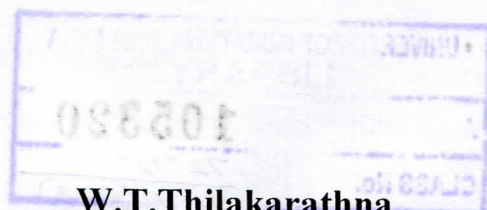# Analytical Study about the Improvement of

Underutilized Urban Spaces

with special reference to Colombo Fort

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Chapter Four

ABSTRACT

Colombo – Fort has become one of the less used areas by the public today . This Dissertation is about the look of elements of responsive urban space , what are the solutions for improvement of underutilized urban space in Colombo Fort , how its works with the present situation .

The Dissertation looks at four selected locations within the Fort .The aim of this dissertation found the solution and how to maintained the Live urban space with the incorporation of the Development.

Acknowledgement

Let me record have my heartfelt gratitude to each and every one mentioned bellow for their help to make this dissertation .

Above all my greatest thanks are especially extended to Architect, senior lectures of faculty of architecture , members of Urban development authority , GIS unit .

It is wonderful to feel the concern of all the friends in encouragement.

1.0   Introduction

In Sri Lankan context most of the towns are been developed over a period of hundred years. They are part and parcel of the life style of their inhabitance , and the development influence by their surrounding physical economic social and cultural context. Even to day developments of towns are restricted due to its growing pattern through the history , land owner ship infrastructure pattern , physical structure etc. Therefore valuable urban land have been neglected and became underutilized due to its development pattern. Due to that reason the quality of urban public spaces were destroyed and change the character of urban public Spaces which is favorable for the human .such as shaded spaces , pedestrian spaces etc. . Therefore grater need study about the problem related to the underutilized urban areas and how to mitigate the said problem for regenerated to livable space.

However as a result of rapid development and their consequential destructions, most of the cities lost their identity and legibility and have not provided proper "architectural settings" for the urban spaces. As a result of that, generate more and more lost spaces day by day in our cities. This is directly affected to create socially unresponsive urban space in all over the city. That is also in a threat of lost space in an urban situation as an urban space. Therefore need of "meaningful, socially responsive urban places " which are capable to accommodate various urban public activities. **Thus the study focused on positive transformation of negligible urban spaces, as a responsive urban space in a city.**

Objective of the Study

Important of this study is to find the solution for problems of open spaces and how to mitigate and overcome the problems . Also the comprehensive study helps to understand the possible linkages to fit altogether .It helps to regenerate the underutilized public spaces become liveable spaces.

Need of the study

Valuable public places which were located in the Colombo fort is isolated from general public. Therefore the spaces were became underutilized. It is envisage that most of underutilized lands located within the fort can be converted to better use by absorbing these areas in proper manner when preparation of urban design proposals.

Literature survey

- Benly,I. Responsive Environment ,Architectural Press ,London ,1985

'Responsive Environments' was one of the first publications to draw together the many strands of urban design thinking into a coherently structured handbook aimed primarily at urban design students. It is also useful to the urban design practioner as a check-list to ensure that all the main issues of urban design problems have been addressed.

Clearly demonstrates the specific characteristics that make for comprehensible, friendly and controllable places; 'Responsive Environments' - as opposed to the alienating environments often imposed today. By means of sketches and diagrams, it shows how they may be designed in to places or buildings.

- Finding lost Space – Theories of urban design

The problem of "lost space," or the inadequate use of space, afflicts most urban centres today. The automobile, the effects of the Modern Movement in architectural design, urban-renewal and zoning policies, the dominance of private over public interests, as well as changes in land use in the inner city have resulted in the loss of values and meanings that were traditionally associated with urban open space. This text offers a comprehensive and systematic examination of the crisis of the contemporary city and the means by which this crisis can be addressed

Key Theoretical approaches/arguments

There were several theories applied urban design . under this study incorporated with the most important things which is used for improvement of urban environment .Such as Permeability , Legibility , Robustness , Visual appropriateness , Richness ,

Personalisation. Under this categories Permeability is most important to understand the level of usage of public spaces . Both visual and physical permeability is helps to understand the people to importunacy and what kind of advantage to them.

Methodologies Adopted

This study has adopted a case study based approach as its methodology. There is a necessity to identify available literature .It will be further strengthen by examining the places.

- Study of other related topics
- Study of existing conditions and situation of public open spaces within the selected area .Collecting information about the spaces .
- Analyse the street blocks of the Selected area to find the relative importance of all access points to the site.
- Using design sheet (existing condition , proposals improvements)
    1. Find out links which connect the site to the city as a whole
    2. Find out links which connect the sits to its immediate local surroundings
- Analyzed the practical problem
- Analyzed the gathered information with theoretical basis
- Find the solution , give opinion to the problem

Expected outcome / result /proposals

Urban design theory deals primarily with the design and management of public space (i.e. the 'public environment', 'public realm' or 'public domain'), and the way public places are experienced and used. Public space includes the totality of spaces used freely on a day-to-day basis by the general public, such as streets, plazas, parks and public infrastructure. Some aspects of privately owned spaces, such as building facades or domestic gardens, also contribute to public space and are therefore also considered by urban design theory.

Scope and Limitation

This examination basically focussed on selected urban spaces of Colombo Fort. The examination covers only Permeability and Legibility aspects and other characters related to the live urban space .

CHAPTRE ONE:

1.0   Definition Urban Space

An **urban area** is characterized by higher population density and vast human features in comparison to areas surrounding it. Most urban built environment in the past has spontaneously responded to social and cultural values as well as political and functional needs. Consequently they have respond to qualitative needs as well as qualitative needs of people generating authentic and unique characteristics.

1.2   Responsive Urban Spaces.

The term "Responsive Urban space" can describe many types of urban open areas. One definition holds that, "As the counterpart of development, Responsive urban space is a natural and cultural resource, identical with neither 'unused land' nor 'park and recreation areas recreational opportunities." In almost all instances, the space referred to by the term is, in fact, green space. However, there are examples of urban green space which, though not publicly owned/regulated, are still considered urban open space. For example, neighbourhood parks/gardens, and institutional or corporate grounds. These areas still function to provide "aesthetic and psychological relief from urban development". Nevertheless, most commonly the term is used to reference spaces that are public and "green". Fro example, Town Squares, active building frontages, shaded streets, parks, ponds and water resources etc. are known as Responsive urban spaces.

1.3   Benefits of Responsive Urban Spaces.

The benefits that responsive urban space provides to citizens can be broken into three basic forms; recreation, ecology, and aesthetic value. Urban open space is often appreciated for the recreational opportunities it provides. Recreation in urban open space may include active recreation (such as organized sports and individual exercise) or passive recreation, which may simply entail being in the open space. Time spent in an urban open space for recreation offers a reprieve from the urban environment is offered. The aesthetic value of urban open spaces is self-evident. People enjoy viewing nature, especially when it is otherwise extensively disadvantaged , as is the

case in urban environments. Therefore, open space offers the value of "substituting gray infrastructure"

"Beneficial aspects of urban open space can be factored into how valuable it is compared to other urban development. One study categorizes these measures of value into six groups: utility, function, contemplative, aesthetic, recreational, and ecological. These categories account for the value an urban open space holds to the development of the city in addition to just those things citizens consciously appreciate. For example, the "function value" of an open space accounts for the advantages an urban open space may provide in controlling runoff. The final three values listed, aesthetic, recreational, and ecological, are essentially the same as the values that make urban open spaces consciously valuable to citizens. Of course, there are several different ways to organize and refer to the merit of open space in urban planning.

1.4   Unresponsive Urban Spaces.

Most of our present day cities have not provided proper "architectural settings" for the urban spaces. Since, the "urban activities" have an inseparable link with the urban place, or in other words social and spatial attributes are intertwined in our urban space: most of urban places and urban buildings designed recently, in our cities have not understood or neglected to cater to such social and spatial attributes in the urban environmental design. This has created "socially unresponsive urban spaces" (as well as buildings) in all over the cities, as a result of this phenomenon ; modern city experiences have little to offer as a social, cultural experience of an urban public place. In the other hand local cities are being mass produced by the developers, and due to unplanned rapid development, urban outdoor spaces or city open spaces have become lost as, urban pockets; **misused spaces or dead spaces**.

The aliveness of the urban spaces and their activities are increasingly diminishing due to various negative effects of this unplanned urban development. The negative effects of this rapid mega development could thus be found at all places in all levels. **Hence the need of "meaningful, socially responsive urban places and buildings", which are capable of accommodating various urban public activities with "positive architectural responses", has become a central issue among the present urban**

designers. Thus novel way of approach for "urban environmental design": which essentially deals with and cater to "intertwined social and spatial attributes" in urban places is essential.

CHAPTRE   TWO :

2.1   Elements of Urban space

2.1.1   Character

Urban space needs clearly define bounders or limits as well as unique attribute that give them focus , a sense of arrival and enclose , a scale appropriate to the environment and such elements as stairways , vantage points and repeating patterns.

