038628.2022.2136131.

[12] F. H. Arfa, H. Zijlstra, B. Lubelli, and W. Quist, "Adaptive reuse of heritage buildings: From a literature review to a model of practice," The Historic Environment: Policy & Practice, vol. 13, no. 2, pp. 148–170, 2022, doi: 10.1080/17567505.2022.2058551.

[13] F. P. Atmanti and Y. Uekita, "Adaptive Reuse of Vernacular Architecture for Conservation in Indonesia: Case Study of South Nias Village, Bawömataluo Conservation Project," Asian Culture and History, vol. 15, no. 1, pp. 64, 2023, doi: 10.5539/ach.v15n1p64.

[14] F. Azzahra, "Arsitektur tradisional rumoh aceh dalam perspektif Jakob Burckhardt (Reflections on history)," NALARs, vol. 23, no. 2, pp. 145–154, 2024, doi: 10.24853/nalars.23.2.145-154.

[15] F. Lanz and J. Pendlebury, "Adaptive reuse: a critical review," The Journal of Architecture, vol. 27, no. 2–3, pp. 441–462, 2022, doi: 10.1080/13602365.2022.2105381.

[16] R. M. Saika, K. Z. Maheswari, P. A. P. Agustiananda, and B. P. P. Sinaga, "Reconciliation of Spatial and Functional Transformation – Lokananta and Rumah Atsiri Adaptive Reuse," Sinektika: Jurnal Arsitektur, vol. 21, no. 2, 2024, doi: 10.23917/sinektika.vi.3765.

[17] V. Tsenova, G. Wood, and D. Kirk, "Designing with Genius Loci: An Approach to Polyvocality in Interactive Heritage Interpretation," Multimodal Technologies and Interaction, vol. 6, no. 6, pp. 41, 2022, doi: 10.3390/mti6060041.

[18] Z. Jiang and D. Lin, "Genius Loci of Ancient Village from the Perspective of Tourists Experience: Scale Development and Validation," International Journal of Environmental Research and Public Health, vol. 19, no. 8, pp. 4817, 2022, doi: 10.3390/ijerph19084817.

[19] I. Fitri, F. Siregar, Silvana, N. F. M. Ariffin, R. Ginting, and S. S. Indira, "An Adaptive Reuse Development Through Highest and Best Use Assessment: Case Study the Ex-Warenhuis, Medan, Indonesia," IOP Conference Series: Earth and Environmental Science, vol. 1188, pp. 012045, 2023, doi: 10.1088/1755-1315/1188/1/012045.

[20] H. Eyüboğlu and T. Zorlu, "Interior in Residential Premises That Support Ageing in Place for Older Users," Journal of Architectural Sciences and Applications, vol. 8, no. 2, pp. 639–654, 2023, doi: 10.30785/mbud.1299600.

[21] G. Schaff, A. Petermans, J. Vanrie, et al., "Architecture of home in later life: towards a fivefold theoretical model," Archnet-IJAR: International Journal of Architectural Research, vol. 16, no. 2, pp. 413–433, 2022, doi: 10.1108/ARCH-04-2021-0115.

[22] D. E. Crews, "Aging, frailty, and design of built environments," Journal of Physiological Anthropology, vol. 41, pp. 2, 2022, doi: 10.1186/s40101-021-00274-w.

[23] A. A. Ajani and D. T. Olapade, "Building design considerations for healthy and active aging-in-place," International Journal of Building Pathology and Adaptation, vol. 43, no. 6, pp. 1466–1481, 2024, doi: 10.1108/IJBPA-05-2023-0069.

[24] Izziah, M. Irwansyah, C. Nursaniah, and C. Dewi, "Rumoh Aceh: The architectural values of sustainability and tradition of disaster preparedness for Acehnese, Indonesia," Journal of Cultural Heritage Management and Sustainable Development, , 2025, doi: 10.1108/JCHMSD-07-2023-0119.