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# Vernacular identity conservation: architectural ethnography fieldwork on Cham housing in Mekong Delta, Vietnam

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**Abstract.** With the technology advances recently, cities are transforming at an unprecedented speed. Meanwhile, the focus is given unequally to preserving culture worldwide, which makes ethnicity conservation a challenge for authorities of lower-income countries. In this context, the approach to vernacular architecture has shifted towards learning and applying environmentally friendly principles for sustainable design. Vietnam is already a rare example of its 54 ethnicities and architectural heritage that survived through generations of colonization and is a growing interest in city development. However, in remote areas, the conservation of local identity from vernacular knowledge is lacking due to unequal attention given to ethnic people. Such a case exists in the Cham Muslim village at the Northwest borders of the Mekong Delta region, which is the motivation for this study. In this research, the authors have conducted extensive on-site fieldwork of approximately two thousand rural houses of the ethnic Cham for two months. Through fieldwork collection of everyday life, the research employs the vigorous practice of architectural ethnography and a critical approach to environmental consciousness. Developed from previous work on the spatial formation and transformation of Cham village housing typology, this paper examines the process of architectural ethnography fieldwork employed to define the evolution of Cham Muslim villages and housing. These characteristics contribute to their identity, their community, and their adaptation to cohabitation with other ethnic in the Mekong Delta. The results show how the spatial layout and architectural elements of Cham traditional housing are made conscious of their day-to-day activities, lifestyle and living environment. Furthermore, the vernacular knowledge of living with nature contributes to preserving its cultural and architectural heritage and protects the community identity from homogenization and eradication. The outcome of such a tenuous practice can be a valuable archive to discuss the future development of cities in Vietnam, which are currently under threat of fast and destructive urbanization.

## 1. Introduction

The Mekong Delta, home to diverse ethnic groups, embodies a region shaped by territorial invasion, migration pathways, and cultural interactions among diverse communities. This vast canvas is adorned with ancestral lands of indigenous Khmer inhabitants, early Vietnamese settlers, and emerging Chinese communities, each with distinct cultural and religious identities. The diversity within this area forms a rich tapestry, often collectively labelled under a common name by the dominant community, resembling integral cells contributing to a harmonious whole. Yet, in the examination of ethnic housing, greater



emphasis is placed on readily accessible communities such as the Vietnamese and Chinese or nearly extinct communities like the Khmer. As noted by Taylor [1], the investigation of the Muslim Cham community, distinguished by its distinctive identity encompassing religious, political, and economic aspects, still lacks comprehensive scientific and documented data on spatial layout. To make an explicit record of this isolated community, the authors applied the method of architectural ethnography fieldwork to bridge the substantial built environment and the intangible aspects of daily living of Cham Muslim people. Ethnography fieldwork is a study observing social behaviors using a descriptive and empirical method to document the evolution of society and architecture, including the influence of individuals on the built environment [2]. Through fieldwork, the authors employ an interdisciplinary approach, incorporating anthropology and art into recording daily living and exploring socio-cultural narratives in architectural forms alongside their historical context to discuss ethnic evolution as a cultural identity. Together with the traditional research method through cartography and literature review, this study approaches the target of ethnic houses by exploring residential spaces and village settlements, capturing living habits that evolve through time and story, and describing culture from the form of the Habitat.

Furthermore, facing the risk of fading away, communities like the Muslim Cham require urgent conservation policies and tailored solutions rooted in the community's needs and local resources. Such studies are crucial for maintaining cultural diversity amid the rapid urbanisation sweeping the Vietnamese Mekong Delta. The outcome of this research contributes novel insights into local Islamic architecture within the broader Southeast Asian region. Recording the core principles of these buildings, both their physical and social aspects, could be used to preserve the distinct characteristics of the expansion process of Cham Muslim settlements in the future. Hence, in terms of vernacular identity conservation, this study supports the completion of the database on the restoration and renovation of degrading traditional houses in the Cham Muslim communities in the Mekong Delta.

