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Domestic Architectural Transformation and Cultural Continuity: The Case of Fala Kanci in Ternate City

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Abstract: Rapid urbanization in Ternate City has intensified pressure on domestic housing and accelerated changes in traditional dwellings such as Fala Kanci, raising challenges for adaptation without losing cultural identity. **Objective**: This study investigates how urbanization pressures, socio-economic conditions, and cultural values interact in shaping the spatial, material, and functional transformation of Fala Kanci domestic architecture across different urban contexts in Ternate City. **Method**: A qualitative approach was applied through field observations, in-depth interviews, questionnaires, and visual documentation of 36 Fala Kanci houses located in interior, peripheral, and urban core zones. Data were examined using thematic and comparative analysis to identify transformation patterns and cross-zone variations. **Findings**: Transformations occur unevenly. Urban core areas show the most intensive spatial expansion, increased material substitution from organic to industrial components, and broader functional diversification. Peripheral areas display mixed adaptation patterns, while interior areas exhibit stronger intergenerational continuity and greater preservation of traditional forms. Despite extensive physical modification, key cultural values communal interaction, family orientation, and symbolic identity remain embedded in spatial organization and selected architectural elements. **Implications**: The findings support context-sensitive strategies for architects, planners, and heritage practitioners to balance housing adaptation with cultural continuity in rapidly urbanizing island cities. **Originality**: This research contributes an integrative household-level account linking urbanization dynamics, socio-economic strategies, and cultural persistence an aspect often underexplored in vernacular architecture and urban studies.

Keywords: Cultural Identity, Fala Kanci, Housing Transformation, Urbanization, Vernacular Architecture.

INTRODUCTION

In recent decades, the development of Ternate City has been increasingly shaped by rapid urbanization, characterized by rising population density, shifts in settlement patterns, and the continuous expansion of built-up areas. As an island city with limited flat land and strong topographic constraints, Ternate has experienced spatial growth both horizontally and vertically, particularly in areas close to economic activity centers. Studies on settlement patterns based on topography indicate that these conditions have driven land-use changes

from non-built and agricultural areas into residential and commercial zones, including coastal and environmentally sensitive areas (Bian, 2022; Analysis of Settlement Patterns Based on Topography in Ternate City, 2023). These processes have intensified spatial pressure on domestic housing and encouraged residents to modify their dwellings to meet everyday needs, often occurring outside formal spatial planning frameworks. Within this context, traditional houses such as Fala Kanci face increasing pressure to adapt physically and functionally while remaining embedded in local cultural identity.

Existing literature on vernacular architecture generally falls into three main strands. The first focuses on vernacular architecture as a physical manifestation of cultural values, social identity, and indigenous knowledge, emphasizing its role in representing social organization, family structure, and everyday cultural practices (Erdogan & Atik, 2009; Philokyprou et al., 2025; Hu et al., 2023; Arias Tapiero et al., 2025). A second strand highlights the sustainability dimension of vernacular buildings through the use of local materials, traditional construction techniques, and climate-responsive design strategies (Fang, 2014; Zambrano et al., 2023; Jiménez Rios, 2025). A third body of research examines spatial transformation of traditional houses, demonstrating that changes in layout and spatial organization tend to follow inherited cultural rules and social logic rather than arbitrary modification (Lambe & Dongre, 2016; Ragab, 2007; Yoas & Muslimin, 2023; Zhu et al., 2023). While these studies provide important insights, they largely remain descriptive or focus on specific spatial logic, offering limited understanding of how socio-economic pressures and urban dynamics translate into concrete spatial, material, and functional transformations at the household level. Moreover, research on urbanization and housing transformation often operates at macro scales, linking urban growth and economic restructuring to housing change without sufficiently addressing internal spatial configuration and cultural meaning within vernacular houses (Chen, 2017; Wang & Feng, 2014; Feng & Wang, 2025; Roy & Husain, 2025). This lack of integrated, household-level analysis constitutes a significant gap in the literature.

