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**AN EXAMINATION OF
CONFLICTS AND CONSTRAINTS IN ADOPTING
VERNACULAR ARCHITECTURAL ELEMENTS
IN DOMESTIC BUILDINGS IN SRI LANKA.**

UNIVERSITY OF MORATUWA, SRI LANKA
MORATUWA

A Dissertation

Submitted to the Department of Architecture of the

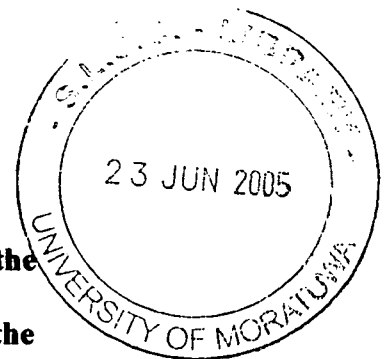
University of Moratuwa in partial fulfillment of the

requirements for the degree of

Master of Science

in

Architecture



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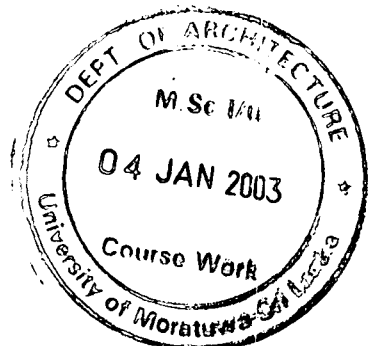
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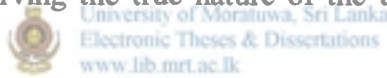
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ABSTRACT

From the ancient times, in every region of the world, the indigenous, folk, vernacular architectural tradition has gradually developed with some differences such as region, culture, religion, climate, topography etc.

After Industrial revolution, world has entered to the era of inventing new materials, using modern technology, starting machinery age etc. Which created a new global order of modern movement of Architecture can be seen. Then create the new trend of architecture towards the modernity. Thus appeared the negligence of the tradition, gradually creating lose of the sense of belonging to a place. This situation is also happened in Sri Lankan vernacular traditional architecture.

Therefore, people re-employ the tradition to their built environment to acquire the local flavor, with synthesis of the modernity. In this process, some designers are skillfully embedded the vernacular tradition into their modern creations with investigations, while preserving the true nature of the tradition, and fulfilling the user aspirations.



However, some designers tried to enhance the local flavor according to the client aspirations with misinterpretations. Thus create the negligence of the tradition, occurring some conflicts and constraints in contemporary houses.

Here in the study, first two chapters led to understand about the authentic factors of vernacular tradition and its essential components and has described the application of vernacular components, while chapter three analyzed the data and identified the conflicts and constraints in adopting vernacular elements in progressive as well as degradation manner in selected domestic buildings.

Finally, the study explained and guided how to develop the contemporary houses with local flavor and modern living pattern of the user, by the synthesis of traditional vernacular with modern vocabulary.

ACKNOWLEDGEMENTS

I would like to express my deep gratitude and thanks,

For the encouragement, given for the selection of this subject at the inception and valuable guidance to, Dr.M.S.Manawadu, Head of the Dept, Dept. of architecture.

For the guidance, encouragement and given valuable comments to,
Prof. Nimal De Silva, Dean, Faculty of architecture.

For the guidance and valuable discussions which led the study to its purpose, to
Archt. D, P. Chandrasekara, Senior Lecturer, Dept, of architecture,
Archt.Vijitha Basnayake, Senior Lecturer, Dept, of architecture.

For the providing details, and the documents, to Prof. Anuradha Senevirathna and his family and Archt. Praneeth Amarathunga.

To my friends, Bashini, Nayana, Achla, Mihiri, Maushami, Dilini, Ganga, Neluka, Shiroma akka, Shoba akka , Sitparan, and Nandana for their valuable help in numerous way.

To Akki, for correct the language and my parents, for given encouragement.

Finally, especially to my husband Ananda, for encouragement and love, gave me throughout the study.

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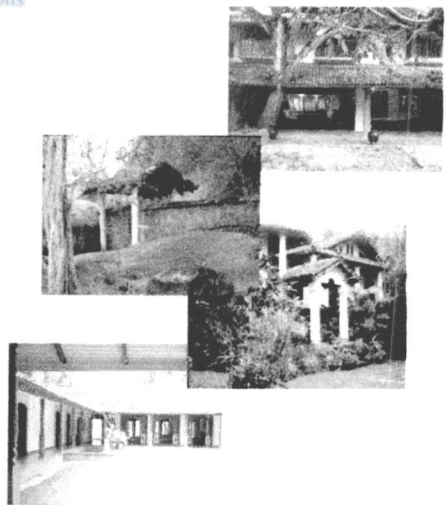
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INTRODUCTION

INTRODUCTION

1.1 TOPIC EXPLANATION

Many animals build their shelters with complex and attractive manner the human being build distinguished shelters from them. People wanted a shelter for protection and security; it is a fundamental need of a man to eat, sleep, relax, and entertain, to bring up their families. And also man feel comfort, and more secure psychologically in his house than the other places, and it is replicate the mother's womb. Hence they built up a house to fulfill those requirements.

Thus Oliver Mark says,

“To build a house is to create an area of peace, calm, and security, a replica of our own mother's womb.”

Mark, O. 1997. P.14

The importance of these shelters of world can be identified in many forms in same region, Because of their, culture, climate, values and norms, ways of life, religion etc. And also same material can take different form, same culture, ethnic group can take different house forms, and climatic factors can make different type of house form. They built-up their houses with available material which could have from found their immediate environment, using simple technology by them selves, which well suit to their locality, climate and and pleasing to the eye.

In the built environment, two clear distinguished traditions can be identified, called grand tradition and folk tradition.

Thus Rapport says,

“The folk tradition is much more closely related to the culture of the majority and life as it is really lived than is the grand designed tradition which represents the culture of the elite. The folk tradition also represents the bulk of the built environment.

Rapoport, A. 1969. P.2

The folk tradition comprised of primitive and vernacular buildings. People built up their houses by them selves and not by the p professionals, with available materials which could have found from their immediate environment, with simple technology. Those houses are well suit to their locality, climate values and norms, attitudes and also pleasing to the eye. Those were result of series of decisions of particular culture. Those decisions are more subtle and applied in conscious manner, thus called Vernacular Architecture.

According to Paul Oliver,

“Vernacular architecture comprises the dwelling and all over the building of the world. Related to their environmental contexts and available resources, they are customarily owner or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to need specific needs, accommodating the values, economies and way of living of the cultures that produce them.”



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Oliver, P. 1997. p.1

The vernacular buildings continuously lie on the earth with constraints, guided by the architectural tradition of the particular locality of the particular country. It was shaped and altered by the generation to generation. It has evolved with changes, and it grows and developed with the time, as the phenomenon of change in the universe, this evolutionary process has depended on various functional, socio cultural, economic needs of the people over a long period of the world.

When considering the global context the vernacular architecture of Africa, Arabian countries, south Asian countries, America, Eurasian countries, those domestic buildings reflect the distinctive character of the regionalism, and expressed the locality.

The consideration of domestic buildings of the countries,

“The recognition of local and regional building forms, especially of domestic buildings, altering with the cultures, the environments and the climate of the areas concerned.

Oliver, P. 1987- P.10

And also with the time passage the vernacular tradition of all over the world change with modernism, Because of the industrial revolution, modern architectural theories, invention of new materials, and new technology.

“The physical environment of man, especially the built environment, has not been, and still is not controlled by the designer. This environment is the result of vernacular (or folk or popular) architecture, and it has been largely ignored in architectural history and theory.”

Rapoport, A. 1969. P. 1.

The pioneers of the modern movement architecture are Le Corbusier, Mies van der Rohe and Frank Lloyd Wright. Their architecture clearly express these ideas such as heavy, bulky, refine sharp details, cubic forms, etc. Later on spread and embraced by the architects through out the world. But later on inappropriate environment was appeared in their locality, and it has occurred conflicts and constraints in their living environment. Hence they appreciated the locality and regionalism; they tried to preserve the vernacular essence by the synthesis of modernism.

Thus Frank Lloyd Wright has described,

“ That is why folk building growing in response to actual needs, fitted into environment by people who knew no better than to fit them to it with native feeling- buildings that grew as folk- lore and folk- song ,are today for us better worth study than all the highly self-conscious academic attempts at the beautiful throughout all Europe.”

Oliver, P. 1969. p. 16.

When considering the Sri Lankan context and its socio cultural background has created an exclusive vernacular architecture. It is based on agriculture communities, and their living pattern, strong philosophy of religious believes with simplicity and impermanent nature of life. According to that their houses were created with inner and outer space which was existed in long times ago. It was constructed by them selves, with trial and error system. To build their houses, materials were found from their immediate surrounding such as mud, stones timber, pillars, cadjan, thatch etc. The major component of rural built environment can be graded as, folk tradition and grand tradition. Folk tradition includes majority of the population and comprised with primitive and vernacular.

Dr. Ranjith Dayarathne had described as follows,

“Sinhalese vernacular architecture is largely rural except for the few more recent urban settings around the major cities.”



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Oliver. 1997. P.979

It has simple structure (inner and outer space) constructed by them selves and reflects their charming life style. Grand tradition includes of elite class houses erected by expert Person from folk tradition to satisfy the requirements of the owner.

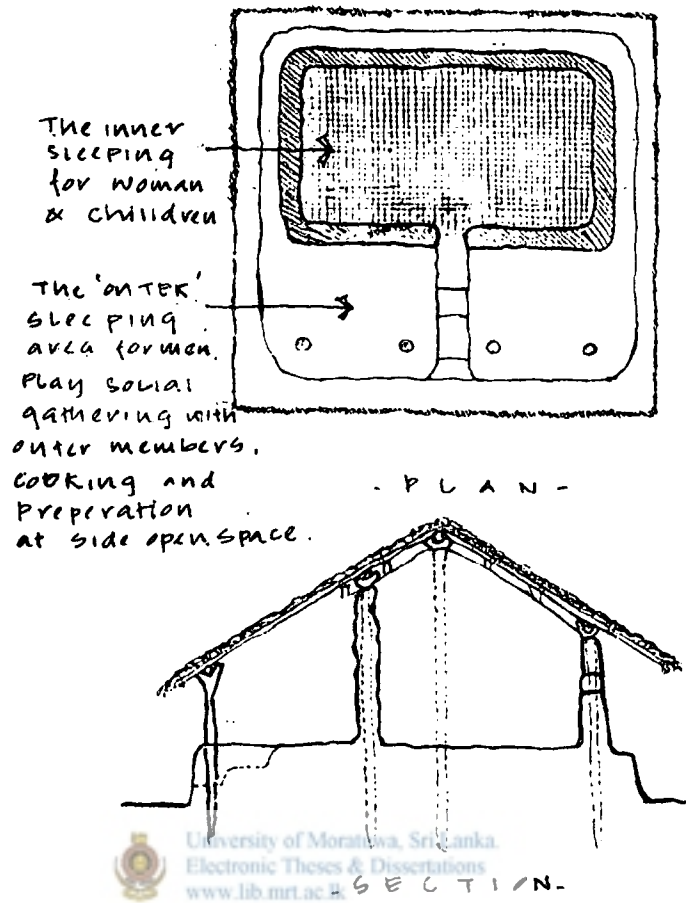


Figure 1: Rural Sri Lankan house

It has changed with the time passage including colonial periods with sociological, environmental, cultural, technological and economical factors.

Those factors effected on creating different built environment from each other, certain elements were added to the traditional house with their changing attitudes and values. According to the technical development, and invention of the new materials, Modernism, International style, Westernization reflect and inappropriate characteristics of built form developed, and new trend in architecture was appeared in the country. As well the modern forms have been transplanted to the country. When using the

new materials without understanding of environment and attribute of the people it does not a pleasing environment to live.

“When we neglect any of our cultural element vacuums takes place this vacuum is then filled with foreign elements which are totally unsuitable.”

Richards, J.M. 1985. P.125

Those alien models can be seen in every where mostly in commercial buildings, which reflect the blind application of materials such as glass and steel, and negligence of the climate, and the tradition of the country , while do not have firm roots in the country, and degrade the tradition.

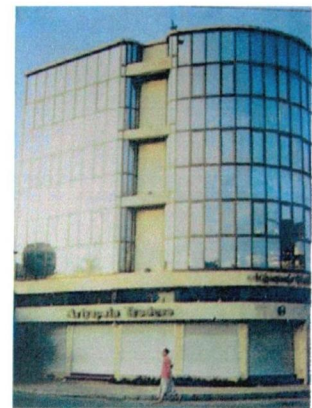


Figure 2 : Alien Building with Monotonous Appearance

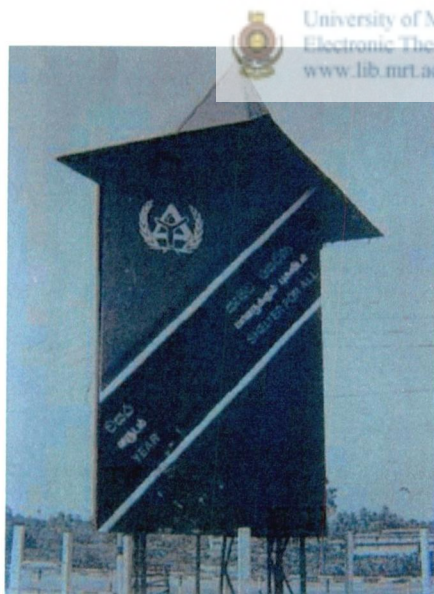


Figure 3 : Blind application of the tradition

Also architectural theories directly influenced over the traditional values and occurs architectural follies and growing complexities of society being misinterpreted, and neglected of its true values.

Also they add the traditional forms with embracing the modernity simultaneously. People's thinking is still traditional with comparing with the developed world. The conflict of cultural changes occur meaningless lifestyle. At the same time needs of the society increased with complexity, and difficulty in quantity, and contemporary architecture is away from the actual needs of the people. Hence they added traditional architectural elements to their houses to localize but without any meaning, and neglect of the fundamental principles of the vernacular tradition.

Thus consequently it creates architectural disorder, illusive perception, incompatibility and incomplete experience of architecture. These conflicts are seen in our modern society especially in domestic buildings. It cause to constraints in intellectual development of the society.

As a result of these conflict and constraints the degradation and negligence of traditional architecture can be seen throughout the island.

And also, as Rapoport says,

“Tradition as a regulator has disappeared – notably in our own culture – for a number of reasons.

The first reason is the greater number of building types, many of which are too complex to build in traditional fashion.

The second reason is loss of the common shared value system and image of the word, with a consequent loss of an accepted and shared hierarchy- and generally a loss goals shared by designers and the public.

The third reason for the disappearance of tradition as a regular is the fact that our culture puts a premium on originality, often striving for it for its own sake. As a result, society becomes dissatisfied with traditional forms, and the vernacular processes can no longer work. This dissatisfaction is often based on nonfunctional considerations and is linked to socio-cultural factors”

Rapoport, A. 1969, P6

According to changing phenomenon of the world these changes of the society can be accepted rationally. But try to remain and preserve the essential nature and essence of vernacular architectural components such as; Intangible components(Fundamental principles such as sense of centre and openness, sense of human scale, vistas and harmony between built form and setting, shading, articulation of transition space, level of permanence and Sophistication)

Tangible components (such as roof, column, verandahs, doors and windows) A designer, when adopting, altering and modifying that vernacular essence in to modern domestic building, while synthesizing the both vocabulary, should pay attention about the attitudes and aspiration of the occupants.

1.2 INTENSION OF THE STUDY



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This study has identified the degradation and meaningless use of traditional elements in modern domestic buildings. The designers do not much concern about the people's attitudes and occurring architectural follies in built environment. As a result the people, who live in those houses, live without satisfaction. This meaningless trend can be changed and get remedies to evolve from this, it causes are identified from this study from the discussion of the occupants. And also identified the merits and demerits of traditional Architecture, why people add these traditional architectural elements into their houses, and why people appreciate again the traditional architecture when comparing the modern architecture. Finally this study has made statements how can we evade resolve this constraints and conflicts with social and physical aspirations of the people.

