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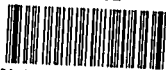
**VERNACULAR TRADITION;  
AN EXAMINATION OF ITS PRINCIPLES AND QUALITATIVE  
ATTRIBUTES IN CONTEMPORARY ARCHITECTURE OF  
SRI LANKA.**



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A Dissertation submitted to the University of Moratuwa as a Partial  
Fulfillment of the Requirements for the Degree of Master of Science in  
Architecture.

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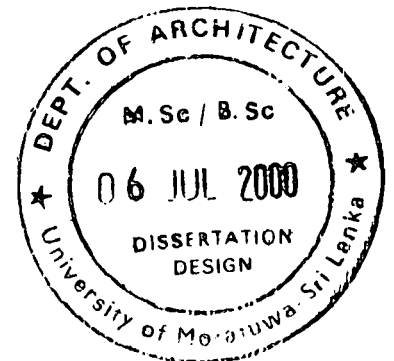


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July 2000



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## ABSTRACT

As will be shown in the course of the present study, architecture can never be justified as an art unless it is generated in response to the intrinsic values and qualitative needs of people, i.e., and their cultural realm.

To put in other words, architecture (not buildings) never exist where it is regarded as something to be imposed upon people because it has no right to go against values and culture of people. Such attempts would stand alien to people and only result an inner conflict and suppression of them.

With reference to the contemporary sense of architecture in our country – Sri Lanka, it is questionable whether there exists an architecture that appropriately responds to our culture or qualitative needs of our people.

What is our choice? Should we return in a backward process to the past? Or should we go on with the present disorder of the transplanted alien forms? Of course, uncritical appeal to either of these trends or attempts to counterpoise the traditional and the modern as two entirely hostile categories won't make any fruitful contributions to solve the contemporary problem.

The obvious answer lies in the historic task of bringing about a national architectural transformation that appeals to the present context, with increasing global inter-links.

**“ ...Let the genius of architects be in assimilating the relevant soul of the individual or of the collective client and full procession of this inner life breath out of the new creation... A type as**

**described of intrinsic and sincere understanding of the personality of the client and the architecture that blossoms out of each depth, is the purest form of ' National architecture'.**

(Silva, Roland – 1978 :p 253)

In such an attempt, what is the contribution as such of vernacular architectural tradition of our country.

**“ The history and culture (arts) of Sri Lanka was mostly seen in terms of some purely external aspects (usually the brilliant civilizations of India taken to be the source) or where we find greater interest in internal development, this is still heavily dependent on theories of seminal influence, from the ancient centers of civilization”.**

(Bandaranayake, Senake – 1974 :p 9)

Hence the obvious fault of those who attempt to undermine the vernacular architecture is the failure to see the development of a country's architecture and arts primarily as an outcome of internal process of the people and their culture, which cannot be reduced to a classification of seminal form or concepts.

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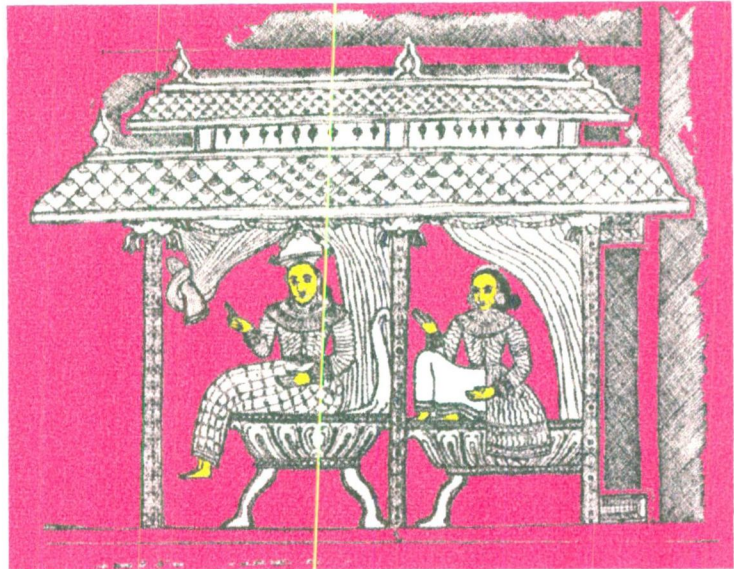
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# CHAPTER ONE

## INTRODUCTION





### A Royal Pavilion

This wall - Painting from Dambadeniya Temple is an early seventeenth century artist's representation of a royal audience pavilion. It is accurate enough in detail for us to accept it as fundamental principles and qualitative attributes of Sri lankan vernacular tradition of the wooden, clay - tiled halls of the Sinhalese middle ages.

This importance of the building is emphasized by giving it a second storey, like that of the shrine room at Embakke with the eaves hung with terracotta pendants resembling those of Dorabavila.

Source:  
The Architecture of an  
Island, p:110



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## 1.1 INTRODUCTION TO THE STUDY

Architecture is the art of designing good buildings, buildings that are attractive, well planned and well built, and that are both appropriate and meaningful to society. For centuries it has been known as the 'Mistress of the Arts.

If one takes a long-term view, it can be seen that no form of architecture takes root unless it relates to the needs and expectations of society- it therefore speaks both to and for society by bringing messages from the past and making statements about the present. It is, at base, building, but rather special building, and perhaps paradoxically the practise of architecture has as its central skill the handling of space.

**“People built for their for their needs, and the patterns or codes that evolve directly reflect their priorities, resources and capabilities. Not all aspects of these needs are universal- much building is space- time – and culture – specific – and, of course, buildings, if they are to be used, have to be accessed. This would suggest that architecture has three fundamental responses to make : response to people , response to place and response to routes.”**

(Farmer Ben & Louw Hentie – 1998 : P21)



Plate: 1.1  
Traditional Village in Kurunagala, Sri Lanka  
Source: The Architecture of an Island, p:13



Plate: 1.2  
Traditional Village in Gharb Aswam, Egypt  
Source: Hassan Fathy, p:30



**“Much of the Earth’s surface has been shaped by human hand. Yet everywhere the results are different. Exploiting local resources, responding to local climate, vegetation and topography, and guided by local cultural traditions these interventions, though all by the same biological species tended not to uniformity but highlighted local flavour by exaggerating differences and particularities.”**

(Mimar – 1983 : p 23)

The building materials and craft techniques available in any area were, until recently, limited. This, and cultural norms, set strict limit to built form and detail. Though improvements were gradually introduced, there was neither desire nor need to be innovatory or original. People wanted ‘proper’ buildings, shaped and built like those of their fathers and fit not just for themselves but not for their children and their children’s children. A certain uniformity and so harmony between buildings was inevitable. But the harmony went deeper than just between buildings – it was also present between buildings and setting.



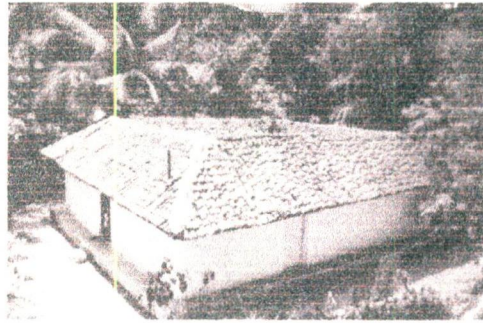
**“Each building was placed with an intimate knowledge of the site, knowing which part is cool in summer but sheltered in winter, which view is best all year round and how the building should be oriented and shaped to execute wind and catch the sun and, perhaps most important, to ‘feel right’ in its setting.”**

(Mimar – 1983 :p23)

Architecture is still one of the most traditional arts. A work of architecture is meant to be used, its form is largely determined by precedent, and it is set before the public where they must look at it every day.

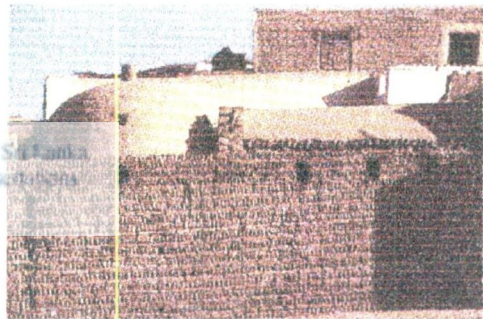
Architecture must be detailed for a place and a people, because each region has its own specific supply of materials, its climate, and a unique cultural heritage and psychology.

Plate:1.3  
Traditional house,  
Kandy, Sri Lanka  
Source: The  
Architecture of an  
Island, p:24



The basic cultural elements developed in response to indigenous needs, environmental and psychological, and that alien elements can not be implanted or transplanted from other cultures or other environments, if they are culturally in-appropriate.

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Plate:1.4  
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Traditional Nubian  
house, Egypt  
Source: Hassa Fathy,  
p:30



Culturally in-appropriate elements that are so inserted into the fabrics of the harmonious built environment will undoubtedly generate contradictions, and will with the time corrode and degrade the traditional culture.

**“Tradition among the peasants is the only safeguard of their culture. They cannot discriminate between unfamiliar styles, and if they run off the rails of tradition they will inevitably meet disaster. Will fully to break a tradition in a basically traditional society like a peasant one is a kind of cultural murder, and the architect must respect the tradition he is invading. What he does in a city is another matter; there the public and surroundings can take care of themselves”**

(Fathy, Hassan –1973 : p23)

To put in other words, architecture never exists where it is regarded as something to be imposed upon people. Because it has no right to go against values and culture of people. Such attempts would stand alien to people and only result in inner conflict and suppression of them.

With reference to the contemporary scene of architecture in Sri Lanka , it is questionable weather there exist an architecture that appropriately responds to our culture or qualitative needs of our people .

**“Much of the Earth’s surface has been shaped by human hand. Yet every where the result are different. Exploiting local resources responding to the local climate, vegetation and topography, and guided by local cultural traditions these interventions, through all by the same biological species tended not to uniformity but highlighted local flavour by exaggerating differences and particularities.”**



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( Fathy Hassan –1973 : p19)

Plate:1.5  
Trimendes Architectural  
heritage of Sri Lanka

Ruins of Anuradapura  
15<sup>th</sup> Century A.D,  
Cultural continuity in  
early Sinhalese  
architecture wood  
translated into stone.



We the people of Sri Lanka claim to have the tremendous heritage of architectural tradition, which has extended over twenty – five centuries.What is our choice? Should we return in backward process to the past? Or should we go on with the present disorder of transplanted alien forms?



“unfortunately the eye doesn’t suffer like the ear. When you here dissonance you jump. But when you see an ugly proportion, or whatever it is, the eye doesn’t have tears, or get red, or suffer pain.”

(Richards,J.M. – 1985 :p28)



Plate:1.6  
House with superficially add motifs-  
colombo

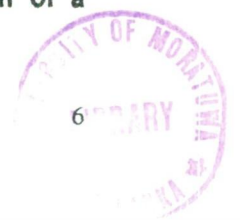
Plate:1.7  
Duplicate kandyan hat on  
PWD house

Plate:1.8  
University of Moratuwa, Sri Lanka.  
Different alien forms American style dissertations  
house, Colombo [www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)



The obvious answer lies in the historic task or bringing about the national architectural transformation that appeals the present generation of Sri Lankans, their culture as well as to the present realities to of a fast changing world with increasing global inter-links.

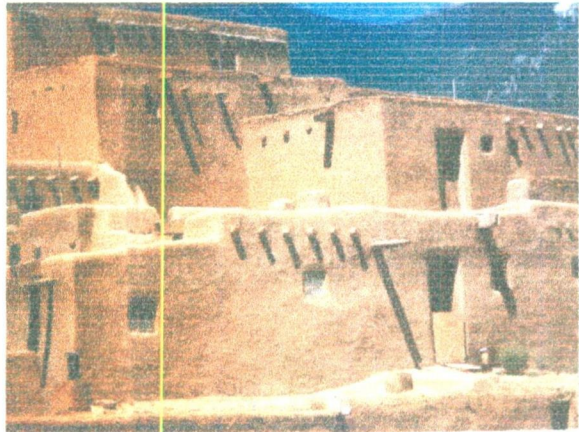
“Every people that have produced architecture have evolved its own favorite forms, as peculiar to that people as its language, its dress, or its folklore. Until the collapse of cultural frontiers in the last century, there were all over the world distinctive local shapes and details in architecture, and buildings of any locality were the beautiful children of a



happy marriage between the imagination of the people and demands of their countryside”

(Fathy Hassan – 1973 : p19)

Plate:1.9  
Distinctive local  
shapes and  
details - African  
Vernacular  
Architecture



This form making process limits deep roots to the primitive man and from him on-wards from generation to generation the system or the process has been evolved continuously, according to the new concepts of the man in architecture at various stages of the history of the mankind. This forming specific tradition in keeping with requirement of climate geological conditions and culture of the respective regions.

In fulfilling the functional needs and the complexion of the society the system of combination came into effect for which architects tended to use the fundamental elements of the folk architecture which suited for the condition of climatic materials and culture of the area which resulted in an evident vernacular architecture.

**“The term vernacular is derived from the Latin *vernaculus* meaning domestic, indigenous, a home born –slave, a native. It was in use in England by 1601 to describe the nature or indigenous language of a country or district. Not until 1857 was it used referring to buildings, viz. the vernacular cottage building of the day (shorter oxford English Dictionary 1964).”**

(Farmer, Ben – 1993 : p198)

Vernacular can be termed as native or indigenous forms of architecture such as Art, Architecture, Music or language of person.

The vernacular in all arts has always been a source of inspirations for everyone, and it helps to us tie our roots.

Unique characteristics of vernacular architecture plays an important role in built environment of any human settlement.

Vernacular architecture was built 'out of the ground'. It was made of materials found on or near its site.

**"There are now very few areas in the world where current conditions still command a genuine vernacular. One is the Mediterranean Island of Malta, where every building commodity except the local limestone has to be imported."**

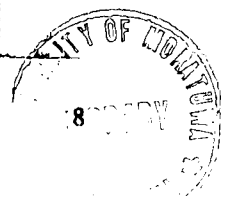
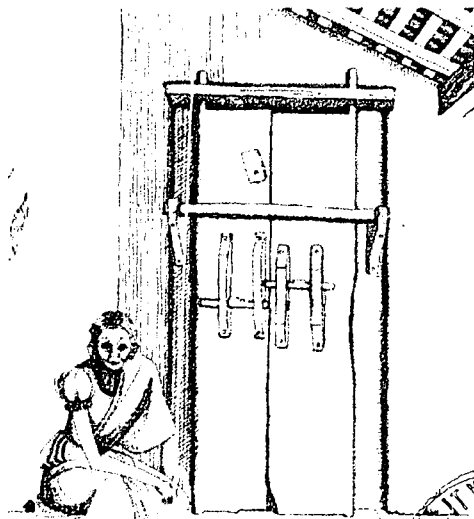


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(Fammer, Ben – 1993 :p198)

Some aspects of the modern world are not amenable to benefit from traditional learning. But others, of which architecture is one – along with medicine and pharmacy – might yet have something to gain from it. Studying this heritage today may bring its own rewards. In Sri Lanka, the vernacular is still a living tradition.

Plate:1.10  
Vernacular Architecture, still living tradition in Sri Lanka  
Source: The Architecture of an island, p:30



In the late nineteenth century the vernacular was adopted by the Arts and Crafts Movement, which romanticized the rural idyll and the simple life. This movement, however, was celebrating the social history of architecture - the human demand, which inspired the building types rather than available materials, which influenced their form and structure. And the post second world war revival of interest in vernacular architecture, which spawned the vernacular architecture Groups, referred to the Arts and Crafts Movement of the preceding century and, like it, was again concerned with the human need for particular buildings rather than the structural variations imposed upon them due to geographical location.

**"The meaning of vernacular referring to buildings must therefore be assumed to describe buildings which are indigenous (for which vernacular is synonym) to a particular geographical area.**

**The modern use of the word vernacular for buildings still implies a structure made of locally found or crafted materials. In 1962 Alec Clifton-Taylor drew a scholarly and interesting relationship between the geology of various areas of England and buildings produced as a result of the geological strata on which they were built. He showed how, area by area, there were distinct physical and aesthetic qualities generated by the geology."**

(Farmer, Ben – 1993 :p199)

Architecture evolved through long period of time which has gone through changes during the past. Man is related to built environment, he lives and normally tries to change and modify it to suite his whims and fancies. As the time passes, art, music and architecture continuous to evolve with changes, it grows and develops with time. The success of vernacular buildings, over a time may lie on the constraints which were guided by a architectural tradition of the particular locality.



### 1.1.1 TOPIC EXPLANATION

The study of traditional architecture in its infancy; much more needs to be collected so that methods of classifying our knowledge can be developed, and we can reach a more perfect understanding of its implications and the lessons we might learn from it.



Plate:1.11  
Typical Kandyan  
building, Image  
house Dorabavila



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But certain characteristics attending traditional architecture have become clear. Society and architecture were once hedged around with rules which had to be followed; many of them were not recorded or described in literature, but this does not mean that they did not exist, rather that they were so fundamental as to be implicit, unwritten and correspondingly inviolable. It is a mistake to think that rationality was not an important part of traditional architecture, but its ordering was cosmological – the rationality of traditional societies and their vernacular architecture was not of our kind.

The loss of the practical lessons of a vernacular began a long time ago. Speaking in 1908 Ananda Coomaraswamy describes his visit to Jaffna:

**“I am staying in a house, a new house with Mangalore tiles. Well, gentlemen, I am often tempted to use an umbrella in the house, so great it is the heat that penetrates these tiles. But have been into some of our**



old Tamil houses dating from 100 years ago. Inevitably, on leaving the high road and entering the door, a feeling of coolness is experienced. Besides that, the houses were well and handsomely built with solid timber, simply carved and they are fit to stand a hundred years again. But the new house is already showing signs of wear and tear. The difference in coolness is, of course, easily explained, with only one layer of tiles, the sun's heat is transmitted to the air of the room beneath. With (a thickness of) 4 or 5 of the old tiles or with a palmary thatch there are layers of air – a nonconductor – which prevents the transmission of the heat to the room beneath. Gentlemen, here is a case in which we have not done well in following the dictates of a more fashion and in exchanging old for new”.

(Coomaraswamy,A.K – 1956 : p120 )

To exploit and enjoy climate, traditional buildings are usually the best guides. Using such devices would create buildings that have not only formal similarities and echoes with those of tradition, but also the spiritual and sensual satisfactions of living gracefully with nature.

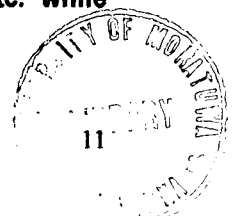
The vernacular in all arts has always been a source of inspiration for every one, and it helps to tie us to our roots.

The success of vernacular buildings over a time may lie on the constraints, which were guided by the architectural tradition of particular locality.

In this process each generation, inherits an existing built forms, shaped by the proceeding generations, and continues to alter and develop before handing over to successive generations. Resulted architecture response to past as well as present.

In the form making process of architecture the decisions may be reached either by consulting vernacular tradition or by logical reasoning and scientific analysis.

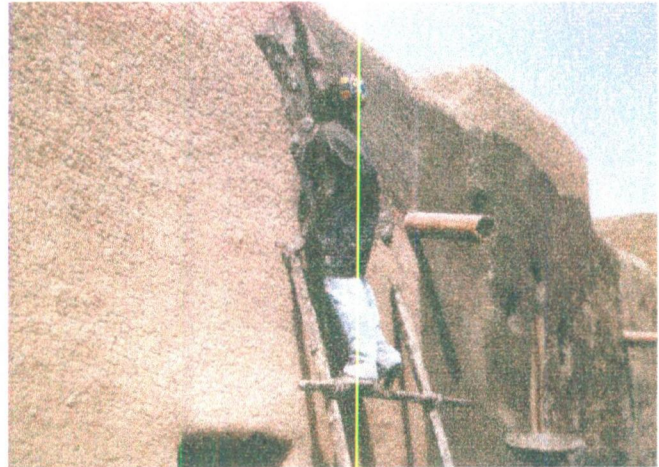
“ For the tradition embodies, the conclusions of many generations practical experience by the builders knowledge of right way to do thing according to the customs of his place, climate, locality and material technology etc. while



scientific analysis is simply the organised observations to the phenomena of the problem.”