Responding to this gap, this study aims to investigate the transformation of *Fala Kanci* domestic architecture in Ternate City by examining how urbanization pressures, socio-economic conditions, and cultural values jointly shape changes in spatial layout, building materials, and functional use. Specifically, the study seeks to identify patterns of spatial, material, and functional transformation of *Fala Kanci* houses and to compare the intensity and characteristics of these transformations across different urban contexts, namely

interior, peripheral, and urban core areas. Through this approach, the study addresses the need for a more integrative understanding of vernacular housing transformation that connects urban dynamics with household-level architectural change.

This study is grounded in the argument that the transformation of *Fala Kanci* is not merely a physical response to modernization, but a socio-spatial process shaped by the interaction between urban pressure, household economic strategies, and enduring cultural values. Drawing on theories that view architecture as a reflection of cultural systems and social organization (Rapoport, 1969; Kent, 1990), it is argued that areas exposed to stronger urban and economic pressures experience more intensive spatial expansion, material substitution, and functional diversification. At the same time, cultural values are not simply displaced by modernization; rather, they are selectively negotiated and re-embedded within spatial arrangements and symbolic architectural elements. Thus, the transformation of *Fala Kanci* reflects a dynamic balance between adaptation and continuity, in which tradition and modernity coexist within evolving domestic architecture.

RESEARCH METHOD

Unit of Analysis

The unit of analysis in this study is Fala Kanci traditional houses in Ternate City as domestic architectural artifacts undergoing transformation. Each Fala Kanci is examined as an individual analytical unit representing changes in spatial layout, material use, and building functions, as well as their relationship with the socio-economic conditions and cultural values of the occupants. In addition to the physical buildings, household occupants are considered as contextual units to provide insight into the social background and motivations underlying architectural transformation.

Research Design

This study adopts a qualitative research approach within a naturalistic paradigm, as it seeks to understand architectural transformation as a socio-cultural phenomenon embedded in its real-life context. This approach is chosen because it enables an in-depth exploration of meanings, values, and practices that shape changes in Fala Kanci, which cannot be adequately captured through quantitative methods alone. The qualitative design is particularly suitable for examining vernacular architecture, where interpretation of local knowledge and cultural context is essential.

Study Area and Data Sources

The study was conducted in four districts of Ternate City, namely Pulau Ternate, Ternate Selatan, Ternate Utara, and Ternate Tengah. These districts were selected to represent different urban contexts and were grouped into three categories: interior areas (Pulau Ternate), peripheral areas (Ternate Selatan and Ternate Utara), and the urban core (Ternate Tengah). Primary data were obtained from occupants or owners of Fala Kanci houses as key informants. Secondary data were collected from spatial planning documents, settlement maps, and relevant literature related to urban development and vernacular architecture in Ternate City.

Data Collection Techniques

Data collection was carried out using multiple techniques to ensure comprehensive coverage and triangulation. Field observations were conducted to document physical conditions of buildings, including spatial configuration, roof form, wall materials, and building extensions. Semi-structured interviews were used to explore household socio-economic conditions, family structure, cultural values, and motivations behind architectural transformation. Questionnaires were employed to collect supporting information for cross-case comparison, particularly regarding occupancy history and functional use of space. Visual documentation, including photographs and architectural sketches, was used to record existing conditions and spatial changes in Fala Kanci houses.

Data Analysis

Data analysis was conducted using a descriptive and comparative qualitative approach. Qualitative data from interviews and observations were analyzed thematically through coding and categorization to identify recurring patterns of spatial transformation, material change, functional adaptation, and cultural persistence. Quantitative data from questionnaires were used to support and validate qualitative interpretations. Comparative analysis across interior, peripheral, and urban core areas was performed to examine variations in the intensity and characteristics of Fala Kanci transformation under different urban contexts. Source and method triangulation were applied to enhance the credibility and reliability of the findings.

RESULT AND DISCUSSION

Study Area and Sampling Context

Ternate City is located in North Maluku Province, Indonesia, at the foothills of Mount Gamalama on Ternate Island. The city covers an area of 162.03 km² and consists of seven districts. This study selected four districts Pulau Ternate, Ternate Selatan, Ternate Utara, and Ternate Tengah to represent spatial variation in settlement character. To enable comparison, these districts were grouped into three area categories: interior (pedalaman/behind the mountain) represented by Pulau Ternate, peripheral (pinggiran kota) represented by Ternate Selatan and Ternate Utara, and urban core (pusat kota) represented by Ternate Tengah. This categorization becomes important because the transformation of Fala Kanci is expected to differ across zones with different degrees of urban pressure and accessibility.

