Swathy V Subramanian

The Architectural Tradition of Ponnani, Kerala: A Historic Malabar Port Town

La tradición arquitectónica de Ponnani, Kerala: Una ciudad portuaria histórica de Malabar

A tradição arquitectónica de Panane, Querala: Uma cidade portuária histórica em Malabar

Keywords | Palabras clave | Palavras chave

Vernacular settlement, Traditional knowledge systems, Built heritage typologies, Communities, Cultural traditions

Asentamientos vernáculos, Sistemas de conocimientos tradicionales, Tipologías de patrimonio construido, Comunidades, Tradiciones culturales

Povoação vernacular, Sistemas de conhecimento tradicional, Tipologias de património construído, Comunidades, Tradições culturais

Abstract | Resumen | Resumo

Ponnani, a historic port town located at the mouth of the Bharathappuzha River on the Arabian Sea, was a prominent trading center on the Malabar coast of Kerala, India, in the 15th and 16th centuries. It is one of Malabar's few surviving historic towns, with its heritage sites intact along with its building types, historic streets and alleys, local culture, and traditions. But some of its historic buildings are on the verge of dereliction and need immediate attention. This study attempts to convey an understanding of Ponnani, with an analysis based on field visits and existing literature. The relationship between the region's architecture and landscape and current threats to its heritage is explored. Its vanishing traditional knowledge systems and vernacular architectural types are also discussed, in what may serve as a reference for adaptive use by future generations.

Ponnani, una ciudad portuaria histórica situada en la confluencia del Mar Arábigo y el río Bharatapuzha, era uno de los principales centros comerciales de la costa de Malabar, en Kerala (India), durante los siglos XV y XVI. Es una de las pocas ciudades históricas que quedan en Malabar con sus recintos históricos y tipologías de construcción ancestrales; sus calles y callejones antiguos, su cultura y las tradiciones de las comunidades locales totalmente intactas. Sin embargo, algunos edificios históricos están a punto de ser abandonados y necesitan atención inmediata. Este estudio pretende ampliar el conocimiento sobre Ponnani mediante el análisis sobre el terreno a partir de visitas y la bibliografía actual. En este artículo se exploran la relación entre la arquitectura y el paisaje de la región y las actuales amenazas para el

patrimonio. También se aborda la rápida desaparición del sistema de conocimientos tradicional y de las tipologías arquitectónicas vernáculas. Quizá pueda servir como archivo para que futuras generaciones los adapten.

Panane, uma cidade portuária histórica localizada na confluência do Mar Arábico e do Rio Bharatapuzha, foi um dos centros comerciais proeminentes na Costa do Malabar, em Querala, na Índia, durante os séculos XV e XVI. É uma das poucas cidades históricas sobreviventes de Malabar que mantém completamente intactos os seus recintos históricos, bem como as suas tipologias de património construído, suas ruas e ruelas históricas, sua cultura e as tradições das comunidades locais. No entanto, alguns dos edifícios históricos estão à beira do abandono e necessitam de atenção imediata. Este estudo tenta expandir a compreensão de Ponnani, utilizando análises in loco baseadas em visitas de campo e literatura existente. Neste artigo, explora-se a relação entre a arquitectura e a paisagem da região, e as actuais ameaças ao seu património. É também discutido o rápido desaparecimento do sistema de conhecimento tradicional e das tipologias arquitectónicas vernaculares. Isto pode servir de repositório que promova a sua adaptação pelas gerações futuras.

Introduction

Ponnani is a picturesque coastal port town situated in the Malappuram district of Kerala, India. Its setting by the Bharathappuzha River allowed it to flourish as a trading center in the medieval era. This location was strategically selected, with its interlinked waterways like backwaters facilitating inland trade. Ponnani was a satellite port town serving larger ports such as Muziris on the Malabar coast.

The port drove Ponnani's development as a hub of medieval trade. Ancient texts mention it as of the 1st century. Dr. Irfan Habib, in *An Atlas of the Mughal Empire*, refers to Ponnani as a flourishing port of the 15th and 16th centuries (Habib 1985). It was well known as the second capital and naval headquarters of the *Samoothiris** (rulers) of Kozhikode and as a center of Muslim learning and culture. Trade also promoted connections which in turn influenced the townscape. The coastal area of Ponnani exhibits well-preserved architectural typologies, including industrial, residential, religious, public, commercial, educational, and hydraulic structures. In short, Ponnani represents a typical Malabar town, and its port area is an exemplary vernacular settlement, with its cultural traditions and architectural composition still intact.