(Fathy,Hussan – 1973 :p13)

Plate:1.12  
African  
vernacular  
house - right  
way to do thing  
according to the  
customs of his  
place, climate,  
locality and  
material  
technology etc.



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With the increasing number of functional needs and the complexities of the society, process of synthesis came into being and architects used the fundamental elements of vernacular architecture, altering and modifying with his creative sensitivity to suit new material technology and changing social patterns in the contemporary architecture, has led to the development of the term “ vernacular tradition “ in contemporary architecture.

### 1.1.2 NEED FOR THE STUDY

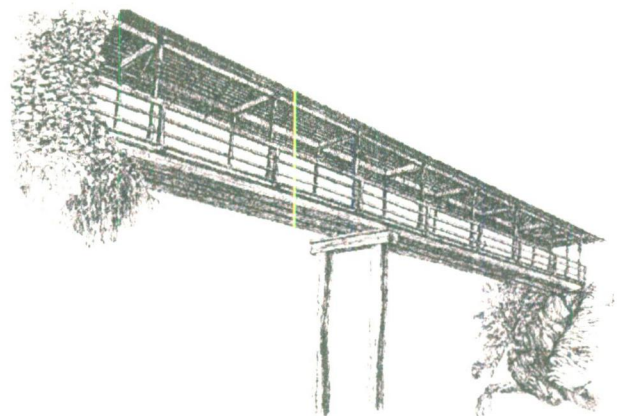


Plate:1.13

Bojoda Brige, badulla, 12<sup>th</sup> Century

**“When you look at better examples of what remains of earlier buildings you find that they all have met the essentials of life in Sri Lanka”**

(Taylor, Brian Brace - 1995 : p16)

It is hardly convincing that the contemporary architectural scene of our country has much been a success except for handful of instances – where its relevance to our people, history, and climate at large is concerned. The heavy disorder, haphazardity of varies built forms do not provide us with any basis for the creative development of the architecture of the country. This chaotic situation could be mainly attribute to the uncritical and baseless imitation of western sources which are rather alien to our people and their needs.

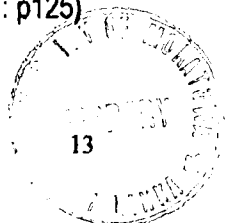
This alienation, as will be seen in the course of the present study, is consequent on the failure of the buildings to respond satisfactorily to the 'qualitative needs' of our people which are deeply rooted in their socio-cultural milieu. It is because a built form can be set to respond well to the 'qualitative needs' of people, only if it can elicit meanings for them.

On the other hand contemporary Sri Lanka architecture has fluctuated between historic and modernist projection of its own identity provoked largely by the need to redefine it self after independence.

The result was a confusing architecture modern materials and technologies . Although often droned super filially applied cultural motifs and alien\_models spreading all over the country as a creeping cancer.

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

(Richerds, J.M.- 1985 : p125)



No series attempts has been made so far to evolve a style that would reflect our cultural heritage and what is at our disposal in the way of new techniques in building. A new architectural manner which gives a better vision of our old architecture in our modern buildings and not what is now misnamed 'national' by virtue of petty imitation of such old stylistic details, is needed therefore a need arises to search for architecture true to people, place and its history. We need a new architecture can be representative of the life style of person, in function purpose and sprit.



Plate:1.14  
Modern  
house  
which is  
true  
lifestyle  
of person  
place and  
sprit

Architecture, which is indigenous and rooted in the location and its culture, will express the sense of belonging, that will restore life and sole, which is vital for our development as human beings.

How different things are now. In many parts of the world the choice of materials are techniques is huge and local materials and crafts either no longer exist or are too expensive for common use. With the resulting riot of form and finish there can be little harmony – or sense of belonging to place or region.

**“ Now many people do not want to build as their fathers did, but as they do on TV or in the magazines. Worse, are properly not building for themselves, and almost certainly not for their children. Most new buildings are speculative enterprises for profit or state facilities for anonymous**



citizens. Even if purpose - built for family or business, a building is probably short-term accommodation until the client outgrows it or moves on. Buildings have been reduced to real estate and their real purpose to being figures on a ledger - perhaps of a multi-National Corporation or big bureaucracy that will never see the building, nor care to. Compounding this demanding process of reduction is further abstraction of being designed by distinct architects.”

(Mimar - 1983: p23)

Buildings are positioned not on site but on paper and constructed in lettable standard units from standardized components. So they not only do not quite fit into their surroundings, they do not even quite fit into their sites, leaving useless residual areas.

This is a result of the negligence of fundamental principles of the architectural tradition of the country. The fundamental elements based on cultural, religious, and climatic requirement of the particular locality, and continuous usage throughout time made the fundamental principle of the country.

To overcome with these problem contemporary architects recognition and usage fundamental principles of vernacular architecture by altering and modifying with new material technology according to his sensitivity – producing “vernacular tradition”

**“ Old architecture especially the vernacular has much to teach us as it always develops a typology of fundamental common sense.**

(Correa, Charles – 1987 )

Plate:1.15

Vernacular idiom  
in Modern Context  
- Kandyan Art  
Association  
building by  
Minnette de Silva  
1984



### 1.1.3 AIM OF THE STUDY

The aim of this study is to identify fundamental principles and its qualitative attributes of traditional vernacular architecture of Sri Lanka on the interpretation of "vernacular tradition". This dissertation also an attempt to examine the architecture constructed since mid fifties to the present, of which has vernacular idiom. The study is focus to examine main architectural principals and attributes on the interpretation of vernacular tradition and search how far the result were appropriate to present context.

### 1.1.4 METHOD OF THE STUDY



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In this study, to familiarise reader to the basis of the study, the important of local identity and the role of tradition in architecture discussed. Then it discussed that architecture is created in response to the culture of the people and also stressed that the qualitative attributes are stand for the cultural need of the people .

The long-lasting architectural tradition of Sri Lankan is then studied to search for fundamental principles of the country.

In order to pursue with this study it was then necessary to identify the importance of the continuation of fundamental principles, and their usage though out period, which led the entire process to an evolution.

Thus, a study on how the traditional architecture has responded to Sinhalese people is still of value and relevance even for today's needs.

It is in this sense that an analytical study on the qualitative attributes of Sri Lankan architecture is relevant. It is because taking about how the built forms respond to needs of the people.

What is vital to see how these built forms have responded to the qualitative needs of the people; then the essentiality present and outstanding qualitative attributes explicit in the physical form are sensed and identified. The patterns of synthesis of perceptual variables conducive to each attribute (environmental quality) is separately identified in terms of the out standing features of physical form which contribute most to that effect. Then the respective meanings they convey to people identified according to how the culture needs and values of people are satisfied.

Finally selected contemporary architecture of different building types taken up as case studies.



### **1.1.5 SELECTED PERIOD OF THE STUDY.**

The earliest kingdom of Sri Lanka produced religious edifices such as Stupas and Viharas as well as royal Palaces were all built on a ground scale.

There is no trace of domestic buildings of that period. They would doubtless have been built of perishable materials such as wattle and daub and thatch.

The Kandyan period which followed could be called as the stage of timber architecture. Similar buildings of exquisite detail and more human scale were produced.

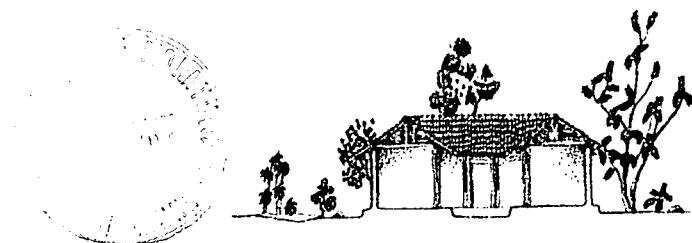


Plate:1.17  
Section - Unduruwa Walawwa

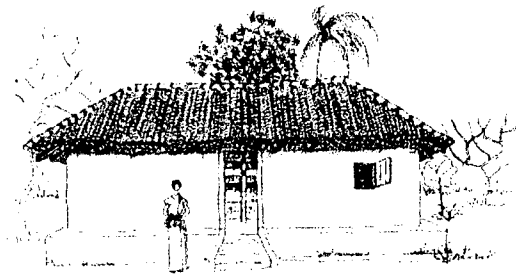
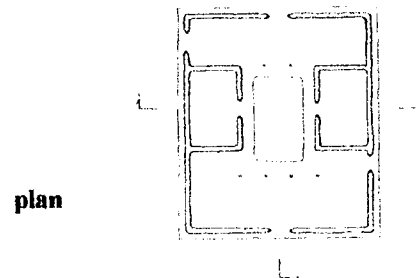


Plate:1.18

Unduruwa Walawwa. Dabulla



Domestic architecture of this period is still standing. Among them the typical up country walawwas with their domestic quarters arranged always around a central courtyard and peasant houses. They were the houses of landowners and courtiers. All these were grown in response to the actual needs of the people, climate, or lifestyle.

The architecture of Dutch created an enduring impression. The Dutch adapted their own architecture to suit the climate and terrain to of Sri Lanka and created domestic spaces akin to the indigenous situation so much so that this type of architecture later become to be considered typical Sri Lankan architecture.

The architecture of the British was retrogression from the advances made during Dutch times. They retreated from the upon nature of Dutch houses to more insulated bungalow. Their massive commercial buildings were mere duplications of those existed in their homeland and were misfits in the local environment.





In the mid of twentieth century a newly independent Sri Lanka was feeling its pangs of 'nationalism', people were awakening to the need of a cultural and political identify. At this point of time occurred the most significant event in Sri Lankan architecture, the rediscovery of its national architecture, - the architecture with local identity.

### 1.1.6 SCOPE OF THE STUDY

The continuity of vernacular architectural tradition in Sri Lanka has lost its momentum, in recent built forms and most of new forms have been transplanted in the country.

Therefore it is necessary to find the continuity of architectural tradition in the contemporary architecture of Sri Lanka and thereby develop meaningful new forms, which satisfy most of the characteristics of the locality. This study concentrated on architecture developed with local identity.

Contemporary architecture in this study means architecture built since the middle of twentieth century up to today.

## 1.2 AN AUTHENTIC REGIONALISM.

**"It involves, basically, resolving the debate between impersonal, international standardized architecture. But then are the two tendencies really antithetical? It is possible to arrive at the vision of a sane architecture which will be neither old nor new but simply true..."**

(Marcello Piacentini – 1922)

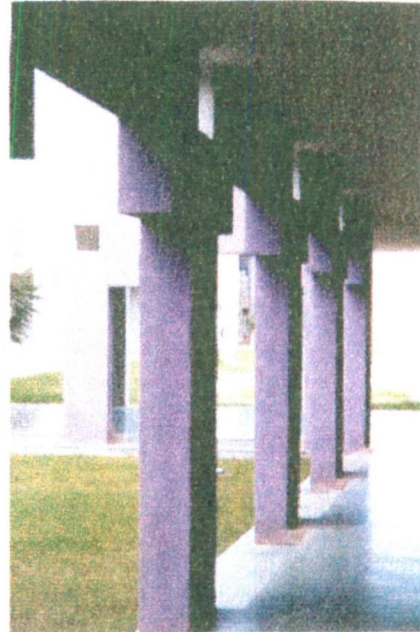


Plate :1 .19

Unique responses to particular place cultures and climate -Colonnaded verandah, India by Charles correa India.

Regionalism is committed to finding unique responses to particular places, cultures and climates. But there is certainly a mood gathering momentum which rejects the glib reproduction of international formulae and which seeks out continuities with local traditions. No doubt this reflect a spirit of increasing self-confidence in the third world after colonial occupation, but is also part of a wider reaction against simplistic models of modernisation.

At its worst it may degenerate into creates images of the vernacular are combined with pastiches of national cultural stereo types.

**“At its best regionalism penetrates to the generating principles and symbolic substructures of the past then transforms these into forms that are right for the changing social order of the present.”**

(Mimar – 1986 : p24)

It is a matter of sensing beneath the surface the memories, myths and aspirations that give a society coherence and energy, and then providing these with an authentic expression in architectural argument. Regionalism looks for sustain spiritual forces and refuses to accept that a tradition is a

fixed set of devices and images. It sees the past as a series of superimposed layers of inventions from the earliest nomadic forms, through villages and towns, to later imperial and even colonial frameworks. It identifies many of the most relevant patterns for dealing with climate, local materials and geography in period before the arrival of Islam.

**“To exploit and enjoy climate, traditional buildings are usually the best guides. Using such devices would create buildings that have not only formal similarities and echoes with those of tradition, but also the spiritual and sensual satisfactions of living gracefully with nature.”**

(Mimar – 1986 : p24)

Regionalist architecture will not only be a hybrid, selecting from the past while shaping the future.

Obviously regionalism is more than fashion or nostalgia. From the perspective outlined above it could be argued that it is essential, not just to our enjoyment and spiritual satisfaction, but to our very survival.

**“The problem is how to be convincingly Regionalist in the face of global civilization which has had irrevocable – and largely beneficial – impact on the local life-styles architecture both shelters and expresses. There are no simple, and certainly no universal, answers. It seems the retention and regeneration of regional identity may best be achieved by a combination of strategies. Obviously regionalism is more than fashion or nostalgia. From the perspective outlined above it could be argued that it is essential, not just to our enjoyment and spiritual satisfaction, but to our very survival. The problem is how to be convincingly Regionalist in the face of global civilization which has had irrevocable – and largely beneficial – impact on the local life-styles architecture both shelters and expresses. There are no simple, and certainly no universal, answers. It seems the retention and regeneration of regional identity may best be achieved by a combination of strategies.”**


(Mimar – 1986 : p24)

Most vernaculars are hybrids of indigenous and imported types, and these types also change the adept.

Every architect will have his favourite village, mosque, city or view from a window. Beyond the particular, the regionalist tries to see the type, the general rule, and the originating principal.

**"The rural vernacular offers numerous lessons in the best ways for leading with the extremes of climate but these can be translated into quite different building functions and modern technologies .The best buildings have been based upon fundamentals abstracted from the past; some even provides valuable sign - posts towards an authentic regionalism."**

(Mimar - 1986 : p24)

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**"The danger of using local crafts and material is that if they are merely applied rather than intrinsic to construction and form, then the results can be kitsch. The pitfalls of kitsch become even more difficult to avoid if it is not genuine materials and techniques that are used, but faked up semi-replicas of traditional elements used as signs that are somehow supposed to invest a rottenness into local or history."**

(Mimar - 1986 : p24)

For this reason neither Neo-Vernacular nor Post-Modern make convincing Regionalism; they smack of a cynical explosiveness rather than real concern with local culture. Both undoubtedly are consumerist strategies playing to the market: both justify this as populism.



### 1.3 ARCHITECTURE AS A REFLECTION OF A CULTURE.

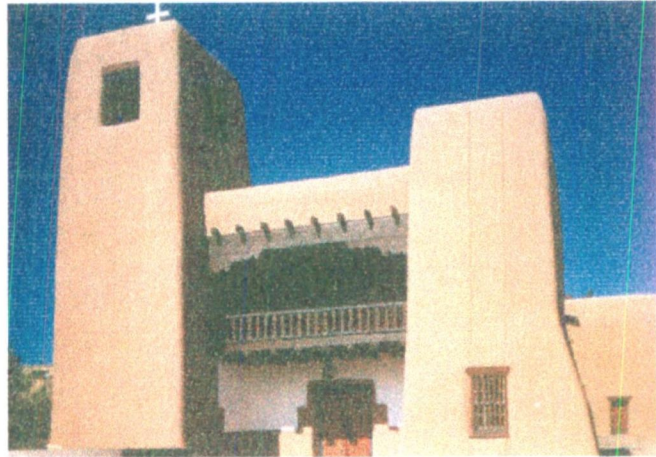


Plate : 1.20

Product of art  
cannot have  
symbolic  
meaning unless  
it is of people

As Prof. Bonta says,



**“Meaning are in people, but not in objects or things.”**  
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(Bonta, J.P. – 1973 : p26)

Things can sensibly be encoded with meanings only if people could appropriately decode these meanings (perceives). This implies that a product of art cannot have symbolic meaning unless it is of people, i.e., derived from people or given by people.

This implies that the meanings of the symbols have to be known and shared by people and the artists.

As Prof. Rappoport says,

**“...Symbols may be multi – vocal i.e., they may have to one to many correspondence and are hence susceptible to many meanings.”**

(Rappoport, A. – 1982: p46)

This makes it clear that a symbol can have a specific meaning only within a specific culture. This is because,

**“...It is the culture which reflects the variety and distinction as well as the identity and unity among a particular people. Different cultures carry different concepts about the same phenomenon.”**

(De Silva,N. – 1988 :p10)

Therefore, as to the meanings or concepts they express, built environments are culture specific i.e., architecture is culture based and culturally variable.

Thus architecture could be treated as a reflection of a culture. As Prof. Langer helps in further explanation....

**“... The architects make the image a physically present human environment that express the characteristic rhythmic functional patterns which constitute a culture.”**



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(Langer, S.K. – 1976 : p96)

What is a culture, then?

There are numerous definitions of the term 'culture', shows the complexity of its implications. All these definitions could be categorised into three i.e., culture,

1. In terms of a way of life typical of a group.
2. As a system of meaning and cognitive schemata transmitted through symbolic codes.
3. A set of adaptive strategies for survival related to resources and ecological setting.

(Rapport, A. : p286)

However, these, three views are not at all seen as being in conflict but as complementary. In this study we will be more concerned with the first view





The term 'culture' generally covers the total equipment with ideas, values, behaviour patterns, customs, institutions, achievements and all such conventionalized activities of a people. But,

**“... The essence of a primary significance of a culture is the organizational patterns of thoughts. I.e., system of values and attitudes commonly accepted by a particular people. It is a spirit of a culture and all the manifest expressions such as language, arts, science, behavioural patterns, customs and so on are its physical embodiment”.**

(Karunaratne, M. – 1986 :p18)



Plate : 1.21

To understand architecture of a Jaipur community is necessary to understand the attributed and values of India community – palace Jaipur India.

Hence, in order to understand or to evaluate art and architecture of a particular community or a society, it is necessary to understand the essence of their culture. Viz. their pattern of attitudes and values.

## 1.4 TRADITION AND ITS ROLE IN ARCHITECTURE

Tradition in the original spirit of the word means continuity handling over a constantly renewing, its not senile and dead, and not necessary old fashioned, does not need date from long ago may have begun recently.

Plate :1.22

The greatest numbers of examples in the history of Sri Lankan traditional architecture are religious buildings – Niyangampaya, Gampola.



As soon as a workmen needs a new problem and decide to overcome it the first step has been taken in the establishment of the tradition. When another workmen has decide to adapt the same solution, the tradition is moving and by the time third man has followed the first and added his contribution the tradition is fairly established.”

(Fathy,Hassan – 1973 :p24)

In this situation has a creative role to play, by representing the work of earlier generation. Each new generation may make a positive progress towards a solution.

“Tradition in the present context means artistic or literary principals based on accumulated experience and continuous usage.”

(Siva,Roland – 1978 : p23 )

Our architecture was not formed by efforts of one man; it is an outcome of continuous efforts of more than one generation. It is a process of



evaluation through trial and error by, which is most appropriate to its context, will survive and remain accepted.

Hassan Fathy argues that buildings designed by representing the tradition suit their function better.

**“ When the full power of human imagination is backed by the weight of a living tradition the resulting work of art is far greater than an any that an artist can achieve when he has no tradition, to work in or when he willfully abandon his tradition.”**

(Fathy Hussan – 1973 : p24 )

**“Tradition among the present is the only safeguard of their culture. They cannot discriminate between unfamiliar styles and if they run off the rails of tradition they will inevitably disaster.”**

(Fathy Hussan – 1973 : P24 )



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Sri Lankan architecture has an unbroken tradition extending to about twenty – five centuries. The greatest number of examples in the history of this art are religious, almost entirely Buddhist. Domestic architecture is also fairly well represented, at least for the recent centuries and there are a few examples of public buildings.

