

EVOLUTION OF THE SRI LANKAN SHOPHOUSE: RECONSIDERING SHOPHOUSES FOR URBAN AREAS

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Abstract - The very fact that shophouses and their proportions contribute to the growth of the evolution of tropical architecture is a phenomenal feature. Most of the shophouses in Ambalangoda and the down South have been destroyed due to street widening as people cannot afford to live in a house at such an edge of the street due to skyrocketed land prices, people prefer modern buildings with concrete and glass as they believe that owning a traditional dwelling as being a symbol of poverty these days. This fact could be justified as Hasan Fathy discovered the clay arch in Egypt pre-dating the Romans; he discovered that the normal village people instead wanted the glamour associated with materials such as marble and steel. People thought that using the traditional form would put them into the poverty stricken bracket. If these shophouses are completely destroyed, we would not have a gene pool. We need an area in which these shophouses thrive, posterity would be understood. Thus there is continuity from the past to the present. Although there are rules in the breach to protect these traditional buildings some of them are on the verge of being demolished. Although the shophouses have been demolished there are sights of evolution of it into the contemporary world as these shophouses yield a sustainable way of building town dwellings with relation to the urban fabric.

Keywords: shophouses, traditional, sustainable

I. INTRODUCTION

“The beauty of the land captivates the visitor. For example, the landscape of Kandy in the hills of central Ceylon is delightful. The shimmering lake, formed by the damming of a small mountain stream reflects a constantly changing pattern of cumulous clouds and the blue sky”. McCune (1947)

Sri Lanka has always been credited with a sense of natural beauty throughout its history, yet it wasn't this aspect of the island nation that brought the Portuguese in 1905 to Sri Lanka. The Portuguese who arrived in Sri Lanka were comprised of wealthy merchants who were driven to explore the island's valuable spice “cinnamon”. “They settled on the shore to set up commercial strongholds, but soon got involved in local political conflicts and were drawn inland” Schrikker, (2007), although Portuguese were drawn inland they failed to get control of the centre of the island. As a result of this, the merchants conquered the Maritime Provinces and began implementing a new way of life. The introduced cash crops getting rid of local paddy cultivations, these cash crops include cinnamon, tea, rubber, all of which had a high commercial value in the world market. With these crops came the responsibility and need to buy and sell these products. Before the notion of shophouses were introduced there were places where business were carried out.



Figure 6. Total Irradiation vs Surface Area to Volume Ratio
Source: T Mendis

These goods had to be transported and several modes of transport existed back then. Traditional society mainly constituted of the inland water transportation which

included rivers and canals, for example the Hamilton canal between Colombo and Negombo and there were also the thoitiyas were the people who raft the boats across these canals. Another major means of transportation was on bullock carts. Within this changed services shophouses were places where the traders broke journey. With the setting up of these shophouses the system of trade became efficient and they became centres where people could buy and sell cash crops and other goods. The traders ended up residing in these shophouses. This shows the multifunctional nature of these shophouse buildings since this aspect came into being on account of the need to accommodate this new social paradigm. The streets began to develop with these shophouses acting as commercial centers, which in turn gave rise to the unbroken streetscapes.

Modernity and traditional dwellings

The century old shophouses alongside the streets express the old commercial interactions through their planning. But they are fast disappearing with only a few of these shophouses in existence in Sri Lanka at present. Increasing economic growth which raised the standards of living, people are yet going for a modernized building style bringing down the traditional forms such as these traditional colonial shophouses and with them a way of life. According to Tiamsoon Sirisrisak, a researcher on culture at Mahidole University “there is more than just the architecture to preserve in the community. If these old buildings are demolished, the people will go, so will the lifestyle and culture”. Modernization has brought about sweeping which have impacted on the form of the shophouse.

Hasan Fathy in Egypt went back to the traditional house and he discovered that the arcuated form the dome and arch existed before the founding of Rome “It is curious that in one short tour I had seen standing proof of the prevalence of vaulting throughout Egyptian history, yet from what we had been taught in the School of Architecture, I might never have suspected that anyone before the Romans knew how to build an arch. Archaeologists confine their attention to broken pots and effaced inscriptions, their austere discipline being enlivened from time to time by the discovery of a hoard of gold” (Fathy2010). Hasan Fathy then started using these forms in the contemporary architecture of Egypt but he discovered that the normal citizen did not want to use the elements of the past instead people wanted the glamour associated with materials such as marble and steel. People

thought that using the traditional form would put them into the poverty-stricken bracket. This is evident in Fathy’s work where he documented his project with the traditional forms of Egypt under the title *Architecture for the Poor* but its more correct and original title was *Construire avec le peuple (Building with the people)*” (Ragette 2003). The notion of building for the poor projects a negative image of building cheaply for people who cannot afford better. The reason why the traditional forms are being brought down and now need to be preserved is because people think that they are too poor to change. The real reason for the disappearance of traditional dwellings is not just modernization but people accepting modernization as a higher standard of living.