Identity of Fala Kanci and Intergenerational Occupancy

Ternate Land (Interior Area)

Fala Kanci in Pulau Ternate represents the interior context (behind the mountain), where settlement change tends to be slower and household continuity is relatively strong. The surveyed houses are typically inherited and inhabited across multiple generations.

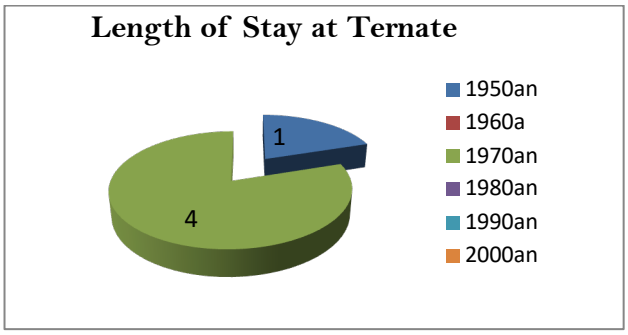


Figure 1. Length of Residence in Fala Kanci, Ternate Land District

Based on survey and questionnaire data from Kelurahan Jambula, Pulau Ternate, the sample includes five Fala Kanci. Among these, one household has occupied the house since the 1950s, while four have been occupied since the 1970s. This pattern indicates that Fala Kanci in the interior area has existed at least since the mid-20th century and remains physically present today. The occupants are largely second and third generations, and the houses are mainly inherited from grandparents or parents. This intergenerational continuity provides an important baseline for understanding how "heritage houses" survive and adapt under different urban contexts.

North Ternate City (Peripheral Area)

In the peripheral area of Ternate Utara, Fala Kanci is still present, but the continuity of knowledge about the house's construction history becomes weaker, partly because of tenancy and household turnover

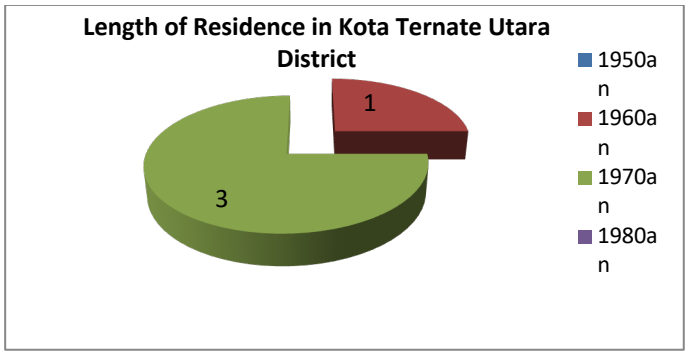


Figure 2. Length of Residence in Fala Kanci, Kota Ternate Utara District

From nine sampled Fala Kanci, only four occupants could identify the period when the house was built, while five did not provide an answer. This occurs because some occupants are renters rather than original owners, and many owner-occupants are later-generation heirs who do not know the exact construction period, especially after older family members have passed away. This finding suggests that peripheral urban contexts may experience not only physical transformation but also a gradual weakening of historical knowledge transmission, which can affect how and why renovations are carried out.

South Ternate City (Peripheral Area)

Compared with Ternate Utara, the peripheral area of Ternate Selatan shows more consistent ownership continuity, which supports better historical awareness of when Fala Kanci was built.