As the town is a fishing center to this day, Ponnani's shores remain busy with fine wooden canoe boats and fishing craft. As the European traveler Francis Buchanan said in his insightful account of the land of Panyani (Ponnani) in the 1800s: "the canoes in this part of Malabar are among

the best and handsomest that I have ever seen" (Hamilton 1807).

This paper takes a holistic view of the historic town of Ponnani through its ecology, its built fabric, and its sociocultural makeup. It also seeks to show the significance of the vernacular architecture of historic Ponnani in the present day, vulnerable as it is to developmental pressures, insensitive transformations, new construction, etc. Today many of its historic buildings are in poor condition due to neglect and lack of maintenance, and at risk of dilapidation and demolition.

Methodology

This paper is an extension of my M.Arch. thesis. The methodology involved analyzing primary data gathered in field visits and from secondary sources. On-site observations were enriched by interviews with local stakeholders. A base map, as shown in Fig. 1, was developed by overlaying survey information on an existing Google Earth map, and the mapping of heritage resources was based entirely on field visits and information gathered in situ. Detailed documentation and inventories allowed me to define architectural typologies. This helps show the importance of the town's geographical location, settlement pattern, community structure, sociocultural aspects, architectural influences, local craftspeople, and local building materials and techniques.

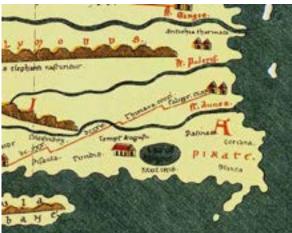


Figure 1: A map of Ponnani showing the traditional areas in red

Historic significance of the old port town of Ponnani

The name *Ponnani* allows multiple interpretations. The foremost among these seems to be *Pon nanayam*, meaning "gold coin". Ponnani has also been known as *Arabikasu*, due to its trading relations with Arabia. This name would first have been used by Arab and Persian merchants, as theorized by authors such as William Logan and Nilakanta Sastri (Logan 1887). Malabar's maritime trade relations with the rest of the world are well known from various accounts, including travelogues by foreigners. One such is the Greek *Periplus of the Erythrean Sea* by an unknown author of the 1st century AD, who mentions a flourishing center of maritime trade called Tyndis (see map in Fig. 2). Tyndis is referred to as a coastal town situated 500 stadia (about 60 miles) north of Muziris, which matches Ponnani's location (Sharma 2010).

Figure 2: Tundis, as shown in the 4th century $\it Tabula Peutingeriana$ (Wikipedia)



The remains of a megalith is evidence of a local prehistoric settlement (Fig. 3), and as well as being a center of trade, Ponnani was one of the four earliest Brahmin settlements on the banks of the Bharathappuzha (or Nila) River. Thirumanasseri Raja (king of the independent kingdoms of Malabar region), the *Samoothiris*, the Dutch, the Portuguese and the British also marked the history of Ponnani. Its architecture evolved in every period.

The Thrikkavu area, to the east of Ponnani, became a well-known Brahmin cultural center, of which remnants in the form of houses and temples are still to be seen. In medieval times, Ponnani was controlled by the Brahmins of Thirumanasseri Natu. The Thirumanasseri *kotta* (Fig. 4), their palace, was once an imposing structure, but it was later transformed and now only the *padippura** gateway (Fig. 5) remains.

Figure 3: Umbrella Stone: Megalithic monument; Remnants of prehistoric settlement





Figure 4: Thirumanasseri Kotta residence of Thirumanasseri Raja, located at Kottathara, Ponnani (Archival collection of the Thirumanasseri family)



Figure 5: The only remains of Thirumanasseri Kotta, Padippura

Following the Brahmin settlement, a Muslim one linked to trade emerged near the port around the Thottungal mosque (Figs. 6 and 7), to the south.

The Arab monopoly on the Malabar coast lasted until the advent of the Portuguese in the 15th century. They attacked Ponnani in 1525 AD, overcoming the army of the Samoothiri Raja and his navy chief Kunhali Marakkar. In the 17th century, the Dutch took over trade, followed by the English East India Company, which established centers in the ports of Ponnani and Calicut. Malabar was later invaded by Hyder Ali and Tipu Sultan in their war against

the British, but Ponnani nonetheless became part of British Malabar (Kunnath 2015).

