

A Critical Review on the Evolution Pattern and Urban Morphology of Thiruvaiyaaru Town to Enhance the Urban Spatial Character

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Abstract - From a historical standpoint, the key morphological aspects of Thiruvaiyaaru city are discussed. Thiruvaiyaaru has represented the dominance of an organic spatial feature in general from its inception. Within the multiple stages of expansion in Thiruvaiyaaru, two prominent urban patterns emerge: the historical centre, or 'old Thiruvaiyaaru,' and the eventual development encompassing the centre, termed as 'new Thiruvaiyaaru.' Furthermore, there are a few planned developments in this city. As a result, this study indicates that in Thiruvaiyaaru, four main spatial patterns coexist: indigenous and informal developments, colonial and planned interventions. The crucial morphological properties of these patterns that are dominant in Thiruvaiyaaru are discussed here.

Key Words: Urban Morphology, Urban Study, Place Identity, Figure Ground Analysis, Urban Fabrics, Settlement Pattern, Spatial Structure, Urban Grain, Articulation, Place Theory, Linkage Theory

1. INTRODUCTION

Urban design is a complex problem-solving activity that commonly requires the aid of a variety of methods to support the process and enhance the quality of the outcomes. An appropriate solution that is necessary to help designers with suitable techniques to deal with ill-defined urban problems constitutes the main challenge in the urban design domain. By analyzing the urban design patterns, serial vision, and cluster identification, the designer can contribute to a better design and use of the urban space, which is sensitive to the urban situations and problems.

The physical form of Thiruvaiyaaru evolved from the historic building called Aiyarappar temple which is one of the "Thevara Padal Petra Sthalam" (275 temples that are revered in the verses of Saiva Nayanars in the 6th-9th century of delta regions). The initial settlements of the town are around the temple, the other buildings such as commercial, government, and institutional buildings started evolving to fulfill the needs of the initial settlements.

1.1 Physical Form Evolution



Fig - 1: Evolution of Thiruvaiyaaru's Physical Form

The town Thiruvaiyaaru is situated along the river Kaveri which has a prolonged history and connections with the settlements that evolved. People started settling their houses based on their occupation and the flow of water bodies. Agriculture is the predominant occupation of the people and the main source of water is the river Kaveri. The designed buildings and the evolved settlements have a strong connection with nature and the belief system of people. The average population of the town is 16, 164 and it comes under the township or sub-district category.

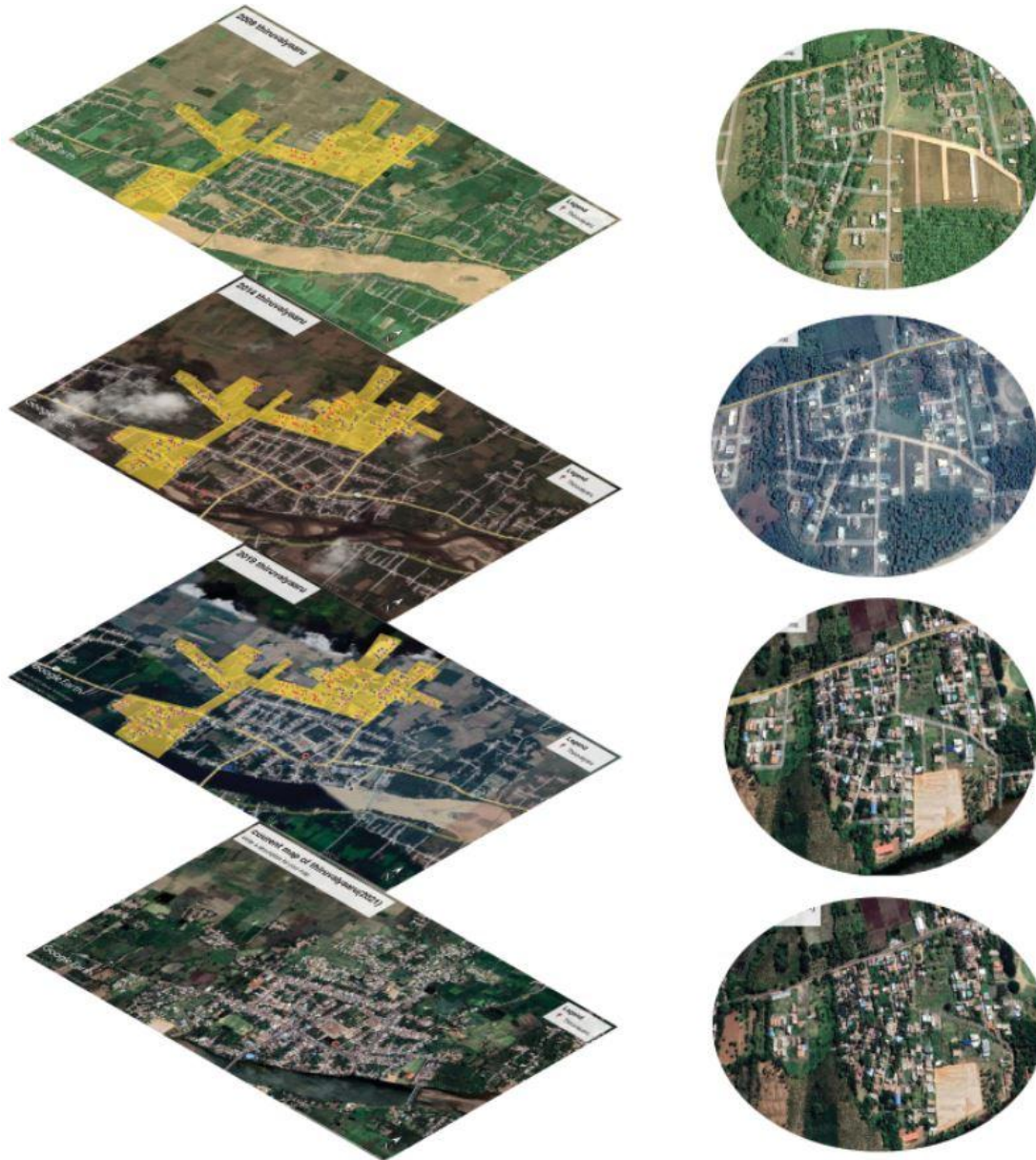


Fig - 2: Land Use Morphology of Thiruvaiyaaru over the Years

2. FIGURE GROUND MAP AND ANALYSIS

A figure-ground diagram is a two-dimensional map of an urban space that shows the relationship between built and void space.

2.1. Built Space and Void Space

Discriminations of solid and void could be in the periphery of the town which is an agricultural field where the settlements are being developed. The scattered settlement pattern on the boundary line of the town looks like a hamlet. The dispersion on the periphery of the town is the contrasting feature that is compared and analyzed in the figure-ground map and urban fabric analysis.



Fig - 3: Grain Map of Thiruvaiyaaru



Fig - 4: Towards Ariyalur Road Elevation Line



Fig - 5: Temple Precinct Elevation Line



Fig - 6: Madha Church Street to Kaveri River Elevation Line

2.2. Urban Fabrics

2.2.1. Fine-Grain – X - The south street fine-grain circle consists of several small blocks nearby. Within each block are several buildings, most with narrow frontages, frequent storefronts, and minimal setbacks from the street. Streets and opportunities to turn corners are frequent, and as a result, so are storefronts. Fine grains fabric types are mostly evolved to fulfill the commercial needs of the town. The south street stretch and streets on the west which has more residential buildings evolved based on population growth and the growing value of the land.



Fig - 7: Fine Grain Clusters of South Street, Thiruvaiyaaru

South Street - Fine-Grain Circle - One of the fine grains of the town is mostly on the south street which is a state highway extended towards the east-west direction which has 6m width where most of the imports and exports of commercial areas exchanged here. The buildings of this fine grain circle include mixed-use development, commercial shops from (G to G+3), government buildings, temples, residences, institutions, and bus stops. This circle is the busiest circle of Thiruvaiyaaru where the bus from east and west directions extending toward Kumbakonam and Trichy respectively make it a vibrant street. The sub-road networks of south streets are running towards north and south towards Thirumanur and Kaveri river respectively. South extent - mixed-use development, religious structures, and residences. North extent - residences and commercial shops.

2.2.2. Coarse Grain-Y - Coarse grains fabric types are mostly evolved to fulfill the shelter needs of the people in the town.

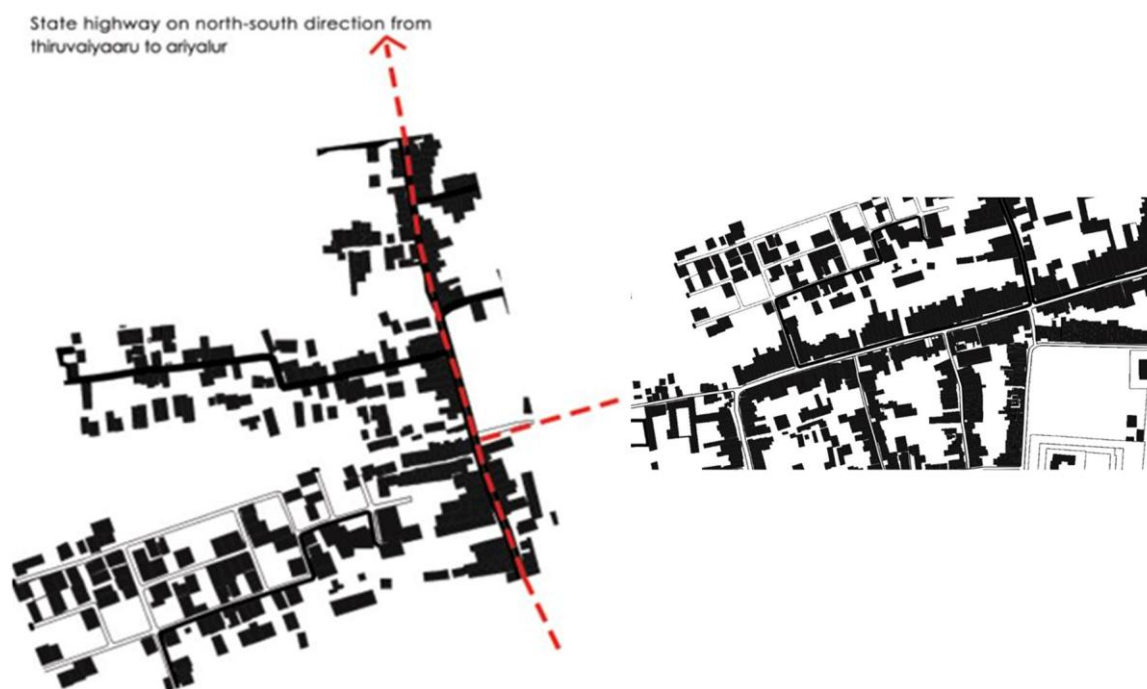


Fig - 8: Coarse Grain Clusters of North Street, Thiruvaiyaaru

The north street stretch and the streets in south direction along the river are mostly residential evolved based on the occupation and financial status of the people in the town.