## 2. Methodology

In academic discussions, research on ethnic architecture in the Mekong Delta is notably scarce and lacks authenticity, primarily relying on studies dating back to the 1990s. The material culture exploration is fragmented, with Vietnamese academic studies compiled from disparate information and images lacking specific verifications. Besides, due to the rapid urbanization in the central Mekong Delta featuring a transition to concrete structures, eroding indigenous architectural traits and colonial French influences. Driven by an interest in uncovering ethnic identity in the Mekong Delta for proper conservation of vernacular architecture, this study utilized a rigorous combination of examination of antiquated cartographic sources, academic consultations, and on-site investigations in Vietnam. The process delimited the boundaries of nine Cham Muslim villages and documented the remaining old houses in the An Giang province of the Mekong Delta. The database encompasses 2028 residential properties, including 1974 houses and 151 traditional ones. For the study on the transformation of the traditional ones, the data comprises site surveys involving drawings, site integration, and photos of 151 houses. The research methodology involves:

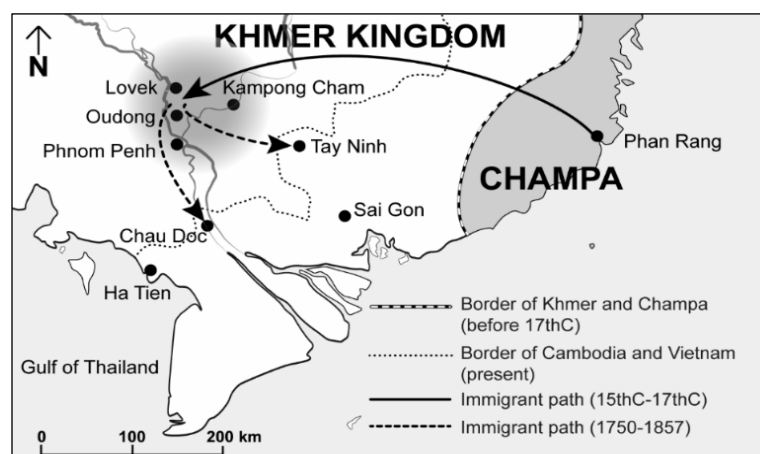
- Gathering historical evolution records in the Mekong Delta
- Collecting statistical data on population, political, economic, and religious evolutions of Mekong Delta ethnicities through a graphical database
- Conducting two years of field trips (August 2017 to January 2019) with two months of intensive fieldwork (March 2018, June-July 2018) to acquire necessary drawings, interviews, and observations for constructing the research database
- Analyzing urban planning archives and mapping from satellite data, cross-referencing with anthropology studies during on-site fieldwork.

During the process, several interrelated issues within the research scope, such as historical events, physical characteristics, village size, boundaries between communities, natural and artificial elements defining the urban pattern of villages, and the original typology of each ethnicity's housing. To solve this mismatch and decide the most relevant sources for our comprehensive framework, we based on the method of ethnography architectural fieldwork. This method records the built environment based on

drawings, and intensive fieldwork records the situation through people's dialogue, discourse, and observation of living habits to depict the patterns of life and rationale of the present.

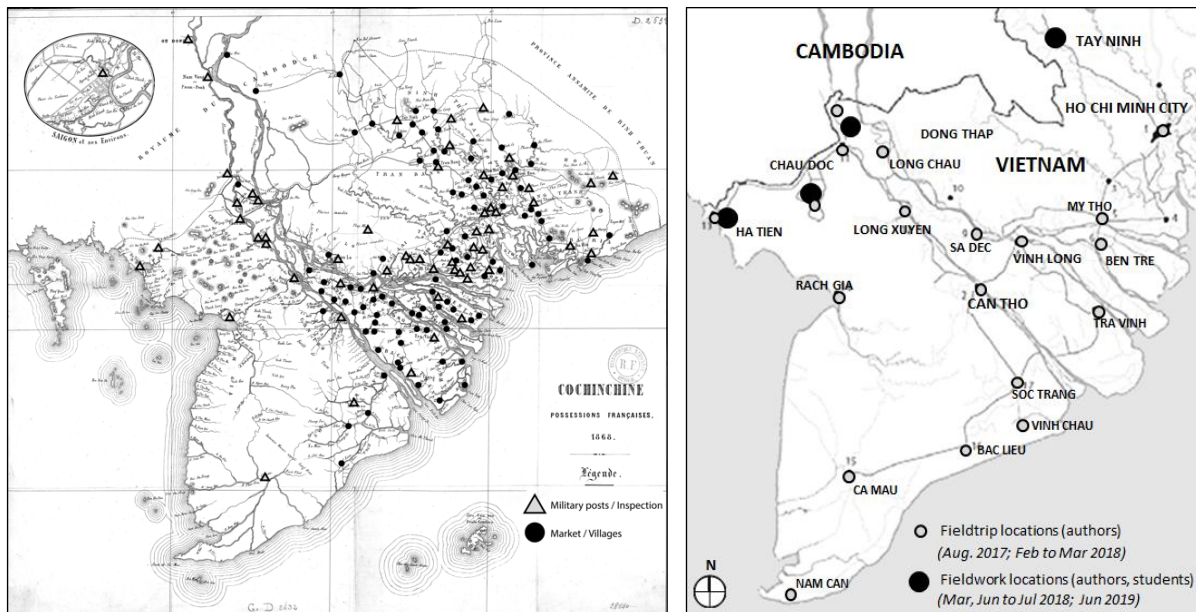
### 3. Delimited study zone of Muslim Cham villages in Mekong Delta