Ponnani lost its significance as a trading port in the early 18th century as the larger trading ships forsook the smaller ports, and hence the British favored larger harbors such as those of Tellicherry and Calicut.

The building of the Conolly Canal in 1848 further developed Malabar's economy (Fig. 8). The technologies brought by British specialists in the fields of mobility, architecture, etc., and the introduction of foreign products, caused the place to evolve in character from a large village into an urban town.

In the 1800s, the aforesaid Francis Buchanan Hamilton provided many details of the settlements he visited. He said the trading boats called *patemars* carried an average of 50,000 coconuts and 1,000 mudies of rice, equal to 500 Bengal bags. The *Moplay* Muslims were rich and possessed



Figure 6: View of Ponnani with Thottungal Mosque highlighted in yellow (Naseef Gafoor)

Figure 7 View of Thottungal Mosque, the first Mosque in Ponnani (Radhika KM)

Figure 8: Present view of Cannolly Canal (Radhika KM)





Figure 9: Coconut trade in Ponnani Port (Denkler Gothif)

vessels that sailed to Surat, Mocham, Madras, and Bengal. The more local trade was between Tellicherry and Calicut for supplies of European and Bengali goods. Wheat, *meti* or fenugreek, the pulses called *wulindu*, *pyru*, and *avaray*, sugar cane, jaggery, and salt were brought from Bombay and Rajapuram, while teak wood and coconut were carried the other way (Fig. 9) (Hamilton 1807).

Ecosystem and building materials

The vernacular architecture of Ponnani is an expression of this local coastal environment, its people and its natural resources.

Ponnani is characterized by a special ecosystem, including mangroves that preserve water quality and host many species. This fragile ecology needs to be conserved. The tidal mouth of the Bharathappuzha at Ponnani is a seasonal home to many migratory birds (Fig. 10), with some 25 species identified.

Natural features such as mud banks, which during the south-west monsoon season facilitate the launching of canoes (Fig. 11), established the area as a good fishing ground.

The soil is alluvial in coastal areas and elsewhere predominantly laterite (the reddish clayey topsoil found in tropical regions). As a result, laterite was used rather than mud for building, and its iron-rich variety is widely encountered as a building material.

The area was also rich in coconut groves, providing the prime material for roofing and supporting a coconut trade and coir fiber cottage industries. Coconut beams were used in many historic buildings, and sun-dried thick-layered coconut leaves were employed as roofing material over timber rafters. Seashells were used to make limewash. Coir was used extensively for making thatch roofs. The coir industry extended 10 km along the Conolly Canal and formed the livelihood of most local households. Now just a few families sustain the industry (Figs. 12 and 13).

Wood was shipped from Annaimalai (in the Western Ghats mountains), Mannarcadu, and the Silent Valley of Palakkad along the Bharathappuzha to Ponnani to make boats and houses. Planks of local wood called *aanjili* (*Artocarpus hirsutus*), which is termite-resistant, were used extensively for building houses. The Viswakarma people were involved in making wooden *uru* fat boats. These dhows were the vessels most widely built in Ponnani up to the 19th century (Kutty 2015).

Figure 10: Canoe boats in Ponnani Figure 11: Water birds along the Ponnani Coast









Figure 12: Women working on coir Figure 13: Artisan weaving baskets

The settlement

The older Brahmin settlement of Thrikkavu is about 2.9 km from Ponnani's second historic center. Gujarati and Tamil Brahmins were the main settlers in Thrikkavu and a few of these families still live locally.

Ponnani remains a port town with an economy sustained by fishing. Its commercial heart is still the main marketplace, with a ribbon development of old shops and godown warehouses on either side of the *Valiyangadi** market street (Fig. 15). Public spaces such as mosque precincts thrive as community gathering areas, and residential areas with narrow *kutcha* streets (Fig. 14) add to Ponnani's character.

The town's heritage is concentrated near the port in an area of about 1 km², including the traditional vernacular buildings of greater value, age, scale, proportion, and

architectural interest. But these heritage resources are under various threats due to developmental pressures. Also, many historic buildings are in poor condition due to neglect, lack of maintenance, dilapidation, and lack of documentation and protection.

The Muslim settlement developed during the colonial phase with the boom in trade. The Kachitheruvu was always its commercial axis, extending from the Thottungal Mosque, where the Gujarati Memon Muslims traded. This commercial center later extended to the *Valiyangadi* (main market) and *Kochangadi** (small market).