North Street - Coarse Grain Circle - One of the coarse grains of the town situated on north of Aiyarappar temple. Most of the type of buildings are residential and less amount of commercial shops and mixed use development. This circle is the oldest settlements where most of the houses of this streets are semi-pucca houses built in 18th - 20th century. North street having roads on north and south directions and the solids are dispersed and linear having high spacing and density. The circle 'Y' is not as vibrant and busy as south street where most of the activities are domestic based. The circle 'Y' having more open space on west and north direction. It is the developing area having more residence and commercial development scope on the west and north of the circle.

2.3. Urban Elements

The urban elements such as buildings, streets, public places, transportation, landscaping, and their ratio are shown in maps and graphs. Having adequate water resources, vegetation, and open space, the ratio of these elements are more balanced and perfectly configured. The physiology of the town is segregated for all geology of the land such as water, trees, agriculture, underground water, habitats, and species.

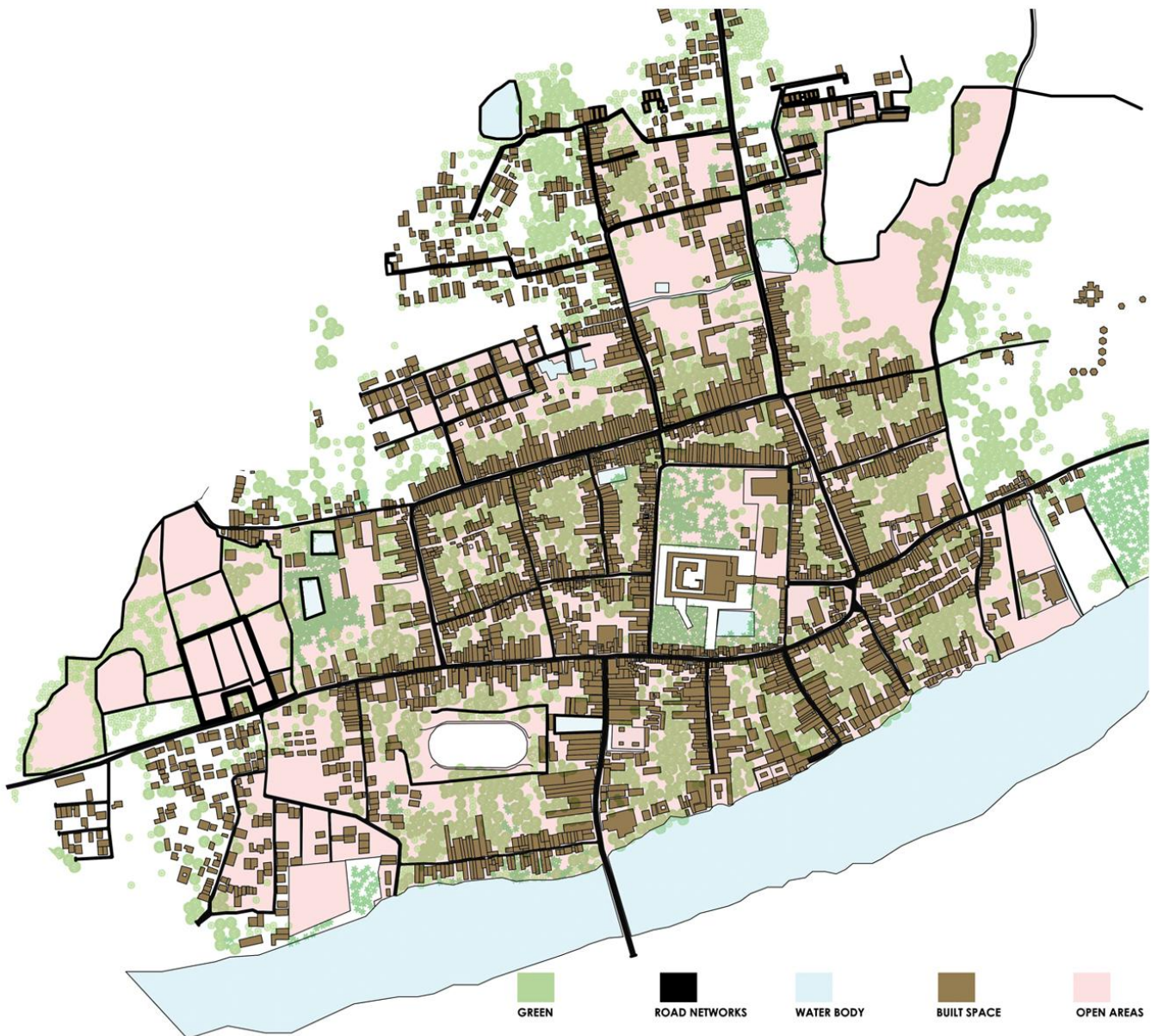


Fig - 9: Urban Elements Map of Thiruvaiyaaru

2.3.1. Buildings

47% of the town is covered with buildings that are all evolved based on street connections of the town with adjacent villages and districts. South Street and north street are filled with semi-pucca houses which are all more than 100 years old evolved over the centuries around the temple including residential and commercial areas. Institutions and other typologies evolved based on the population growth and needs of people.

2.3.2. Public Places

Other than the bus terminus situated on the state highway from Thanjavur to Thiruvaiyaaru road and religious buildings (temple precinct), there are not many public places or public gathering spaces available. There are no recreation or park areas present in the town which is a major threat and disadvantage for the people to spend their free time. The temple precinct at the center acts as an urban square sometimes because of its location, vision, and vast area.

2.3.3. Streets

The street evolved by having a temple as a basic axis. south street is the initial street that evolved for the functional need to connect the town with other districts and towns. North street evolved when the population started growing. The road networks are a result of people's occupation and need. The other street such as Melamada, Keelamada, and other streets surrounding the town are having maximum residential buildings evolved from south street from east to west and Ariyalur road from north to south direction.

2.3.4. Transportation

Maximum traffic on the south street having commercial activities maximum like exchange of goods with other places. The major connection for larger vehicles is the state highway which is south street, Ariyalur, and Manamadurai road. The other streets such as Madha streets and streets that are having residential settlements have a 4m to 5m width minimum having only domestic vehicular circulation.

2.3.5. Landscaping

The initial vistas of the town are explained in Thirumurai songs i.e. the temple is located along the Kaveri river and surrounded by an agricultural field, plantation, and forest areas. The settlement got evolved and the population increased over the years. So the green and blue space got reduced with the increase in population and solid space.

2.4. Major Threat

The sprawl in the west and north directions deforests agricultural land and forest areas. It affects the nature of the land and the balance of distribution of urban elements.



Fig -10: Urban Elements of Thiruvaiyaaru

3. SETTLEMENT PATTERN EVOLUTION OVER THE YEARS AND ITS TYPES



Fig - 11: Designed Settlement Pattern Map (above) and Evolved Settlement Pattern Map (below)

The transition of settlement pattern from designed to evolved is clearly shown in Figure 11. The evolved patterns are mostly the pucca houses which are dispersed in the agricultural field.

For various reasons, the town Thiruvaiyaaru has extended its boundary. The flexibility of evolved spaces is mostly based on people day to day life and their occupation.

The pattern of traditional settlement is formed by cultural beliefs based on cosmological interpretation of the relationship between human beings and nature.

This pattern will be kept by the traditional community when they moved elsewhere. This can be seen from the efforts of the traditional community in modifying their new settlements.

However, the pattern may not exactly duplicate the 'original' one due to the different roles of physical elements of the settlement to their current culture which begins to adopt 'external' cultures into their built environment.

The Aiyarappar temple built by Karikala Cholan is the initial development along the south and north street.

