AN EXAMINATION OF PROBABLE IMPACTS OF THE DEVELOPMENT PROPOSALS ON THE HISTORIC CITY OF GALLE

The Dissertation Presented
To the Department of Architecture of the University of Moratuwa,
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I dedicate this Dissertation to my Loving Parents

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INTRODUCTION

0.1 Topic Explanation

City of Galle had been a center of power and administration of colonial power for four and half centuries before independence. It had been a battleground and a place for liberation leaving behind many emotional historic facts. Consequently today the city has become a repository historic fact, containing buildings and historic landscaping projecting the image of social, cultural, economic and political systems of the past.

The city had experienced the ravage of destruction as result of general economic development, of the country in the recent past. However the public cries along with the historic interests driven NGO's caused retardation of the destruction and allowed preservation of the city, to date. However at present a massive Regional Developments are planned for reawakening of the south. Strategies for anticipated development of south includes, southern highway, Galle port development, town center rehabilitation and development projects.

It is imminent that these developments will have some form of impact on the Historic City of Galle. Galle being the center of administration, economic activities, education and politics. Impact of southern regional development schemes on the city is imminent; vary specially on the historic quarter.

2.0 Need for the Study

Since most of global experience in the past has not considered thus vital aspect and consequently city had lost their identity or character, in the wake of modern development. Galle is one of the important historical city, which bares a history prior to colonial invasions.

It is important to study the current pattern of built environment, on the historic city of Galle, and analyzed the impacts of the major development proposals, which are effects, the development of the area. Therefore as a n architect it is their responsibility to understand the respect of groups, value of buildings, character and their role, important as a part of a city form.

0.3 Objectives of the Study

The proposed study is about the impacts of the regional impacts of that had taken place on the historic city of Galle. The objectives of the study are as follows;

- It is expected to study the contemporary world trends, and the experience from the Sri Lankan context, on historical cities.
- Examines the various stages of the process of evolution of the ancient city of Galle, in to its current form, and its characteristics. In this regard various changes that had occurred in the city plan and the city forms are investigated additionally the determinance of such changes and the nature of such transformation is analyzed. Also current development pattern of the city are analyzed.
- Examines the problems and potentials of the area for development. Problem identification can be illustrated as the foundation of the planning process in order to identify a critical and legitimate problems area. SWOT analysis is very useful and widely use technique to answer important questions about the area where planning is done. Many issues can be identified through these studies.
- Documentation and analysis of the development proposals which could have effects on the historic city of Galle

4.0 Methodology

The information will be collected from the major sources. The major source will be the documentary evidences from previous researches, historic records,

documentary records, available with local government and national level institutes. The other sources of information will be the field studies dealing with the impacts of all ready-implemented development projects. Written documents historical maps, plans and new development proposals using UDA, SDA and local authority resources. Accurate information regarding the earlier periods especially the Portuguese is scare to be not too accurate and sometimes contradictory to shown in maps of the latter years. Old records, maps, and plans which have been use in this study, were obtain from the National Archives of Sri Lanka, the Colombo Museum, Archaeology and Department of Surveys. It can be examine the historical perspective of Galle. The history of three basic colonial influences, would be elaborate in consonance with, the Portuguese period, Dutch period, British period and Post Independence period.

Examines the physical context of Galle by doing the field survey. The present context of the townscape is going to be studied connection with already completed projects, which have direct impacts on the historic city of Galle. The projects, which have indirect effects, will not be considered. Impacts from the International Stadium, Bus stands Development and other Commercial Developments etc; will be treated as case studies in this regard.

The probable impacts will be assessed by analyzing the impacts of already completed projects and study, in development proposals which could have effects on historic quarter and analyze their probable impacts.

5.0 Scope and Limitations

The study and data collection will be confined to already completed projects, which have direct impacts on the historic city of Galle. The which have indirect effects will not be considered. Also probable future development projects will be considered and examine the negative and positive impacts which could be categorized as physical, social, economical and environmental.

CHAPTER ONE

THE IMPACT OF THE REGIONAL DEVELOPMENTS ON HISTORIC CITIES, BACKGROUND STUDY

The Impact of the Regional Developments on Historic Cities, Background Study

The objective of this chapter is to examine the various example of the world as a contemporary world trends. Also to study the experience from Sri Lankan context on historical cities, like, Anuradhapura, Kandy and Colombo.

1.1 Contemporary World Trends

Modernization and westernization have caused many a historic city in the modern world to experience developmental changes in the built in environment. The economic structural supports as well as the urban economic structure of the ancient cities have changed. Most of these historic cities have experienced a reduction in the total population due to various reasons. Massive out migration, development of new cities, neglect and disorientation, famine, uncontrolled epidemics and reduction in investment directed towards preservation of ancient cities, are same of the important reasons why such changes in historic cities have taken place.

The building fabric of an ancient urban environs were governed and maintained by unique architectural characters. Exposure of ancient urban structures to modern structural planning have led to disorientation and neglect of ancient architectural features and characteristics. use of inappropriate built forms, entirely irrelevant to the historic context and its rhythm of development of ancient cities are the main causes of such deterioration.

According to Reekie;

"The man shapes the environment to suit requirements activities and behavior. The organized environment provides a setting for human activity." (Reekie, p.63)

Nevertheless to understand the impacts of the regional development planning on historic cities, the role of the city dwellers with the environment and their effect on the change of physical features should be clearly understood.

In reusing the conserved monuments or sites urban conservation in addition to the presentation of the historic fabric of towns and cities, has a definite role to play in modern conventional planning. A study of the existing buildings and their conditions provide a basis for a rational assessment of the available resources that could be converted to modern usage.

The type of new buildings to be built adjacent order buildings can be selected through the design elements such as scale, proportion, configuration, pattern, materials, colour and texture. A policy for ancient city development could be finalized when due to consideration is given to all these requirements and further needs of the community.

During the late 1970's American city planners found a magic formula to address the problem of ancient city deterioration. The magic formula was "revitalization" of deteriorated ancient cities. Baltimore inner harbor and the Boston Quincy Market are two examples in this context.

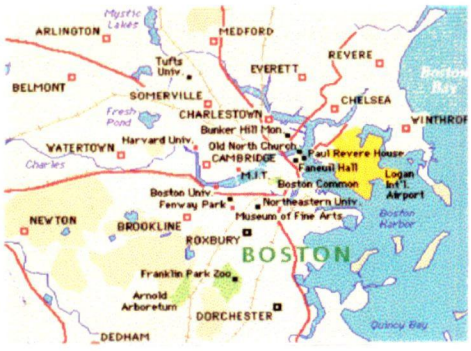

Fig.1: Location Map of Boston

"The exuberant Americans would arrive with pictures of down town Boston, full of life and colour and excitement – plus, almost needless to say booming sales and expanding jobs....."

A new kind of creative partnership between the city government and the private sector had been created.

Fig.2: Arial View of City of Boston

Fig.3: The Boston Quincy Market

Fig.4: Baltimore Inner Harbour

If gentrified the blighted Victorian residential areas close to down town and incited their dollars in to restored boutiques bars and restaurant, Finally the restored city would actually become a major attraction to tourists, providing a new economic base to the city.

This was the formula that had already received the Boston waterfront and was just then transforming the inner harbour Baltimore, which were the two great showcases of urban revitalization in its first phase. Viewed more closely, it was of course complex as both cities, which began to experience urban, decline as early as 1950/s had been working on the problem since, Initially during the 1960's both cities had gone for fairly conventional head quarter type office development.

Since both were old established commercial center, Boston was a major home for institutions. Also both had then grafted on large scale water front redevelopments of their derelict inner port areas, involving the novel combine of restored ware house and market buildings, boutiques, shopping, bars,

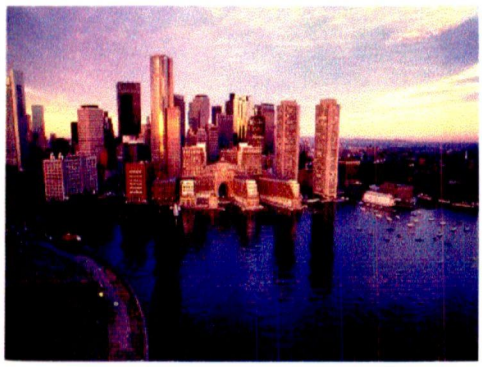

Fig.5: Boston Harbour from the Pier

Fig.6: A City of Liver Pool

Fig.7: Liver Pool Railway Station

restaurants, and hotels and restoration of old residential areas.

Most of the historical cities have lost its image by new high buildings, use of modern materials, architectural style of modern movement, though they may obey the guidelines of spatial sequence and so forth. A particular characteristic may exist in urbanscape, which possesses a contradictory quality opposing the overriding characteristic and weaken its impact.

Another example of the effects of industrialization and the consequent changes, an ancient city structure in the case of the ancient city of liverpool.

The early 19th century was a time of rapid growth for Liverpool. The newly developed steam engine was powering and industrial revolution across, Northern England and in 1830 the world's first passenger railway was open between Liverpool and Manchester. New and bigger ducts were under construction. Trade boomed between Britain and all corners of the
world and the population tripled between 1831 and 1891.

Fig.8: Port of Liver Pool Building

Many Liverpool's citizens lived in overcrowded, sometimes squalid conditions the new, and rich could afford more luxurious surroundings. The area known as Moss Lake Fields, situated on top of the St. James mount, away, from the grime of the city center was the area offered as opportunity to live in spacious comfort. Over the next 100 years a succession of developers built a large number of imposing and elegant town houses, mostly in the Georgian Style.

According to Chrles Mc Kean;

"Paris which originally was a part of the Roman Empire was first established as a medieval city. The city was of three parts. The 'Site' on the Island where the gulls had founded their first village, the 'Universe' on the left bank of the siene where the Romans had built the colony of 'Latotia' 'the ville' at the right bank where the commercial corporation and Municipal Government resided." (charles Mc Kean –1979 P:16)

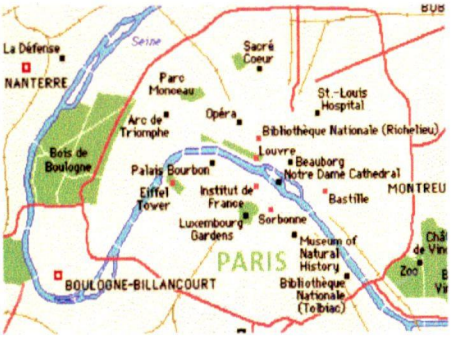

Fig.9: The Locationmapof Paris

The spaces in the city was organized based on roman colonial special concept geometrical grid organization of space where in two principal axes (documanus maximus and cardo maximus) Development of Paris showed a marked difference due to the French kings, who normally resided in Loire taking up residence in Paris 1528 Paris was Transformed by the introduction

Fig.10: City of Paris

of a new system of streets which cut through the mediaeval quarters of the city in all directions.

a) New primary services, water supply sewers, gas lighting and a public transport system.

b) New secondary services schools hospitals colleges, barracks, prisons and above all public parks

A new system of geometrical regularity was introduced to the city by a set of redial avenues, punctuated by monumental forms at point of intersection which showed the natural features of Paris to a considerable degree.

New infrastructure facilities promoted the growth of Paris as Business Empire new types of buildings added vividly to the city form. Commerce became the major function of the city; thus most of the streets were arranged as corridor street in which all the elements as Corridor Street in which all the elements were specifically designed for traffic and shops.

According to Fracesco; (The Bologna experience, planning and Historic Renovation in a communist City.)

"The renovation of the Historic center of Bologna has become widely known, both in Italy and internationally, as an example of what an urban administration can do to prevent the physical decay of its historical architectural heritage, and at the same time create the conditions

Fig.11: Location Map of Bologna

necessary to preserve the sociological characteristics of the population living in the urban center." (Francesco Bandrain, 1979, p.188)

Fig.12: The City of Bologna

Deep conservation attempts to restore a historic environment in rigorous, complete and accurate, form inside as well as outside. While many historic buildings have been preserved, the efforts of cities like Bologna have been to integrate deep restoration with active reuse. Bologna shows simply that a coherent methodology and a democratic decision-making process can do something to save the invaluable Character of the historic center. Bologna shows that the battle for a better city is not lost.

According to Tomislar Marasovic(The meteorology Used in the Revitalization of split);

"Split is a town of 130,000 in habitants situated on a Peninsula in the central region of the eastern Adriatic coast, and is today the cultural economic, and administrative, centre of the most important religion of Dalmatia.

Fig.13: Birds Eye View of the Palace of Docletian - Split

Split is distinguished among Yugoslav towns by its historical remains and has obtained national preeminence by reason of its present Development and Construction especially during the last ten years. The fast – developing economic life of the town depends upon

industry ship building, maritime traffic, trade and tourism."

The methodology used in the revitalization of Split is based on the concept of active conservation and reuse the historical objects as a method of conservation.

The most efficient way to prefect monumental and historical objects is to include them in the modern living faction of the aria. This results in the paining of financial and technical possibilities for their organization and revitalization." (Marasoric T- Revitalization 1979-158) of split

Restored interior of the south east tower of Diocletain's palace now, the conference hall of the split Zagreb motor way conservation enterprises one of the best presented examples of late imperial palace Architecture

According to Zivas A.- The future of the old nothing more or less than the oldest district in sector of the city of Athens, Plaka;

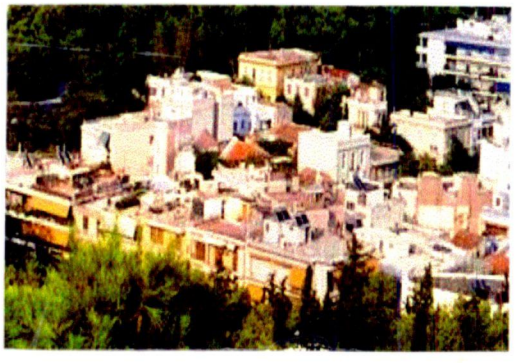

Fig.14: The City of Plaka

"Plaka the best known quarter of Athens is the modern capital of Greece. It is an area, which has been in habited since the late Neolithic age, Continuously to the present day. The present town plan of Plaka, even the present tracing and location of its streets, is directory related to the corresponding layout of the ancient city, While reusing carried out in Plaka an old sector of the city of Athens facing a problem of survival as on the demand of a modern city on our hand and on the other the archeologists who view Plaka as a space, where there interests should have precedence. But its reuse Plaka buildings are either being disfigured

in order that they may correspond to the new function.

1.2 Experiences from Sri Lankan Context

Sri Lanka is an Island with a rich cultural heritage. The Sri Lanka culture, over 2500 years old is indigenous to Sri Lanka but has drawn inspiration from Northern Buddhist India, and the monsoon belt of Asia. Side by side is a Dravidian, Culture which though not as ancient, is equally well rooted and influenced by south Indian Hinduism. In addition there is a Moslem culture brought into the country, by the ancient Arab traders. This ancient culture was also influenced by Rome, Asia, Minor, and China through cultural and trade exchanges. Since the sixteenth century onwards, for nearly 450 years, the Portuguese, the Dutch and the British cultures, and architectural forms, have been infused into the Sri Lanka way of life. So today architecture symbolizing all these influences and trends can be seen in this country.

Under the influence of western colonialism, life in Sri Lanka made rapid changes towards living in towns, drawing people from the villages into urban communities to work under the bureaucratic state or indulge in trading of agricultural produce. This way of urban life from continues to-date even though there has been considerable appreciation of work of past, Sri Lankans especially up to the twelfth century. However, since the independence in 1948, the Architectural heritage of this colonial past is being ignored or destroyed even though the way of life introduced by the same powers has not changed.

In 1956 brought a new "National" government, which gave a boost to cultural activities. The conservation attempts and rebuilding the country were carried out under many programmes and the departments involvement was basically on the restoration project of stupa.

The first post- colonial urban conservation attempt was for the city of Anuradhapura. The Anuradhapura Preservation Act of 1961 was designed to protect the ruined city centre for its historical significance. This was marked a turning point in conservation history for its scale and nature.

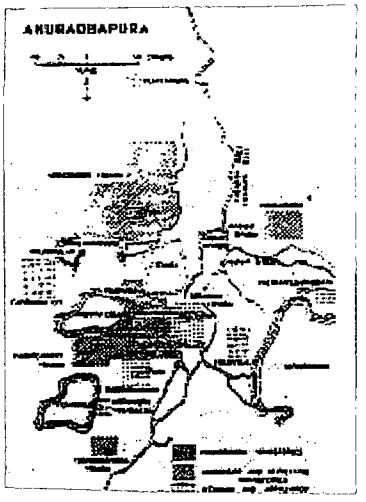

Fig.15: Road map of Anuradhapura

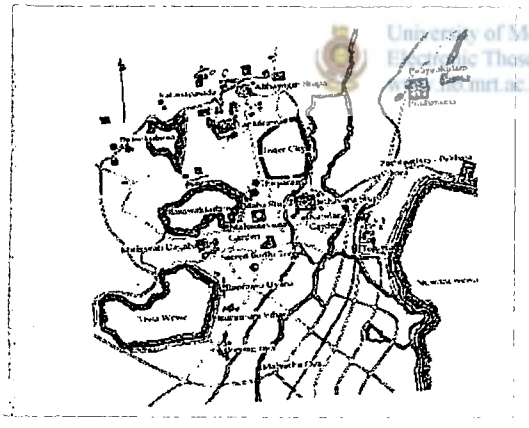
Fig.16: City of Anuradhapura

Anuradhapura was declared as a sacred city giving priorities to its religious edifices. Today the city is preserved and presented as a land of ruined monasteries in order to promote tourism, its urban plan, & street layout. Urban quarters have been neglected by focusing all protection on to Buddhist monuments. Once a sacred area is declared, inhabitants are removed and compensated, with land & money, and future habitation is forbidden. This is an experience way of preservation and a difficult way of maintaining extensive sites. New roads, pilgrim rests, tourist facilities etc. all aimed at those who are visiting the "Frozen past" promoting market values.

The liberalized economic policies introduced in 1977 shifted priorities towards market values and through interest in cultural heritage and potential conversion of it into a commodity was shown Central Cultural Fund (CCF) was enacted to raise , manage and distribute funds for the conservation in 1980 and in the year later CCF implemented a conservation project known as the UNESCO

– Sri Lanka Cultural Triangle Project involving for historic cities and a monastic site.

Kandy is another city in Sri Lanka which was on the verge of losing its natural beauty as well as the invaluable cultural monuments unless speedy action was taken to safeguard them and as a first step UNESCO has decided to declare Kandy as a world heritage city Being a living city its conservation programme had to address the whole city with its community life.

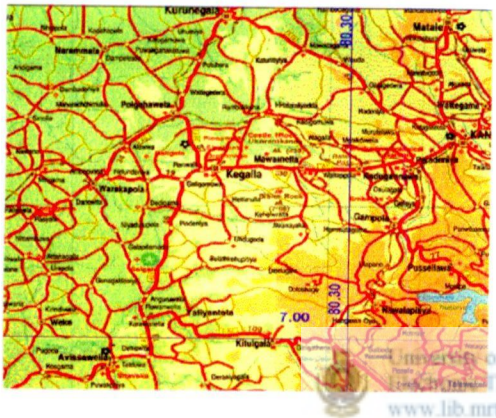

Fig.17: Location Map of Kandy

Fig.18: The City of Kandy

The city of Kandy is situated in a triangular shaped valley surrounded by three specific mounted ranges – namely, the Bahirawakanda, Hantane Kanda, and the Udawattakela. The physical structure of the city is composed on regular grid iron organization where the city space is divided into twelve squaes by intersection of three liner spaces running North- South direction by five liner speaces running East West derection. Two principal linear spaces – Dalada Vidiya which runs east/ west, and the D.S Senanayake Vidiya which runs north / south to which grid iron network of secondary linear spaces relates, meet confronting the vast opens created by the Maha Maluwa and the Kandy lake at the eastern side on the city. Dalada Vidiya to which the other secondary streets run in at almost regular intervals which is broader than the other streets and which maintains a slight ascent towards the sacred compound,

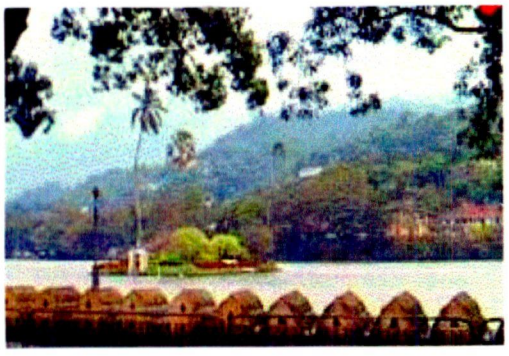

Fig.19: Dalada Maligawa has the Main Feature

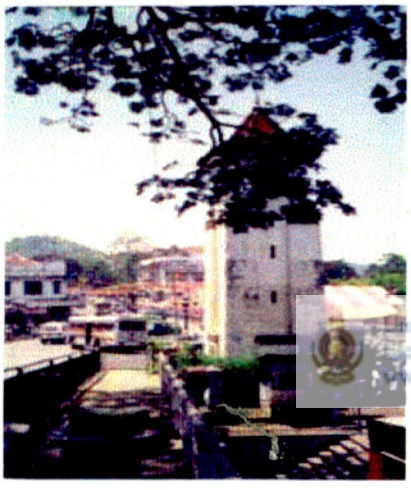

Fig.20: City of Kandy Today

canbeidentified as the principal linear space of the city which provides an axial line of approach to the sacred compound. The vast openness which acts as the fore-court to the complex contrast which the formal as well as built up, compartmentalization defining and enhancing the important of the sacred compound.

There are three specific spatial unities can be identified within the city from of Kandy. Spaces defined or enclosed by single- two storied narrow. Facaded buildings of different architectural sites.

Spaces defined by large scale, wide facaded colonial buildings (eg. Dalada Vidya). Large open spaces which define forms (eg. sacred compound defined by Maha Maluwa and the Kandy lake.

A specific hierarchy, which has been maintrained in the enclosure of spaces, can be identified in the city. Most of the secondary linear spaces are enclosed by a continuous fabric of low scale, narrow facaded uniform height buildings of different architectural style of which the intensity increases towards Dalada Vidiya. Height of the building (sky lines) show a significant increase close quarters to Dalada Vidiya. Almost all the liner spaces enclosed by building built up to the edge of it. Dalada Vidiya is defined and enclosed by a continuous row of large scale, wide facaded building of colonial architectural style, which contribute to the already special natural of It. The linear space of Dala ridiya is punctuated by two rows of

trees. The sacred compound – the Dalada Maligawa and the palace complex occupy a considerable large and long space of ground, raised above a handsome moat being over 200 years along in facade and adorned with a different architectural style as well as scale, the sacred compound looks imposingly towards the rest of the city. The vast openness created by the lake and the maha Maluwa and the similar architectural style maintained, visually relate the Malwatta temple complex to the sacred compound thus increasing the sacredness of it.

Sitting in a valley surrounded by hills the city has acquired a protective yet a powerful stance. It express dominance and stability and evoke feelings of reverence, security, as well as pride.

According to John Davy;

"The houses which constitute the streets are all of clay, of one story, standing on a low terraces of clay, and are all thatched with the exception of the dwellings of the chiefs which are field..... the only street, that requires particular mention is Astawanka veediya or as we call it, Malabar street, having been exclusively inhabited by malbars, relations and dependents of the king"

"The principal objects in Kandy worthy of any notice are the palace and the different temples of Buddha and the Gods. The palace did occupy a considerable space of ground. Its front about 200 yards, long made rather an imposing appearance; it looked towards the principle temples and lose about a handsome moat,..... At one extremity, a hexagonal building of two stories terminated it; called Pattirippuwa, in which the king in great occasions appeared to the people assemble in the square below.

"Kandy abounds in temples, Under the old government the alliance of church and state was as strong as possible, corroboration of which remark it may be observed that the Sinhalese seemed to consider the temples of the Gods as

necessary appendages of Royal palace. The principal temples in Kandy and its immediate neighbourhood are the Dalada Maligawa, the Malwatta and & Asgiriya Viharas and the Natha, Maha- Vishnu, Kataragama and Pattni Dewalas ". (Davy .J.reprint -1970, P.365,366)

The British started altering the city structure a process which they considered as improvement, which proved, to have had, a contrary effect. John Davy Writes on this account; "though from time of out entrance into Kandy out object has been to improve the town. What we have done generally had a contrary effect. We have pulled down much and built up a little, and taking no interest in the temples we have entirely neglected, their repair the consequence is that Kandy has declined very much in appearance. During the short time it has been in our possession and to the natives must seem merely the wreck of what it increase"

Since the introduction of the plantation economy and the railway , Kandy started growing commercial which resulted in the appearance of large scale commercial establishments (eg. Cargills, Walkers, Queen's Hotel etc.)

Kandy though has undergone the effects of new trends of technology and economy since the independence, due to been exposed to wider range of contexts, has maintained its physical structure (city form) unaltered up to the present.