Another notable area is the Conolly Canal and its environs, with vernacular houses (Fig. 16) on either side. In 1848, the Malabar District Collector Henry Conolly had the Appithodu, a natural stream, converted into a canal primarily for inland trade, and it is still plied by colorful boats and used by fishing communities and coir cottage industries.

Architecture and material heritage

The architectural elements of Ponnani have evolved with Kerala's peculiar climate, the locally available materials, and input from the various cultures present.

The major architectural types include fishing sheds; residential houses with *padippuras* (gateways) and *nalakams** (courtyards); temples and mosques; residential mosques (*jaram* in local language, Fig. 17); godown warehouses and shops (Fig. 18); madrasas, schools, and other public buildings; communal cisterns; and pillar stones (the old port boundary).

Architectural features include elaborate gable roofs and attics, decorated eaves, timber ceilings, courtyards, elongated verandas, elaborate timber columns, arches, *mathok** architraves, ornamented *padippura* gateways, etc.

Figure 14: Historic shops along *Valiangadi* (main market), Ponnani (Radhika KM) Figure 15: Streets of Ponani

Figure 16: Cannolly canal with vernacular houses on both sides (Naseef Gafoor)













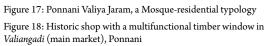


Figure 19: Coconut beams for roof structure

Figure 20: Raw timber beams for roof structure (Radhika KM)

The town's most distinctive feature is its tiered sloping roofs designed to protect façades and to withstand the heavy monsoon. These are normally tiled or thatched with palm leaves, supported by a timber frame with hardwood beams and rafters. Some heritage buildings have seasoned coconut beams (Figs. 19 and 20). Roofs with flat tiles gradually gained popularity once tile factories were established by missionaries in Kerala, with the tiled-roof system being introduced into Malabar by the Basel Evangelical Mission in the 1850s. They set up a factory near Codacal on the north bank of the Bharathappuzha which supplied Ponnani's roof-builders through the colonial period.

Masonry walls were generally made of laterite stone and the mortar used in them was a combination of mud and lime.

Decorative architraves locally called *mathoks* (Figs. 21 to 23) appear over doors, made of laterite and finished with



lime mortar. Some designs have floral motifs. This feature is present mostly in houses and shops, with variants in the mihrabs of mosques across the Malabar region, including in Ponnani.

Initially, common people's houses were built on laterite plinths with mud walls and thatched with dried coconut leaves (Fig. 24). Some houses were roofed with timber planks, with coconut and bamboo used generally. Mud walls were later replaced with laterite. Sloping roofs have continued to be used, as they are climate-responsive (Fig. 25).

Later influences can also be seen in the built forms of Ponnani, evident in such elements as columned and arched openings, circular columns, large glass windows and doors, circular windows, balustrades on verandas, iron railings, decorated cornices, broad stairways, two-story structures, and so on. These influences are generally seen in buildings belonging to the elite of society. While colonial architectural features were present in facades, the design principles remained conservative, as established by the local texts and building knowledge systems.





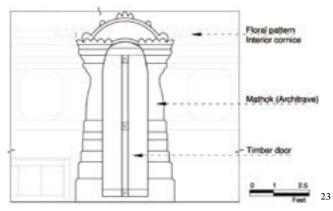










Figure 21: Architrave (*mathok* in local dialect), a unique architectural element which is present in the old heritage buildings of Ponnani

Figure 22: Courtyard house with $mathok \,$ (architrave)

Figure 23: Detail of mathok (architrave)

Figure 24: Series of sloping roofs, facade of a residential building

Figure 25: Thatched houses in Ponnani

Figure 26: Madras terrace roofing in Ponnani Court building

Figure 27: Ponnani Court Building

The Ponnani court building (Fig. 26), for instance, is an amalgam of colonial influences with Kerala vernacular architecture. New technologies were introduced by the British, such as colonial columns, arches, French windows, louvered windows, or Madras terrace roofing (Fig. 27).

As in most ancient port towns, like Calicut or Mangalore, religious structures in Ponnani were planned around a cistern (Fig. 28), or else cisterns were built to cater for the requirements of these buildings.