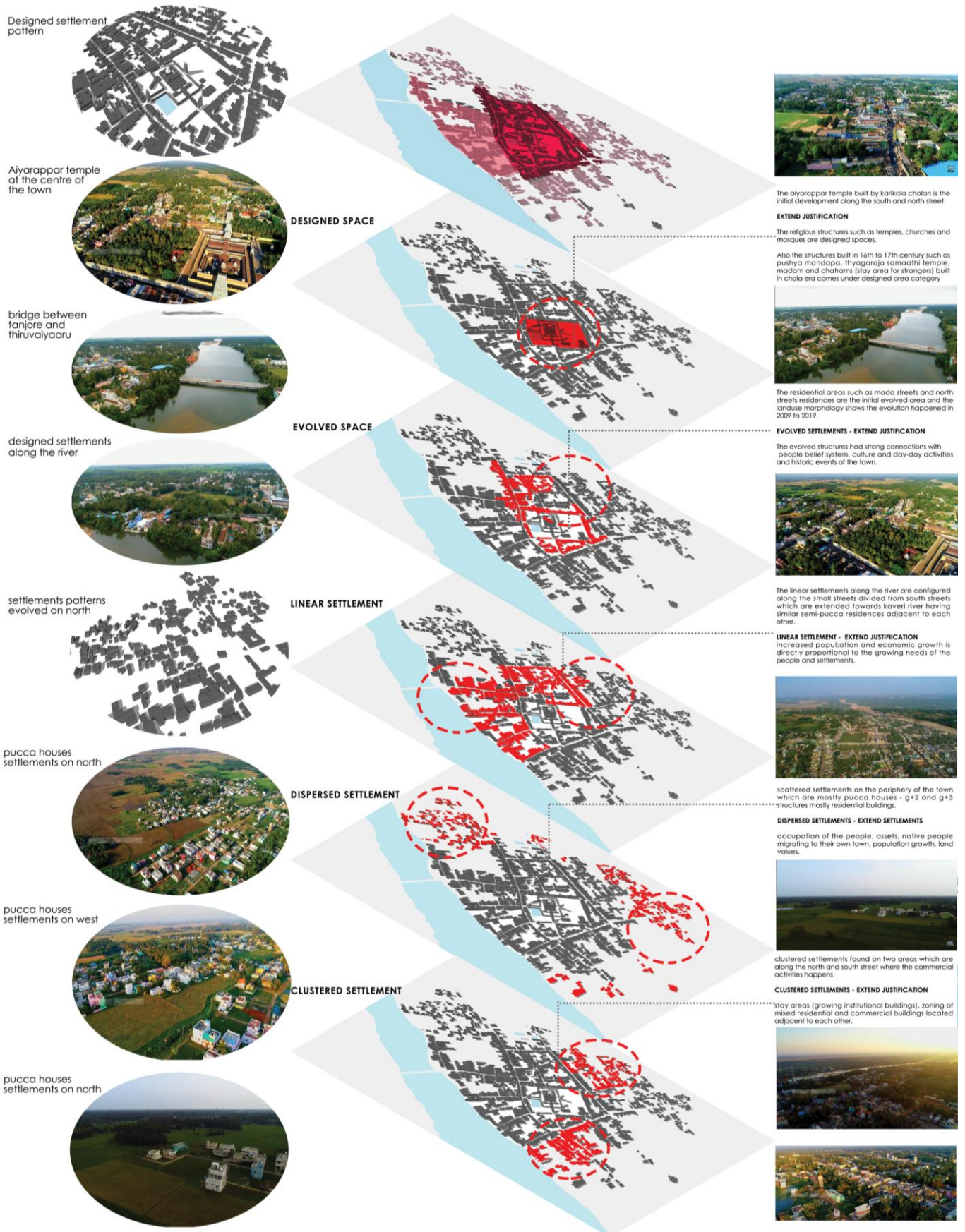


Fig - 12: Typologies of Settlement Pattern



Fig - 13: Typologies of Settlement Pattern explained

4. CURRENT LANDUSE AND SETTLEMENT PATTERN

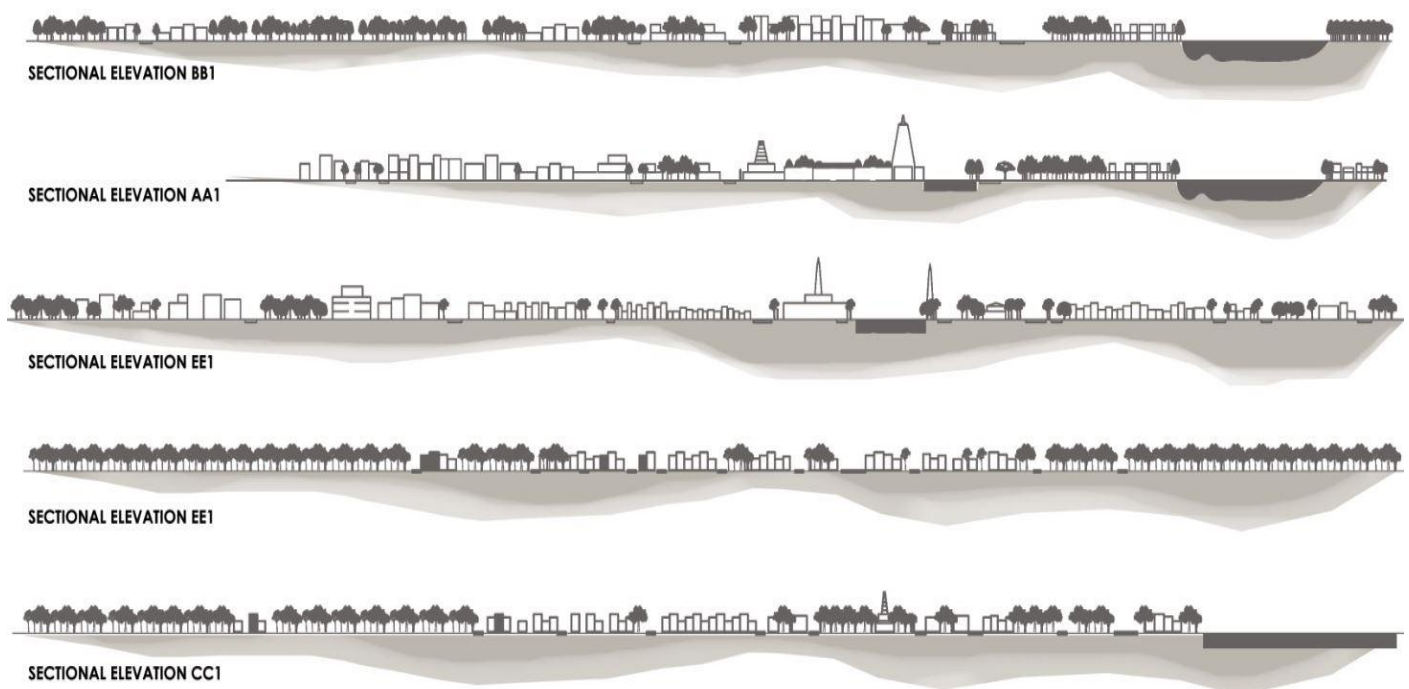


Fig - 14: Sectional Elevations of the town Thiruvaiyaaru

The sectional elevations shows the urban grain segregations of north streets, south streets of the town.

The ratio of urban elements could be seen in the drawings which are landscape, water body, built and un-built space, historical building domination.

This mainly helps to understand the skyline, the street functions and elements of the town and also describes the clear coherence and vision that are created in the streets
The residential, commercial and institutional areas are maximum in the town and the most dominating structures are Aiyarappar temple and the spaces are Samaadhi temple and Pushya mandapam which grabs attention of the viewer while entering the town.

The distribution of all urban elements clearly shows the prosperity of the town which are agricultural land and Kaveri river which occupies the major area of the town and that is main source of occupation of the people and source of water.

The agricultural lands are spreaded on the periphery of the town which keeps the whole cooler and elegant with its beautiful vistas. the water body is the water source for agricultural which has divided branches of water basins towards the agricultural areas.