- **Gateway**

As actual constructions or symbolic arrival points, gateways are compressed passageways that open into larger spaces beyond. They add to the emotional sense

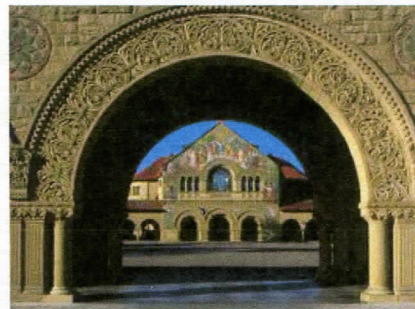of arrival when entering a city, a district, building, a plaza or a park.

Fig.1   Memorial Church at Stanford University Framed by Arch, Palo Alto,

- **Enclosure**

Groups of buildings, landforms, landscape and water bodies define space and create understandable and psychologically defensible boundaries. Urban plazas and parks need enclosure: entering them should be like discovering field after a long trek through the forest of the city.

Fig.2 . Model of Urban Plaza

- **Scale**

Urban spaces need to be the right size for the activities they accommodate. We search out space that matches our moods. Sometimes we want to be engulfed in a throng, elbow to elbow. Other times we do not want to another

Fig.3 . Internal Court yard

human being. Not every space can satisfy this range in need, but horizontal and vertical limits of public spaces act naturally as sieves for the scale of activities they can sustain.

- **Vantage Points**

From high points, one can overlook and observe the actions of others and define the scope of the greater environment. Simply said, we like to see what we can see.

- **Stairways**

Beyond providing graceful access to places above and below, stairways in the public realm have a secondary, yet possibly more important roll: they provide seating and a vantage point to survey the surrounding environment.
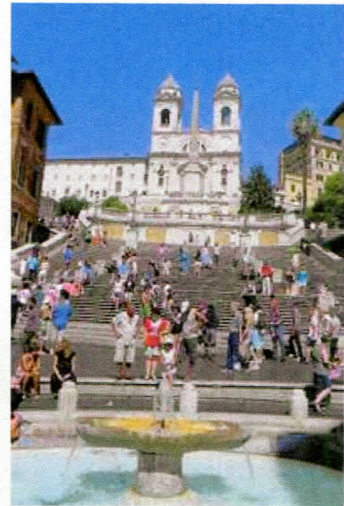

Fig.4 .Spanish Steps

- **Patterns**

Repeated sounds and variations on them turn notes into musical compositions that stir our emotions. The same can be said for repeated elements in the environment. Patterns in paving, in the landscape, in building forms, all create soothing visual frames
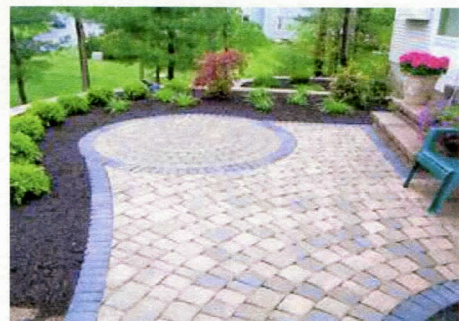
Fig.5 . patterns of walk ways

2.1.2 Ownership

Fig.6 . neighborhood Garden

Every urban space must belong to a neighborhood , district , civic group or other caretaking entity that is proud of and responsible for that place. Those individuals or entities who assume owner ship must allow democratic accessibility , ensure
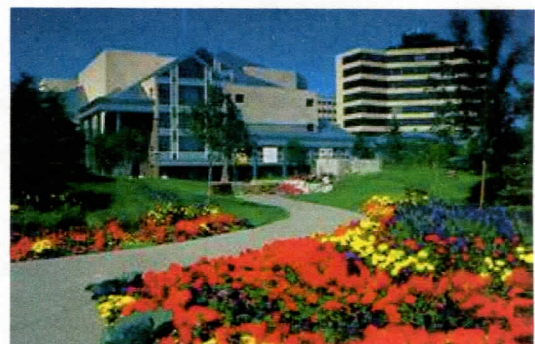
safety and security , and provide for the maintenance of high quality and cost effective component within a define boundary . in most cases a resident population comprises the soul of ownership.

- **Management**

The best public spaces have caretakers individuals, neighborhood groups, a city district, a state or even a nation that values the place and carefully manages and looks after its best interests.

- **Democratic Accessibility**

Ideally, everyone should have welcome access and equal opportunity to enjoy public urban space, provided they respect the place and others who also wish to use it. Too many spaces in today's world purport to be public but exert pressures physical or otherwise to limit use to specific groups.

- **Safety and Security**

Everyone who visits a public place deserves to feel safe and comfortable while there. The presence of other people using a space is the best type of security. Any active security measures should be benign or invisible.
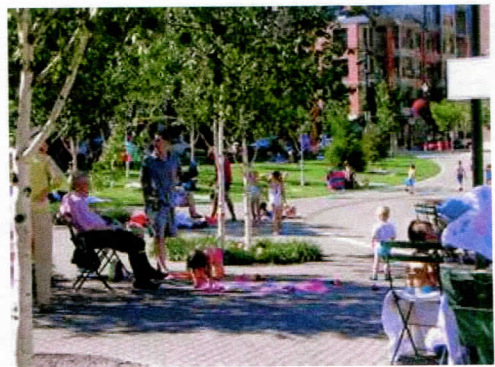

Fig.7 . urban park in pearl district-downtown portland

- **Maintenance**

Urban places need careful and repeated maintenance to keep them clean and attractive. Details need to be durable to withstand constant use and still perform within a reasonable budget.

- **Quality and Durability**

Pavement, furnishings, landscapes and artwork need to withstand constant use; as such, the most durable and high quality materials should be used without resorting to the mundane. Operating budgets should recognize that over time, even the best materials wear out and require replacement.

- **Boundary**

Every space needs a recognizable edge and limit of responsibility. The best urban places manage to hide limits of management and ownership responsibility, blurring the boundaries between public and private space.

- **Resident Population**

People living around and above public space can use and observe it nearly 24 hours a day; and when residents use a place on a regular basis, they assume greater pride and responsibility for its condition

Fig.7 . urban park in Toronto

2.1.3 Authenticity

Every urban setting needs features that makes it unique , a place like no other . historic artifact , informational and educational markers , land marks and artworks can help interpret distinct characteristic exclusive to that place alone. Authentic place drive character and meaning from local sources : Local history , local material ,local climate and local culture . Authentic urban spaces rarely deceive participants about where they are .

- **History**

Memorials and historic markers lend particular significance to a place. They remind the user of a person or event who shaped or influenced the particular character of the place, the city or the nation and tie them to a that location.

- **Art**

Whether steeped in social commentary or simply functioning as an expression of beauty, carefully selected public art lends solemnity, joy, wonder or debate to any space.

- **Information and Education**

Readily available facts (from the history of neighboring buildings to the whereabouts of restrooms or the types of trees overhead and plants underfoot) ensure that public places are easy to use and filled with learning.

- **Landmarks**

Fig.8 . Picture of St Marks Square, Venice

Urban spaces need architectural or natural landform elements that distinguish them within the greater urban environment. Landmarks range from simple to complex visually memorable icons that have locally significant meaning, may include inhabitable spaces, or are simply fun or expressive forms.

2.1.4   Accommodations

Public urban space should helps us relax by acknowledging physical comfort and conventions .successful public spaces providing sheeting shelter , restrooms and drinking fountains accommodates pets , and , where appropriate , encourage vendors to sell food and various sundries .

- **Seating**

Fig.8 . hanging out in Piazza alla Cisterna

All spaces need seating so visitors can rest, converse, and observe the world. Movable chairs or benches are best as they allow groups to arrange seating as needed. Low planter walls should always double as seating surfaces. Some seating can be arranged to promote face to- face conversation. Lawns are also wonderful places to sit, as people can determine their own posture and have complete flexibility when creating seating groups.

- **Restrooms and Drinking Fountains**

Restrooms and free potable water should always be available in public spaces.

- **Shelter**

When climate reaches extremes, we seek shelter. Public spaces need a place to take refuge from the heat of the sun or a sudden deluge. Sometimes trees suffice, providing shade or protection from a light rain, but arcades, covered walkways, trellises or gazebos can do the job as well.

- **Vendors**

Local entrepreneurs should be allowed to provide convenience goods and basic food and beverages when the need exists, encouraging longer visits and an enlivened streetscape. Public space is enriched by the likes of news and flower stands, or umbrella vendors who magically materialize during a rainstorm.

- **Dining Areas**

Cafe seating and outdoor tables enliven the atmosphere within public spaces and provide opportunities to dine outdoors.