Further the establishment of the Central Cultural Fund, as well as Kandy been categorized under the world heritage list, has facilitated the maintenance of the established city form of Kandy.

Colombo city is situated in the west coast of Sri Lanka, had been the administration and commercial capital of Sri Lanka for a long period of time. Administrative functions being shifted to Kotte several years ago, the present day city functions solely as the commercial capital of Sri Lanka. Although city proper-

houses intense commercial and residential activities, city center-the part considered in this study solely perform commercial functions.

Due to its strategic position and the presence of a harbour, it had became a major center of attraction among the traders of the world – Arabs, Indians percians and Chinese etc, thus resulting even invasions by Portuguese, Dutch and British, which intern marked the origin as well as the latter modifications of the city of Colombo.

Fig.21: Zeilan the early Maps of Ceylon (Source –Brohier R.L. Changing Phase of Colombo-1984)

Fig.22: Map of Colombo-1656

Fig.23: Portuguese – Dutch Map of Colombo

During the time of Colombo not only commercial functions, but also residences of Governor and other officials. In 1656 Dutch over powered the Portuguese. They laid out both Fort and Pettah area of the city in a geometrical gridiron pattern.

But the major change of physical structure of the city was done during the British period from 1796.

During this period city was expanded towards Pettah area due to novel introduction of plantation economy and related activities. In this period

Colombo British colonial buildings replaced all the Dutch buildings in Fort. Waterways within the Fort were reclaimed and built upon while keeping some street layout. Because of the removal of residential activities from the city center, Fort area of Colombo became a more commercial and an administrative center. After getting independence in 1948 new buildings were introduced to the city, but basic structure of the city was not altered. With the introduction of an open economy system in 1977 in Sri Lanka was exposed to new trends in technology and commerce. Because of this open economy new types of buildings were introduced and the use of new materials and technology became widespread.

Fig.24: Gridiron Pattern – Fort and Pettah

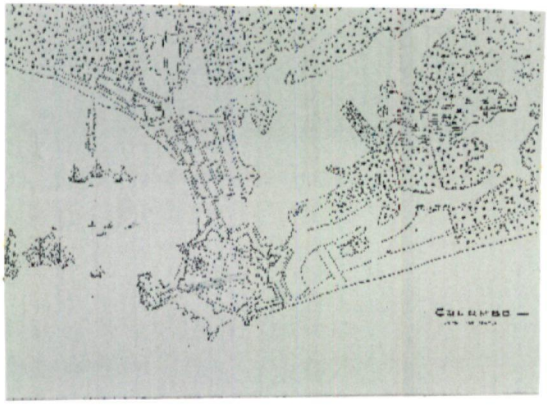

Fig.25: Colombo in 1901

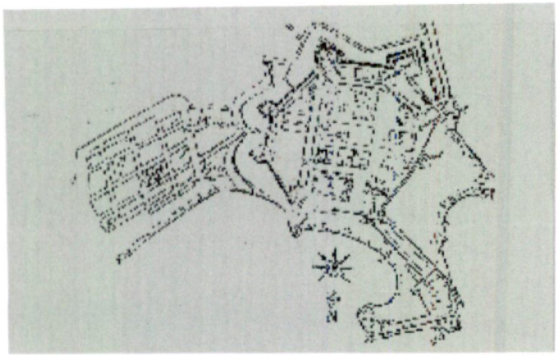

Fig.26: Ground Plan of the City and the Castle of Colombo –1733

Fig.27: York Street – A Spacious Boulevard

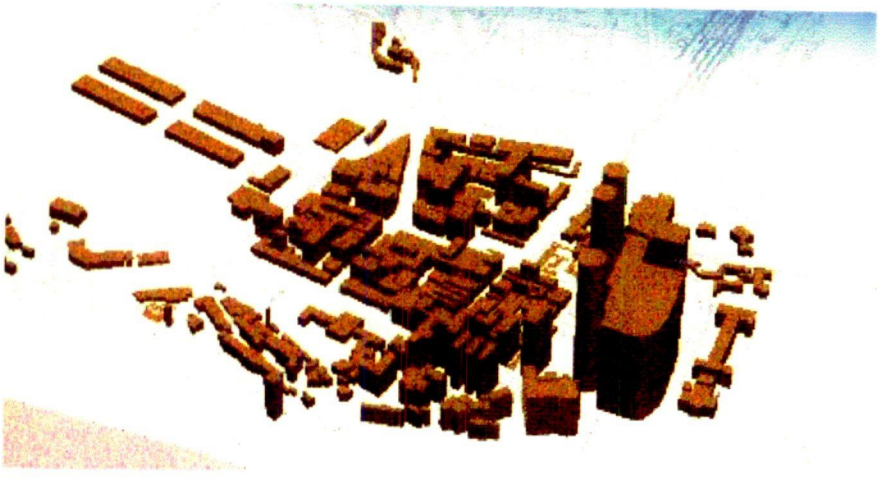

Fig.28: The Environs of Colombo

Fig.29: Chatham Street –1870

Fig.30: With Barnes Stature – 1856

Fig.31: Transport Modes

Colombo is accorded arrange of characters. Colombo being the commercial capital of Sri Lanka is naturally referred to as having a commercial character, further it is being commonly accorded a colonial character. Many have called it a Cosmo police, and some others recognize it as a city where history is integrated with the present.

Colombo city center shows gridiron organization of space. Both Fort and Pettah are set on a geometrical Grid, but of a different nature. While Fort is set on a Wide and spacious grid. Pettah is set on a much narrower and straighter grid. In Fort two major linear spaces runs parallel to each other, oriented towards the Port, which are intersected by a set of secondary linear spaces, forming a number of spacious squares or rectangular compartments and some important concentric spaces.

Colombo, the commercial capital of Sri Lanka is an Architectural Heritage despite the fact that it does not have a comparative history similar to most of the regal cities of the past. It is not yet recognized as a world heritage site.The authorities in Sri Lanka have not taken

Any steps so far to recognize the city as an architectural heritage These Negative attitudes have caused a threat to the historic urban fabric of the city diminishing at a very rapid phase.

Due to the exposure to the open economy, development of technology new development projects, It gives rise to different forms of buildings, with new materials, like Commercial Bank building and Bank of Ceylon Tower. This gives rise to pollution of the visual environment. If this development is used sensitively it will avoid the pollution and enhance the harmony. If one creates built forms avoiding pollution, enhancing harmony and rhythm it gives rise to uniqueness of the streetscape and the uniqueness is appropriate or nit and if the city has rhythm and harmony, in between built forms streetscapes may enhance the visual sensation of the beholder.

If a building is added to the streetscape in an unorthodox manner to the existing pattern it pollutes the particular streetscape. Bank of Ceylon buildings at Janadipathi Mawatha can be taken as an example. This will affected the people's life's badly and a sense of belongingness of the streetscape is vanished. Imagebility and identity of a city depends on the size, arrangement pattern of basic constituents. Therefore it is necessary to avoid pollution in the visual environment in order to obtain identity and imageability.

Firstly one must understand the inherent pattern and qualities of a city especially in a historic city, before adding extensions or doing changes. Other wise it nay give rise to incompatible forms while polluting the streetscape as well as a city as a whole.

Many new buildings like Bank of Ceylon, Twin Tower, Grindlays Bank, Hemas building have been introduced to the city form. Due to the exposure for the new trends and technology these bizarre type of buildings have resulted in city composition.

As a result of the new developments, design methods school of thoughts have contributed to the pollution of the built government. Most of the buildings, which have crop up due to the insensitive use of new technology, have severely affected the unity of the city context of Colombo Fort.

Fig.32: Alien built form -Bank Of Ceylon Tower

Although Colombo Fort had specific arrangements in the past it has already been changed now. Cities of present day consist of buildings made out of different forms. Combination of different forms in the city context provides different characters to the different cities. If a city is composed in an orthodox manner environment of that city enhance the harmony and rhythm. But if the combination of forms does not harmonies with each other, it pollutes the built environment. The alien built form of the bank had resulted pollution in the visual environment of the city form.

Fig.33: Wrong connection between elements

By the examination of the principle of unity in the Fort Area it can be stated that the unity of the existing Historic buildings had been thoroughly disturbed or interrupted by the constructions of the post independence period buildings. Wrong connection between elements and buildings has been generated by the absence of wholeness in this historical area.

Fig.34: Absence of wholeness -breaks the rhythm of the street.

Fig.35: Violation of roofscape -York Street

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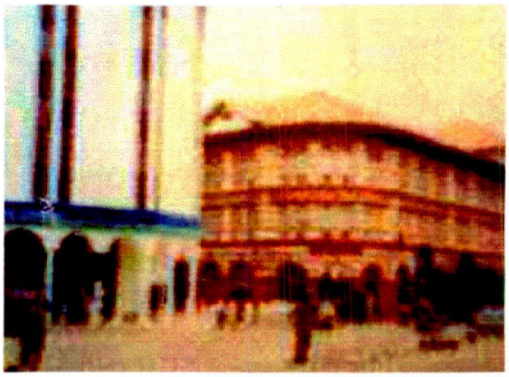


Fig.36: Violation of horizontally Grindlays Bank

The wholeness of the city is absent due to the absence of buildings in some parts of the streetscape, mismatching the vertical and horizontal balance within the existing pattern of the streetscape.

Except for a few buildings in York Street, the roofs of all the other buildings have been covered with decorative cornices and detail. This avoids monotony and ads variety to the streetscape as well s to the facades.

Vertically rhythm of the building on the eastern side of York Street has been violated by the thin vertical windows of Grindlays Bank building where as the arcade of this street enhance the horizontal rhythm. But the horizontality of the Hemas building is highly emphasized. Therefore it does not merge with the neighboring buildings and it is totally inappropriate to the location. The vertical and horizontal balance violates and the pollution in built environment can be seen.

CHAPTER TWO

EVALUATION OF THE ANCIENT CITY OF GALLE, INTO ITS CURRENT FORM AND ITS CHARACTERISTICS, AND CURRENT DEVELOPMENT PATTERN OF THE CITY

Evolution of the City of Galle to its Current Form its Characteristics, and Current Development Pattern of the City

The objective of this chapter is to examine various stages of the process of evolution of the ancient city of Galle in to its current form and its characteristics. In this regard various changes that had occurred in the city plan and the city forms are investigated. Additionally the determinants or such changes and the nature of such transformation are analyzed. In the latter part of this chapter, current development pattern of the city is analyzed.

2.1 Evolution of the Historic City of Galle

2.1.1 Historical Background

The history of the city of Galle, which was an ancient port city, the earliest recorded visitor to the city, has been Iban batuta, famous arabian navigator and traveler who landed in Galle in the year 1454 A.D(Kurruppu and wijesuriya, 1994 : p22) during that time Gallewas the main centre of Sri Lanka's overseas trade and communication (nelson ,1984, p24) city of Galle at that time was ,country's second or third largest city in Sri Lanka. (Kuruppu Indrajith 1992, p, 13)

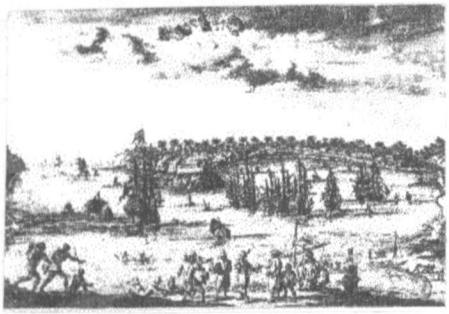


Fig.37: The City of Galle – From Baldaeus,1672

" Galle seems to have become a major port and urban center from 13th century onwards and to have reached the peak of its importance in the 16th –19th century, to which the Fort belongs. During that time Galle was the Port, main focus of Sri Lanka overseas trade and communication and the countries second or third, largest city". (1992, p.13)

Fig.38: The City and Harbour of Galle Viewed from the East

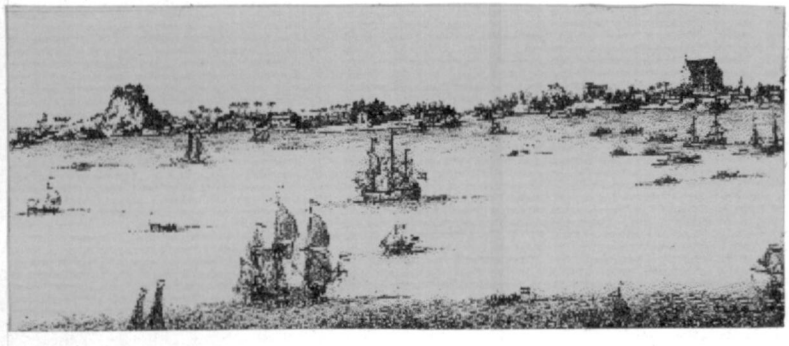


Fig.39: The Bay of Galle from the East – From Valentijn, 1726

In the year 1505 A.D Portuguese arrival and their fortification of the Fort of Galle has been recorded (Brohier, 1984, p.7) as the birth of the present Ramparts which was subsequently rearranged and enlarged by the Dutch in 1640 A.D (Brohier ; 1984, p.9)and then modified to the presently known status by the British (Brohier ; 1984,: p.11)

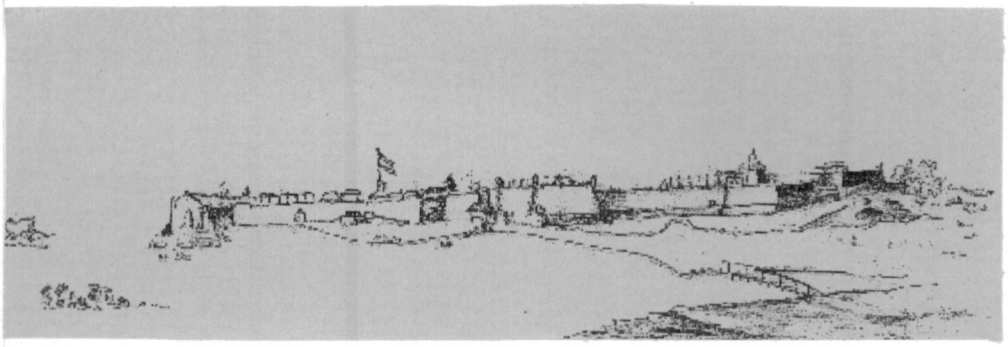


Fig.40: View of Galle

The unique combination of indigenous and colonial architecture attached the attention of UNESCO and as a result, an archaeological living monuments, the Fort of Galle has been inscribed as a world heritage site in the year 1988.

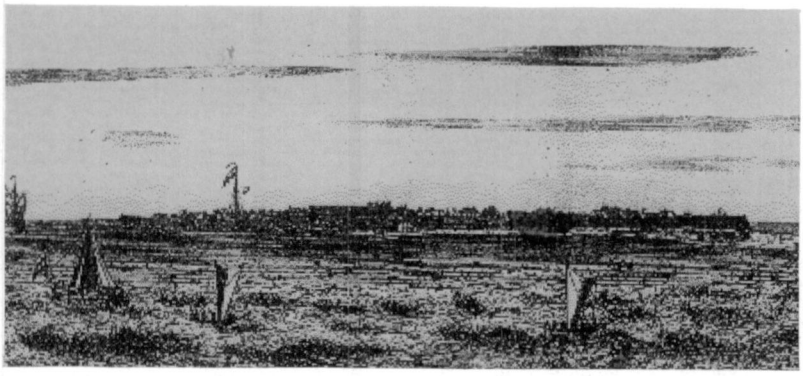


Fig.41: The Castle as it appears from the Roads or the Harbour
From Heydt, 1744. Plate LXIII

Fig.42: English Church in the Galle Fort

Fig.43: Dutch Church in the Galle Fort

2.1.2 City Forms Development and Related Characteristics

City form, it can be rightfully claimed had been mainly influenced by a combination of foreign cultures.

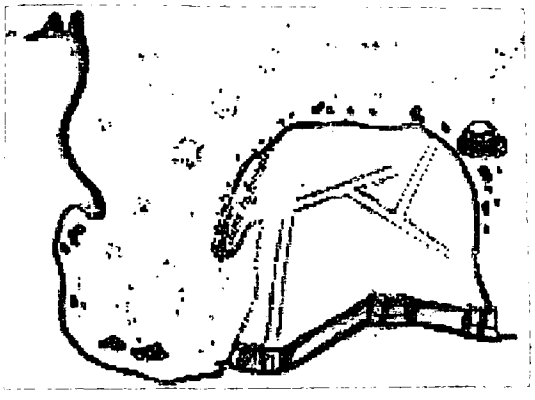


Fig.44: Portuguese Plan of Galle
From the Anonymous,
Atlas of Ceylon, 1627

Fig.45: Map of Portuguese Fort
Drawn by De Resenge,164
(Source brohier RL,1978)

Portuguese settled along the southern coastal belt because they were permitted to settle only in that area, Portuguese arrival and their fortification of the Fort of has been recorded as the birth of the present rampart. Peiris,1920 notes that the Portuguese fort in Galle was a small affair of palm trees and mud to defend the peninsula.(Peiris, 1920, p.12). However this building survived for over a half century. The ramparts defended the Fort only on the land side as the seaward side was considered as vulnerable by this supreme naval power in the Indian ocean.

A map drawn in 1640 by Barretto de Resende year gives a fairly good account of the Portuguese Fort, defended by three bastions named after their saints . San Lago, Santa Antonio and Conceycao over looking the marsh (Brohier, 1978) the Fort being the only established urban quarter othis era , it was more an alien, representing the Arabic traders

and the Portuguese invaders. There was no cut through the ramparts , and only entrance was across a drawbridge over shallow moat and wall. The bridge was folded at night ,and the path that linked the Fort with the mainland.

The plan of the Fort was significantly dominated by non-established informal squares and crooked streets. There is no distinctive order among those squares or the streets, and there was no main street or major square. (Gutkind, 1969) The Fort was not divided in to zones, and the activities were not grouped or accommodated according to a specific pattern, illustrating the quality of a temporary settlements. The Fort acquired a unique quarter and the heritage value of Galle was enriched. (Lalchandra, 1993, Galu Puranaya.)

The monasteries st.Fransico, st. Domingo, ,st. Pedro and the dwellings added a richness to the built fabric. The master attendant's house the black Fort, Gun Power factory and the Ammunition Storage were the main features of the Fort. The most significant building type was a humble two storied house with projecting balconies, canopies and an open varandah (Lewcock, 1988) - Dutch Architecture in Sri Lanka. The verandah, formed by an extending balcony and supporting in to timber columns, was not physically closed. Thus it was more an extension to the over spilling activities of the street. Spending their leisure in the verandah, the soldiers added more life to the street. The relationship between public and private within the fort was such, that there was no need for bold demarcation in between. The dense built form was ventilated and lit though a light-well. The verandah and light-well suited the climate too, but it was determined by the cultural needs for an open inviting and humble built form.

The city structure directly compies with the Dutch colonial special organization. The Dutch dominated urban community that thrived in the Galle Fort was a "formal and cold" one (Anthonisz,1935). The emerging new social order demanded an urban form different from the Portuguese Fort. These croocked streets, were

replaced with ordered straight streets, informal spaces with more formal spaces and the humble houses with grandeur built forms.

According to Nelson,

".....as a Fortress, Galle was a splendid example of the new design of artillery defense. It ranked among the top flight of strongholds throughout the east ." (Nelson,1984, p.24)

The Fort was more an opened landscape. The city plan, land use, and built forms reflect the urban order resulted by their open family oriented life. With the emergence of more urban quarters, the city plan was morphologically changed. The Fort was linked to other quarters buy roads and canals, thus reforming the inter relationship between different urban quarters. The street layout of the Fort is a striking element of the city plan preserved more or less in its original form. All-important features, the courthouse, city assistance office, captains house, flag staff, were accessible from Queen's street. It being enclosed by the occasionally punched through walls of the massive warehouses on the northern edge and by the thick masonry columns of a public building on the southern edge reflects a formal role of a street.

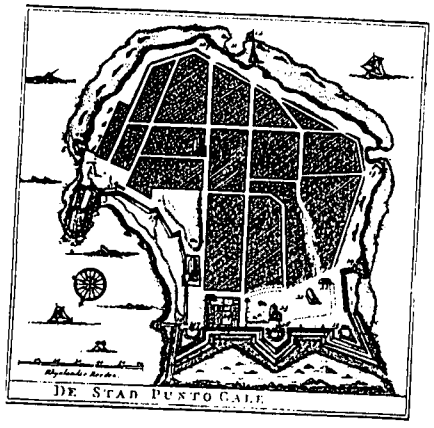


Fig.46: Map drawn by Valentine in 1726 – (Source De Silva & Beumer,1984)

Three types of streets compare this layout within the fort. They are major streets running south starting off at Queens street, secondary streets that connects the major streets, the lanes that starts from the secondary streets as service access to the bake yards of the dwellings.

According to Velentijn, who visited the fort in 1726,

".....the city is built with symmetry and neatness. there are moderately wide streets, some of earth, some of grass growing"(De Silva and beumer :1988)

The urban wall that form the enclosure of the main streets was dominated by the column fronted verandahs of dwellings and public buildings. The secondary streets were mostly enclosed by larger built forms such as storage or blind gable walls of the houses. There were less life than in the major streets. The lanes were enclosed by service buildings and high walls of the yards. Projecting a image of a service access and developing lanes between the households. As such the street layout, its physical components, and spatial structure, contributed making of unique city plan.

The plot division pattern of the fort is also a significant element of the city plan, with narrow deeper plots in the residential quarter and wider plots in the other quarters. Their demarcation with decorative masonry moldings enriched the street enclosure and make the urban landscape more attractive.

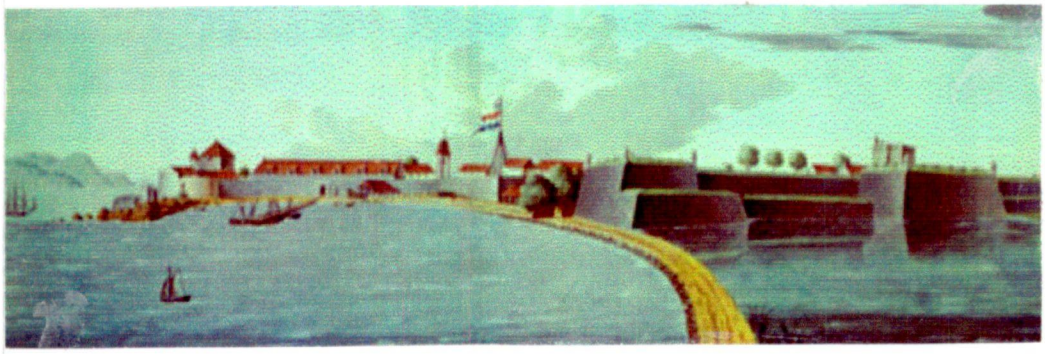


Fig.47: Galle as Seen from the Causeway

Source – Steiger, Water Colour c.1710, Rijksmuseum, Amsterdam

This spatial organization which were eventually followed by the British without much change. The influence of British is also apparent, but only adding texture to the city form, accepting the composition of the city. The British who undertook building program of roads, bridges, and railways. The British, attempting to make cities "efficient" introduced a zoning system that divided the city according to the functions, enforcing a new spatial structure. These zones were resaved for certain functions, and were reshaped with designed build forms. Also reducing the versatility of urban space and dissolving the city form. The new formal outdoor urban spaces were added to display their civil grandeur and military strength. The Galle fort was converted in to an administration quarter, and divided into two zones, as residential and institutional. The commercial activities were shifted to pettah. The built fabric, in terms of type, functions, disposition, within the dence urban quarter, is the most evolved morphological tierce. The new institutional buildings had contrasting forms dominated by grand arcades. Their plan forms also did not conform to the previously mentioned two leading types.

Fig.48: New Entrance of Galle Fort

The street layout of the fort was modified during the British era with the caring out of the new entrance and the undermining of the hierarchical order of the street layout. The original entrance became secondary, undermining Queens street 's role as the main street. These changes have not been able to erase the original street layout, thus appear more addition.

The plot division pattern is also responsible for making each sub quarters with distinctive characters, live residential quarters, formal administrative quarters or inviting commercial quarters. The grouping of activities is the other important aspect of the city plan. Placing commercial functions around the entrance court,

the administrative function around the queen street and residential on the southern edge, where the residents could enjoy pleasant breezes, memorable views and a sense of maximum security. The most striking feature of the built fabric is its typological homogeny. The built forms, their disposition, orientation, door and windows, details, built elements, decorative features, materials, surface treatments, have unified the different building types throughout the city. The city commanders residence, churches, administrative and commercial buildings, VOC warehouse, ramparts, residential buildings, all were absorbed into one urban whole, while each acquiring its own identity. The decorative gables, dominating roof form, with half round tiles, masonry columns, lime plastered walls, large openings, reinforced the homogeneity and their composition giving each an identity. Verandah and court yard, become significant built form, accommodating the link between public and private. Two leading residential building types could be identified \within the Fort. Their most significant differences are the plan forms. One is with a linear courtyard enclosed only on three sides and the one is with a central courtyard. In both cases, the courtyard has been the focal point of the built form with rooms being arrange around it. Using the courtyard as a living space. These two types do not compete with each other, making a uniformity a unique solid-void relationship in the Fort.