1.3 SCOPE OF THE STUDY

As stated initially this study has dealt with the domestic building after 1950, in modern society because, after get independence, the trend can be seen in our society. The society tries to appreciate the traditional things and nationalism rather than influenced foreign things, people were awakening to need of cultural and political identity. Hence the Sri Lankan architecture has fallen into new era with rediscovery of its national architecture with local flavor. As a result of that people tried to develop to traditional elements into their houses to localize with incompatibility, according to their changing attributes.

1.4 METHODOLOGY



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The method of this study based on literature review, research (case studies) and analyzed the data.

Firstly literature a review has given to understand the part of the traditional architecture, its transformation, and their implications in contemporary society. Then the research is based on case studies. It has included the selected houses in modern society, considered after 1950. Which consisted of photographic survey, of studied of their layouts, house forms and elements and their living pattern of the house owners and by identifying their attitudes and aspirations from a discussion.

1.5 OUTCOME

This examination led to identify the conflicts and constraints such as create unfamiliar living environment to the user, illusive perception of the tradition, which create the illegibility of spatial hierarchy etc, through the analytical study.

Initially it identified the essential and fundamental principles as intangible components and tangible components which are adopted in selected case studies, such as polonthalawa house, Dissanayake house, Ena De Silva house, and Anuradha Senevirathnas house. Through this analytical study it was identified that the Polonthalawa house has attempted to collaborate the vernacular tradition into modern lifestyle with the above principles but negligence of the tradition also identified. Dissanayake house is misinpreted the vernacular tradition , and has lost the true nature of the above tangible and intangible components. Other two houses explicit the tradition in correct and harmonious manner with identifying the modern living pattern and their aspirations.



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CHAPTER ONE

CHAPTER ONE

VERNACULAR ARCHITECTURAL ELEMENTS IN DOMESTIC BUILDINGS.

2.1 INTRODUCTION

When considering the past of the Sri Lankan architectural legacy, it has rich vernacular tradition. Their social contexts create different types of houses according to their living pattern, religious background, cultural values etc. Hence, we can identify the basic house forms in accordance with organization of social strata and region. The organization of dwellings and its spatial arrangements reflect their aspirations and way of life.

“A regional vernacular develops from the appropriate continuation of local tradition and sensitivity toward local conditions,”

-Paul Heyer -p11- 1969.

These vernacular dwellings built by non-professionals and majority of the Sri Lankan settlements were included to this category. Few of dwellings were planned like ruler's houses and palaces.

This chapter will be discussed of those basic house types, regional variations, construction systems and their fundamental principles with tangible and intangible components.

2.1.1. Primitive settlements;-

In the early years of Sri Lanka, people lived in the caves. The evidence can be seen even today in different parts of the country, especially in Balangoda, Maligathenna, Arankele, and Mihintale kaludiyapokuna. Dwellers as well as monks have used those caves.

“There were also found many cave with evidence of pre Buddhist occupation once perhaps the abode of Brahmanical ascetics’ sanyasi or religious mendicant and “nanga” or naked holy men of the earlier religion. Some of these primitive cave to this day bear inscriptions in brahmi characters chiseled on the natural rock, and have the ‘kataraya” or drip ledge, cut over the entrance. The latter is a primeval gutter serving as a result for the rain which would otherwise trickle down the rock to its base, making the caves inhabitable during the wet season of the year.”

Brohier, R.L. 1973. p.77.

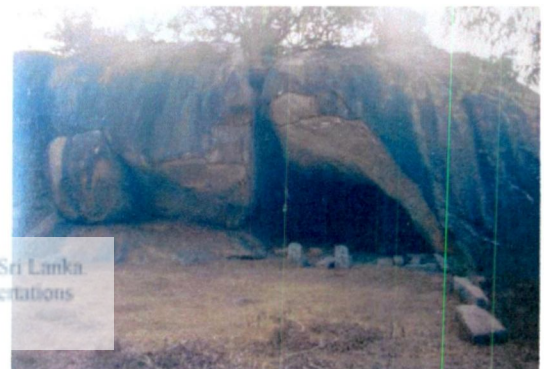


Figure 4: Cave Dwelling - Maligatenna

Figure 5 : Cave Monastery - Vessagiriya

Other primitive settlement is Vedda's settlement. Still existing their dwellings in the country, There are two groups according to their living pattern .First one is jungle (kele) Vedda live in Dambana and other one is village (gam) veddas live in vedirata or in Bintenna. The jungle Vedda live by hunting and dwelling is in natural caves, tree trunks, or rock outcrops. The village Vedda dwelling is a simple structure, generally a single room enclosed with closely planted timber poles tied up with jungle creepers, and live by chena cultivation. There are no windows but the crevices in the bark wall, low height and low-pitched roof. It is use for cooking and sleeping for women. The men sleeping on

the out side of the dwelling. According to government intervention programmers to provide housing and education, their life style have begun to change.



Figure 6 : Photographs:- Veddass dwelling

The traditional rural settlements in Sri Lanka could be divided into few distinct types as follows, the tank fed, the rain fed, the hill country valley villages, and the temple dewala villages.

The tank fed village: –

“land around the tank is divided into the paddy fields alternatively, *mudda bima*, located below the spill level of the tank bund. The *chenas* or *godabima*, and the residential area which was located well above the highest flood level.”

De vos-slia journal – vol.100-1988

The centre of the village square is the main community gathering space and the dwelling were around the public courtyard and granaries located in the courtyard. Beyond the residential area called *tisbamba*, containing large trees and shrubs, reserved for the cattle while preparing the paddy field and harvesting period.

The best example is village of Ehetuweva. The tank water use for domestic purposes and irrigation work.

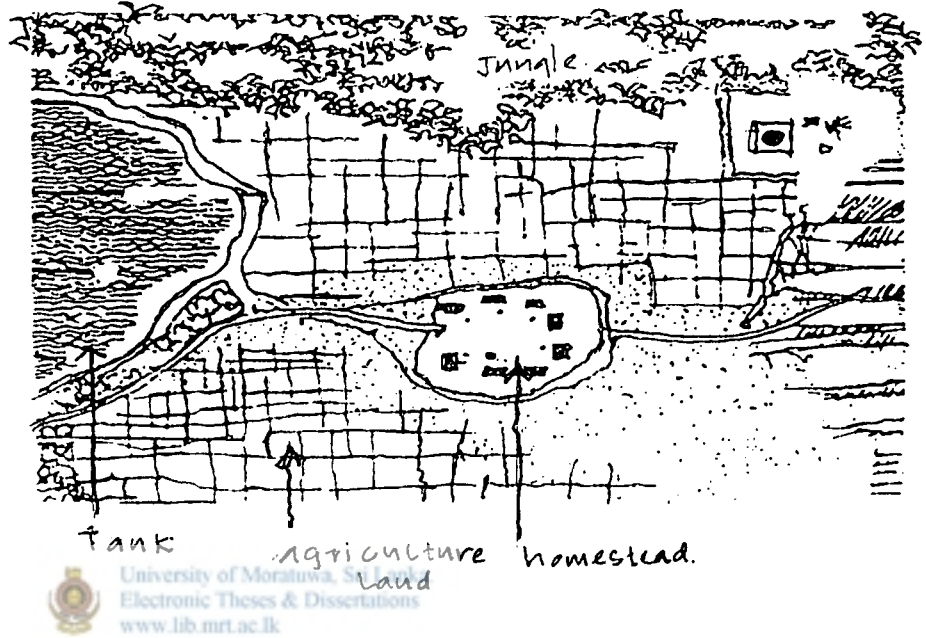


Figure 7 : The tank fed settlement.

The rain fed and the hill country valley villages :-

“The village houses area located along the village foot paths and road systems. The paddy fields are located immediately behind and the chenas further away. The residential plots are large and scattered. This attitude is also predominant in the newly colonized areas”.

De vos,A . SLIA journal vol-100, 1988.

These types of settlements can be seen in the central hills and western wet zone. The agricultural activities based on the seasonal rains .They cultivate paddy fields on cyclic cultivation method called “Yala and Maha kanna” .This maintain the richness of the soil. These paddy lands fed by the water streams. The space of dwelling arrangement of this settlement is different but similar pattern could be identified in whole settlement spaces. The low land Left as agriculture land and the dwellings were constructed in the high ground commonly called gamgoda. Each dwelling surrounded by a home garden. The land beyond the agricultural fields reserved for the forest. I t provided the fire wood, herbal plants, timber poles for agricultural purposes of the people. The focal point of the village was the temple located on the highest land of the village area.

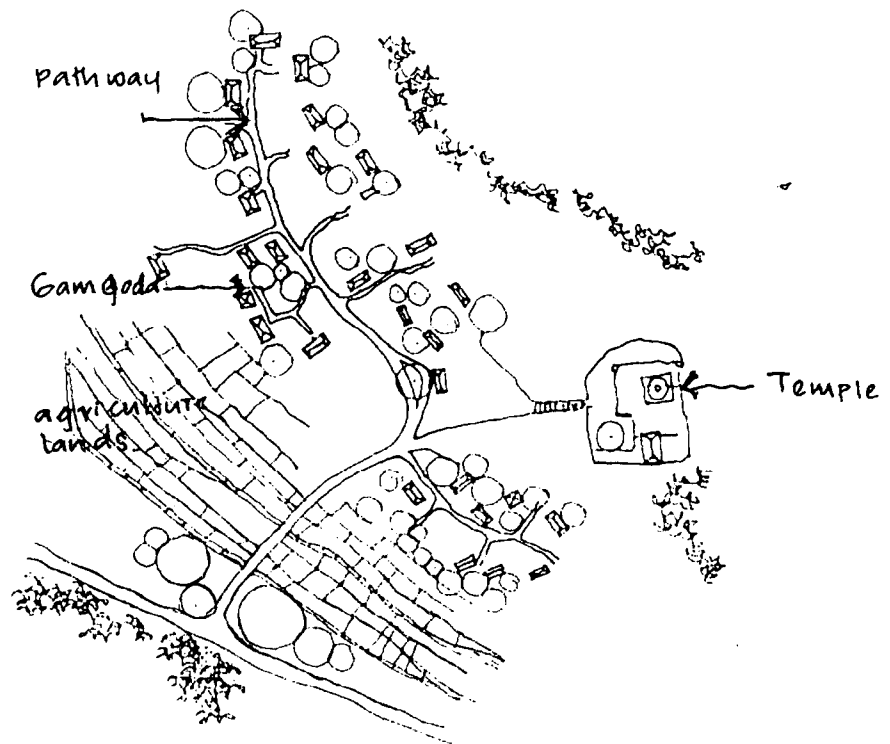


Figure 8 : A rain fed settlement

The temple –dewala villages. :-

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In this village type, the temple or the devale was the focal point, located at the end of the processional path. It can still be seen in the Gadaladeniya village. The dwellings located either sides of the processional path, occupied by the people who performed the *Rajakariya* to the devala or the temple.

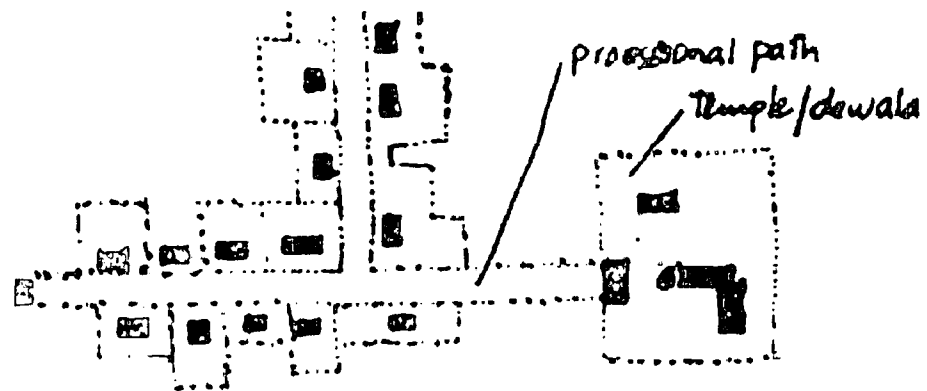


Figure 9 : The temple – Devala village

2.1.2. Vernacular dwellings:-

(a) Rural house.

The traditional rural house does not have subdivision of space. It has one inner room and verandah. It clearly shows the outer and inner space. Inner space totally enclosed to the outside and use by children and women. It is also used for cooking and storage purposes. The verandah is a place for social contacts with others of the community, and meeting people. It's main living area called "*pila*", supported by timber poles. It has a close connection to the natural environment. It has main elements such as plinth, roof, and verandah.

Roof - roof was considered as an important feature of the dwelling. It has wide over hangs protected dwellers from rain, wind in the monsoon, and the hot sun through out the year. The roof covering was made of cadjan, straw, grass, or used in combination. The insulation is much higher than tiles of those materials; hence the roof controlled the heat in inner space.



Verandah- verandah was the main transitional space between public space and private space. It is faced to *gam goda*, main public space of the village, act as semi public area. It is called *pil kote*, and the surrounding half walls of the verandah used as a bed or built in seat. It was the multi functional space like sleeping area of male, interaction with people, kept the hot sun and glair away, provide proper ventilation etc.

Plinth – This was around the dwelling and raised about 2'-3' above the ground to protect against the rising damp, various crawlers from the jungle. And reducing the conducted heat from the ground..

Therefore the dwellings were designed in a proper and suitable manner to live In comfortably in this hot climatic region.



Figure 10 : Rural house

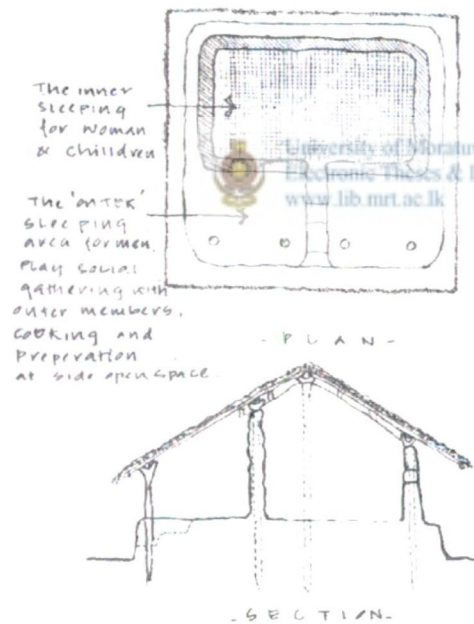


Figure 11 : Plan , section,

In later periods, with the time this traditional rural house have changed with one room with two verandahs , two rooms with two verandahs at the front and the rear. The front verandah predominantly used as public meeting place and interaction with other people of the community, men's domain of the house. The rear verandah has used for cooking and related activities.

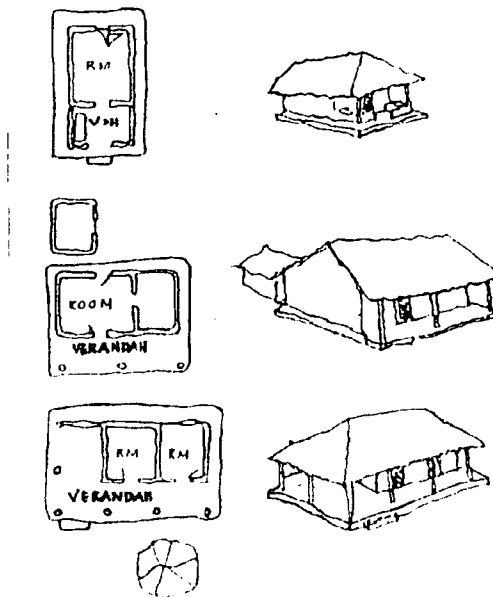


Figure 12 : Traditional vernacular dwellings with verandahs



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(b) Peasant dwellings.