- **Pets**

Because many people have pets as friends and companions, they deserve accommodation along side us when using public space. They need a place to run, socialize, get a drink of water and use the toilet just as we do. Rather than forbidding their presence, public space should encourage pets and provide for their needs

2.1.5 Nature

Specially when enveloped by the urban context , nature has profound psychological and therapeutic benefits ; it should play some role in every urban place . colorful planting , the sight and sound of water , levees moving in the breeze , the texture of stones and plants , the small earth and flowers or the air after a summer rain , and the sound and sight of birds and squirrels and other urban wild life all make us feel better . When combine with the presence of the sun and sky , change of seasons and the

movement of time itself , we tend to forget the pressures of life and relax. Nature restores us .

- **Green Canopy**

Trees are the simplest human shelter. The oxygen they create, the shade cast like roof, the dappled sunlight through soft green leaves on branches in Spring, or the rustling of dried yellowing leaves in Fall, are all sources of protective solace.

- **Water's Edge**

Civilization has always settled next to water. We are drawn to it, walk alongside it, hear waves lap against the shore, watch it change with wind and light throughout the day, and marvel in its nighttime mystery.

- **Texture**

Variations in the texture of the environment help create visual and tactile complexity. Cobblestone paving, smooth granite or ivy-covered walls are a few examples.

- **Colorful Planting**

Foliage in vibrant colors and striking textures adds dimension and interest to public spaces. The evolving beauty of living plants — their color, motion and fragrance is forever compelling.

- **Sight and Sound of Water**

The rhythmic sound and visual movement of clean, clear water soothes and serves to mask unpleasant sounds in the environment.

Fig.9 . Piazza Navona Rome – Navona Square
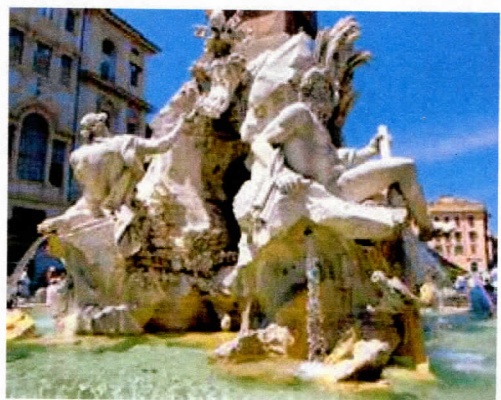
- **Interactive Water**

Water sustains life: We are born of it; we are primarily made of it; and we must drink it every day to live. Touching water, dipping our hands into it, submerging ourselves in its cool gentle embrace, is quite simply fun, especially on a hot summer day.

- **Time**

The change in the quality of light, temperature and humidity throughout the day or over time adds variety and evolving interest to parks and plazas and streets. Seasons regulate the character of landscape; colors, fragrances and textures change.

- **Sun and Shade**

Sunny places and shady oases need to be present in every outdoor place. As warm-blooded animals, we crave the warming sun on a winter day and retreat to the shade of a tree on a summer afternoon. Climate extremes enhance these desires and should be carefully evaluated. Some spaces need nearly full sun, others need nearly complete shade.

2.1.6 Social and Private space

Public place of the theater of every day life .There is a joy and comfort in watching and interacting with neighbors and strangers .Providing place to sit and talk , run and play and listen to music , to watch jugglers and by vegetables and teach children to appreciate these activates in both right and responsibility . At the centre of the public environment , in the least likely of places really , also exist the chance to be and spend time alone.

- **Dialogue**

The best urban places are those that provide a comfortable place to meet and talk with one another.

- **Play**

Public spaces should be flexible enough to allow for a broad variety of organized or spontaneous play.

- **Entertainment**

Presentations of all kinds, from music to theater and oration, should be allowed and encouraged. Public performance watching is educational, restorative and pleasurable.

- **Stress Relief**

Urban life provides a constant barrage of sensory stimulation: The sights, sounds and smells of the city and its inhabitants in close quarters can be overwhelming. Public spaces should provide a setting for retreat and recovery.

- **Children's Play Areas**

Even the smallest children are capable of finding magic almost anywhere; bugs crawling on leaves, rocks to climb, or a puddle to splash. As they get older, they need and deserve more complex activities. Safe and secure playgrounds with imaginative features help them develop their physical and social capabilities.

Fig.10 .Play area

- **Events**

Special and regular events, markets and fairs, celebrations and political rallies all help define community. Public places should be equipped to handle groups of people that can fill them to capacity.

- **Quiet**

The most successful public spaces allow truly private moments amid the whirlwind of public activity. Quiet, secluded escapes are necessary, even as small corners of a much larger and more public realm.

2.2   Types of Urban Space

2.21   Urban Parks

A park is an area of open space provided for recreational use, usually owned and maintained by a local government. The types landscape that human beings find most relaxing.

2.2.2   Active Building fronts

Active building frontage is most important space for life of the public space .To increase robustness , the edge between building and public space must be designed to enable a range of activates. This has a variety of design implications . depending both on the building activates concerned , and on the nature of the activates in the public spaces. First , consider whether the building activity would itself benefit from claiming adjacent public spaces , and allow for it in the edge design . Common examples terraces to pubs and restaurant and display area for shops .

In location where public activity sufficiently intense , watching other people becomes itself one of the most common activates . This mostly happens at the edge of the space , which offers a sense of refuge as well as a protect of what is going on

2.2.3   Active Streets, including the pavement

Busy Vehicular street also considers as an urban space .The width of the pedestrian movement pavement should be comfortable to the pedestrian. Other amanitas would helps to comfortable movement of people. Such as street trees , seating , bus shelter , telephone kiosks and cycle tracks .

2.2.4   Town squares

A **town square** is an open public space commonly found in the heart of a traditional town used for community gatherings. Other names for town square are civic center, city square, urban square, market square, public square, and town green.

Most town squares are hardscapes suitable for open markets, music concerts, political rallies, and other events that require firm ground. Being centrally located, town

squares are usually surrounded by small shops such as bakeries, meat markets, cheese stores, and clothing stores.

In urban planning, a city square or urban square is a planned open area in a city, usually or originally rectangular in shape. Some city squares are large enough that they act as a sort of "national square".

Along with the development of human society and the development of cities, the squares acquired more and more functions. At first, the squares were established at the crossroads of important trade routes where exchange of goods as well as ideas took place. For example, Phoenician trades–people invented numerical and linguistic pictographic inscriptions out of the need to record transactions. Another very important function of the public square was that it served as an opportunity to exercise the power of rulers with military processions and parades.

CHAPTER THREE

3.0 Improvements of Urban Space

What is the role of unused urban space in city planning and the production of urban space? A brief comparison of city planning models shows that unused urban space, as a potential for future development, plays an important role

3.1 Permeability improvement

Permeability improvement is the most important part for liveliness of urban space .Because urban space should be easy accessible to all . Aalso the permeable location should easy accessible to all .as well as visually graspable to the people. Permeability is important in two scale .

City Links -The linkages of selected site with the city as a whole .To achieve high permeability to and through site should improve largest possible number of direct links to the main roads or streets.

Local Connections -   Linkages of selected site with its immediate environment. To improve the high permeability selected location should be connected to nearest main street using direct linkages.

3.2 Legibility Improvement

The importance is the legible layout is that people can easily understand the places .The Kevin Lynch the American planer who pioneered studies of this topic in the 1960s has suggested that these features can be grouped in to five key elements such as nodes ,edges ,paths ,districts ,landmarks.

Paths - Paths are more important to create the image of the places.

Land marks – land marks are point reference which most people experience from out side.

Edges – Edges are linear elements which are either not used as paths.

District – medium o r large section of the city , recognizable as having some perticuler identifying character.

3.3 Creating Pedestrian flows

Some places , activities cannot survive without consecrated pedestrian flows .to improve the pedestrian flow through the specific site need extra magnet such as large shopping complex or car park , The magnet should be located some distance from each other .The linking street must be carefully design to get the maximum benefit ,from the pedestrian flow .

3.4 Relating incompatible uses

Relating compatible uses are more essential for live urban space . therefore carefully rearrange the proposed uses with the existing functions.

CHAPTER FOUR

4.1   Introduction of Selected area

4.1.1   Colombo City

Fig.11 .Location map of Colombo

Sri Lanka identified with the name "Colombo". Known to be the commercial capital of the country, Colombo is located on the west coast of the island in close proximity to the administrative capital of Sri Lanka, Sri Jayewardenepura Kotte. Colombo enjoys the position of being Sri Lanka's ancient port city due to its strategic location on the East-West sea trade routes. It became the capital city of Sri Lanka only in the year 1815, when it gave itself up to the authority of the British Empire. However, the position of acting as the capital was retained after Sri Lanka gained independence in 1948. Colombo came to be regarded as the country's commercial hub in 1978 when the administrative office was shifted to Sri Jayewardenepura Kotte.
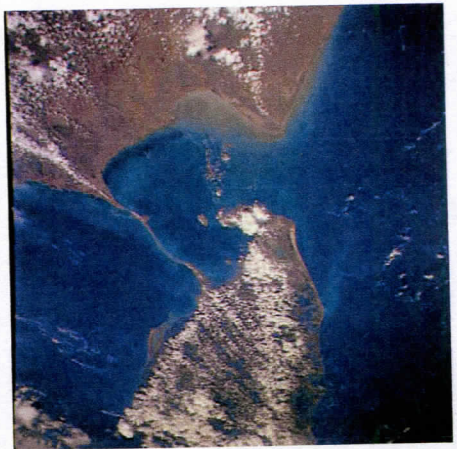
Fig.12 .Location map of Colombo

Colombo derived its name from a classical origin" kolon thota" which means port on the river kelani. However many is of the opinion that a Sinhalese origin is also behind the framing of the name Colombo. The Sinhalese name "Kola Amba Thota" meaning 'harbor with leafy mango trees' also goes in giving the capital city its present name.