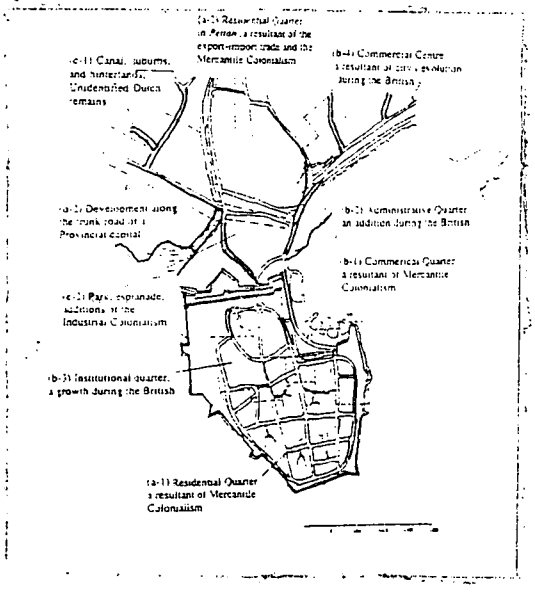


Fig.49: The Plot Division Pattern

Fig.50: Out Side the Ramparts

The plot division pattern in the residential quarter was change as the Singhalese and Muslims combined or divided or the plots to accommodate their needs.

An esplanade and a park, were built just out side the ramparts, filling the marsh as the barrier to the administrative quarter accommodated in the fort. A trunk read was built linking Colombo with the south, and separating the Fort and Pettah. The growth of commercial activities endangered the residential quarter The market hall built by the British formed of this quarter. The most unique feature is a duel functional built form that accommodates trading and residential function simultaneously.

Fig.51: Inside the Galle Ramparts

The street layout dominated by the main street enclosed by the built forms, is another significant feature of the quarter. The plot division, land use, land owner ship, built forms and functions of the quarters as a whole, are largely responsible for the transformed image of the city of Galle.

2.2 Topographical Condition of the City

Galle city is divided into tree zones such as the western zone, middle zone and eastern zone.

Fig.53: The Historic Port as a Main Feature

The western zone is made up Galle Fort is rocky and there are some places more than 200m off the shore, where rocks crops up on the sea surface. There are many buildings, which are historical and archeological. There is an old Fort which has small jetties at the outlet of the Fort. It is still used as a pilot station.

Fig.54: The Cenment Factory of Galle

The middle zone is almost flat, except for one hill, which is located just behind the center of the Galle city. Galle Fort is located in the middle zone. The Port area is composed of both. The original land area, which has plenty of rocks and the reclaimed land area. On the western side of the Port there are reefs around the 100m of the beach, where waves break. All shores are sandy, beach except for the Port area. The center of the middle zone has an administrative area, a business area, commercial area and a residential area which is located on a comparatively high level and behind these areas there are paddy fields, tea and rubber plantations which are located

Fig.55: Town Centre of Galle

Fig.56: Railway Station of Galle

Fig.57: Galle Bus Stand

Fig.58: Commercial Activities in Galle

in the inland area. Examples paddy fields are located in the lower part of the England area and plantation of the tea and rubber are located some what higher, land inland area. The western part of the middle zone is center of the Galle city which has a town hall, a post office, a railway station, a bus terminal and the markets etc; the Port of Galle is located in the center of this zone.

There is a cement factory in the eastern part of this zone, but at the same time there are some utilized areas along the coast. The beach next to the old Port used for part of the boats to anchor in the western part of the middle zone. Adjacent to the new cricket stadium the butter fly ground had been displaced in view of this situation. Presently they occupy area adjacent to the public bus stand in the middle zone, which has aggravated the facilities. Darmapala park to the west of the cricket stadium and directly in front of the railway station, is the only formal park in Galle.

The eastern zone is a comparatively high hill whole, name is "Roomassala". Roomassala is a patch of forest, home to

many herbs of medicinal value. The southeastern side of this hill faces the outside of Galle bay and has a very beautiful beach. The western side of the hill is rocky and very steep. There are no flat areas on the hill. Almost all the shore line of the eastern zone is rocky.

Fig.59: Roomassala as a Main Feature

2.3 Examination of the Current Development Pattern of the City

Galle, ll6 Km (72 miles) south of Colombo on the west corner of the island is the largest town in the region. Galle is a capital district too. It's bordering districts are Matara on the east, Ratnapura on the northeast and Kalutara on the north. The District covers an area of 1650 km^2 (2.6 percent of the entire area of the island) of which are covered by the water bodies, like lagoons reservoirs and rivers.

Fig.60: Map of City of Galle

EXISTING LAND USE - (1999 JULY)

GALLE M.C. AREA

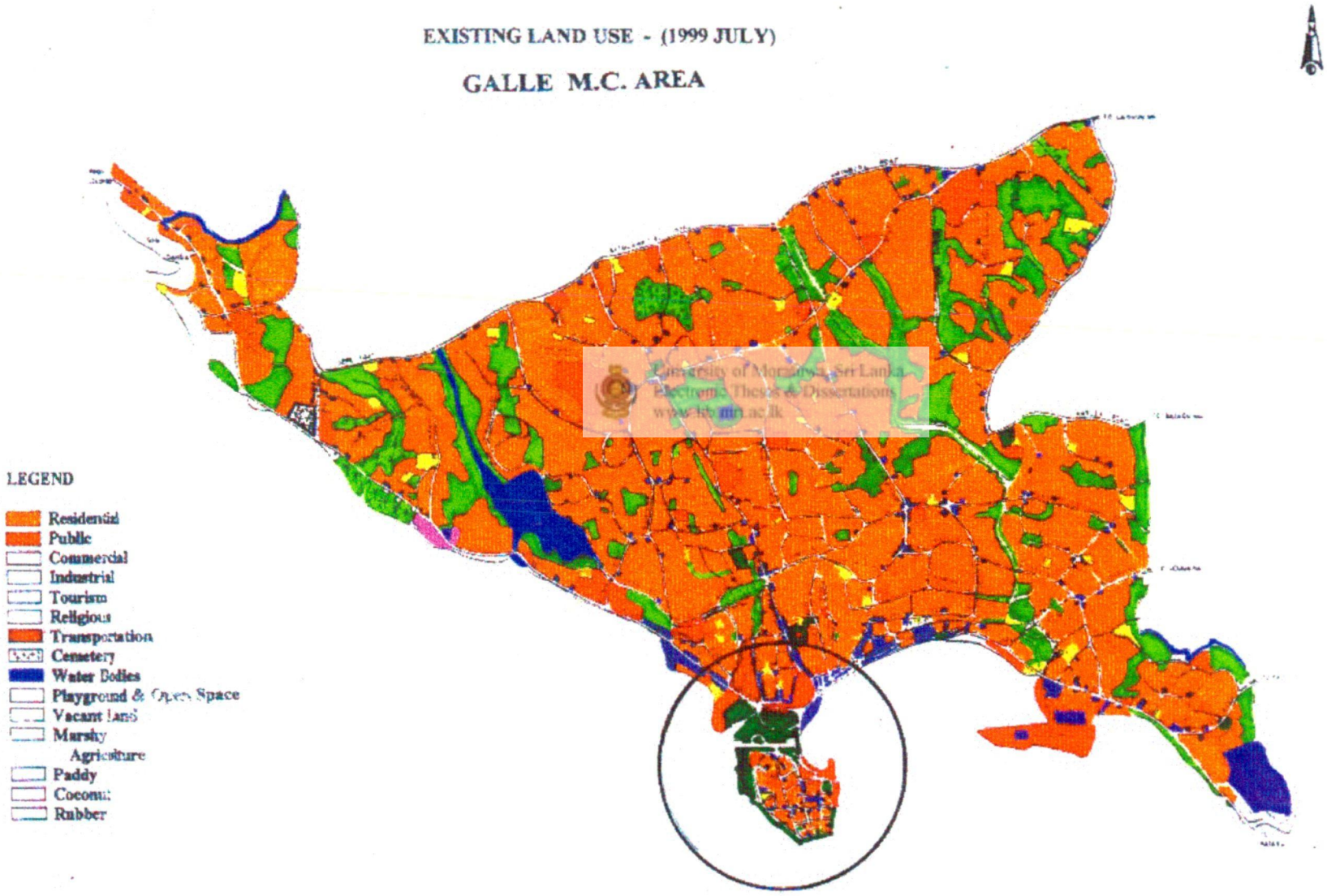


Fig.61: China Garden and Bazzar Area

Fig.62: City Centre of Galle

The first to develop were the areas near the railway station known as the china garden and the bazaar. Then the town started growing in a linear pattern along the roads which joined the town with the hinterland and the other coastal settlements, like Matara on the east and Colombo towards the north. The town has its importance as a harbor and also as the capital of the southern province, The M.C limits of Galle town today have engulfed many villages which have now become integrated with the town structure. The area of Gall town with in its present M.C limits is timeouts is 18Km^2 and the town is divided into 15 municipal wards, which are contreminus with the census wards.

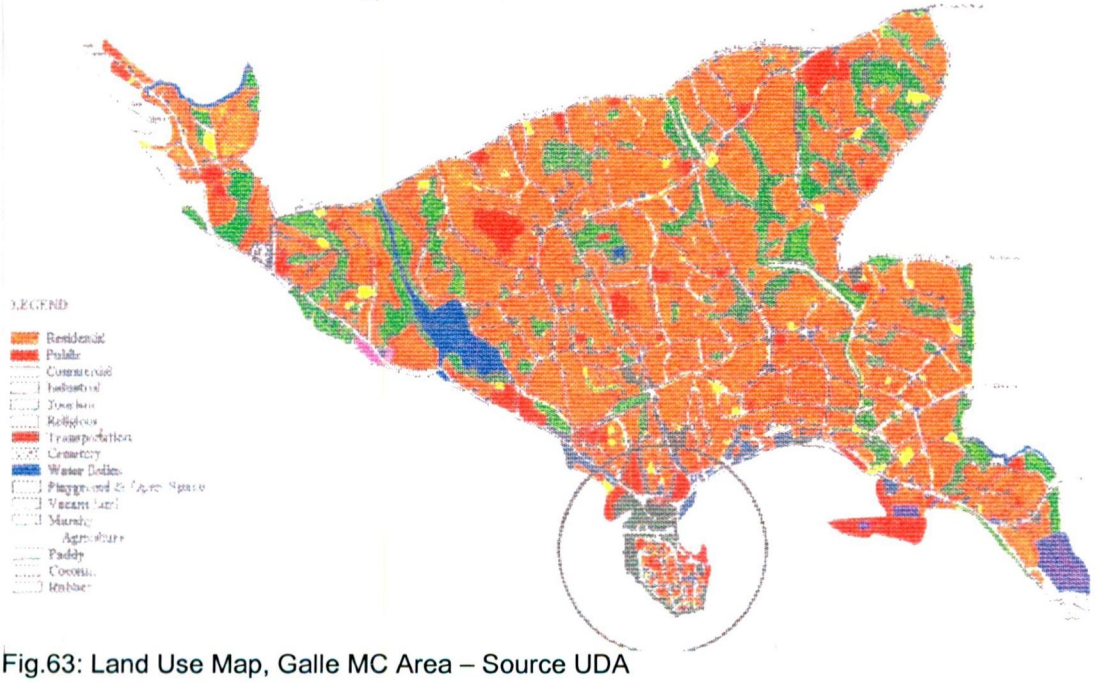


Fig.63: Land Use Map, Galle MC Area – Source UDA

2.3.1 Historic Galle Fort

Fig.64: Arial View of Galle Fort

Galle Fort covering and area of about 40 Hectares (100 Acres) lies at southern tip of Galle district, in the southern province of Sri Lanka. It is strategically located at the western land mask that protects a natural harbor. The Fort has been laid out and constructed in the 17th and 18th centuries during the Dutch rule of the Maritime Provinces. It is easily the best reserved of the maritime Dutch monument, not only in Sri Lanka but also else where in the world and offers great possibility of restoration. What makes the Fort so important are not just its massive 300years old fortifications but also the total town scale.

Fig.65: The Sea Side End of the Fort

The combine effect of the ramparts, the street grid, the distinctive individual examples such as the 17th century warehouses and churches, the internal courtyard, the underground drainage systems makes the Fort a unique example of town planning, architecture and engineering of the yesteryear. Itis also an example of a blend of the professionalism of the east and the west.

Whilst the military architecture of the Fort, its design and conception is truly western, the material, the building techniques and the labor that implemented such tasks were Sri Lankan. This makes Gale Fort a true example of a produce two cultures.

Fig.66: Long Shot from the Port Side

Fig.67: Long Shot of the Sea Taken from the Park End

The structural condition of most of the building is in good condition, even though the rampart was in parts have suffered from the ravages of the sea and the exposure to the elements. Largely residential in nature much of the accommodation is suffering from the amateurish adaptations by the present owners and tenants. Despite the continuous experience on the improvements to these properties over the last 30years or so large number lack basic facilities. The area is fast losing its character due to these activities. Even though Galle Fort was declared the "World Heritage Site" in 1988 and Galle Heritage Foundation was established in1994 to promote the preservation, conservation and development of the Galle Fort, with its historic hinterland as a historic city center not much has been done towards achieving this end. Galle Fort is the largest complete walled town in Sri Lanka, which is still a living settlement. It gain its entry in to the world heritage list, as an outstanding architectural and archeological monument in Asia, from the colonial period.

Whilst it is a monument to a period of foreign domination in Sri Lanka, it is also and example of wealth, productivity, technology and craftsmanship of Sri Lankan society of the 17th to 19th centuries.

Fig.68: Sea Side End of the Port

Galle Fort is a complete city. 40% of its land owned and occupied by the government establishments. One of the biggest land users is the ministry of justice. Also located inside are other government departments, such as the Posts. Telecommunication, Road Development Authority, buildings, the Army, Police etc; in addition to provincial officers including secretariat.

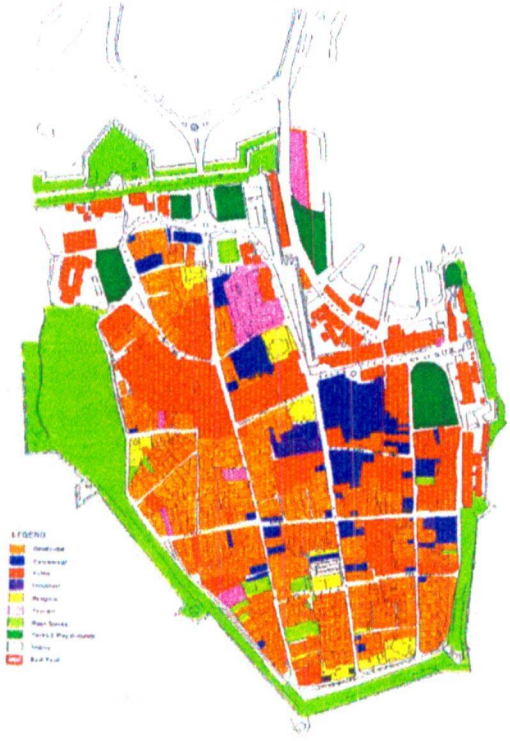


Fig.69: Existing Land Use – Galle Fort

There are two schools one of which is a leading girl's school. In addition there are buildings occupied by three commercial banks and other private sector, commercial officers. These include warehouse, a garment manufacturing unit, a garbage for machinery repairs and service station. Although the Fort is the significant tourist attraction, it occupies a relatively low percentage of land use for this purpose. For the hospitality trade are two hotels restaurants, private souvenir and antique/reproduction shops and museums. There are jewelery shops located inside the Fort. For religious worship, there is the famous Dutch Church. There is Methodist church, a Buddhist Temple and Mosque. In addition, several houses have been converted as ladies Mosque. There is a YMCA, YMBA and a hostel for followers of Islamic faith. 10% of the land inside the Fort is open space. These include the square in front of the Courts complex, and the areas around the ramparts. In addition, there is the former Esplanade, which are now an international cricket stadium and the football grounds that are located within the buffer zone just out side the Fort. Just over 3100 people live inside the Fort around 700 housing units in approximately 35%of the land available inside the Fort. A significant factor is that the population inside the Fort has not increased significantly during the last ten years. However, there have been many interventions in the buildings with the owners carrying out ad hoc improvement and repairs to houses have been modified as shop house with the veranda being converted to a sales room. Even the Governor's house has been converted into a Jewelery shop having blocked all verandas. Not all these conversions and modifications have been carried out with consents from the authorities. There are few vacant blocks of land that is awaiting in-fill development.

What is seen today is the urban plan designed during the period laid out on a rectangular grid system enveloped by a circular road and a rampart protecting the whole. Over the years the architecture of the Fort has been changing in an ad hoc manner, sometimes to the detriment of the character of the place. The rate of such interventions has increased over the recent past to such alarming proportions

that if controls are not brought in immediately, Galle Fort can well lose its identity as a World Heritage City.

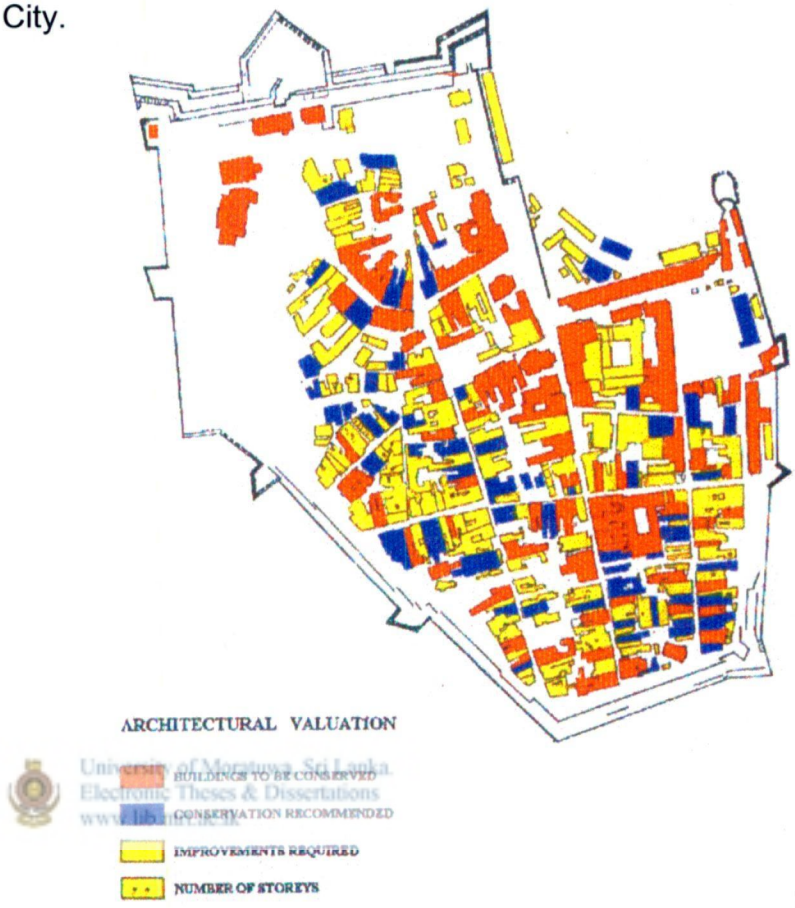


Fig.70: Architectural Valuation – Source UDA

The dominant character of the architecture of the area is the colonnaded veranda in the buildings. Theses are seen in the domestic architecture of the Dutch Period as well as in the commercial buildings of the British Period. Most buildings in the Fort still take the form of the residential units of the Dutch Period. The modifications have been brought in to adopt them for modern usage and for different functions. Many verandas have been covered either with trelliswork or glazed windows for not only the privacy but also to keep the dust, fumes and traffic noise from the roads. Even though the building stock gives the appearance of row housing, they are actually semi-detached with a narrow service entrance for every unit from the rear to the front. A typical house has a large living room with verandas on both sides. The rear veranda opens into a courtyard, which is the focal point of the house. On the side of this courtyard are the bedrooms and at the

rear are the kitchen and other ancillary accommodation. More often than not is a part upper floor, which would have had the function of a room for children. Some good examples of the older stock of houses that are still in existence are, no.3, Church Avenue, Jasmine Cottage and the house next to the regional office of the Bank of Ceylon at Hospital Street. According to the occupants this was the official residence of one of the senior medical officers of the hospital.

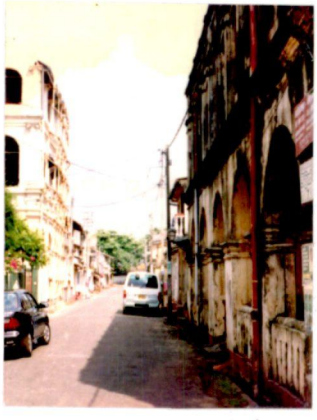


Fig.71: Compatible with the Architectural Character of the Area

Fig.72: Incompatible with the Architectural Character of the Area

Today, some of these upper floors have been extended to cover the whole house, whilst the covered veranda is also being used as a closed space. In some cases the veranda has been divided to form an extra room. The materials used also do not appear to be compatible with the historic nature of the building. They appear to be totally incompatible with the architecture of the area.

Traffic in side the Fort has increased to alarming levels in the last decade. The main traffic generating sources are the schools, the courthouses, the garment factory and the government departments.

Fig.73: Traffic and Transpotation Plan

The roads as originally laid out were meant for horse riding or carts whether driven by oxen or horses. They were first gravel roads that required sprinkling of water to keep the dust away. Later on they may have been paved with cobblestones as some historians have mentioned. This needs to be checked. At present the roads are finished with asphalt. There has been no street widening or any other improvements made to the road network to accommodate the increasing number of motor vehicles.

With the verandas of houses extending to the edge of the street line it is impossible to widen the streets without destroying the historical character of the Fort. In addition to the normal congestion created by the vehicles are the

environmental factors that have become issues. Noise pollution as well as the fumes due to belching of vehicles creates further problems to the amenity values of the area.

Fig.74: Road Network of the Galle Fort

The study area is served with electricity from the national grid through transformers positioned at strategic points. The power available is adequate for the user. Power distribution to individual buildings is carried out with overhead cables along the road network across the building facades. The services provided by Sri Lanka Telecom appear to be the most popular. The service is satisfactory even though the availability of loops could be improved. As in the supply of electricity, the service network is on overhead cables that interfere with the street facades. In addition, there are supplies from Lanka Bell and Suntel, the two private companies that provide services in telecommunications. They are only run their cables overhead but also plant an antenna dish on the face of the building that is alien to the historic facades. To obtain television viewing the inhabitants of the historic are has to fix individual antennas sticking out beyond the

roof of the buildings. This causes a loss in amenity values. Furthermore the reception from these antennas is not satisfactory in receiving all local channels.

Entire Fort area is covered with a network of pipe bone water system managed by the National Water Supply and Drainage Board. Even though the water pressure in most parts of Galle is inadequate, there is no necessity to boost the pressure with local overhead tanks since the maximum rise envisaged is a little over 3m. In addition, traditionally, the Dutch Period houses had a drinking water well in the courtyard. This feature could be seen in most houses even today and could be restores to function. Drainage system built by the Dutch is running through the main roads. It is an intricate system using the seawater to flush the system regularly. The telltale signs of these could be seen with the square manhole covers seen on the middle of the road. There are 183 manholes for the underground drains. The covers have rectangular holes of 150x50mm in the center for the purpose of lifting. Some of these stone slabs were restored in the eighties by the Department of Archaeology. Even these show damage already due to the heavy vehicles that ply on these roads. This system is not being used at present because in some places the drains have collapsed whilst in other places they have silted. Even though many discussions have taken place to restore this system, it has not materialized. In the meantime, the surface water runs through a network of masonry drains. It drains on gravity flow from North to South and falls in to the sea through spouts in the rampart walls. Most of these drains are in a dilapidates state and requires repairs. There is no sewerage system prevalent inside the Fort. Most houses have septic tanks and soakage pits to absorb the wastewater within the compounds.