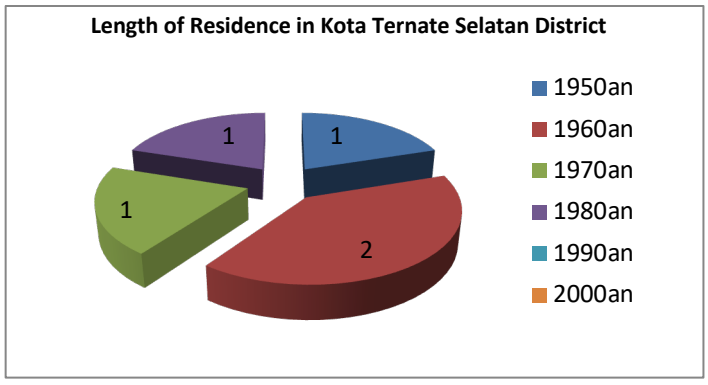


Figure 3. Length of Residence in Fala Kanci, Kota Ternate Selatan District

Across the kelurahan in Ternate Selatan where Fala Kanci still exists, only one occupant did not know when the house was built, mainly because the person is a new owner who purchased the house from a previous household. Most other occupants are descendants of original owners. This pattern indicates that when intergenerational continuity remains strong, information about the house's origins and transformation trajectory tends to be better preserved.

Ternate Central (Urban Core)

In the urban core, Fala Kanci tends to face the strongest pressure for physical modification and household replacement due to proximity to central activities and higher exposure to urban development dynamics.

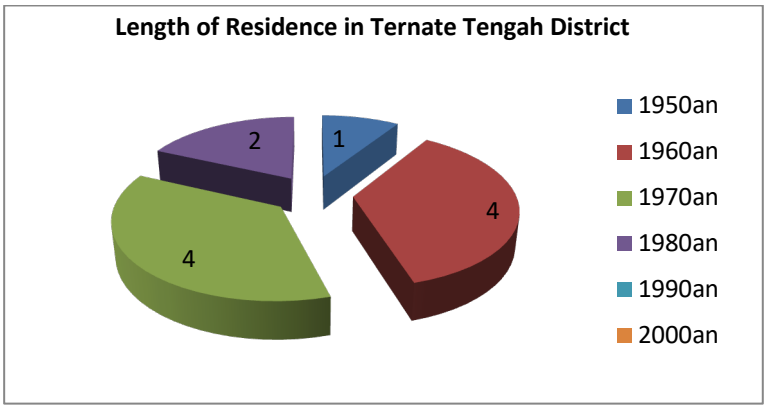


Figure 4. Length of Residence in Fala Kanci, Ternate Tengah District

In Ternate Tengah, the study identified 14 Fala Kanci built between the 1950s and 1980s. Among the 14 occupants, three did not know the construction period because they are renters. This suggests that the city center experiences higher tenancy and turnover than interior areas. From a transformation standpoint, the urban core context is significant because replacement of occupants often accelerates functional and material changes, especially when houses become economically strategic assets.

Architectural Identity: Structure, Materials, Spatial Layout, and Cultural Meaning

Beyond occupancy history, Fala Kanci is defined by its distinctive structural system, materiality, spatial organization, and socio-cultural symbolism. Structurally, the most prominent identity marker is its wooden pegged joint system (pasak) without nails, reflecting local knowledge developed through long-term experience. This system provides

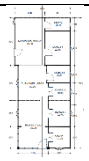
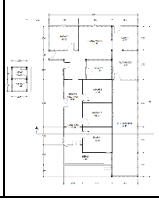
flexibility against environmental conditions such as ground movement and climatic variation, making it highly compatible with island geographies. In terms of materials, the house traditionally uses accessible local resources, most notably gaba-gaba (sago frond panels) for walls, which also help regulate temperature and humidity in tropical conditions. Spatially, Fala Kanci is generally organized as a compact main volume (square or near-rectangular), with room arrangements shaped by extended-family living and customary norms. Culturally, the house functions not only as shelter but also as a social setting where adat values, family roles, and community identity are reproduced through daily interaction.

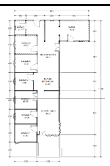
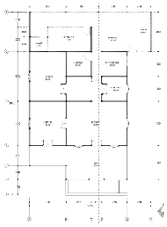
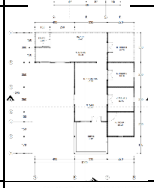
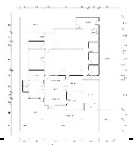
Transformation of Form, Function, and Building Elements

Layout Transformation (Denah and Space Use)

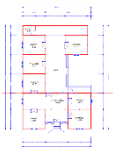
The dominant transformation observed in Fala Kanci is layout change through space addition. Most modifications involve adding bedrooms, kitchens, and sanitary spaces (bathroom/WC), often because of household growth and evolving daily needs. In several cases, changes also reflect economic strategies, such as adding kiosks/warung spaces or converting houses into rental accommodation.