Most of the shophouses in Sri Lanka have been demolished as they have been acquired by the merchant class who does not place a great store by traditional values since they enterprise quantity over quality. The Ena De Silva House is a case in point- the property was sold to Durdans Hospital, the management of which intended demolishing it to create a modern car park. Fortunately aesthetic conservatives and local architects dismantled the building brick by brick and reassembled it in Lungaga in order to preserve it for posterity. Geoffrey Bawa and Ulrik Plesner who discovered the proportions of the traditional dwellings and they figured out that the colonial scale when building is very pleasing “Colonial scale is somewhat huge. But the moment it is taken in Bawa’s design it becomes comfortable” (GA houses 2010) this was mainly seen in this shophouses which is now seen in modern building types such as Lighthouse hotel. Bawa accomplished the continuity of the configuration of these shophouses into modernity. Bawa used these proportions in his contemporary architectural works, the people residing in the houses Bawa built were upper income bracket people who could appreciate the history and the culture of the land. Although the architecture of the shophouses continued into modernity through the hotels and the houses of the wealthy designed by Bawa, the poor middle class people who initially owned the traditional dwellings from which this contemporary architecture was derived, did not place great store on these dwellings because they thought that living in one of these traditional houses would automatically result in them being cast into a lower income group. This is similar to the observation made by Hassan Fathy in the Egyptian context.

If interventions by these wealthy entrepreneurs are not managed properly it can dilute the cultural significance of the colonial heritage of Sri Lanka. This is an area where

there is a profound lack of concern. More effort could be done by the government and cultural organizations in order to retain these historical buildings, one such way could be through live conservation. As the architectural value of the colonial streets have to be protected whilst these street shophouses are modified to accommodate the needs.

Preservation of the shophouse architecturally, functionally and socially in the landscape

“Heat polishes the new buildings and depresses the old, whose faces sag behind skimpy shrubs until they resemble old whores, dabbling their wrinkles with tissue paper stained cleaner-pink and bougainvillea- mauve”

The above statement attributed to Anderson in the book by (Savage 1992), reflects the present state of the colonial shophouses. In order to keep this building typology intact and to retain their vitality there has to be efforts put into preserve these remaining shophouse dwellings. These shop houses consists of elements were unique to Sri Lankan colonial architecture which could strengthen the resonance of our contemporary architectural tradition. Due the elements which make up the configuration of the shophouse there is need to preserve the remaining shophouses so that the origins of the modern day architectural features could be appreciated. Hence the preservation of shophouses ensures their architectural, functional and social attributes.

Architectural

There are certain elements in the configuration of these shophouses which mainly had their origins during the colonial period which in turn affected modern Sri Lankan architecture. “The balcony and roof overhang were supported on delicately carved timber columns and the balcony would be enclosed by fine timber screens or trellises” (Robson 2016), this reflects on the some of the standout elements of a colonial shophouse, these timber columns were brought into use by the Dutch “they were the first to employ...vocabulary of simplified Western Classical elements such as the squat Tuscan column (Lewcock, Sansoni, Sennanayake1998). “In the towns of a new way of living was introduced...ceilings everywhere replaced open roofs in the interiors, lighter furniture was introduced, and in the new double-storeyed buildings, central staircases in polished furniture woods of magnificent craftsmanship made their appearance” (Lewcock, Sansoni, Sennanayake1998), this shows the

development in configuration of the shophouse during the British Colonial period. “The British introduced the fashion for louvered shutters and doors” (Lewcock, Sansoni, Sennanayake1998), all of these were seen in the morphology of the shophouse. There was a trend observed in the houses on the road from Colombo to Galle back when these shophouses dominated the streetscape “ The roof often reached down low over the verandah to keep out sky radiation and driving rain” (Lewcock, Sansoni, Sennanayake1998) “ Another important quality of the screen is that they form perforated walls, letting the air and the breeze, while at the same time reducing the glare of the sun”((Lewcock, Sansoni, Sennanayake1998), these architectural features prove that these shophouses were built with extreme concern of suiting the tropical climatic conditions of Sri Lanka. Thus through the preservation of these shophouses we would be ensuring their continuity into posterity, preserving thereby an important period in our island’s history.