The oldest Mosque in Ponnani is Thottungal Masjid, with inscriptions recording its renovation by Sheikh Farid some 700 years ago. Juma Masjid (Figs. 29 to 31), built in 1518 AD, is Ponnani's second-oldest mosque, built in the region's traditional style with just a little Islamic influence in its design and ornamentation. It was constructed by native artisans, resulting in a similarity with the region's temple architecture. There are no traces of the Indo-Islamic architecture of the north Indian imperial or provincial schools. Timber was used extensively in its ceiling and roof, including the attic floor. The first two floors are of laterite, and the ground-floor arcades take the structural load. Next to Juma Masjid is an institution called Maunathul Islam Sabha along with boarding facilities for visitors and converts. This place is seen as a second Mecca by Malabar Muslims. William Logan gave a clear description of it: "The Mosque is a spacious four-story building, ninety feet in length and sixty feet in breadth, and stands close to the Jaram or



Figure 28: Community water tank (Radhika KM)

Mausoleum". According to Logan, in 1887 there were 400 students at the Juma Masjid Madrasa (Logan 1887).

The other prominent mosques include Ponnani Misri *Palli* and Ponnani Akathe *Palli* (*palli* meaning mosque). At present, religious structures such as mosques are owned by the Waqf Islamic property board.

The mihrab of Malabar mosques, such as the one in the Juma Masjid of Ponnani (Fig. 31), has the form of a niche with a semi-circular arch, a semi-circular plan, and a floral motif over the arch in the form of a molding. This feature derives from the mihrabs found in the Persian Gulf and Yemen. Mihrabs in Cochin are framed with lobed arches on stucco pilasters. The earliest example of a frame like this around the mihrab can be found in the 13th century Abu'l Qasim al-Idhajiv mosque in Junagadh, with a frame in the local Hindu and Buddhist style. The frame of the Mithqalpalli mihrab in Calicut is also influenced by traditional Indian motifs, whereas many other mihrabs, such as that of the Muchchandipalli in Calicut, have a plain border decorated with simple moldings (Shokoohy 2013).

Figure 29: Timber *jali* work in the attic floor, Juma Masjid of Ponnani Figure 30: Juma Masjid of Ponnani, built in 1518 CE Figure 31: View of the arcuate system in the interior of the Juma Masjid





Residential architecture

Vastusastra, the "science of architecture", has traditionally been followed in the residential architectural types of Malabar, including Ponnani. Traditional architecture is a matter of craftsmanship, and many master craftsmen known as *muthasaris* still prescribe the dimensions and layout of traditional houses and supervise construction process from the setting out of a building to its completion. Yet these traditional knowledge systems are fading away.

Residential settlements were largely concentrated in the areas closest to the river and religious buildings, forming clusters.

Ponnani dwellings were built especially to cater for extended families, with priority given to women's privacy. This is appreciable in the segregation of private and public spaces in houses. The matrilineal system was adopted by the Mappila communities of Malabar as a cultural throwback to their Hindu origins. House forms generally follow the typical Hindu house typology, but are subdivided or extended to meet changing needs. The front veranda and entrance were mainly for the men of the family while women occupied the more private areas, such as the central interior. The private living quarters were generally around the core or on the upper floor. Each daughter's living space or private area was arranged as a small complete apartment with a bedroom, toilet, bathroom, and a small sitting area.

The most prominent among the residential types are nalakangal (courtyard houses) and ottakangal, which are forms of nalukettu and ekasala. Nallukettu is a house type with a central courtyard called tharavad. Karamkunnath Tharavad, near Thrikkavu Temple, would be an example. There are also many illams (ancestral Namboothiri Brahmin houses) that were converted to Muslim tharavads when the Nampoothiri converted to Islam. Ekasala is a house type usually with rectilinear form and no inner courtyard. Ekasalas are occupied by fishermen and other middle-class people and predominate in the historic town of Ponnani, as opposed to houses with padippura gateways, occupied by the wealthier classes. Ekasalas are mainly single-story structures, owned by the different religious groups of





Figure 32: Historic residential area of Ponnani

Ponnani, i.e. Hindus and Muslims. They all follow the same *thacchusastra* design principles along the main residential corridors (Fig. 32).

A typical Muslim house in Ponnani would have a padippura (gateway), a padamuttam* (front yard), a padakolaya* (veranda), a padavathil* (doorway), a padappuram* (a dais-like plinth on either side of the padavathil), a chadiala* (a multiuse furnished room), and a nadumuttam (central courtyard).

There are residential types with and without *padippuras* (Figs. 33 and 34). These gateways, where present, were ornamented and served as a welcoming feature before the houses of the elite, primarily Muslim merchants. The richness of a *padippura* was an indication of the owner's wealth. The roofing on such houses was generally of Malabar *veeti* (rosewood), a naturally termite-resistant high-grade timber.