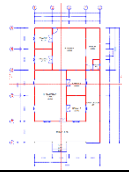
Table 1. Types of Layout (Spatial) Changes in Fala Kanci

No	Building Code	Picture	Original Layout	Layout change	Faktor Penyebab	Category
1	TP-01		Dwelling with 2 bedrooms; living room merged with family room; dining room and kitchen separated	Addition of 3 bedrooms; kitchen merged with dining area	Increase in family members	Additional bedrooms
2	TP-02		Dwelling with 2 bedrooms; front terrace; living room; dining room and kitchen separated	Addition of 3 bedrooms, bathroom and toilet, and integrated kitchen	Increase in family members	Additional bedrooms and utility spaces
3	TP-03		Dwelling with 3 bedrooms; front terrace; living room; dining room and kitchen separated	Addition of 2 bedrooms, bathroom, toilet, and new dining area integrated with kitchen	Increase in family members	Additional bedrooms and utility spaces
4	TP-04		Dwelling with 3 bedrooms; combined living–family room; kitchen and dining area; separate bathroom and toilet	Addition of kiosk and rear extension (bedrooms, kitchen, dining, laundry)	Increase in family members	Additional bedrooms, utilities, and economic space

No	Building Code	Picture	Original Layout	Layout change	Faktor Penyebab	Category
5	TP-05		Dwelling with 4 bedrooms; combined living–family room; front terrace; separate kitchen and bathroom	Addition of 2 bedrooms, bathroom, toilet, and integrated dining–kitchen	Increase in family members	Additional bedrooms and utility spaces
6	TU-01		Dwelling with 4 bedrooms; living room; front terrace; separate kitchen and bathroom	Addition of 4 bedrooms reconfigured from existing plan	Economic factor (household income)	Functional change into boarding house
7	TU-02		Dwelling with 3 bedrooms; combined living–family room; kitchen and dining area	Addition of storage room and kitchen expansion integrated with main building	Changing needs and modernization	House extension with new utility area
8	TU-03		Dwelling with 3 bedrooms; combined living–family room; kitchen and dining area	Addition of bedrooms in living room and rear area; integration of kitchen and bathroom	Increase in family members	House extension with bedrooms and utilities
9	TU-04		Dwelling with 3 bedrooms; combined living–family room; kitchen and dining area	Renovation and integration of kitchen, bathroom, and toilet	Modernization and occupant needs	Kitchen and utility development
10	TU-05		Dwelling with 3 bedrooms; combined living–family room; kitchen and dining area	Development of new kitchen area and additional bedroom	Increase in occupants	Rear house extension
11	TU-06		Dwelling with 5 bedrooms; living and family rooms; front terrace	Layout change in dining area and addition of toilet	Commercial use (rental)	Functional change
12	TU-07		Dwelling with 2 bedrooms; separate family room; kitchen and dining area	Addition of 2 bedrooms integrating kitchen and sanitary spaces	Increase in family members	Rear extension with new bedrooms
13	TU-08		Dwelling with 3 bedrooms; living room; dining area; separate kitchen	Addition of 2 bedrooms integrating kitchen and dining area	Increase in family members	Rear extension with new bedrooms

No	Building Code	Picture	Original Layout	Layout change	Faktor Penyebab	Category
14	TU-09		Dwelling with 3 bedrooms; living room; dining area; separate kitchen	Addition of front terrace, bedroom, and rear dining area	Increase in family members	Rear extension and spatial reconfiguration
15	TS-01		Dwelling with 3 bedrooms; living room; dining area; separate kitchen	Expansion of kitchen and dining area with new bathroom and toilet	Increase in family members	Kitchen extension
16	TS-02		Dwelling with 2 bedrooms; terrace; living room; dining area	Addition of front commercial space (kiosk/shop)	Economic needs	Commercial space addition
17	TS-03		Dwelling with 3 bedrooms; terrace; living room; dining area	Addition of multiple bedrooms and sanitary facilities	Economic needs	Functional change into boarding house
18	TS-04		Dwelling with 4 bedrooms; terrace; living room; dining area	No spatial change	–	No change
19	TS-05		Dwelling with 2 bedrooms; terrace; living room; dining area	Addition of bedrooms integrating kitchen and sanitary spaces	Increase in family members	Rear extension with bedrooms
20	TS-06		Dwelling with 3 bedrooms; terrace; living room; dining area	No spatial change	–	No change
21	TS-07		Dwelling with 3 bedrooms; living room; dining area; separate kitchen	Addition of bedroom, storage, utilities, and business space	Increase in occupants and functions	Utility and commercial expansion
22	TBN.08 (TS-08)		Dwelling with 3 bedrooms; living room; dining area; kitchen	Addition of rear bedroom	Increase in occupants	House extension

