

**UNDERUTILIZATION OF ARCHITECTURAL AMBIENCE
IN PLANNED TOWNSHIPS**
CRITICAL EXAMINATION OF CONTEMPORARY PLANNED TOWNS
OF SRI LANKA

A Dissertation

Submitted to the Department of Architecture of the
University of Moratuwa in partial fulfillment of the
Requirements for the degree of



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Architecture

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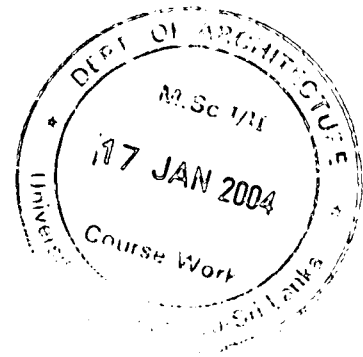
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DECLARATION

I declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualification.

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UNDERUTILIZATION OF ARCHITECTURAL AMBIENCE IN PLANNED TOWNSHIPS :
CRITICAL EXAMINATION OF CONTEMPORARY PLANNED TOWNS OF SRI LANKA

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ABSTRACT

Man's need to relate himself to familiar significant environments is deep rooted. It is with the familiarization that he gets attached to the physical environments that could be identified with the physical objects. Town represents man as a communal being while the home represents him as an individual. Thus, the town, as well as home should essentially possess the ability to initiate belongingness within its people.

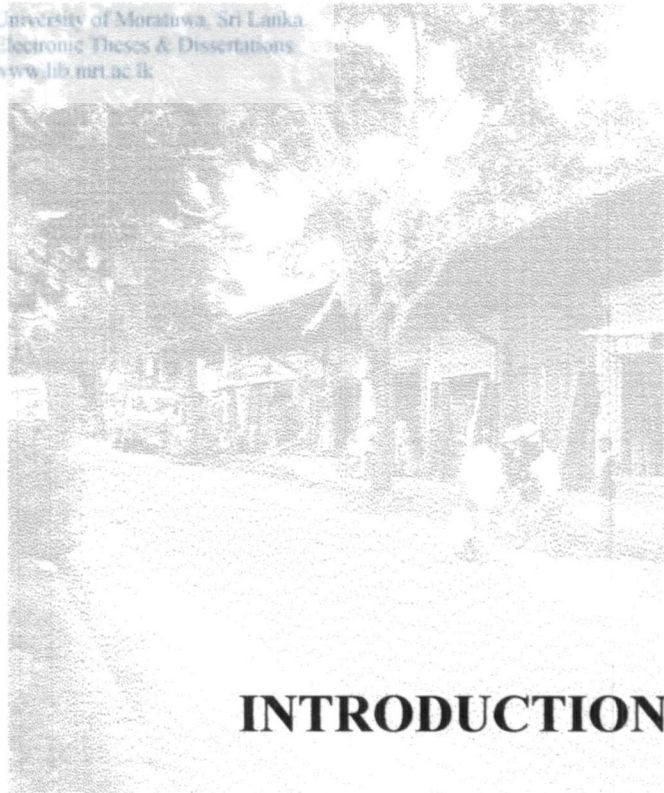
But when towns are planned, a great tendency for the deep rooted psychological need of man for emotional attachment, sense of belonging are over looked, due to the more concentration been given on qualitative and practical issues of a town.

The Mahaweli planned towns came into being with the succession of the Mahaweli accelerated programme setting up examples for contemporary planned towns in Sri Lanka. These towns, which were expected to thrive and to reach its peak, are being depopulated day by day. The lack of presence of character and emotional attachment would be the possible cause for this phenomenon, which has resulted a great anxiety.

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INTRODUCTION

INTRODUCTION

- **Background to the Study – Observation**

Most of the planned towns emerged in our landscape with the introduction and the implementation of the Mahaweli action programme. They were in the form of resettlement of villagers, who lost their adobe as a result of the Mahaweli hydropower reservoirs, and new towns, which were custom-tailored to the resettlement of Mahaweli fed areas.

The concept of planned towns emerged in Sri Lanka with the re-cultivation of Mahaweli fed areas and, due to the hydropower projects, which emerged in the later stages. The concept of planned town has become an unavoidable phenomenon with the spatial and social needs of the ever-increasing population. These towns, in most instances as briefly mentioned above, are planned as *instant* solutions for socio-economic, functional or political objectives.

The Mahaweli project was the largest multi purpose project in Sri Lanka. It was one of the unique instances that offered a wide range of opportunities for the professions. The massiveness of the project, strong political and financial backing and acceleration of the project were the major factors behind such a potential. A fare number of examples were set up on the built environment from which we learn priceless factors about the designing of townships and settlements.

The towns that came up as the part of Mahaweli projects were mainly of three types and there was an equal importance embedded on each of them.