Functional

The function of the Portuguese houses also seem to correspond to that of the shophouses “the whole lower floor was used for storage and the rear for cooking. The upper floor was a piano mobile, with private rooms on the street side” (Lewcock, Sansoni, Sennanayake, 1998), this caters the need which started during the trade development during the colonial period and these multi- functions of these shophouses was a result of the social evolution that took place with time. The Dutch had big impact of the style of Sri Lankan architecture, as their planning form corresponds to the shophouses “a typical plan had a central doorway under a covered verandah or colonnade which led to a central square hallway” (Lewcock, Sansoni, Sennanayake, 1998). So preserving these functions help retain the activities of the colonial trade days

Social

“The specific character of the street has direct relationship with its particular activity pattern” (Rajapaksa2007). This portrays the interaction of people across a period of time and this creates a coexistence between the occupants and the architectural fabric towns. Further it enhances the social image of towns hence the shophouse needs to be preserve socially to build an identity of its own among the rest of the streetscape. These shophouses are pivotal for understanding the culture, the way of life of people during the colonial period as (Gould, Kolb 1964) states

“Primitive building, most simply, refers to that produced by societies defined as primitive by anthropologists. It refers largely to certain technological as well as economic levels of development, but also includes aspects of social organization”.The folk tradition, on the other hand, is the direct and unselfconscious translation into physical form of a culture, its needs and values — as well as the desires, dreams, and passions of a people (Constantino, Doxiadis 1964).

II. METHODOLOGY

A total of five case studies have been done to showcase the evolution of the shophouse into contemporary times. The case studies start off with the appreciation of the architecture of the colonial period shophouse in the original form, this is done by taking into account a study of three shophouses from the coastal towns in the south for appreciation of the original architecture form of the shophouse. Thus, the first three case studies present three original shophouses in the Southern part of Sri Lanka. Three case studies are done instead of one original shophouse to exhibit the architectural features because these shophouses are in the deteriorating state, i.e. one shophouse cannot exhibit all the features as they in the verge of being brought down.

The fourth case study focuses on how the shophouse has been put into new use (Live conversation) in contemporary terms with an example from the Galle Fort.

The evolution process is further highlighted as the final case study proves how a single entity developed into a generalized version into the contemporary townscapes with the case study of a Mahaweli Town in “Digana” which was done by Architect Nihal Perera and Ulrik Plesener.

The essay finally ends on the positive note of how these shophouses could be adapted into human scaled townscapes through the analysis of the shophouse with the new urbanism principles.

There is a template done for the first three case studies for a comparison giving a gist of the analysis done. The idea for the template was obtained from the book Precedence in Architecture; Second Edition by Roger Clarke and Michael Pause. In this book the authors have analyzed famous buildings in a template in terms of their structure,

plan, section, natural light, additive and subtractive, geometry and balance, parti to name a few. The case studies have adopted a similar template form but with some modifications as there have being additions such as the special features of the shophouses in terms of ornamentation, planning, proportion etc...

III. RESULTS

Attached ahead are the three templates for the three case studies. Features that are unique to each shophouse is highlighted in a color, this shows how architectural elements contributed to street architecture of the colonists. Case studies four and five proves how the shophouses have evolved in contemporary times. The Galle Fort exhibits conservation efforts trying to restore the architecture of our colonial heritage. Whilst the fifth case study proves how the concept of the shophouse has being adopted for contemporary towns by architects.