No	Building Code	Picture	Original Layout	Layout change	Faktor Penyebab	Category
23	MKR.01 (TT-01)		Dwelling with 3 bedrooms; living room; dining area; kitchen	Addition of bedroom integrating kitchen and dining area	Increase in family members	House extension
24	MKR.02 (TT-02)		Dwelling with 4 bedrooms; terrace; storage; kitchen	Kitchen expansion and addition of bedroom and storage	Increase in family members	House extension
25	TRJ.03 (TT-03)		Dwelling with 4 bedrooms; terrace; living room; dining area	Addition and expansion of bedrooms	Increase in family members	House extension
26	TRJ.04 (TT-04)		Dwelling with 3 bedrooms; terrace; living room; dining area	No spatial change	–	No change
27	MHJ.05 (TT-05)		Dwelling with 3 bedrooms; terrace; living room; dining area	No spatial change	–	No change
28	TKM.06 (TT-06)		Dwelling with 4 bedrooms; living and family rooms	No spatial change	–	No change
29	GML.07 (TT-07)		Dwelling with 4 bedrooms; living and family rooms	No spatial change	–	No change
30	STG.08 (TT-08)		Dwelling with 4 bedrooms; living and family rooms	No spatial change	–	No change
31	TT-09		Dwelling with 3 bedrooms; combined living–family room	Addition of bedrooms and family room; kitchen expansion	Increase in family members	House extension
32	TT-10		Dwelling with 3 bedrooms; combined living–family room	Functional change from dwelling to office	Economic factor	Functional change
33	TT-11		Dwelling with 3 bedrooms; combined living–family room	Expansion of kitchen and dining	Increase in family members	House extension

No	Building Code	Picture	Original Layout	Layout change	Faktor Penyebab	Category
				area; additional bathrooms		
34	KBR.12 TT-12		Dwelling with 4 bedrooms; combined living–family room	No spatial change	–	No change
35	TT-13		Dwelling with 2 bedrooms; living room merged with family room; dining room and kitchen separated	Addition of 3 bedrooms; kitchen merged with dining area	Increase in family members	Additional bedrooms
36	TT-14		Dwelling with 2 bedrooms; front terrace; living room; dining room and kitchen separated	Addition of 3 bedrooms, bathroom and toilet, and integrated kitchen	Increase in family members	Additional bedrooms and utility spaces

Roof Transformation

The roof is a defining architectural element of Fala Kanci and serves as a key indicator of its vernacular typology. In this study, roof transformation is examined through two main aspects: roof form and roof covering material. Traditionally, Fala Kanci houses are characterized by *limasan* roof forms and the use of natural sago leaf (*katu*) as roofing material. However, field observations reveal that urbanization and material modernization have introduced notable changes to these elements.

Table 2. Type of Roof Transformation

Type of Roof Transformation	Observed in	Description	Main Causes
Addition of new roof	TP.02, TT.04	Addition of new rooms attached to the original Fala Kanci structure	(1) Adaptation to contemporary development(2) Spatial expansion(3) Economic needs(4) Change of building function
Complete transformation (form and material)	TP.01	Roof form changed from *limasan* to gable roof	Adaptation to modern construction preferences
Change of roof covering material	TP.02, TP.03, TU.01, TU.02, TU.03, TU.04, TU.05, TU.06, TU.07, TU.09, TS.01, TS.03, TS.04, TS.05, TT.01,	Replacement of traditional *katu* (sago leaf) roofing with corrugated metal sheets	Availability of modern materials, durability, ease of installation