Since the 17th century, the Mekong Delta has witnessed migrations of various ethnic groups, including the Vietnamese, Khmer, Chinese, and Muslim Cham, with historical fluctuations. By chronological order, the Khmer people settled in Tra Vinh, Soc Trang and a little in An Giang province [3]. The Vietnamese, now the dominant ethnic group, arrived from Central Vietnam in the early 17th century, spreading across 13 provinces and cities, making up 92% of the total population [4, 5]. The Chinese, migrating during the Qing Dynasty in 1703, settled in Soc Trang, My Tho, Bac Lieu, An Giang, Kien Giang, and Ca Mau. The Cham community, a minority group of 15,823 people, migrated in the late 18th century, residing near rivers and canals in An Giang province, close to the Cambodian border (Figure 1). Nakamura's research delineates three distinct religious groups within the Cham community in Vietnam: Cham Balamon follows the indigenous form of Hinduism, Cham Bani follows both Hinduism and Sunni Islam, and Cham people follow orthodox Sunni Islam [6]. The Cham Balamon and Cham Bani communities are predominantly settled in Ninh Thuan and Binh Thuan, while the orthodox Muslim Cham community primarily resides in An Giang province [7].



**Figure 1.** Immigration path of Cham Muslim people from the 18th century.

After the Vietnam civil war in 1975, the Cham Muslims settled in new economic zones with trade, fishing, and handloom weaving as activities. While residing mainly near rivers and canals, they typically do not open shops where they live like other ethnicities but do business far away from home, resulting in a lifestyle of heavy reliance on water transport. Cham Muslim villages in An Giang exhibit a dispersed distribution along rivers and canals, a pattern attributed to the 18th-century "divide to rule" of Vietnamese court military policy aimed at controlling the southern border with Cambodia. This strategic distribution involves scattering Cham villages into small clusters integrated with Vietnamese villages, facilitating government management, and serving as a preventative measure against uprisings or protests [8]. We could achieve a comprehensive interpretation by comparing the distribution of military checkpoints and village locations on colonial-era maps, such as the 1868 map [9], with collected historical data and events. The analysis reveals a dense and strategically deployed network of military bases interspersed to oversee residential areas. Particularly in politically significant zones like the Cambodian border, Ha Tien seaport, and both banks of the Mekong River, military outposts were strategically prioritized due to their substantial influence on territorial control, whether under Vietnamese governance or during the French colonial era [10]. Following the synthesis of spatial data, we decided on a field trip to Vietnam to define the area relevant to the study (Figure 2).



**Figure 2.** Tracing the evolution of Cham Muslim village (1868) [9] for the field trip (2017-2019).

#### 4. Architectural ethnography fieldwork on Cham housing

In the summer of 2017, a research team consisting of authors, an academic in urban history and a scholar expert conducted an extensive field survey across urban and suburban areas of the Mekong Delta, focusing on provinces such as Tien Giang, Can Tho, Tra Vinh, Soc Trang, Vinh Long, Vinh Chau, Bac Lieu, Ca Mau, Ha Tien, and Chau Doc. The primary objective of this expedition was to gain an in-depth understanding of the prevailing architectural characteristics within the broader context of the Mekong Delta landscape. After several field trips, besides visiting well-known heritage sites such as ancient houses in Tien Giang and Ha Tien, numerous concealed and well-maintained traditional houses were discovered along the route, some by chance and others introduced by local inhabitants. These surviving traditional houses, subject to alterations due to various factors associated with modern lifestyles, primarily suffer from significant deterioration due to a lack of proper preservation measures. The expedition facilitated an exploration of the contemporary state of indigenous architecture among four distinct ethnic groups: Vietnamese, Khmer, Chinese, and Cham Muslims. In general, heritage structures, especially the traditional houses of Vietnamese, Khmer, and Chinese ethnic groups, have undergone notable transformations and are dispersed across provinces, posing challenges for systematic classification. However, the Cham Muslim villages along the Hau River in An Giang Province exhibited a remarkable sense of unity and discernible spatial organization. As the researchers traversed the Cham villages in Chau Doc, a distinctive identity of culture and architecture prevailed, providing a specific urban layout contrasting to the urban enclaves dominated by the Vietnamese community in the Mekong Delta region. It was necessary to delve deeper and define specific plans for an intensive survey of Cham villages in the An Giang region. While we were aware of Cham Muslim village locations based on online information, archives and literature, the challenge and difficulties are much more from the vague markings on the maps. To explicitly record the physical layout and boundaries of the villages that lacked accompanying details, a close-up survey to gather comprehensive data is the next step.