- Towns to serve the new irrigation settlements in down stream areas.
eg: Dehiattakandiya, Girandurukotte, Welikanda
- Towns to replace the infrastructure facilities that were inundated by the reservoir in up stream areas.
eg: Digana, Karaliyadda
- Reinforcement of the existing towns to cater the increased catchment's population due to the development of these areas under the Mahaweli project.
eg: Bakamuna

Today it is evident that those planned towns had some key aspects missing from their basic framework. Even though the towns have fulfilled the physical needs of the town dweller, they have not satisfied the psychological and emotional intent in designing "Home Town" which ties them with the built environment.

Though the new towns were emerged to cater to the settlers, there is no growth and the development of townships.

Towns have emerged as a spontaneous "natural process" with integration of societies. As Habrakan states, *Architecture is the product and process of human habitation*. This statement is a vital observation in the establishment of townships. The growth and development of towns are shaped by the social, cultural, economical and political and environmental features. These features slowly but gradually decide the fate of a town and the town shapes these factors too.

? In these planned towns the hierarchy of the spatial order has been liberating from its unique character. Therefore the attachment to the spatial form is missing,

Man's attachment to his personal space, to home, to neighborhood, to village, to town, to country, to continent.....to the world, is significant. It satisfies one of his basic deeply rooted, innermost psychological needs – “belongingness”. Belongingness creates an existential space where people are familiar and it is significant in its context, and how designers have to cope with it is a motivating study area and it is highlighted on the planned townships. The sense of belongingness or the external roots of the man with the world is an attachment to environment is a very important aspect in human lives.

As a result of giving those instant solutions of planned towns to the dwellers, these towns lack the potential of creating this belongingness.

This growth happens in an impulsive manner creating a social and a functional hierarchy in its environment. The chain of command creates places with distinctive Identity and orientation.

The architects as designers have to reconstruct a physical and an emotional environment for people to live.

- **Importance of the Study – Criticality**

Planned Towns in Mahaweli area are depopulating, with all facilities in these towns; people have started to move out. Therefore it is important to study the architectural component, which causes the part of that problem.

Estimated Population by System and Year

System	1984	1986	1988	1990	1992	Population Growth From 1984 – 1992
C	43,707	57,477	68,996	69,530	112,703	11.8%

Source – Mahaweli Authority Sri Lanka


The above chart in an extraction from a chart of the estimated population, which is expected in all the systems of Mahaweli. In this chart the estimated population of system ‘C’ is highlighted. Which is in 1992 the project targets a population of 112,703. System ‘C’ is the Dehiattakandiya, and Girandurukotte electorates.

A census, which is, carried out in year of 2001 shows the total population of Dehiattakandiya as 62,612.(which includes Girandurukotte).

Source – Dept. of Census and Statistics,2002

Social infrastructure facilities by year and system cumulative progress. The criticality of this study is based upon the lack of fundamentals, such

as building hierarchy, rhythm, variety and order of creating architecture in planned townships.

In Mahaweli towns, a clear difference can be noticed in the environment of the planned town than a spontaneously developed town. In Planned towns the spaces meant to be public are underutilized or abundant, and they seems to have lost their initial identity and its relation to its natural environment.

- **Intention of the Study**

The intention of this study is to identify the existing problem, the extent that should be designed and built on a newly planned town and which architectural framework facilitates the spontaneous growth process of a town.



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In the development of spontaneously developed towns and planned towns; in the spontaneously developed towns, the inhabitants are responding to the instincts that will symbolically convince where there is existential space and the form of hierarchy. In the planned towns the form of hierarchy and the identity has been designed and settlers should live with the provided living conditions. All the towns in our urban landscape, were to a certain extent planned, in their initial stage of growth there was a clearly identifiable framework. But all of them had avenues of growth, which could be facilitated with the human habitation. The planned towns, which are taken in to consideration in this study are the towns which has been created newly and *instantly* to address a current issue. These towns

are complete organisms, which fulfills all the basic needs of the town dweller.

The study focuses on the towns, which represents the man as a social being, presence of a cohesive collection of living space is important; in a planned town, this importance has to be enhanced.

• **Objectives of the Study**

The physical evolution of human settlements has been a product of the social order. Throughout history, it was the community's *social identity* and its principles that shaped, along with the natural environment, the urban form configuration.

As town represents the dwellers or people as a communal being, the Mahaweli Planned towns don't have the representation of communal being. Therefore the major objective of the study is to identify the hierarchy of development of towns. To examine the under utilization of spaces created in town centres in the planned towns in Mahaweli settlements and the relative influence of contributory forces in making significant utilized planned towns.