This house is inward looking and developed from the rural house. One can see, that interact with people has reduced and organization of spaces is complex and number of rooms added around the inner square (court yard) and more inner quality is raised. The raised plinth goes around the house is used to seating. The internal verandah - *Mahamaduwa* is main meeting place faced to court yard, and rear verandah - *Heen maduwa* is used for women's living, sleeping, dinning, and atuwa- paddy storage was also kept in the *Heenmaduwa*. It had a specific kitchen adjacent to inner room. The court yard is the focal point and has axial arrangement with vistas.



Figure 13 : Peasant House

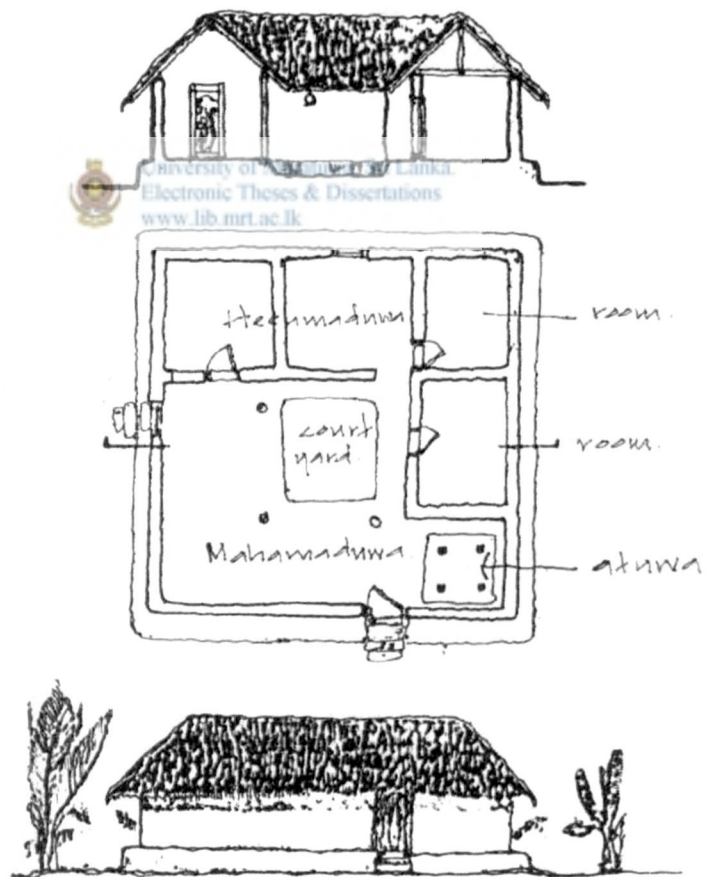


Figure 14 : Plan, Section, elevation, of the peasant dwelling



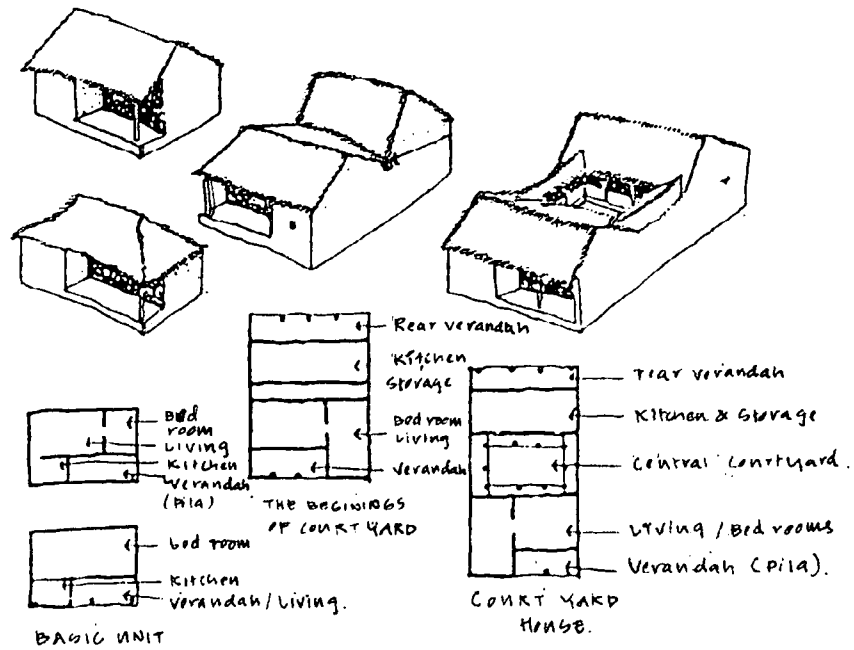


Figure 15 : Evolution of Courtyard House-

(c) feudal house (kandyan type walawwe).



Those were the feudal, chiefs and administrative petty officers houses. These houses reflect the orderly way of life of house owners. Those were elaborate houses than the rural and peasant houses. They did not require collective kind of living pattern. Those houses represented the specific social strata and family.

A clear division or special hierarchy of private, semi private, and public areas can be seen in these houses. It is maintained by strict axis. They provide back verandah to interaction with minors and front for their relations and superiors. They have created that such a manner to maintain their social status, and also the needness to reflect their attitudes to Social interaction with higher people to the outer community.



Figure 16 : Feudal House

2.1.3 Traditional construction systems-



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Those traditional dwellings built by five basic construction technologies.

- 1.Wattle and daub or warichchi
- 2.Modu gadol or compressed earth bricks.
- 3.Tappa bami or rammed earth or pise de terre construction
- 4.Sakka bami or stone work
- 5.Cabook or laterite blocks

All are mud based construction methods. Walls retain as fare faced finished or lime finished. The roofing materials are cadjan, straw, and burnt clay tiles are the local material which found from the surrounding. These suite for availability of materials, locality and social standing of the people.

When a dwelling become large and complex, simplicity and modesty of materials can be identified.

2.1.4 Fundamental principles of Sri Lankan domestic vernacular

These fundamental principles depend on the culture of a country, shared vision of their society, attitudes, and values, etc. and also these vernacular forms “ nature represent by them and reflect their thinking and ways of doing things. Those principles make an effect on the nature of the domestic vernacular.

- (a). Identification of centre and openness.
- (b). Vista and harmony between built form and setting
- (c.) Articulation of transition space
- (d.) The sense of human scale
- (e.) The level of permanence and sophistication.
- (f.) Shading

(a). Identification of centre and openness

In traditional Sri Lankan rural settlements, It was identified that there is a common compound in the centre of the cluster called *gamgoda* recognized as a communal space. Dwelling have arranged around this open space, centered with openness quality. When considering the individual dwellings its central space linked with religious beliefs, rituals and myths. It brought blessings to the dwellers. Those houses constructed according to the square frame '*Mandala*'. The idea of this *Mandala* is articulation of spaces around the centre with customs and religious beliefs of sacred cosmos of mandala. The centre of the dwelling is an open courtyard called *Meda midula*, as invisible center 'Brahma'. It has used for meeting place, natural flow of air and light, planting flora, and domestic activities. It provides and symbolized the meeting place to family members, and visitors, and strongly provide the sense of openness and center.

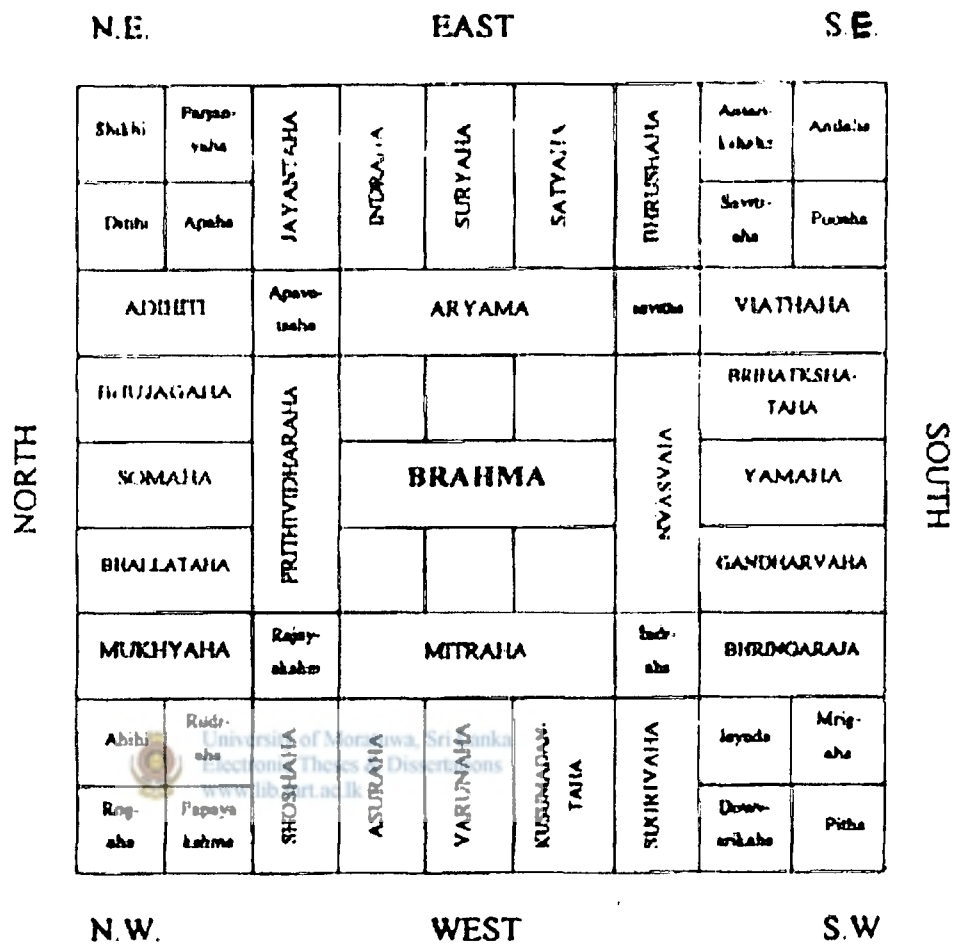


Figure 17 : The square frame "mandala".

Waterson ha described as following,


“ The house in south east Asia has traditionally been a microcosm of the cosmos, reflecting in its layout, structure and ornamentation, a concept of an ideal natural and social order”.

-Robert Powel-p.13- 1996.



Figure 18 : Central Court Yard provides center & sense of openness quality

(b) Vista and harmony between built form and setting


 According to the Buddhist philosophy, life connected to the nature, and a building is a part and parcel of nature. In traditional houses surrounding environment is a part of it and reflect their sensitive contribution to locality. And also their public or communal space open out to the nature, and open verandah give panoramic view to the surroundings and provide sense of openness.

Vista in traditional houses is achieved by arranging spaces according to axial planning. Most of the time vista is related with spatial organization.

And also,

“ In the past people lived in dwellings there were constructed of materials found locally and which were a purely instinctive response to the tropical climate and the ecology”

“several houses are embedded in their context, in a symbiotic relationship with nature”

Robert, P. 1996. p.13.

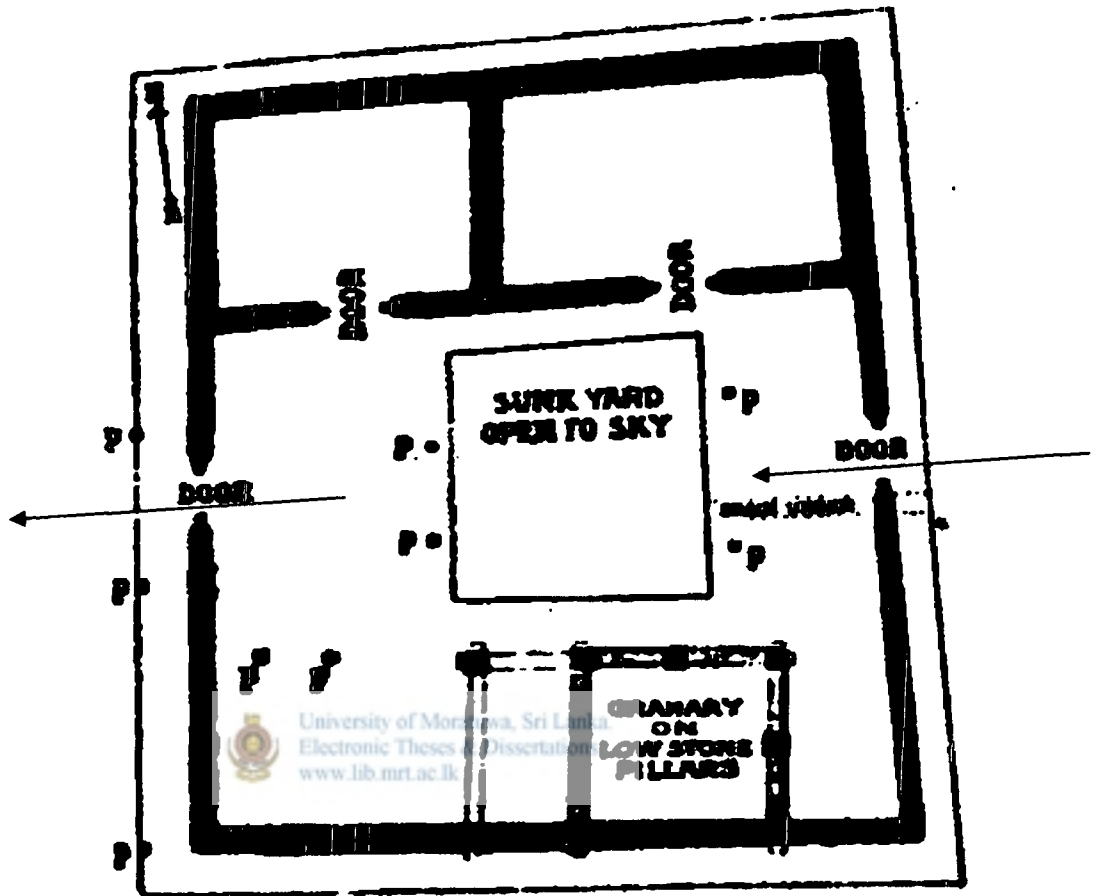


Figure 19 : Reflect the axial arrangement to acquire the vistas

(c) Articulation of transition space-

In traditional domestic house, verandah can be identified as transitional space and it combines inner and outer spaces, and has a fluid quality, act as a breathing space for visitors, sense of arrival is clearly expressed. It is creating a strong spatial experience in ones mind from one realm to another.



Figure 20 : Veranda as articulation of transition space



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(d) The sense of human scale-

The scale is a relative term, here which is related to the scale of man, called human scale. The size of an element or space related to the dimensions and proportions of human body or feeling. In the traditional dwellings provides harmonious proportions

In terms of length width and height. Therefore the dwellings were friendly and familiar to people, nature of the surrounding and merge into the nature. Hence it was the part of the environment.



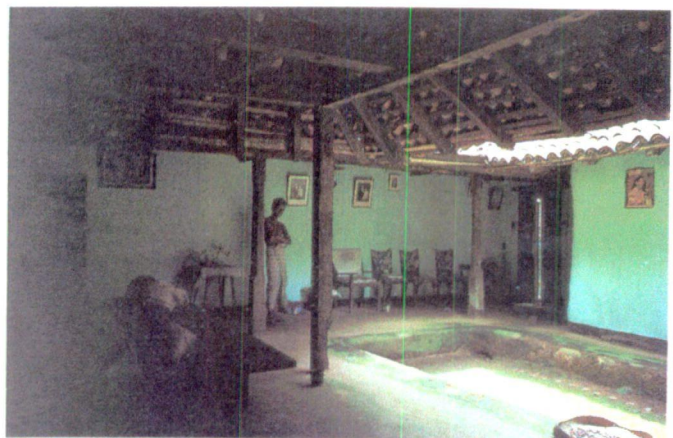
Figure 21 : Acquire the sense of human scale

(e) Level of permanence and sophistication-

The traditional dwellings is a replica of the dwellers mind and thinking , way of life , and beliefs. Those things were based on the strong Buddhist philosophy of simplicity and impermanent nature of life.