4.1.2   Colombo Fort

The Colombo Fort, once the economic and commercial hub of Sri Lanka today has the potential to be reinvigorated into the City's Tourism , Shopping, Leisure and Entertainment hot spot. Its strategic location, cluster of colonial architecture and rich history associated with these buildings lends the area to be positioned as Sri Lanka's iconic must see destination.

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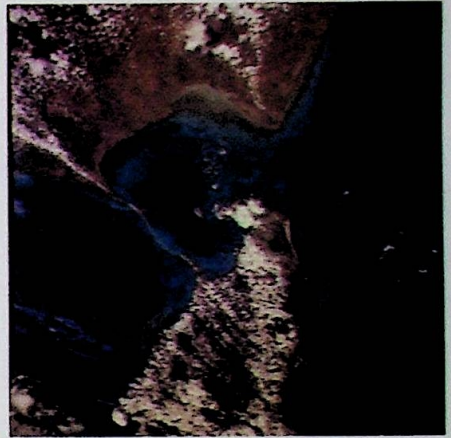

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The Fort conservation area around the President's House was highly restricted to the general public and business activities during the war period due to security reasons. Now the security restriction are gradually changing, and business and public activities are picking up in and around the area, thus the Urban Development Authority prepared and partially implemented a strategic plan for re-developing this historic city area.

4.2   Different eras through history

4.2.1   Early Period

Fig.13 .Silk Route

position of being Sri Lanka's ancient port city due to its strategic location on the East-West sea trade routes and it also possesses as a natural harbor.Colombo has been well known by Romans , Chinese and Arab traders from almost 2000 years ago.Traveller Ibn Batuta who visited the island in the 14th century, referred to it as *Kalanpu*. Arab Muslims whose prime interests were trade, began to settle in Colombo around the 8th century AD mostly because the port helped their business and controlled much of the trade between the Sinhalese kingdoms and the outside world.

4.2.2   Portuguese Colombo – 1656

Fig.14 .Historic Map

The first invaders of the port city were the Portuguese. They set their feet on the soil of Sri Lanka in 1505 and chose this country nly for the benefit of their spice trade. On arriving, they signed a treaty with the King of Kandy to carry on the trade of cinnamon and were given full authority of the fertile coastline. It was also their look out to keep the coastlines safe from foreign aggression. The Muslim inhabitants were uprooted and the Portuguese built up their fort there.

The Portuguese writer Ribeiro says that the form being a small stockade of wood, Colombo, came to be a fine city fortified by twelve bastions'.

The only remnant that now exist of Portuguese Colombo is huge boulder, which bears a cross, and the cost of arms boulder of rock, which bears a cross, and the coat of arm of Portugal. Workmen discovered this in 1875 when the south –West breakwater of the Colombo harbour was being built. It was then removed from its original site and set up in Gordoen gardens Adjoining the President's house

When Considering the Portuguese era they did not constructed more Physical elements in Colombo area. But After constructing the enclosed wall give prominent form to the city .
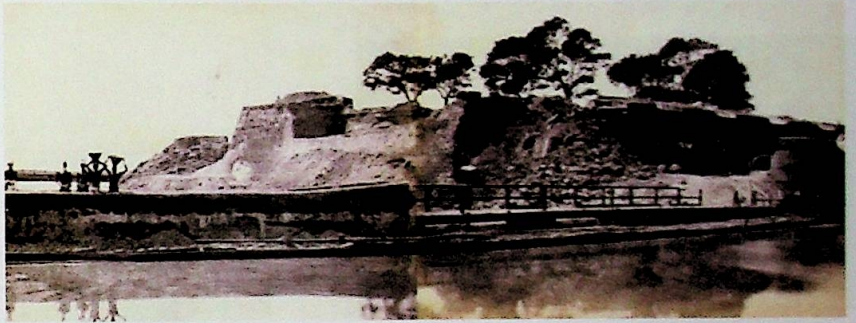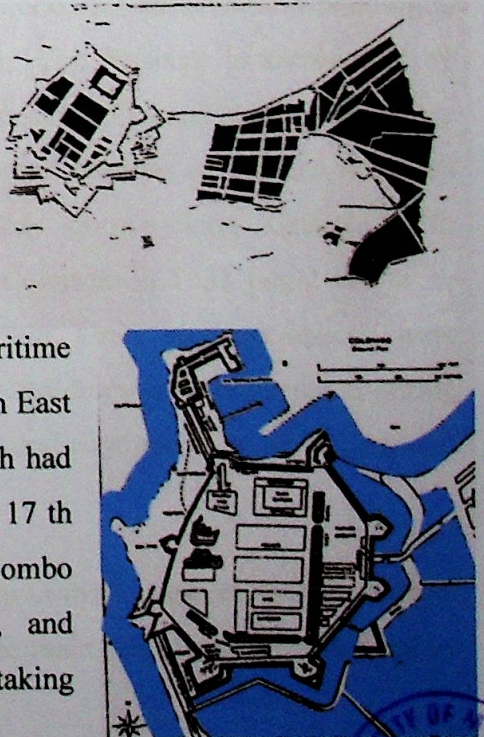

Fig.15 .Historic Image of Colombo

4.2.3   Dutch Colombo - 1705

Fig.16 .Historic Maps of Colombo

The Dutch were the next arrivals in 1656 according to the history of Colombo and under their siege only a handful of Portuguese were allowed to walk safely out of the Fort. During the period of the Dutch

rule, Colombo served as the capital of the Maritime Provinces put under the strict control of the Dutch East India Company. They stayed till 1796. The Dutch had completed rebuilding Colombo by the end of the 17 th centaury. After taking the Portuguese fort of Colombo in 1656, the Dutch partially demolished it, and restructured and improved the western part, taking

advantage of the natural strength of the location between a lake and the sea. On the landside there was a wide moat connected to the lake which was infested with crocodiles, and beyond that the Pettah arose, the 'old city'. The old Portuguese walls and bastions were demolished there. The Fort was connected with the Pettah via Koningsstraat, now Main Street, which started at the Delft Gate, or East Gate, crossed the moat by a draw bridge, ran between the sea and the Pettah and ended at Kayman's Gate. Tt was seen in several drawings of Colombo. The inner and outer entrances of the delft gate did not lie directly opposite each other, but were connected via a curved passage way through the Rampart. This was military fortification Traffic.

Fig.17 .Delf Gate

Fig.18 .Image of Port

The Dutch East India Company's governor in Colombo, this attractive old building is located at Prince Street on the fringes of Pettah. The museum is surrounded by boutiques, stores of traders, market stalls & antique shops. Opened to the public since 1982 this building embodies the unique architectural features of a colonial Dutch town house. portrays The picture of devilishly good-looking Gerard Hulft, commander of the Dutch forces at the siege of Colombo in 1636 ought not to be missed. Hulfsdorf in Colombo is named after him. Grate physical change were happened during the that period .Most of the fort buildings were constructed during the Dutch period. The buildings have unique form and continue to be an integral part of the historic and cultural identity to the city.