##### 4.1. Tracing the village settlements

Through literature, we found some maps depicting the Cham settlement locations in An Giang with valuable information (Figure 3). Also, integrating population data on ethnic groups in the Mekong Delta from government sources led to the conclusion that the Cham people in the Mekong Delta are concentrated mostly in the Bassac River basin, An Giang province.

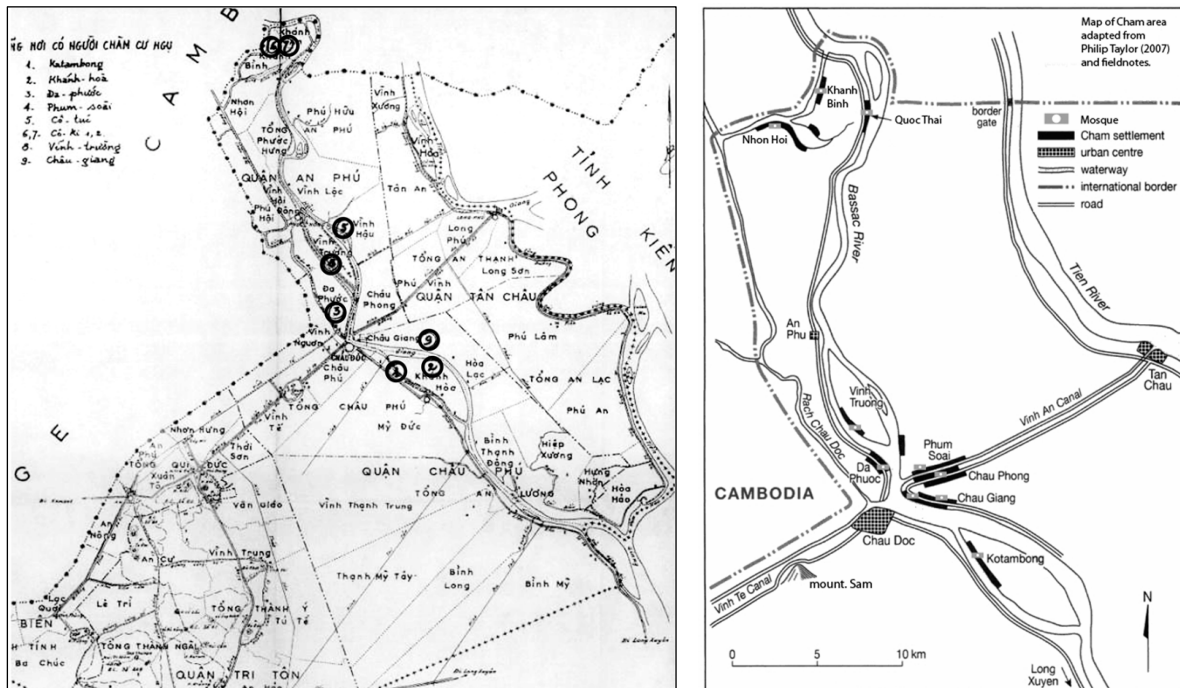


Figure 3. Maps of the Cham Muslim area of the Mekong Delta in 1974 [11] and adapted in 2007 [1].