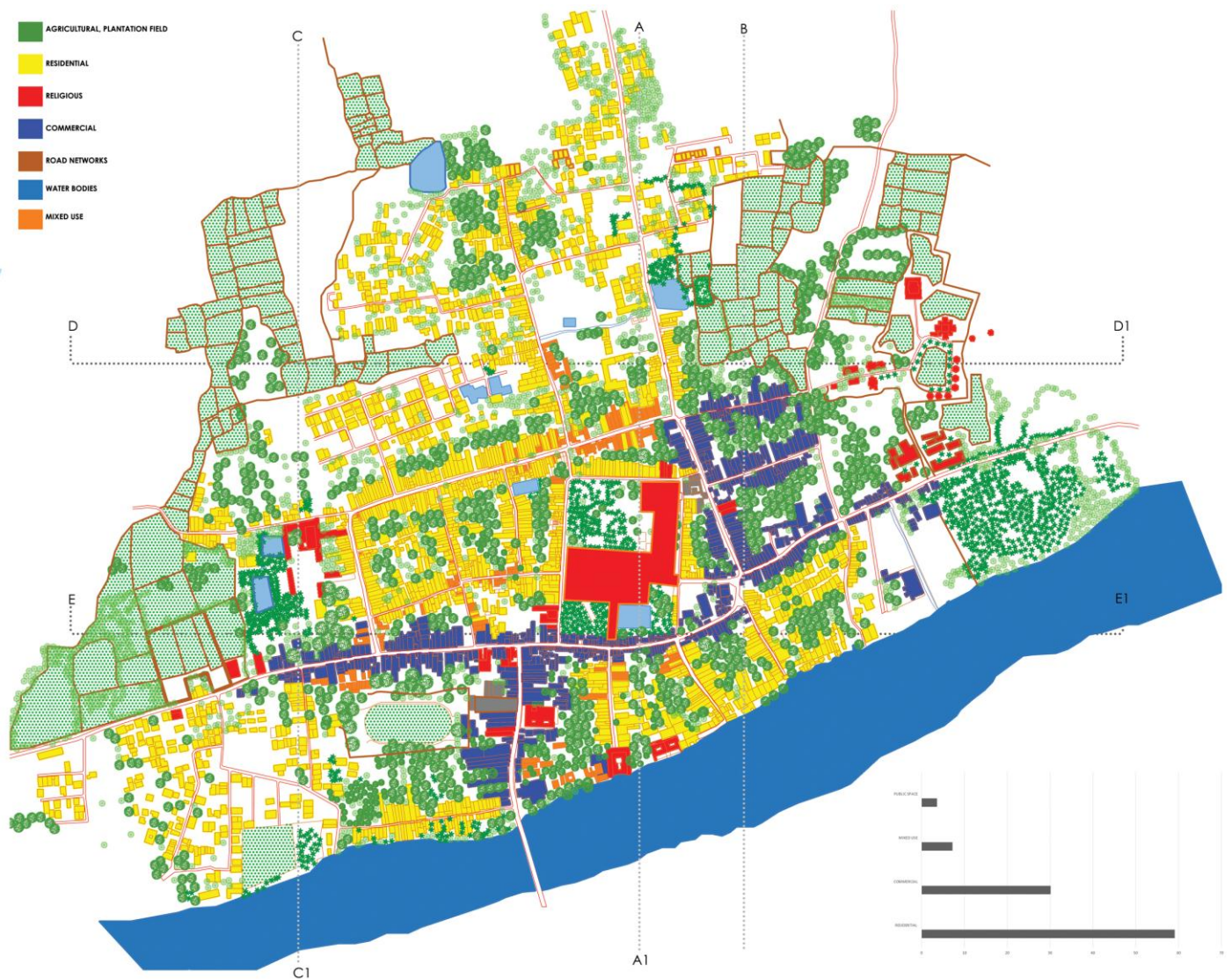


Fig - 15: Current Land use Pattern of Thiruvaiyaaru Town

5. SERIAL VISION – EXPERIENCING URBAN SITUATIONS

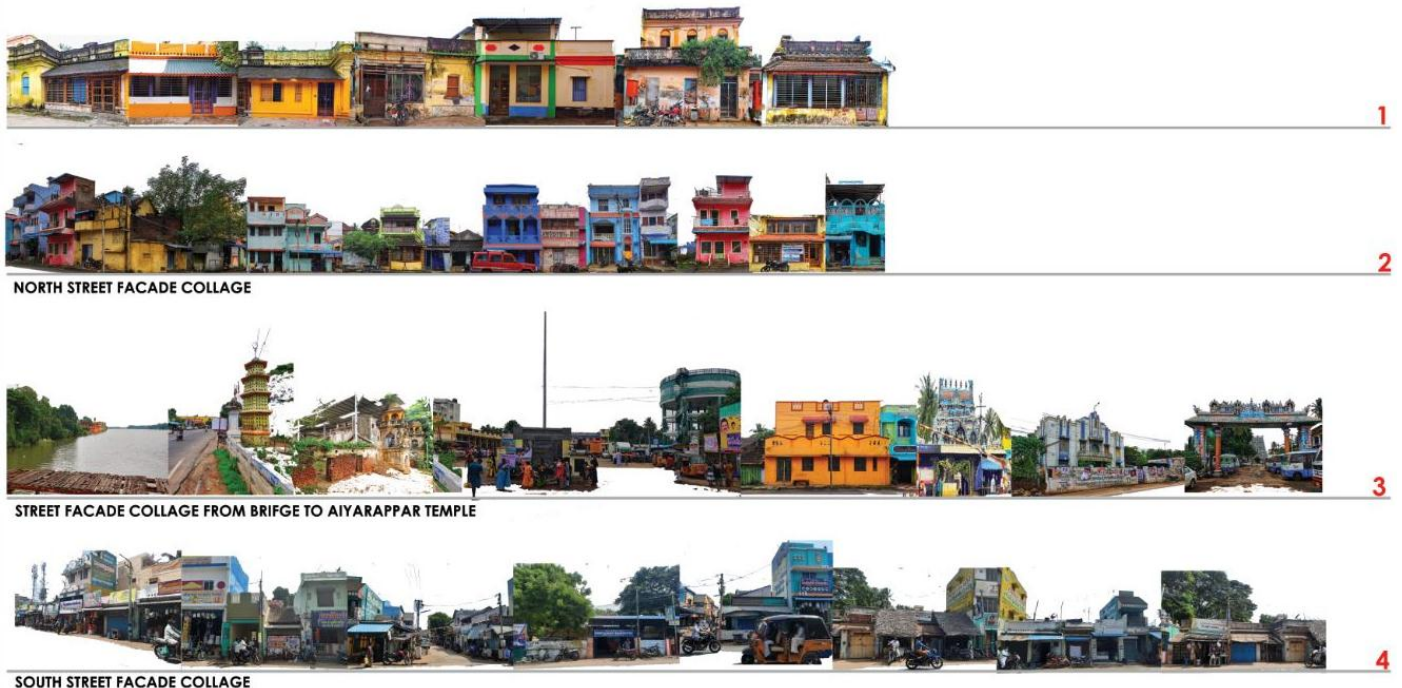


Fig - 16: Serial visions in the town Thiruvaiyaaru

5.1. Serial Vision - Thiruvaiyaaru Urban Walk from Bridge that connects Thiruvaiyaaru and Tanjore to Samaadhi Temple

As our experience of an urban environment is a dynamic activity involving movement and time, the urban experience of moving through space is an important part of the visual dimension of urban design.

Naturalness - Environment that is natural or where natural overbuilt elements are predominant.

Upkeep/Civilities - an environment that appears to be looked after and cared for.

Openness - the blending of defined open space with panoramas and vistas of pleasant elements.

Historical Significance / Content - Fragrant history.

Order - in terms of organization, coherence, legibility, clarity.

Serial Vision is a visual approach to urban design first introduced by Gordon Cullen. This method of visual representation can be used as a tool for evaluating current experience in moving around a space, analyzing it, designing alternatives, and presenting a new design. Architecture has the power to grab your attention and lead on to a path predestined. Several principles work together to make this possible. Serial Vision revolves around working on a set of revelations and at the same time keeping the interest and contrast to upkeep the stimulation and create a vibrant environment.

A straight road or a simple rectangular building may seem monotonous to the viewer as he or she tends to absorb all of its glory and depth in a single frame or glance. Whereas, little attention to the orientation and scales can curate a sense of curiosity and element of surprise in the viewer, often guiding the person in a certain direction. Serial vision takes its ultimate form when architecture and urban design take shape to form public art forms; one in which the observer does not have a choice to turn back but to pass through it. This huge responsibility lies in the heads of the urban designers and architects and hence, the competition to render perfect results.

A town or city should be designed from the point of view of moving people since residents “apprehend urban environments through kinesthetic experience”, the idea of “Serial Vision”, which means people can experience a revelation of views while walking along the streets at a uniform pace. The aim is to present an informative illustration of spaces that is capable to give a general impression about the journey.

A method to experience the space and its transformations, a revelation, changes and contrasts of the built environment that one can experience when exploring the space from pressure to vacuum, from enclosure to exposure, from traditional to modern, from public to semi-public, from streets to squares, from higher to lower level and from busy spaces to quiet alleys. So unless you are showing deliberately a repeating view (to say that the path lacks diverse spaces for example), should select views that show changes and contrasts in the studied space.

5.1.1. Urban Walk 01 – North Street

The casual walk starts from the west direction end of the street to the last showing all the interesting elevations of the street, which are mostly residential buildings. The street activities, structural configuration, and skyline could be seen in the elevations of the north street. The houses are mostly from the mid and current centuries and have different senses of articulation and continuity. The architectural value of these facades is described in cluster identification analysis. Facade collage 1 and 2 in Fig-15 show facade characters of North Street.



Fig - 17: Image showing the Urban walk through North Street

5.1.2. Urban Walk 02 – From Bridge to Pushya Mandapam

Urban walk 02 starts from the bridge that connects Thiruvaiyaaru and Thanjavur to Pushya mandapam. The experience of this journey is shown in serial vision images 1 to 9 and each stage of architectural revelations is described in cluster identification analysis.

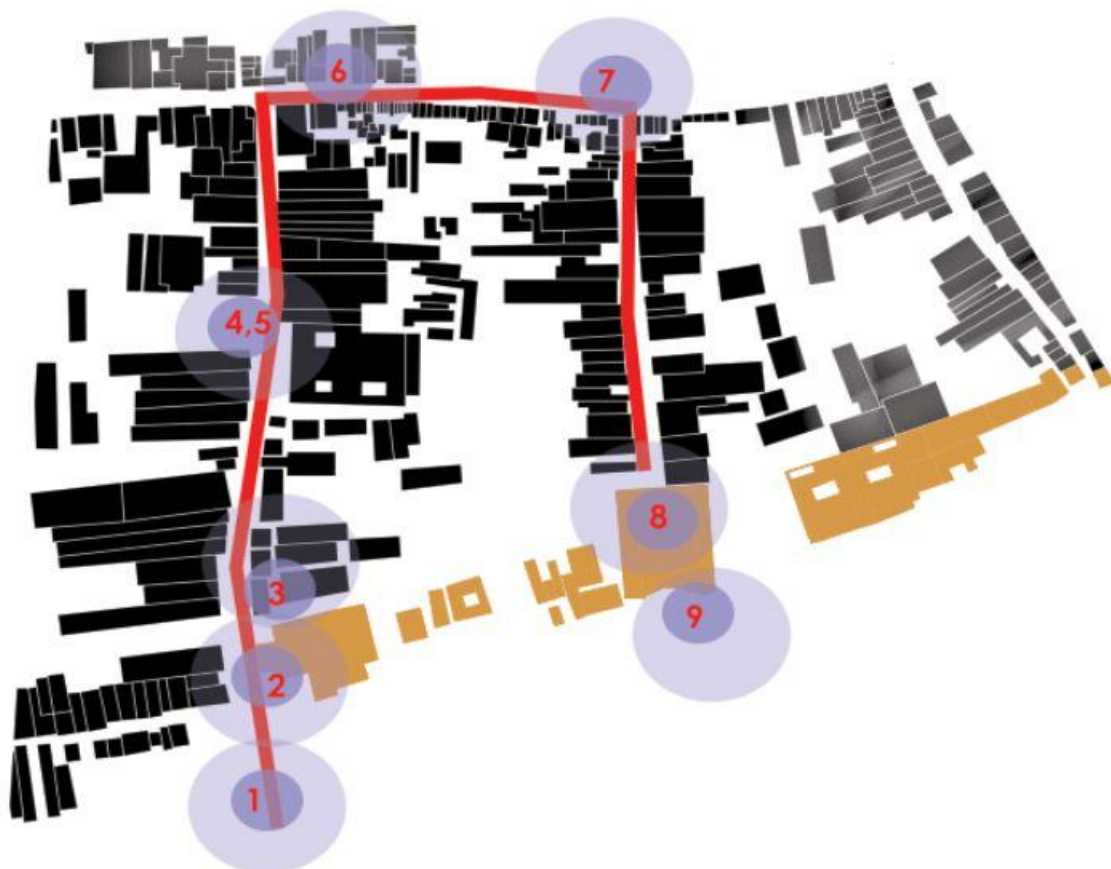


Fig - 18: Image showing the Urban walk from Bridge to Pushya Mandapam



Fig - 19: Images showing the places marked in the Urban walks 01 to 04

5.1.3. Urban Walk 03 – From Bridge to Aiyarappar Temple

The Urban walk starts from the bridge (Tanjore to Thiruvaiyaaru) to Aiyarappar temple. The experience of this journey shown in serial vision images 1 to 9 shown in Figure 18 which is the destination of urban walk 03 and each stage of the destination part is described in cluster identification analysis.