Comparing the city map Fugger grounds change in to more complex than the earlier. City limit is expanded towards the petaha side .The main boundaries were defined by the different barriers called "Gates"
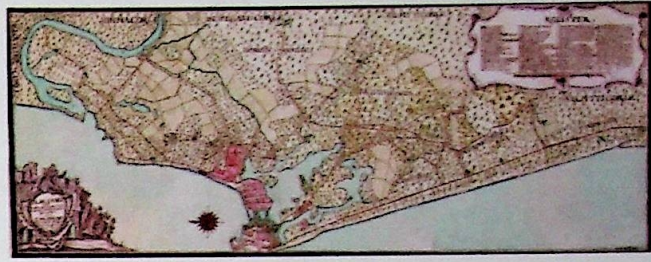
Dutch engraving of Colombo in about 1680

Fig.19 .Historic Image of Colombo

Fig.20 .Historic Map of Colombo

4.2.4   British in Colombo.- 1796.

Fig.21 .Historic Map of Colombo

The British were the last to invade the port city in 1796. However, the port city gained the status of being the capital only in 1815 and they made Colombo the capital of their newly created crown colony of Ceylon. After arrival of British in Colombo, they started to construct buildings in several places .specially the Fort area the British began constructing houses and other civilian structures around the fort, giving rise to

the current City of Colombo. The grand department store, colonial building of Cargills located in Fort. The Cargills was established to supply British planters & colonial administrators with every essential luxury. Figurer ground was changed to a more complex grid pattern. Street edges and blocks were very well demarcated in that period. It was created remarkable edges to whole city form.
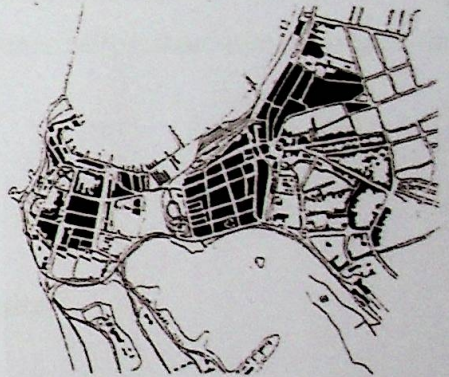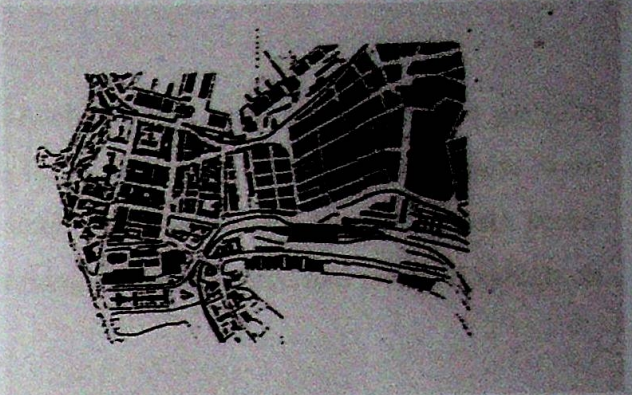
4.2.5   Post independence

However Colombo was developed after the post independence era . This result the e modern city of Colombo. The influence is visible in the lifestyle, fashion, architectures, food habits even in the names and title used. The buildings and the monuments became the symbol of the glorious past. What emerged was a strong metropolis with a modern outlook but retaining the local customs intact.

4.2.6 Unrest situation (era with internal conflict)

Fig.22 . Historic Map of Colombo

At the period of unrest situation prevailing the country, most of the people do not allow to enter the high security zone which is located around the president's house. Therefore most of the commercial activities move away from the fort area. Also the Sri Jayaewardanapura kotte promoted as a new administrative centre and the defence activities took place in an around the fort area. The historical Buildings remains as it is. But whole the city life style was changed due to that reason and commercial pressure move towards the pettah area.

4.2 Selected Case Study area for analysis

Case study one

4.3.1 Open are in front of the Dutch Hospital

Before development

Fig.23 .Situation of front yard of Dutch hospital before development

The area had been covered with a barb wire fence along the bank of Ceylon Mawatha and 6'0' height wall from the Cannel Row . Also the total land had been divided in to two parts introducing the 6'0" high brick wall at the centre .There was no visual and physical access to and through the land.

In addition to that th front corridor of Dutch Hospital presently closed with partition and brick walls. The area was using for office space of army forces who were occupying the building. Further some debris such as cement blocks , cement septic tanks were unloaded inside the land breaking the visual space and physical aspects to the building.

Fig.24 . Exi .   Layout – before development
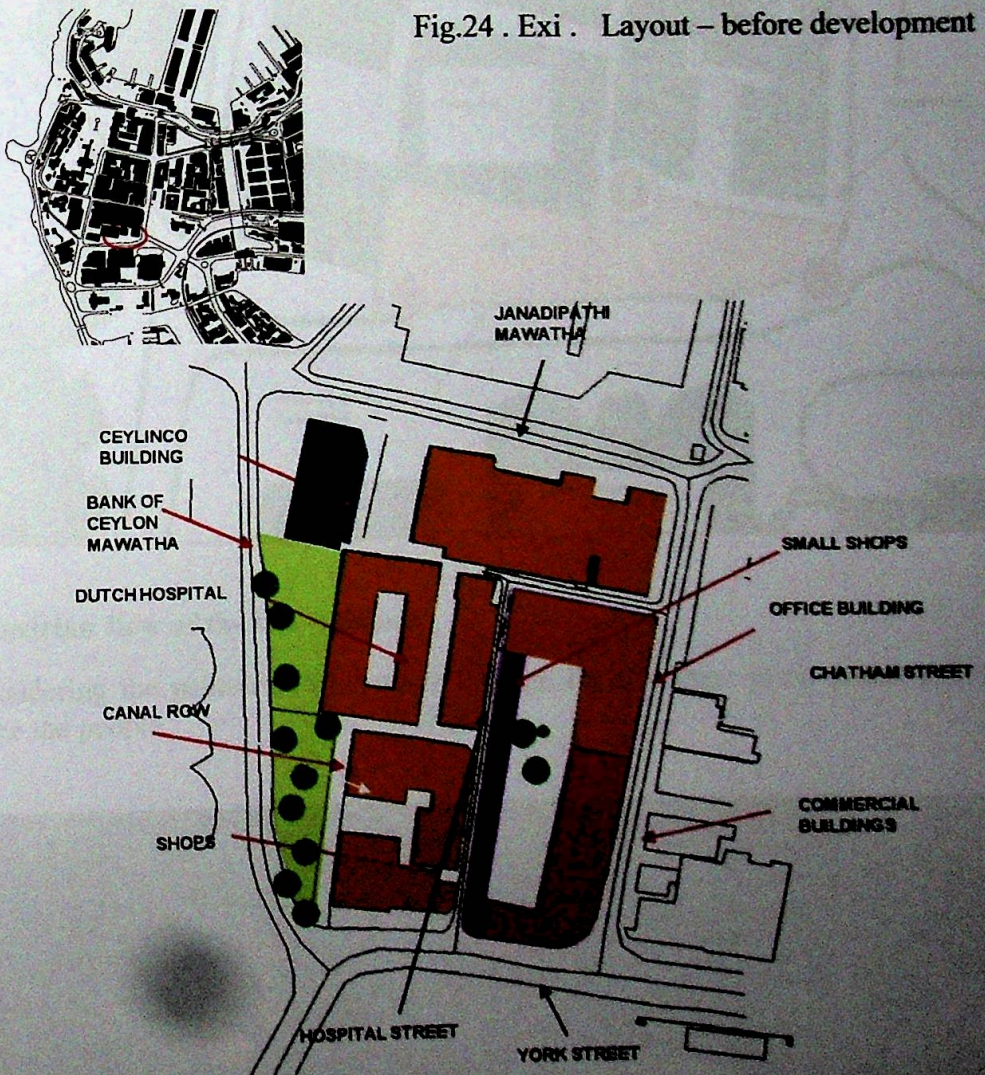
Permeability

The pedestrian pattern in the area was highly defined and some times restricted due to security reasons . Specially the Bank of cylone Mawatha had been closed by introducing two security barriers at two edge of the road . No social activities happen within the area only people who were going to BOC and twin towers use the space .There was no link for vehicles or pedestrian to cross the space.

Fig.25 . ⦿   Security points
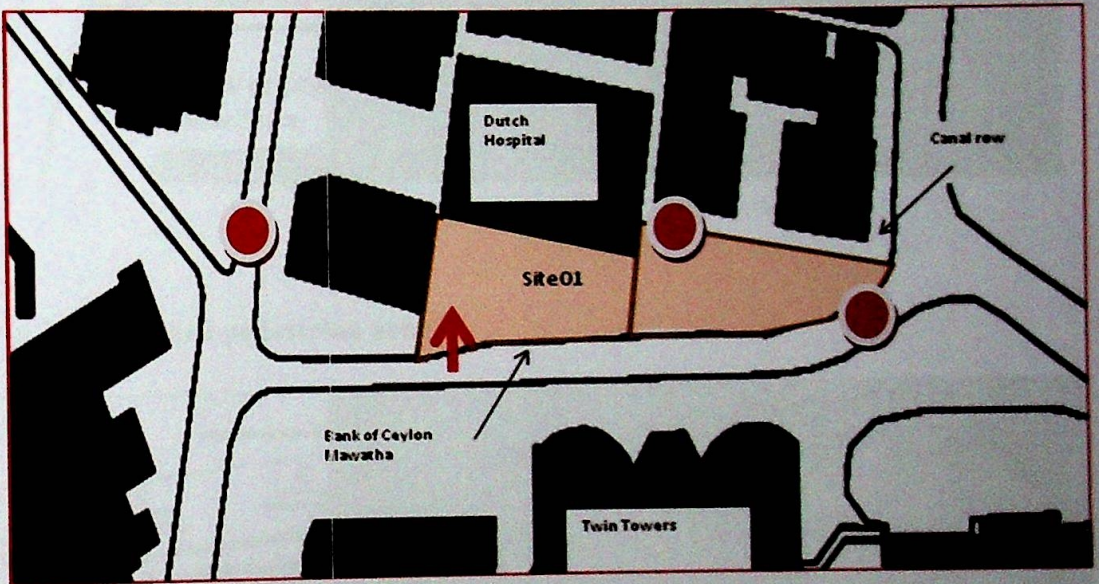
Pedestrian flow of the site - Before

Considering the pedestrian movement through the site there is no possible links to move the people .   Fig.26 .