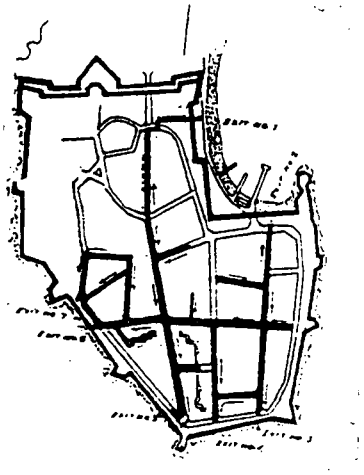


Fig.75: Drainage Plan of Galle Fort

2.3.2 Historic Port of Galle

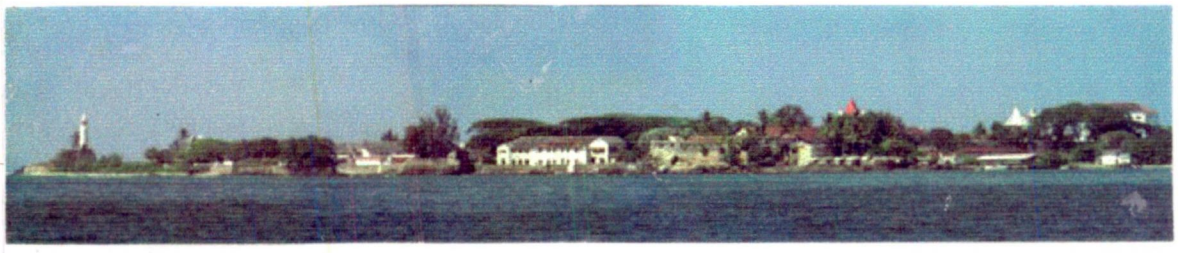


Fig.76: Historic Port of Galle

The strategic location of Galle in relation to he main seas routes has given it prominence along other Ports in Sri Lanka. Arabs dominated the trade in the eastern seas. But the earliest reference in record of the Galle harbor, according to Baker (1938), is by a Greek named, Cosmos indicapleustus. He refers to visit which Cosmos mentioned in his chronicles in 545 A.D.

Fig.77: The Piers of the Port of Galle

The present Port facility in Galle at the Closenberg area was completed about 30 years ago and that provided adequate, along side facility to meet the requirements of the time. Prior to construction of this facility, ships were moored in the stream in the bay, formed by promontory known as watering point. Cargo was transported to barges that were towed to the old jetties, sited on the Fort side for manual loading. The present depth of 6.2m limits the size of ships entering the harbor. At present the harbor is being used to transport clinker from Jafna to Galle, cement co-operation. The harbor is also being use by yachts, as its present depth is sufficient for only yachts

and plus there are good service facilities in the fisheries harbor. A maximum about 15 yachts can be docked in the harbor at a time. However the lacks most of basic facilities.

As bay of Galle is exposed to southwest monsoon for more than 6 months of the year creating strong wind waves in addition to southern swells, and more over as the sea had being scattered with rocks, the mooring of deep drafted vessels become difficult and unsaved.

As a natural harbor the Galle bay enclose a water area of 320 Hectares and provided stream berths, for 4 vessels during southwest monsoon area between gibbet island and the Fort and two more berths, in northeast monsoon near the watering point.

2.3.3 Town Centre Development

Fig.78: City Centre Development

The areas in an around the public and private bus terminal are in a deplorable condition. The macadamized surfaces of the roads are damaged and as a result of rain and dirty water are collected inconveniencing the public. These roads have to be maintained on a regular basis. The Hotels and Restaurants are housed in old shabby, ill-ventilated buildings. The toilets at these places are stinking and unhygienic as no proper toilets are provided. City center of Galle which has a town hall, a post office, a railway station, a bus terminal, and market etc;

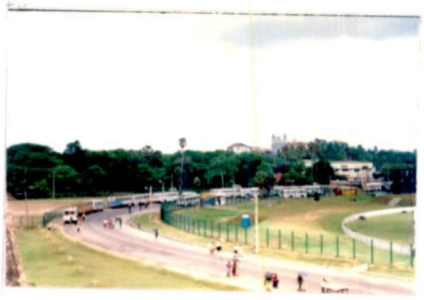


Fig.79: The Galle International Cricket Stadium as seen from the Fort

The Galle esplanade has been converted to the International Cricket Stadium adjacent to the new cricket stadium and butter fly ground, which is built to play football and the private buses and coached had been displays in view of this situation. Presently buses occupy the area adjacent to the public bus stand, which has aggravated the facilities. Private busses are parked along the Kepu Ela on the esplanade road. This creates a traffic problem at the junction resulting in a risk of accidents and congestion at the junction of esplanade and Main Street. Havelock road parallel to the railway station and by the side of the canal. There are a lot of mixed developments in these all buildings such as hotels, cinemas, shops, churches and telecommunication services.

There are no parking facilities. Gamini Mawatha is parallel to the public bus terminal where hotels, shops, boutiques are located and hardly any proper adjacent to Sydney Hotel. Parking facilities had been created within the premises; Siridewamitta Mawatha is apparently a lot of buildings belonging to Dutch/ British period is located along this road. Department of Inland Revenue branch, Ceylinco Insuarance branch is located along the road.

2.3.4 Open Spaces and Canals

Open spaces are one of the urban spaces. There are no formally built squares. The open space on an around the ramparts, esplanade, and park are the most important in terms of enhancing the life. All these have begun to accommodate new forms of life. The open space along the rampart is are of the

most attractive spaces of the Fort today, enabling place making in the forms of evening walks and sun bathing. The undulating open space smoothing the raggedness of the rampart wall has the potential for accommodating more informal activities that could effect investment.

Fig.80: Open Space on an Around the Rampart Wall

This extensive space is articulated in such as a way, that one does not feel its massiveness in enjoying the openness. Thus activities such as play areas, children's parks, gathering places, watch towers, informal open spaces etc; could be inserted without building any permanent structures. The military camp and the residence of DIG, should be provide with suitable designs for their security thus ensuring the use of the ramparts as a place life in turn.

Fig.81: Darmapala Park and the Canal

The spatial corners or physical features of the ramparts identified by the evening gossip should be protected, without attempting to make this one identical space. The management effects of the Fort should not limit accessibility. There is also a possibility of converting parts of the ramparts in to exhibition galleries. Presenting the ramparts as an exhibit it self, its capacity should be a setting for informal life could be strengthen by the provision of necessary services, and exploited to attract new investments. At the same time, mobile snack counters and venders can be issued license by the GHF, making the open space more

attractive, and keeping this activities secondary.

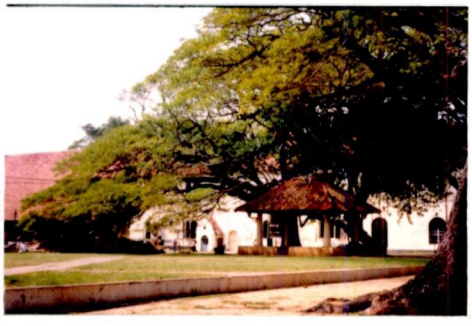


Fig.82: Major Square

The open court around which the administrative sector is organized has become the major square today; the locals also identified it as a major square. Thus without dismantling its life in order to revive the significance of the formal square today of the Dutch period, or elevating the former into contention with the present. A simple organization of car parks and the provision of ancillary services those who spend long hours in the open area will enhance its life. By reinforcing the inter relationship between different urban spaces, the visitors could be attracted to the others. This would reinforce place making in them and enlarge the awareness of heritage. In the evenings, this phase becomes a playground, displaying the multiple use of urban space. Such multifunctional use of urban spaces should be allowed in order to strengthen the life of the urban quarter.

For.83:Open area of the Canal bank

The open space out side the ramparts has been wasted due to the blind application of the "400 yards" rule. This area should be redefined as transition between the historic quarters and later additions. By using the strength of public activities for their influence over the behavior of the investors, they can be legitimized as long as they do not challenge the legible image of the city. This can be attempted by the enhancing the existing public activities such as play ground

activities, leisure, and the fisheries harbor, or introducing new activities such as fairs festivals, an open air theater, improvement of the fisheries harbor, and introducing water sports, in all cases allowing only temporary structures could enhance the heritage values and revive a life.

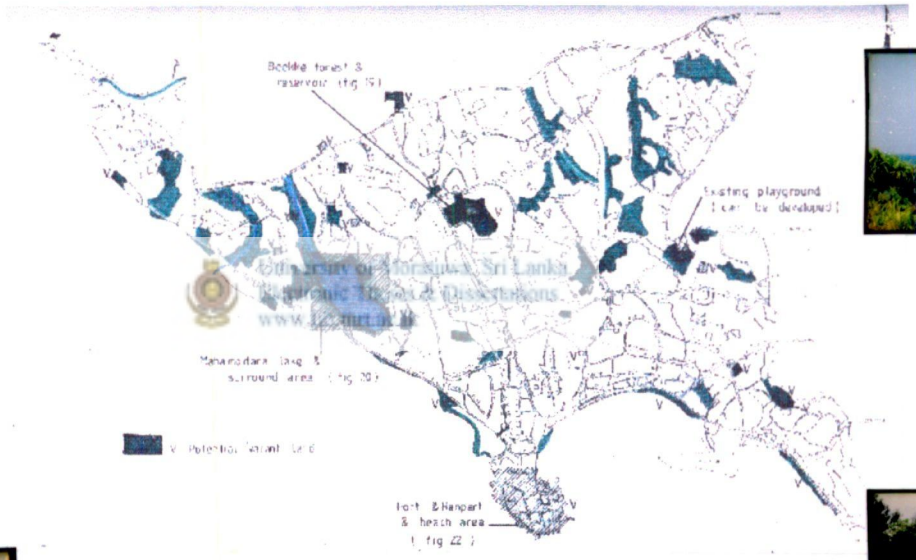
The canal banks can also be used for extending restaurants, or shops. Existing the park over the canal towards this vast open area of the edge of the ramparts could be another way to revive their life, but this area should not be covered with trees.

Fig.84: Kepu Ela

The most distinctive physical features are two ridges of hills that run in the north south direction. The rest of the town gently slopes away from these ridges towards the east and the west on the south side of which there are number of canals which run from north to south, where they meet the sea at various points. On the western part of the town the major canal is the Kepu Ela which just before flowing in to the sea, forms the Mahamodara Lake. Mahamodara Lake is formed by the Kepu Ela that flows north south in to the sea. This lake has an area of 30 hectares.

Fig.85: Mahamodara Canal

The Parana canal runs parellel to the Colombo Galle Railway line and meets the sea just south of the Railway station. On the east to main canals which also runs from north to south are Moragoda Ela, which aloes into the harbour and Dick Ela, which runs along the eastern boundary of the town.



OPEN SPACES & CANALS.

CHAPTER THREE

IDENTIFICATION OF THE PROBLEMS AND POTENTIALS OF THE AREA FOR DEVELOPMENT

Identification of the Problems and Potentials of the Area for, Development

This chapter examines the problems and potentials of the area for development. Problem identification can be illustrated as the foundation of the planning process, in order to identify legitimate problems area. SWOT is very useful and widely use technique to answer important questions about the area where planning is done. Many issues can be identified, through these studies. Also in this chapter is to identify the development guidelines for developers.

3.1 SWOT Analysis

Information and experience of urban development problems through the SWOT analysis is a useful input. Identification of many would be reached by the SWOT analysis. The SWOT analysis, which stands for strength, weakness, opportunity, and threats, is a useful technique that can be applied to assess the present situation of the proposed development enclave vis-à-vis its development potentials. SWOT – general analysis for Galle MC area to answer important questions about the area where planning is taken place.

Strength of the Area:

- **Importance of the location of the Galle town.**

  Galle the capital of the southern province, which is, located about 115 km south of Colombo, on the highly urbanized area of the Colombo Matara highway. As the capital of the southern province Galle bares a importance with respect of the administrative function. Hence the Galle city also bares a major role of in providing sooth functioning of the southern province. Galle is one of the first order towns in the southern province.

- **Availability of better physical and social infrastructure than the other urban areas.**

Relatively more developed infrastructure facilities in this area such as international cricket stadiums hospitals, educational institutions, engineering and medical faculty. Also availability of electricity, well distributed pipe bone water systems, telecommunication network and construction materials within the city limits.

Table No. 1: **Galle town – Distribution of Various Land Uses in Year1999**

Land Use	Extent		%
	Acres	Hectares	
Residential	2411.2	976.19	56.02
Public	174.2	70.61	4.05
Commercial	97.6	39.51	2.27
Industrial	55.2	22.35	1.28
Tourism	12.8	5.18	0.30
Religious	71.6	28.98	1.66
Transport	43.2	17.49	1.00
Cemeteries	14.8	5.99	0.34
Water Bodies	90.4	36.60	2.10
Public Open Space & Play ground	86.5	35.00	2.02
Vacant Land	382.3	154.79	8.88
Low Lying Areas	90.4	36.60	2.10
Paddy Fields	40.0	16.19	0.93
Coconut Lands	32.2	12.62	0.72
Rubber Lands	24.0	9.72	0.56
Roads	678.5	274.68	15.78
Total	**4304.0**	**1742.50**	**100.00**

Source – Draft Development Plan Prepared by UDA Southern Provincial Office,Galle

- **Well-planned street network system.**

Except for street surfaces, the road network of the Galle Fort has not been transformed. As in the Dutch times the streets are straight and narrow. At present those graveled streets are tar paved and are not lined with trees.

- **Declared as a world heritage site.**

  The ultimate Galle should be to improve living standard of residence of the Galle city using worldwide, development concepts and experiences in the integrated urban revitalization and heritage programs. Being a heritage city of Sri Lanka conserved by the archeological department, the UDA has proposed to keep Galle Fort as a tourist city for the southern province of Sri Lanka. Therefore a conservation policy to promote the archeological monuments, as well as the improvement of infrastructure facilities. Then the Galle Fort may become a outstanding living heritage city in the world.

- **Historical value and the existence of the underground drainage system.**

  The drainage system, which has constructed in the Dutch period, thus not properly function. Because of a potion has already collapsed and also due to some sections been filled up with dead corals. This situation is bad especially at drainage outlets. The collapsed area must be restored and other areas of concern must be well inspected. A plan for this purpose needs to be developed with immediate effects.

- **Existence of the archeological and architecturally important buildings.**

  Except for open space along the ramparts, the streets, open space in front of the court complex and other sundry open plots, all the land area within the Fort is built up. Most of the buildings are made out of corals. Rich beautiful long beaches encircling western and southern boundaries sandy beaches along the coastal belt.

- **Location of the historically and architecturally important Galle Fort is a valuable factor for tourist industry development.**

  Existence of a well preserved rampart, which is a important element of the Galle Fort. Without ramparts the area cannot be called a " FORT" and could not be easily separated from other areas of Galle. The ramparts are built with solid corals. Compared to some of its ancillary elements mainly, powder

magazines entrance gates, dilapidated due to lack of maintenance. The ramparts and bastions are good condition.

- **Availability of resources.**

  There are many resources (Ex; Export agriculture activities, fishery industry etc;) which can be used for economic development. There is a trained and non-trained labour force, use for development activities.

Weakness of the Area:

- Non-availability of enough facilities as a first order town.
- Unauthorized renovations and new construction damages to the heritage value of the area as well as to the structure of the underground drainage system.
- Increasing of commercial development is not sufficient for present demand due to existing UDA planning and building regulation.
- Lack of restoration and maintenance of the government buildings and lack of awareness of the public in restoration and maintenance of buildings own by them. No intentions for restoration of privately own buildings historical interests.
- Lack of maintenance of the underground system and section of underground drainage system is in a deteriorating condition.
- Insufficient parking spaces and narrow road network may damage the cover slab on the top of the manholes of the underground drainage systems. There is no proper plan for management of the transport system. There is no alternative system for the existing underground drainage system.
- The Galle Fort had been declared as an urban area of the urban development authority the planning activities are controlled and managed by the UDA. However the power and functions had been delegated to the Municipal Council by the UDA in 1985 and therefore MC is conducting planning and development matters with the guidance and the supervision of the UDA. However the city of Galle was declared as a urban area under the UDA Law No.41 of 1978. hence the UDA is responsible for the matters related to Planning and building regulations since 1979.

- Bad condition of surface drainage system which links to under ground drainage system. And improper arrangement of solid waste collection. No proper sewerage system for the area thus solid waste is also link to drainage system. Insufficient rear space to create the sanitary facility.
- No space for further widening of existing road network most historical building shave road frontage thus widening of roads are not possible.
- Poor maintenance of open spaces.
  Insufficient space and haphazard development of the existing bus stand.
  No proper pavement or path for walking between railway station and the bus stand.
- Large extent of land, which is suitable for development belongs to railway department, is unutilized. There is more unutilized land in the center of the town due to unavailability of proper access. In the commercial zone relatively a large extent of land has been devoted for the prison.

Opportunities of the Area.

- Availability of political will and backing from the central government and activities of Galle heritage city foundation and its powers. Development activities carried out by the UDA within the city limits and also th epowers the UDA carry. Proposed large-scale investments for the city of Galle by the Southern Development Authority.
- Heritage value of the existing under ground drainage system, which is the only system in Sri Lanka.
- Being a transport hub (easy access by rail, road, sea) availability to reduce transport time to Colombo with the opening of the Colombo highway.
- Development programme of Galle harbor to an international level.
- Twin city programme with the city of Velsen in Netherlands.
- Availability of educated youth and highly interactive and entrepreneurial human resources.
- The historical identity of the city of Kandy used for commercial development and availability of the resources for development of economical activities.

- Colombo-Hambantota main road running towards the town and proposed south express way adjacent to the town.
- Lack of commercial spaces as to fulfill the city needs because majority of urban land still remain unutilized due to lack of proper access.

Treats of the Area

- Lack of public parking spaces in the town.
- Traffic congestion has occurred in the center of the town because there is no proper plan for management of the transportation of the city.
- Tourist sector had not sufficiently developed view to unavailability of tourist promotion zone for the city.
- Not enough open spaces such as parks, play grounds and canals.
- Insufficient land area for further extension of existing building to handle population growth.
- Lack of coordination among the key institution.
- Negative efforts from the Galle Fort development. According to design, breakwater expansion of the harbor will effect the rampart, outlet of underground drainage system and surrounding areas of the Fort.
- Lack of public participation, there are 720 families in the Galle Fort, but due to many reasons there are not playing a role in the development. The need to adhere to the guideline of the Department of Archeology.
- Heritage value of underground drainage system. Therefore additional expenses are bourn for preservation and for consultation of experts. Also discharge of wastewater in to the underground drainage system (waste water with solid particles may effect to the functioning of the underground drainage system). Non-availability of space to provide alternate drainage during construction and rehabilitation operations.
- Insufficient land area for further extension for existing buildings to handle population growth. Subdivision of land is impossible with demand of the family members.

Table No. 2: **Galle City – Ward Wise Growth of Population and Density 1981 – 1997**

Ward No	Name of the Ward	Population			Growth of Rate (%)		Area of Ward (Ha)	Density	
								Persons	Ha
		1981	1982	1997	1981 to 1991	1991 to 1997		1991	1996
1	Fort	2661	3130	3411	1.50	1.49	38.00	82.40	90
2	China garden	4697	4750	4782	0.11	0.11	49.80	95.30	96
3	Bazzar	3380	3470	3404	-0.1	-0.032	49.40	70.20	69
4	Thalapitiya	6328	6530	6651	0.90	0.26	51.10	127.70	130
5	Magalle	6517	6870	7082	0.40	0.51	148.80	46.20	48
6	Katugoda	5317	5060	4906	-0.10	-0.52	112.50	45.00	43.6
7	Ethiligoda	5200	4800	4560	-0.30	-0.83	135.70	35.40	33.6
8	Dangedara	5597	5760	5858	0.70	0.28	92.40	62.40	63.4
9	Minuwangoda	3874	4230	5858	1.00	0.84	84.60	50.00	52.5
10	Galdadugoda	4669	4880	4444	0.40	0.43	60.40	80.80	83.0
11	Kaluwella	4478	6820	5007	0.80	3.43	63.10	108.20	128.3
12	Dadella	7485	8240	8225	1.60	0.91	238.60	34.50	96.4
13	Kuballwella	7697	8040	8693	0.50	0.43	207.10	38.80	39.8
14	Madawalamulla	4756	4700	8246	0.01	0.12	168.70	27.90	27.7
15	Hiribura	4327	4550	4684	0.80	0.49	242.10	18.80	19.4
16	**Total MC Area**	**77181**	**81830**	**87619**	**0.60**	**0.57**	**1742.40**	**47.00**	**48.6**

Sources – Department of Census and Statistic

- There is no comprehensive policy for the conservation and lack of co-ordination among key institutions (Ex; Southern Provincial Council, SDA, UDA, MC, Department of Archeology).

- Non-availability of sufficient by pass roads within the city center.
- Non-availability of government land for development.
- Conflict between pedestrians and vehicular traffic on main street of the town center, intensive shopping on both sides of the street generates pedestrian activities which conflict with the large volume of local vehicular traffic.
- Silting the mouths of canals, hinders, the flow of water into the sea. Hence desalting has to be carried out periodically. This problem occurs at Mahamodara canal and Kepu Ela canal.
- Haphazard development in the neighborhood centers creats urban management problems (thani pol gaha, sarenthu kade, katugoda etc;).
- Lack of public toilet facilities in the town center and the neighborhood centers, creates environmental problems.
- Limited width of trunk routes and lack of set backs, for adjacent buildings, houses and shops, open directly in to trunk routes, and local roads. This presents hazards to people and vehicles.
- Lack of market facilities in the peripheral wards and insufficient playground in the town center.
- Reduction in the capacity of narrow streets by kerb side parking and the off street parking facilities are not adequate in many areas there are non at all.

3.2 Identified Issues

Many issues have been identified in the preceding studies. Galle is a historical city that is susceptible change by the day. The development strategy should account for issues related these changes.

- One of the main reasons for this study is to understand the historical importance of this city and sustain its character, so that it will continue to be identified as a famed world heritage city.
- Activities in relation to this historic site are covered under many regulations and under many institutions. At the moment these are giving out conflicting signals.

- Land use planning.

  There should be a change in the land use pattern inside the Fort (changes to the existing buildings are inevitable within a historic area but a living community). There should be some guide lines and a strategy for the issuance of consents of such changes within the historic area (the permissible developments in the vacant plots within the area should be identified).

- Social infrastructure.

  Even though the number of people living inside the Fort has not increased during the last decade, the pressures on the two schools have increased. Particular mentions must be made of Southland's College that is under pressure to increase its intake. Even though 15% of the land area is open ground, there is no formal recreation for leisure programme for the area.

- Environmental infrastructure.

  The drainage system, which as built, by the Dutch should be renovated (there have been many disputes as to whether the windmill that the historians have recorded as being on the Triton Bastion was of Dutch origin). Since there is not an attempt restore only Dutch monument, but the Galr Fort. There should be equal consideration renovations of all historic monuments. Removal of solid waste from within the Fort as well as from the area should be handled well in the presentation of this site to the tourist. Solid waste disposal in Galle has all ways being an Issue. There are many environmental issues that need to be handled. The belching of vehicles, reservation of coral reef, the pollution coast by the presence of the abattoir within the buffer zone, and the absence of basic amenities in some of the houses are some of these issues.

- Landscape features

  There is mo set policy on landscaping within the Fort. The trees have grown all over, on masonry walls, rampart walls, and other open areas. Where as in areas good landscaping should prevail is being ignored.

- Traffic and transportation

  There is too much of traffic inside the Fort. There should be some means of reducing the amount of traffic entering this historic area. There is no provision

for vertical parking. The street names have been changed. Some names have no bearing to the historical character of the site.

- Physical infrastructure

  The distribution of power though over head tables pylons is unsatisfactory telecommunication service to the areas still follow the age old system of running their cables as overhead competing with the electricity cables. In addition, the two private companies fixed producing antennas on the facades of buildings there by creating a loss of amenity values. Another loss of amenity values as well as the distribution, created in the roofscape in this area is the presence of high television antennas from individual houses.

- Building typology

  Unauthorized alteration to buildings and new constructions are being carried out all over the area within the site. The covering verandah and the changes brought about by the use of different roofing materials are glaring offences that are being carried out. Some have introduced an extra floor in their houses whilst others have in rebuilding their house, set back from the existing building line.

- Tourism

  Even though there is a potential to improve tourism, there is no policy for such. The local population is kept out of any activities associated with the industry. There is hardly any public awareness on the subject of historical significance. Conservations or tourism potential among the local population.