Fig - 20: Image showing the Urban walk from Bridge to Aiyarappar Temple

5.1.4. Urban Walk 04 – From Bridge South Street to Samaathi Temple

The urban walk 04 starts from Bridge to Samaadhi temple and the experience of this journey is shown in serial vision images 1 to 11 shown in Figure 18 which is the destination and each stages of the destination is described in cluster identification analysis.



Fig - 21: Image showing the Urban walk from Bridge South Street to Samaathi Temple

6. PATTERN IDENTIFICATION FROM URBAN FABRICS

6.1. Characteristics of Urban Fabrics

6.1.1. Structural Coherence

People recognize an identity of a place through its regularity and coherence of its parts. In Thiruvaiyaaru, its fabric whole is established mainly on heavy repetition and proximity, Von Meiss's idea of structural coherence of the urban environment lists elements of repetition and similarity, proximity, enclosure, and orientation. The structural form of buildings and their relationship to the elements, the figure-ground relationship on building frontages and third, the articulation of building parts, are the structural coherence elements.

The buildings built until the 19th century has conformed to these similarities, and hence, the slight variation of their floor heights, ornamentation, materials, finishes, and later the influences of Modernism has not caused the severe disorder. Our visual and mental visions settle on the easiness of a congruent form. The heritage residential houses of Thiruvaiyaaru from the early periods until the Early Modern period share a similar building form, which had only evolved over artistic influences and the advance in building technology.

6.1.2. Facade Characters

Urban artefact is the richness of the town's history, its auspicious character and ominous moments of life make it an indispensable part of the city. Thiruvaiyaaru town's heritage houses are filled with micro-urban artifacts on its facade. The wooden road from entry doors, pot tiled roof, colors and articulations, and the fenestrations on facades on semi-pucca houses could be studied as a series of rhythmic elements.

6.1.3. Linkage

The major tool that combines residential buildings around the Aiyarappar temple into an urban fabric is largely the imposition of a footway on the ground floor that provides physical linkages to an entire street, and visual linkages from one street to another. These linkages are further enhanced by other details, such as common roof and cornice lines.

The continuity of these semi pucca houses is disrupted by object-buildings that have functional or symbolical importance, mainly mosques, temples, and churches. Such buildings are normally built away from the proximity of the fabric, accentuated by gaps and recesses. In cases of limited space and capital, unique architectural solutions transpire in their relationship to the sky such as temples and churches, the ground, and the fabric-buildings in immediate contact.

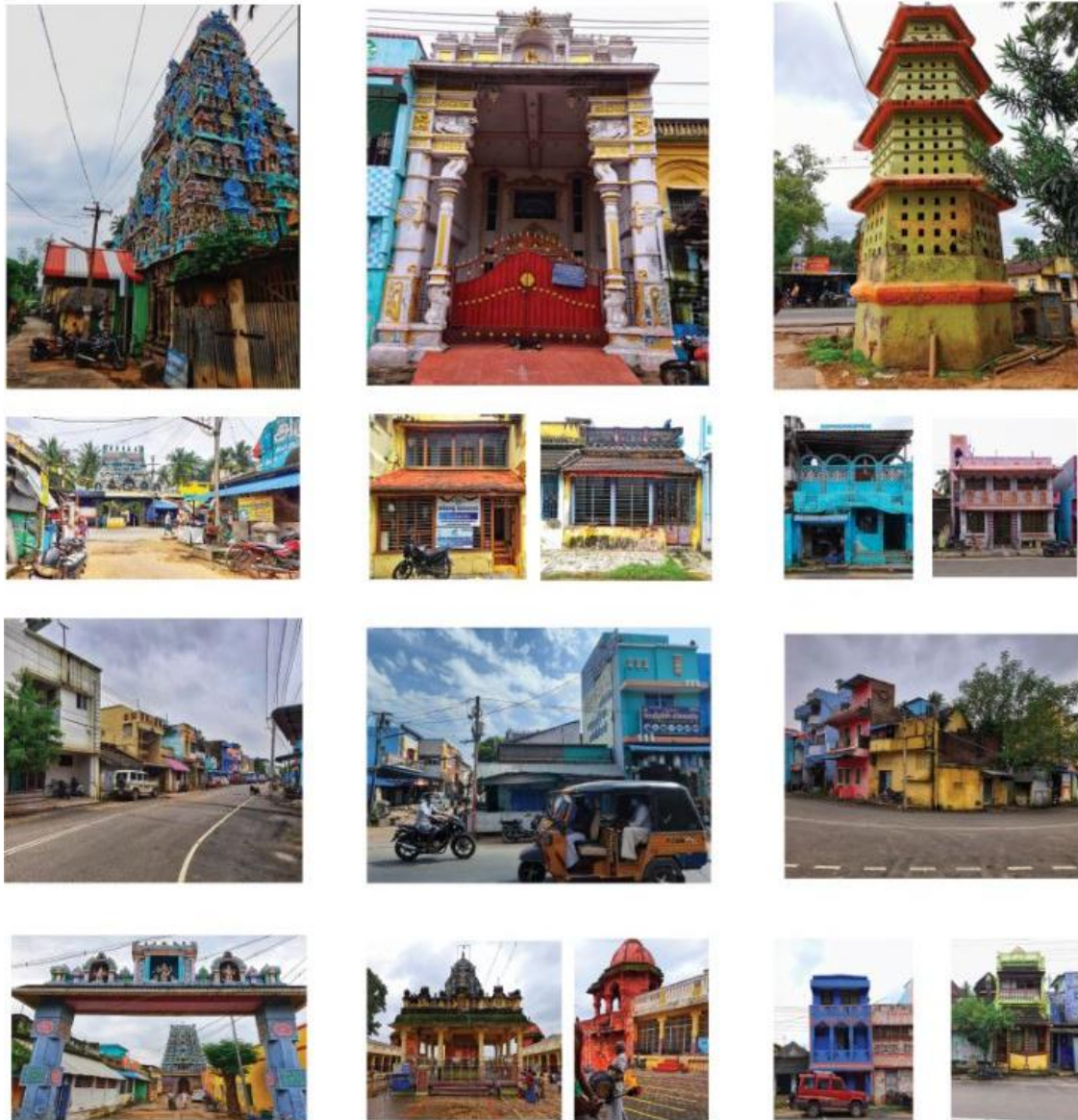


Fig - 22: Glimpses of Different Types of Built Forms and Spaces in Thiruvaiyaaru and its Architectural Values

6.1.4. Articulation

Another method of looking at the coherence of the fabric is in the articulation of the details. An articulation is a joint established between two different building components meant to define, accentuate or separate opposing elements. The varied articulations of different types of buildings such as semi-pucca houses, temples, shops, pucca houses, and religious structures directly show the age of the structure by its patterns, style, and decorations.

6.1.5. Continuity

A sense of continuity is created by the curves on the capital, window arches and floral plaster works on the facade. This continuity created by ornamentation was removed in shops (commercial buildings) built during the late periods and the early modern periods, in which the former emphasised on vertically while the latter held onto strict functionalism.

Expression of art deco styles on facades creates a sense of identity which imposes timelessness.



Fig - 23: Art Deco Style Facades

Early modern architecture had posed the most radical challenges to the fabric: disruption of figure-ground rhythms, removal of ornamental details, introduction of parapet walls, flat roof forms, simplistic edge to the elements, and opposite methods of articulation, etc.