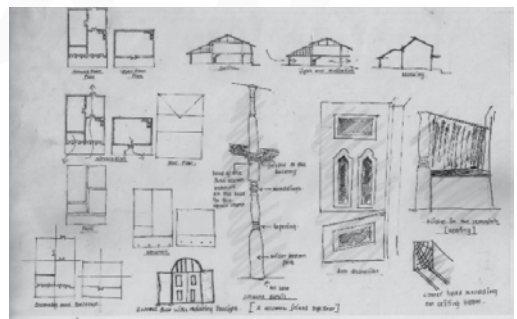


Figure 2- Template for Case study 1, Source- Author

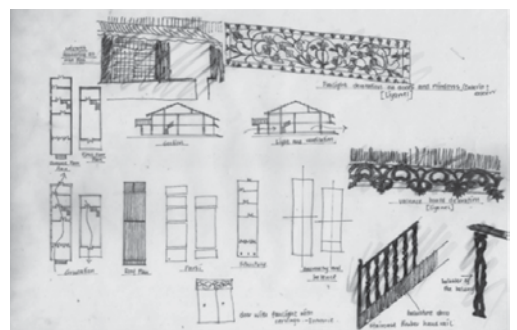


Figure 3- Template for Case study 2, Source- Author

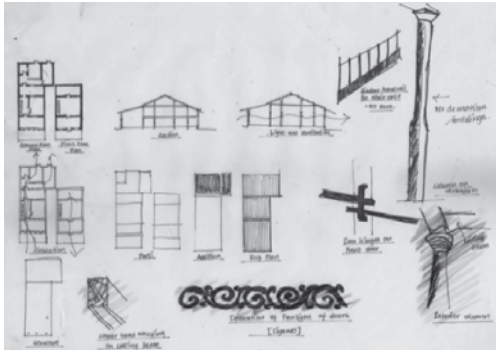


Figure 4- Template for Case study 2, Source- Author

III. DISCUSSION

The first shophouse is currently not being occupied or used for any purpose. But it is a beautiful piece of work of the colonial builders showcasing the original form of shophouse that existed in Sri Lanka. This shophouse has a simple planning configuration consisting of a verandah, living area, storage/alternate shop, kitchen, upper floor solar lead by a ladder staircase opening to the balcony. The plan form and the sectional drawing of this shophouse adhere to the value of the golden ratio. There is the use of bright colors on the exterior and interior walls. On the verandah there is a pilakottae type seating that enhance the social interactions of people. Four sashed six timber doors stand at the entrance with two consisting of arched fanlights above them. The entrance doors are elegantly paneled. Some of the doors have massive hinges. Walls are chamfered to bare the windows. These mentioned features on these doors reflect on Dutch and British influence. One of the striking feature of this shophouse are its four columns on the verandah. These are continuous columns without bases from the ground floor till the roof consisting tapering and mouldings on their shafts. The interiors are kept free of columns to maximize the space. There is no ceiling for the ground floor, the upper floor solar covers the ground floor and underneath the solar there are dark blue beams with corner bead moldings spanning the interiors. This shophouse is sheltered by a double pitch gable roof (major part) and an over lapping hipped roof. As there is no ceiling above the roof is an exposed structure, due to the long span there are wooden trusses at regular intervals which transfer the load into the wall plate and the column below.

The second shophouse in Ambalangoda is currently the home of Mr Gunawardene and his family. The planning

configuration is simple with the verandah, living, bedroom, dining (now a sleeping space), and storage, kitchen on the ground floor whilst the upper floor lead by a cement rendered ladder stairway consists of a solar, balcony and there is a garret / storage space with short walls taking one end of the roof. The plan is longer in depth so there are more windows to cater the ventilation problem. The handrails of the stairway and balcony display traditional Sinhala timber carvings. A significant aspect of this house is that there is a shop still in existent in the part of the verandah. The shading for the verandah displays a beautiful detail resembling that of the corbel stone. The walls are thick made up of coral stones with lime mortar. And since there are people residing in the shophouse changes such as for the wall colors has been done accordingly, blue has been used for the exterior and the interior walls. Three double sash timber doors with fanlights without much decorations lead to the interiors. However on the interior doors, the fanlights are decorated with the traditional Liyawal designs, this is not seen in the first shophouse. The windows are of two sashes and are of timber. The wall is elegantly chamfered to highlight the window for aesthetic purposes and this allows rain water to slope down easily. On the verandah there are three masonry columns and these columns resembles a fin, a part of the wall. There are three timber columns from the balcony supporting the roof. The roof is an exposed structure supported on a timber truss system. There are remains of the valence board in the Liya wal designs.

The third shophouse in Ambaangoda is currently not in any use. The planning configuration is simple with a verandah, living, bedroom, dining and a kitchen space which is a later construction. In this kitchen space there is a storage space already incorporate within it. And also is an additional storage area constructed which doesn't align with the full width of the plan. On the upper floor there are two rooms and the balcony. These prove that these were later additions. Also the plan form excluding the later kitchen construction adheres to the golden proportions. The walls appear to be degraded with time so no indication of the color is visible. However the structure of the walls are similar to the earlier two shophouses. There are three sleek timber columns with no ornamentation in the verandah and the balcony. The handrails of the cemented rendered ladder stairway and the handrails of the balcony displays no ornamentation. Five double sash timber doors painted in turquoise with ornamented fanlights of Liya wal designs vent into the interiors. The interior doors do not have any fanlights. There are huge iron latches and hinges on the doors. Windows are chamfered on to the walls and these

do not have fanlights. There are interior columns, which is unique with wider bases that supports the beams on the solar above. These beams display a corner bead molding and a molding at the centre. The roof is half round tiled (except for the later construction) exposed with a wooden truss system