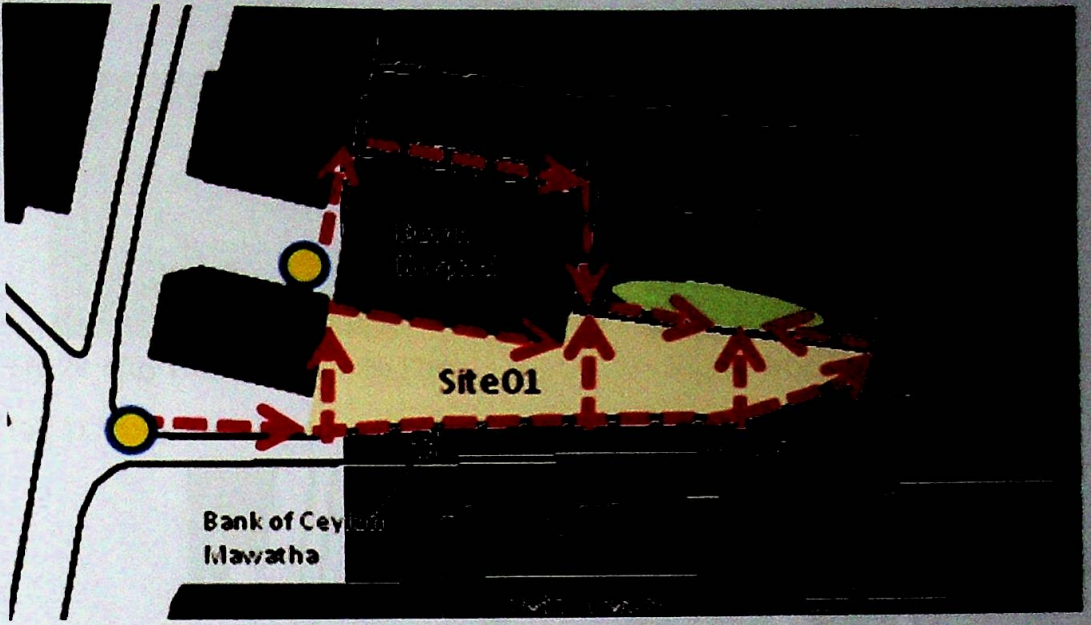Fig.27 . **Pedestrian flow of the site - After development**

Fig.28 .**Proposed pedestrian area**

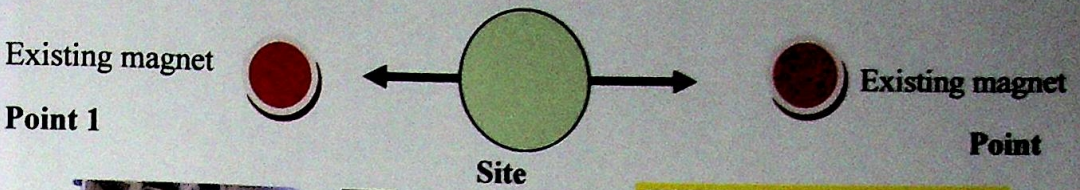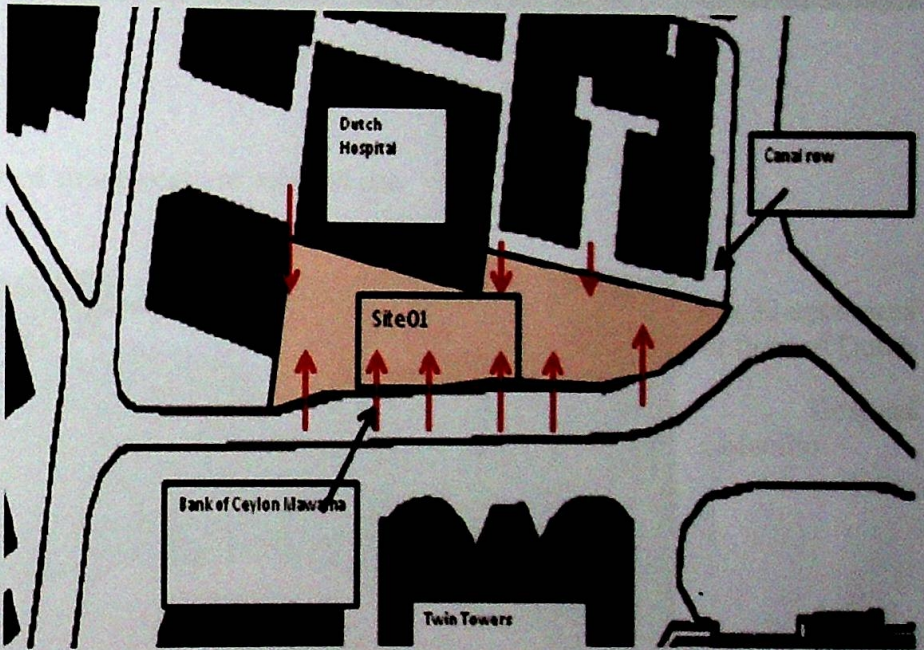Existing magnet
Point 1

Site

Existing magnet
Point

Fig.29. City Hotel at Colombo Fort

Fig.30. World trade Centre

Fig.31.`After Development

Legibility

The area covered by York street , Bank of Ceylon Mawatha , Part of the hospital street can be considered which has the special Colonial character with low rise building . The selected area for the study is located as only open space at the edge of this district . But it was not define well due to haphazard development occurred during the past .Considering the identity of space it could have been more important with the surrounding high rise development. Such as Bank of Ceylon , Twin Tower , Hilton Hotel .etc. Those advantages were not introduced to enhance the favorable character of the space.

The haphazardly grown trees and built fences and lamp posts had diluted the despaired rhythm of the urban edge.
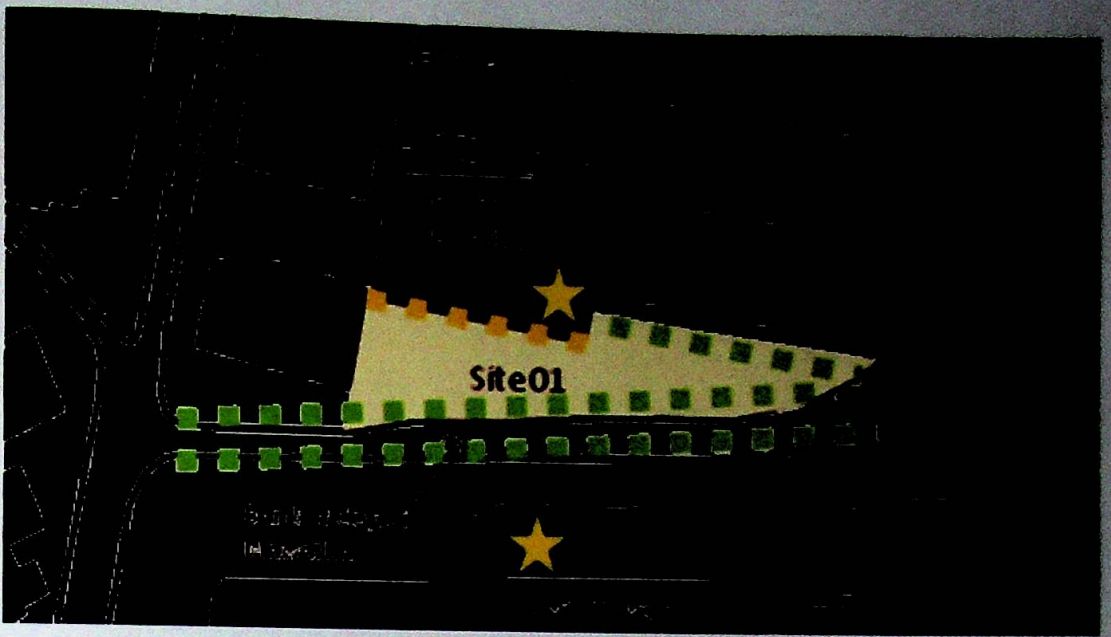
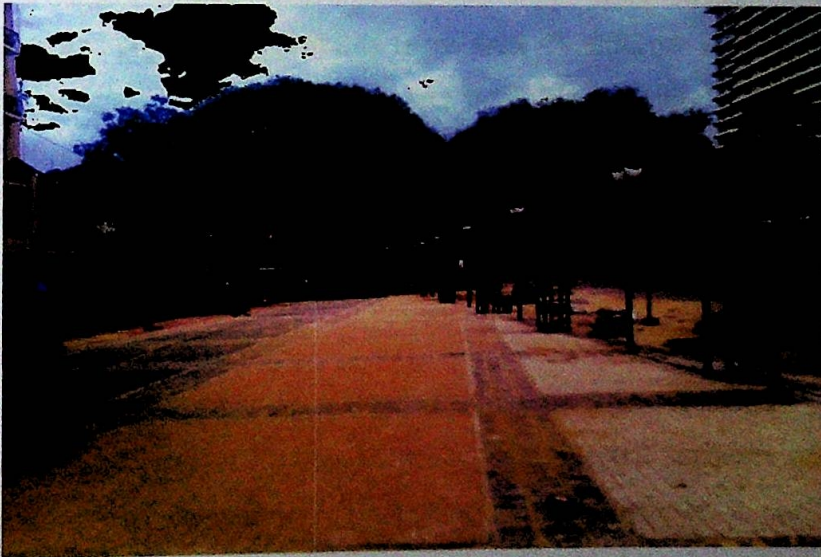Fig.32. Proposed strong edges of selected site
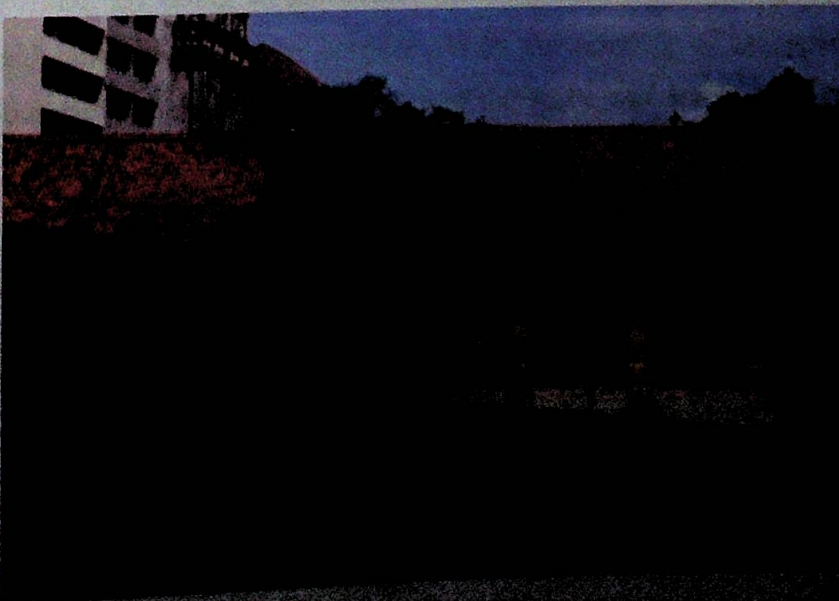