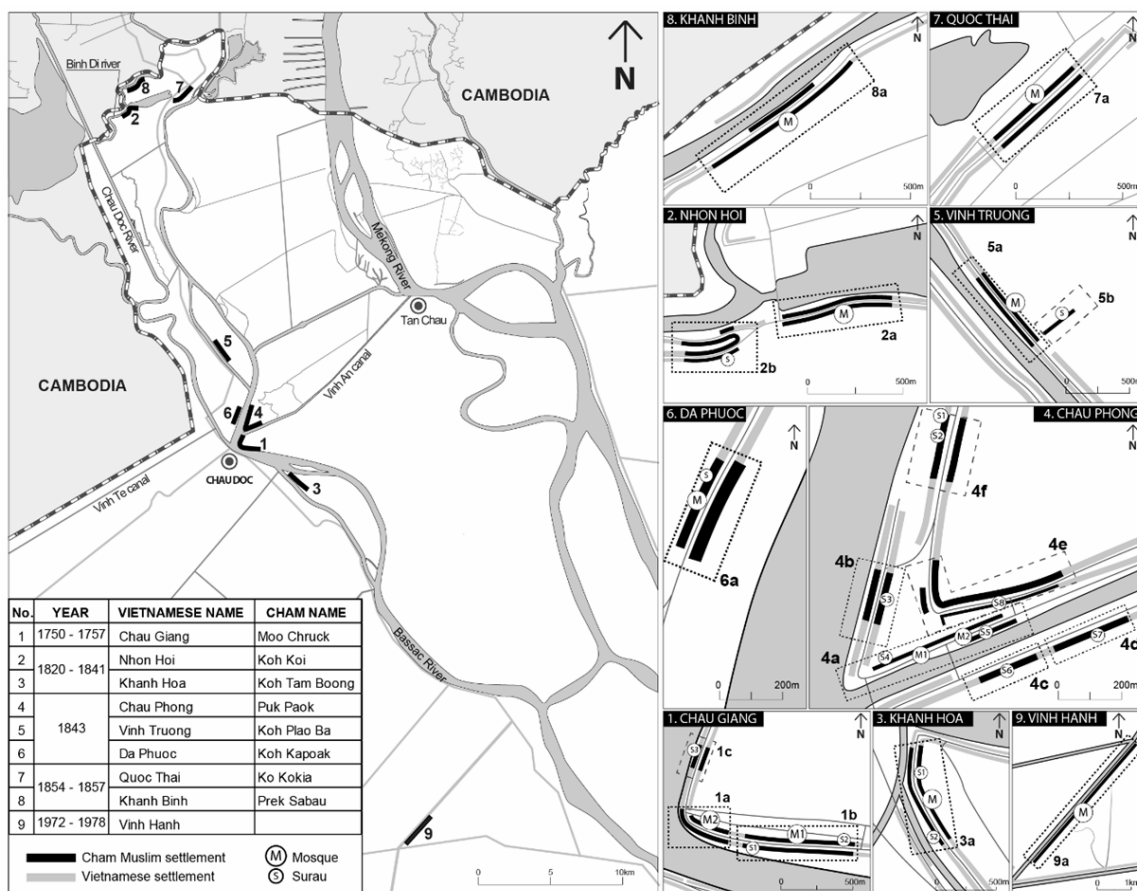


Figure 4. Map of nine Cham Villages in An Giang Province (by author, 2019).

However, the accuracy of information on these maps remains incomplete regarding geographical coordinates, scale, and specific village shapes. We compared satellite images with drawing maps based on geographic data to establish a preliminary framework for extensive field surveys. The meticulous task of examining nine Cham villages in An Giang province was deemed impractical for an individual researcher. Consequently, we formed a research team with approximately 20 students from Shiga Prefectural Universities and architectural students from several Vietnamese universities. Following training in fundamental survey skills, including sketching, photographing existing conditions, and gathering sociological data, data collection activities were carried out in An Giang on multiple occasions from June 2018 to the conclusion of 2019. After collecting and combining data, an updated map of the nine villages was redrawn (Figure 4). Also, the emergence outline of nine Cham Muslim villages in the Mekong Delta is as follows:

- 1750-1757: Châu Giang villages settlement in Châu Đốc as military under Vietnamese.
- 1820-1841: Cham Muslims relocated near the Bassac River, forming Nhon Hội and Khánh Hòa.
- 1843-1844: Over a thousand Chams moved from Cambodia to Châu Đốc, establishing Châu Phong, Đa Phước, and Vĩnh Trường.
- 1854-1858: Five thousand Chams, involved in a Cambodia revolt, returned to An Giang, settling in seven villages, with newly added Quốc Thái, Khánh Bình.
- 1972-1979: Cham Muslims migrated due to the Khmer Rouge, establishing Vinh Hanh.