In comparison to the case studies of the first three shophouses, the fourth shophouse has been put into live conservation. However only the ground floor is an original colonial construction whilst the upper is a new construction. This shophouse is being used as a lodge. The zoning is very simple adhering to the simplistic zoning functions.-verandah, living area, courtyard, bedroom, dining, and a rear kitchen and on the upper floor there are three bedrooms and the balcony. Since the shophouse functions as getaway three of the bedrooms have attached toilets. Since the zoning of the shophouses is flexible alterations could be done, as here the courtyards are covered off and they are now used as a seating, sleeping space. Colonial features are visible in thickness of the walls on the ground floor as there is a deep niche created to store ornaments and also rubble texture on some of the walls (now used as a feature wall). This shophouse is mix of contemporary architecture with the colonial as traces of Geoffery Bawa's influences are seen as in the texture used on the doors and windows. Unlike in the earlier shophouses a row of doors doesn't stand at the entrance instead it is just one double sash textured timber door than opens into the interiors which are free of columns. There are no timber columns in the verandah .Instead two timber columns support the balcony. The handrail of the balcony is not decorated. Unlike the other shophouses this shophouse had a ceiling. When live conservation is taken into consideration the authenticity of ancient architecture such as in its form, elements and materials have to amalgamate with the new function and the contemporary use. This case study proves that a colonial shophouse could be put in to a new use. And a juxtaposition of the colonial elements with a modern day twist could resonate the vibes of the colonial shophouse in a new context. The functionalism of the shophouse might be distorted but there is a new life given to a decaying structure. This shophouse displays a contemporary use regarding a single entity on the verge of collapsing. But this one entity could become generalized in contemporary landscape so this creates way for the adaptation of the concept of the colonial shophouse into a contemporary designed streetscape which is depicted in the final case study.

Digana is the first new upstream Mahaweli town located along the Kandy-Mahinyanagana Highway. The final case study analyses the architectural elements of the shophouses in the Digana town which were designed by Architect Nihal Perera and Urik Plesner and how these have influenced the townscape. Digana is a townscape which has adopted the concept of the colonial shophouse. It is similar to the experience of walking through a bazaar. There are extensive verandahs for people to engage in social interactions. The roofs of these shophouses are extended and it is beautifully propped up on timber struts. The extension of the eave adds comfort for walking through the verandahs. There are four shophouses which form one unit. The ground floor was designed by the architects whilst the upper floors were designs of after thoughts of the inhabitants. Most of the initial designs have disappeared such the entrances were of roller doors. Towards the interior there some timber panel doors. There are wooden trellises inspired from the colonial period visible on the windows. There are only two massive columns bearing the weight of the structure. The roof is exposed with their wooden truss system. The bottom line is that the construction of these contemporary shophouse take pride from the past colonial counterparts as visible in these shophouses. This proves that the colonial shophouse is a viable commodity for the development of urban townscapes in Sri Lanka. Digana is one beautiful low key town niched on the outskirts of Kandy which exhibit a resonance of a colonial townscape with its two storey shophouses along the street. When the street elevation is observed, the majority of the façade is still intact with the shophouse features. However due to rapid modernization occurring, there are some modern buildings erected within the shophouse units. This distorts the original landscape of the town and these modern buildings look alienated. These modern constructions should be avoided and policy planning has to evolve in such a state that these old quarters of the town are conserved and are put into new use. Preservation is not just with regard to the building, preservation is a way of life. For example- preserving these parts of towns could highlight the culture and the way people thought back then. It is not just Digana which needs to be conserved, other towns should also be controlled by government organizations. As Sri Lanka does not boast a historical townscape with abundance except for the Galle Fort. There must be more towns that reflect the heritage of the island whether it is traditional or colonial. After all our architectural identity is morphed by all these periods of history. One could argue that the architecture evolves with the needs of people especially in urban areas and historic buildings need to be brought out to cater the

modern needs. But a good designer would always portray working with historic buildings as an opportunity rather than a restraint or a barrier as a contemporary building could be created in such a way that it brings a new layer in shaping the future heritage of a country. Preservation is a balance between protecting the vitality of history and accommodating changes so that it is sustainable for generations to come. So the whole is greater than the addition of the parts. In this manner these shophouses could be suitable for a robust urban environment.