Fig.33.open area in front of Dutch

Hospital Colombo

Fig.34. Dutch

Hospital Colombo

Permeability Improvement

The main objective of the development proposal was consent the abounded are as a public square in front of the Dutch Hospital and also as a four court to the toolset building in Colombo. Considering the above main strategy was to maximize the visual and physical accessibility to the area. Therefore it was decided to   demolished all boundary wall fence which had been blocking the pedestrian movement. In addition to that eland was fill up to the level of Bank of Ceylon Mawatha winch is the most important edge of the said plan. The purpose of the filling was to raise the land for pedestrians at the same level of the main road . So that everybody can along the urban space.

Further hospital street was extended across the public space as a pedestrian up to the payment of bank of Ceylon Mawatha. The blocked corridors of the dutch hospital building was cleared by demolishing portions and brick walls built across the corridor. By doing so an access was introduced from Janadipathi Mawatha. To the said land through open corridor. With the opening of the space by demolishing boundary wall and fences the edge of the space was define by surrounding street and large scale building in overall building context and also surrounding roads were amalgamated to the urban space by creating large open space. The physical interface was increased due to opening of land to the surrounding street.

By razing the land of the urban space up to the level of the bank of Ceylone Mawtha an embankment was created at the opposite site along the canal row . Although steps

were introduced to get access from canal Row to the open space to define embankment was created.

The front corridor of Dutch Hospital building became another urban edge to the space and also the blank wall of 10 floors high Ceylinco building stand as a strange edge of the western side of the urban space .

Fig.35.Propsed open area in front of Dutch Hospital

The adjoining vacant land surrounded by the urban space develop for parking facilities giving and advantage to the public to park their vehicles to closed to the open space and crossing the space to go their office space .

Legibility Improvement

The Legibility of the space had been destroyed by the haphazardly grown trees .A decision was taken to remove all those trees .In order to strengthen the legibility of the space a staid raw of lamp post a tree line was introduced along the Bank of Ceylon Maratha.

The lamp post introduced were at a equal height and parallel and equal to the existing lamp post. Along the left edge of Bank of Ceylon Mawatha .This decision was taken by the designer to make an access more strengthen giving an identity to the urban space . Specially the rhythm was created and edge was define the urban space by this deception.

Character of Place

In the ancient time the main entrance of the Dutch hospital faced to hospital Street which have now became the back street of the building . A decision was taken to connect the former back verandah of the Dutch Hospital.

The most important and attractive space of the urban space is Dutch hospital located at the corner of the main space. The Dutch hospital was renovated keeping its old Character and scale as landmark building of the urban space .as front varandha opening up the main entrance through urban space .the large corridor with big column give a definite identity to image of the commuters . In addition to that old Araliya tree in front of the entrance was preserved to enhance the image of building with historical character.

Fig.36.Front Elevation of Dutch Hospital

Before development the space was used by security personals and the use was completely change by relocating them away from the site and demolishing structures built by them for their requirements .The introduced new activity was very much compatible people specially tourist who are residing in surrounding hotels. This hels to completely change the character of the area with more public activities.

Visual Richness of the area

Location itself was very rich compare to other open space since most of rich buildings also historic buildings are located in the surrounding areas.
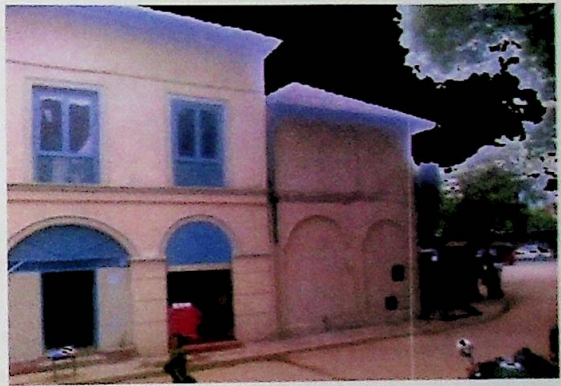
The richness of the space was further increased by the way designs treated the surface and surrounding. For ex. Apart of the which cannot be used as public space was turf as green space . colors introduced for surrounding building were change to start with the character of the area . The architects attend each building separately and proposal were given to ones showing how to change the façade of there building .

It helps to give unique character and visual richness to the urban space .

Fig.37.Canal raw Before   After
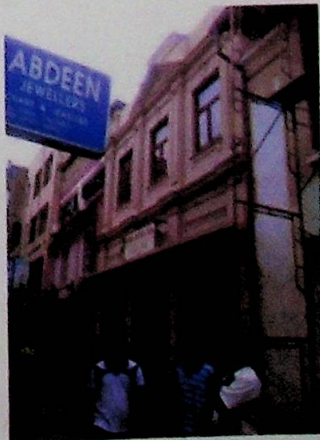
Fig.38 .Dutch Hospital Before   After

Fig.39.Hospital Street

Surrounding roads and infrastructure was developed by introducing new drain manholes electricity post etc. Even its organized original telephone and electricity lines were orderly rearrange by relevant institutions. The security barriers and structures were removed giving mental freedom and relaxation to public who are passing by the urban space.