To exploit and enjoy climate, traditional buildings are usually the best guides. Using such devices would create buildings that have not only formal similarities and echoes with those of tradition, but also the spiritual and sensual satisfactions of living gracefully with nature.





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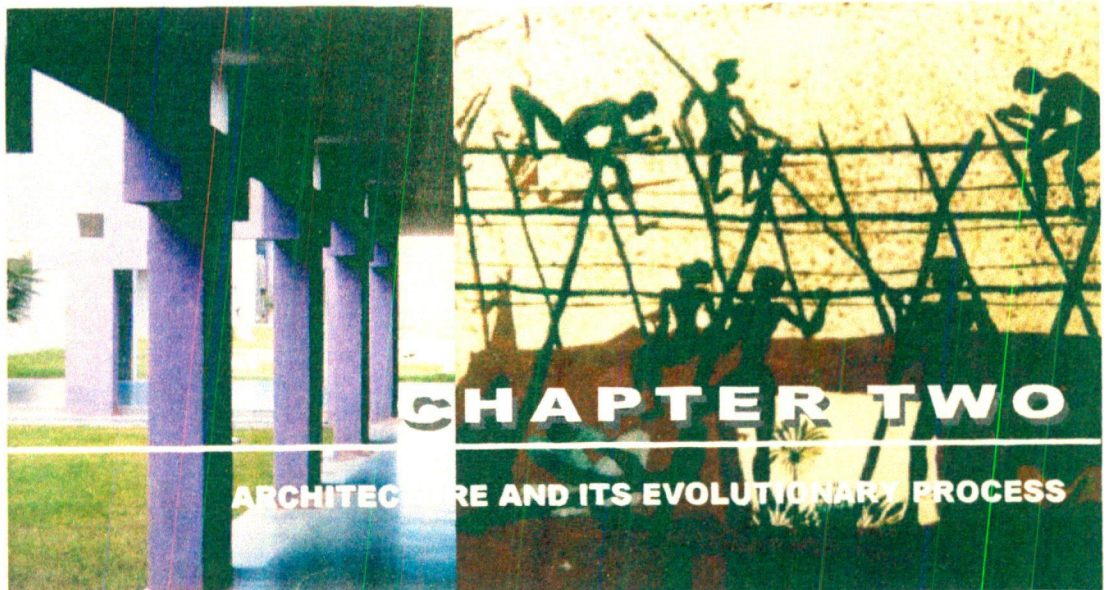




Plate : 2.1

Painting by Donald Friend  
Source - Taylor, Brian, Brace - 1995

## 2.0 INTRODUCTION



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**“Our experience of life is evolutionary.**

**Evaluation is reincarnation**

**The death of one and rebirth of another**

**In momentary continuity.”**

(Coomaraswamy ,A.k. - 1981 : p20)

The process of evaluation is related with time, and accordingly Buddhism develops temporal divisions of three worlds the past, present and future, and establishes the fact that all of them are interrelated, the past lives in the present and the present in the future.

In ultimate reality, there is neither beginning nor an end, it evolves with time and develops a process of universal transmission in which no one knows the beginning and end.



## 2.1 The Evolutionary Process of Architecture

Everything is in transition and architecture is merely following a broader trend. What we do today is not only a part of history, but also a part of the future. This is the transition from old to new, from traditional to modernity and in a simplistic way from the problems of the past, to the solutions to the future.

**“Architecture is also connected to the past .It is great living creative spirit which proceed from generation to generation and also from age to age, and creates according to man and his circumstances as they change...”**

(Wright, F.L., 1974 – p: 118)

This transition in architecture was evident in constant and inevitable changes in architectural forms. These changes in architectural forms are evident in two extremes. One being the abrupt changes and the other opposed to it the evolutionary changes.

These changes in built forms are always interconnected, it change from one phase to another. Resultant built forms is always an improvement of the previous forms, and it is a continuous process. This cumulative process repeated over and over again and experienced over generations will establish a tradition.

**“Tradition in the present context means artistic or literary principles based on accumulated experience, and continues usage.”**

(Fathy, Hassan – 1973 :p67)

This process of evolution through trial and error by, which is most appropriate to its context, will survive and remain.



**“Anything that was not acceptable to the society was gradually rejected, only what was proved useful for people were retained and adopted, and developed well fitting built forms.”**

(De. Silva, T.K.N.P. – 1990 : p02)

Plate  
Traditional village  
scene in Kano ;  
Built forms were  
created by  
responding to firmly  
test tradition  
Source; Shelter in  
Africa 1971 : p12



Plate:2.3  
Only what was  
proved useful for  
people were  
retained and  
adopted ,and  
develop well  
fitting built forms  
- I.e. traditional  
village Gharb  
,Aswan.  
Source; Hussan  
Fathy , p30.



Only what was proved useful for people were retained and developed well fitting built forms.

In simple cultures building skills were learned informally through imitation and corrections.

These cultures could be called as unselfconscious cultures. According to Christopher Alexander, unselfconscious culture, building skills are learned informally without the help of formulated rules.

In self-conscious cultures, firmness of the tradition dissolves and the form making is taught academically according to explicit rules.



## 2.2 PRIMITIVE BUILDINGS AND VERNACULAR ARCHITECTURE.

Primitive forms are good as a result of a process of gradual adaptation, that over many centuries such forms have gradually been fitted to their cultures by an intermittent through persistent, series of correction."

(Alexander, C. – 1967: p167)

Plate :2.4

**Igloo house – built from snow blocks to respond to the cold climate**

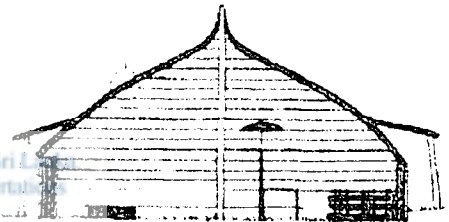
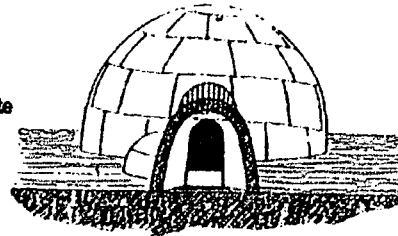


Plate : 2.5

**Sidamo bamboo house –**

Houses are completely water tight and has no opening except for the door. They are found very close to the area where bamboo grows.

Source: Shelter in Africa - 1971

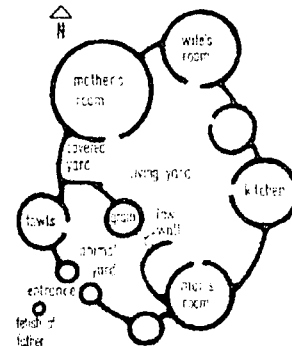


Plate : 2.6

**Spirit of the place has been fully expressed in there built form**

Plate : 2.7

**Nabdum compound, Nangodi – Northern Ghana**  
Groupings of huts reflected social order of their inheritance.

Source; Shelter in Africa – 1971; p12



In traditional societies built environments were humanized and habitable places based on sacred religions and rituals. For primitive man the relationships with the landscape and the site was personal. There was no sharp distinction between the man and nature. The materials available were not simply objects but were full of life, built according to their own light and imagination, making was considered as a spiritual act.

**“When a man is handling raw materials, like stones, when he is dressing stone, he is spiritualizing himself and spiritualizing the stone”**

(Fathy Hassan – 1985 : p65)

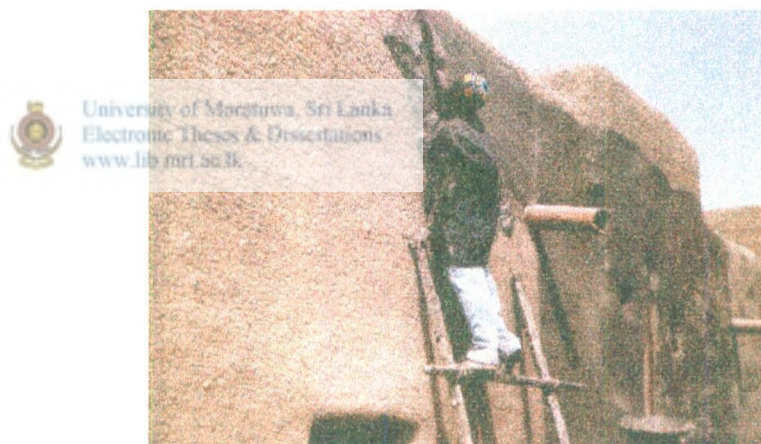


Plate :2.8  
**African adobe house.**

The buildings of folk society were more closely related to the people and the tradition of the locality. It is a result of an unselfconscious translation of human needs into a built form.

**“Primitive forms are good as the result of process of gradual adaptation that over many centuries, such forms have gradually been fitted to their cultures by an intermittent through persistent series of correction.”**

(Alexander,C – 1967 : p97)

Primitive buildings most simply refer to that produced by people for people in the locality of a community of people. Also the fact that some of these forms persist for very long periods of time, with this persistence the model is finally adjusted until it satisfies most of the cultural, physical and other requirements. The recognition of these local building forms by an architect, altering with the culture, climate of the areas concerned, and other changing needs has led to the increasing use of the term vernacular architecture to identify them.

## 2.3 VERNACULAR ARCHITECTURE

**The term “vernacular buildings” were used to identify the traditional and largely anonymous forms of built shelter and “vernacular architecture” .. ,reffed to local forms of architrcture designed by architects.**

(Oliver paul - 1987 :p12)



Plate : 2.9

Vernacular house  
Rajasthan, India.

The term vernacular is derived from the Latin **vernaculars meaning** domestic, indigenous, a home bone –slave, a native. It was in use in England by 1601 to describe the nature or indigenous language of a country or district. Not until 1857 was it used referring to buildings, viz. the vernacular cottage building of the day (shorter oxford English Dictionary 1964)

**“In the late nineteen century the vernacular was adopted by the Arts and Crafts Movement, which romanticized the rural idyll and the simple life. This movement, however, was celebrating the social history of architecture - the human demand that inspired**



the building types rather than available materials, which influenced their form and structure. And the post second world war revival of interest in vernacular architecture, which spawned the vernacular architecture Groups, referred to the Arts and Crafts Movement of the preceding century and, like it, was again concerned with the human need for particular buildings rather than the structural variations imposed upon them due to geographical location.

The meaning of vernacular referring to buildings must therefore be assumed to describe buildings which are indigenous (for which vernacular is synonym) to a particular geographical area.”

(Farmer, Ben & Louw, Hentie – 1993 : p200)

“Vernacular architecture was built ‘out of the ground’. It was made of materials found on or near its site. Its demise, as for so many local traditions and culture, folklore and dress, was brought about by over more efficient and fast transport and communications.”

(Farmer, Ben & Louw, Hentie – 1993 : p202)



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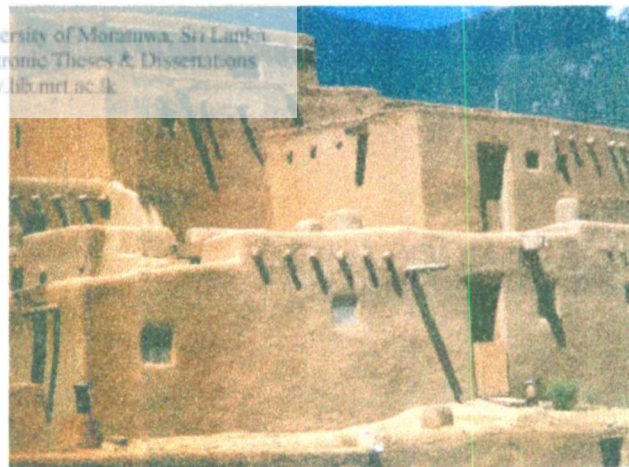


Plate:2.10

Vernacular  
building –  
Africa

There are now very few areas in the world where current conditions still command a genuine vernacular. One is the Mediterranean Island of Malta, where every building commodity except the local limestone has to be imported. The limestone is machine cut and marketed in various standard sizes and shapes, and is still the most economical material for most types of building. Thus there is to this day truly vernacular building in Malta.

By the end of nineteenth century, roughly the same building materials were available at similar costs throughout the length and breadth of Britain.

Those made or found locally made up but a small percentage.



**“At the end of the twentieth century, materials and components similar or the same are available throughout the developed world at comparable prices. It was recently assessed that about 40 per cent of the components of a sophisticated London building like the Hilton Hotel, Heathrow (1990) came from abroad some from as far away as Japan.”**

(Farmer, Ben & Louw, Hentie – 1993 : p202)

**“In the middle ages and earlier, vernacular architecture varied at a local scale. The appearance of building change district by district. There was a distinctly location ‘look’ due to the use of ‘out the ground’ components. As new ideas about construction spread over generations, and as techniques and materials changed and were then exported to other areas and countries, this ‘look’ becomes first regional, then national, and finally international. A major modern building today in Paris, New York, Sydney or Hong Kong is made of the same materials and employs the same construction techniques. Components and claddings are standardized.”**

(Farmer, Ben & Louw, Hentie – 1993 : p202)

The buildings look the same because ironically, their materials are designed and produced internationally and are transported all over the globe. Just as in the past local materials created a local look, we now have the ultimate, a global look.

**According to Hassan Fathy,**

**“International architecture, is it not international in respect of art and international loss of culture? Because to my mind the best definition of architecture is one that is the outcome of the interaction between the intelligence of man and his environment in satisfying his needs, both spiritual and physical”**

(Hassan Fathy –1985 :p29)



### 2.3.1 EARLY VERNACULAR BUILT FORMS OF SRI LANKA

**“Early vernacular built forms of Sri Lanka, according to the early historians, evidence of prior religious practices in Sri Lanka, with links to other cultures in the east and west such as their worship of the sun and moon have been adduced by anthropologists.”**

(Lewcock, Roland – 1976 : P13)

But no firm evidence of the Architecture of the island before Buddhism has yet been uncovered. Even our knowledge about the building of the first millennium of Buddhism is mainly limited to monumental Architecture in masonry. There is little firm archeological evidence of the ordinary Sri Lankan people until fairly recent times.



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**“The masonry remains at Anuradhpura, Mihintale and Polonnaruwa as well as those of a number of smaller sites throughout the Island have survived relatively well the ravages of the climate and the incursions of vegetation, it seems almost certain that few of the timber buildings in the country, if any, can be dated back much more than 600 years.**

**On the other hand, vernacular traditions of great antiquity can result in the persistence of building practices and forms over many centuries.”**

(Lewcock Ronald –1998 : P01)

the basic architecture of the country - the simple habitations of its peasant communities has, however long since disappeared from simple mud and thatched dwellings which still house a greater part of the Sri Lankan people today, just as the domestic economy and material culture of the modern peasant is not fundamentally different from that of his ancestors.

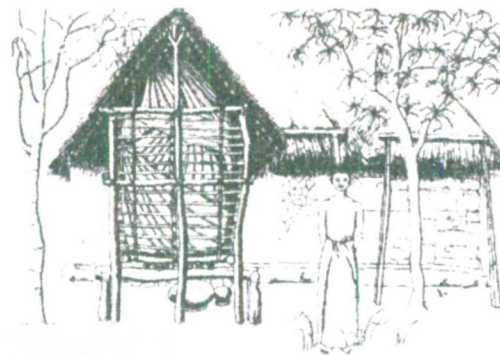
**“In the same way that the intricate network of irrigation systems developed out of the basic technology of the village reservoir, the substantial and elaborate monument of the monasteries and palaces display many of the archetypal forms and concepts that can still be seen in the rural architecture of the country side.”**

(Bandaranayake Senaka, 1974 :P11

)

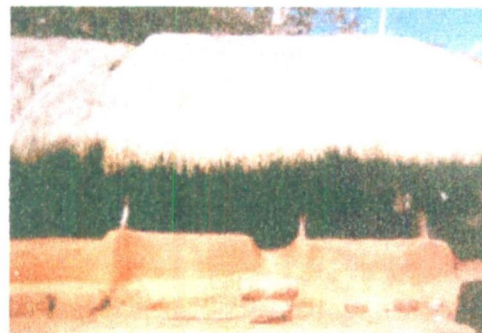
Plate :2.11  
The farm house  
Dambulla

The house, its furniture,  
its implements and its  
utensils all been made by  
the owner, his wife and  
children



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Ordinary Sinhalese house forms were constructed with temporary materials. These folk buildings even with simplest technology, materials with severe limitations from the rulers could be attributed to the way of living of the people. These primitive structures were result of direct and unselfconscious translation of their need into physical form.



Basic house form was one roomed hut with front verandah. Part of it used  
As – pila.

The front verandah acted as public space and it was also the mens domain.  
 Rear verandah belongs to the fork women and it was used for food preparations, coconut husking, grinding spices etc.,  
 Verandah also used to shade the walls and maintain interior comfort.  
 The major overhead element of a building is its roof plane. It not only shelters the building's interior spaces from, sun, rain, snow, etc. Can affect as well as the building's overall form and form of its space.

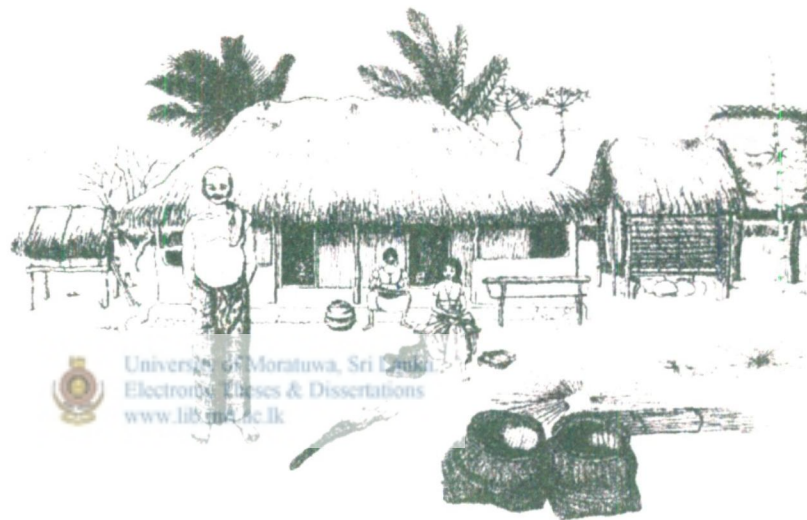


Plate: 2.12

Farm house – Dambulla.

Plate :2.13

Interior of  
 cadjan  
 house.



Throughout Sri Lanka, Farmers, Fisherfolk and many others live in dwellings made of palm trunks or bamboo, with roofs and often walls of overlapping mats of woven coconut leaves or palmery palms.

## 2.3.2 THE SINHALESE TRADITIONAL VILLAGE MAHAKIRINDA

Plate: 2.14

**Basic house form of Sri Lanka, was a mud hut with steep overhanging roof and with thin mud brick walls.**



**“These groups of building make up a typical dry zone village. It functions as a tight communal entity. The inhabitants’ share dwelling, which are under one continuous roof or clustered in very close relationship to each other in roughly rectangular to each other in roughly rectangular groups around central open spaces.”**



University of Moratuwa, Sri Lanka (Lewcock, Ronald – 1998 :P12)  
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The shape of the village does not resemble a simple rectangle or circle; rather it is developed as a series of family clusters. Which gives it an amorphous form. Vegetation is cleared and kept down around the houses as a protection against and rodents. These spaces are well swept by the inhabitants. They have two entrance on opposite sides to create thoroughfare through the village around the village, beyond the houses, there is an area of large trees, with all the under growth cleared away, which is reserved for the livestock of the village.

At the same time this serves as a protective belt to prevent unheralded visitors reaching unseen the houses or rice bins. This area is also of great importance because it is here that religious and social festivals are held.