The shophouses is a subtle example of a building form which could be used in these livable human scale towns. If shophouses are being used for these towns their viability in the modern world would not be lost. So there could be parts of Sri Lanka which boasts layers of towns which follow the new urbanism principles making way for a robust environment to prevail. The final section of this essay reflects on how the shophouses justify the nine new urbanism principles. The case studies done in this research justifies these nine principles. This would further prove that these shophouses should be retained in the townscapes of Sri Lanka.

New Urbanism is an approach of planning and designing urban areas based on principles which were used in the past. This includes going back to the concepts which were used in the history for creating livable environments. There are nine principles which are adopted for the design of towns under new urbanism. These principles are as follows- Walkability, Connectivity, Mixed Use and diversity, mixed housing, Quality Architecture and Urban design, Traditional neighborhood structure, increased density, Smart transportation, Sustainability.

The shophouses could be proved sustainable through its analysis with the new urbanism principles. The first two principles are walkability and connectivity. The shop fronts are narrow with verandahs and there are many shophouse units along the street so this implies that the people walking could cover more units per stroll comfortably. The long verandahs of the shophouse units in diagna signify this and also the verandahs of the shophouses of Ambalangoda (if the original rows of shophouses were present) would justify the walkability. The comfortable experience is enhanced as the walkway provides protection from the rain the sun. The rear lanes of these shophouses are kept free of motor traffic creating paths for people to walk on. These rear lanes are independent from the main street on the front as seen in the case studies especially in Digana were the back lanes constitute of the drain lines. However

the network of dual lanes provides a sense of connectivity as their density is high. The third and fourth principles are mixed use and diversity and Mixed Housing. These two principles could be justified by the function of a shophouse as traditionally the shop owners lived on the upper quarters. This shows the mixed uses of the shophouses. For successful housing flexibility is key as the internal space arrangements with column free interiors (case studies 1, 2, 4, 5) provide optimum flexibility of spaces for activities of many purposes to take place. The fifth principles are Quality Architecture and Urban design. The shophouses uses the natural lighting and ventilation system effectively. This done by its inner courtyards and its linear form allows light and ventilation in from openings such as doors and windows. The use of local materials for the walls and floors brings a sense of coolness. The overhanging roof also prevents the direct sunlight from hitting the walls and the lime wash coating on the walls further cools the walls and the interiors through evaporation. These houses are naturally ventilated compared to modern houses which achieve comfort through air conditioning. This proves that the quality of the architecture of the shophouse is adaptable to the tropical urban environment of Sri Lanka. These features excluding the courtyards are visible in all of the case studies carried out. The sixth principle is a Traditional Neighborhood Structure. The shophouses in Sri Lanka are of the colonial period of our history. So these shophouses echoes a sense of colonial tradition in the modern streetscape. The seventh principle is increased density, with the walkways of these linear shophouses created for walking attracts people (more shophouses per unit stroll) and creates a very livable space. The eight principle is smart transport, with its walkable nature and the mixed use reduce the number of motors needed for transport. This is seen in Digana as the motor traffic is quite less compared to other towns without shophouses. The ninth principle is sustainability, the shophouses are built using traditional materials for all the shophouses, such as timber rather than modern construction materials. This creates naturally ventilated structures with carbon-free interiors which need low maintenance and are long lasting. The final principle is the Quality of life, these shophouses in the past catered a traditional way of life with a quality of its own. In terms of thermal comfort these simple structures have very livable interiors due to the massive thickness of their walls and these finished off with a lime wash coating bringing coolness inside through evaporation. With natural ventilation prevailing through their inner courtyards, balconies (present in case studies 1, 2, 3, 4) and verandahs (present in all case studies) these shophouses combat the high humidity levels extremely

well. The shophouses although small in scale could outclass modern interior which achieve these same comfort levels through.

IV. CONCLUSION

Interpreting the shophouse on the basis of the principles of new urbanism creates a platform for a much better culturally, socially, environmentally and economically sustainable urban towns and housing. These sustainable approaches help create human scaled spaces where the enjoyment of the pedestrian in the main goal. These shophouses can be used to create pedestrianized towns in Sri Lanka. The concept of the shophouses have evolved throughout our history and it has yielded many architectural aspects into the contemporary tropical way of building. Thus, to pave a way for a sustainable way of constructions the shophouses of the colonial times in Sri Lanka would serve as good precedent.

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