Case Study two

4.3.2 Street and building frontage along the Chatham street

Fig.40 .Before development
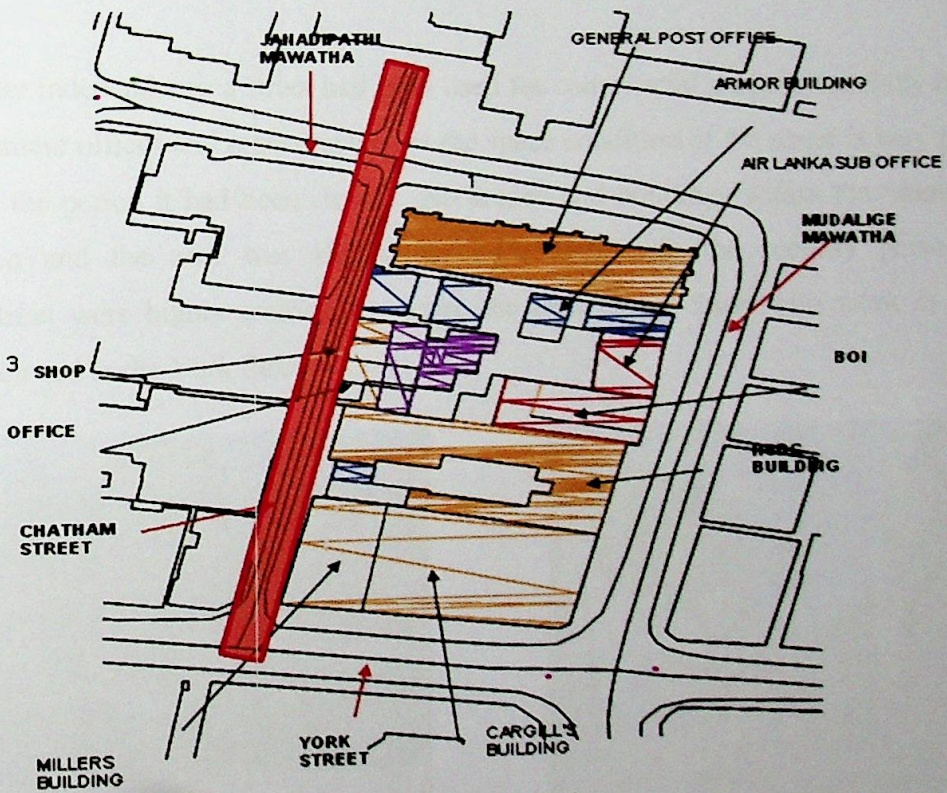
Chatham street is the most prominent street in the area giving access to the historical clock tower located in fort . A street had been completely closed from its starting point at York street du to security reason during the past dictates . this is one of the most widest street with pedestrian arcade at both side. There are evidence that the building was shaded street in the colonial era.

Fig.41 .Historic image of Chatham street

But after independence a street had been used for commercial purpose specially bank government offices and related activities the space condition of the street is very poor during the period it had been closed . No arcade and buildings within the were no function and the area was almost abounded only with the security personals .pedestrian were highly restricted to entre the area except those who work in few banks closed to the York Streets.
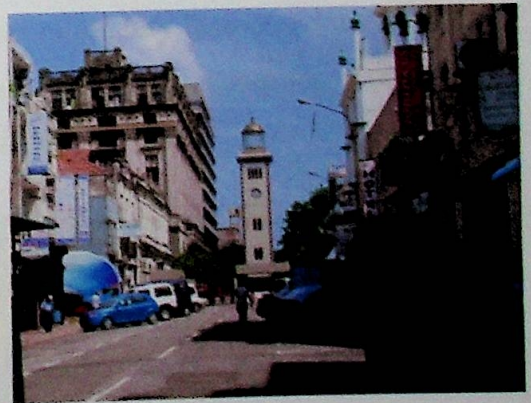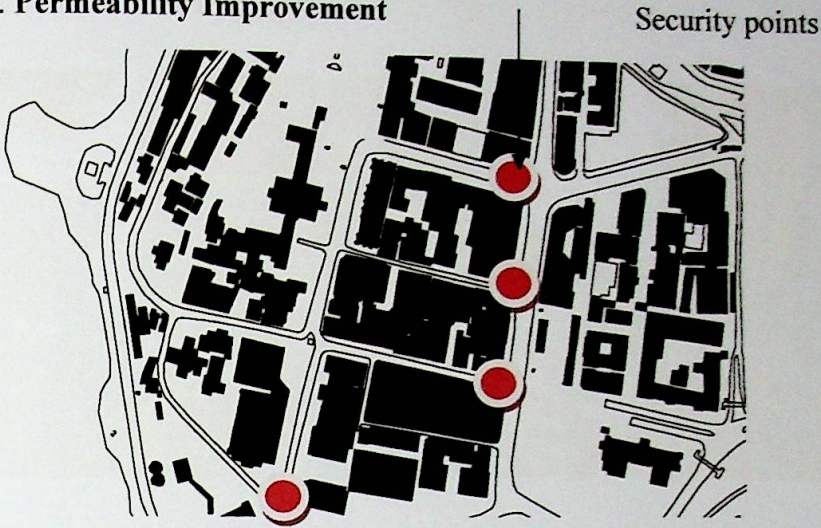

Fig.42.Cargills Building

Fig.43.Clock Tower

Fig.44. **Permeability Improvement**   Security points

The main access of isolated Chatham street was cleaned by removing all security barriers located at the York street end by allowing people and vehicle in to the chatem street. The surface of the street was improved by paving introducing parking at both side of the wider Chatham street.

All arcade were cleared and some were connected with the pedestrian access .

Since the connecting access were closed to the chatem street . it was very hard to function the road as excepted .therefore later no of roads were connected to the chatem street creating more permeability from surrounding areas. Since the road in front of the precedence house cannot be open due to security reason and additional road access behind the General Post Office was introduced connecting mudalige Mawatha which had also been terminated at Janadipathi Mawatha .

Fig.45. Shaded walk way

At the fort

Fig.45. Shaded walk way At the fort

Legibility Improvement

Street was clearly define by arcades building line at both side as an strong edge of the street. Building of both side had colonial character except few building constructed recently. Facades of those new buildings were change by introducing new building elements compatible with old buildings edge to read as one harmonious façade . giving strong identity to the street . it was proposed to reduced to vehicular traffic movement along the road and increased the pedestrian movement for this proposed new proposal has been introduced to plant trees at two edge of the streets creating a shaded street environment favorable for the pedestrian . There are evidence that this street was shaded street in the past .

In addition to that the owners of few vacant land were introduced and encourage to construct buildings as in fill to the ex. Façade .According to the guide line given by relevant authorities.

Also one of the building were introduced to remove incompatible hording , boards , Luminas sheets etc. and flow the guide line given by

There are few government owned building which occupied by army forces during the unrest period .Those security personals were shifted and necessary action were taken to improve the physical condition of those building and introduced new function which can be continue even at high time . Ex. Restaurant pubs , spa, etc. The idea is this was to make the street functional even during the night.

Case study three

4.3.3 Hospital street

The hospital street comprising low scale building which had an old character was all most banded during the past decades .Since the access to the street was limited .

Although there are beautiful storied buildings with old façade inside of those building were completely banded and big trees have grown destroyed wall and roof   etc. Most of those buildings were occupied by tenant and owners were unable to developed those lands due to prevailing tenant act in the country . tenant also did want to develop this land because they had no any ownership of the land. This situation created a slum in side the historic core very unsecured empty place. The narrow road was almost accrued by name boards of shops at both side creating very congested vista to pedestrian .

Fig.46.Hospital street

Before

After

The most critical problem along this road was the dilapidated and abraded building which cannot be restored father. Therefore a decision was taken to wipe out all those streets giving opportunity there owners to built new structures . compatible with the surrounding character.

The visual and physical disturbance due to unauthorized structures was cleared by removing with bill boards by introduced some stranded design for each building . owners of some abounded which could be restored were   constructed to do so on there own cost according to the guide line given by the authority . damage façade

were improved according to a unique system and infrastructure such as electricity telecom and water line were orderly rearrange by relevant authorities .

Colors of buildings were introduced match with the character of the area and incompatible building element such as canopies over hang al windows , etc. were removed for replace with compatible elements. The road surface was carpeted and widen up to the edge of the building creating wider success to pedestrians.

The owners of the land reclaim after demolishing all buildings to submit a new proposal amalgamating these lands as one unit.

Case study Four

4.3.4   Hilton Car park site

The area identified for development was completely non accessible for both pedestrian vehicular during the past Also it was a dead urban pocket located at the lower level of the main street .The space was highly restricted for public and there was no laitance by the owners .

Since this space cannot be use for public gathering space it was convert to a car park which had became most essential requirement for the area

The proposal was prepared to accommodate 34 parking bays and a building structure with a viewing deck at higher level equal to the level of Hilton compound and over looking the public space of Dutch Hospital .The Viewing Deck had been connected with the Hilton hotel access road creating a new pedestrian access to bank of Ceylon Mawatha. The in side of the building structure could be used as office building to the public car park. The parking area was paved with different colors to give unique pattern to the area

CONCLUTION

Basically this study is based on the improvement of underutilized urban space within the urban context . Check the improving method and how its works with development urban space .

Comparative analysis helps to understand the situation of past present and future. Considering the past experience the remaining history ,the buildings were generally put together far better than the new towns . Because they have certain qualities like recognizable pattern and complexity with order. But through the development process lot of damages were happened to the original setting of the urban structure . Characters was lost and the proposed activities were not matching with each other .Texture , pattern , microclimate is change and not favorable for the social life of the people.

The study will help to understand the regeneration of urban spaces following simple theoretical basis such as how to increase the legibility , Permeability , and the visual richness of the public places . Improvement can be observed by day today observation . Also it can be count using design sheet of pedestrian movement , understand of behavior pattern of the people.

Also the development get involved with the change of activities in accordance with the new development proposing to the Colombo fort area. Proposed intermediate activities very well match with the urban environment. Also it helps to link and re generate the liveliness of social spaces .

The aim of this development is not totally change the physical structure of the fort area .For example changing back yard of Dutch hospital give prominence e than the historic age . Introducing new activities link with the mediate environment .

Therefore final conclusion is designers should carefully think about the how to retain and maintain the public space and their quality while involving the development process .

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