Hence they used construction materials from their surrounding such as grass, thatch, earth, timber and etc. They used simple technologies, not gone for complex process, conserved the true nature of the materials, thus creating simple and modest dwellings. They had natural textures and colours, less sophistication of elements reflect the charm and also acceptance of the harshness of the climate. They accepted the process of decaying at all.

Figure 22 : Reflect the modest & simple quality of the applied materials



(f) Shading

Roof act as a grate umbrella like sheltering trees, protect from sun and rain. Eaves of the roofs with exposed rafters provide harmonies proportion in relation with human scale. According to the climate steep slopping [25- 30 roof angle] roof with long eaves.

Figure 23 : Protection from sun & rain with large overhanging roof



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The above discussed components are intangible components of the domestic vernacular architecture.

The other component is tangible components of the domestic vernacular architecture, such as,

1. roof
2. verandah
3. courtyard
4. column
5. doors and windows
6. pasada

2.2. Distinctive types of Sri Lankan domestic vernacular buildings and their elements.-

2.2.1. The type of house in North Central Province:-

This was a linear house built strongly by wattle and daub construction system, with a high plinth, good example for indigenous framed, mud and thatch architecture. The front pila made with mud floor, roof supported by timber post and low eave protected from glare, hot sun, and rain. Two dark rooms with minimum number of windows used for sleeping, providing privacy. Two side verandahs were extended with partly hipped roof and half wall with one of these forming kitchen, dining, and working area.

The wooden fence surrounded the village; the house could be extended lengthwise by adding rooms.

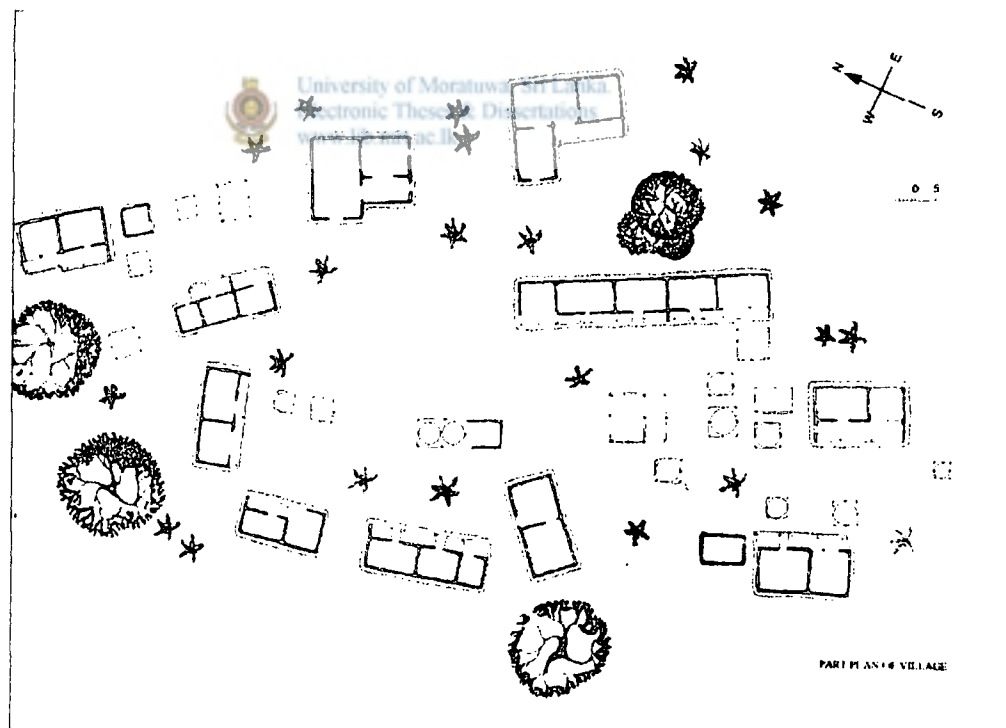


Figure 24 : Layout of the settlement



Figure 25 : Dwellings at north central province

2.2.2 . The type of house in Kurunegala



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This is more similar to north central province house type.

Ranjith Dayarathne had described this as follows,

“ The lay out of the village consists of a central compound surrounded by individual dwellings with their verandas facing the compound”

“The individual dwelling is an outward looking rectangular structure with one or two rooms and veranda. The verandah is the central place and is used predominantly by the males while the rooms are for activities that are more private and are predominantly used by the females. There is always a provision for expansion to accommodate an extended family by means of an additional room.”

- Oliver, P . 1997 - p.980.

Dwellings constructed on raised plinth and roof was covered with Cadman or rarely straw. The settlement protected from the surrounded jungle and accessed by the gate or kadulla. The grain storage, bissa, located in the compound, in front of the dwelling.

Figure 26 : Dwelling at Kurunegala district



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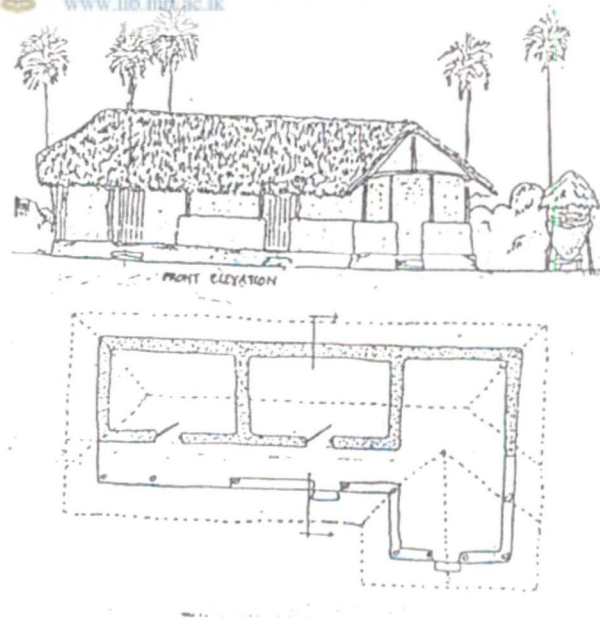


Figure 27 : Plan & elevation of Kurunegala house

2.2.3. The type of house in Mulative

This was circular in plan form, composition of four basic buildings located in an open area surrounded by palm leave fence, which is 3m height. The rectangular or circular planned kitchen in the kitchen yard visually barricaded by the fence. The house was timber framed mud house with conical roof thatch with tall palm leaves. It contained one circular room with paneled door and the verandah was in front of the circular room, roofed by the extended eave. The raised plinth the tinnai used to sit. The granary was in front of the house.

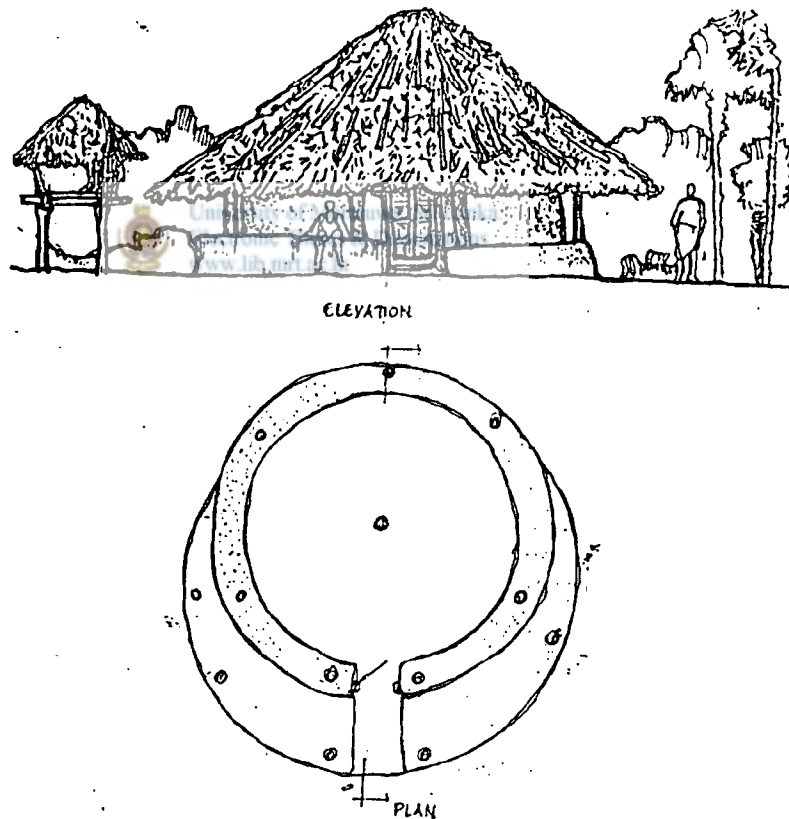


Figure 28 : The plan & the section of Mulathiv house

2.2.4 The type of house in Jaffna

Generally the settlements of jaffna enclosed by the thatch palm fences. The arrangement of individual unit's relation to one another treated as one dwelling unit and it was more similar to the mulative house type. The main house (vidu) was rectangular, simple and had one or two rooms with open verandah. Raised as tinnai. The hipped roof thatched with palm leaves. The main house, the means area, and kitchen built around in courtyard.(muttam). The granary was circular located in the courtyard constructed with palm leaves.

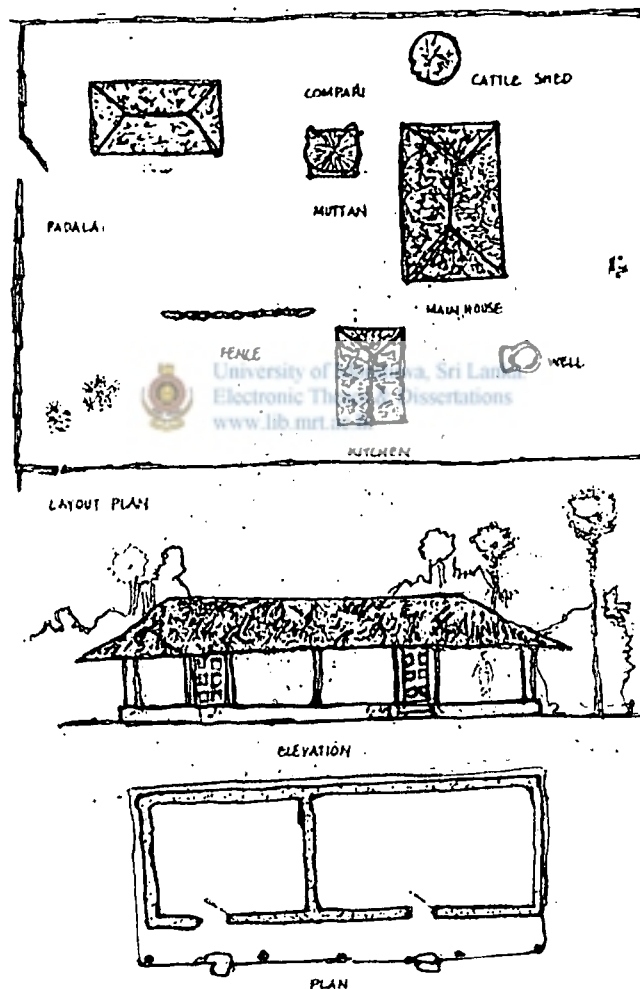


Figure 29 : Plan & elevation of traditional house at Jaffna

2.2.5. The type of house in Ruhuna chena

This was very simple dwelling, rectangular in shape with one room and a verandah constructed by wattle and daub system. Roof was thatched with mana, illuk, or cadjan.

2.2.6. The type of house in Coastal area

There were two temporary house types, Cadjan leaves made one, and other was made by either brick or cabook. It was single room house, no plinth or no verandah, roof out of cadjan. These houses did not have unique character.

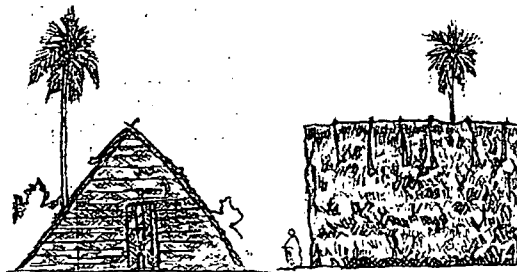


Figure 30 : Elevation of the coastal house type

When examined the above facts and data, which has already founded, prove the authentic characters of the Sri Lankan domestic vernacular architecture. People of the early periods and recent past of the country has, much concern about the culture, religion, (simplicity and the impermanent nature of the Buddhism) customs and beliefs of the society, aspirations, attitudes, way of thinking, way of life, when they create the living environment. In addition, those are the evidence of their respect of the natural environment and friendly nature of the dwellings to their environment. Infact they lived in that living environment in harmony with out any conflicts and difficulties.

“The architecture that a society creates is a substantial and organic expression of its inner life. It displays the economic and technological reveals the nature of its social organization and expresses the forms and concepts of its cultural aspirations. It is at once the skeleton and the outer garment of the social body.”

-Bandaranayake. S. 1974, p.01-



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CHAPTER TWO



CHAPTER TWO

IDENTIFICATION OF VERNACULAR ARCHITECTURAL ELEMENTS IN MODERN DOMESTIC BUILDINGS.

3.1 Introduction:-

From the ancient time to the present day, Sri Lanka has had tremendous vernacular traditional architecture, enriched and fed by the Buddhist philosophy. It is shaped up with people's attitudes, aspirations; ways of life, hence developed the inheritant vernacular architecture, with responded to the nature and locality.

By the time it was helped us to develop the architecture with modern aspirations in the country, when adopting the traditional components to modern buildings much concern about the true nature of those elements. Hence, designers should react wisely to the vernacular. Because of complexity, and he needs to decide, how incorporate the vernacular components with modern aspirations, and requirement. Many leading architects such as Geoffrey Bawa , Minnet De Silva , Ulrick Plesner interpreted the tradition into contemporary houses as pioneers of the modern Regionalism. They have been made the synthesis of indigenous tradition with modern architecture. These works can identified as in two ways; one is the modern image with local flavour, and other one has used for fundamental principles and element of traditional vernacular closely as traditional built form.

This chapter attempts to identify, how vernacular form with its tangible and intangible components adopted in contemporary Houses to produce, correct and meaningful innovations in different contexts, while how far to fulfill the user aspirations with their living pattern.

3.2 Case study one - Polonthalawa house

The tremendous residence designed by Danish architect Ulrick Plesner, having a partnership with Geoffrey Bawa, located in inner suburb of kadigawa village at kurunegala district in 1964 – 65. This was for manager's Bungalow of NLDB.

When considering the site,

Geoffrey Bawa had described as follows,

“Discovered a spot full of boulders and we both said how excellent and splendid it would be to build a house here. So we pulled some strings and strikes, brought some chair and sandwiches and built it with a contractor, who followed every gesture of our hands.

Meng, Tan Kok. 2001. P.42.

In this residence, architect deals with giant rock boulder that incorporated to the natural environment like kaludiyapokuna in Mihintale.

At the first appearance of the house is glimpse of a fortress through the forest and infinite to rural settlement, surrounded by the parapet wall roofed by half round tiles.

Here the architect tried to borrow the ideas of vernacular architecture collaboration with the postmodern architecture (like heavy and bulky, no ornamental and precise details) according to modern life style. It is reflect from giant r.c.c. ridge beam. But the architectural language enhances the strong affinity to vernacular.



Fig 32: Glimpse of a fortress

3.2.1. Identification of vernacular components:-

3.2.1.1 Fundamental principles :- (Intangible components)

1. a. - Identification of centre and openness.

The consideration of plan configuration of this house identified the rather linear pattern, not clearly express the centre of the complex. Entering through the pavilion with stone paved stepped path boulders on either sides leads to the entrance lobby asa intermediate space defined with giant rock boulders. It is like traditional verandah and has sense of arrival.