Therefore the study seeks to;

- The impact of planned towns on town dwellers.
- The lack of sense of spaces in under utilized spaces.
- Establishing people's belongingness to environment and formulating the social identity.
- Possibilities of future Development Of these Planned towns.

This will take in to account a series of places, which a town would consist of, and the extent of social interaction with each of these spaces.

- **Scope and Limitations**

The areas of the study will envelope the difference or the contrast of the towns that were evolved over years vs. towns that have been planned within a short time. The planned towns of similar nature, could be closely studied according to their utilization and morphology of city plan, land use, and built forms.

The town converse in this study signifies the developed Human settlement, which is larger than a village and smaller than a city. In supplementary, town is large group of houses, buildings where people live and work with it, usually having centres of business activities. This generally covers the diversity of activities such as living, working, and cultural activities of the town centre, which acts as a business centre of the town.

Town progress either as small human settlements, around resource points the process of which is termed spontaneous growth, or the *instantly* created, which are called as Planned towns. This study is concentrated on primarily planned towns; because the provision of responsibilities of dwellers or occupants will be little for their own environment where the planned situation creates the environment for them. Only the Town Centre is selected for the Study due to the limited time frame and the limited resources available.

Town Centre is considered, as it is where public activities are concentrated and also the character of the town is strongly manifested.

The study of these components will be considered on the several sub topics, which will be physical components, human components (social and cultural components) and historical components.

In this study the towns, which were constructed, and implemented under the Mahaweli scheme, is studied because it is the only project, which has a vast number of planned towns in a concentrated area which was designed and built *instantly*. And in them there were examples of which the physical environment which people used to live and the environment they are living in present day.

• **Methodology**



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Man's perception of town is viewed as a collection of experiences related to his attachment to and behaviour in different physical environment of the town. In this sense the town, as experienced by its user.

The study will be in a form of a case study, which will analyze pre-determined components of a town.

Origin of town is then discussed primarily based on identifying the character and orientation of spontaneously developed and planned towns. As planned towns are identified as a "new town" – a town built in basic on more practical objectives such as economical, political etc, other than objectives such as social relationships and attachments etc;.

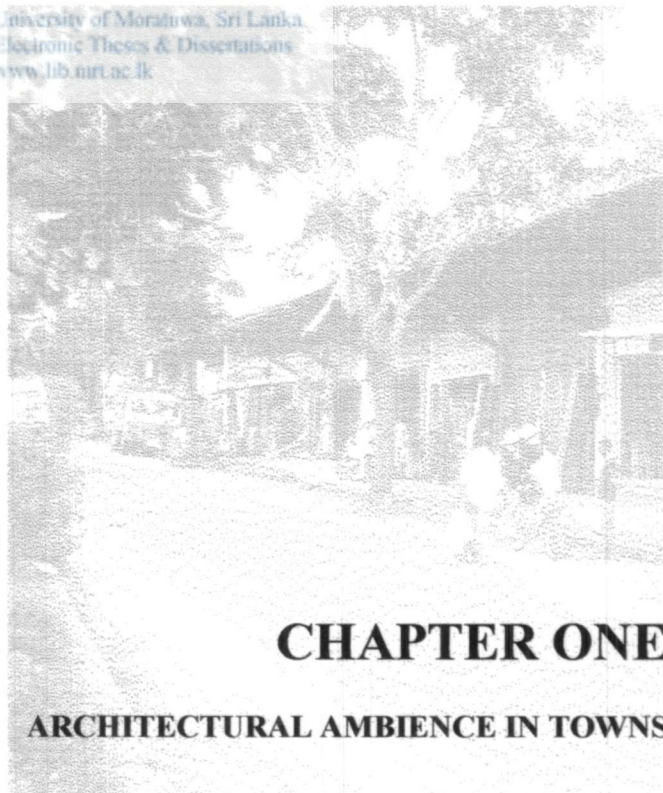
The origin of a town is studied using available literature to have a better understanding of its evolution towards been a large town to a city. This helps to understand the natural creation of towns and its growth up to a improvement of its characteristics as an spontaneously developed town. Therefore the spontaneously developed towns and response to the weaknesses of planned towns could be identified.

The over designed of planned towns is studied and the avenues which it has improved through the years is examined thoroughly if there is any so called upgrading. Based on preliminary study in the manner of observation general reading and also a photographic survey, as to the contemporary planned town in Sri Lankan context is studied with relevant examples to establish the theory behind the study.





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CHAPTER ONE

ARCHITECTURAL AMBIENCE IN TOWNS

CHAPTER ONE

1.0 ARCHITECTURAL AMBIENCE IN TOWNS

1.1 Architectural Ambience - Definition

Ambience is a very simple sense can be defined as a special quality of an entity, which gives its character and identity, and thereby uniqueness. Ambience is taken in the sense that of a particular entity, place or a person is essentially different from another of the same. Each of these entities contain its own peculiar particularities, sort, style, which contributes to its uniqueness.