The usual architectural features include elongated verandas, decorated timber columns, timber ceilings, wooden furniture, gateways, doors, balakodam (timber joinery details), arches, broad kottili (hallways), mandakam (rooms), attics, gables, eave boards, courtyards, mathok (architraves), etc. Nalakangal houses typically have multiple kottili hallways arranged around the courtyard, whereas ottakangal houses have a single kottili as a common gathering space for family members.

Courtyard houses have been transformed over time. Ownership has changed from single to multiple. Plot sizes have been reduced. Figure 35 illustrates one such transformation of a traditional courtyard house.

Figure 33: *Ekasala* house with a colonnaded veranda







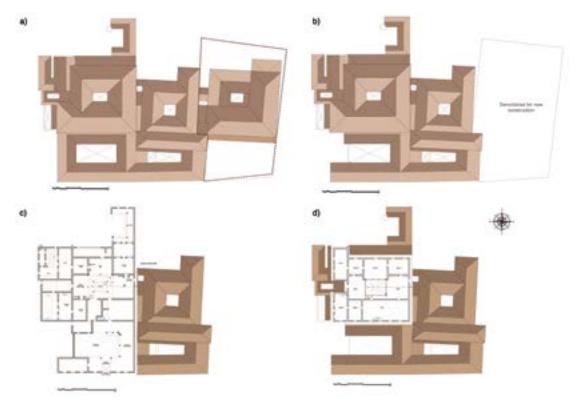


Figure 35: Transformation of a courtyard house a) Original footprint b) One side of the house is demolished c) There is an existing ground floor plan where one side of the house is owned by one family and the other by another d) First floor plan.

Community

The predominant Muslim community included the Makhdums, Thangals, Marakkars, and Memon Muslims.

Gujarati Brahmins settled in the Thrikkavu area of Ponnani, along with Gujarati Memons, for purposes of trade.

Mappila Muslims were largely traders and fishermen, whereas the fisher-people known as Mucua were Hindus later converted to Islam. The Viswakarma community engaged in boat-making.

The Makhdums were Yemeni in origin and settled in Ponnani in the late 15th century. Many Makhdums were renowned scholars, literati and polyglots. They propagated

Figure 36: Artisan working on pottery





the message of Islam in Madura, Thirichirappally Thanjavoor and Nagoor, then came over to Cochin and, after a short stay there, settled in Ponnani. The early Makhdums' contribution to the compilation of the monumental botanical treatise *Hortus Malabaricus* ("Garden of Kerala") is worth mentioning, and many of their family houses still exist in Ponnani (Kunnath 2015).

A 500-year-old tribal community called the Koshavans, which migrated from Andhra Pradesh to Kerala, still engages in its ancestral craft of pottery (Fig. 36). They came to Thirumanasseri Kotta to make the pots used for rituals in the temple in medieval times. Their products were usually sold in Ponnani's *Valiyangadi* market. Only seven families in the community's present generation continue this craft in view of its low revenues as compared to white-collar jobs and current changes in farming, as they used to take clay from the bottommost layers of arable soil.

Conclusion

The forces of economic, cultural, and architectural homogenization have become a threat to the survival of vernacular building traditions worldwide. Ponnani is no exception.

Yet although the settlement is being gradually transformed, it still retains its historic fabric. Landscape and architecture are intertwined, making them especially worth preserving.

Geographical location is well known to influence the settlement process, community structure, occupations, sociocultural aspects, architectural forms, and local building techniques and materials. Yet some of Ponnani's heritage is on the verge of dereliction for reasons including lack of heritage awareness, poor planning, lack of involvement of local stakeholders in planning decisions, and an absence of appropriate heritage bylaws and guidelines.

It is therefore important to create awareness among the people of Ponnani about their heritage so that they may help preserve it for future generations, giving them the opportunity to use this resource as a repository for context-based construction.

* Glossary | Glosario | Glossário

Chadiala: In place of a plinth on either side of a *padappuram*, an easily accessible multiuse furnished room used for sleeping.

Godown or *gudaam* in local dialect: A warehouse or area where market goods are stored.

Kochangadi: Small market.

Mathok: Architrave.

Nalakam: Courtyard arrangement flanked by three *kottili* (hallways), letting in natural light and ventilation.