Type of Roof Transformation	Observed in	Description	Main Causes
	TT.03, TT.05, TT.06, TT.07, TT.08, TT.10, TT.11, TT.12, TT.14		
Partial change of roof form with complete material replacement	TS.04, TS.05, TU.08, TS.06, TS.07, TT.08, TT.02, TT.09, TT.13	Roof form partially changed from *limasan* to gable, accompanied by full replacement of roofing material from *katu* to metal sheets	Functional adaptation and moder

Table 2 summarizes the types of roof transformation identified in the 36 observed Fala Kanci houses. The data show that roof changes predominantly involve material substitution rather than form alteration. Of the total sample, 24 houses (66.66%) experienced replacement of traditional *katu* roofing with corrugated metal sheets (*seng*), while 9 houses (25%) underwent partial changes in roof form accompanied by complete material replacement. Only 2 houses (5.55%) added new roof structures attached to the original building, and 1 house (2.77%) experienced a complete transformation in both roof form and material.

These findings indicate that the most significant roof transformation in Fala Kanci is the shift from organic to industrial roofing materials. The widespread adoption of metal roofing reflects pragmatic considerations, including material availability, durability, affordability, and ease of installation. While roof forms largely retain their traditional typological character, the replacement of *katu* suggests a gradual detachment from locally sourced materials. This transformation illustrates selective adaptation, in which residents modernize building components perceived as functional necessities while maintaining recognizable vernacular forms.

Wall Transformation

Wall transformation in Fala Kanci houses represents another major dimension of architectural change and reflects shifts in construction technology, spatial needs, and socio-economic conditions. In this study, wall transformation is classified into two main types: changes in wall material composition and changes in wall finishing or plastering. Traditionally, Fala Kanci walls were constructed using locally available materials such as *gaba-gaba* (sago midrib), wooden boards, and woven bamboo (*patate*). In contrast,

contemporary modifications increasingly employ brick masonry, cement plaster, plywood, and metal sheets.

Table 3. Type of Wall Transformation

Type of Wall Transformation	Observed in	Main Causes	Description
Change in wall material (partial)	TP.01, TP.02, TU.07, TT.12	Modern construction materials are more practical and easier to obtain and apply	Replacement of traditional *patate* (woven bamboo) with brick and cement walls
Change in wall plastering	TT.06, TT.10	Cement plaster is more practical and durable than traditional materials	Repair of deteriorated traditional wall plaster using modern cement plaster
Addition of new walls with modern materials	TP.03, TP.04, TP.05, TU.01, TU.02, TU.03, TU.04, TU.05, TU.06, TU.08, TU.09, TS.01, TS.06, TBN.08, TT.02, TT.03, TT.04, TT.05, TT.09, TT.13	Increased spatial demand due to household growth and functional change	Construction of new spaces using brick, cement, plaster, and paint, with limited use of wooden walls combined with plywood
Addition of new walls using traditional or similar materials	None observed	Scarcity of traditional materials and skilled craftsmen	Traditional materials and skilled artisans are increasingly rare and costly, discouraging their continued use

As presented in Table 3, the most prevalent form of wall transformation is the addition of new walls using modern materials, occurring in 21 houses (58.33%). This is followed by partial replacement of traditional wall materials notably the substitution of woven bamboo with brick masonry in 4 houses (11.11%). Changes limited to wall plastering, mainly from traditional lime-based finishes to cement, were identified in 2 houses (5.55%). Meanwhile, 9 houses (25%) did not experience any wall transformation, indicating a degree of architectural persistence.

The dominance of brick and cement walls highlights the strong influence of modern construction technology and changing household needs. Wall additions are primarily associated with spatial expansion to accommodate growing family sizes or changes in building function. At the same time, the limited use of traditional materials reflects their increasing scarcity, higher costs, and the declining availability of skilled craftsmen capable of working with vernacular construction techniques. Consequently, wall transformation

emerges as a critical mechanism through which modern materials gradually replace local building traditions, even as the overall spatial organization of Fala Kanci often remains rooted in vernacular principles.