These factors could be applied in to a building or a collection of buildings or a city, which has an ambience of their own, which could be defined as *architectural ambience*.



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1.2 Origin of Architectural Ambience

Architectural ambience is a complex quality of an object or a series of objects, which act as a single entity. This quality is categorized and observed as the constituents of ambience and attributes of ambience in creating a visual and emotional experience.

Architectural ambience is emerged or is inherited to an objects or an entity by its origin and by its usage in the evolving time. In different periods of time the architectural ambience differs by its nature of its people and the culture.

1.2.1 Constituents of ambience

Constituents of ambience will be described by the physical dimensions, which contains spatial form and activity.

1.2.1.1 Spatial Form

Space is a volume of environment, which is perceived by a person when considering the total environment continuum, which surrounds us; space is limitless, intangible and meaningless. But when it is separated to create form by boundaries or limitations its real and perceptual. This demarcation may be either manmade or natural. Thus the spatial form is created through this phenomenon.

“Space constantly encompasses our being. Through the volume of space, we move, see forms and objects, hear sounds, feel breeze, smell the fragrance of flower garden in bloom. It is a material substance like wood or stone. Yet it is inherently formless. Its visual form, quality and light, dimensions and scale, depend totally on its boundaries as defined by elements of form. As space begins to be captured, enclosed, molded, and organized by elements of the form, architecture comes in to being”.

(Ching, 1979:108)

Configuration, scale and proportion determine the spatial form by giving identity in different instances.

a) Configuration

Configuration of physical objects, which forms a space, determines the fundamentals of spatial qualities. It dominates the other parameters such as scale and proportion.

The vertical planes, which provide the enclosure of a space, can be arranged in different ways in order to give a particular meaning. As an example, the space, which has a square shape, provides a different meaning to that of a rectangular or circular one. Square or circular shapes indicates stability with the sense of centrality while the rectangular, possess a directional quality, while a polygonal gives a complex meaning different from that of all.

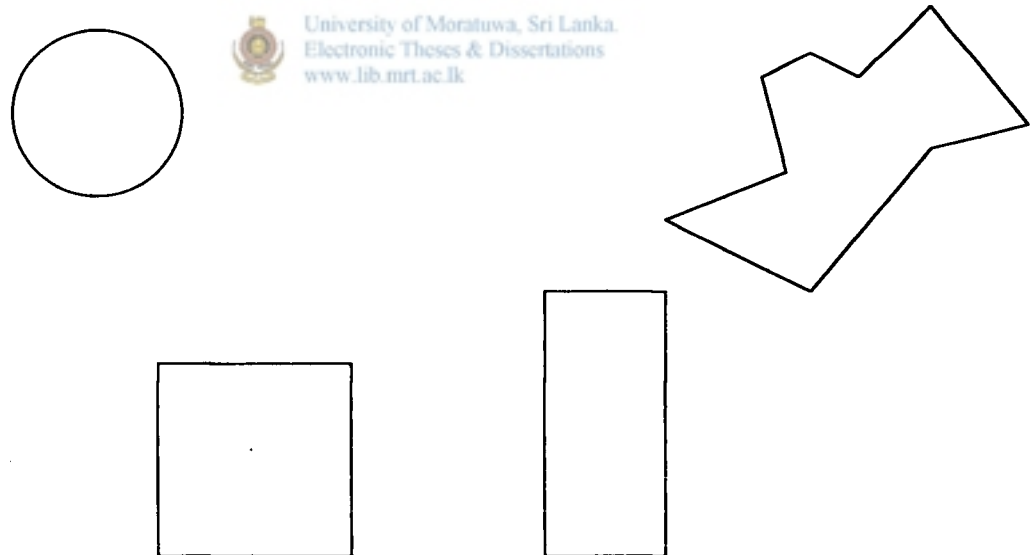


Fig. 1 - Configuration of physical elements, forms different spaces

In the same way configuration would also help to sub qualities through the spaces, which are formed in different ways. Articulation of spaces with a proper hierarchy of volumes and spaces to emphasize a directional quality of a particular space. Generally this spatial quality is used to influence the legibility of a city spans.

b) Scale

Scale is related to the physical size of an object and does not refer to the absolute size, but it is relative size. Scale is described as the proper relationship of several objects in a space.

Therefore the scale of an object in space is naturally considered in comparison to the other objects around it.



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Scale is measured with some fixed or assumed standards. Normally the standards are set by the size of an average human figure, which is called human scale.

The perception of space respect to the scale and proportion is explained by Canter, he states that if a person enters a huge space, the space dominates and possesses the person. The person feels rather stress, uncomfortable, unprotected and insecure.