3.3 Development Strategies

- Zoning

  Since zoning in the traditional way can cause 'dead areas' at some period of the day this should be discouraged. Instead compatible activities that are fit to be carried out in an important historical area of this nature should be permitted. Historically 80% of the area considered to dwelling houses this has now come down to around 30%. This percentage should be enhanced. The ancient

harbor has been proved beyond doubt a veritable minefield of marine archeological finds with the recent under water explorations. Even though the explorations have not been concluded, the findings justify the extension of the world heritage boundaries to include the ancient harbor. This will automatically extend the buffer zone to the 400 yard limit beyond the harbor limits

- Management plan for the built heritage

The built heritage in Galle Fort is the most important element. It is important that should be preserved accordingly, conservation is the act or process of preserving something in being, or of keeping alive. In dealing with buildings in addition to regular maintenance, a dynamic rule is taken on by conservation being concerned with much needed adaptations and reuse to the satisfaction of the present day needs. It involves the environment of the buildings its new use, view points from near and far and the appearance of the new and old elements, in the neighborhood. Therefore conserve is to enhance new life and this certainly does not exclude change because without change, the city would die. In order that this policy may be carried out a scientific approach shall be evolved though which the entire development process could not only be monitored but also encouraged.

a) Protective inventory

Galle heritage trust shall undertake the task surveying and under identifying the listing of buildings inside the fort. The survey shall include not only the facades of the buildings, but also its interior the furniture, fittings and fixtures, and the history of the buildings. The buildings and sites, so compiled shall be known as, "the protective inventory" of the Galle heritage trust.

b) The building uses

There are many incompatible uses occupying inside the Fort. They belong to both the state and the private sector. As a policy decision these uses shall be identified and a reasonable time limit such as a five-year period be given for these uses to relocate. The

authority shall help these use to find alternative land for such location.

c) Facadism

Recognition of the facades of buildings only shall be discoveraged when history buildings. However, it may have to be done if the streetscape or the building line is to be maintained. If the facades are to be listed, precautions shall be taken to void the following;

- Avoid over development behind the protected façade.
- Ill-effects of the townscape due to such developments.
- New floor levels conflict with the all window levels.
- Destruction of the old wing due to unequal settlement of the Foundations.

d) Reproductions

The character of Galle Fort is that different types of buildings blended together with rooflines arcades and plinth lines. Though reproduction of the missing elements of the buildings, can be used in existing buildings, the need for the construction of new buildings in a 16th or17th century style to be introduced today.

e) New developments

In the Galle Fort there are many sites that could be earmarked for either redevelopment or for revitalization. Technical code or design guide for such work should be phased in the most general terms. Height, scale, materials, colour, texture, size, and form of windows, doors, and other. Openings shall be carefully locked at under the regulations, under architectural control.

f) Treatment of existing buildings

There are many buildings inside and just out side the Fort that are not compatible with the historic nature of the environment. The recommendation is to give a maximum period of five years to offending owners to fall in line phase stiff penalties and or

acquisition. The authority shall provide the necessary guide lines for owners.

3.4 Guidelines for Developers – Prepared by the UDA

The conservation area is define as the area within the fortification of the Dutch Fort, ancient harbor and the buffer zone as define in the antiquities ordinance of Sri Lanka. These guidelines which prepared by UDA and ICOMAS are set out to protect and maintained the historical buildings and monuments within the so define conservation area and to ensure that the land within this area are used in a more efficient and economically viable manner. These guidelines apply to both government as well s the private sector developments. Within this historic area, no building construction restoration, change of use, interior or exterior modifications, alterations, or replacement of any building element excavations, demolishes or any other type of permanent, semi permanent or temporary work shall not be allowed within the permission of the authority. The authority shall be the Galle Municipal Council, who shall not issue any written approvals without obtaining written concent from the Director General of archeology.

Following Guidelines are stated below:

1.0 Development permit

1.1 No building work whether permanent, semi permanent or temporary should be started with out written approvals from the authorities. The authorities in this instant are the department of archeology and the MC of Galle on behalf of the UDA.

1.2 The building plans should be prepared by an architect registered with the SLIA who is conversant with conservation of historic buildings.

1.3 The process of obtaining approvals to built is as follows:

a) Application should be made Galle Municipal Council with two additional copies with all relevant details of the proposed development to the Department of Archeology.

b) The details to be submitted should be in addition to the usual details include plans, elevations and sections as well as a photograph of the front elevation of the existing building along with the buildings on either sides.

c) If it is a new building, a photograph of the building on the either side of the post development should accompany the proposals for the new.

1.4 The Department of Archeology will invite the applicant and his or her consultant to a discussion on the proposed development within four weeks receipt of the application.

1.5 If no serous objection to the design is forthcoming to the department of Archaeology will advice the MC of the Galle to issue the building permit within six weeks from the receipt of the application. The municipality should issue a building permit within two weeks of the receipt of the comments from the Department of Archaeology.

1.6 if no response is received from the MC within 8 weeks from the date of application to the Galle Mc and the Department of Archaeology the applicant may appeal to the UDA in Galle in writing.

1.7 The construction of a building should be completed within one year of the date of issue of the permit. If it could not be completed within a year but satisfactory progress has been made, the applicant should request an extension to the permit already issued.

1.8 The permit should be exhibited in a prominent place facing the street at all times during construction until the issue of the certificate of conformity.

2.0 Architectural Character

2.1 The proposed architectural character of the buildings should be compatible with the architecture of the area. In the case of additions or alteration to existing buildings and infill new buildings the character, proportions, scale, line movement, solid to void relationship and other

architectural relationship of the existing buildings along the street should guide the developer.

2.2 The developer should follow the character of the street arcades, colours, Plinth heights, external fittings and the existing open spaces.

2.3 Restoration of houses to its original layout is encouraged.

3.0 Street lines and Building lines

3.1 The existing street line and building line should always be maintained.

4.0 The Roofs

4.1 The Roofs should be hipped or gable.

4.2 The roof covering should either be half round tiles or 'calicut' flat tiles. No asbestos or other sheets roofing materials may be permitted.

5.0 The verandas

5.1 In all existing buildings, the front veranda should be retained without any compartmentation.

5.2 In the new buildings, the veranda should be introduced as an architectural element, but in line with the verandas of existing neighboring buildings.

5.3 covering of the veranda will be permitted only if the design incorporated is of a reversible nature.

5.4 No garage, carport or similar vehicle parking facility will be permitted in front of the building to break the continuity of street line and the verandas.

6.0 Additions of upper floors

6.1 Generally, no upper floors are encouraged in the front wing.

6.2 An upper floor for the front of a building may be considered only in the streets where existing buildings are so built. No existing single storied building will be permitted to extent vertically.

6.3 The construction of an upper floor in the rear wing may be permitted so long as it would not destroy the existing architectural and structural elements of the building.

7.0 Heights of Buildings

7.1 There are no fixed heights within the historic area.

7.2 The streetscape and the compatibility with the adjoining buildings dicate the height of a building.

7.3 The angle of the roof dictates the internal height of the house.

7.4 This will be monitored and adhered to strictly in the issue of the building permit.

7.5 TV antennas, telephone antennas and other protrusions from the roof should be so locates as to provide no visual intrusion on the roofs cape of the area.

8.0 Architectural Elements

8.1 The existing building elements such as doors, windows, fanlights, structural columns, exposed roof elements, moldings, masonry and timber columns should not be altered or replaced

8.2 Any new elements introduced to the building should be compatible to the existing.

9.0 User activities

9.1 The restoration of houses to its original layout is encouraged.

9.2 The use as a shop house is encouraged as long as no internal partitions are built on the verandah and the living room of the house.

9.3 Building uses that encourages generation of traffic will be discouraged in the historic area.

9.4 No expansion of the building stock or improvement facilities will be permitted for existing users who generate undue traffic in the area.

9.5 Such users are encouraged to relocate their establishments outside the historic city.

9.6 The following activities are encouraged within Galle Fort. Handy craft showrooms, museums, restaurants, tourist gift shops, ticketing offices, guesthouses, small-scale motels, and suitable recreational activity buildings.

9.7 The following activities are totally discouraged from the historic area, vehicle garage repair shops, service stations, fuel stations, large scale stores, industrial buildings, quarters of high security persons, schools, government officers with an area of over two hundred square meters and departmental stores, warehouses and other similar uses that the authority may chose from time to time.

9.8 If such users are already located within this area, they will not be allowed to expand their activities. They are encouraged to relocate to different part of Galle.

10.0 Signage

10.1 Advertising Displaces, Neon light displays, name board designs or others should be compatible with the architectural surroundings.

10.2 The signage should be in simple black lettering on a white back ground. The authority shall determine the size of the board and the lettering at the time, the permit is issued. Use of corporate colours will be restricted in the exterior of the buildings.

10.3 Painting, fixing, or pasting of all types of advertisements bills and posters are prohibited within this reserve. No boundary wall, rampart wall, façade, parapet wall, embankment or road surfaces of the reserved should be so desecrated.

11.0 The Buffer Zone

11.1 The land and water mass that is 400 yards from the boundary of the Galle Fort and the ancient harbor is classified as the buffer zone for the

historic area. However taking into consideration the other planning issues, the landmass south of A2 considered as the buffer zone. In addition water mass that 400 yards from the coastline and the ancient harbor has been considered as the buffer zone.

11.2 According to the antiquities ordinance of Sri Lanka, permission for development within this area must be sought from the department of

CHAPTER FOUR

DOCUMENTAION AND ANALYSIS OF THE DEVELOPMENT PROPOSALS WHICH COULD HAVE EFFECTS ON THE HISTORIC CITY OF GALLE AND THEIR IMPACTS

Documentation and Analysis of the Development Proposals which could have effects on the Historic City of Galle and their Impacts

In this Chapter the development proposals, which could have effects on the historic city of Galle, are documented and the impact of such proposals are analyzed. In this respect the contents of the Chapter will include following areas of discussion.

4.1 Documentation of the Development Proposals on the Historic City of Galle

4.1.1 Development Proposals for the Galle City Centre

The proposed development plan for the city of Galle, prepared the 2000AD by the Urban Development Authority was part of a proposed physical development plan to uplift, social, commercial, economic and environment sectors of the city of Galle.

Following section document the proposed development plans by U.D.A. for the Town Centre Development.

1. **Commercial Development**
   - 1.1 Development of existing bus stand with commercial activities in the upper flow.
   - 1.2 Proposed bus stand for long distance bus services with commercial activities.
   - 1.3 Commercial complex of Municipal land belongs to the Galle MC at tablet town.
   - 1.4 Commercial development of land at Karapitiya sub-centre
   - 1.5 Planned development of sub-centers, such as Fort, Hiribura, Karapitiya, Katugoda, Saranthukade as service centres.

2. **Roads and Transport Development**
   - 2.1 Development of existing bus stand with sufficient spaces for bus parking, sanitary facilities, and passenger resting area.

2.2 New bus terminal for Karapitiya, sub-centre

2.3 Creating common vehicles, parking spaces at;

(a) Oruppuwatte Commercial complex

(b) Long distance bus stand

(c) Off road space at Samanala ground

(d) Mahajana Pola Site

2.4 Construction of Turning Circle at Tanipolgaha Junction and Katugoda Junction

2.5 Development of by-pass roads to the Galle Road from Kaluwella Junction to Udugama Road by connecting Kandewatte Road, Woodward Mawatha and Karapitiya road.

2.6 Construction of new bridges from Wakwella to Crossing at Ging ganga so that a large number of villages are connected to new services available at the city centre and creating new demands are created for such services.

2.7 Construction of new link roads at following locations

(a) Cross road from Oroppuwatte New Road to Wijaya Dahanayake Mawath

2.8 New road from Sri Pannanada Mawatha to Nandapala Mawatha

2.9 Two link roads from Samudra Mawatha, to Main Street .

2.10 Construction of New Bridges.The city of Galle to be connected and other villages by the new bridge located a Ging Ganga.

2.11 Construction of new raods (a) From Cross road at Oroppuwatte to Wijaya Dahanayake cross road (to develop the commercial activities (b) To construct a new road from Pannananda Mawatha to Nandapala Mawatha (c) To construct two cross streets from Sea Street to Main Street.

3.0 Housing Development

3.1 Proposed new housing facilities for relocating the dwellers affected by the proposed U.D.A. project (Near Dharmarama Road).

3.2 Proposed low income level housing scheme in the Moragoda Canal after reclaiming the lands.

3.3 Porposed Middle income level housing secheme in area near the Nurse Traomomg Centre at Kaluwella.

4.0 Development of Water Supply and Under ground Drainage System

4.1 Rehabilitation and reconstruction of existing drainage system in Galle Municipal Area.

4.2 Water supply system for;

(a) Construction of water filtration plant (Wakwella)

(b) Development of Main pipe lines from Wakwella to Beeke Tank

(c) Increase the capacity of water tanks

(d) To Construct a water filtration plant for Hiyare Water Supply Scheme

(e) Renovation of main pipe lines (from Hiyare to Beeke)

(f) To Purify Hiryare reservoir

(g) Develop Hiryare water supply scheme as an alternative source of water supply to Ginganga scheme when it is affected by salinity during drought periods

4.3 Provide sewerage facilities and under ground drainage facilities.

5.0 Industrial Development

5.1 Implement an industrial development programme in Daddalla area.

6.0 Development of Community Service

6.1 Renovations of Daddalla Cemetry

6.2 Development of Library facilities

6.3 Construction of public toilets at;

(a) Near Dharmapala Park (paid toilet)

(b) Near the bus hault (proposed bus stand at Karapitiya

7.0 Development of Recreational and Sports Facilities

7.1 Construction of Public Play ground at Daddalla as alternative sports facility

7.2 Construction of the Beach Park (landscaping along the beach strip form Katugoda to Daddalla)

7.3 Construction of a natural forest park at Beeke

7.4 Construction of children's play ground at Gingtota, Bulugaha Junction attiligods Makuluwa and Katugoda.

7.5 Improve the present play ground with proper facilities

7.6 Provide the urban park at Moragoda Ela

7.7 Develop the existing reservation for recreational facilities (canal roads and railway reservations

8.0 Development of Industrial Sector

8.1 Construct a ten storied building for the office complex

8.2 Relocate all the government and private offices in the new office complex presently located in the Fort

8.3 Present post office located at Galle Fort, to be coverted to an office complex

9.0 Sanitation Facilities

9.1 Provide public toilet facilities at;

(a) Anagarika Dharmapala park

(b) Bus stand area

(c) Samudra Mawatha

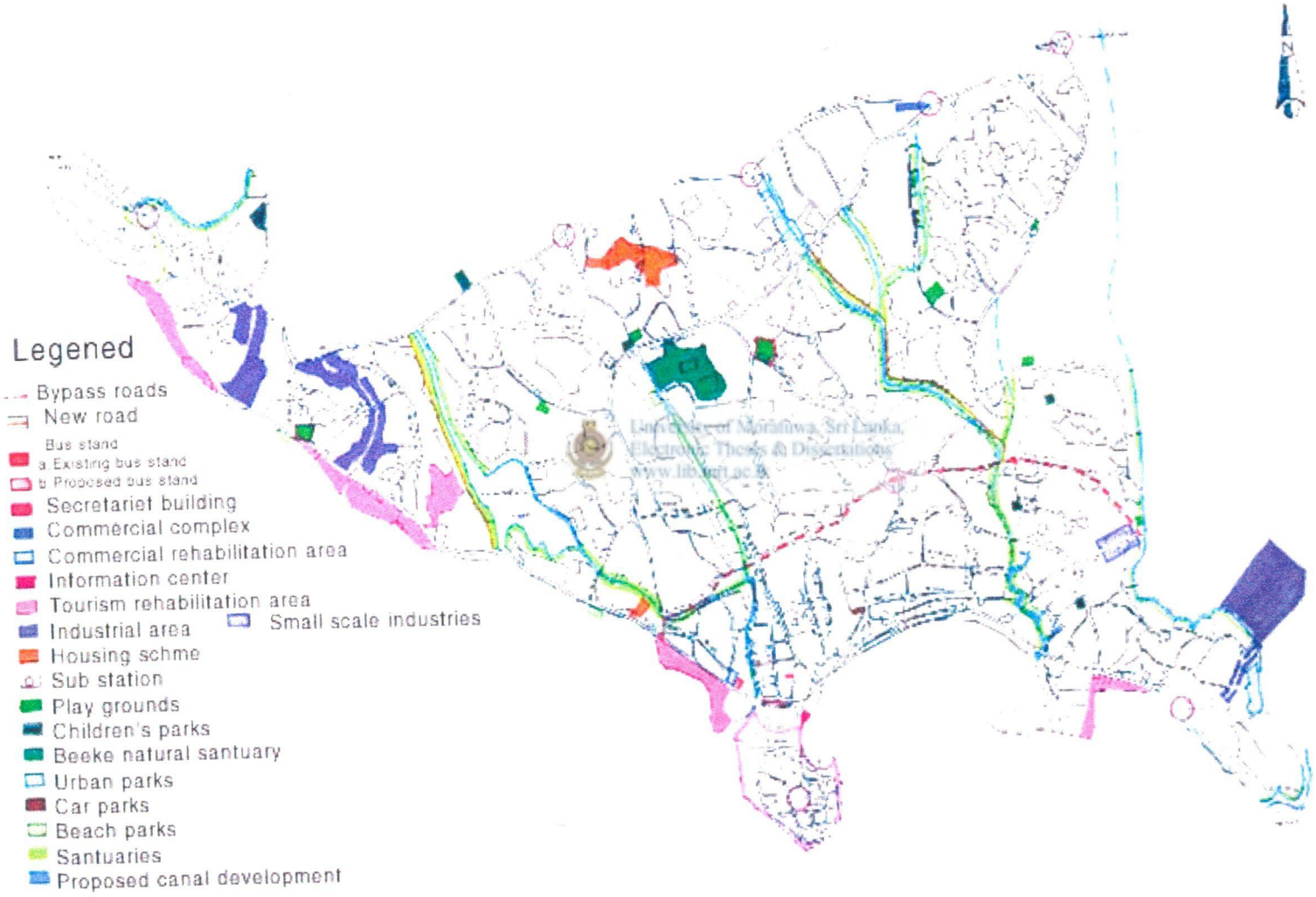
10.0 Redevelopment of Tourist activities

10.1 All the vacant officers, stores, work shops and buildings in the Fort area to be utilized for tourism (after relocation in the office complex.

10.2 Provide an information centre at the entrance of the Fort

10.3 Declare an area as a tourist promotion zone (Closenburg, Light House, Maha Modera Tank and around Gingaga mouth.

10.4 Provide required facilities to improve the tourist sector.



PROPOSED ACTION PROJECTS – GALLE MC AREA

4.1.2 Development Proposals for the Galle Fort by the U.D.A / ICOMOS

ICOMOS Sri Lanka identified the long felt need and offered its services to the department of Archaeology and the Urban Development Authority to propose a development plan, that can be attached to the structure plan that is being, prepared by the U.D.A. for the historic area of Galle.

Conservation of Galle Fort – Development Proposals by ICOMOS / Sri Lanka 29th January 2001

1.0 Conservation of the ramparts and the subsequent maintenance programme
2.0 The cells within the DIG Garden Area
3.0 DIG Bungalow
4.0 Conservation of the post office
5.0 Landscape the road and areas between the two gates
6.0 Visitor Centre
7.0 Bus and Coach Park out side the ramparts with picnic places
8.0 The Church and the Crypt and subsequent maintenance programme
9.0 Maritime Laboratory and the Marine / Maritime Museum
10.0 The Courts Complex
11.0 Public Awareness and Participation
- Organize heritage societies in the tow schools inside the Fort
12.0 Treatment of roads, kerbs and drains to include street furniture, lamp stands etc.
13.0 A show house

4.1.3 Regional Development Proposals – By the Southern Development Authority

The Southern Development Authority (SDA) has embarked upon a Regional Development plan having quantitatively as well as qualitatively development features, distinct from previous development plans, while earlier proposals were based on a problem solving incremental approach to development.

Regional Deevelopment Proposals – by the S.D.A

1. Southern Highway Project
2. Development of Historic Port
3. Town Centre Development and Rehabilitation
4. Development of Fortified City of Galle Fort
5. Development of Tourist Facilities
6. Coastline Improvement and Upgrading

4.2 Analysis of Impacts of Development proposals on the Historic City of Galle

4.2.1 Impacts of Recent Developmenst, which have already taken place

In this section the impacts of recent developments, which have already taken place are analyzed. Following projects are identified to be of recent development.

- International Cricket Stadium
- Town Centre Development (Development of the Bus stand and the related Commercial Development

Galle International Cricket Stadium (1998)

The Galle Esplanade has been developed as an International Cricket Stadium (ICS Galle), in 1998 and is currently the only international stadium in the Southern province where test matches are played. The ICS Galle is located in the town centre .of Galle. Previously the Esplanade was located at the northern end of Fort and extended towards the "Outer City" which directly opened up to a large open space from where a panoramic view of the town and its surroundings could be gained. The ICS Galle as has been constructed, blocks this panoramic view.

Fig.86:Large Open Space Which Which separates the Fort and the Outer City

The Esplanade before being upgraded to ICS (Galle) was a formal playground in the city open to sports activities of Galle Schools and also used by town youth. Such uses of the esplanade are not available .to Gall Schools and the youth any more.

The Galle Cricket Club, near the International Cricket Stadium offers facilities for indoor games but only for the club members and only as recreational facilities for them.

Fig.87: Present Cricket Stadium, The physical Form of a city often ignored in the task of City Building

After the construction of ICS (Galle) , game of cricket as hither to played, developed to the standard of an International Sport creating professionals of Cricket from the Southern Province. The professionalism of cricket as played in Galle ICS stimulated and contributed to provincial and national economic development became a major avenue of attracting national and international tourists to Galle.

Location Plan of the Cricket Stadium

The Galle Cricket Club obstructs the visual connection between the outer city and the historic city.

The stadium and the cricket club, obstructs the visual connection between the outer city and the Historic Port. Therefore the city character had been polluted due to absence of a solid void ratio.

Traffic congestion occurs due to the large number of sports fans assembling in a very limited space during the sports seasons such as test cricket, The main cause of such traffic congestion is lack of parking spaces.

The city character also has been polluted by the haphazardly added buildings (shops and restaurants) and also by other renovations to buildings. Therefore this space is not suitable for international cricket because of inadequate parking space and also because it is located within the Archeologically conserved area which would not permit any permanent construction on the area within 400 yards of the conserved area.

Fig.88: The Galle Cricket Club Obstruct the Visual Connection between Outer City and the Historic City

The Town Centre Development Project.

The city centre dominated by the bus stand, railway station, and the retail shops, do not harmonize with the historic image of Galle. City character has been polluted by the haphazardly added buildings and addition of the built forms. There are a number of mixed developments such as restaurants, cinema, churches and telecommunication services that are housed in shabby, ill renovated buildings. In these places either toilets are not provided or the existing toilets are not properly maintained. Therefore the toilets are unhygienic, stinking and emanate a stinking odour. The sewerage disposal system is defective.

Fig.89: Presently absence of a diffinite Identity or Character

Traffic congestion had occurred due to lack of parking facilities, along the road. Due to congestion may occur accidents. The roads that run around the Galle esplanade providing access to the fort through the new entrance are blocked and the fenced area is not maintained and as it is just a bus park. As such the surroundings of the fort have lost liveliness.

Fig.90: Main Bus Stand and Building fabric of the City Centre

Bus stand is not in a proper condition and insufficient for the people. There are no sanitary facilities like toilets and waiting areas for commuters and pedestrians. Also the lacks of infrastructure facilities are the main problem in this area.

The space running along the ramparts are reserved for its scenic value. There is no question that surrounding of a monument are to be protected but

here the monument is the total urban space and nor just the walled quarter creating dead spaces does not support achievement of the objective of conservation. Further it divides the city and destroys its homogeneity. Therefore as a whole they enhance the heritage values of Galle.

The space running along the ramparts are reserved for its visual expanse but having been unclaimed this abandoned space has become vulnerable to undesirable activities. The city centre is full of lost space and wasted urban resources as a result.

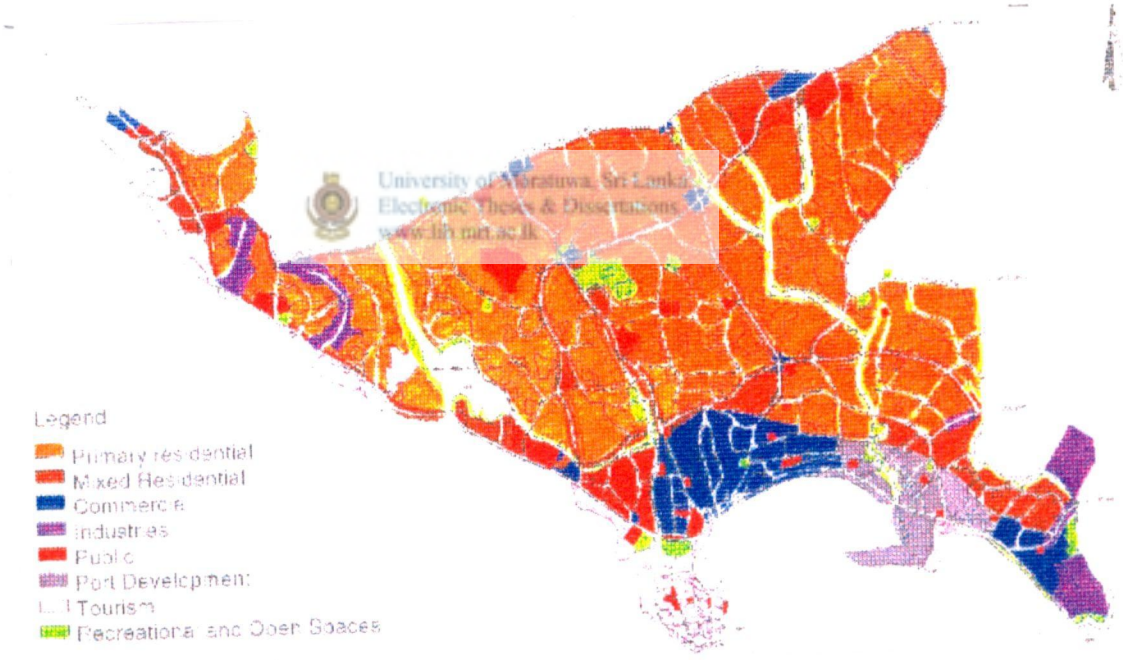


Fig.91: Existing Town Centre Development

4.2.2 Impacts of the proposed development proposals on historic city of Galle.

In this section the impacts of the development proposals, which could have effects on the historic city of Galle, are analyzed.