Fig - 24: Facades showing Continuity

6.2. Pattern Identification through selected clusters of Thiruvaiyaaru

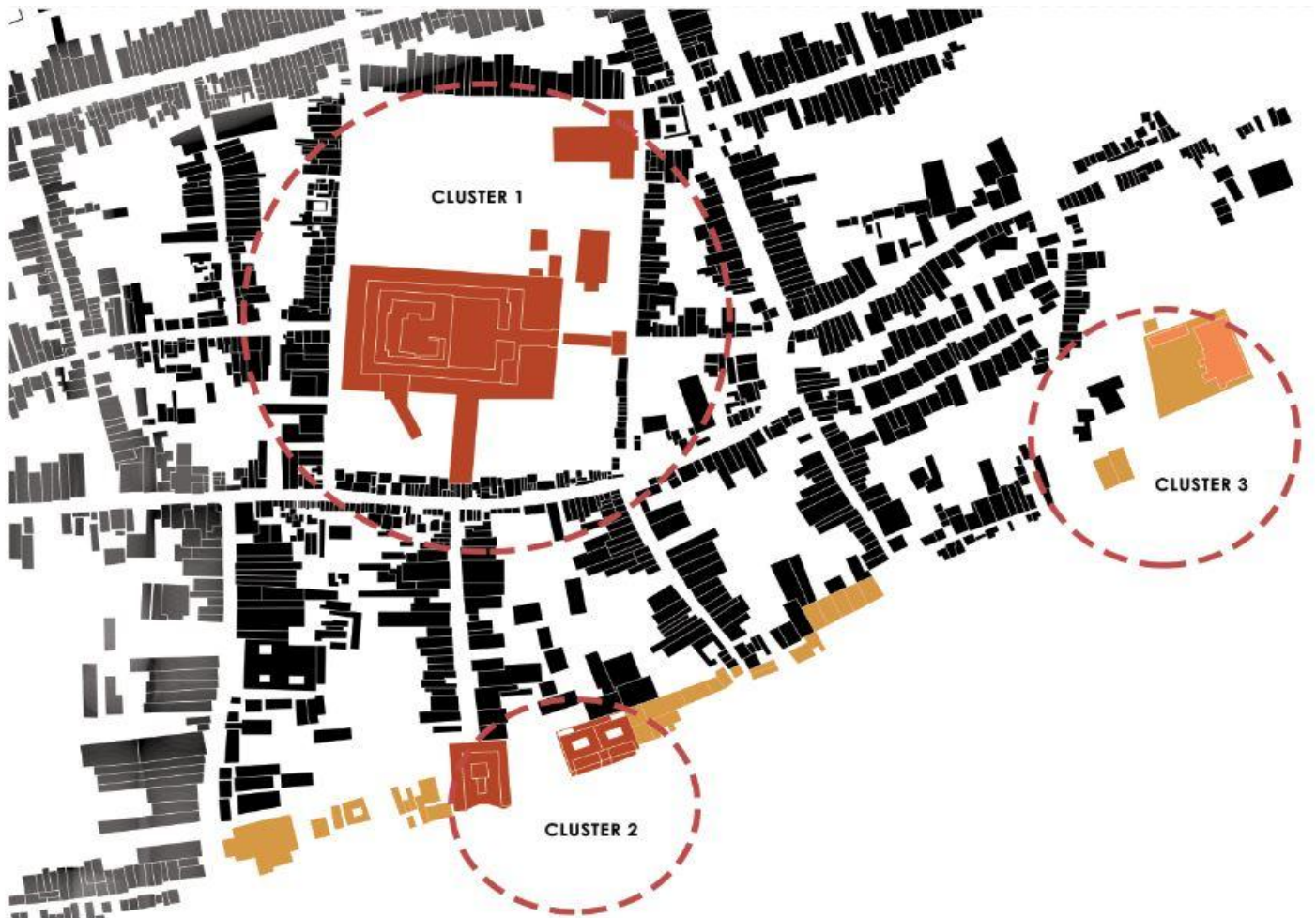


Fig - 25: Pattern Identification through Clusters

6.2.1. Cluster/Archetype 01 - Aiyarappar Temple Square

The articulation of the details is another way to look at the fabric's coherence. An articulation is a connection between two building components that is used to define, highlight, or divide opposing elements. The patterns, style, and decorations of many types of buildings, such as semi-pucca houses, pucca houses, temples, stores, and religious structures immediately reveal the antiquity of the construction.

Cluster 01 circle is the temple surroundings, which is Thiruvaiyaaru's very first development. Residential and commercial developments surround the temple. The temple has connections to road networks on all four sides, allowing people to easily move and interact with neighbouring streets.

Total area of the precinct = 15.4 acres
Age of the structure = 1100 yrs old

This precinct serves as a town square, with controlled views and vistas, street alignments, and monument rooflines all contributing to its sense of enclosure. The temple, with its tall Gopurams on two sides facing the street openings, unites them.

The tower serves as the dominant visual anchor of the square, a regional landmark, and the terminus of the visual axis of Sannathi Street all the way to South Street. A closer examination of pedestrian travel along Sannathi Street finds two different walkways on its sides that circle the entire precinct. The Archetype analysis explains the experience of cluster 01 Aiyarappar temple square's urban context, which includes announcements, pylons, gates, forecourts, and paths.



Fig - 26: Observation of Urban Situation in Aiyarappar Temple Square

6.2.2. Cluster/Archetype 02 - Pushya Mandapam

Pushya mandapam refers to the riverside kiosks where rituals known as "Thidhi" in Tamil are performed. People regard this edifice as sacred, and its location and outlook serve as a guide when travelling from Thanjavur to Thiruvaiyaaru. This Mandapa, together with the river, creates an intriguing holistic view that harkens back to earlier times thanks to its pristine natural beauty. The structure is also well-configured and zoned, creating a sense of identity, announcement, and gateway to the town due to its social and cultural values.

From the bridge that joins Thanjavur and Thiruvaiyaaru, the Mandapa, the temple close to the Mandapa, and the Madam, which is an old development along the river, can all be seen.

The Archetype analysis explains the experience of cluster 02 Pushya mandapam's urban context, which includes portal, threshold, announcement, approach, path, revelation, arrival and being, enclosure and tunnel.

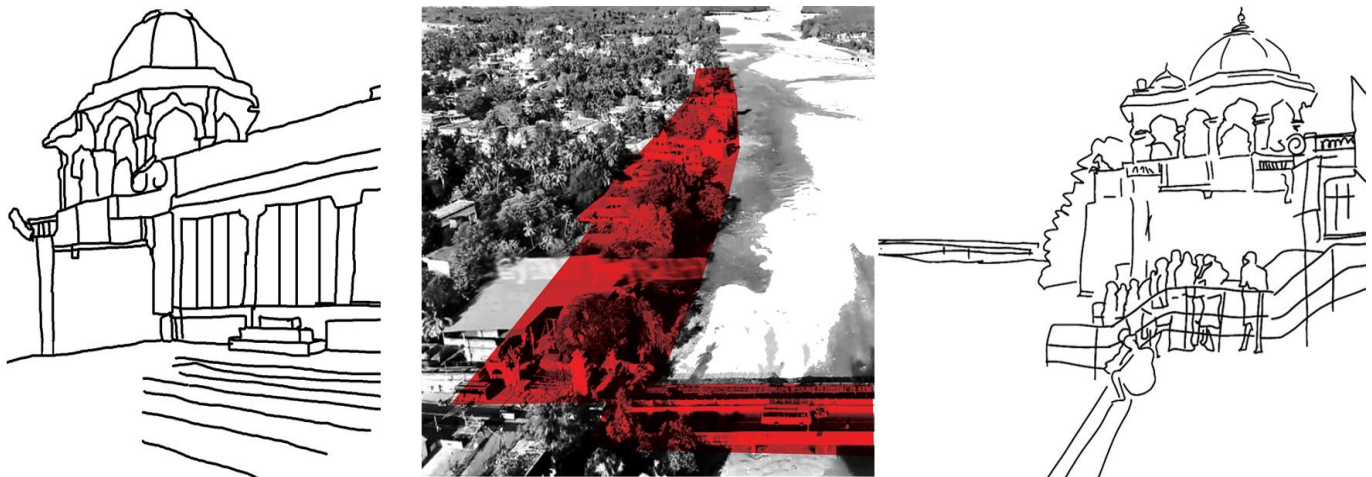


Fig - 27: Observation of Urban Situation in Pushya mandapam

6.2.3. Cluster/Archetype 03 - Thiyagaraja Samaathi Temple

Cluster 03 circle is located along the Kaveri river and features an archway near the entrance along South Street Road, which serves as the space's main entrance. The Thiyagaraja samadhi structure is one of Thiruvaiyaaru's tourist attractions, with a 500-year-old history of Thiyagarajar, a Carnatic musician, and a famous festival called Thiyagaraja Aaradhana, which is held every year near the river to honour Thiyagaraja.

The archway serves as a welcoming structure for visitors, serving as an announcement and landmark. Cluster 03 is not a vibrant site, with the exception of festival seasons in December and January, and the space might be fully utilised by transforming it into an urban place making space.

The Archetype analysis explains the experience of cluster 03 Thiyagaraja Samaathi temple's urban context, which includes announcement, path, gateway, arrival and being, revelation and enclosures.



Fig - 28: Observation of Urban Situation in Thiyagaraja Samaathi Temple

6.3. Figure Ground Cluster Analysis

6.3.1. Archetype 01 - Aiyarappan Temple Square

The announcement starts at the archway of the temple and terminates at the hinge which is the Garbhagraha. Each stage of the structure is an architectural revelation that is completely from the user's perspective. The descriptions are explaining how the movement of the people and structural elements and their characteristics are related to the experience of the viewer.

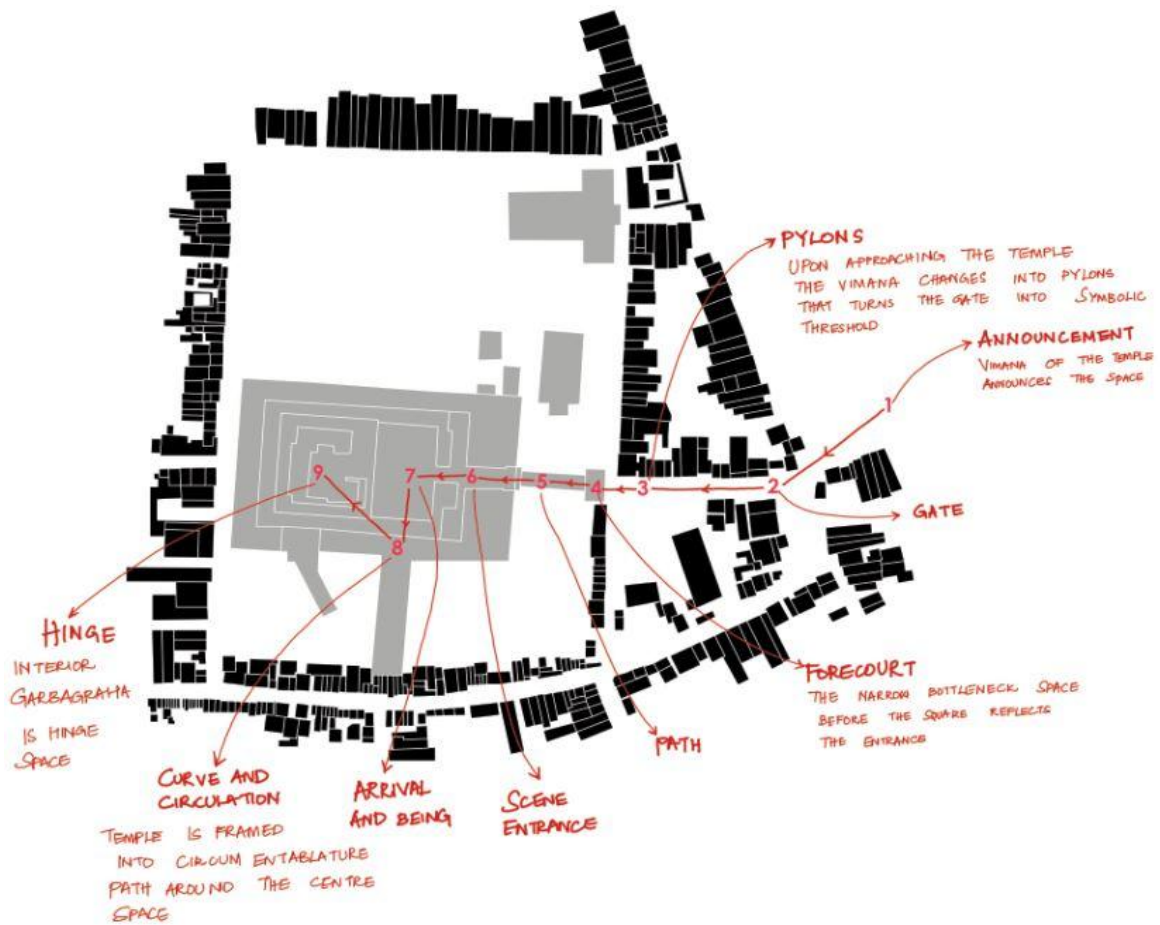


Fig - 29: Precinct Experience showing 9 stages of Revelations from Announcement to Hinge