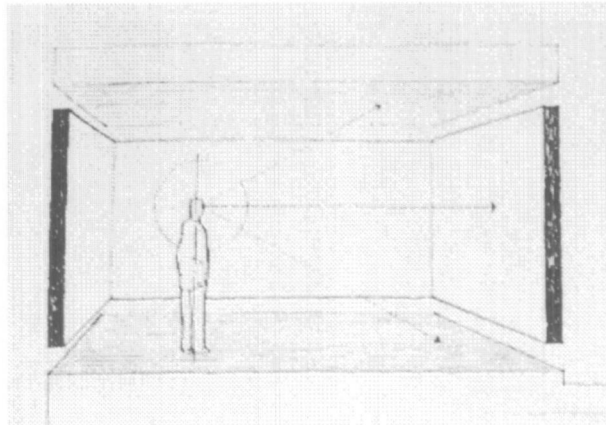


Fig. 2 - Vertical forms are generally more active in our visual field than horizontal planes, and are, therefore, instrumental in defining a volume of space and providing a strong sense of enclosure for those within it.

Source – Ching, 1979: 136

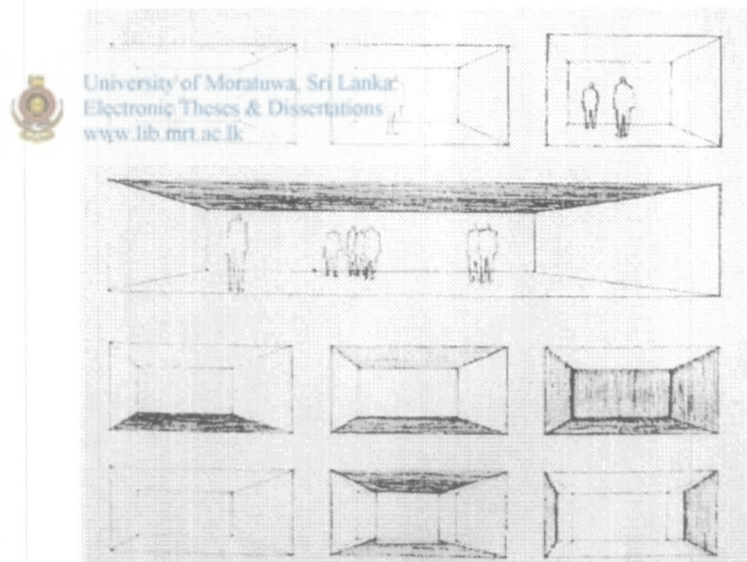


Fig. 3 - In addition to the vertical dimensions of a space, other factors that will affect scale are;

- The shape, colour and pattern of its bounding surfaces
- The shape and disposition of its opening
- The nature and the scale of the elements placed within it.

Source – Ching, 1979:

Fig. 4 - The High vaulting roof and the passengers seating in Kansai International Airport
Source – Glancey, 1998: 370



c) Proportion

Proportion is a volumetric relationship of the spatial form referring to the length, breadth, and height. Without increasing or decreasing the volume of space spatial arrangements can be created by changing proportions.



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The spatial form can be made to appear smaller or larger in scale by changing the proportions of the enclosure. Therefore, it is evident that scale and proportions contribute greatly in creating a specific quality in the spatial form within a space.

In some circumstances proportion of a space can be indicated by using the visual properties of its enclosure. For an example, small space with high scale enclosures constricts the visual volume of that space; to minimize this visual effect enclosure plane should be determined in a small scale with the help of patterns, texture or its details and elements. Therefore using proper scales and proportions would enable a designer to bring forth a space with a conducive environment *with respect to the human scale*.



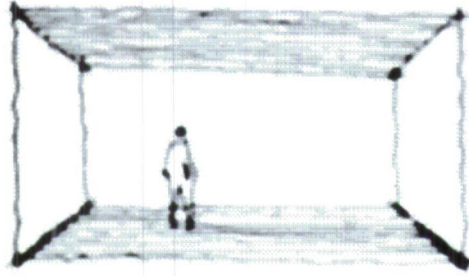
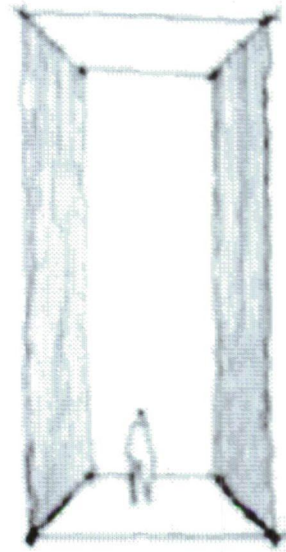


Fig. 4a - Changing scale and proportions and making new environmental quality



1.2.1.2 Activity

Spaces happen due to subjective personal experience related to locations and happenings in them. Thus, man actively or passively participate least happenings as they are generated in relation to them. In other words, one may engage in activities directly and thus may appropriate spaces as the activities carried out. Or else he may observe the happening as well as the spaces in which they take place, and builds memories, attachments in relation to them.