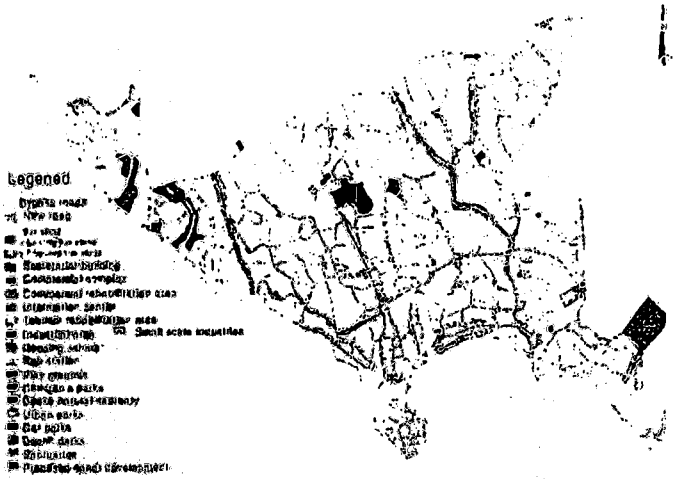
1. The projects for commercial development

1.1 Development of the existing bus stand with commercial activities in the upper floor.

This proposal is to develop commercial activities and other facilities such as toilet facilities and parking facilities inside the bus stand area due to the long distance bus services are relocated to the other place.

The existing town center development has been described in detail in precedent chapters. It is important to note that the heavy traffic congestion in the town centre along the Galle – Matara main road. With conflict between pedestrian and vehicular on the main street and ntensive shopping on both side of the street generates pedestrian activity which conflicts with the large volume of local vehicular traffic congestion due to narrow and insufficient roads. Also the areas in and around the public and private bus stand are in a deplorable condition due to insufficient parking facilities and other facilities such as infrastructure facilities and toilet facilities.

In this proposal is to provide commercial activities in the upper floor and other facilities will have to be provided. Due to long distance bus services to be relocated the commuters are wasting less time. Therefore commercial;; area it can be under utilized and affect the proposed commercial facilities. In this previous studies the main issue of that area is historical importance of the city centre and sustain its character so that it will continue to be identified as a world heritage site.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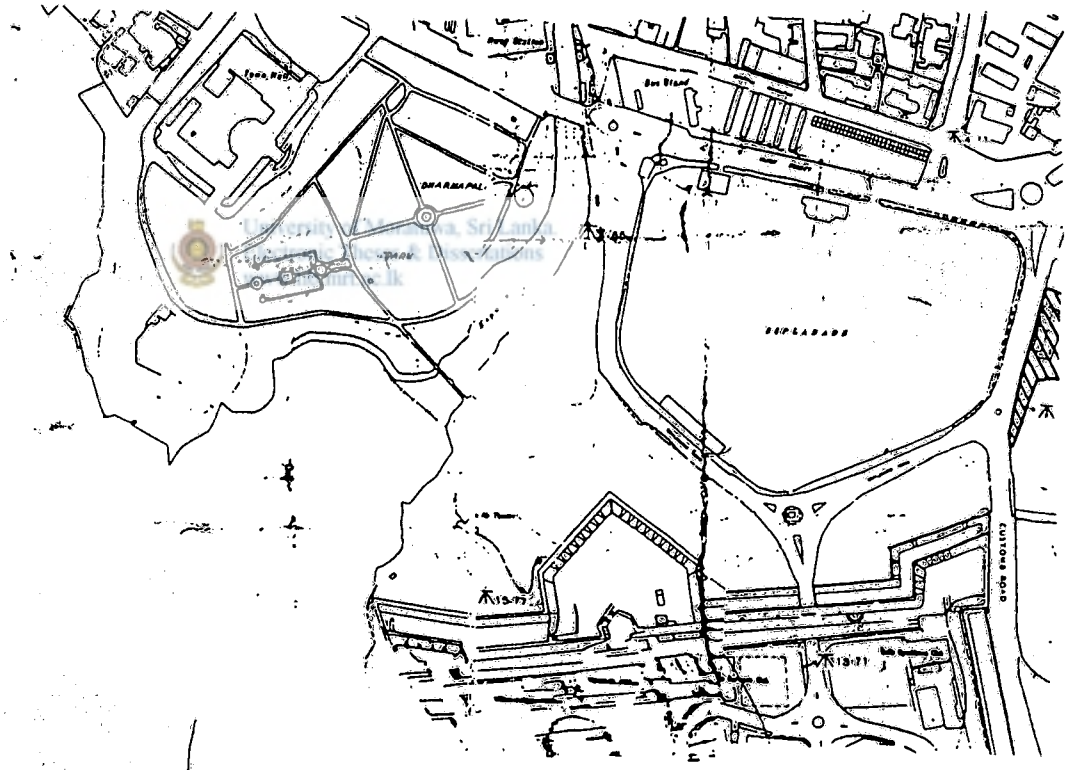
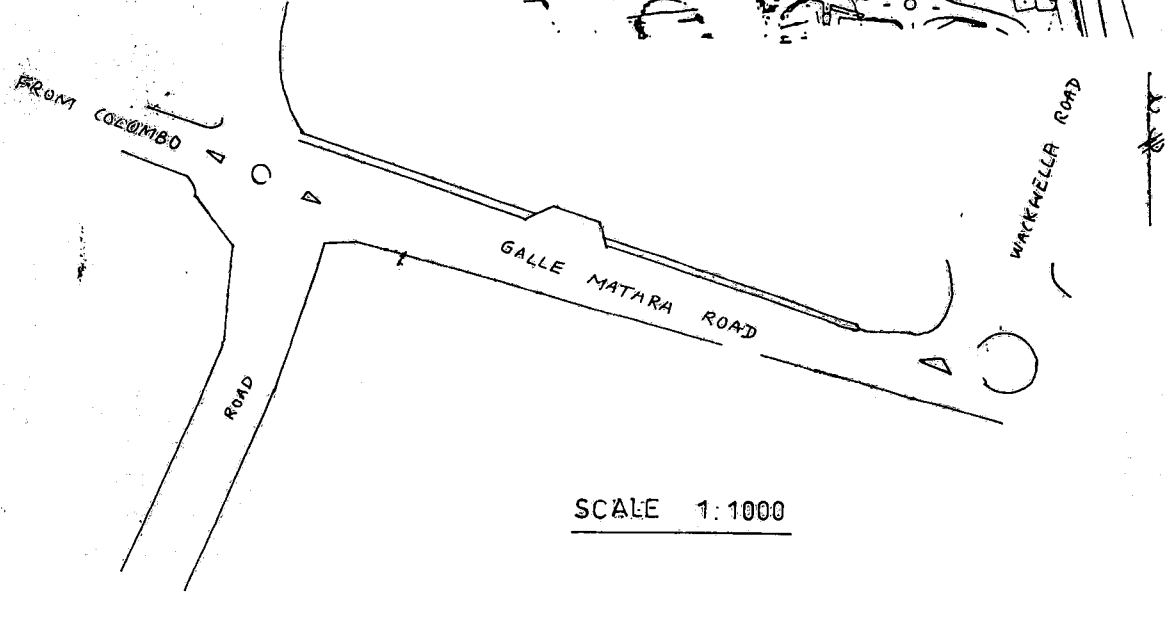

DHARMAPAL
CUSTOMS ROAD


FROM COLOMBO
GALLE MATARA ROAD
WATTHALA ROAD
ROAD

SCALE 1:1000

Fig.92: Development of the existing Bus Stand with Commercial Activities in the Upper Floor

1.2 Proposed Bus Stand for long distance bus services with commercial activities.

In this proposal there is sufficient land provided therefore it can be provided all the facilities which are mentioned earlier inside the premises. The proposed site (see fig) is located just outside the hub of the city. Therefore it can be protected historical importance of the city and bus stand its character.

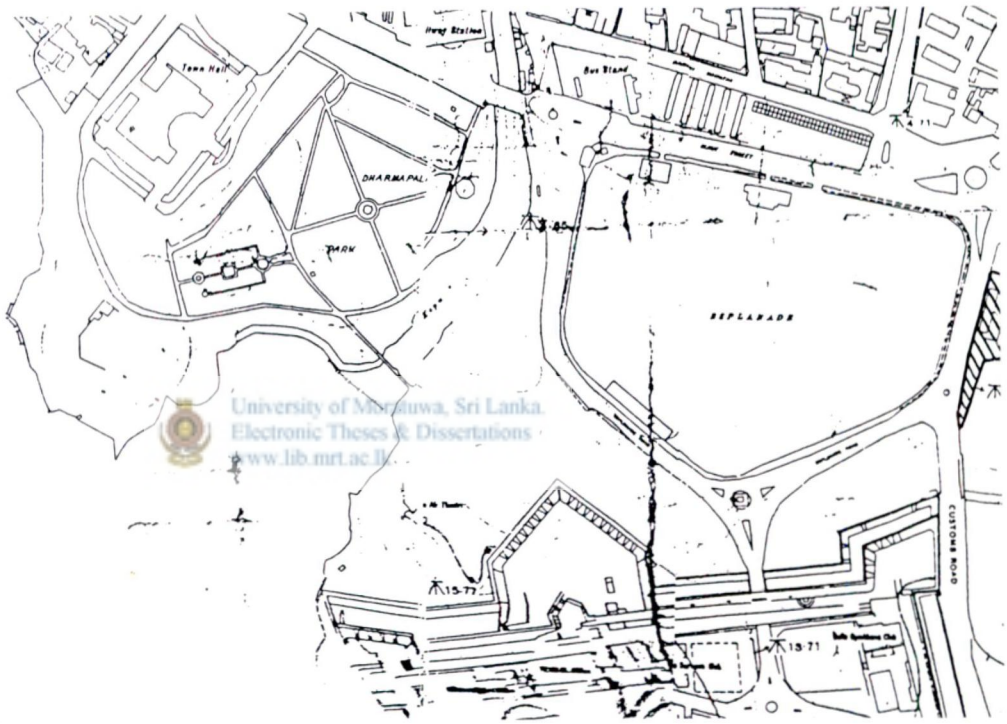
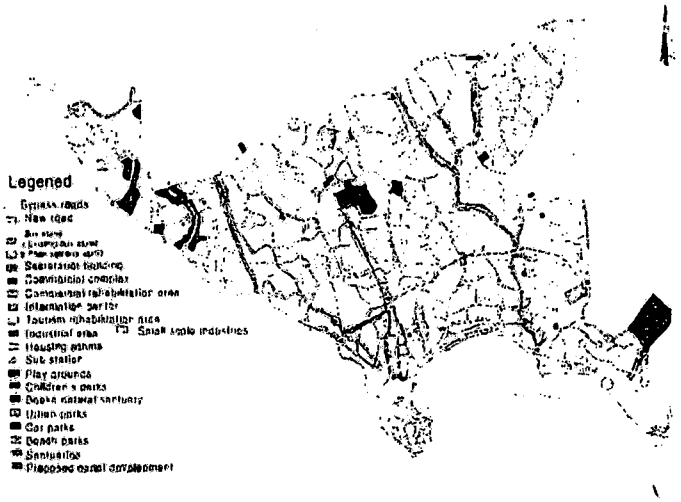
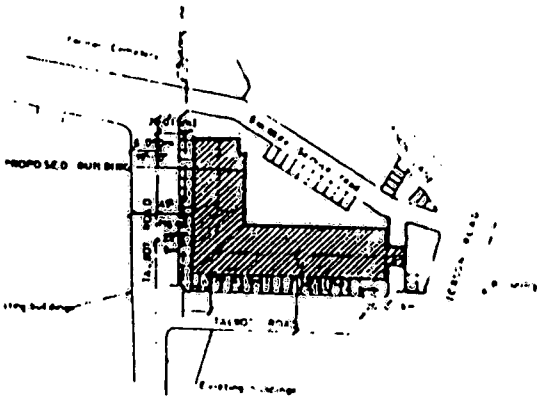


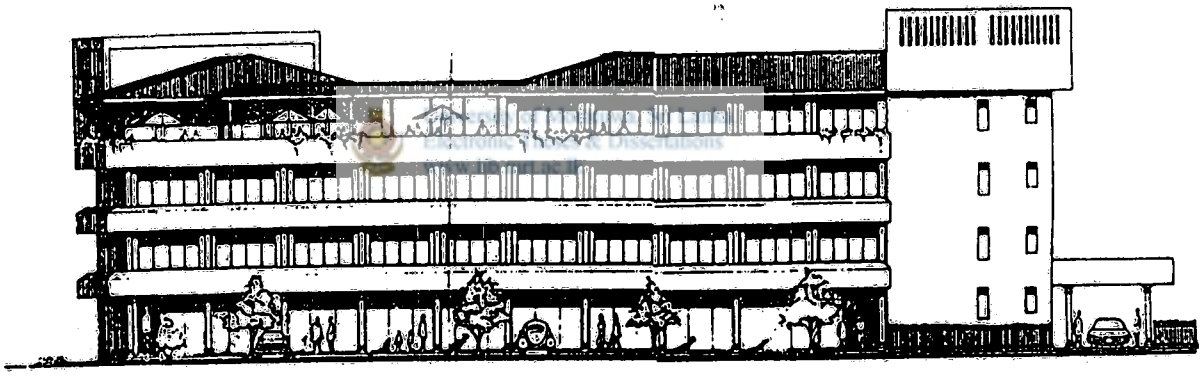
Fig.93: Proposed Bus Stand for Long Distance Bus Services with Commercial Activities

1.3 Commercial complex of M.C. land belongs to the G. M. C. at Talbot Town.

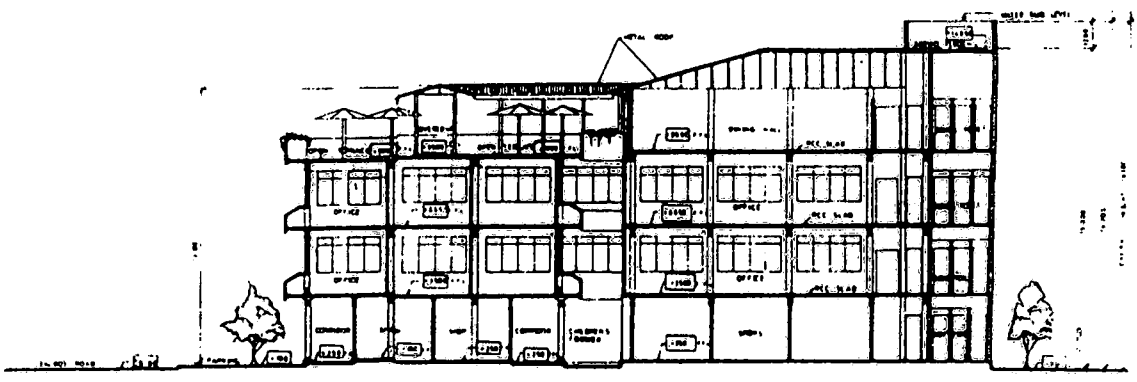
This proposed commercial complex is 7 storied building. Most of the commercial activities which are located inside the city centre may be relocate in this building. Therefore all the commercial activities are relocated outside the city centre it can be sustained the city character.







SIDE ELEVATION -
(VIEW FROM TALBOT ROAD)



SECTION

Fig.94: Commercial complex of M.C. land belongs to the G. M. C. at Talbot Town.

1.4 Commercial development of land at Karapitiya sub centre.

In this sub centre for commercial development it can be identified five major sub centers such as Fort Gintota, Karapitya, Hirimbura Junction and Katugoda Junction can be identified .The proposed development located at Karapitiya which is one of the sub centres. First stage of this proposal has already implemented. This project is two-storied commercial complex.

The Karapitiya sub centre is properly planned with wide roads, parking facilities and sanitary facilities. In this sub centre, infrastructure facilities such as hospitals electricity water supply and toilet facilities are available. Also the Karapitiya hospital and the Medical faculty have been located in this area. As a result of sub centers being located outside the city centre, the number of people who commute daily to the city centre have been reduced. Therefore the town centre can provide only very essential and useful services. Proper planning has resulted in providing integrated high quality service for the people who are living in this area. Therefore the living standard of the people has been enhanced.

There are identified negative impacts too. An example is the environmental hazards occurred as a result of this project One of the main hazards in this line is the storm water flooding of the area due to newly built in environment which has affected the natural water flow of the area.

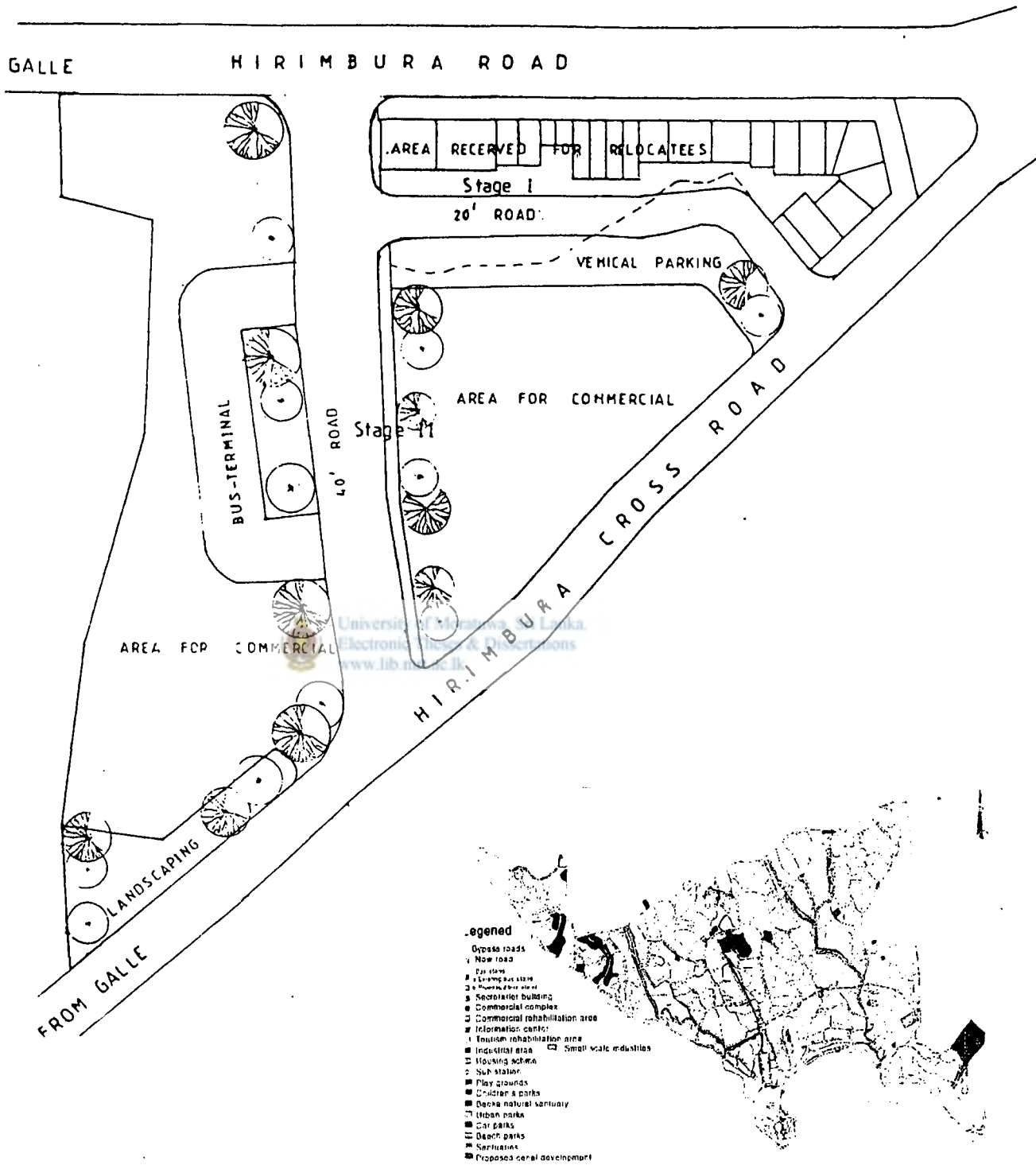
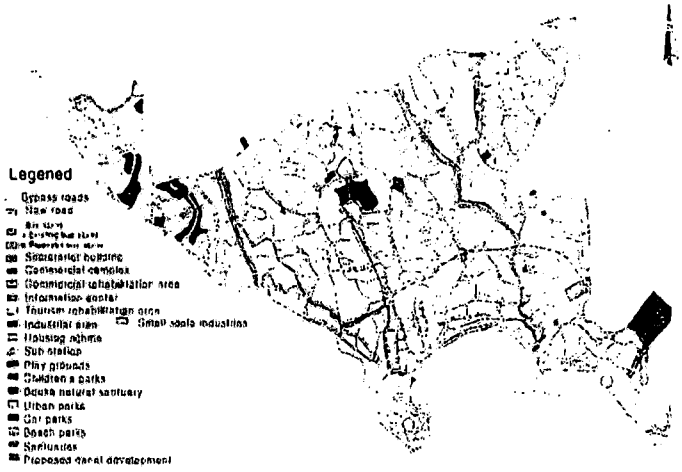
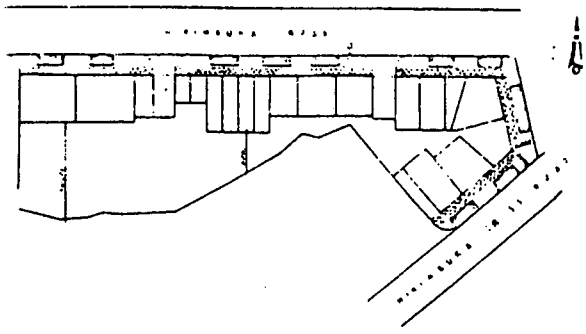
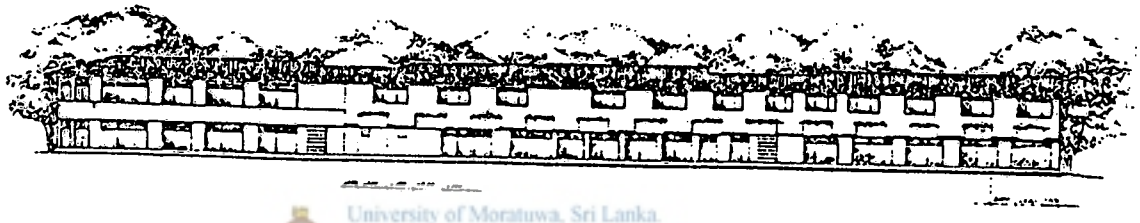


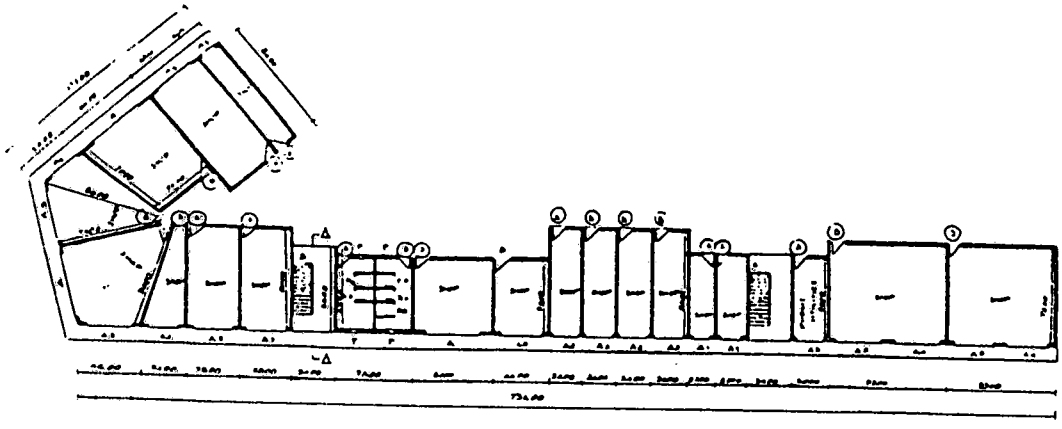
Fig.95: Commercial development of land at Karapitiya sub centre.