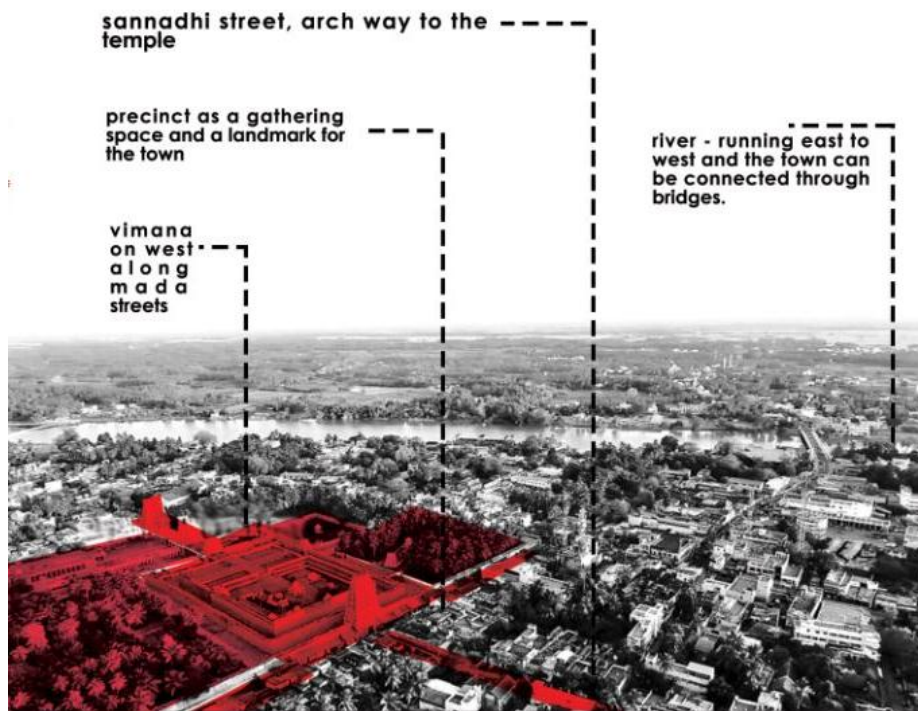


Fig - 30: Explanation of the Precinct Experience

6.3.2. Archetype 02 - Pushya Mandapam

The announcement starts at the bridge that connects Thanjavur and Thiruvaiyaaru and terminates at the Kaveri river which is the Padithurai. The revelation of Pushya mandapam is an announcement at the bridge and the entryway of the Mandapa is revealed by the temple at the south street center which acts as an archway for the space. The descriptions of all the stages talk about how the place that is viewed from far away creates a sense of suspense until the hinge.

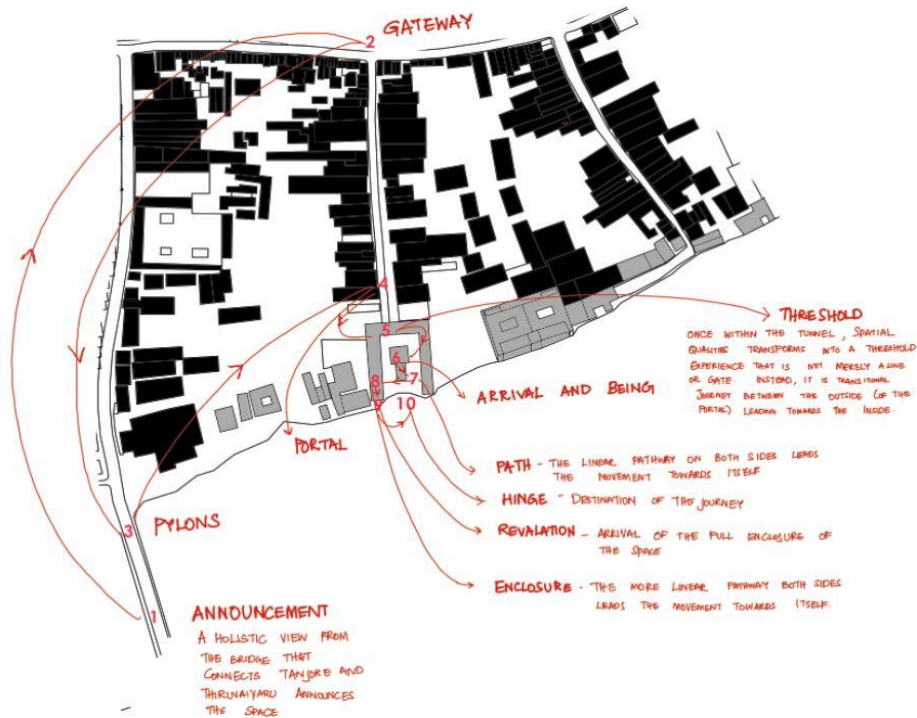


Fig - 31: Pushya Mandapam Vista Experience Showing 10 Stages of Architectural Revelations from Announcement to Hinge.

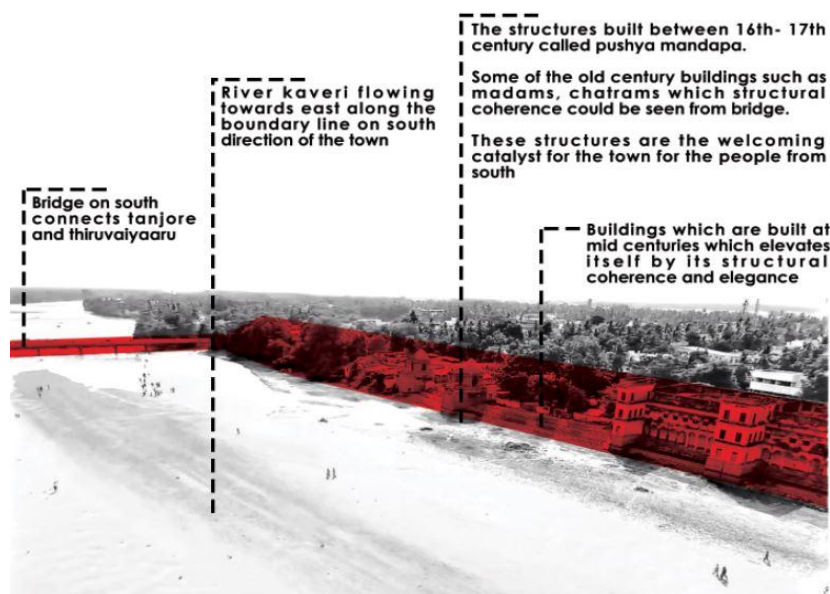


Fig - 32: Explanation of the Pushya Mandapam Vista Experience

The revelation happens at two level of experience from Bridge to South Street. 1st level of revelation - from bridge - creating vistas before entering the town and act as a welcoming element. 2nd level of revelation - from south street corner end of Pushya mandapam - creating a sense of order and announcement for the place.

6.3.3. Archetype 03 - Thyagaraja Samaathi Temple

The announcement starts at archway of the temple at South Street and terminates at 2 levels. One is the hinge which is inside the temple and the other is the Padithurai which is the river. The archway is the revelation of first stage which leads user to the entry point of the structure and dynamically make user to move to the Padithurai. The descriptions explain about how the spatial movement can get divided and spatial flexibility works in the outdoor.

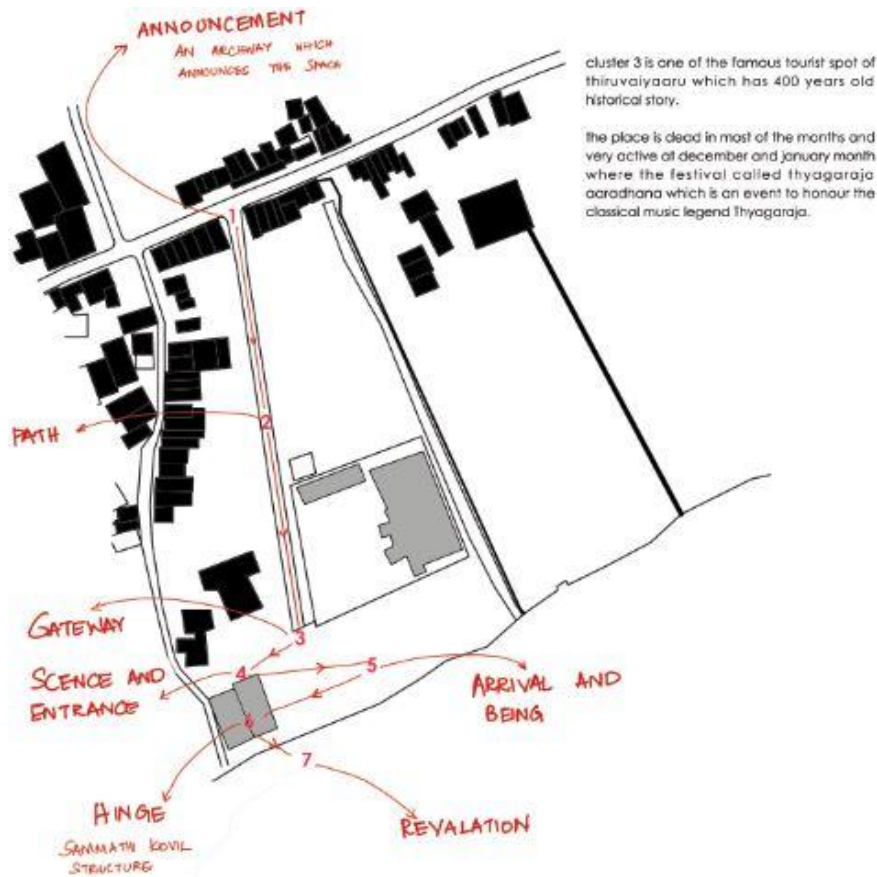


Fig - 33: Thyagaraja Samaathi Temple Vista Experience Showing 7 Stages of Architectural Revelations