The activities happen and they become more meaningful when socio-cultural, and historical values are bounded with them. Therefore its memories and



Fig. 5 - Asela Perahera Knady, Sri Lanka

experiences, which are related to the varied activities, become primary constituents of spatial forms.



Fig. 6 - Festival of Riesling harvest Cochem, Germany

Specified activities create specified forms and by the evolving time these spatial forms takes shape. Human activities, which are related to socio-economical, cultural and environmental forces, vary drastically with time and location.



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Activities performed by rural dweller are different from that of city dwellers. Thus the resultant forms they create become distinctively different.

By this creation of form the rural and the urban areas could be identified distinctively owing to the unique character, which they depict. In this way when there are vast parameters, which define activities, there are similar number of spatial forms, which result from them.

1.2.2 Attributes of ambience

Attributes of ambience are a complex sense, which is made up by psychological forces. Imagiability, legibility and permeability describe it.

1.2.2.1 Imagiability

Every culture and social structure which have been developing and evolving creates a system of orientation specific to each of them. Which creates and facilitates a good environmental image. This system of orientation enabled man to identify his environment to know he is in a certain place. Where the imagiability is weakened the built fabric gets complicated and it becomes difficult to understand. The variety of built forms become lesser and the environmental habitability becomes very low. The imagiability of a town helps man to gain emotional attachment to the environment and it helps to generate belongingness between the man and space, which ultimately leads to a habitable environment.

The vividness or the variety that the physical elements and their organization make to the user increases the degree of imagiability of a particular space. Imagiability is directly determined by feeling or experiencing permeability, variety, legibility, robustness, richness, personalization and visual appropriateness. (Bentley, 1985:2)

These aspects however, are not independently acting as components of imagiability but act as whole and interdependent qualities of a particular space. Thus, it becomes clear that the proper combination of the above parameters would help to formulate a space with a “good imagiability” which inevitably leads to a habitable space.

1.2.2.2 Legibility

Legibility is the quality, which makes a place graspable. This is important at two levels, which considered as physical form and activity patterns. Spaces may be read at either levels separately. It is possible to develop a clear sense and a awareness of the physical form of a space, perhaps enjoying it only at an aesthetic level. Similarly, patterns of use may be grasped without much concern of form. But in the case of using a place's use or potential to the fullest level, awareness of physical form and patterns of use must complement one another. (Bentley, 1985: 42)

The identification of different spaces and places this particularly important to the outsider who is unfamiliar with the environment and who needs to capture the sense of orientation quickly.



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As the figure shows when the legibility becomes high, the understanding of the built environment becomes ease.



Fig. 7

Source- Bentley, 1985: 42

To understand the implementation of legibility the comparison of the traditional city with its modern counterpart could be taken into consideration.

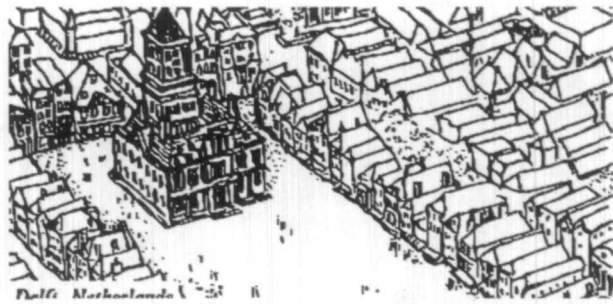


Fig. 8 - The biggest open spaces were related to the important public facilities.
Source - Bentley, 1985: 42

Before the 20th century, cities worked well in terms of legibility. The hierarchy between buildings was extremely contrasting to their relevance and use.



Fig. 9 - The buildings, which stood out from the rest were those of greatest public relevance
Source - Bentley, 1985: 42

Places that *looked* important *were* important, and places of public relevance could easily be identified. The cities became easier to understand with this higher level of legibility.

In contrast the modern city reflects a different sense of emotion towards the legibility.

“The modern city is legible only in the sense that *buildings cannot lie*. Large office blocks, owned by pension funds and insurance companies, occupy key city centre position; expressing the power of a big financial institution. But these bureaucratic enclaves – irrelevant to how most people use the city – visually overwhelm publicly – relevant places and facilities, confusing important activity patterns. This confusion is made worse because important public buildings and publicly – irrelevant private ones often look alike”. (Bentley, 1985: 42)

When the buildings and the built fabric becomes monotonous without reflecting its relevance and usage the people face difficulties in identifying buildings.