**“The houses are constructed of an alternative type to cadjan, comprised of a rough timber framework filled in with earth walling, which carries thick paddy straw –thatched roofs.”**

( Ronald,Lewcock. - 1998 :p13)

As the humidity is much lower in this central zone than in the rest of the island, cooling cross ventilation is not such an important feature. Instead, building materials are selected to protect the inhabitants against the highest temperature of the interior of the island.

**“The houses are always kept repaired, freshly plastered, clean and well swept grain is stored in raised bins, constructed with timber frame works and roofed with thatch, which are placed among the houses for protection.”**

(Ronald, Lewcock. - 1998 :p13)

No sanitation needs to be provided, the surrounding forest serving in its stead .the near by dam, or tank, has washing facilities as well as serving as a source of water.

### 2.3.3 SINHALESE VERNACULAR DOMESTIC BUILDINGS.



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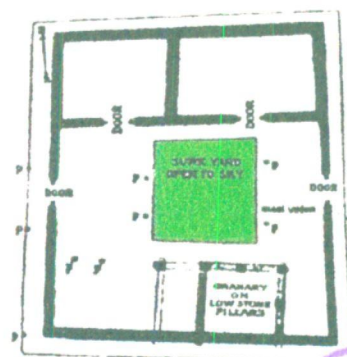
The earliest account of the private domestic architecture of the island is found in the writings of Robert Knox, who lived many years among the sinhalese in the seventeenth century. He says,

**“Their houses are small, low, thatched cottages...the poorest sort have not above one room in their houses, few above too.... The great people, have hand some and commodious houses. They have commonly two building one opposite to the other, joined together on each side by a wall, which makes a square court-yard in the middle.”**

(Knox, Robert - 1966, p: 19)

Plate : 2.15

Plan of small yeoman's house  
source - Medieval Sinhalese Art, p115





John Davy, who visited the kandyan kingdom at the beginning of the 19<sup>th</sup> century, describes,

**“Their best houses, those of the chiefs... of mud with tiled roofs, hollow squares, presenting externally a dead wall, and internally bordering open area is a veranda, with which the side rooms communicate by narrow doors. A large establishment consists of many such squares communicating by passages inside, and having one or two entrance from without. Most of their rooms are idea of filth, and erroneously; it is used for the sake of cleanliness and to keep off admit the human head (...to an European this may be suggest the insects, and answer the purpose exceedingly well...) and the walls are dark, or only furnished with windows hardly large enough to either covered with composition or with a wash of white clay, the use of lime for the purpose being prohibited, and appropriated solely to royal palaces and temples. The dwellings of the people in general are mush on the same plan, and differ little, excepting in size, and in the circumstance that they are invariably thatched; only those of the heights rank being permitted to have tiled roofs.”**

( Davy, John - 1821 )



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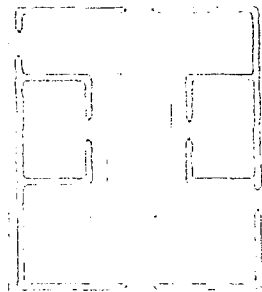


Plate :2.16

Sinhalese farmer house, Madavala, Kandy.  
Source – .Roland,lewcock , 1998, p:24



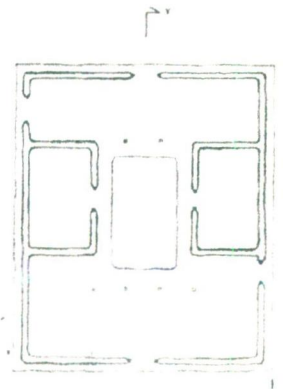
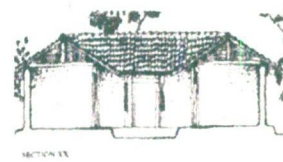


Plate:2.17

House contained square courtyard open to sky, surrounded by an internal veranda, which was used for all the activities of living and working.

A typical Sinhalese rural house, according to the distinguished scholar Ananda Coomaraswamy, who wrote before 1970, was a "Simple framed, one storied," timber and mud walled building with a thatched roof.

It contained square courtyard open to sky, surrounded by an internal veranda, which was used for all the activities of living and working; off this

**"The poorest houses...had but one room, few more than two or three..."**

(Coomaraswamy, A.K., - 1956, p: 115)

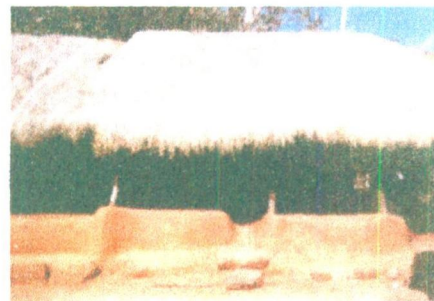


Plate:2.28  
Sinhalese farm house

The most important of these rooms was that used as a dark room for child birth; at other times it served to house the chests in which clothes were stored.



Within the internal space of the house four or six stone pillars supported the atuwa or rise bins – large wooden chests.

### 2.3.3.1 A house, Medamahanuwara.

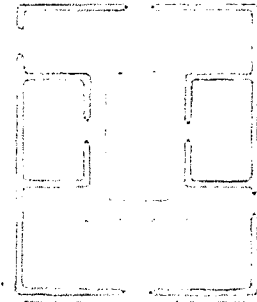
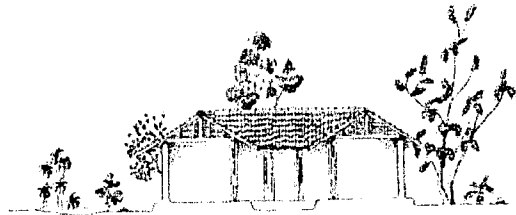


Plate:2.19



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A Characteristic Sinhalese  
farmer's house.

This is a characteristic Sinhalese farmer's house of the interior. Like the most ancient type known, which was described by Ananda coomaraswamy, it has only two enclosed room, the remainder of the house being made upon a wide inner veranda around three sides of courtyard that is part of the natural ground. The platform of the inner veranda extend beyond the walls of the house to form a narrow bench right around the house, used for sitting or working, known as the pill.

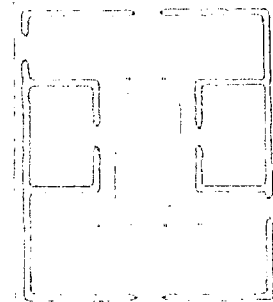
In an average village house such as this, visitor were entertained on pila during the 19<sup>th</sup> and early 20<sup>th</sup> centuries .occasionally low wooden seats ,kolombu ketes ,were brought out and used for people of lower status.

### 2.3.3.2 A HOUSE, MEDAWELA, NEAR KANDY

Section XX



Plan

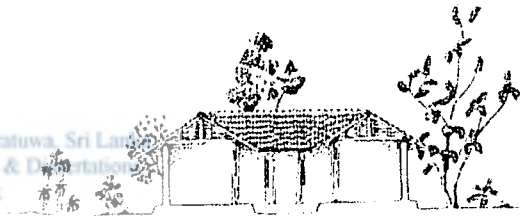


Section YY

Plate:2.20

Source : The Achitecture of an Island, p:24

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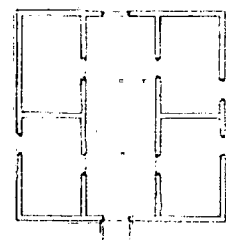
The house is the same type as the previous one, but here formal; symmetry has been introduced and the two rooms divided so that they are placed on either side of the central courtyard. A separate courtyard is provided to light the room in the kitchen area. This part of the house thus had a layout exhibiting Dutch influence and the presence of a narrow veranda confirms the supposition that this part of the house was built in the first half of the nineteenth century.

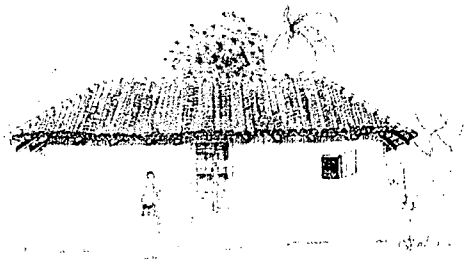
### 2.3.3.3 UDURUWA WALAWWA, RANAWA, DAMBULLA.

Plate:2.21

Plan – Unduruwa Walawwa

Source: The Architecture of an Island, p:31





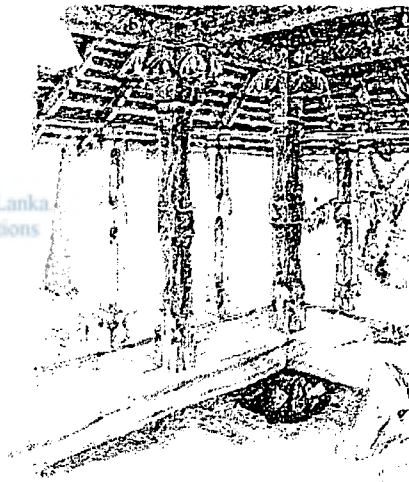
This house has also formal design like the one at Madawala discussed above. It was originally completely symmetrical, with two rooms on either side of the central square courtyard. The plan of the house is entirely square, as is the courtyard.

#### 2.3.4 SINHALESE SECULAR VERNACULAR BUILDINGS



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Plate:2.22  
Panavita Ambalama



**“Elaborate timber craftsmanship characterized the wayside resting halls which were built at regular intervals along the main roads in the Sinhalese middle ages. A few of the best of these sheltering places survive. A typical shelter, an ambalama, as square, with four or more stone or wooden columns of the type described above, supporting four main beams crossing at the corners and cantilevering a considerable distance out to support the large overhang of the eaves. The subsidiary crossbeams and roof posts supported fretted rafters over which rose a double hipped, tiled roof. Sometimes, as at Panavitiya Ambalama, Kurunagala,, the floor beams served as seats for travelers, weary after walking a long distance.”**

(L.ecock Ronald - 1989, p.43)





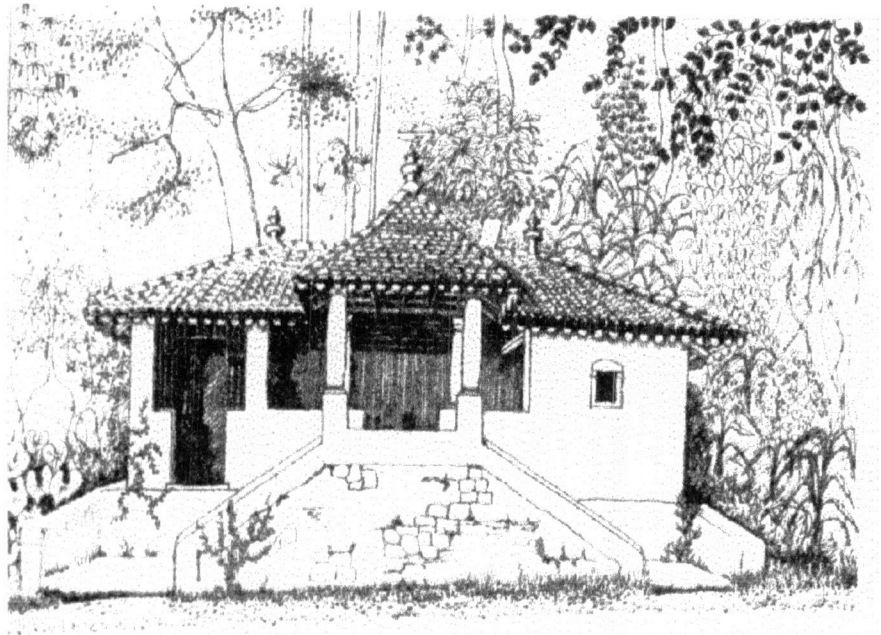


Plate:2.23  
Kadugannawa Ambalama

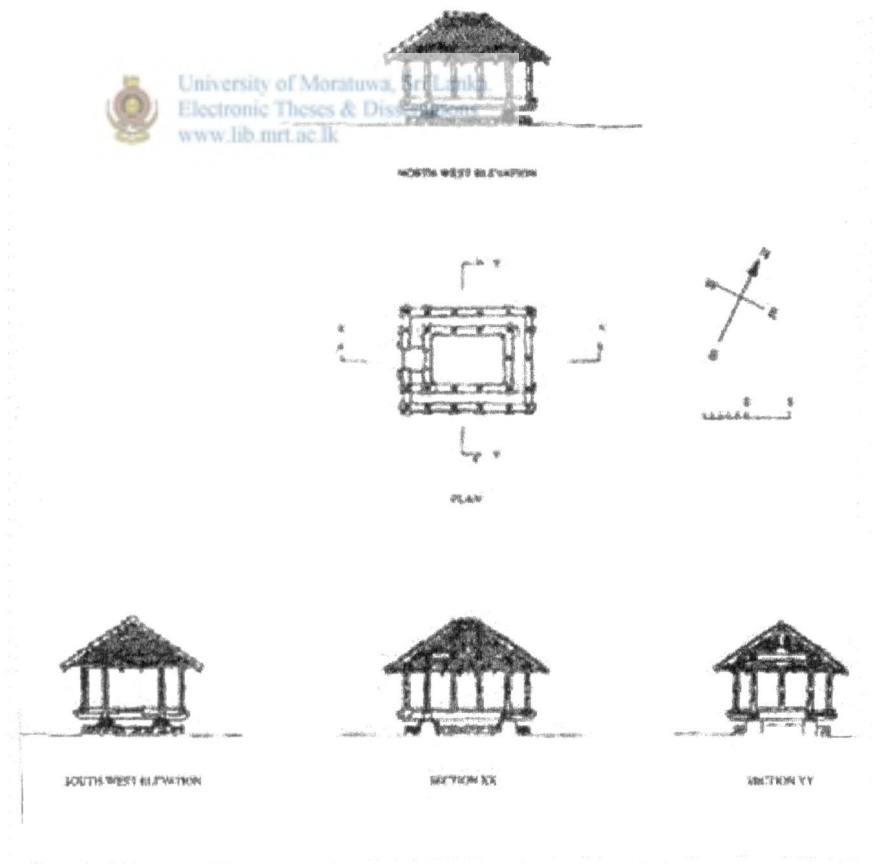


Plate:2.24  
Panavitiya Ambalama  
This wayside shelter is a superb example of its type  
Source: The architecture of an Island, 1998

## ATUWA.

Besides the ambalama, another characteristic Sinhalese secular building type is the raised atuwa or group of rice bins ingeniously constructed of a timber framework, or more permanently raised on stone boulders to prevent damp and insects attacking the wood.



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Plate  
Raiscd Atuwa

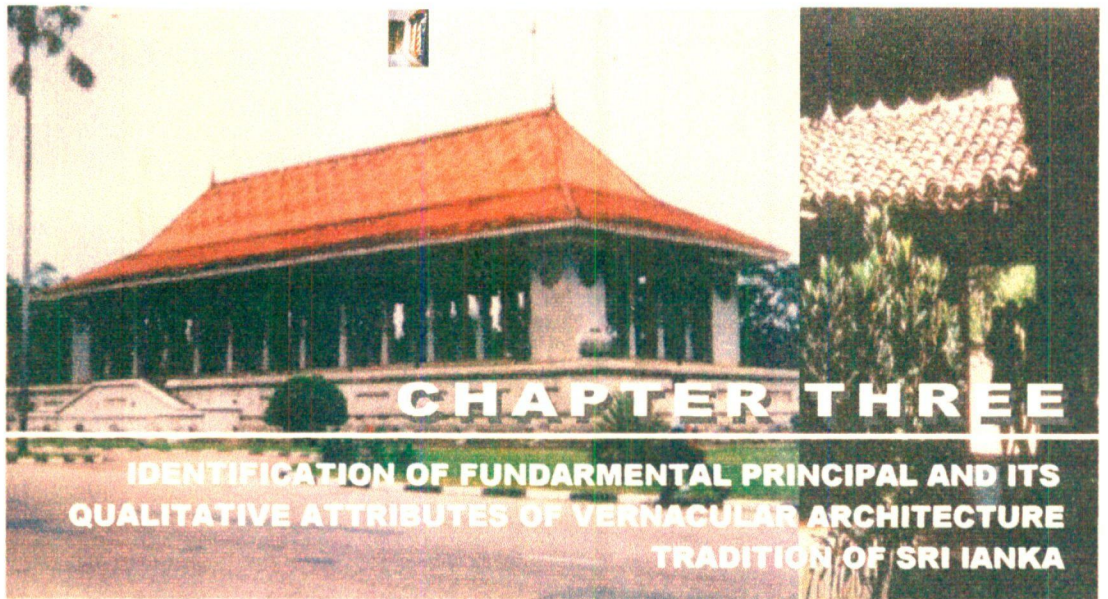
Besides the ambalama, another characteristic Sinhalese secular building type is the raised atuwa or group of rice bins ingeniously constructed of a timber framework, or more permanently raised on stone boulders to prevent damp and insects attacking the wood.

## BOGODA BRIDGE.





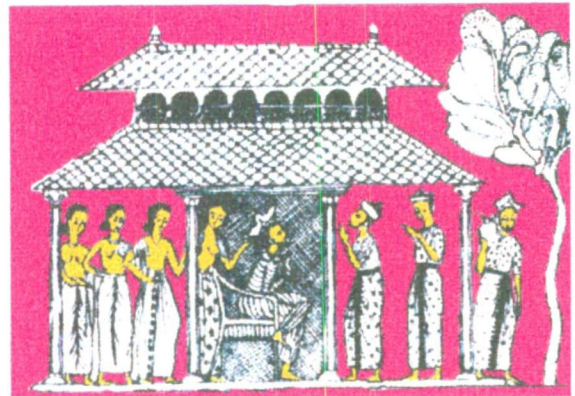
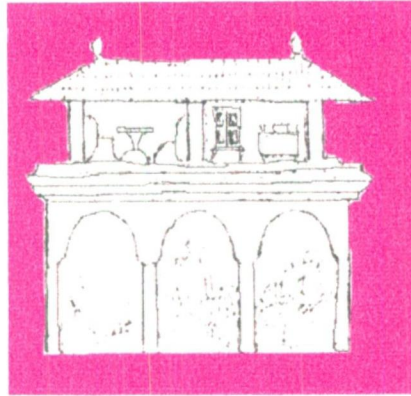
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## CHAPTER THREE

IDENTIFICATION OF FUNDARMENTAL PRINCIPAL AND ITS  
QUALITATIVE ATTRIBUTES OF VERNACULAR ARCHITECTURE  
TRADITION OF SRI IANKA





### European Influence on the Vernacular Building in wall paintings.

These two Paintings are typical of many on the walls of Sinhalese temples which show European influence on the traditional architecture of the Island. Both paintings are from Raja Maha Vihare at Kotte, ancient capital near Colombo. The arcaded loggias of the Portuguese may be seen in the lower storey on the upper storey on the right. In other respects the building on the right is Sinhalese, except for the classical column capitals and bases. But the other is almost pure European, with an arcaded basement and European furnishings; only the upper finials give a Sri Lanka note.



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Source:  
 The Architecture of an  
 Island, p:152



## CHAPTER THREE

### IDENTIFICATION OF FUNDAMENTAL PRINCIPLES AND ITS QUALITATIVE ATTRIBUTES IN VERNACULAR ARCHITECTURAL TRADITION OF SRI LANKA.

#### 3.0 INTRODUCTION

The long standing architectural tradition of Sri Lanka grew from the time of ancient kings, Portuguese, Dutch and British ears, sometimes it is an amalgamation of wide range of influences, Buddhist architecture from India, building material and methods of the Mediterranean brought by Muslim Arab traders and Portuguese colonists, Dutch and British modifications of European styles.