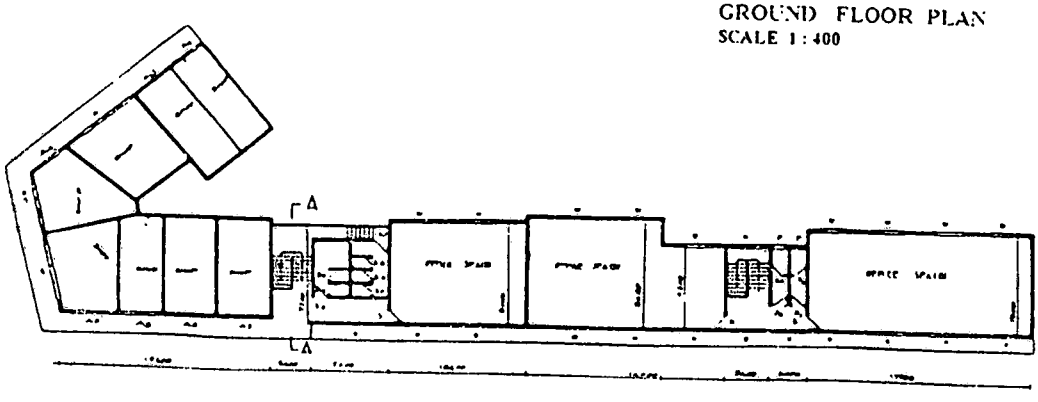




FRONT ELEVATION
SCALE 1 : 400



GROUND FLOOR PLAN
SCALE 1 : 400



UPPER FLOOR PLAN
SCALE 1 : 400

2. Roads and transportation development

2.1 development of existing bus terminal with sufficient spaces for bus parking sanitary facilities and passenger service area.

This proposal is development of existing bus terminal facilities. But the existing place may not be sufficient to supply all the necessary facilities mentioned earlier due to lack of land area. Due to this development the traffic congestion will be increased. All the hazards, which arose earlier due to congestion, will recur. The development of existing bus terminal has promoted internal migration from rural and suburban areas to the city centre.

The new building constructions. Additions to existing buildings and renovations increased due to commercial development of the city centre. Such new constructions do not harmonize with the existing city character or are inappropriate built forms, which are not in relation to its existing rhythm of building patterns. Therefore such built forms may violate the existing character of the street escape.

2.3 Creating common vehicle parking spaces

Five locations have been selected to provide parking facilities for the area. Such parking requirements at the town centre are a current urgent need. Therefore creating parking spaces are act as a solution for these problems.

2.4 Construction of turning circles at Thanipolgaha and Katugoda Junction.

This proposal can be identified as a traffic management measure to ease the traffic movement.

2.5 Two link roads from Samudra Mawatha to Main Street.

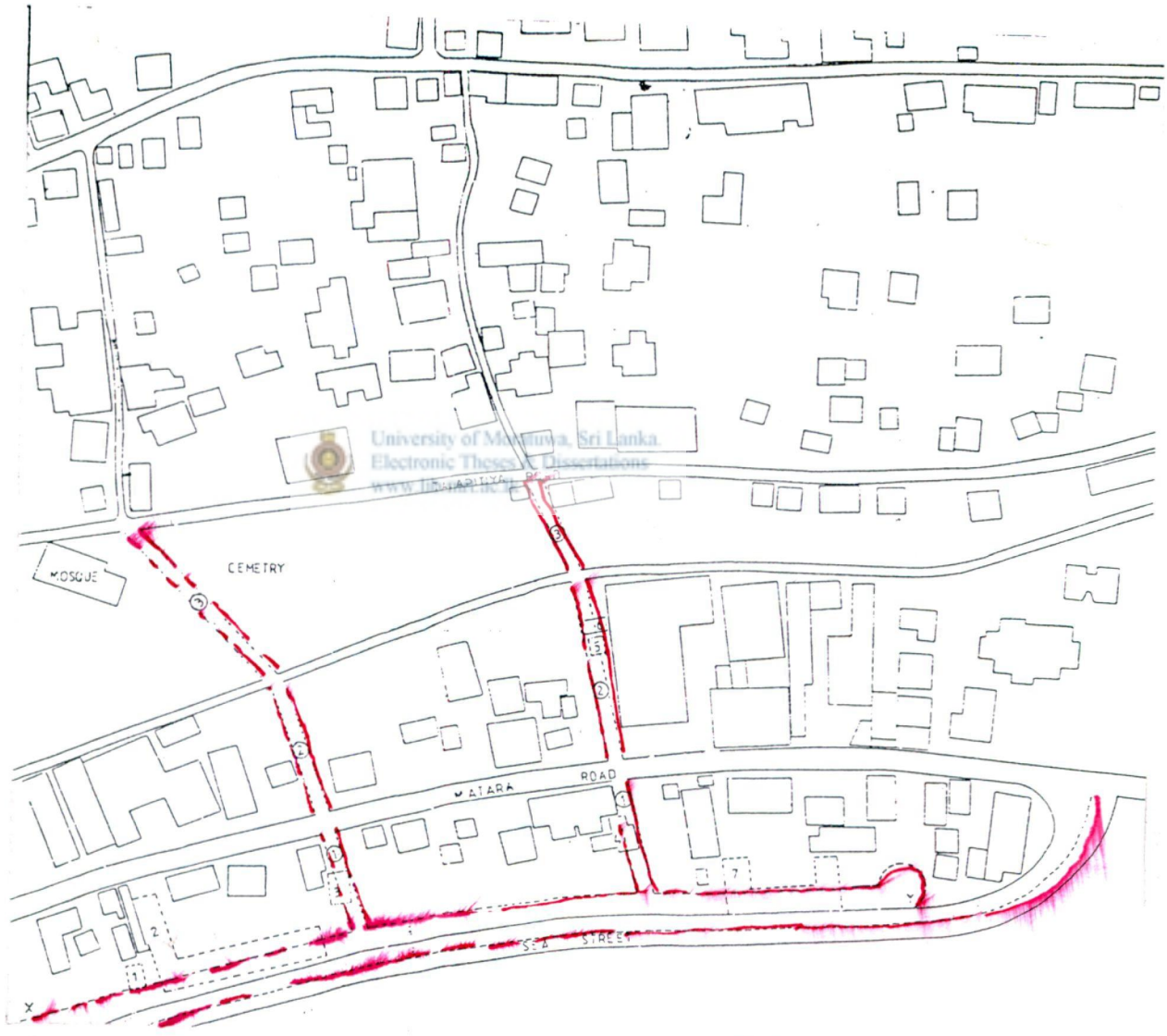


Fig.96: Roads and Transportation Developments

3.0 Housing Development

There are 15,249 housing units in the city. About 50% are permanent units, 38% semi permanent and 12 % are temporary units. Approximately 27 % of the housing units do not have toilet facilities. At Present there are a lot of ancient buildings of age over 50 years in the city in dilapidated condition. These buildings need to be renovated. Buildings located within Fort area will be renovated subject to regulations put in place to preserve the archaeological value of the ancient architectural characters.

The existing population of Galle town is 103,000 with an average family size of 5.5. The total housing need of the town is 18727 while the existing housing stock is 15612. Approximately 2 % of the houses are considered as obsolete. Based on this estimation there is a backlog of 5736 houses.

3.1 Proposed New Housing Facilities for Relocating the Dwellers Affected by the Proposed Urban Development Project

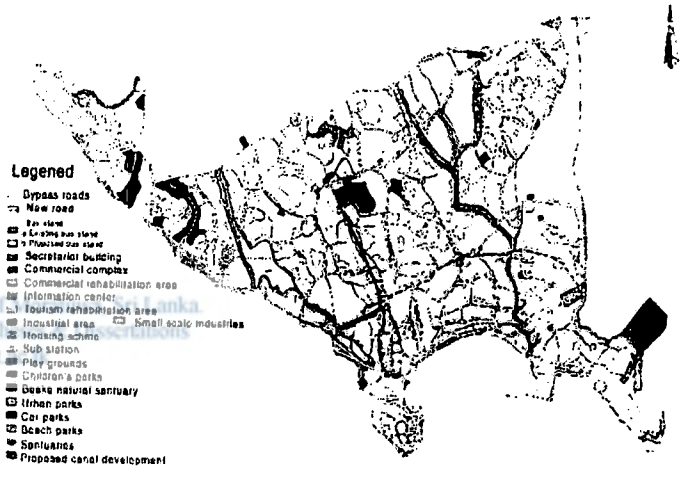
A lot of houses have been damaged. due to the Urban Development Project at Karapitiya creating a need for the relocation of the dwellers of these damaged houses. The propose project provides sanitary and other infrastructure facilities.

3.2 Proposed Low Income Level Housing Scheme in the Moragoda Canal on Reclaimed Lands

The housing scheme to be located at Moragoda canal is for low income level persons. who do not have proper housing facilities. Flats will be constructed because of the limited land surface and the low affordability of people. It is of importance to take into consideration that a large majority of rural people do not like to live in upper flows ; they will always prefer to live in ground levels.

3.3 Proposed Middle Income Level Housing Scheme in Area near the Nurse Training Centre at Kaluwella

The land is about 1.06 hectares in extent, located at Kaluwella, about half a kilo meter from the town centre located in a high land value area.. Scenic beauty of the beach is another potential of the land. The land is bounded by the nurses training collage in North, Mosque from the South, Canal from the East, and Galle Road from the West, in close proximity to National school, Teaching Hospital and the Junior Technical Collage. The land is slightly hilly being about 30 degrees above the mean sea level and is an underutilized coconut land. There are three temporary housing units occupying tenants owned by private sector. The proposed housing project will reduce the housing deficit of Galle town.



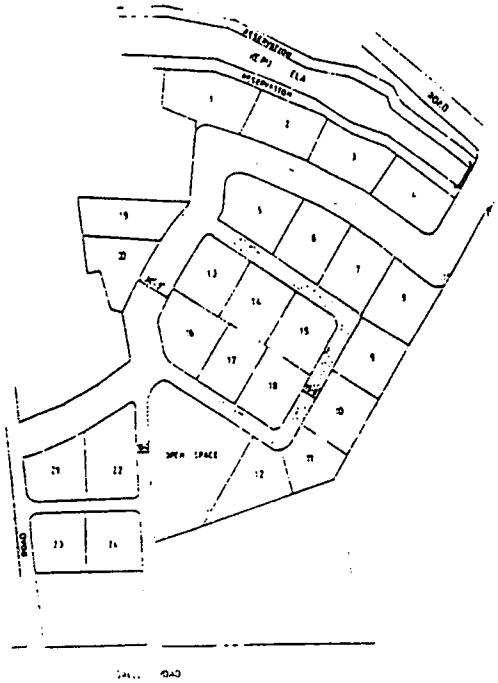


Fig.97: Housing Development Projects

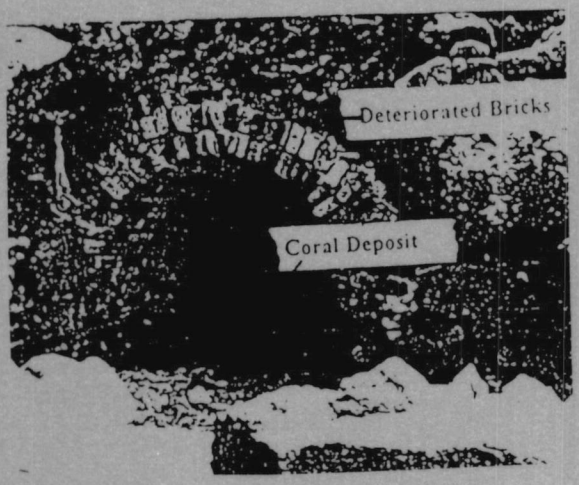
4.0 Rehabilitation and Reconstruction of Existing Underground Drainage System

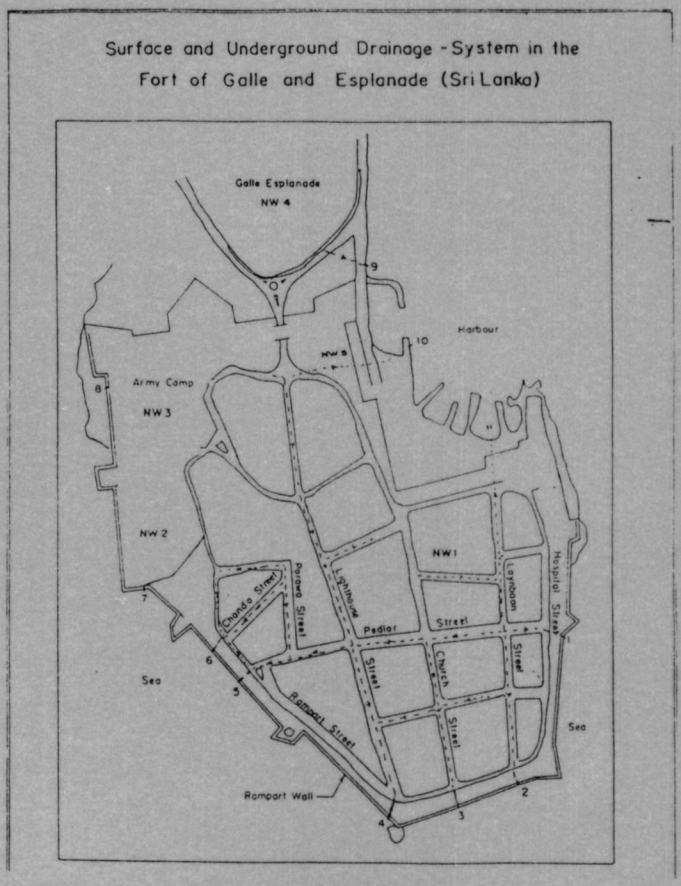
There are a number of environmental problems. The main problem is the lack of restoration and maintenance of the infrastructure facilities. Such lack of attention has created problems of poor drainage causing flooding of the area.

Presently the Galle Fort under ground drainage system constructed in Dutch period does not properly function. Some sections of the system have collapsed and other sections filled up with silt and dead corals. The situation is worse at drainage outlets. A plan to remedy this situation needs to be drawn immediately to reconstruct / renovate the system using existing resources.

Unauthorized construction within fort area, and an absence of reconstruction programme for drainage may be the primary cause for collapse of the system. Overflow of the drains to the surface, deterioration of the system, and water stagnation are the main effects observed.

Some of the positive impacts observed due to renovation of the system are the uses of the constructed drainage system to prevent flooding during monsoons and prevent damaging of the surface of roads, upgrading the lifestyle of the people by minimizing health hazards by control of diseases and infections. Ready availability of amenities would attract more local and foreign tourists to Fort area. The financial implications such as consultancy costs, costs of equipment and renovation requirements, at a time of adversity, are some of the negative features identified regarding this project.





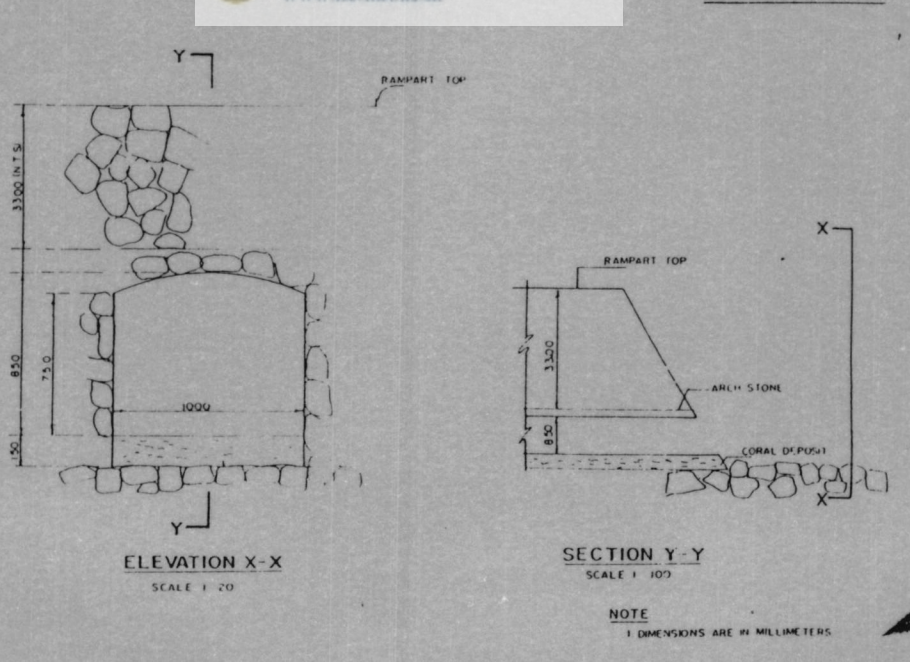


Fig.98: Rehabilitation and Reconstruction of Existing Underground Drainage System

Fig.98: Rehabilitation and Reconstruction of Existing Underground Drainage System

5.0 The Industrial Development Project

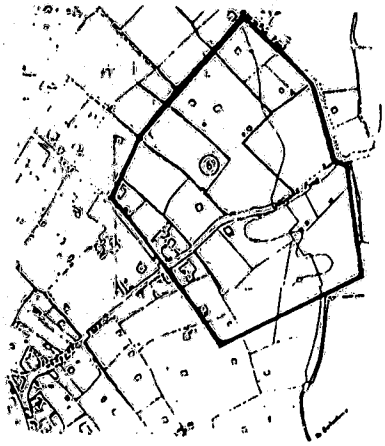
A medium scale industrial zone is proposed to be established at a site in Dadalla while a small scale industrial development plan is to be implemented at a site along Udugama road. Non availability of adequate water supplies and other necessary infrastructure such as good conditioned roads and adequate transport facility, location of the city of Galle at the southern most point, distancing itself from the main harbour of Colombo have hindered development of large scale industries in Galle. Nevertheless there had been unplanned and ad-hoc industrial development in the Galle M.C. area.

In accordance with the proposed industrial development project, two industrial zones in Galle M.C. area will be established and currently functioning industries will be relocated to such zones. One of the two industrial zones in Galle will be established near the harbour where the harbour will be the centre of harbour related activities. The facilities provided for this zone will include adequate supply of water, electricity, a sewerage treatment plant and about 10 hectares s of land allocated for solid waste disposal.

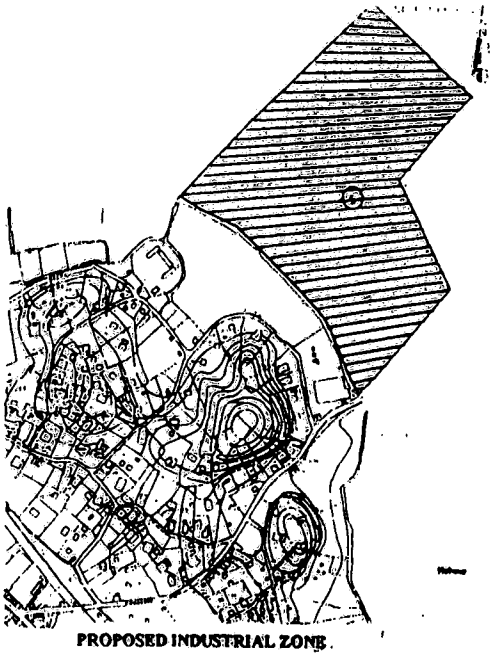
The industrial zones are located outside the town centre to avoid any harmful effects on the historic artifacts of the city of Galle. Location of all the industries in zoned areas would enable the homogeneity and foster inter related activities while reducing environmental hazards to a minimum. The provision of infrastructure facilities to the zone will be made much easier.

Development of industries in the area would create employment for a large number of unemployed, ensuring maximum utilization of human, land and other capital resources in the area.

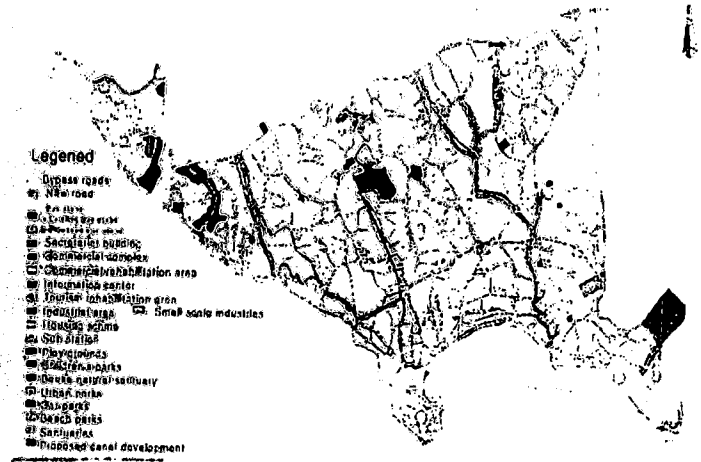
Major difficulties identified in this project are the challenge of major financial involvement, which distracts developers to the region. Another problem may be the denial of chance to develop "foot loose" industries, which is essential for any type of initial industrial development.



PROPOSED LIGHT- INDUSTRIAL ZONE



PROPOSED INDUSTRIAL ZONE.



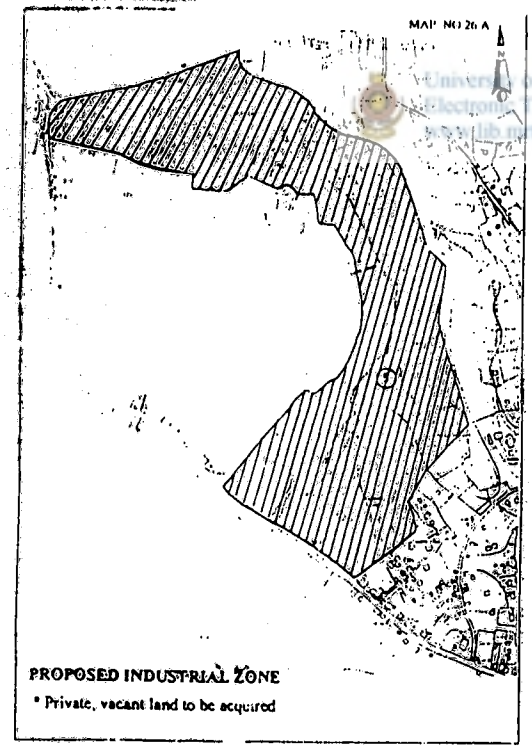


Fig.99: The Industial Development Project

7.0 Proposed Plan for Development of Recreational Facilities

7.1 Construction of Public Play Ground at Gintota

As an alternative to the Esplanade and ICS Galle located near town centre recreational facilities are proposed to be developed in Dadalla area, just off the Galle - Colombo main road, where sufficient land is available for such development. The land is flat, at an elevated level of about 4 meters, hence has no drainage problems, and no requirement for filling It is about 4 kilometers to Galle city center.

The proposed development is a centralized area sports facility where a new sports stadium will be built. This facility would include, a cricket play ground, a track for athletics (400 meters), a pavilion with indoor sports facilities such as badminton and table tennis.

The proposal fulfills the requirement of such sports facility for special occasions while the facility would help to preserve the historical areas and would be an avenue to develop surrounding areas.

7.2 Construction of a Beach Park (Lands lying along the Beach Strip from Katugoda to Daddalla)

The site is in a prime location identified as excellent for sports activities. It is bounded by the main road and the sea, and its slopes 2.3 meters toward the sea. Side from the main road. The site has the potential for development for water sports, boating, yachts, wind-surfing, diving and swimming. The use of this land for a beach park will involve relocation of current commercial activities such as small retail shops, the daily pola, and a filling station to the proposed Orroppuwatte market site.