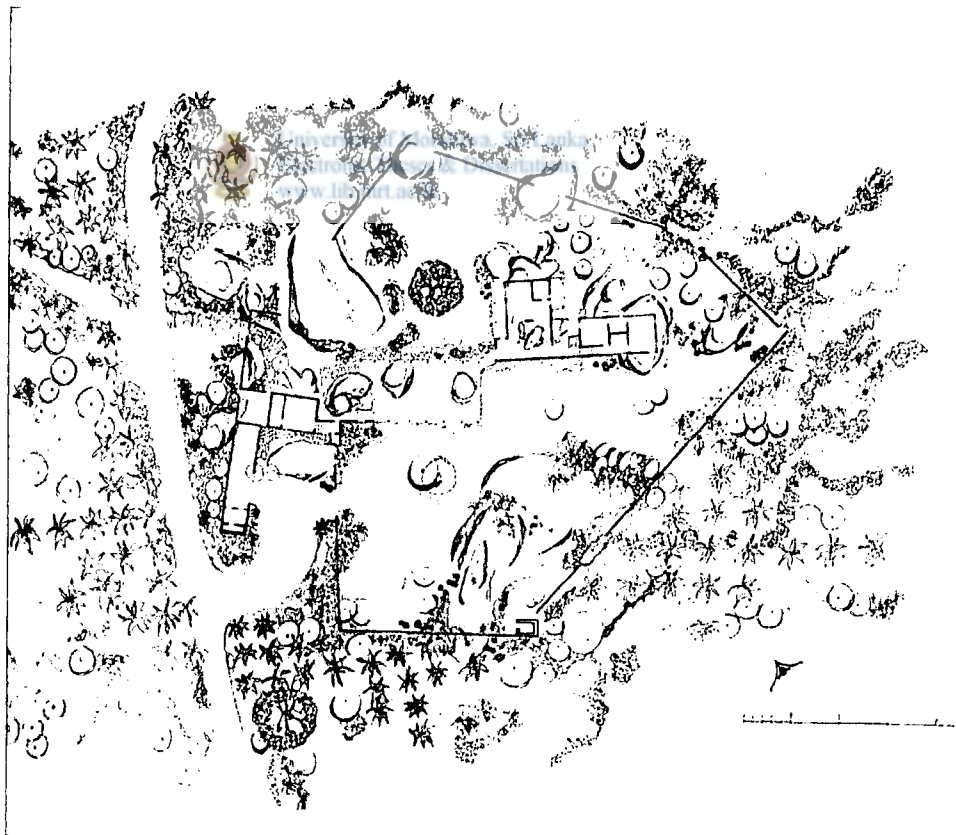


Figure 33 : Plan configuration , reflect scattered and organic quality.



Figure 34: Main Entrance

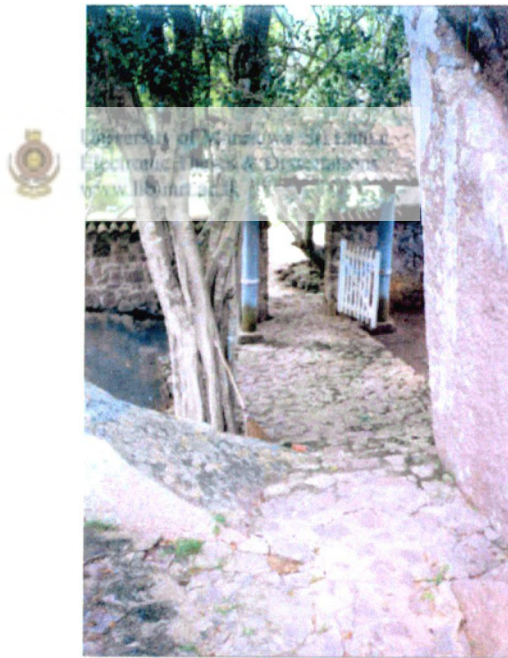


Figure 35: Entrance path view from the entrance lobby

The narrow stairs between boulders and shimmering pool, people move instinctively towards living space. The living space is a colonnade open area blended with giant rock boulders expresses the

“pasada” of vernacular tradition. It is acquiring a sense of openness. Moreover, openness can be seen in the private realm with using openings, with simple vertical timber poles.



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Fig 36: Open colonnade living space reflect the openness quality

1. b. Vista and harmony between built form and setting.

Here the designer skillfully attempted to harmonies natural landscape elements of trees, rock boulders of the setting with the built form. Those enhance the quality of space, and sense of place. Also in one sense a conscious approach about the natural setting. By using simple window in bed room areas with vertical timber poles allows maintaining visual link with natural environment, acquiring the odour of wild flowers and fresh air.



Fig 37: Built form harmony with nature

The uses of materials bare rubble wall, rock surface create rustic appearance, similar with the nature of the environment.

This has been skillfully achieved the traditional principle into the design at all, and has created the residence is part and partial of nature.



Fig 38: Comparison of the material and nature.

1. c. Articulation of transition space

Here, the verandah between living space and inner private rooms linked the public and private realm. The entrance lobby act as front verandah acquiring sense of arrival, but it has not clearly identified as a common verandah which can be seen as the special segregation. There is no natural flow, spatial hierarchy, from public to private. Spaces are scatted, and have not spatial orchestration, except the living space. Hence one has to enter the place, to sense what the place is. However, it has a quality of space.

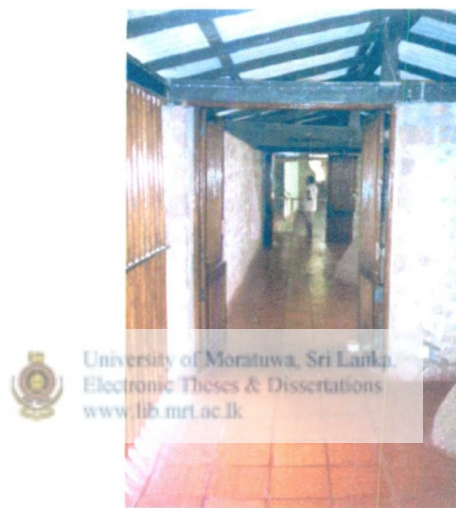


Fig39: Verandah, articulation the space

1. d. The sense of human scale

In comparison to traditional dwelling, in the living space it has not acquired in term of length width and height. The harmonious proportions, related to the human body. As height and volume reflected inappropriate quality to living except fulfilling of other qualities. However, other realms achieved the sense of human scale, like bedrooms and verandah spaces.



Fig 40: Living area, not acquired the sense of human Scale.

1.e. Level of permanence and sophistication

In the residence can be seen the minimum use of sophisticated materials , use simple technologies except giant R.C.C. ridge beam, not gone for a complex process try to conserve the true nature and modesty. The materials such as timber, stone, rubble etc. It is creating simple and modest dwelling like traditional dwelling, remind the minimalism or impermanence nature and also used clay tiled floor and the color range to suite the material used.



Fig 41: Reflect the simple and true nature of the material

1. f. Shading

Here, the residence has series of roof, with giant R.C.C. ridge beam rest on the boulders. In the living area has a wide over hanging gable roof with diagonal battens, and with out ceiling. But not provide harmonious proportion with minimum scale in living area. Other ancillary areas have gable roof and ceiling with exposed rafters. This area has harmonious proportion with human scale than the living area. Roofing material is asbestos and covered with half round tiles to withstand of harshness of the climate. In fact, here try to achieve the quality of vernacular tradition.



Fig 42: Shading with large overhanging roof.

3.2.1.2. Tangible elements

The tangible elements in Sri Lankan vernacular dwelling are, such as roof, column verandah, plinth, and doors and windows.

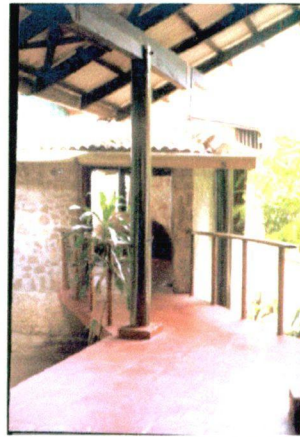
2. a. Roof

Here the designer tried to attempt to design simple overhanging gable roof as a significant element of the vernacular dwelling to protect from sun and rain, like sheltering trees, as well as the R.C.C. ridge beam reflect the

post modernism characteristics like, heavy, bulky, less ornamental detail, cubic and sharp quality while without having ceiling and gutters.

2. b. Column

Simple modern timber columns have used in living area, to reflect the affinity vernacular tradition.



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Fig 43: Simple modesty timber column

2. c. Doors and windows

Here the designer tried to create see-through quality with the simple doors with half paneled with half timber poles doors, simple vertical timber poles have used as windows mostly remind the vernacular dwellings openings, as well as minimally used the timber frame simple glazed window.

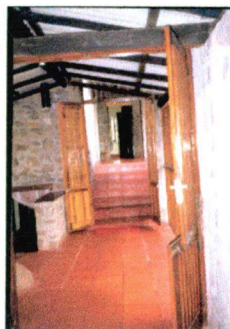


Fig 44: Simple timber door

3.3 Case study two – Ena De Silva house.

Geoffrey Bava who is pioneer Architect, has exercised a formal Architectural language, much inspired from the traditional vernacular Architecture and its unique technology, designs this significant house. His works are such remarkable not only for local also for Asian Architects greatly influenced by them.

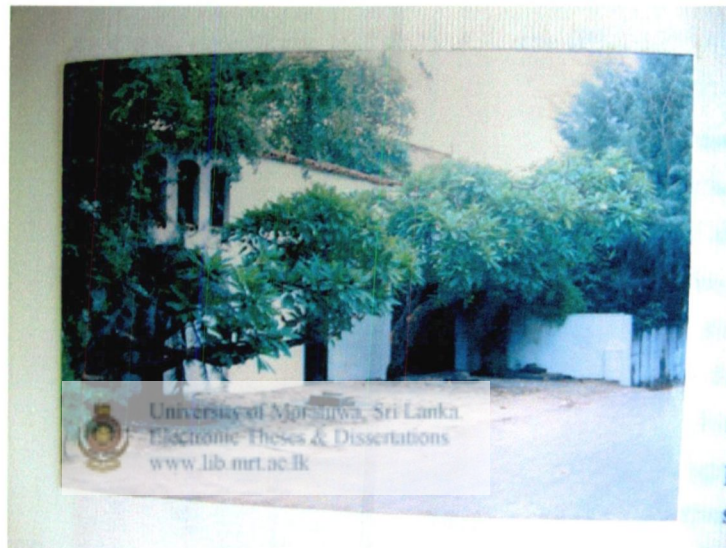


Fig 45: View from the road

This house for his friends, Ena de Silva, an Artist, admired the traditional things located in urban context in Colombo is a tight site. With the beginning of the work,

Bava had described his approach in following manner,

“I remember asking to Ena seeing around her all the things she liked and all she wanted were brick walls and proof. The plan came about largely because she, and consequently, wanted a private compound which was not interfered with by the neighbors.”

Taylor, B.B 1995. p. 46.

Moreover, Hassan Uddin Khan had described as follows,

“Geoffrey Bawa is that rare architect whose work combines an environmentally appropriate beauty with a cultural sensitivity answering today needs”

Taylor, B.B. 1995. P.8

Proving the statement, the house clearly has shown the strong affinity of natural environment and built environment, feel rural and sense of openness.

3.3.1. Identification of vernacular components.

3.3.1.1 Fundamental principles- intangible components.

1. a . Identification of centre and openness.

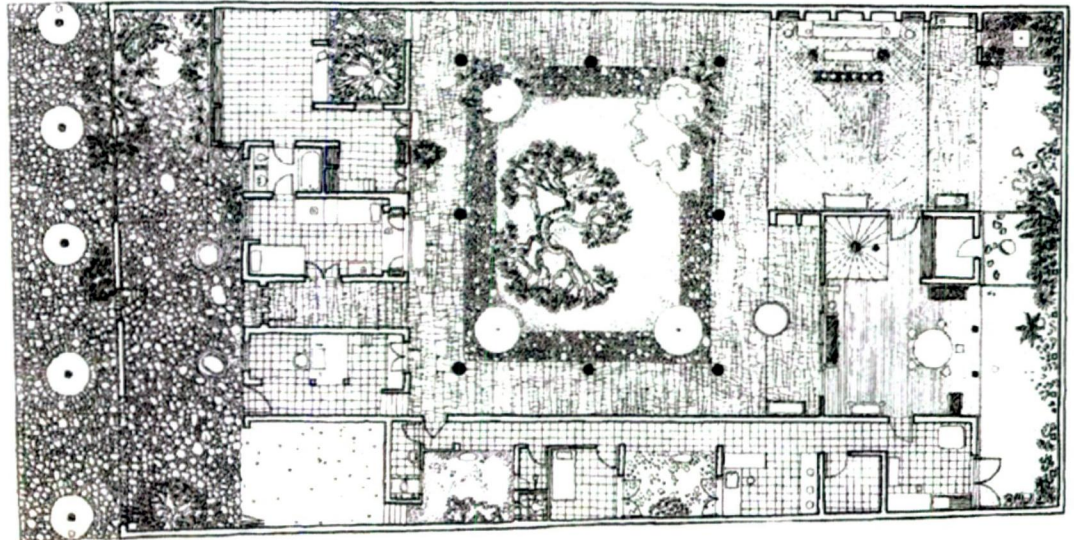
This house reflect the quality of Kandyan peasant dwelling .the main forces of the house is a large centre court yard sense the quality of centre, in traditional house and space located around the central court yard, Towards the outer periphery of the site.

With in the limited tight urban setting, sensitively and cleverly achieved the, sense of openness and whole site incorporated to the design



Fig 46:Acquire the centre and openness quality

FITSM HOUSE PLAN



Ground floor plan

Fig 47: Acquire the centre and openness quality
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1. b . Vista and harmony between built form and setting.

The built form make harmony with the landscape attracting with providing the central landscaped court yard and has axial arrangement to get vistas to inner spaces. Thus the dwelling embodies synthesis the traditional vernacular principle with distinctive manner, and without loosing the traditional feeling. This expresses the occupant's attitude to life. The nature of materials, colours and textures a re harmony with the nature.



Fig 48: vistas of the patio

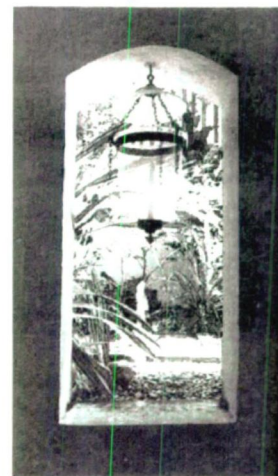


Fig 49: Vistas acquire through the window

1. c . Articulation of transition space.



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The forecourt directs to the courtyard, remind the front verandah of the traditional dwelling create intermediate space between outer public realm and inner private realm. The main door open to narrow tunneled passage; running to the inner verandah and central court yard, while providing the vistas of inner landscaping area and feel sense of arrival. Inner verandah as a transition space provides the main circulation of the house such as public and private areas go around the patio.

The designer has separated the service route placed along the east periphery of the site link to the inner verandah as well as garage and rear space. The private domain acquires more privacy in an upper level, link by the verandah. In addition, guest room located in ground level closed to the main entrance, link directly with the transition space.



Figure 50: Inner verandah providing transitional space to private realm and public realm.



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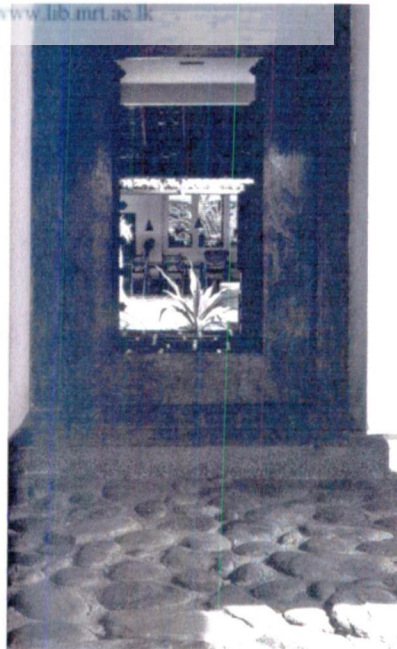


Figure 51: Fore court direct to the courtyard through the narrow gloomy path.