#### 4.2. *Approaching housing characteristics*

The intensive survey aims to document the spatial structure, materials, configurations, variations, and functions of every Cham house along the designated survey routes, which are categorized based on the specific linear urban layouts of Cham Muslim villages. The primary objective was to systematically enumerate Cham houses, define the boundaries of their clusters, and distinguish them from other ethnic dwellings. Further, we conducted a statistical inventory to discern ethnic and religious composition, construction timelines, renovation events, household sizes, and principal occupations. During the intensive survey conducted over two weeks of three periods in March 2018, June-July 2018, and June 2019, we divided participants into several groups dispatched along various directions. They travel by foot by the road and along the rivers to gather housing data. We also used motorbikes to inform village leaders and residents before the participants arrived. This step was necessary to facilitate consultations with locals to ascertain the definitive boundaries of Cham residential clusters. Besides, concerning villages' layout, mosques consistently occupy central positions, acting as reference points. For each survey group of students, the method of collecting data started from the initial focal point of the Mosque. Each dispatched team travelled from this point on linear axes parallel to the road and river. While most villages adhere to a single line along the river, more intricate structures necessitate supplementary support groups. The pre-drawn maps, generated from satellite images, could have some mismatch to the current survey site due to not updated database. Consequently, any emergent alterations or disappearances of structures are adjusted and annotated on the previous map (Figure 5). Simultaneously, using motorbikes facilitates information gathering from local authorities and residents, enhances logistic coordination and provides efficient communication to navigate complex areas while addressing unforeseen issues or unexpected situations.

The results of this intensive survey consist of 2548 houses, comprising 2042 Cham residences and 506 structures beyond village perimeters, including the delineation and classification of 151 ancient Cham Muslim houses. Additionally, compared with previous sources on other ethnicities' housing typology in the Mekong Delta, such as Vietnamese, Chinese, and Khmer, the traditional house of the Cham Muslim represents a particular aspect. While the other communities adopt a typical housing called the Ba Gian style, the Cham Muslims adhere to the Sang style [12]. These two architectural typologies differ in two key features. Firstly, the Sang style divides space into two compartments along a transversal axis, different from the Ba Gian featuring three compartments. Secondly, the original Sang house lacks a front veranda, a characteristic presented in the Ba Gian (Figure 6).



Figure 5. Reconstruct the village settlement using several sources.

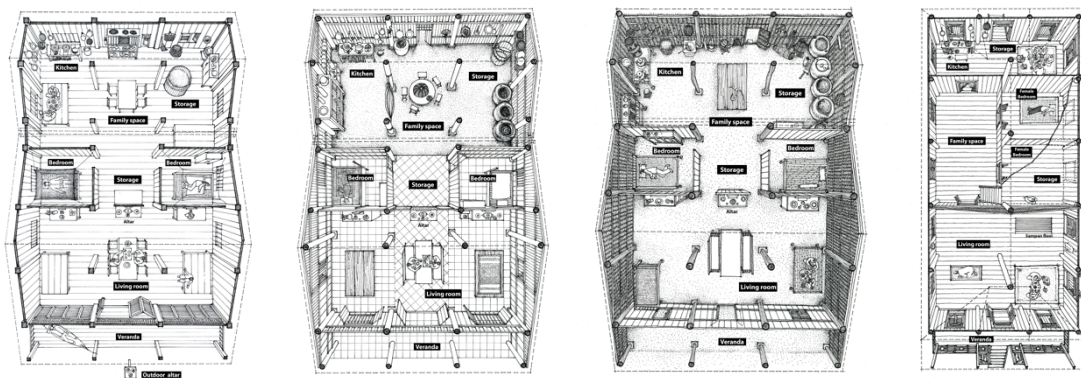
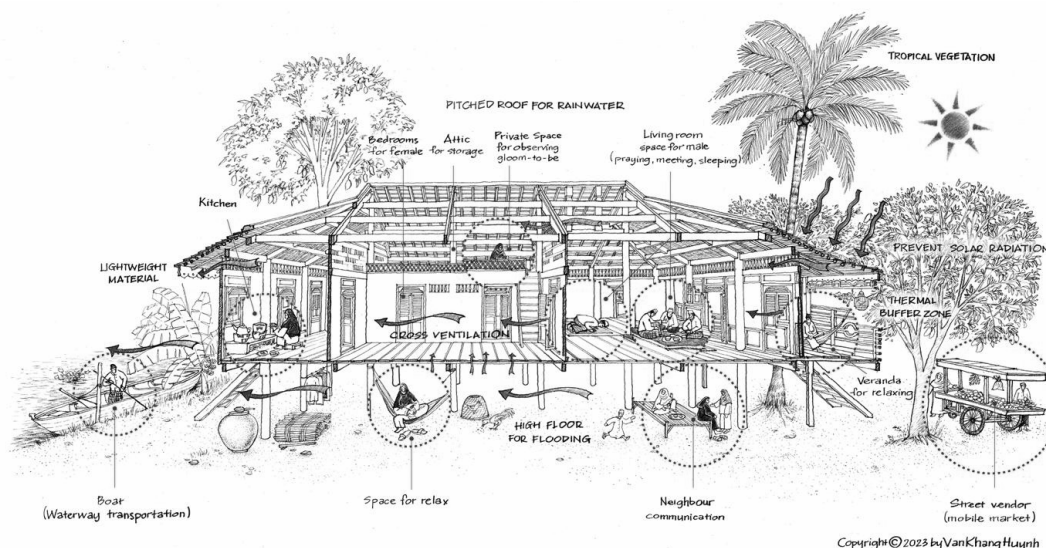