7.4 Construction of Children's Play – grounds at,

- Gintota
-Beligaha Junction
- Eththligods
- Makuluwa
- Katugods

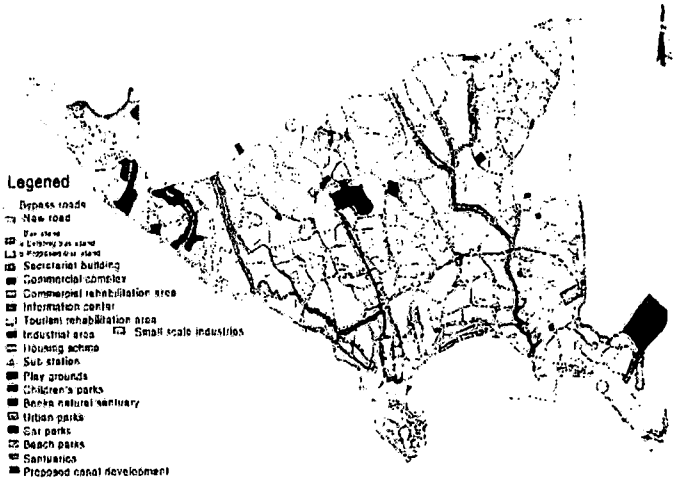
The proposal would meet the need for additional recreational facilities at the peripheral level because the existing children's parks and play grounds are not sufficient for the increased child and youth population. Nevertheless all the identified sites are low lying areas where land has to be filled properly before using thus serving a duel purpose of providing a play ground and also be an elevated land in time of floods. Since there are no indoor facilities planned the facility cannot be used for recreational activities in rainy seasons

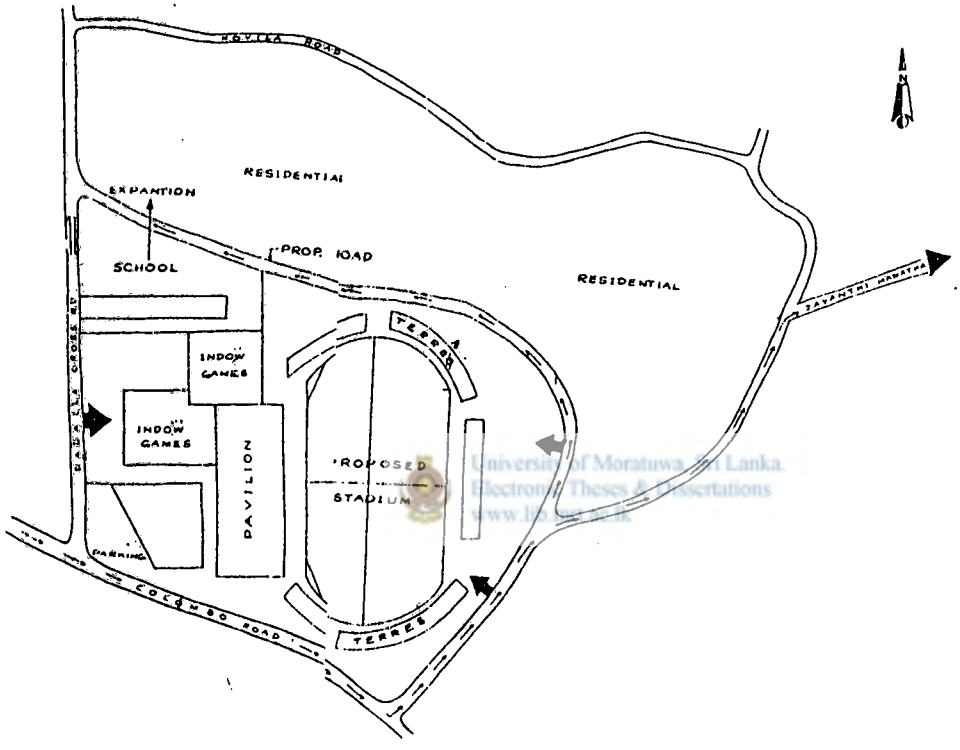
7.8 Provide an Urban Park at Mahamodera Lake.

Mahamodera lake and its surrounding area is also suitable for swimming boating, water sports, and as a green belt.

7.9 Upgrading existing Dhrmapala Park

The existing Dharmapala park, will be linked again to Fort Green Way when the upgrading work of this park is finished. The foot bridge – butterfly bridge will be upgraded along with children's play area. The canal reservations when cleaned and cleared will provide approximately 31 hectares of water side linked park.





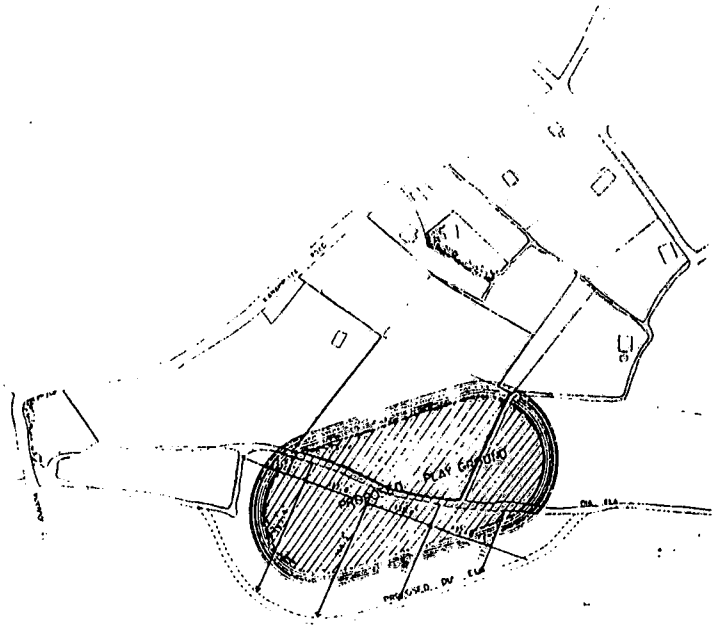


Fig.100: Development of Recreational Facilities

8. A Proposal for Institutional Development of Galle City

The proposed development aspires to bring currently scattered institutions to a single location/site possibly in a 10 storied office complex. The land named Kekiribokka Watte has been selected for this purpose.

The positive aspects of the plan are easy service delivery for the people, and provision of sufficient space and facilities for such institutions. The negative feature will be the incompatibility with the Character of the city because of the proposed high-rise building. Further the provision of infrastructure and daily maintenance of the building will be costly. Relocation of all the institutions will be a challenging task.

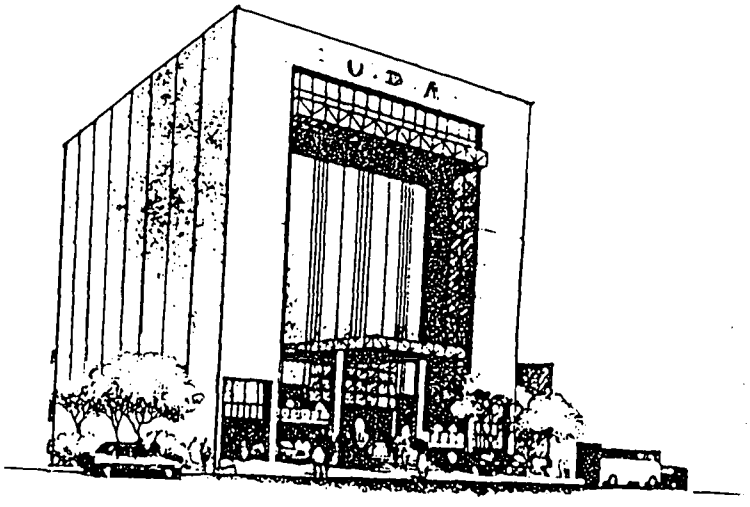


Fig.101: Institutional Development – Proposed Kekiribokka Watta Office and Shopping Complex

10. Development of Tourism of the Galle Fort

Galle district has many attractions that could attract tourists and boost the tourist industry. Following categories can be developed.

- Beach resorts
- Echo tourism
- Cultural tourism

The cultural tourist does not expect the living standards of the local community to be sacrificed. The appreciation of the cultural heritage depends on the product presentation, on the romance of the site, stimulating three sensory organs the eyes, ears and the nose (Mc Cauly R, 2001). Tourism is not an end in itself particularly when dealing with cultural heritage sites.

The strengths of the proposal are the potential revenues from tourists, the educational experience of domestic and foreign people, the multiplier effects of tourist industry on other industries. The observed weaknesses are that tourism cannot be developed denying facilities for local community. The physical changes to the area can be done only in accordance with the design guidelines for development.

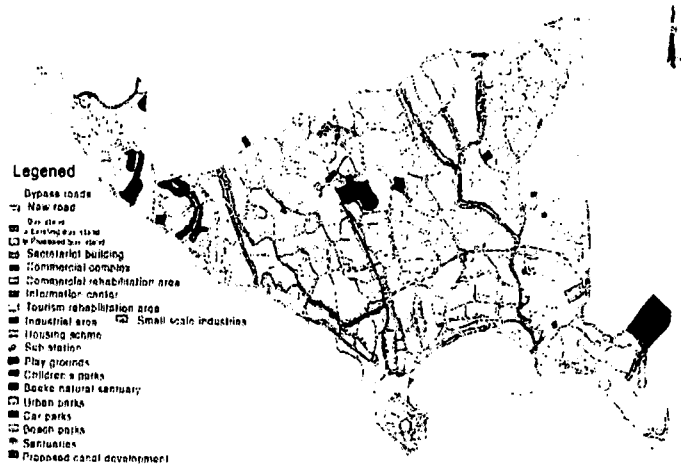
A number of parallel projects are to be implemented along with this project. The proposed parallel projects are as follows:-

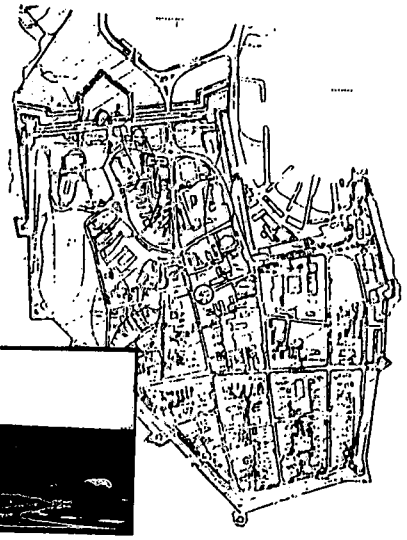
- Designation of conservation area and graded buildings
- Control of new developments and graded buildings
- Control of new developments and physical changes in accordance With design guidelines for tourist development
- Improvement of major streets and alleys
- Guide destination of non-vehicle quarters
- Proportionately guide the use of old buildings for tourism

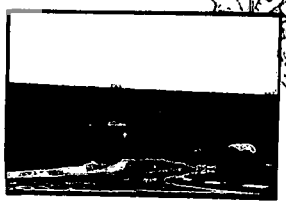
The positive aspects of the project are that the implementation of this proposal would conserve the Old Fort of Galle, which is in the list of national cultural heritage property. Will educate the people about the value of their cultural heritage. The negative aspects are that during the construction phase

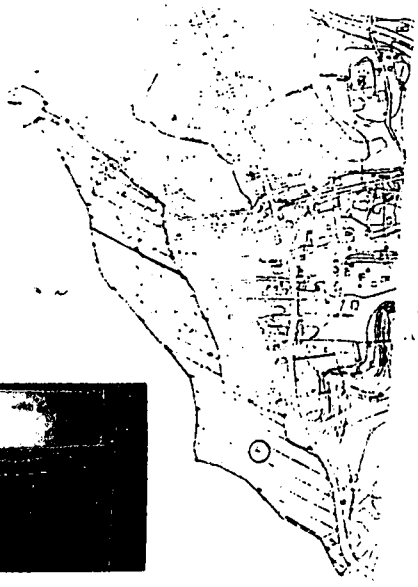
the cultural heritage area will be affected by noise pollution associated with use of heavy equipment. The conserving regulations of old buildings and the scenery may conflict with the residents need for land use. The expected tourist influx to the area after completion of the project would increase the problems of current solid waste disposal, and create new health problems including non-indigenous diseases too. The increase in population and tourists would have some cultural impact on the local communities.

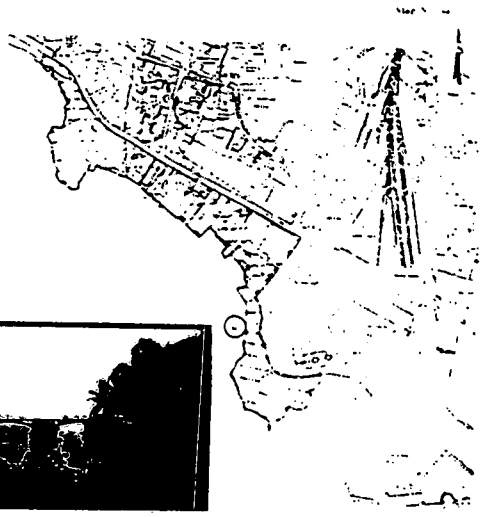
Fig.102: Development of Tourism of the Galle Fort











TOURISM AT FORT.

The Impacts of Development Proposals by the Southern Development Authority

1. Southern Highway Project

The government has proposed that the alternative Southern High Way of 138 kilo meters of length are constructed through private involvement of local and foreign investors, entrepreneurs, industrialists, and tourists. The proposed high way will be a four-lane dual carriage way with five interchanges.

The main objective of this highway is to have foster high way to the South as a measure to cut down travel time by 40 to 50 percent. When the high way is constructed as an access controlled highway it can reduce the travel time between Colombo and Galle by one hour. The highway can the high way can carry heavy containers and bulk cargo freighters safely. The high way will help to enhance the development potential of the Southern Area.

An important positive aspect of the project is the reduced vehicle operating costs on the new high way for traffic diverted from existing roads. Similarly the operating costs of the traffic remaining in the national high way will be reduces. Other positive aspects are minimization of the air pollution and health hazards and control of diseases and infections, the construction pattern would prevent flooding of the main highway during monsoons, prevent out migrations of the local community because of the availability and accessibility of facilities within the area, and thus improve the living standards of the residents.

Massive expenses involved in the construction of the high way and its maintenance is a major negative aspect of the proposal. Expected under ground drainage problems and the possibility of a mosquito menace, air pollution and expected health hazards, possible deterioration of existing road net work due to declined usage and using priorities of roads, and flooding, declining heritage value of underground drainage system, minimization of local and foreign tourist are other expected negative aspects of the project.

Soil erosion and topographical change are potential problems since the project involves massive construction works for a new 136 km long high way with five interchanges running through a hilly terrain in the west lane inland area.

The proposed high way passes over several rivers and possibly through wetlands or lagoons. The construction work will affect the water use, which currently is extensively used by local people. Further impacts on ground water need to be further examined because little is known at present about ground water in the inland area.

The high way project usually affects local national ecology on a large scale. The route of the proposed high way has to be so aligned that fauna and flora are least affected because Galle and Matara district have dense forests dwindling mangrove forests and important wet lands.

For densely populated areas, levels of air pollution noise and vibration should be assessed. Resettlement problems related to land use change and disturbance of local economic activities should be addressed.

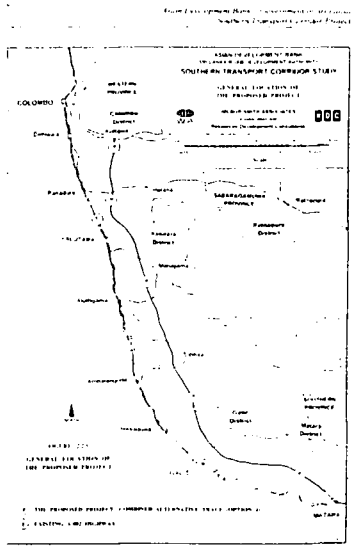


Fig. 103: Southern Highway Project

2. Development of Historic Port of Galle

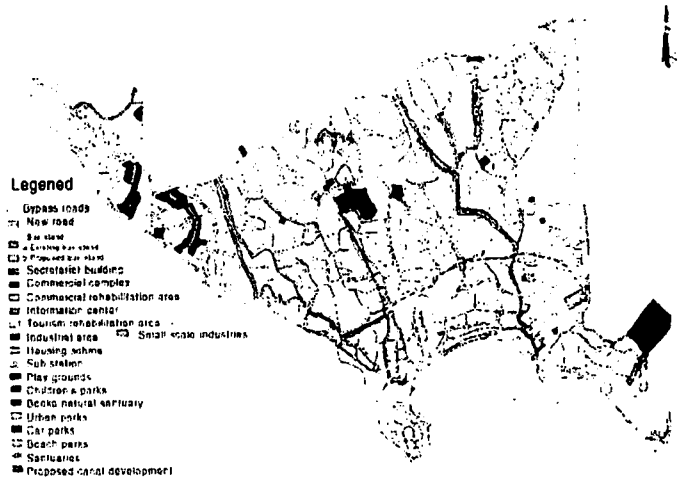
The port of Galle will be developed in stages as a key infrastructure project supporting the southern area development and provide opportunities of various persons with different background to inter act. Galle Bay is located very close to main shipping routes, as sub port to port of Colombo. The first stage is to develop a regional port , a general bulk berth, and an oil berth. A fishing boat area will be constructed just south of existing anchor facilities.

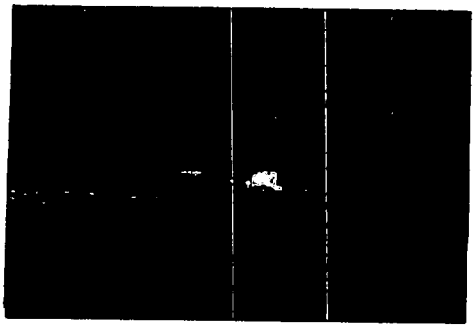
Galle Port development is a strategic infrastructure project of the region and would be a part of integrated Galle transforming it to an international city. The programme includes tourism development, historical conservation, railway station development, industrial estates, and water front development making port development an integral part of city development.

The positive impacts of the project include reduced land transport costs, reduced waiting time of ships in Colombo harbour, savings on maintenance and renovation of national highways, stimulated economic development and living standards of the people in the region.

The expected negative impacts are the possibility of occurrence of topographical problems. Physical works of port development will damage water quality, affecting aquatic life. Additionally oil seepage from ships, waste dumping from ships using port will also pollute water and affect aquatic life.

Other negative impacts are sound, and air pollution from initial construction work. Air contamination level may be low but because of the strong wind dispersing the pollutants, the noise pollution levels may be high. Some beaches on the bay are now used for bathing fishing boats and for fishing activities. Such uses of the bay area will be restricted or eliminated because of the proposed developments. In view of the historical cultural values, the development activities are regulated in and around the Fort located west of the bay. Also Rumassala hill, east of the bay has religious and biological significance.





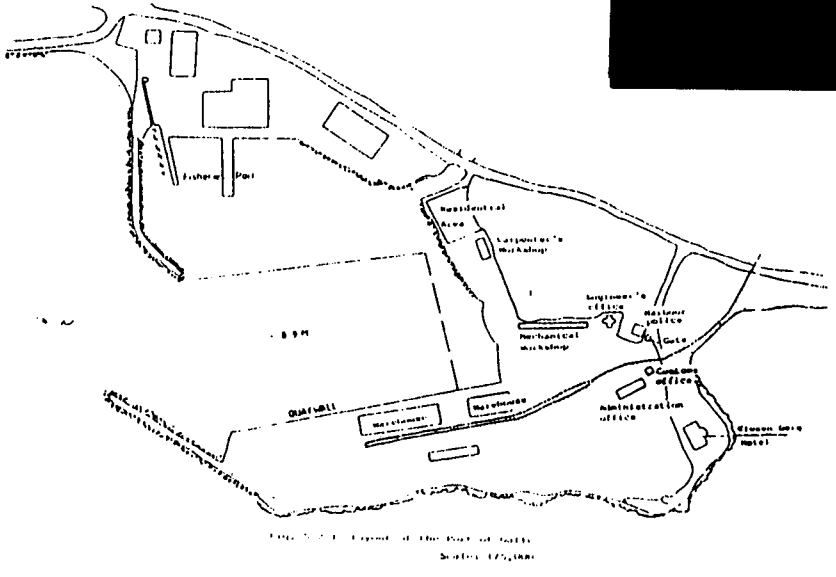


Fig.104: Development of Historic Port of Galle

Fig.104: Development of Historic Port of Galle

CONCLUSION

CONCLUSIONS

The study undertook to examine the probable impacts of the development proposals on the historic city of Galle. In this respect the contemporary world trends on development of historical cities and the Sri Lankan context were examined. Various stages of the process of evolution of the ancient to modern city forms of Galle city were studied and the related characteristics were thoroughly examined. The determinant factors of such change were identified and the nature of the transformation was analyzed with a focus on current development patterns. The strengths, weaknesses opportunities and threats for development of Galle city area were investigated using SWAT analysis methodology, as a basis for city planning so that problems and potentials for development could be identified and a sound background could be formulated to examine the probable impacts of the development proposals on the ancient city of Galle. On going and implemented development projects along with proposed development projects which could have an effect on the city of Galle were documented and analyzed .

The examined examples to indicate contemporary world trends show that modernization and westernization have caused many a historic city in the modern world to experience development changes in the built in environment. The demographic as well as other causes of population change and exposure of ancient urban structures to modern structural planning, together with use of inappropriate built forms, have led to disorientation and neglect of ancient architectural features. City of Liverpool of the United Kingdom is an example for

effects of industrialization and the consequent changes on ancient city structures.

The concept of "revitalization" of ancient disoriented cities have been practiced in Baltimore and Boston cities of United States of America converting these cities to economically viable "revitalized ancient cities". Paris is another example of how modernization have caused changes in the ancient city structures of the western world.

Sri Lanka has had a long tradition of city building in Anuradhapura and Polonnaruwa up to Kotte periods of pre colonial history. Ancient city forms of Sri Lanka had been greatly influenced by cultural traditions of Buddhism, Hinduism and Islam. Creation and development of the ancient cities of Anuradhapura, Polonnaruwa, Kandy, and Kotte are some examples of the influence of these rich religious traditions on "city built forms" in Sri Lanka.

Colonization of Sri Lanka by western nations such as Portuguese, Dutch and the British, greatly influenced cultural traditions of city building in Sri Lanka since 1505. Change of the Capital City to Colombo, commercialization of the economy based on plantation industries, crated a port oriented city development culture. The city building forms of western colonists in Sri Lanka were largely influenced by the Christian religion and the European tradition.

Various stages of the evolution of City of Galle to its current form and its characteristics were examined. Determinants of such changes and the nature of such transformation was analyzed. Examination of the topographical condition of

Galle showed that ancient and current build forms entirely converged with the existing topographical pattern. The source of literature analyzed to understand the nature of city forms during early and mid historical periods show that there had been a commercial centre around the Fort of Galle. It had been a centre of Asian trading routes.

The pattern of development during this Portuguese period illustrates a crude settlement pattern of temporary nature. During this period an informal square pattern of city development emerged based on construction of imperfect streets in a criss cross pattern. The city was not zoned as such its activities ungrouped and did not show any specific pattern.

During Dutch period the city structure directly comprised with the Dutch colonial spatial organization. The emerging new social order demanded an urban form different from the Portuguese Fort. The cross streets were replaced with ordered streets, informal spaces with more formal spaces and the humble houses with grandeur built forms. The plot division pattern of the residential quarter with wider plots in the other quarters was introduced by the Dutch. This special organization was eventually followed by the British without much change. The influence of British is also apparent but only adding texture to the existing city form without any change in the composition of the city. The British were the pioneers for building programmes of roads, bridges and railways in Sri Lanka. The plot division pattern is also responsible for making each sub quarters with distinctive characters, residential quarters or inviting commercial quarters.

During British period many features of city building were added. The combined effect of the ramparts, the street grid, the distinctive individual houses such as 17th century houses and churches, the internal court yard; the underground drainage system made the Galle Fort a unique example of Town Planning and Architecture and Engineering.

The problems and potentials of the area for development were examined using SWOT analysis. Based on the strengths, weaknesses, opportunities and threats revealed by such analysis many issues were identified so that development guide lines for developers could be identified and established. One of the major issues identified was violation of colonial city character, due to recent developments of the area, such as added buildings, and renovations, which had gradually initiated a transformation of the built in area.

Among the identified strengths and opportunities were the fact that the city of Galle, was the capital of Southern Province. Another important strength identified was the fact that better physical and social infrastructure with a well planned street net work system was available in Galle than in other areas. An additional strength revealed is that the City of Galle being declared a world heritage site. Existence of an underground drainage system of historical value with building forms of unique archeological and architectural features was revealed as having potential to develop tourist industry . There were other resources available for development and could be considered as major advantages associated with Galle city area.

Some of the identified major weaknesses and threats were as follows:-

- N on availability of adequate facilities

- Unauthorized renovations

- Lack of restoration and maintenance mechanisms

- Underground drainage system had not been property maintained

- In-compatibility of power and responsibility between UDA and the Municipal council

- Bad condition of surface drainage system

- Inadequate open spaces

The Finished, Ongoing and Proposed development plans, which could have effects on the historic city of Galle were documented and the impacts of such proposals were analyzed. In this regard following Development planning proposals were documented in the text.

(a) Commercial development

(b) Roads and transport development

(c) Housing development

(d) Development of water supplely ad under ground drainage system

(e) Industrial development

(f) Development of community services

(g) Development of recreational and sports facilities

(h) Development of industrial sector

(i) Sanitation facilities

(j) Re development of tourist activities

RECOMMENDATIONS

1. It is clear that almost all the streets in historic quarter of Galle (except for a few) can not be considerably expanded. The historical buildings should be aligned together to form a strict building conservation line.

2. The fort area should be completely restricted to, heavy vehicles passing through. A separate transport media should be used within the conserved zone.

3. Activities which attract people and vehicles in large amounts should be discouraged so that, these streets and the historical built environment be able to withstand the heavy vehicular movement and congestion.

4.Underground vehicular parking and subways to connect segments should encouraged. The types of parking categories such as long time parking mechanisms short time parking should be available for the City of Galle.

5. Preserve the character of the historic city of Galle through the guide lines of ancient city developers.

6. The implemented developments should occur in such a way that the ill effects of one development proposal should be counter balanced by the implementation of the strengths of other proposal.

7. Adopt modern methods of built architectural elements such as "open courts" for even low cost housing schemes, where, a lot of attention is given to affordability of the houses and the economies of scale .

8. Strengthen or revise the building regulations which have an effect on the construction of buildings in Galle city to curtail building of high rise structures that would largely affect sky line of the historical city.

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