Discussion

The findings of this study reveal that the transformation of Fala Kanci domestic architecture in Ternate City occurs unevenly across urban contexts and follows a layered pattern of change. Interior areas demonstrate strong intergenerational continuity with limited physical modification, while peripheral and urban core areas experience more intensive spatial expansion, material substitution, and functional diversification. These variations indicate that urban pressure does not operate uniformly but interacts with local socio-economic conditions to shape distinct transformation trajectories within vernacular housing.

These transformation patterns can be explained by differences in exposure to urban dynamics and economic opportunities. In urban core areas, proximity to commercial centers, higher land values, and increased household turnover encourage the conversion of domestic spaces into rental units, offices, or commercial facilities. Peripheral areas exhibit moderate levels of transformation driven primarily by household growth and income diversification, whereas interior areas remain relatively stable due to lower urban exposure and stronger inheritance-based occupancy. This suggests that spatial and material changes are often incremental responses to practical needs rather than radical departures from vernacular traditions.

When compared with previous studies, the findings support the argument that vernacular architecture reflects cultural systems and social organization (Rapoport, 1969; Kent, 1990) and that spatial change tends to follow inherited social logic (Lambe & Dongre, 2016; Yoas & Muslimin, 2023). However, unlike studies that focus mainly on documentation and conservation of vernacular houses (Erdogan & Atik, 2009; Philokyprou et al., 2025), this research demonstrates how socio-economic pressures and urbanization processes directly translate into spatial, material, and functional transformations at the household level. Moreover, in contrast to macro-scale urbanization research that emphasizes housing markets and policy dynamics (Chen, 2017; Wang & Feng, 2014; Feng & Wang, 2025), this study offers a micro-scale, integrative perspective that connects urban dynamics with everyday domestic practices in a small island city context.

Despite substantial physical modification, cultural values are not simply displaced by modernization. Instead, they are selectively negotiated and re-embedded within domestic spaces through the continued importance of communal living areas, family-oriented spatial organization, and symbolic architectural elements. This finding underscores that vernacular architecture functions as a living system capable of adaptation, where tradition and modernity coexist rather than compete. At the same time, the gradual replacement of traditional materials and construction techniques highlights potential risks to the continuity of local building knowledge and craftsmanship.

From a practical standpoint, these findings suggest that housing transformation in Ternate City should be guided by context-sensitive planning and design strategies. Rather than imposing uniform conservation or modernization approaches, architects and planners should recognize the differentiated needs of interior, peripheral, and urban core areas. Retaining key spatial and symbolic elements while allowing flexible material and functional adaptation can support sustainable urban development that balances modernization with cultural continuity. In this way, Fala Kanci domestic architecture can continue to evolve as a culturally grounded response to urban change rather than being reduced to a static heritage artifact.

CONCLUSION

This study demonstrates that Fala Kanci, as a form of traditional domestic architecture of the Ternate community, has undergone continuous transformation in response to social, economic, and cultural changes. The most pronounced transformations occur in urban areas, where material substitution and functional modification of spaces are driven by increasing household needs and urban pressures. Nevertheless, the findings reveal that these physical changes do not necessarily signify the erosion of cultural values. Instead, key cultural principles such as social interaction, family orientation, and symbolic identity remain embedded within spatial arrangements and architectural elements of Fala Kanci.

From a scientific perspective, this research contributes to the discourse on vernacular architecture by providing empirical evidence at the household level on how cultural values persist and are renegotiated within transformed domestic spaces under urbanization pressures. By integrating socio-economic conditions, spatial transformation, and cultural interpretation, this study advances existing literature that has predominantly focused on descriptive conservation or macro-scale urban processes. The findings position Fala Kanci

as a living architectural system that reflects dynamic adaptation rather than static preservation.

Despite its contributions, this study is limited by its focus on a specific geographic and cultural context within Ternate City, which may constrain broader generalization. Future research could expand comparative analysis across different island cities or incorporate longitudinal approaches to capture transformation processes over time. Such studies would deepen understanding of how vernacular domestic architecture across the Indonesian archipelago can inform culturally grounded and sustainable architectural development in the face of globalization.

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