As architect Geoffrey Bawa has mentioned about the essence of the Sri Lankan architectural tradition, Electronic Theses & Dissertations  
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**“Often a building is only a roof, column and floor. One unchanged element is the roof – Protective, emphatic and all important – governing the aesthetic what ever the period, whatever the place. The roof dominant, shielding and giving contentment of shelter. The roof, its shape, texture proportion is the strongest visual factor; Ubiquitous pervasively present, the scale or pattern, shaped by the building beneath.”**

(Taylor, Brian Brace – 1995 p:16)

**“The basic architectural form and the principal building type of sinhalese architecture is the “pasada” or “sala”, which is rectangular, pavilion like open building with a sloping roof supposed by and open column beam structure, on a raised platform .”**

(Bandaranayake, Senake – 1974 p:12)

All the variations of sinhalese indigenous architecture were introduce with this basic framework of built from by adding various wall compositions and similar developments to create varies built forms for different



purposes. The main essential environmental qualities that are pervasive in Sri Lankan indigenous architecture was derived from this kind of buildings. The superficial elaboration and decorations were not appreciated in Sinhalese architectural tradition. Only essential features of built forms taken into regard. When elaborated details employed, they were used for emphasising the essential elements of built forms.

### **3.1 FUNDAMENTAL PRINCIPLES AND ELEMENTS IN VERNACULAR ARCHITECTURAL TRADITION OF SRI LANKA.**

It is important to say that the physical forms of basic cultural elements change from time to time with the new material technologies and changing needs and desires of the people. To form a living tradition fundamental elements equally contribute. But the purpose or essence of these elements continued to be same from the simple mud hut to complex Walawwa.

.With the continues usage through out the time, remained as fundamental principals of architectural tradition of Sri Lanka.

**"The architectural principles adopted in harmonizing the technology, materials and geometry to integrate natural and built environment by enhancing the aesthetic quality of the cultural landscape created throughout the civilization were well exhibit in the traditional rural and urban settlements, monastic and secular building complexes created along the history of the country."**

(Silva, T.N.K.P- 1997 : p)

#### **3.1.1 FUNDAMENTAL PRINCIPLES IN VERNACULAR ARCHITECTURAL TRADITION OF SRI LANKA**

The meaning of fundamental elements could be called as fundamental principles. Fundamental principles can feel but it can not touch.

### 3.1.1.1 HARMONY BETWEEN BUILT FORM AND SETTING

**“Life in Ceylon is about living out of doors.”**

(Powel, Robert – 1995 : p12)

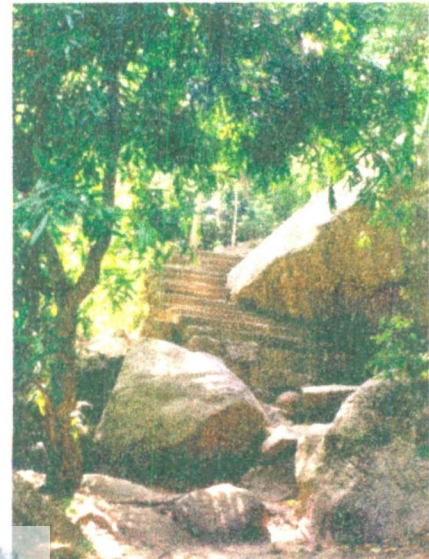


Plate  
**Kaludiyapokuna –  
Harmony between building and  
Setting.**

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Sri Lanka is one of the most beautiful and varied countries of tropics. A certain harmony between building and setting was inevitable. The framing views of the lush landscape relating interior and exterior was one of them.

Gardens are an integral part of many traditional houses. The spirit of the traditional houses is to merge the dwelling with its surroundings creating ambiguous and intermediary spaces. This serves the functional purpose of modifying the hot climate; reducing heat and providing shade, while simultaneously creating poetic changes of light and shade.

**“A house in a tropics should not destroy and substantial trees on the site, and it should be in harmony with nature”.**

(Powell, Robert – 1996 : p12)



Plate:3.2  
**Wattegama Shrine – Harmony with Nature**

According to Buddhist philosophy life was connected with nature and building was a part and partial of nature. Man and nature is in harmony or in a state of balance, and man regard himself as responsible for and as the custodian of nature.

**“Two forces of nature influences the orientation of a building; one is the prevailing wind, which brings destruction; the other is the sun, that brings life. As a general rule, a building should be sheltered from the wind, and exposed to the sun. In these two predicates lie the most important requirements of orientation”.**

(Grillo,P.J. - Form Function & Design, 1975 : P103)

### 3.1.1.3 VISTA

Plate:3.4  
**Vista from the entrance towards the Central courtyard**

Central light pool act as a main attraction to this visual path.



Vista is the framing element of the view consists of a direction and depth. In traditional houses vista is achieved by arranging spaces according to axial planning. Most of the time's vista is related with spatial organisation of spaces. Vista directs from one place to another place.



Plate:3.4  
Vista from courtyard to rear door  
Continuity of the vista from  
interior to exterior.



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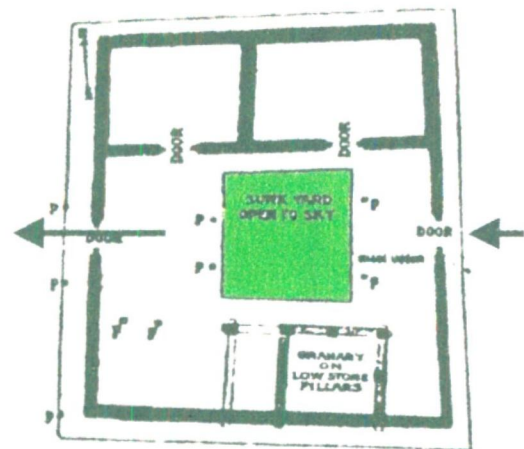


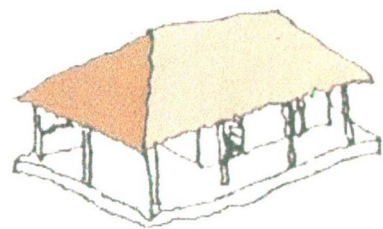
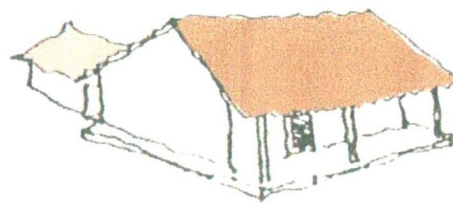
Plate:3.5  
Plan of the kandyan  
Yeoman house.  
Source - Knox, Robert



### 3.1.1.3 TRANSITIONAL SPACE

Transitional space combines inner and outer spaces. It has a fluid quality. Transitional space formed by stretching inside towards outside and mean time outside penetrates to the border.

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Plate 3.6  
Verandah - Ekheigoda wafawwa.  
**Transitional space an open space  
For visitors**



In the traditional Sri Lankan house, veranda acts as a transitional space. This intermediate zone act as a breathing space for visitors and sense of arrival is clearly expressed.



### 3.1.1.4 HUMAN SCALE

The scale, which is related to the scale of man, is called Human scale.

**“Man is the center of architecture and also the measure because he is the part of nature, who sees and feels the forces of nature, when built forms are introduced with the human scale always there is a spirituality.”**

(Fathi, hussan – 1976 : P21)

Human scale – the size of a building element or space related to the dimensions and proportions of human body.

Elements that have human meaning, and whose dimensions are related to our own dimensions, Define comfortable human scale within it. Human scale not only helps us to judge the size of a space but also give it a human scale of or feeling.

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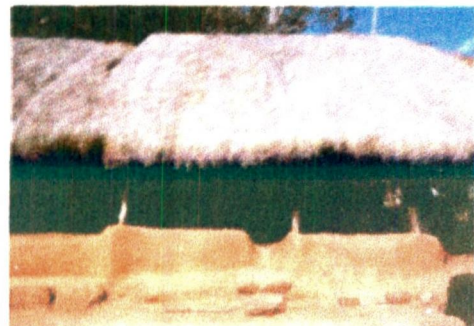


Plate:3.8  
Intimate expression of the human scale – farm house Anuradhapura.



Plate:3.9  
Human scale -Kadugannawa ambalama

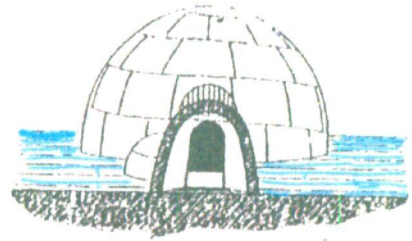


Plate:3.24  
**Igloo**

Early simple cultures people built for community of people and they are closely related to the scale of the man.



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Most of the primitive cultures built forms are related to the human scale, which makes man reachable and tangible.

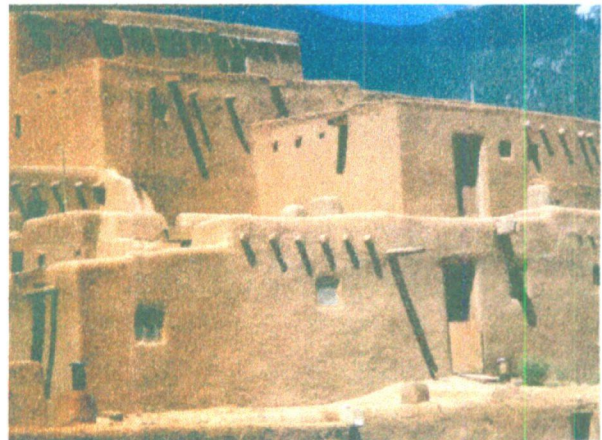


Plate:3.25  
**Traditional house africa.**



Plate:3.12  
Unduruwa Walawwe, Ranawa, Dabulla.

Traditional houses built by responding to man achieve the Human scale by relative proportions in terms of length width and height.

### 3.1.1.5 SHADING

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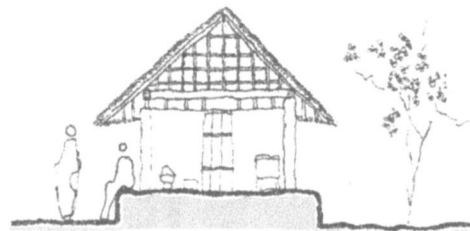


Plate:3.13  
Farm house- Roof act as a great umbrella

Roof act as a great umbrella or wide sheltering trees, or canopy providing shade and protection against sun and rain

Eaves of the roofs with exposed rafters provide harmonious proportion in relation with human scale. In response to the climate wide sloped roof with long eaves, shade from the heaviest rain and give maximum shade from the sun.

### 3.1.2 FUNDAMENTAL ELEMENTS IN ARCHITECTURAL TRADITIONA OF SRI LANKA.

#### 3.1.2.1 ROOF



Plate:3.14  
Thatch roof  
Traditional peasant house.

For obvious climatic reasons the main feature of any structure was the roof which provides shade and protection against rain and sun. The simplest building consists of only a roof on wooden posts, relatively light and supported by a timber framework and pillars. The roof is always rectilinear and sloping. According to Geoffrey Bawa,

**ten a building is only a roof, column and floor. One unchanging element is the roof - protective, emphatic and an important governing the aesthetic- whatever the period, whatever the place. The roof dominate, shielding and giving the contentment of shelter. The roof, its shape, texture and proportion is the strongest visual factor; Ubiquitous, previously present, the scale or pattern shaped by the building beneath.”**

(Taylor, Brian Brace ,1995 : p16)



Plate:3.15  
Steep large overhanging Roof  
which against rain.





Plate:3.16  
Roof - A mbakka devalaya

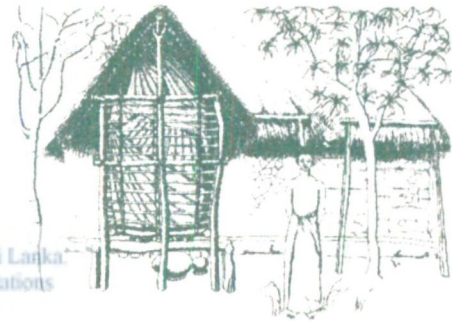


Plate:3.17  
primdey house - Dambulla

The material used in the early roof was thatched but Arab traders introduced to Sri Lanka, the half round clay tile during their power of the Mediterranean world, but the roofs was more steeply pitched against the heavy rainfall and sun.

He major overhead element of a building is its roof plane. It not only shelters the building's interior spaces from, sun, rain, snow, etc but can affect as well as the building's overall form and form of its space.

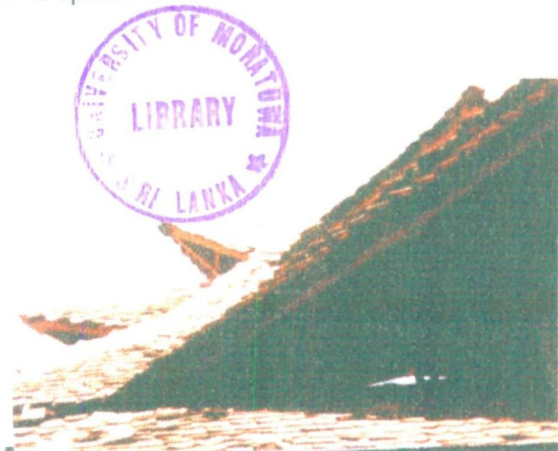


Plate:3.18  
kroof with Kandyan flat tiles



### 3.1.2.2 BASAL PLAT FORM - PLINTH

Plinth is an elevated platform, which formed the basic foundation. Even simplest structures also built on that. Plinth clearly defined the building by raising it above the surrounding ground and provides solid counter balance to the sloping roof.



Plinth also helps to protect the building from damp, reptiles, vermin etc.

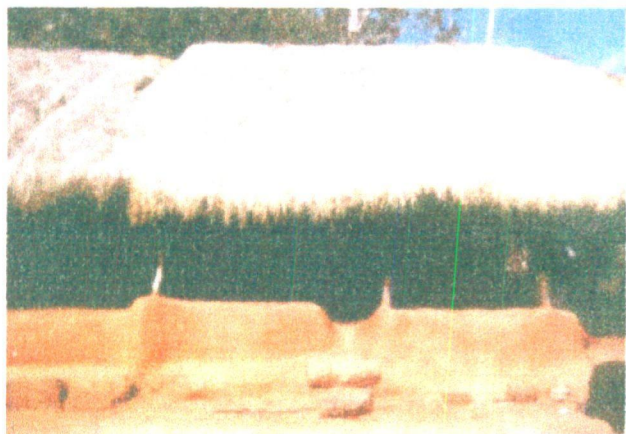


Plate:3.19  
Plinth – Traditional peasant house.

### 3.1.2.3 COURTYARD - MEDAMIDULA

The courtyard is a central open space inside a house defined by pillars at the Four Corners with a sloping roof.

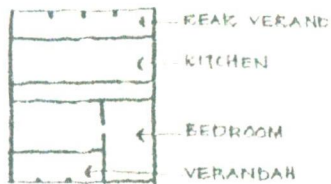
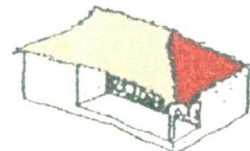
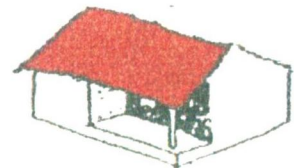
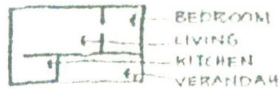


Plate:3.21  
**Central courtyard – Peasant house.**  
 Compound in the center, with simple  
 matrial construction.

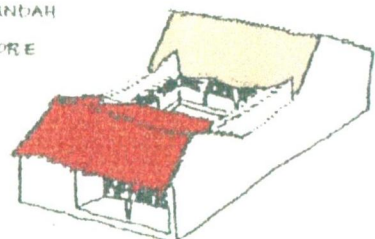
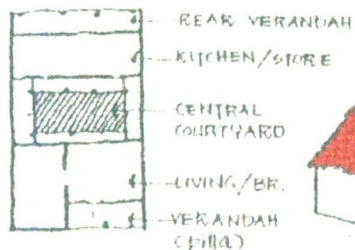
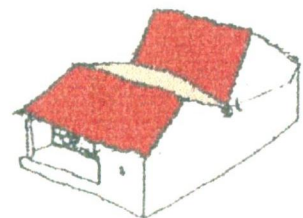


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#### BASIC UNIT



#### THE BEGINING OF A COURTYARD



Development courtyard fomes

Plate:3.22  
central court yard The  
Mahagedara - Matale



Plate:3.23  
Central courtyard of the Mahagedara  
at Ukuwela.



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It is used for most of the living activities such as entertaining for visitors and family gatherings. It is occurred around the central light pool, which could be called as a "living courtyard". Centre and sense of openness of traditional houses is achieved by the living courtyard.

**"In a house in the tropics, an open- to- sky space must be the focus; permanently open, not peripheral or ancillary to main activities"**

(Powell, Robert ,1996 : p12)

Bawa's own houses adhere closely to the principle of creating open to sky space. In the Cinnamon hill house the design evolves around the open sided living space. One always returns to this space, it is the focus the heart, the pulse he dwelling.

### 3.1.2.4 VERANDAH

Even the earliest simple house form contains a small veranda in front. In the latter periods a folk dwelling contained two verandas at front and rear side of the house.

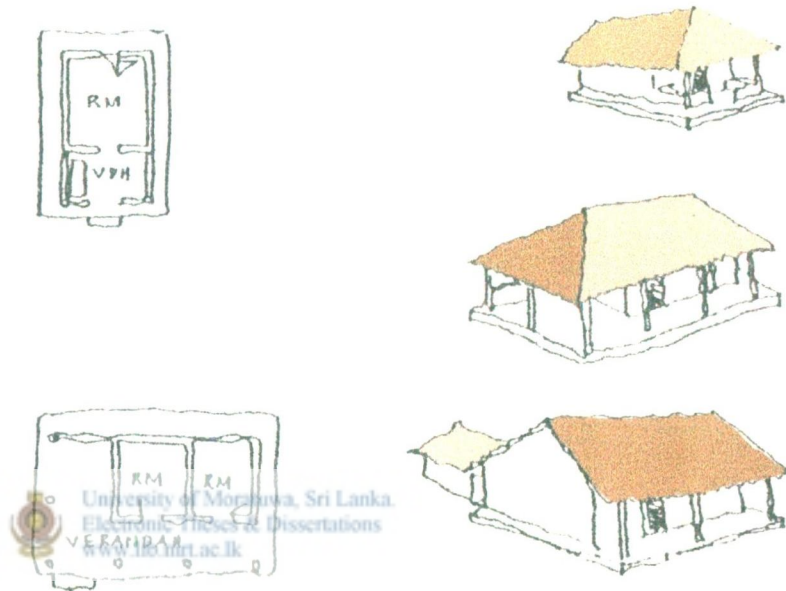


Plate:3.24  
Some typical verandahs of traditional  
Sri Lankan house forms

The front veranda is meant for move public activities and gives more openness. The rear veranda used for food preparation and belonged to women folk. In addition to that it provide shade for interior walls.



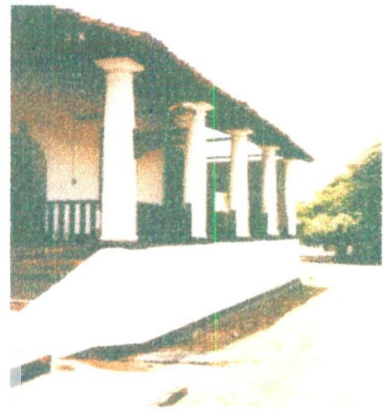
Plate:1.25  
Verandah facing to road.  
House on the road from Colombo to Galle.



Plate:3.26  
Eknaligoda Walawwa  
The façade added during the British period.  
Source – L.Ronald , The architecture of an Island ,1998



Plate:3.27  
Veranda with British  
masonry columns



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### 3.1.2.5 PASADA

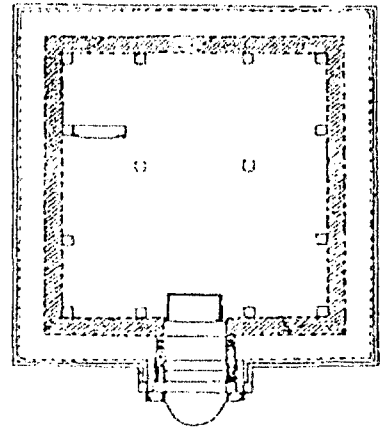
According to Senaka Bandaranayake the basic archetypal form and the principle vehicle of Sinhalese architectural expression could be identified as the sala or pasada, which is rectangular, pavilion like open building with a sloping roof supposed by and open column beam structure, on a raised platform. this kind of building can be seen in sinhalese architectural tradition.