1. d. The Sense of human scale

The roofs are simple gable roof, monitor roof and lean to roof, much acquire the sense of human scale by carefully proposition and enhance by bringing the eaves very low. It does not have a ceiling which enhances the natural quality less sophistication and has complex composition of roofs. Thus the fundamental principle of vernacular has acquired like in traditional dwelling.



Figure 52: Carefully propositioned and acquired the human scale

1.e. E level of permanence and sophistication

The Architect has carefully incorporated the materials with minimum sophistication and tried to preserve the modesty and, true nature of material. In respect of impermanence of materials such as timber except very

little glass and R.C.C. supporting frame – main structure, clay tiles , bricks like in traditional houses, has been used attractively. The floors are paved and in cut and uncut granite, walls are plastered, patio textured with pebbles and stones acquire the intimate character of the traditional vernacular dwelling and reflect the principle of impermanence and simple quality and enhance the tranquility feeling

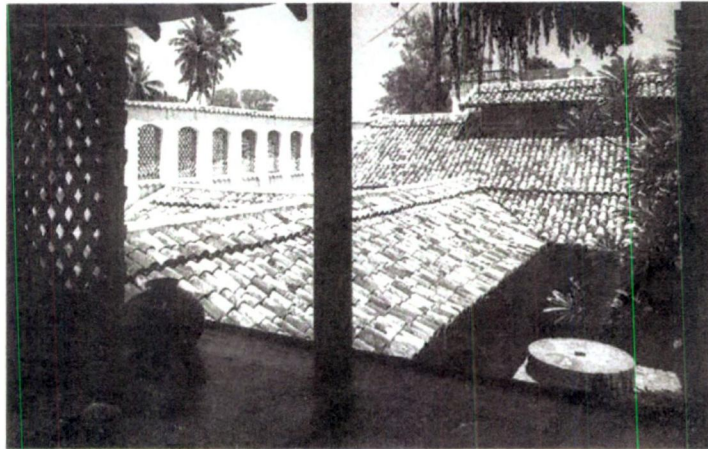


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Figure 53: Simple and modest materials, strong intimacy with vernacular essence.

1.f. Shading

Here the residence has identified as the series of roof s created in such a complex manner. Also has a dramatic transformation with large overhangings like umbrellas. Exploiting the advances in timber technology, thus the designer incorporated the vernacular character with modernity distinctively.



View of roofs with central pane on the right

Figure 54: Series of traditional roof

3.3.1.2. Tangible components

2. a .Roof

Here the Architect tried to adopt simple roof series, gable, lean to and monitor roofs with complex composition like in vernacular dwelling. Roofing materials are timber frame and half round tiles, and timber ceiling with expose rafter's harmony with nature.

2. b. Columns

Columns around the courtyard are made of timber with modesty appearance and simple detailing. The rear verandah has rather decorative column affinity to traditional Kandyan courtyard houses.



Figure 54: Reflect the modesty appearance and simple quality

2.c. Doors and windows

This house has incorporated with less decorated timber lattice or louvered windows, paneled and louvered in a simple manner, to suite vocabulary, and allow in to natural ventilation. Also use the very little glass with simple manner. Thus,

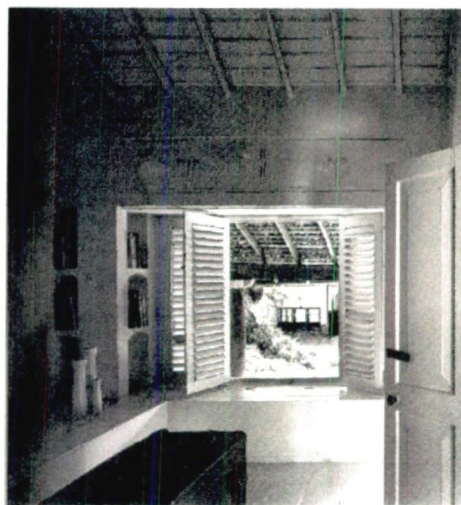


Figure 54: simple, timber doors and windows

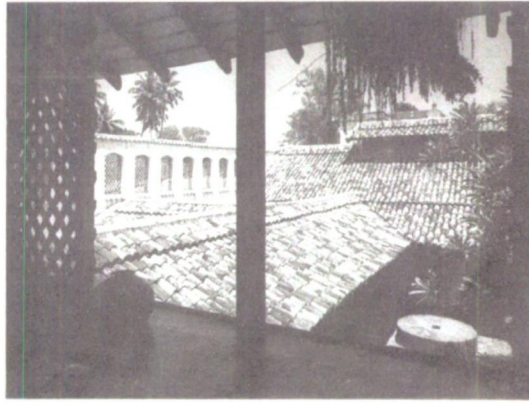


Figure 55: simple, timber doors and windows

Dr. Ranjith Dayaratna had described as follows,

“The Sinhalese vernacular is typically associated with verandahs, latticed timber rails or columns, and tiled roofed, single storey simple dwelling.”

Oliver, P. 1997, p.980.



Figure 56: Landscaped courtyard blend with nature and built form

The residence innovatively incorporated the simple architectural vocabulary of vernacular tradition, with carefully landscaped and blends with modernity. And also traditional spatial arrangement with distinct hierarchy of privacy clearly has shown.

3.4. Case study three - Senevirathne house

The Senevirathne house is designed by archt.Minnett de Silva in 1972, for her friend, located at suburb of Kandy.

The much work of Minnet de Silva, remind the kandyan performing art centre, skillfully synthesis the modern architectural vocabulary with traditional architecture.

Here the occupant's busy life style with their aspirations, Minnette wanted to create the residence with the local flavor, adding with traditional elements. That is much inspired of her personal attitudes towards the national tradition.



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Figure 57: Front view of the house

3.4.1. Identification of vernacular elements.

3.4.2.1. Fundamental principles – intangible components

1. a. Identification of centre and openness.

Considering the plan configuration, it has not clearly identified the centre quality of the house but fulfilled with sense of openness acquiring by the organic shaped courtyard with a pond adjacent to the dining area. That pond leads around the open colonnade pavilion in front façade of the house.

However, later on it converted in to a library and courtyard covered by the transparent roof. It is remind the open verandah in traditional vernacular dwelling. The sense of openness quality reflects to the verandah around the court yard, living area and garage separated by the half wall with exposed bricks. The timber framed openings with simply carved timber poles at the living area provide direct link with the nature also feel the sense of openness.



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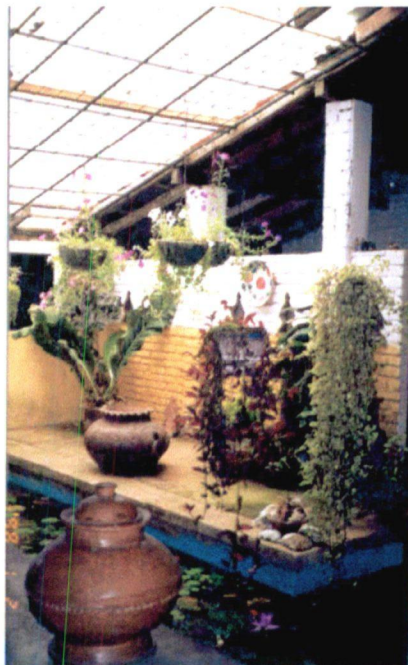


Figure 58: Acquire the openness quality

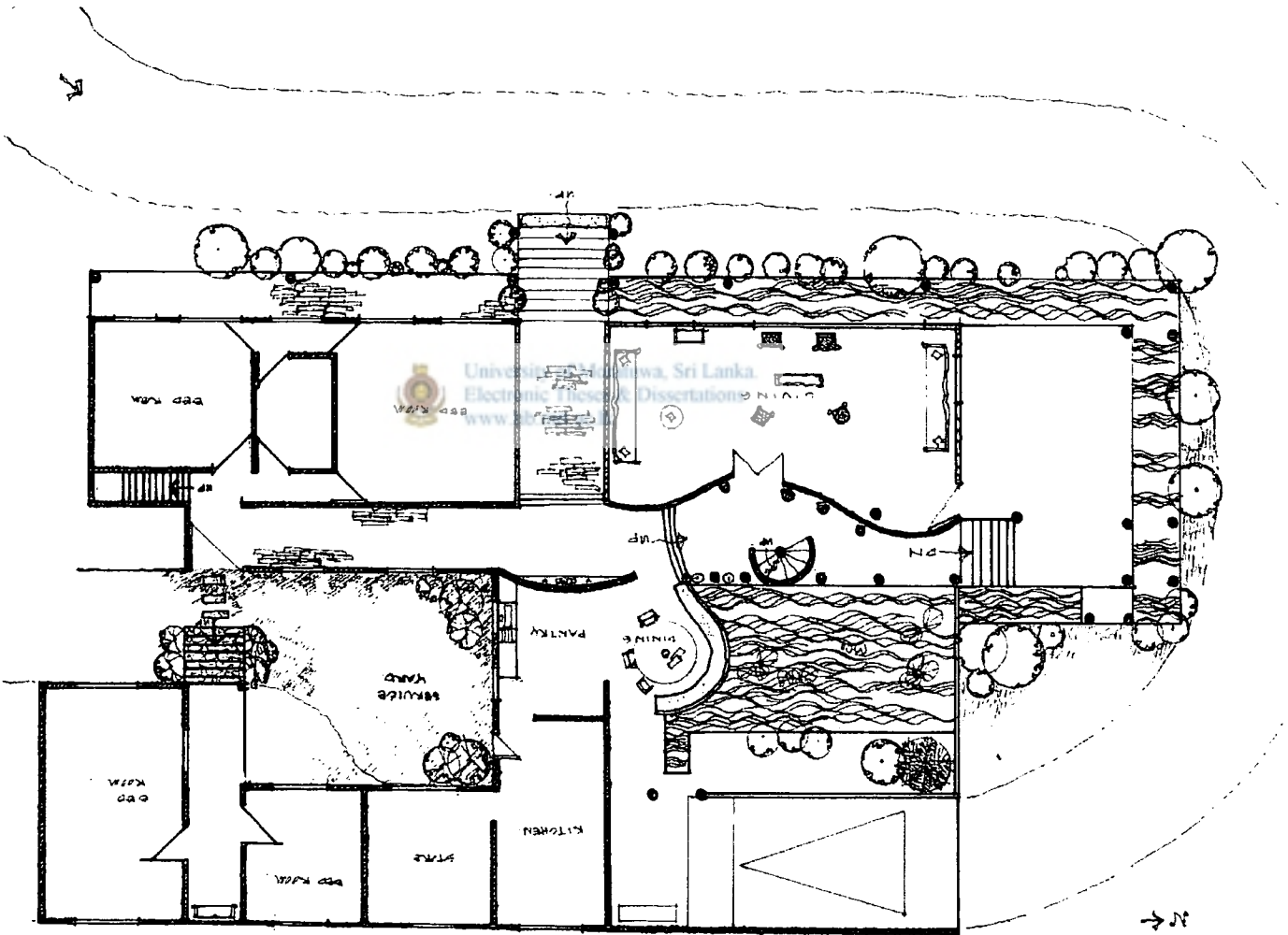


Figure 59: Plan configuration

1. b. Vistas and harmony between built form and setting.

Unlike the traditional dwelling, not clear axial arrangement to get vistas, but acquired some vistas to connect inner and outer space. And also has acquired some vistas, harmony with nature through the timber framed openings at living space like in traditional houses, later added glasses, allows cross ventilation, and odour of flowers. That window opens out to the verandah, with round simple brick columns at the front facade of the house. The true nature of the materials, exposed bricks wall, white washed wall, timber columns, clay tiles are harmonizing with the setting.



Figure 60: Acquires vistas through windows

1. c. Articulation of transition space.

The main entrance direct through the gloomy tunnel path ends of the inner linear verandah. It leads towards to inner private realm and public realm, creating intermediate zone between there and get sense of arrival. The

colonnade verandah link with the inner linear verandah, which goes by the side of the court- yard.



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Figure 61: Main entrance, leads to the inner verandah

It was simple timber circular columns and circular bricks columns. The verandah at private realm leads to bed rooms about at 4 feet higher level with some stone steps

The designer has skill fully achieved and synthesized the traditional principles into the house.

1. d. The sense of human scale.

In this house Cleary shown the series of roofs are gables, lean to, double pitched at the entrance level feel. The sense of human scale is not in everywhere in the house, it is around the courtyard, at the service yard can be identified the sense of human scale like in a traditional house. Thus, the

Architecture has embraced vernacular principle in modified manner but not abruptly destroy its true nature.



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Figure 62: Acquire the human scale with series of simple roof

1.e. Level of permanence and sophistication.

The designer has skillfully incorporated the materials, brick, timber, stone with to suite the impermanent nature of traditional vernacular and their simple and modest ay of application are two embrace the vernacular quality with embracing the modern language.



Fig 63: The applied materials retained its natural quality distinctively.

1 .f. Shading

Here in the house, has identified a dramatic transformation with large over hanging roof much affinity to vernacular dwellings of feudal expected the timber technologies with roof in skillful manner; act as wide umbrella over the house.



Figure 64: Series of roof acquire much affinity to vernacular essence

3.4.2.2. Tangible elements.

2 .a. Roof



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This house has, wide sloping roof (25 -30) with pleasing manner, with series of half round clay tile roofs, such as gable, double pitched and lean-to roof.

It was a sloping ceiling with exposed rafters and there are no gutters like traditional dwellings.

2.b. Columns.

The simple and modesty timber and brick columns has used in this house. It is retained with its true nature and not decorative. But the brick columns are simply decorated one, not destroying the affinity to vernacular character.



Figure 65: Timber and brick columns reflect the simple and rustic nature of the materials

2.c. Doors and windows.

They can be identified the timber framed openings with simply carved timber poles, as windows to maintain the visual link, which reflect the vernacular character. As well as simple glazed windows and doors are simple, timber paneled doors. In this residence, Architect has tried to synthesis the vernacular Architecture with the design, innovatively.

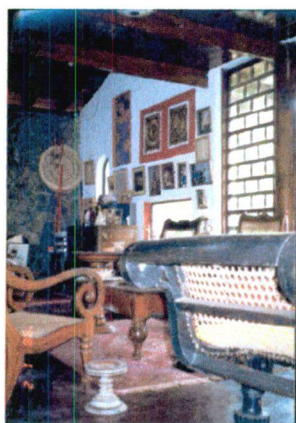


Figure 66: Simple doors windows reflect the vernacular character

3.5. Case study four – Dissanayake house

The residence located in Maswela at Kothmale, designed by Danish Architect Ulrike Plesner, in 1984 – 85. When he was working in Mahaweli architectural unit, for the client, Minister Gamini Dissanayake.

At the time of doing this residence, Ulrike Plesner has much inspired about the vernacular traditional architecture from, Geoffrey Bawa, and Minett de Silva, had partner ship with both pioneer Architects. According to client aspirations, plesner tried to interpret the tradition in to this house.



Fig 67: Main entrance of the house

3.5.1. Identification of vernacular component

3.5.1.1. Fundamental principles (intangible components)

1.a . Identification of centre and openness

This house much similar to Kandyan feudal type dwelling except the front portion and kitchen which hanged by the side. Activities like sleeping; dinning located around the open court yard with colonnade verandah goes around it. Sense of center and openness quality, it is respect fully incorporate the vernacular principle to the design, But, on the other hand, the overall residential complex has not the centre quality.



Figure 68: Acquired the sense of openness quality

1 .b. Vistas and harmony between built form and setting.