Padakolaya: A veranda or sitting place where a good number of people may be seated, with timber columns and wooden furniture.

Padamuttam: The front yard of a dwelling, usually with a small garden or with fruit trees such as mango or jackfruit.

Padappuram: A dais-like plinth on either side of the padavathil, a multiuse space used mainly by the men of the family for prostration and also for dining during festivals, as well as for sleeping. The door is usually highly decorated, with motifs in brass and copper, with a circular calling bell and a feature called *cheep* for closing the door.

Padavathil: A doorway aligned with the padippura gateway.

Padippura: A gateway with decorated wooden doors common in Ponnani. Some have a plinth (padappuram) on either side and are roofed with timber rafters and Mangalore tiles.

Samoothiris: Rulers of Malabar in the 15th and 16th centuries whose realm extended from Kollam to the Quilandy region of present-day Kerala.

Valiyangadi: Main market.

References | Referencias | Referências

- Chulliparambil Koyamu, Kareem. 1986. *Malappuram Gazetteer*. Thiruvananthapuram: Kerala Gazetteers.
- Desai, Miki. 2018. Wooden Architecture Kerala. Ahmedabad: Mapin Publishing Ltd.
- Gundert, Hermen. 1843. Keralolpathi. Mangalore: Basel Mission Book & Tract Depository.
- Gupta, Ashin Das. 1967. Malabar in Asian Trade 1740 1800. Cambridge: Cambridge University Press.
- Habib, Irfan. 1985. An Atlas of the Mughal Empire. New Delhi: Oxford University Press.
- Hamilton, Francis Buchanan. 1807. A journey from Madras through the countries of Mysore, Canara and Malabar. 3 volumes. London: Cambridge University Press.
- Innes, Charles Alexander. 1908. *Malabar (Gazetteer)*. Thiruvananthapuram: Kerala Gazetteers Department.
- Kunnath, Ammad. 2015. The rise and growth of Ponnani from 1498 A.D. To 1792 A.D. Calicut: Department of History, University of Calicut.
- Kutty, Theruvathveetil Abdurahiman. 2015. *Ponnani Paithrikavum Navodhanavum*. Calicut: Pookavanam Books.
- Logan, William. [1887] 1997. *Malabar Manual*. Thiruvananthapuram: Kerala Gazetteers Department.
- Menon, Alappat Sreedhara. 1967. A Survey of Kerala History. Calcutta: National Book Stall.
- Menon, Gangadharan (ed.). 2000. The Land of Malabar: The book of Duarte Barbosa. Kottayam: Mahatma Gandhi University.
- Miller, Roland E. 1976. Mappila Muslims of Kerala: A Study in Islamic trends. Bombay: Orient Longman.
- P.A, Zeiphudin, and Krishnakumar K.G. 2012. Ponnanni Ponvahini Ponnanayam. *Journal of Kerala Local Historians*.
- Schoff, Wilfred Harvey. 1912. The Periplus of the Erythraean Sea. New York: Longmans, Green & Co.
- Sharma, Yogesh (ed.). 2010. Coastal Histories: Society and Ecology in Pre-Modern India. New Delhi: Primus Books.
- Shokoohy, Mehrdad. 2013. Muslim Architecture of South India: The Sultanate of Ma'bar and the Traditions of Maritime Settlers on the Malabar and Coromandel Coasts (Tamil Nadu, Kerala and Goa). London and New York: Routledge.
- Thampuran, Ashalatha. 2001. *Traditional Architectural forms of Malabar Coast*. Calicut: Vastuvidyapratisthanam Academic Centre.
- Zeiphudin, P.A; and Krishnakumar, K.G. 2012. Ponnanni Ponvahini Ponnanayam. *Journal of Kerala Local Historians*, 1: 1-30.

Biography | Biografía | Biografía

Swathy V Subramanian

Swathy is a heritage conservation architect who earned a bachelor's degree in architecture from the Rajiv Gandhi Institute of Technology in Kottayam, Kerala, and a master's degree in architectural conservation from the School of Planning and Architecture (SPA) in New Delhi. She works as a conservation architect with the Indian National Trust for Art and Cultural Heritage (INTACH) Bengaluru Chapter. In her academic and professional career, she has worked as an architect and heritage conservator on multiple projects in India. Her areas of specialization include traditional design and construction techniques, restoration work and research related to the documentation of historic buildings, and various aspects of Indian art, architecture, and heritage.