**“The original floors were probably of clay and cow – dung, the traditional floor covering of secular dwellings. In contrast to the generally unpaved floor of the pasada, shrines such as image house and bodhigarayas in variably have floors paved with brick or stone.”**

(Bandaranayake, Senake – 1974 : P258)



The most common and dominant building type is the elongated rectangular pasada or sala, or number of variations in this basic type.

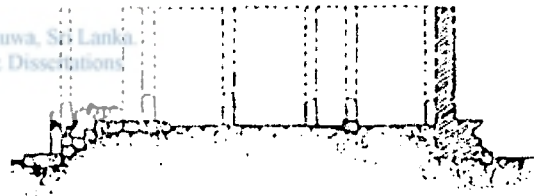


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Plate:3.21

Monastery building of Anuradhapur  
Isolated pasada

Source – Bandaranayake, S.



**“Many of the Pasada or Halls used by the community of monks in Buddhist monasteries, of Sinhalese architecture is of a wholly timber mixed mud and timber or timber and brick construction, while the stone plays only a very limited role and is usually restricted to ornamental details.”**

(Bandaranayake, Senake – 1974 . P8)





Plate:3.28



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Dodantale Vihara, Mawanalla.

Source - L.Ronald, The architecture of an Island, 1998.

## 3.2 QUALITATIVE ATTRIBUTES IN VERNACULAR ARCHITECTURAL TRADITION OF SRI LANKA.

### 3.2.1 NAMING OF QUALITATIVE ATTRIBUTES.

**“The fact that the quality cannot be named does not mean that it is vague or imprecise; it is unerringly precise, but the words fail to capture it; because it is more precise than words”**

(Christopher, Alexander – 1979: p.72 )

What is aimed at architecture is to create certain feelings in the inhabitants of the built environment. The particular expressions of built forms, which are conducive to the above feelings, are called the environmental qualities.

### **3.2.2 BASIS OF IDENTIFICATION OF QUALITATIVE ATTRIBUTES.**

In fact the environment qualities are usually expressions of the total physical form as a whole, because the qualities are created as the result of the synthesis of the holistic form.

Therefore in analysis one cannot take elements of the physical form in isolation to identify the environmental qualities corresponding to each of them. However, some environmental qualities expressed by a built form can mainly be attributed only to several elements together while the contribution of the other elements to the same seems insignificant.

Thus environmental qualities expressed by the Sri Lankan Architecture could be identified in two main categories on the above basis.

The following environmental qualities should be identified as prevalent throughout the built form. It could be said that all these are the different degrees and variations of the major expression of “softness “ in Sinhalese architecture.

**“Genuine and delicate.”**

**“Modest”**

**“Dispassionate”**

**“Wholistic”**

**“Intimate”**

**“Cheerful Yet Serene”**

## GENUINE AND DELICATE ENVIRONMENTAL QUALITY.

Plate:3.29  
Half Section Panavita – Ambalama.

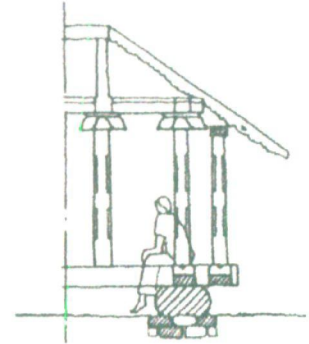
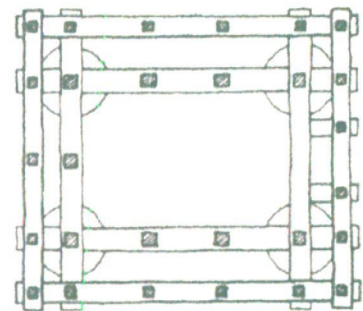


Plate:3.30  
Plan – Panavita Ambalama  
Source, L. Ronald

The Architecture of an Island, 1998  
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The simplicity and purity of the form and the straight forwardness of articulation pattern alone act as the main vehicle of beauty of Sri Lankan Vernacular (indigenous) architecture.

The addition or superficial elaboration and decorations have never been appreciated in indigenous architectural tradition. Only the essential features of the built form were given regard whatever the elaborate details employed, they were aimed at emphasizing the essential elements of the built form. They were devoid of any sophisticated or complicated display or exaggeration.



Plate:3.31

Ambakka Devalaya



The material such as timber mud clay straw were all organic and true to its nature further contributing to this expression of genuinely

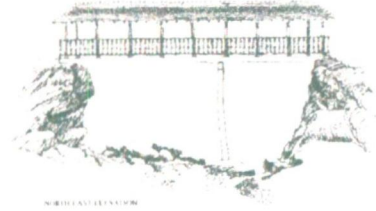


Plate :3.32

Bridge over "Uma Oya" , Bogoda  
Genuine and delicate expression.



As Coomaraswamy has observed some Kandian period wooden construction.

**" The constant richness and variety of carving and its close relation to the nature of the material are always pleasing; and we never find it so disposed as to interfere with the utility of beams or frames; it appears almost as if it were an essential and necessary part of the construction work."**

( Coomaraswamy,A,K. – 1956, p:129 )

The decorative effects were always an integral part of the whole and never dominated the whole.

Plate :3.33

**"it appears almost as if it were an essential and necessary part of the construction work."**

**Ambakka devalaya.**





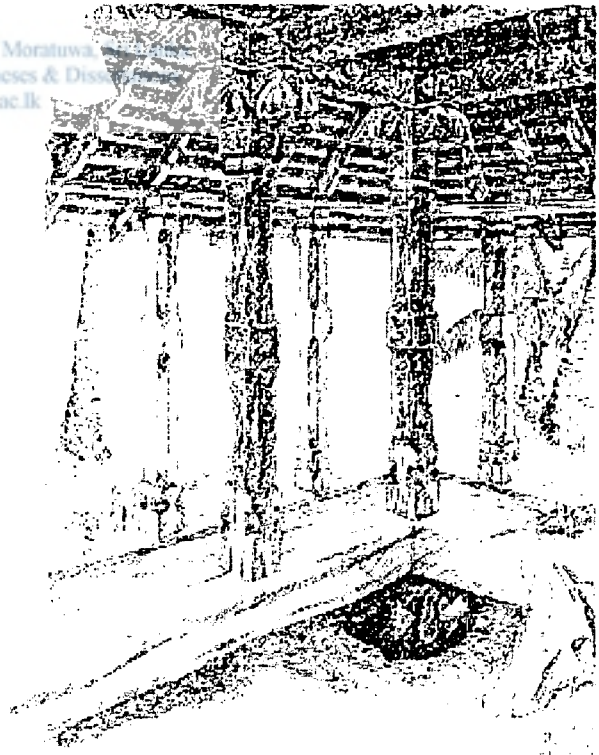
The expression of beauty was "delicate". The softness created by carefully thought and tenderly arranged patterns of the superstructure provide with the delight of delicacy.



Plate 3.34

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Panavitiya ambalama



### 3.2.2.2 MODEST ENVIRONMENTAL QUALITY.

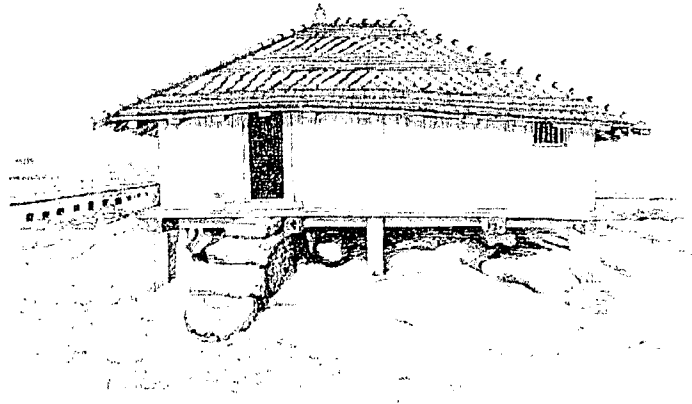
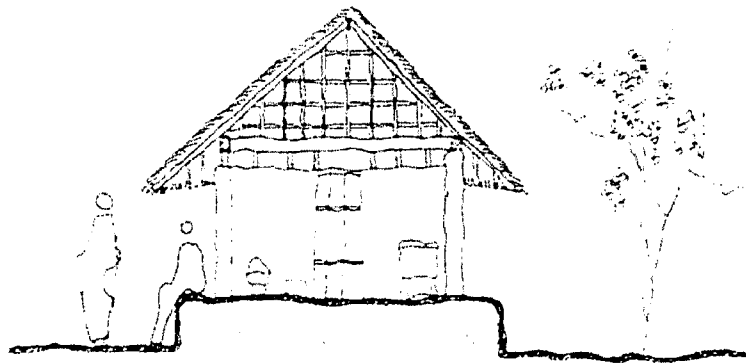


Plate :3.35

**Modest Environmental Quality of Bihalpola  
rajamahavihare, Kurunagala. (12<sup>Th</sup> Century)**

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Except the few special cases Sri Lankan traditional buildings are low rise and spread a clear depiction of "Modesty". Usually the heights, sizes and areas of columns, wall rooms and so on where the minimum scales necessary. Even the material uses were organic and roughly finished without any care taken to achieve a 'posh' look or a luxury expression all implying modesty.



Even though the roof was the dominant element, it never had a “dominant expression. When a roof was relatively huge, it was softened – consecutively to “modesty” –by having two or more breaks of the pitch.

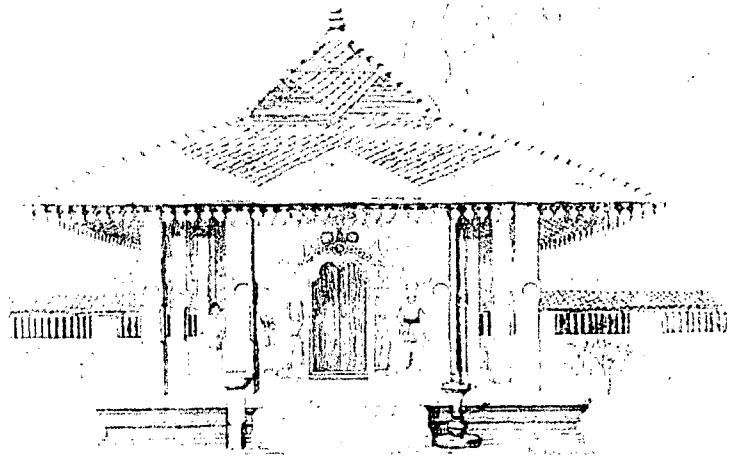


Plate:3.37  
Roof - Saman Devalaya



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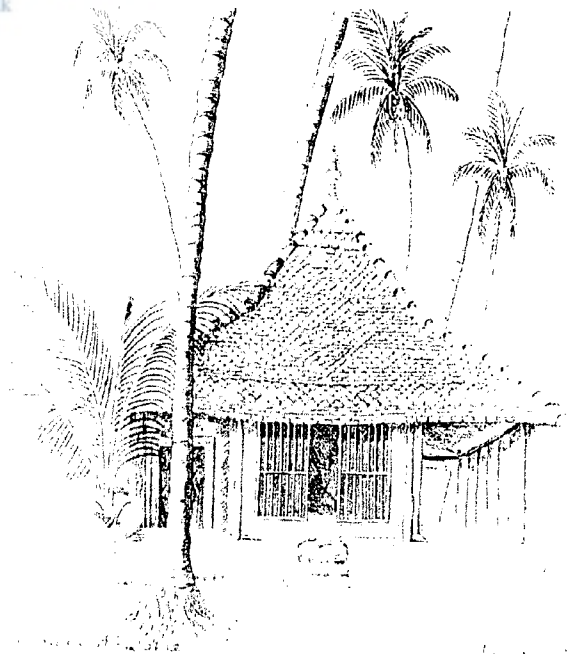


Plate :3.38  
Small Devala, Ambakkaya.

The famous kandian roof is an obvious illustration of this.

In some instances roof consists of two or more splits units. Thus softening the overall expression.



Plate :3.39  
Breaks of the Roof Eknaligoda Walawwa.

Even the roof tiles were laid in patterns of “groups” rather than having one monotonous mass throughout, thus softening the appearance. Each individual tile is given a clear position in the arrangement pattern, Thus softening the surface look of the roof, consecutively to modesty.

The ridge too, is not rigid too but rather had breaks of slight curves softening in a way conducive to “modesty”.

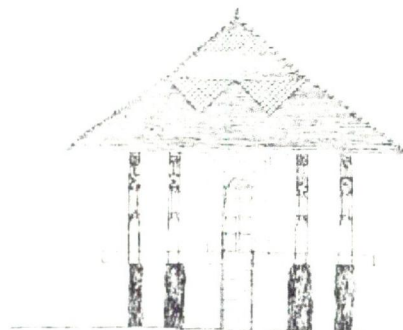


Plate :3.40

Double Pitched Kandyan roof.  
An Image house at Vijayarama Navinna.  
18<sup>th</sup> Century.



These modest expressions of buildings witness an anti-dominant and anti-luxury attitude and a value of 'simplicity'.

This is clear evidence to the fact that people were satisfied by and consciously maintained a "minimum necessity level". in fact, seems to have been such in the traditional sinhalese life patern.



Plate : 3.41

**Small Devalaya Ambakka**

The expression of 'modesty' further manifests an anti-dominant " attitude of the sinhalese tradition. As Dr. Nalin de Silva puts it;



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**"...it is not a society of sophistication, but of simplicity.**

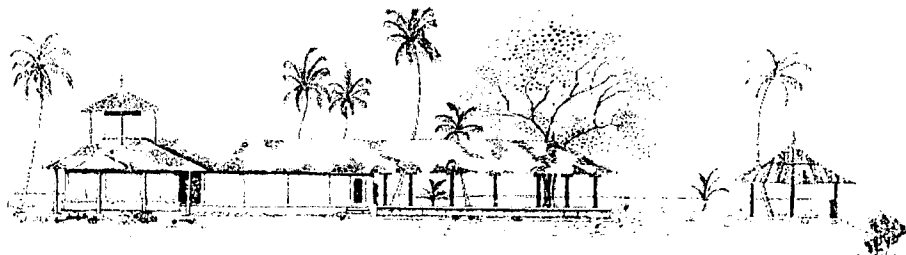
**Rural society was a combined whole of all the villages.**

**Snobbery was quite unknown to the sinhala society..."**

(De Silva, Nalin – 1988 : P10)

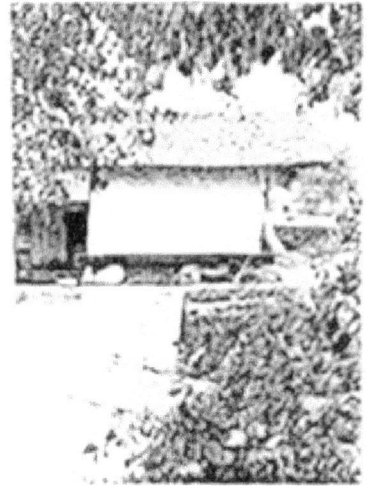
### **3.2.2.3 DISPASSIONATE ENVIRONMENTAL QUALITY.**

There exists an expression of "impermanence" or "temporary existence" even primitive hut to gracefully covered royal pavilion in traditional architecture of Sri Lanka.





Generally the walls do not bear loads; they do not express them selves as essential to exist.



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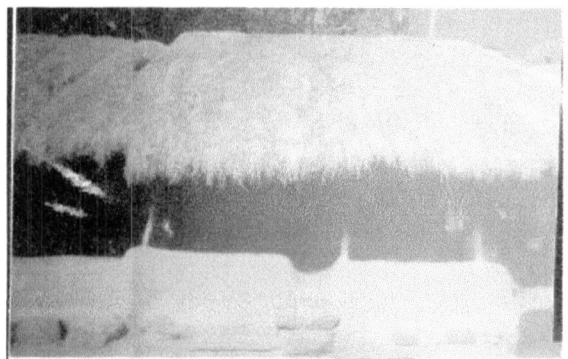
Plate : 3.42

Dispassionate Environmental Quality - Rice Bins



Plate :3.43

Impermanence expression -  
farm house



Even load bearing structure is of easily detachable elements. Thus it expresses as "impermanence " character. Even the materials used were distortable and decadent nature.

It is quite easy to understand the description of Robert Knox about the Sinhalese peasant dwellings. I.e.,

**"They are small low – thatched cottages, built with sticks daubed with clay... The peasants are not permitted to built their houses above one story high; neither may they cover with tiles nor whiten their walls with lime".**

(Knox Robert – 1958 ,p162)

All these contribute to make an impermanent expression which is leads to dispassionate feeling this feeling enhances the overall softness caused by the light –weight character of the superstructure.

#### **3 . 2 . 2 . 4 WHOLISTIC ENVIRONMENTAL QUALITY.**

The "wholistic" expression is very obvious: every little element seems an essential part of the total form. There seems nothing, which could be separated aspects. i. e., the configuration elements are of, perfect geometrical shapes and the articulation patterns of ' perfect geometrical order' usually arranged by one axis or more. For example, plan configuration consists of 'exact' or perfect rectangles, arranged and articulated around one axis or several.

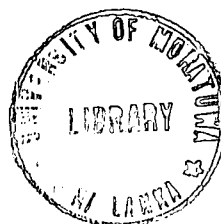
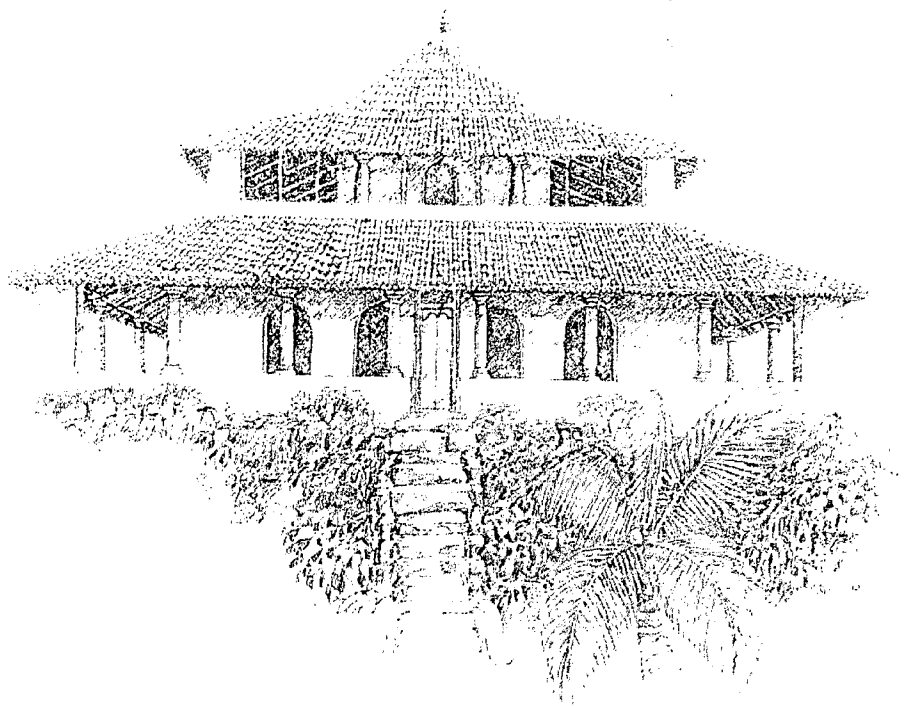


Plate :3.44  
Saman Devala



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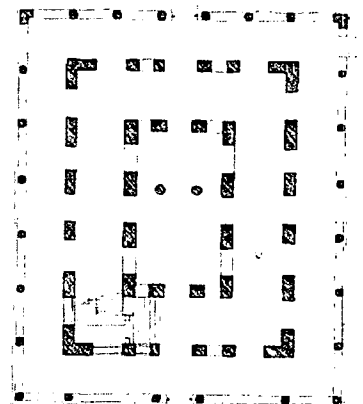
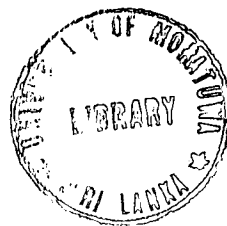
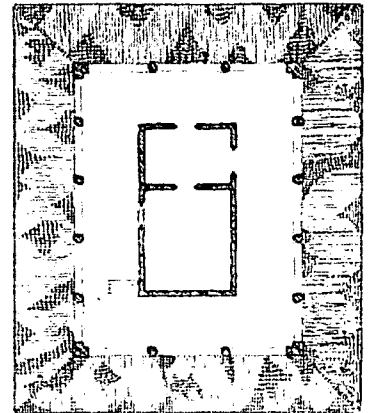


Plate  
Plan configuration consists of perfect rectangles - Dodantale Vihare.