Figure 6. Typology different between Sang house in Cham Muslim village (far right) to the rest of ethnics (from left to right, Vietnamese, Chinese and Khmer Ba Gian houses).

4.3. Recording living heritage from lifestyles

Throughout the intensive on-site surveys, the villages and housing typologies of the Cham Muslims showcase formations that adapt to the geographical situation and the hot and humid tropical climate of the Mekong Delta while taking advantage of local materials without contradicting any Islamic principles of preserving their identity (Figure 7). Islam imposes heavily on Cham Muslim communities in the Mekong Delta, profoundly shaping settlement patterns of housing spaces and the inhabitants' daily lives.

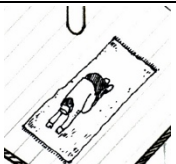
Within these communities, adherence to the Five Pillars of Islam, encompassing the profession of faith, regular prayers, almsgiving, fasting, and pilgrimage, constitutes a fundamental aspect of villagers' practices. Spatially, the primary house is a unified space divided into two parts: the front space and the back space. Like traditional houses of other ethnic groups, the large main house stays empty and serves social functions like hosting guests, religious practices, and sleeping quarters for men. It is also a solemn setting for practicing religious activities, weddings, and funerals. The interior decoration in Cham Muslim houses is minimalistic due to the influence of Islamic principles, strictly prohibiting idolatry or depictions of human and animal figures. Furniture such as beds, tables, chairs, or worship altars is absent, with Cham Muslims using carpets for welcoming guests and prayers [13]. The backspace is organized into two compartments symmetrically, with women's bedrooms on one side and the remaining space forming a common corridor for family activities. The kitchen, dining space, and storage are at the back. A staircase at the rear facade is designated for the use of women, while the attic, situated above the daughters' bedrooms, is utilized for storage, particularly during ceremonial days. Before the ceremony, prepared food and drinks are stored in the attic [14].



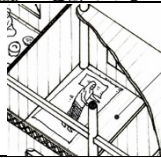






**Figure 7.** Environmentally friendly housing based on daily activities.

The housing structure is robust, incorporating intricate details for precise implementation. Their houses, constructed from unpainted wood, are strategically positioned near water, utilizing pre-assembled wooden panels for walls lifted into place on wooden posts, creating a versatile space underneath. The floor elevates two meters above the ground, protecting the house from heavy rain and floods, occurring frequently between August and November, enabling people to walk underneath, and acting as a deterrent against pests like centipedes, rats, snakes, and termites. During the dry season from December to April, the underfloor space is for various activities such as social gatherings, weaving, or raising chickens. Results of such research on spatial formation and transformation were published in previous research on Cham villages [15], and the activities in each housing space are illustrated in Table 1.

**Table 1.** Activities in a typical Cham Muslim house.

Activities	Space	Description	Illustration
Religious activities and ceremonies (weddings and funerals)	Living room	The living room is used as a sacred space. Imposing the Islamic principles that don't allow an altar or furniture, the space's furnishings are a miniature mosque and several cabinets to store clothes, blankets, etc.	

Living and sleeping space for men	Living room	The living room is also used for welcoming guests, a living and sleeping space for men	
Family activities	The middle space	The space is a corridor for family activities such as weaving cloth, spinning, etc.	
Sleeping space for women	The middle space	The sleeping rooms are for women and daughters. The walls of the women's bedroom are carved and decorated.	
Cooking and dining	Kitchen, Dining space	Family members sit on the floor and eat together. The men and the women will sit separately when there will be guests or parties.	
Storage	Attic	Space for containing unused items and storing prepared food trays in a party or ceremony. Also, it is used as a private space for discreetly observing the prospective suitor for marriage.	
Relaxing space	Veranda	The veranda is later added from the influences of Vietnamese houses to protect against the climate. It is used to enhance the privacy.	
Relaxing space	Underfloor space	In the dry season, the dwellers use the underfloor space for social communication with neighbours, raising poultry and weaving fabrics	