This house has axial arrangement focused to get vistas and rather harmonize the built form with nature, because it discriminate from landscaping, and



Figure 69: Axial arrangement gets vistas and rather harmonies with the nature.

the concrete paving patterns at rear yard and central courtyard, and sharp lines of landscaping, but the materials used are rather harmonies with nature. Such as timber bricks and clay tiles.

1. c. Articulation of transition space.

The transition space, verandah clearly generates the intermediate space between public realm, and private realm.

When going from public to private through the verandah celebrated the sense of arrival. The inner verandah around the court yard has given the access to private areas and service areas. However, the entrance

porch is not clear and it does not sense a clear picture about the house and its configuration, by adding the intermediate colonnade open area. It is misinterpreted and discriminate the public interaction and the front verandah. The entrance porch has an alien look and inappropriate for this setting.



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Figure 70: Verandahs acquired the articulation of spaces



Figure 71: Misinterpreted the front verandah

1.d. Sense of human scale

When considering the low height of the eaves feel the sense of human scale and have considerable overhanging of roof. It is tried to get intimate quality with vernacular vocabulary.

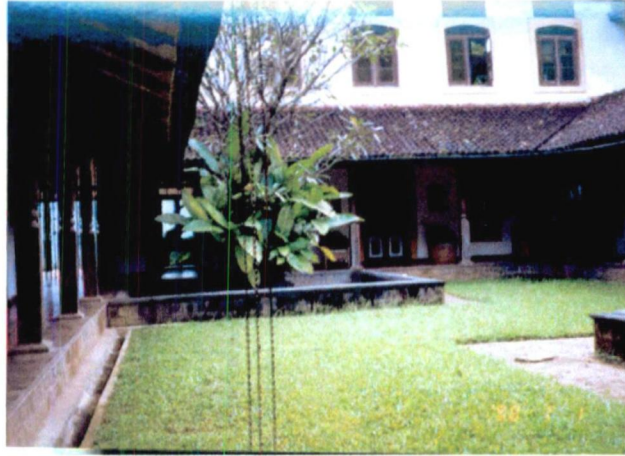


Figure 70: Acquired the sense of human scale, intimate with the vernacular esense

1.e. Level of permanence and sophistication.

Remind the impermanent nature of vernacular tradition, less refinement of the finishing, had been used the muted colour palate, floor material, clay tiles, timber frame work has used rather to finish fundamental principle of vernacular. Because, some elements are refined with occurring contrast with nature and modesty appearance has occurred at last.



Figure 72: Remind the less sophistication of finishing as well as refinement

1.f. Shading

It has acquired the shading quality with large overhanging roof like umbrella to convenience of the occupants.



Figure 73: Acquired the shading with large over hangings.



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3.5.2. Tangible elements.

2.a. roof

It can be seen gable half-round clay tiled roof has steep slop (25-30) remind the tradition. However, it has inappropriate gutters unlike the tradition.

2.b. columns

Decorative timber column has been used rather affinity to vernacular tradition. However, it can be seen also, inappropriate brick columns to the Architectural language of the house.



Figure 74: Familiar and unfamiliar columns can be identified.

2.c.Doors and windows

The traditional timber paneled doors can be seen in bed room and service areas, but public areas have doors, with half timber paneled, half glazed paneled with carved timber plate on top. It is in appropriate with vernacular tradition, because of much usage of glazed doors and has been used in glazed windows largely with excepted tradition.



Figure 75: Doors and windows with plaster molding

The examination has identified the vernacular elements with tangible and intangible components have adopted in contemporary domestic houses with considering the clients living patterns and aspirations. Designers have tried to apply the vernacular tradition into their houses with embracing the modernity in various manners.



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CHAPTER THREE

CHAPTER THREE

EXAMINATION OF CONFLICTS AND CONSTRAINTS IN USING VERNACULAR ARCHITECTURAL ELEMENTS IN MODERN DOMESTIC BUILDINGS.

Considering the correct and progressive manner, it has no doubt, thus vernacular tradition preserved as source with synthesis the modernity for future generation as a national tradition. Though it has appreciated that architects such works in distinctive and attractive manner. It has attempted to embrace with the tangible components-(roof, column, doors and windows and verandah) and intangible components – (fundamental principles such as sense of human scale, centre and openness, articulation of transitional space etc.). Those embedded the traditional vernacular into their houses in same and modified manner. Those manners have evaded from the degradation of the tradition and integrated with contemporaneity.

Considering the degradation and incorrect manner of adopting components it has occurred, some conflicts and constraints, which are caused to degrade the vernacular tradition.

4.1 IDENTIFICATION OF CONFLICT AND CONSTRAINTS;-

4.1.1 Intangible components - fundamental principles

1 .a. Identification of centre and openness;-

This is one of the key principle of the vernacular traditional architecture, which has acquired in early vernacular domestic buildings in skillful manner.

When considering the selected residences, Polonthalawa house has acquired the spirit of the tradition, also visually experience it. Hence the residence does not acquire the quality of centre, spiritually as well as visually while Ena De Silva's house has acquired the tradition spiritually as well as visually. In Senevirathna house has designer tried to incorporate the vernacular tradition spiritually with abstract manner while Dissanayake's house has acquired the principle spiritually as well as visually.

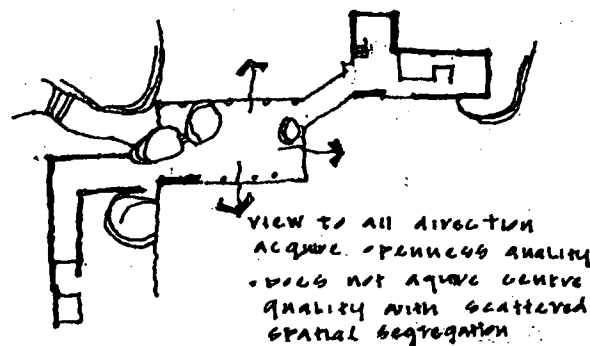


Figure 76: Polonthalawa house

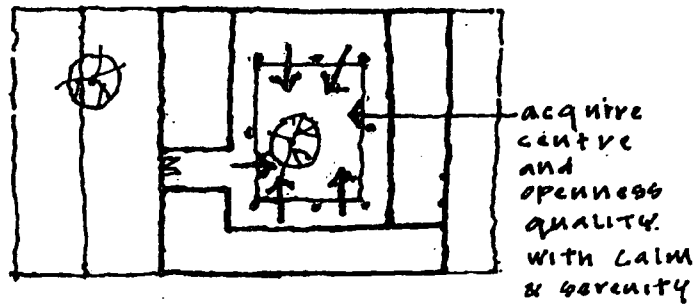
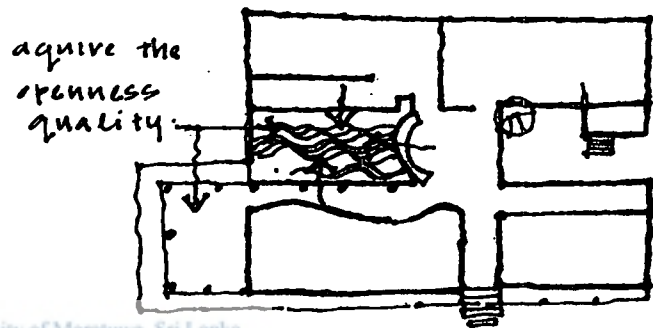


Figure 77: Ena De Silva house



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Figure 78: Senevirathna house

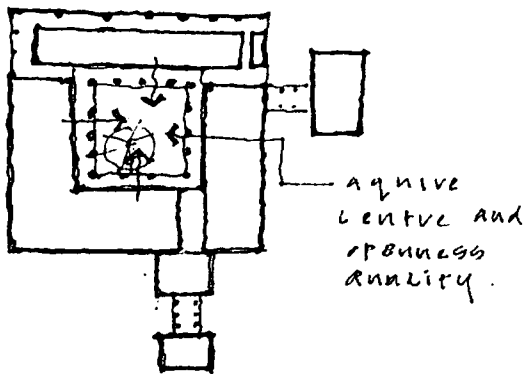


Figure 79 : Dissanayake house

Thus,

In Polonthalawa house someone confused with spatial hierarchy with scattered spatial segregation irrespective of user aspirations, and comfortability while in Ena De Silva's house, the designer has much concerned about the user's attitudes with their modern life style. When considering the Senevirathna's house the designer has tried to fulfill the user's aspirations, which need to acquire the privacy to private realm with their modern lifestyle while Dissanayake house has fulfilled the client aspirations with their local flavors.

Hence, the principle can be applied in appropriate manner, with the context while acquiring its reality.

1. b. Vistas and harmony between the built form and the setting.-



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This is one of the basic principle of vernacular architecture which was tremendously used in Vernacular dwellings.

When consider the selected houses, Polonthalawa house has acquired the principle with spiritually as well as visually while in Ena De Silva house has also acquired the principle both in visual spiritual manner. Senevirathne house has incorporated the vernacular principle with skillful manner while Dissanayake house acquired the principle visually but not spiritually.

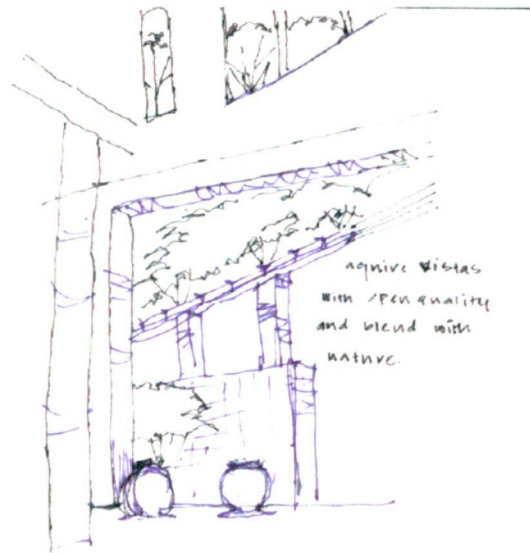


Figure 80: Senevirathna house, acquired vistas and blend with the nature



Figure 81: Senevirathna house, Incorporated the vernacular essence by harmonizing the nature

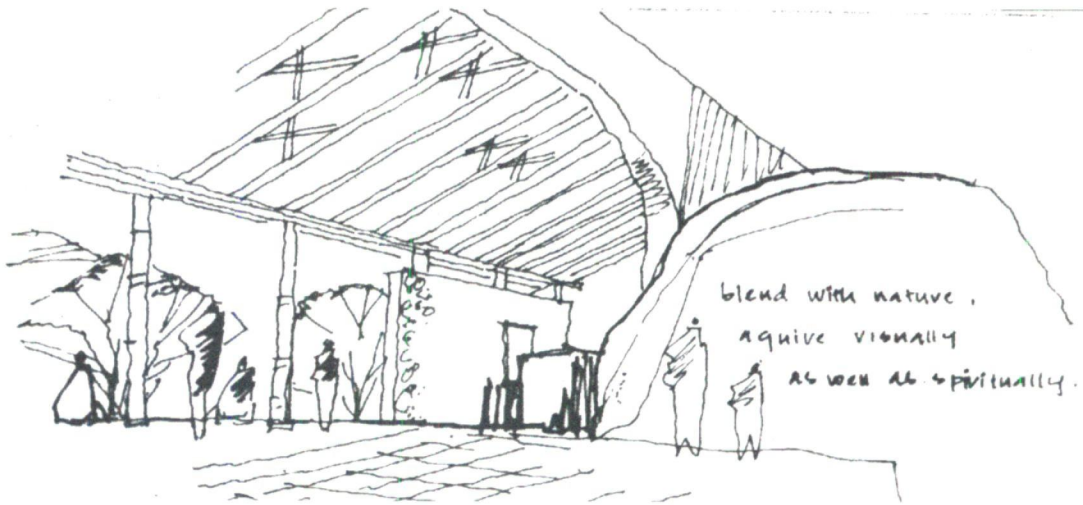


Figure 82: Polonthalawa house, Acquired the vernacular principle visually and spiritually



Figure 83: Ena De Silva house acquired the dispassionate quality, visually and spiritually.



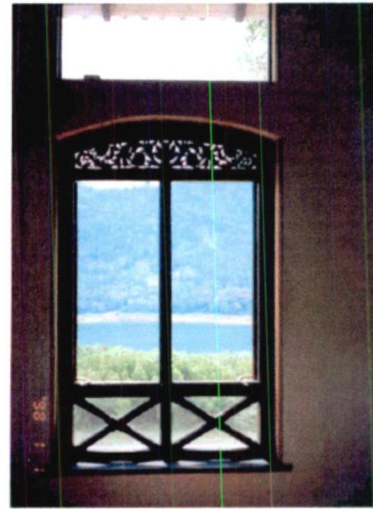


Figure 84: Acquired the principle in rather appropriate and visual manner

Thus,

The Polonthalawa house, Ena De Silva house, Senevirathna house have respectively fulfilled the client aspirations and attitudes, hence there is no doubt about the adaptation of the vernacular component in modern manner, while Dissanayake house has not much concern about the vernacular essence and client aspirations and attitudes, which cause to degradation of tradition.

Hence the vernacular essence Authentic to the present day with appropriate manner while converting to their context.

1.C. Articulation of transition space-

In the vernacular traditional dwellings verandah act as articulation of transition space, is a key component of vernacular vocabulary.

The polonthalawa house, has not acquired the principle perfectly, while Ena De Silva house, Senevirathna house, have incorporated the principle visually as well as spiritually. In Dissanayake house has incorporated the principle to some extent.



Figure 85: Polonthalawa house reflect the
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 Inappropriate quality



Figure 86: Ena De Silva house much
 affinity to vernacular essence



Figure 87 : Senevirathna house reflect
 the much affinity to vernacular tradition



Figure 88 : Dissanayake house , not
 incorporated the tradition

Thus,

Polonthalawa reflect, mislead of the tradition cause to Degradation, and irrespective of the user's aspirations and attitudes, has created unfamiliar living environment to the user. while Ena De Silva and Senevirathna houses Have respected of the client attitudes and local flavor and also skillfully embraced the vernacular essence to the modern living pattern which lead to preserve the tradition. Dissanayake house is also mislead the tradition to some extent and create an unfamiliar living environment.

Hence, it has evaded from the misleading of the tradition by questioning the authenticity, and it does not suit the context it should not incorporate with the design.

1. D. The sense of human scale



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In vernacular vocabulary, the sense of human scale is one of the key principle, which has used in tremendous manner.

Ena De Silva house and Dissanayake house have skillfully achieved the principle, both in spiritual and visual manner while Polonthalawa house has not acquired the vernacular principle with spiritually and visually in the whole of the house, and in Senevirathna house, the designer tried to achieve this principle to some extent in visually spiritually, however not in everywhere.

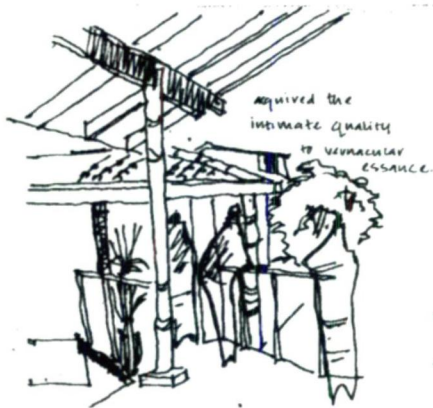


Figure 89: Polonthalawa , has not acquired the vernacular essence as a whole .



Figure 90: Visually and spiritually, acquired the vernacular



Figure 91: Incorporated the vernacular essence to some extent.