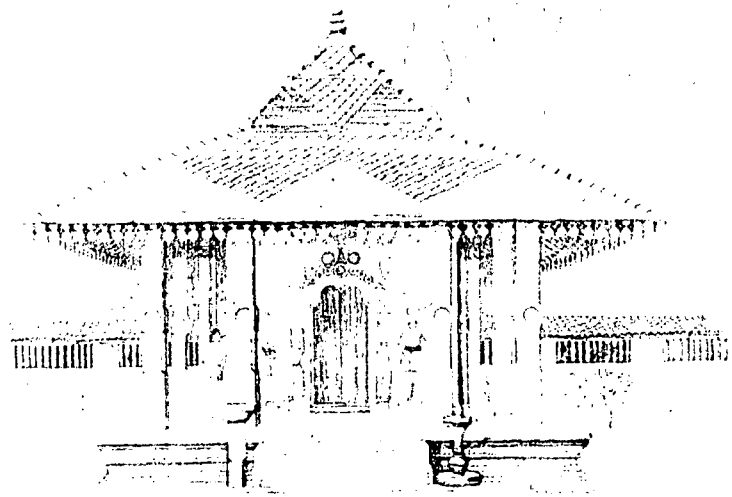


Plate :3.46

**Saman Devalaya – Very little element seems as an essential part of the total form.**

The same could be said about the roof – its configuration pattern and Articulation of its constituent member's i. e., beams, rafters, ridges and even covering tiles. A good example is the roof of the "Ambekke Devala" where the rafters around the corners are arranged in a radial pattern and joined in a knob. Like wise the same could be apply to the skeletal framework, the walls the openings and so on. Thus the overall form is one system where the larger structure is a structure of minor structures.

This shows that the built form of sinhalese indigenous architecture is always an 'inter grated whole' – one art product.



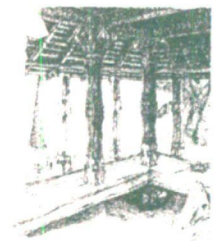
Plate ;3 .47

**Ambakka Devalava**

This clearly depicts what is created is the ' whole ' and not individual parts; the whole precedes parts. Thus from making in sinhalese indigenous architecture is not a piecemeal process but a differentiating process.

### 3.2.2.5 INTIMATE ENVIRONMENTAL QUALITY.

The main vehicle of the intimate quality is the " human scale " of the spaces which make them reachable and tangible -, human scale" is conducive to generate 'humane' expressions –thus 'intimacy ' . Especially the scale of columns – both heights and thickness – is very close to that of an average human being. Even the roof is lowered such that its height is around that of a human being.



The solid and consolidated expression of basal platform and the "kotta – pilla", each – due to its raised and spread character and the look of a single monolithic mass – contributes to a relaxed frame of mind which is conducive to enhance the "intimate".

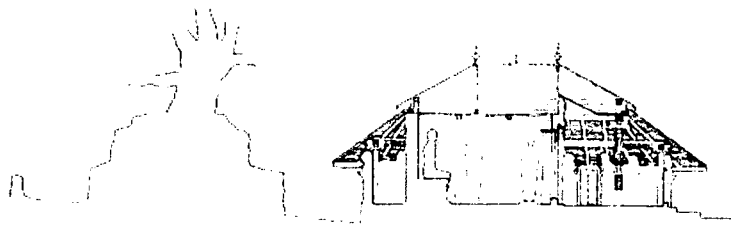


Plate : 3.48

Intimate environmental quality – drummer's hall, Lankathilaka, Rajamahaviharaya. ( 14<sup>th</sup> Century )



When considering their traditional peasant house –the pila, the short walls around cota pila are approximately the height of the man. It generates humane expression. The wall usually set against this open “pila” area, separating it from inner rooms, provides necessary cover which, too, contributes to a relaxed frame of mind and create tangible corner spaces conducive to the expression of “intimacy”.



“Human scale” of the section – which makes intimate expression



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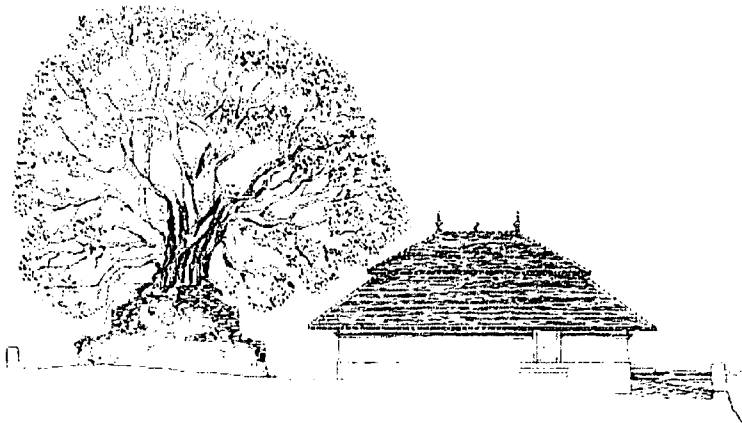


Plate :3.49

Padaniya Rajamahaviharaya, Kurunegala.  
(1747 A.D)



The space being open and free due to the absence of walls etc. Makes it merged with the other environment. This induces a feeling of ' assimilation' and 'interaction', thus leading to the friendly and ' intimate' expression.

The organic nature and finishes of most of the materials used add to this feeling. It is note –worthily that this environmental quality was generally present in grand buildings as well as in the folk buildings in the Sri Lanka architectural tradition, with a slight difference of its degree, caused mainly by the construction materials and finishes. But the basic character articulation pattern and expression of the form are identical. Even the basal platforms of royal palaces or religious buildings are identical with those of the peasant –houses in the basic character of form and expression. The same could be said about the roofs, columns, walls, etc. and there overall articulating and expiration as noticed in the preceding sections.



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### 3 . 2 . 2 . 6 “CHEERFUL YET SERENE“ ENVIRONMENTAL QUALITY.

This environmental quality is mainly attributed to the habitable court- yard spaces, which are merged externally, or internally into the building as an integral part of it, creating one physical entity.





Plate :3.50

**Aliveness – Cheerfulness of courtyard  
Manor house near Galle fort. ( 1742 )**

The courtyards, usually comprised of trees and plants of various kinds can be identified as those spaces of natural environment, which are defined and posed

**“...When we speak of design, the role object of discussion is not the form alone but the ensemble comprising the form and its context...”**

(Alexander, C – 1970,p:43)

The fact that natural environment is within the built form or in other words, becoming a part of it, is conducive to the feeling of “aliveness” – living quality. Here the unforgettable fact is that these courtyards were never empty.

But usually contained plants and trees irrespective of the function of the building (except in the special cases where it contained either a pond or while sand etc. in order to produce the desired specific expression.)

This spirit of “commonness” and “liveness” together makes a sense of “cheerfulness”

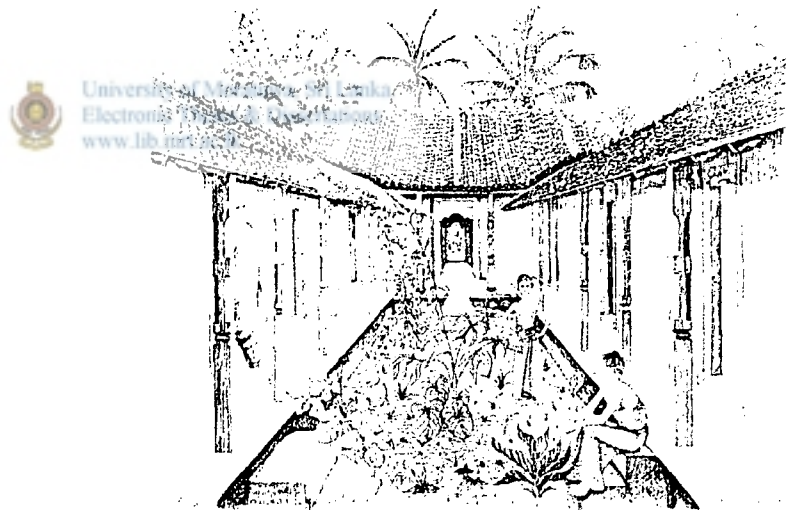


Plate: 3.51

“cheerful” yet “serene”

**Courtyard**

**Monk house – Lankatilaka.**

The scale and the proportion of the court-yard inducing the sense of “controlledness” together with the feeling of being “surrounded by the built forms contribute to the “serene” feeling. The serenity makes the necessary control of the “cheerfulness” these feelings will be further enhanced by the “intimacy “ created by the eaves projected downwards into the courtyard and the

basal plat form projected in to the court-yard along with outer periphery of the court-yard and the openness of the exposed column structure. All these features seem to have got their form because of the courtyard: blended so harmonically with the courtyards, making it habitable.

Thus it is the outer periphery of the court-yard consisting mainly of the attributes of “cheerfulness” and “serenity” which is mainly habitable people stimulated to sit and gather around and to have a chat or to rest, relax and pond over to play- the most encouraging and the best spacing in the building for collective or common action.



“

Plate : 3.52

**“cheerfulness” and “serenity”**  
Courtyard -  
Mahagedara, Ukuwela, Matale.

In certain cases, where there were more important or sacred spaces they were in the center of the courtyard. Usually the verandahs like spaces were open to the internal courtyard.

In other cases like chieftain houses there were in addition some verandah spaces open to the outside.





### 3.3 CROSS CULTURAL EFFECTS IN ARCHITECTURE TRADITION OF SRI LANKA.

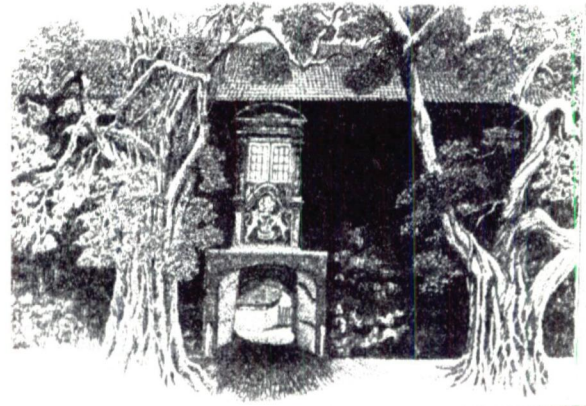


Plate:3.53

The Sea gate  
Galle fort  
(v.o.c)



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"Interesting aspects of the architecture of Sri Lanka during the phases of colonial rule are; the extent to which the Portuguese, Dutch and British influences and the indigenous architecture; the country extent to which each related to the architecture of its mother country; and the extent to which architecture in Sri Lanka interacted with the earlier and contemporary architecture in the rest of the Asian colonial world.

While many of these influences were undoubtedly operating at once, there were times when major events elsewhere, or internal conditions in the island, favoured one or another kind of development. Yet, always running through the architecture of Sri Lanka, there was the steady evolution of its architectural language appropriate to that time and place, and ultimately this must be seen as an indigenous creation, produced as an amalgam of all that was best in that cosmopolitan environment."

(lewcock,Ronald – 1998 : p249)



### 3.3.1 PORTUGUESE COLONIAL ARCHITECTURE AND ITS INFLUENCE.

In 1505 the first colonial power set foot to the Galle.

Throughout most of the 16<sup>th</sup> century the Portuguese led an embattled existence in few forts on the Sri Lanka coast. These were mainly military forts and the churches of catholic missionaries.

Although no single building can with certainty be identified as having Portuguese facades intact to the present day, the number remain their appearance modified by later alternations.



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Plate :3.54

"Mushrabiyya" in Galle – Fort  
(from Heydt c. 1740)  
Source ; The Architecture of an  
Island.



They also introduced to Sri Lanka the half round clay roof tile, which ultimately became tradition of Sri Lanka. They improved on the traditional courtyard dwelling and created what is commonly known as Walawwa style.

It is probably that the Portuguese introduced the double arched windows now found in some of the older intact building of European type in the island, such as the Dutch churches at Matara and Jaffna.

### 3.3.2 DUTCH COLONIAL ARCHITECTURE AND ITS INFLUENCE.



Dutch colonial architecture and its influence.



Plate  
Dutch influenced house.



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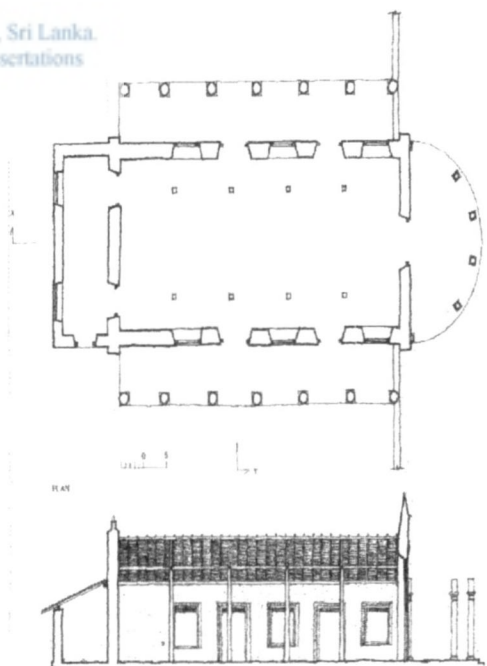


Plate :3.55

The dutch church, Kalpitiya.  
Source : L.Ronald - 1998, p:207

The Dutch captured the most important Sri Lankan possessions of the seventeenth century. During the period of Dutch administration, which



Plate : 3. 57

Doorway, Galle (After J.P.Lewis)



Plate : 3. 58

Central courtyard in Dutch house.  
- Attapattu Walawwa,  
Galle.

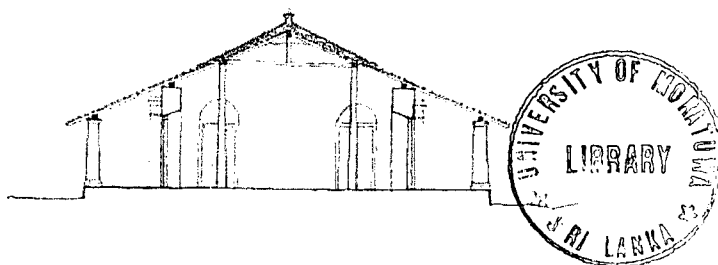


Plate : 3.59

Section, Dutch Church

in contrast to the portuguese the dutch favored houses in which all the rooms were interconnected in a single story. only a few large dutch buildings, such as governor's house and seminary and the officers, club in Galle fort (later the hotel) had upper floor. The first was a converted Portuguese building.





Plate :3.60  
Dutch house, Zeeberg street, Galle fort.

Dutch houses were always renowned for their comfort.

**“The skill of the housewife was wedded to the shrewdness of the settler to produce dwellings that were unequalled in internal convenience.”**

(Lewcock,Ronald – 1998 :p172)

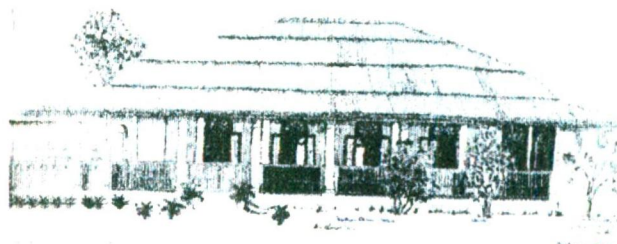
“In the design of houses these was a tendency for a grander scale and a grater number of rooms entrance halls became slightly narrower in properties to their increased length to allow the side rooms to become larger. The height of the main transverse rooms was often extended upwards. There was no longer any ceiling. The underneath of the roman tile roof was exposed instead. There were a grater number of small rooms hanging the courtyard; usually a double – storied building was now added often at the opposite end of the courtyard from the main house, where the ground floor served as a carriage house and the loft above as a dormitory for servant or slaves”.

(Lewcock,Ronald – 1998 :p172)

### 3.3.3 BRITISH COLONIAL ARCHITECTURE AND ITS INFLUENCES.

**“By the first decade of nineteenth century true British – style building were being created.”**

(Lewcock,Ronald – 1998 :p249)



Eknaligoda walawwa



Plate :3.61

**Eknaligoda waiawwa –the façade added during the British period.**  
Source ; The Architecture Of An Island,1998



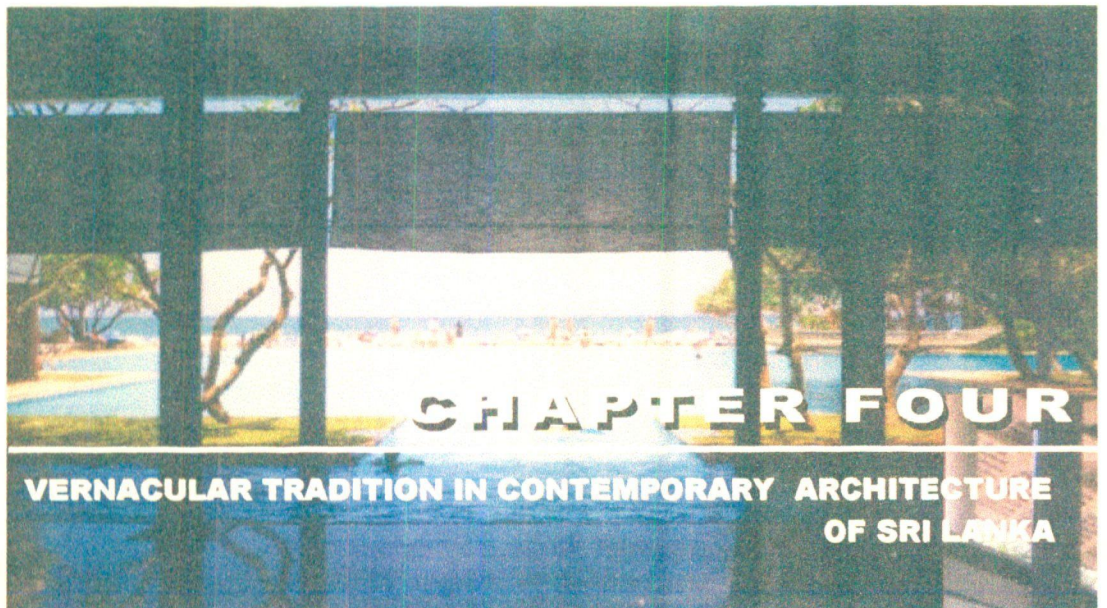
Plate : 3.62

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**Shop House in Main Street Ambalangoda**  
Source ; the Architecture of an Island., 1998.





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## CHAPTER FOUR

### VERNACULAR TRADITION IN CONTEMPORARY ARCHITECTURE OF SRI LANKA.

#### 4.0 INTRODUCTION.

Recognition and usage of the fundamental principals and its qualitative attributes of the country (identified in the chapter three of this study) by an architect, altering and modifying with the prevalent socio cultural needs of the society and new material technologies in the contemporary architecture, has led to the development of vernacular tradition to identify them.



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#### 4.1 STUDY OF SOME CONTEMPORARY ARCHITECTURE OF SRI LANKA.