Fig. 10

Source – Bentley, 1985: 42

“The point of a legible layout is the people are able to form clear, accurate images of it. Note that it is the *user*, rather than the designer, who forms the image; the designer merely arranges the physical layout it self”. (Bentley, 1985: 43)

The figure shows a map drawn by a person from memory, his hometown. it shows the connection between the legibility and what people think are important. And it helps to identify the user response.



Certain sorts of physical features play a key role in the study of psychological images. Kevin Lynch who pioneered studies of this topic in the 1950 s were suggested a group of features, which would act as the key elements, which would highlight the image of the city. They are nodes, edges, paths, districts and landmarks.

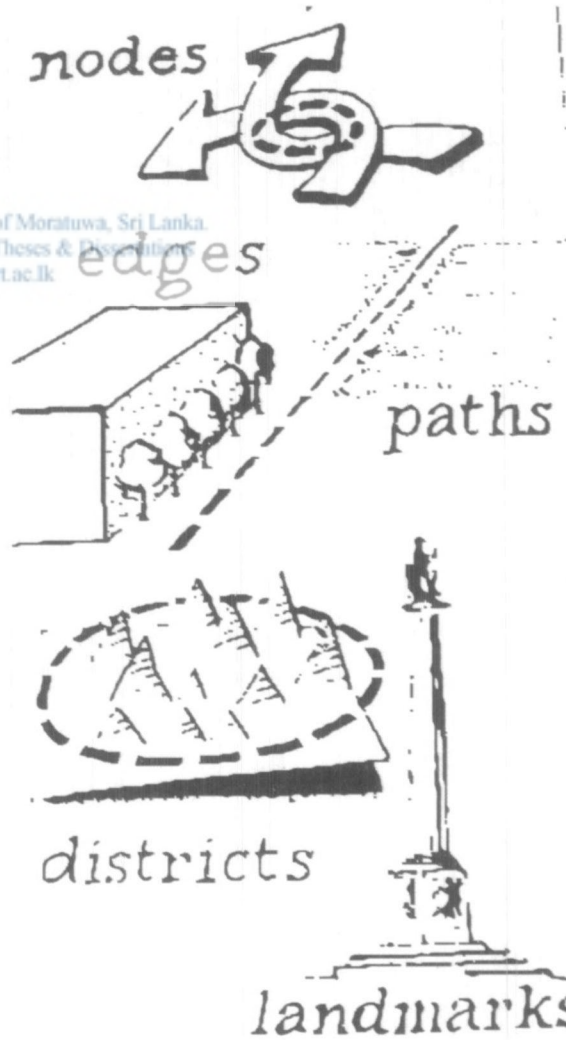


Fig. 11,12
Source – Bentley, 1985: 43

In a legible environment establishing orientation becomes ease. The figure shows the legibility, which has been achieved by using the street edges as landmarks and buildings.

The existing built fabrics with minor adjustments to its paths could be converted in to good legible environment.

When legibility is high the concentration of the human activities becomes higher creating habitable environments.

In the similar way nodes could be made to promote legibility. Nodes are the basic elements, which are developed and evolved by the time into town centres. Therefore the legibility of the town centre is one of the basic

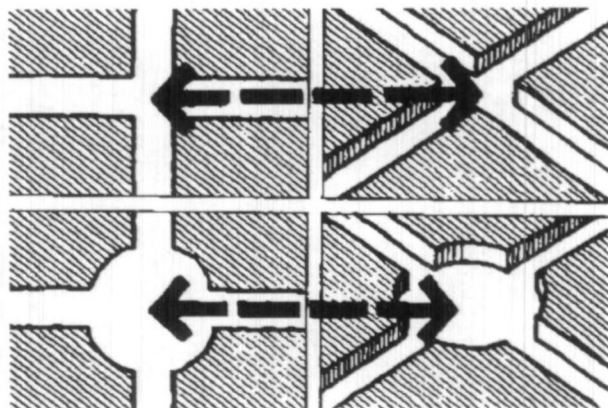
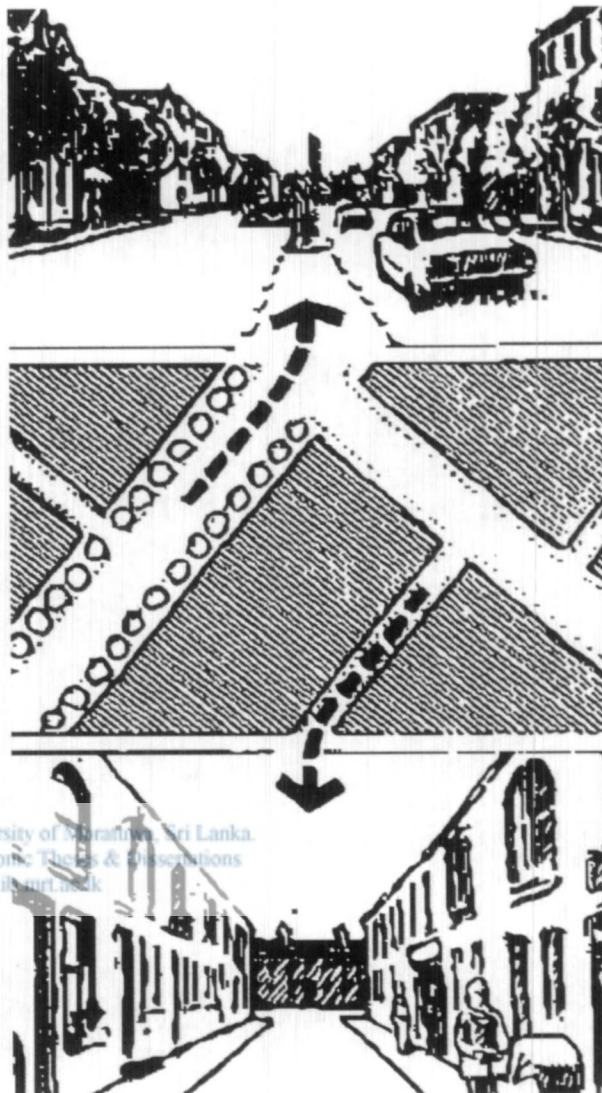