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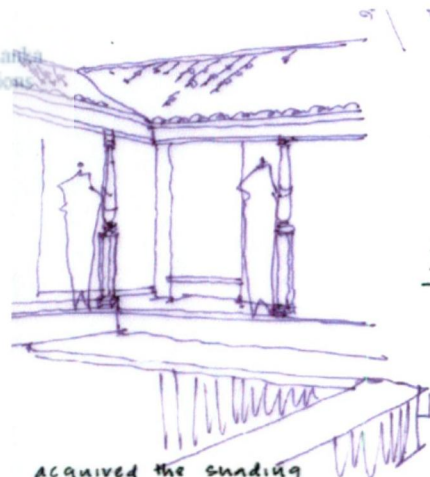


Figure 92: Visually and spiritually, Acquired the vernacular essence

Thus,

The Ena De Silva, Senevirathna, and Dissanayake houses cause to preserve the tradition while has embedded into the modernity and ensuring the user's attitudes and local flavor. But in Polonthalawa house it has created unfamiliar living environment to the occupant and irrespective of the local flavor of the user, cause to illusive perception of the tradition.

Authenticity of the principle is clear, even with the present day usage, while it does not suit the context it should not incorporated with the design.

1.E. Level of permanence and sophistication

This is one of a key component of vernacular tradition, which has applied in vernacular dwellings in attractively.

Polonthalawa, Ena De Silva, and Senevirathna houses have skillfully achieved the principle, strongly in spiritual and visual manner while Dissanayake house has not achieved the principle to some extent.

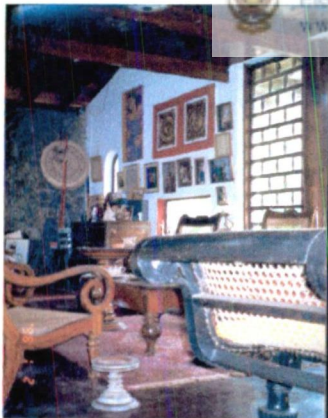


Figure 93: Reflect the modesty of applied Materials, feel visually and spiritually The vernacular essence.



Figure 94: Much refine the incorporated unfamiliar to vernacular Genuine character.




Figure 95; Reflect the modesty of applied Materials, feel visually and spiritually the vernacular essence.



Figure 96: Reflect the vernacular essence with the genuine character of the material.

Thus,

The Polonthalawa,  University of Moratuwa, Sri Lanka
www.lib.mrt.ac.lk and Senevirathna houses have caused to preserved the vernacular tradition, while ensuring the user aspirations and their local flavor and has created the familiar living environment to the occupant. The degradation of the tradition can be seen in the Dissanayake house has created unfamiliar living environment to the user, and illusive perception of the tradition.

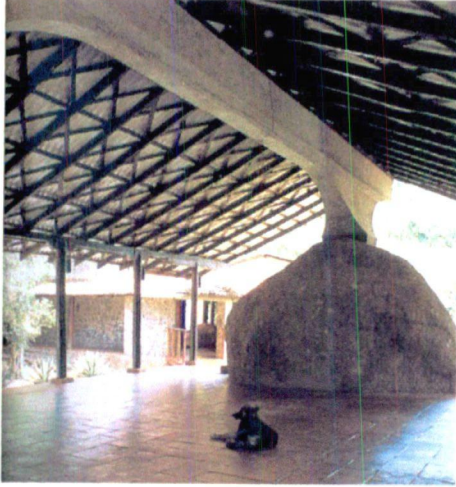
An authenticity of principle is clear even with the present day usage while using in abstract and same manner with the context.

1. F. Shading

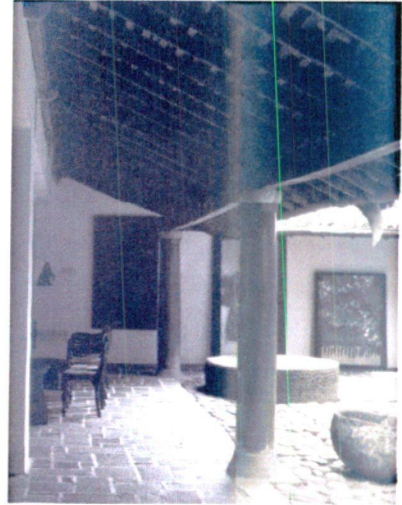
In vernacular traditional architecture, shading acts as one of the key principle, which had applied in vernacular dwelling in attractively.



Polonthalawa, Ena De Silva, Senevirathna, and Dissanayake all these houses have clearly achieved the principle with spiritually as well as visually.



Polonthalawa house



Ena De Silva house



Senevirathna house



Dissanayake house

Figure 97: Clearly achieved the principle both visual, and spiritual manner.

Thus,

All selected houses have much affinity to vernacular essence in this manner, which help to protect the tradition from degradation while ensuring the user's aspiration of the local flavor.

An authenticity of principle is clear even with the present day usage while using in abstract manner and same manner, with the context.

4.1.2. Tangible components

2a. Roof

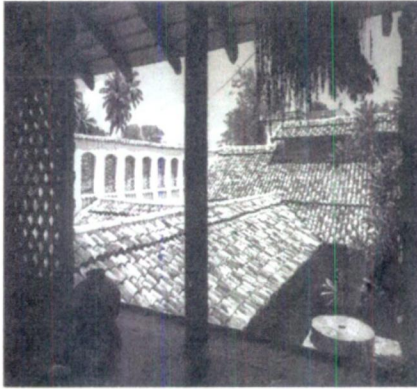
Roof is one of the key element of the vernacular tradition that has a specific identity with large overhanging, with out gutters and steep slope. Polonthalawe, Ena De Silva, and Senevirathna houses have clearly shown the affinity to vernacular vocabulary, but in Dissanayake house does not have affinity to vernacular vocabulary.



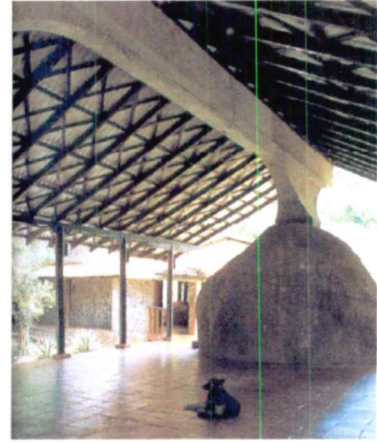
Figure 98: Misinterpretation of the Vernacular detail of the roof.



Figure 99: Much affinity to the vernacular tradition.



**Figure 100: Synthesized the tradition and
Modernity in attractive manner**



**Figure101:
Synthesis the both vocabulary in
Skillful manner.**

Thus,

Polonthalawa , Ena De Silva and Senevirathne houses have synthesized the tradition and modernity, with respect of client aspiration of local flavor and preserve the tradition while the manner of vernacular adaptation in Dissanayake house has caused to degradation of the tradition.

Hence, it has evaded from the misleading of the tradition by questioning the authenticity, and it does not suit the context it should not incorporate with the design.

2. B Column

Column is one of the key element of the vernacular tradition has used in simple and modest manner in vernacular dwellings.

Ena De Silva, Polonthalawa, and Senevirathna houses have been used this key element with its essence and the strong affinity to tradition while Dissanayaka house has been used this component inappropriately to some extent.



Ena De Silva house



Senevirathne house

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 Figure 102: much affinity to vernacular essence.
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Figure 103: Neglect the vernacular essence by adding unsuitable column in Dissanayake house



Figure 104 : Also used the traditional column

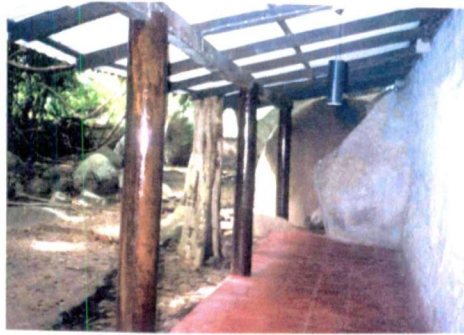


Figure 105: much affinity to vernacular essence.

Thus,

Polonthalawa, Ena De Silva, and senvirathna houses have been reflect the progressive approach to continuation the tradion while using the same, and the abstract manner. However, in Dissanayake house has misinterpreted the vernacular essence, cause to degradation the tradition while irrespective of the user aspirations and their local flavor, resulted in creating the unfamiliar living environment to the user.



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An authenticity of principle is clear even with the present day usage, while it does not suit the context it should not incorporated with the design.

3. C. Doors and Windows

In vernacular vocabulary, doors and windows are key elements that have used in vernacular dwellings in simple and attractive manner.

Polonthalawa, Ena De Silva, Senevirathna houses have been incorporated the vernacular element to the design in visual and spiritual manner while in Dissanayake house has been misinterpreted the tradition.





Figure 106: Reflect the intimacy to the vernacular essence with simple, modest doors and windows



Figure 107: Reflect the unfamiliarity to the vernacular essence.

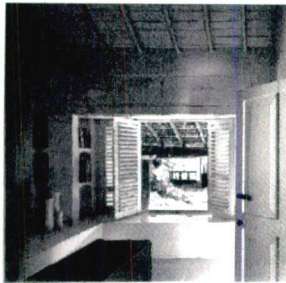


Figure 108: Much affinity to vernacular essence.



Figure 109: Much affinity to vernacular essence.



Thus,

The three houses of Polonthalawa, Ena De Silva and Senevirathna houses have embraced the the user's aspiration vernacular essence in same and abstract manner with the modernity while fulfilling and their local flavor with modern life style cause to preserve the vernacular tradition. But Dissanayake house has created the illusive perception and caused to degradation and negligence of the vernacular tradition while creating the unfamiliar living environment to the user with irrespective of the user aspiration and their local flavor.

An authenticity of principle is clear even with the present day usage, while it does not suit the context it should not incorporated with the design.

The examination has identified the progressive approach as well as degradation and negligence of the vernacular tradition and has missed the true nature of the elements, which have applied in the selected modern domestic buildings.

It has created the conflicts and constraints, such as, illusive perception of the tradition, create unfamiliar living environment to the user, time and functional differences, create the illegibility of spatial hierarchy of the Sri Lankan dwelling, lost of the identity of nationalism, constraints to preserve the true quality of traditional vernacular.

Thus,

Paul Riconen had described as,

“How to become modern and yet be rooted in ones own culture”

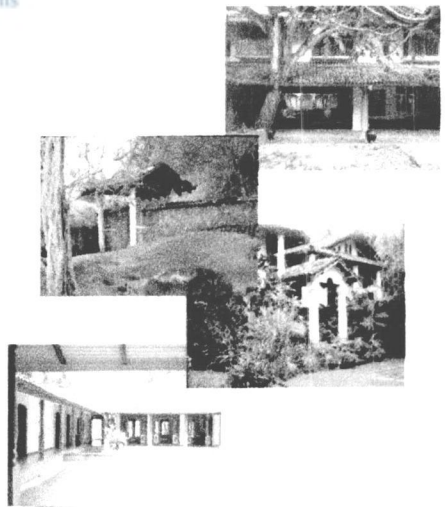
Powell ,R. 1998. p.19.

4.2 Analysis of the basic principles in accordance their architectural interpretations.

Vernacular elements	Polonthalawa house	Ena De Silva house	Senevirathna house	Dissanayake house	General remarks
1. Fundamental principle					
a. Identification of centre and openness	used in rather appropriate manner comparing with the vernacular tradition.	used in same manner as vernacular tradition	used in abstract manner comparing with the vernacular tradition	used in same manner as vernacular tradition	can be identified the tendency to interpret the tradition with affinity resulted to preserve the vernacular tradition , no doubt about the authenticity.
b. Vistas and harmony between built form and setting	used in abstract manner comparing with the vernacular tradition.	used in same manner as vernacular tradition	used in abstract manner comparing with the vernacular tradition	used in rather appropriate manner comparing with the vernacular tradition.	Tendency towards to interpret the vernacular essence , with modernity, no doubt about the authenticity, cause to continuation the tradition.
c. Articulation of transition space	used inappropriately manner comparing with the vernacular tradition.	used in same manner as vernacular tradition	used in abstract manner comparing with the vernacular tradition.	used in rather appropriate manner comparing with the vernacular tradition.	Tendency towards to misinterpret the vernacular essence cause to degradation, authenticity put into doubt.
d. Sense of human scale	used inappropriately manner comparing with the vernacular tradition.	used in same manner as vernacular tradition	used in appropriate manner comparing with the vernacular tradition.	used in same manner as vernacular tradition	Tendency towards to interpret the vernacular essence with embracing the modernity , cause to continuation of the tradition no doubt about the authenticity.
e. Level of permanence and sophistication	used in abstract manner comparing with the vernacular tradition.	used in abstract manner comparing with the vernacular tradition.	used in same manner as vernacular tradition	used inappropriately manner comparing with the vernacular tradition.	Tendency towards to interpret the vernacular vocabulary with embracing the modernity, resulted to preserve the vernacular tradition, hence no doubt about the authenticity.
f. Shading	used in same manner as vernacular tradition	used in same manner as vernacular tradition	used in same manner as vernacular tradition	used in rather appropriate manner comparing with the vernacular tradition.	Tendency towards to interpret the vernacular tradition with much affinity into modernity, resulted to preserve the vernacular tradition hence no doubt about the authenticity.
2. Architectural components					
a. Roof	used in same manner as vernacular tradition	used in same manner as vernacular tradition	used in same manner as vernacular tradition	used in rather appropriate manner comparing with the vernacular tradition.	Tendency towards to interpret the vernacular essence hence cause to preserve the tradition and no doubt about the authenticity.
b. column	used in abstract manner comparing with the vernacular tradition.	used in abstract manner comparing with the vernacular tradition.	used in same manner as vernacular tradition	used in rather appropriate manner comparing with the vernacular tradition.	Tendency towards to interpret the vernacular vocabulary hence cause to preserve the tradition and no doubt about the authenticity
c. Doors and Windows	used in same manner as vernacular tradition	used in abstract manner comparing with the vernacular tradition.	used in abstract manner comparing with the vernacular tradition.	used in rather appropriate manner comparing with the vernacular tradition.	Tendency towards to interpret the vernacular tradition with strong affinity into modernity cause to continuation the tradition hence no doubt about the authenticity.
Response to the vernacular tradition	reflect the degradation of the vernacular tradition rather than the continuation of the tradition	consolidate the continuation of the tradition	consolidate the continuation of the tradition	reflect the degradation of the tradition	



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CONCLUSION

CONCLUSION

People prefer to vernacular tradition because of their inheritant resource, from their ancestors, who carried continuously to the present, and it is never stagnant truly progressive and innovative. Hence people in modern society tried to adopt the vernacular elements into their built environment.

In order to re-employ the vernacular tradition with strong intimacy of vernacular spirit to the contemporary house with modernity in such context, there are no doubt about the authenticity, conflicts, constraints and degradation of the tradition.

However, in the degradation of the adopting vernacular tradition, has created some **conflicts** in living environment, **though unfamiliar to the user with their aspirations and flavor of the locality** while embedding the modernity, and **illusive perception of the tradition**. Also created unfamiliar living environment, **created the illegibility of spatial hierarchy of Sri Lankan dwelling, away from the Sri Lankanness, loss of the identity, and constraints to preserve the quality of traditional vernacular.**

Also created some **constraints** such as, **Time difference** - with the time has created social changes and discriminations in society, hence the openness quality cannot applied in present society as it is according to privacy and security. Moreover, **Functional differences** according to changing life style, some spatial segregation, some spaces cannot apply in same manner as example front and rear verandah cannot be use in same manner. In addition, Technology is too complex to build with traditional technology, **Perception of society**- people measure the social status from their dwellings and properties.

Thus, this study has identified remedial measures to evade from the degradation of the tradition.

- Adopt vernacular spirit in correct and subtle manner which suite to the locality and suit to their context, if cannot be use in same manner.
- As a designer, although pay much attention and concern about user aspiration and their flavor, should give awareness about their context, and also about the tradition.
- Evade from adding traditional elements to decorative purpose, to create the Sri Lankness quality
- Try to preserve the laconic, simple, modesty and openness quality of the vernacular tradition while adopting into contemporaniety with concentration of users local flavor






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