##### 4.1.1 RATHNAVIBUSHANA'S FORMER HOUSE – MORATUWA







Elevation of the house

## Introduction

This site is located in Lunawa – Moratuwa away from Colombo to South. It is the promontory of land surrounded by the lagoon with views of the sea and lagoon beyond.

The house located at the edge of the lagoon meets with sea. Magnificent scenery of water seems to be the reason to build this house in a place, which is far off from main traffic routes and with comparatively low facilities.

**“The architectural language of the house is distinctly modern yet; simultaneously there is an elusive sense of the past. Planner surfaces and the frame structure of the tower contrast with the almost ‘Moorish’ details of roof access stair and the Sinhala tiles on the roof of the guest**

houses alongside the rough plastered walls and white painted cement floor fuses traditional and modernist elements.”

(Powell, Robert – 1996 :P60)

### Plan configuration

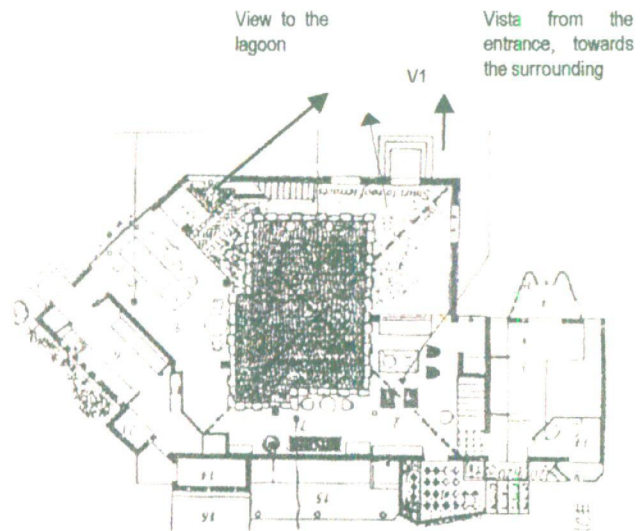


Plate : 4.1

#### Plan

Source ; The  
Tropical Asian  
House



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The house revolves around an open-to-sky courtyard surrounded by high protective walls and the sitting and dining areas are arranged on opposite sides of the courtyard.

Trees and ferns surrounded the pool. The effect is to merge the interior and the exterior, and the life of the house takes place at this interface.





These spaces are not separated with walls, each space flows into it. The other end emerges as a continuous whole. It is almost like a verandah in a traditional vernacular house.

Tall doors can be thrown open on the south and west side to reveal a pearl at the heart of the a house a shimmering reflecting pool, flush with the door surface which changes colour with conditions of natural and artificial light at different times of the day.

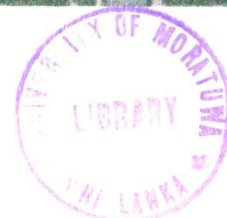
In traditional Sri Lankan dwelling, the compound inside the center, is commonly known as "Mmeda-midula" and represents one of the widely used fundamental principals in architectural tradition of the country - the center and sense of openness.

This central space and its surrounding are used as an entertaining area for visitors and a gathering space for family members. It is the most live and interacting space in the house, and the liveliness is further enhanced by the natural flow of light and air.

This principal is used in an evolved way in this contemporary house in compliance with the socio cultural requirements of the present context. Liveliness of the core area is enhanced by loggia like living and the dining is no more privet act.

Plate 4.2

This central space and its surrounding are used as an entering for visitors and a gathering space for family members. It is most live and interacting space in the house , and the liveliness is further enhanced by the natural flow of light and air and pond.



The central garden space is replaced with sheet of water, is a media for light reflection will effectively increase the interior coolness and enhance the living and comfort in a tropical climate.

A shimmering reflecting pool is at heart of the house.



verandah being the transitional space in traditional Sri Lankan house, act as an intermediate zone from public realm outside, to private realm within. In this contemporary house, require transition be obtained by leaving the whole ground floor as a public zone, and locating the private areas at upper level.



Visitors are provided with maximum pleasure, which has become one of the fundamental characteristics in traditional Sri Lankan living.

### 3D Composition

The entrance to house is through a decorative timber door, and rear door place with line with the main entrance will create through views of surrounding vicinity, and the central light pool will act as the main attraction for this framed view.

In traditional Sri Lankan house the inevitable harmony with the lush landscape is created by framed views, when the channel of the vista is relative to the scale of man it is a humane vista; the central light pool further enhances this.



Plate: 4.4

Framed view  
lagoon from  
the dining  
area.



The fundamental principal of vista and harmony with nature has been incorporated into the design. The spaces are composed so as to get framed views of inside and outside. This enhances the intimate quality and gives a sense of belongingness.

Openness and close to he nature even could be experienced in upper levels of the house. The private spaces are located in combination with landscaped roof terraces, and also to create through views of the surrounding landscape, the built forms in upper levels is expressed with cut-outs – main form of the house is a framed structure.

### rchitectural expression



Plate: 4. Section

The house has mainly reinforced concrete 'flat' roofs (over the principal bedroom is a pool of water to give inclusion). In this, as in later houses, where the uses grass or gravel on the roofs, the architect departs from the traditional vernacular language of pitched roofs.



the uses grass or gravel on the roofs, the architect departs from the traditional vernacular language of pitched roofs.

Very little glass is used and a simple range of natural colours and materials is employed. Colour is provided by blue and white painted doors and timber columns as counterpoint.

The house is raised about half a meter above the surrounding ground. Seasonal tides, which sustain the adjacent mangrove vegetation occasionally, reach the foots of the external steps.

Uniqueness of this house form lies in the exposed column and beam concrete structure, emerging through a solid parapet wall.



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Play of solids and voids of exterior wall will enhance the symbiotic quality of built form – that the house is in harmony or balanced, with the environment.

Though in some areas the roof was designed in such a way without long hanging eaves, but the required functions of the roof mainly the protection from sun and rain is obtained through boxed typed windows, with thin and long openings at its sides. Glare is minimised in this house with minimum use of glass. It could be experienced in this house, the comfortable and pleasurable living in a tropical climate, and the house is part and parcel with the nature.

At last it could be argued that the some of important fundamental principals of the architectural tradition of Sri Lanka was applied in a more creative way in this contemporary house, modify with prevailing socio cultural needs, new material demands, without losing touch with the established tradition.





#### 4.1.1 UNIVERSITY OF RUHUNA - MATHARA.



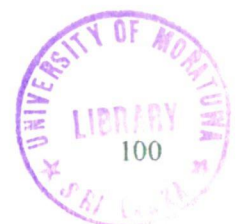
The University Of Ruhuna locates on a spectacular hilly site on South coast overlooking the sea.

**“The complex linked by terraces, gardens and covered walkways. That gives spaces for pause, contemplation & meeting. The modestly elegant buildings of different heights are carefully placed in the landscape to create a pleasing academic atmosphere!”**

(Hassan, Uddin Khan - 1995)

Plate :4.7

The modestly elegant buildings of different heights are carefully placed in the landscape





There were superb views from almost every point of this site, and these became from the start an overwhelming influence on the planning to accentuate certain views, frame others, give delight and surprise at every turn as one wound through buildings and landscape.



### Plan Formation (Configuration)

In Sri Lankan vernacular architectural tradition one remarkable feature in the arousing harmonious set ups between the built environment and the natural surrounding. .



The harmony or the balance with the environment featured in Sri Lankan architecture depicts its long prevailed cultural and social distinctions, which is more fully evident in the Ruhuna University.

The whole Ruhuna University is designed conformity with traditional Sri Lankan dwelling including the verandah with columns supporting the long hanging eaves of the roofs together with effectively framed views of the landscape with the combination of exterior with the interior.

Plate :4.8 The entirety of Ruhuna University is woven together with open colonnaded walkways of human scale



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entirety of Ruhuna University is woven together with shade of open colonnade walkways and framed views of the attractive landscape "bringing nature in and contact – with the ever lasting integration between enclosed areas with the natural environs hardly let one to identify any disharmony nature.

Plate : 4.10  
:Colonnade – creates an infinite vista



The landscaping & the siting of the building compatible to natural vista, is the central feature in the design. It is surprising & delights to witness that each and every space carefully orchestrated with compassionate vista.

Every covered walkways and paths in the University, ends up with unbounded or limitless view. This is further enhanced by orderly arrangement of concrete columns.



Plate :4.11

University of Moratuwa, Sri Lanka.  
bounded limitless views & Dissertations  
of the seawhelpsatic.lk  
reduced the vastness  
of building complex  
and make to human  
scale

The spacious traditional verandah in Sri Lankan vernacular Architecture is a result of the tropical climate & the cooperate life style of people. This verandah always for informal gathering, which is common for every Sri Lankan household. Similarly this particular University building also has open ended spaces added with supporting colonnaded which provide for activities such as students meeting etc. The covered walkways which connect the buildings is an added advantage for the student as with built in seats is an added advantage for the student as well as protected outdoor space.

This represents manifestation of the Sri Lankan traditional way of living.





Plate : 4.12

verandah always for informal gathering, which is common for every Sri Lankan household. Similarly this particular University building also has open verandah spaces added with supporting colonnaded which provide for activities such as students meeting etc.



### 3 D COMPOSITION

In scaling a built environment human scale has become the traditional System of measurement.

This fundamental principle of human scale in very innovatively and efficiently utilized is the composition of built form in the University.

The open pavilions erected on flights of steps on the ground which are connected by enclosed roots are marvelous – composition of humanness beyond that scale.



Plate: 4.13

### Architectural Expression

**“ The building itself clearly express the idea of the Srilankan builtform being composed only of a roof. Column and the floor. Ubiquitous and pervasively present, the scale or pattern shaped by the building beneath the roof is the strongest visual factor, shielding and conveying the contentment of shelter “**

**(Buchanan, Peter – 1983 )**

The wide lanking terraces with trees and loans give the University an enormous sculptural appearance. Yet it has been able to maintain the relations of the proportions of the built forms in order to achieve the human scale, both in height & length.

The entirety of the building complex has a holistic environmental quality, which is an excellent characteristic vernacular architectural tradition of Sri Lanka.

the Though University holds a majestic and gigantic appearance in built forms throughout the whole design a very cheerful serenity and simplicity is dominant.

Plate :4.14

Though the University holds a majestic and gigantic appearance in built forms throughout the whole design a cheerful serenity and simplicity is dominant.





Plate :4 .15

**Modest  
environmental  
quality -  
entrance  
pavilion of  
university  
Ruhuna.**



Especially in this University building the roofs with red tiles, long handing eves with exposed rafters is creative continuance of the Sri Lankan tradition. Nevertheless the vernacular tradition depicted the architecture of University is very accurately consisting with the present day context.



Plate : 4 .16  
University of Moratuwa, Sri Lanka.  
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Vernacular  
"idiom" in  
present day  
context -  
A seminar  
room.



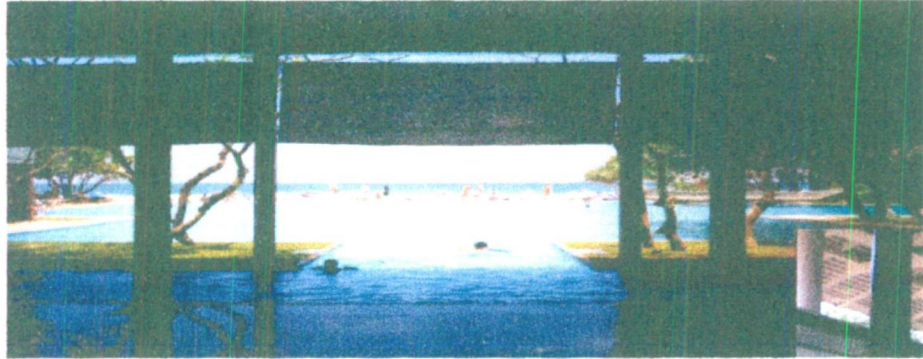
The Sri Lankan vernacular built forms significantly composed only of dominant roofs, columns & floor is omnipresent in the entire University building complex.

Plate :17

**Sport Pavilion of  
university.**



### 4.3 TRITON HOTEL – AHUNGALLA.



#### Introduction

This two storied, tiled roof hotel building at Ahungalla is sited on a long narrow beach.

The site largely shaped the planning of this hotel. A long narrow beachfront reached by an equally long narrow strip of land, which gave the hotel access from the main Colombo – Galle road.



Plate : 4.18  
Section

Plate :

Vista –  
From the lobby to the pool to the sea



## Plan Formation

The long approach provided the opportunity of dramatising the arrival with the view of across a large reflecting pool, then a polished lobby floor, and the finally the swimming pool and the sea, all essentially at the same level. At the entrance portico the same illusion was kept - the swimming pool ending, without a visual break at the waves and the beach celebrates the sense of entry. The lobby, coffee shop lounge and pool are designed as linked open pavilions, all with the wide view of the sea dominating.

**“In the same way, to emphasis the view, the first and second floor lobbies have the same extremely open vista of beach and sea”.**

(Taylor, Brian Brace –1995 : p140)

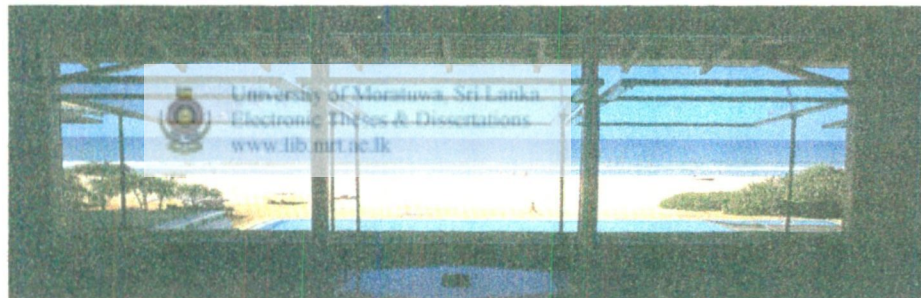


Plate : 4.19

**Second floor vista of the pool, beach and sea.**

This perception of vista triggers contemplation and will relate to the concept of Buddhist philosophy of achieving an ultimate goal Nirwana, God, Non – being etc., in other words, it could interpreted as the finality of the process of life.

The evocative harmony between the building and the setting has been one of the fundamental principals in vernacular architecture tradition of Sri Lanka. The vista and harmony with nature.

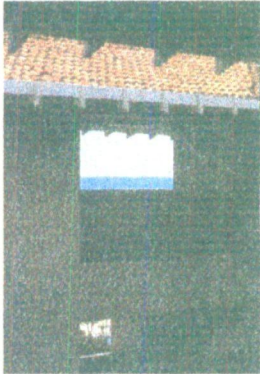


Plate :4.21  
 Vista - Glimpses of the sea and pool



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Plate :4.22      Palm - Triton Hotel at Ahungalla



The main public spaces of the hotel the lobby, several lounges, the bar are located in an around central pool which is most live and interacting zone of the hotel. In traditional Sri Lankan dwelling "meda midula" – central open space was mostly used as a public area – called as live court yard. In this hotel the same fundamental element has been used in an evolved way modifying to suit the required function.



Plate 4.23  
Lobby a4.round central pool

### 3-D Composition University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations [www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

Human scale is the commonly used measurement system in traditional architecture of Sri Lanka in Triton Hotel this have been achieved by breaking height by preading the hotel parallel to the sea. The large roof with long eaves and the solid void relationship of façade treatment helps to achieve human scale and express intimate expression.



Plate : 4.24  
Intimate expression of the hotel.



## Architectural Expression

In Sri Lankan traditional architecture superficial elaboration and decorations have never been appreciated. This attitude is same in defining Triton hotel. Only the essential features of built form were given due regard whatever the elaborate details employed, they were aimed at emphasising the essential element of built form.

Court yard-  
Intimate  
expression to  
tourist.



The columns of lobby area near pool are very simple and used only to give essential load-bearing capacity; this gives the minimised idea. The large overhanging roof brings the memories of past vernacular architectural tradition and bulkiness of roof is reduced by painting eaves in white colour.

Modesty is a very obvious expression in any kind of Sri Lankan vernacular traditional buildings. The building itself clearly expresses the "modest" environmental quality of the Sri Lankan vernacular built forms in more creative way.

However it can be argued that heightened "vernacular tradition" in the architecture of Triton hotel, which seems to be appropriate to the present context.



## CONCLUSION

Our observations made in the process of the present study is diverse and multi – faceted.

It is clearly evident that the Sri Lankan vernacular architectural tradition has rooted it self well in the people and the country. It has primarily responded to the culture of society, and also shows competency to environmental context and available technology etc.

We can unhesistantly conclude that Sri Lankan vernacular architecture was a contemplative art; because it has always generated its forms primarily in response to the qualitative needs, i.e., those of the cultural realm, of the and thereby conveyed meanings to the people. And thus conducive to contemplation.

Most important outcome of the study lies in the lessons that we can learn for the contemporary problems.

The most important observation is that the process of Sri Lankan vernacular architectural tradition was primarily determined by the internal momentum of the culture of the society; - from the simple rudimentary built forms of the village to the more complex and varied forms of religious and royal buildings, its evaluation, development and re – creation have emerged from the internal dynamism.

This factor is more evident as well as more useful for today when considered the interactions this tradition has undergone in the confrontation of powerful

foreign cultures. On the assimilation of Buddhism, our ancestors have not confined themselves to 'imported' forms to accommodate the newly emerged religious needs; instead they created and developed new built forms which were based on their own familiar native concepts. (e.g.; Cave temples, Pabbatha vihara, Meditation Monasteries, Tempita Vihara and so on.) They were all unique and thus original. Similarly for the worship of Hindu gods, they built Devalaya's which, too, are based on their own distinctive concepts developed to incorporate the newly emerged needs. (e.g. Ambekke Devalaya, Vishnu devalaya) What is noteworthy is that these newly created built forms too maintained the expression of the fundamental principals and environmental qualities that were intrinsic and essential.

Hence we can see that as result o the continuous development of the internal process within the society, new internal forces were generated which were capable of bringing equilibrium out of the contradictions which result in the encounter of the foreign cultures.

Therefore we see that the vernacular architectural tradition of Sri Lanka was never stagnant but truly progressive and truly innovative, thus creating original and unique concepts and forms. It was never a rigid dogma but always living and developing itself; always open to new challengers; always fresh and new. We can create the vernacular tradition in this sense as the 'selected wisdom', because it's on - going process is comprised of the 'best' of the past achievements.

Thus a conscious study of vernacular tradition of architecture is of most value, because if we are to developed and remodeled the architecture, first have to

'earn' and 'process' the legacy of what our ancestors have handled on to us, as their 'selected wisdom'.

**“ Man has not only to keep reminding himself of the achievements of the past, but also to learn them and to re-invent his world and humanity constantly and continually. Because this process of re-learning and re-invention is continuous, there is always a legacy for one generation to pass on to the next, a legacy of finished world to an unfinished humanity.”**

(Fathy, Hassan, 1973, p:23 )

Therefore in order to face up to the reality of today's context, we have to be first equipped with what our forefathers continuously carried forward. New internal process have to be generated and developed within us so that we can bring about an equilibrium and harmony on the interaction between concepts of our tradition and those of external forces. What is important here is to still maintain the basic Principles and essential intrinsic qualitative attributes or environmental qualities, which can elicit meanings relevant to satisfy the needs of the socio-cultural realm. In the attempts as such as the symbolic code of architecture may vary; e.g., to create the same environmental quality, i.e., to elicit the same meaning for people as implicit in a typical vernacular buildings, we may use high technology and new materials borrowed from the modern international sense. Hence we invariably change the synthesis patterns of 'perceptual variables' and thereby change the symbolic codes, but it really does not matter, because what is important is the meaning pertaining to.

According to architectural historian William Curtis, “ The best in modernism can be profoundly rooted in tradition; and the best in tradition has to do with a dynamic





process of rethinking cultural core ideas. It is a question of penetrating the underlying generating principals and symbolic sub-structures of the past, realizing where they are relevant ... and transforming them into the present circumstances “.

(Curtis William – 1985 : P17)



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