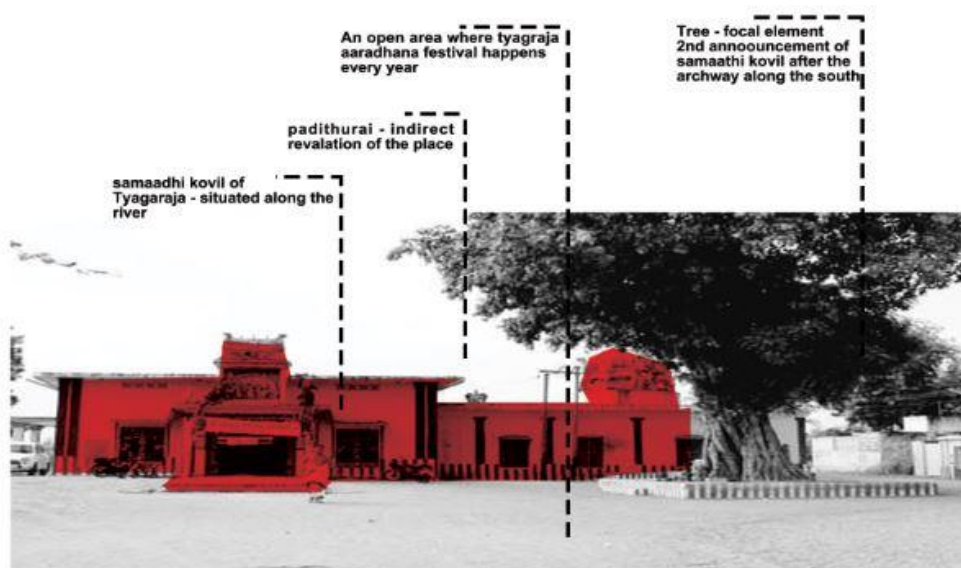


Fig - 34: Explanation of the Thyagaraja Samaathi Temple Vista Experience

7. CONCLUSIONS

Urban design is a sophisticated problem-solving activity that frequently necessitates the use of a number of tools to ease the process and improve the quality of the final product. A fundamental concern in the urban design arena is how to provide designers with appropriate methods for dealing with ill-defined urban challenges. In this regard, the employment of urban design patterns, serial vision, and cluster identification is regarded as an approach that can aid in the understanding of urban circumstances, as well as the solution of urban design problems.

The timeless method of construction is a self-sustaining process that offers order to our lives. Thiruvaiyaaru identifies it as the reason why some areas appear quaint and ethereal, such as the numerous tasteful traditional buildings of the past that appear new while being thousands of years old, being built by those who have attuned themselves to this kind of construction. Such a strategy must be understood, and the designers must be able to use it to make any building a beautiful place to be in.

The Timeless way of building makes the spectator feel as if they have this one-of-a-kind quality that allows them to create a home that is timeless, beautiful, and functional. Rather than blatantly attaching definitions and rules to these entities, these structures keep ideas open-ended, allowing the spectator to build his or her own understanding of the same while following the designer's or architect's well-guided examples. The happenings that take place within a town, city, or building characterize it. An empty room by itself means nothing; yet, the events that take place within it and the people that occupy it gives its significance.

In a way, the events that occur throughout time in a town or city can be narrowed down to certain patterns. These patterns give these areas individuality. The audience is left with an experience that reverberates closely with their being rather than a flurry of complicated rules and concepts.

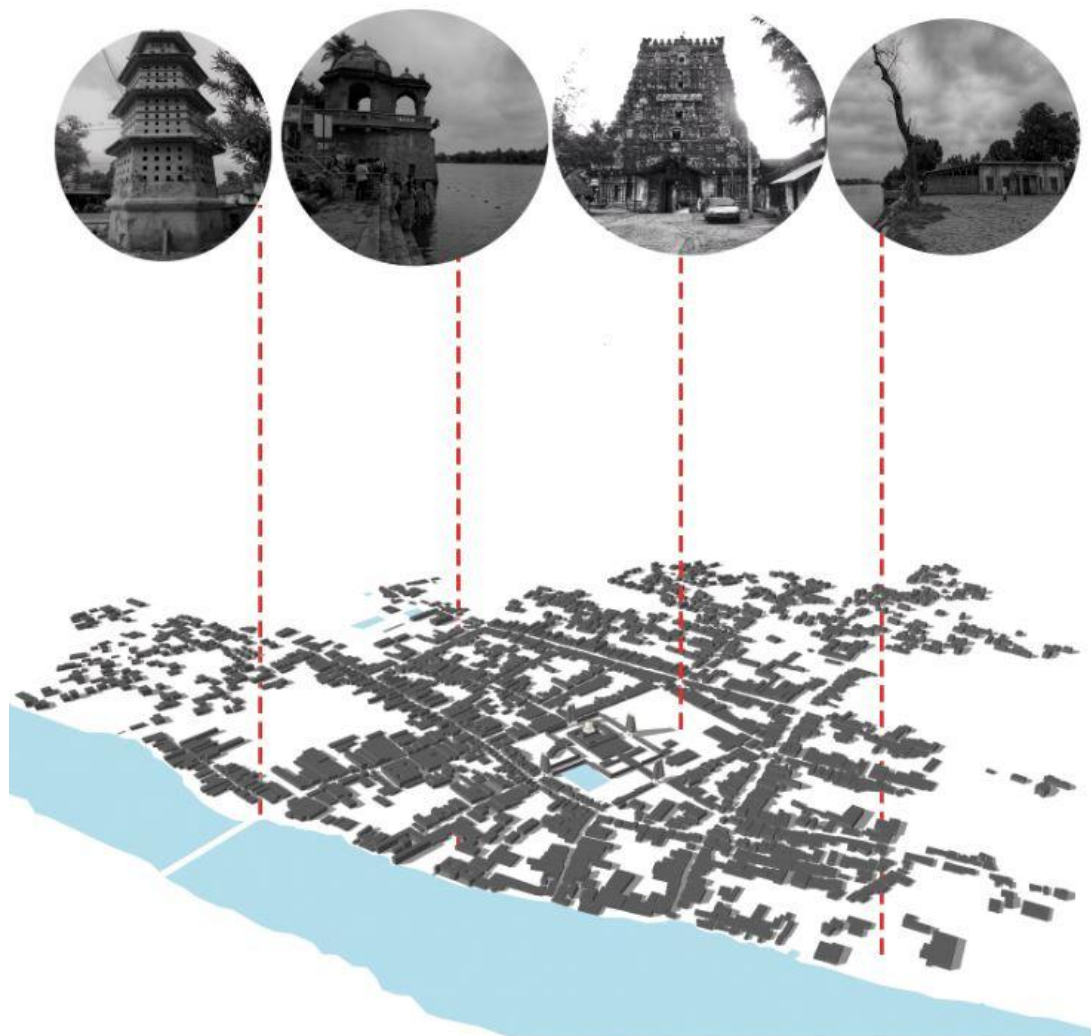


Fig - 35: 3d Map of Thiruvaiyaaru with its Important Landmarks shown

Thiruvaiyaaru Structural Elegance - The architectural magnificence of Thiruvaiyaaru's old and mid-century buildings, including as the Aiyarappar temple, mahals, chatrams, mandapas, and madams, reflects the town's cultural and spiritual activities and creates a strong spatial presence as well as in the minds of visitors.

Such structures can be found at key intersections and intervals throughout Thiruvaiyaaru, providing a landmark, unique panoramas, and reliving the town's incomparable history, art, and cultural significance.

The Beauty of Architectural Structures: Elegance beyond Aesthetics - An elegant design is one that is the result of the designer's engineering creativity, meets the standards of efficiency and economy, and is also elegant. These glimpses demonstrate the significance of urban area structural elegance and coherence, which are directly related to user perception.

7.1. Creating Active Public Spaces - Principles in Urban Context

Diversity of uses: Blending residential, office and commercial areas, such as bars, restaurants, cafes and local commerce, attracts people and makes the environment safer and friendlier.

Active facades: Connection between the ground level of the buildings, the sidewalk and the street contributes to safety and the attractiveness of urban design.

Social dimension and urban vitality: As an aggregator of people, public space has influence over the social dimension.

Human scale: High-scale, high-density construction can negatively affect people's health. In his field studies, Jan Gehl noted that people tend to walk faster when passing empty or inactive areas, in contrast to the slower, quieter pace of walking in livelier, more active environments.

Lighting: Efficient and people-oriented lighting facilitates the occupancy of public spaces at night, enhancing safety.

Stimulating the local economy: Quality public spaces not only benefit people by offering leisure and living areas, but they also have the potential to boost the local economy.

Local identity: Public spaces should be planned for the small businesses that characterize the neighbourhood.

Complete streets: Wherever possible, public areas should be thought of following the principles of Complete Streets and "shared spaces."

Green areas: In addition to contributing to air quality and helping to ease temperatures in the summer, vegetation has the power to humanize cities by attracting people to outdoor activities.

Social participation: Involving residents in the design, planning and administration of urban public spaces or the neighbourhoods in which they live is essential to maintain the quality of these spaces.

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