## 5. Conclusion and further discussions

In conclusion, the research focuses on vernacular identity conservation, specifically in Cham Muslim villages in the Mekong Delta, Vietnam. The study underscores the unique characteristics of housing preserved through distinct architectural features, adherence to Islamic principles, and historical events. The evolution of their traditional housing reflects deliberate design, showcasing their unique identity. Cham Muslim villages along rivers and canals maintain a cohesive structural identity rooted in river-based livelihoods. With clearly defined boundaries and mosques at their center, these villages emphasize the pervasive influence of Islam. Besides, the research employs architectural ethnography, combining anthropology and art, to delve into the spatial layout, architectural elements, and day-to-day activities inside the villages. Through intensive field surveys, the researchers documented the houses' architectural evolution, characteristics, and functions, contributing to a better understanding of Cham Muslim communities' cultural and religious identity. The fieldwork engages in a "dialogue with reality"[16] involving people's engagement with religious and Islamic principles that correspond with the manifestation of this housing in the Mekong Delta. Finally, the study supports the restoration and renovation of traditional Cham Muslim houses by contributing to the ongoing discussion and providing a comprehensive database for conservation policies tailored to the community's specific needs and local resources. By documenting unique architectural typologies, daily activities, and cultural practices, the

research significantly provides a broader understanding of ethnic architecture in Vietnam. Despite their modest numbers, Cham Muslim communities play a pivotal role in enriching the cultural tapestry of the Mekong Delta, emphasizing the urgent implementation of conservation measures to safeguard their distinct housing characteristics and preserve their community identity. Further research could base on these findings to provide solutions addressing the quest of how to accompany its transformation while avoiding the processes of homogenization and eradication, highlighting the responsibility of architect-ethnographers to assist the sustainable development of these minority ethnic groups. In this aspect, the findings stress the critical need to preserve this heritage amidst rapid urbanization and potential threats to traditional structures. These outcomes offer valuable insights into maintaining cultural diversity and shaping the future development of cities in Vietnam, Southeast Asia, and worldwide.

## 6. References

- [1] Taylor P 2007 Cham Muslims of the Mekong Delta. Place and Mobility in the Cosmopolitan Periphery *Asian Studies Association of Australia* (NUS Press)
- [2] Kajima M et al 2018 *Architectural Ethnography* (TOTO Publishing)
- [3] Tran NT et al 2014 *Vietnamese Culture in the Southwest Region* (Culture and Arts Publishing House. HCMC)
- [4] Weber N 2011 Securing and Developing the Southwestern Region: The Role of the Cham and Malay Colonies in Vietnam (18th-19th centuries). *Journal of the Economic and Social History of the Orient* vol 54 pp 739-772
- [5] Population statistics of Cham Muslim Administration in the Mekong Delta. (2015). Report.
- [6] Nakamura R 2000 The coming of Islam to Champa, *Journal of the Malaysian Branch of the Royal Asiatic Society* vol 73 **1 (278)** pp 55-66
- [7] Tuyen QD 2023 Heritage conservation and tourism development at Cham Sacred Sites in Vietnam *Global Vietnam: Across Time, Space and Community* (Springer Singapore)
- [8] Dohamide D 1965 *A brief history of the ethnic Cham. Saigon.* (Vietnam Islamic Champa Association)
- [9] Monographie de la province de Châu Đốc (1902) General Sciences Library Cataloging in Publication Data.
- [10] The history of Nguyen Dynasty 1962 *Chronicle of Greater Vietnam* vol 1 (Hanoi Insitute of history)
- [11] Nguyen VL 1974 *The Cham Islam in Vietnamese Mekong Delta* (Ho Chi Minh City. Sai Gon Press)
- [12] Nguyen KT 1993 Traditional Dwelling - Houses of Vietnamese Ethnic groups *Hanoi Scientific Association of History of Vietnam* vol 1
- [13] Pham VD 2006 *The Cham Muslim community in the South in gender relations and development* (Ha Noi. Agriculture Co.Ltd.)
- [14] Tam L 1993 *The customs of the ethnic Cham in An Giang* (An Giang Folk Culture Association of Vietnam and Chau Doc Art Association Press)
- [15] Huynh VK & Jimenez JR 2020 The formation and transformation of Cham Muslim villages and traditional housing in the Mekong Delta *Journal of Architecture and Planning (Transactions of AIJ)* vol 85 **770** pp 869-876
- [16] Gkoliomyti A & Tsukamoto Y 2021 Post-Disaster “Memoryscapes”: Architectural Mediums as Practices of Care *ARDETH* vol 8 **8** pp 1-14