Fig. 13,14
Source – Bentley, 1985: 46

requirements, which will help to increase the legibility of the town.

The figure shows the arrangement of a radial town with a landmark in the centre, which has promoted the legibility.



Fig. 15 – Radial arrangement of a town
Source – Kostof, 1978

Arc de triomphe, in Paris. Which has provided orientation and permeability and legibility to a vast built area.



Fig. 16 - Haussman Avenues with the Arc de Triomphe, Paris
Source – Kostof, 1978

1.2.2.3 Permeability

Permeability is a quality found in an organization of physical objects in a city or a settlement. When they are arranged to provide proper connection among spaces it results in permeability of a city or a settlement.

The city is a collection of spaces, which is highly enclosed by elements or structures. Therefore it possesses an inherent quality of tightness and

density. In many instances this results in spaces, which are not, related to connect with each other. These spatial arrangements eventually results uninhabitable environments within a city or a settlement. In the same way they affect the imagiability of a human mind.

In the sense of permeability, which means the connection of spaces, have its boundaries and limitations, because in a city there are private and public spaces.

“If every where were accessible to every body, physically or visually, they would be no privacy. But one of our basic sources of choice stems from our ability to live both public and private roles. For this capacity to flourish, both public spaces and private once are necessary”. (Bentley, 1985:12)



Fig. 17

Source – Bentley, 1985: 12

People experience their environment as they enjoy their limitations of public life and privacy. Private and public spaces cannot work independently. They complement each other and people need access across the interface between them. This interaction between public and private spaces gives people another source of richness and choice.

The permeability of a town with public spaces depends on the number of alternative routes it offers from one point to another. These alternative routes should be visible and clearly distinguish from other routes. If not only the people who are familiar with it will have the advantage of using them. It is crucial that visual permeability is a key factor in the sustainable town.

The lack of visual permeability reduces the responsiveness of people.

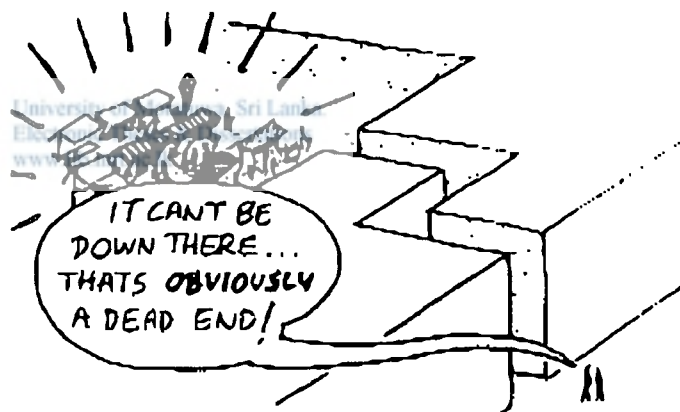


Fig. 18

Source – Bentley, 1985: 12

Further, in a more general way, both visual and physical permeability depend on how the network of spaces are arranged in a city. The spatial arrangements are governed by socio-economic, cultural and political reasons of a particular town. As a result of this each town contains specific spatial structure with respect to its public, private, semipublic and other needs. This means that a town should maintain its functional hierarchy of spaces.

Permeability has fundamental layout implications as shown in the figure. The first figure offers a greater choice of route than the second one. It has more physical and visual linkages. Therefore it can be identified as more permeable, as it has achieved greater responsiveness. (Bentley, 1985: 12)

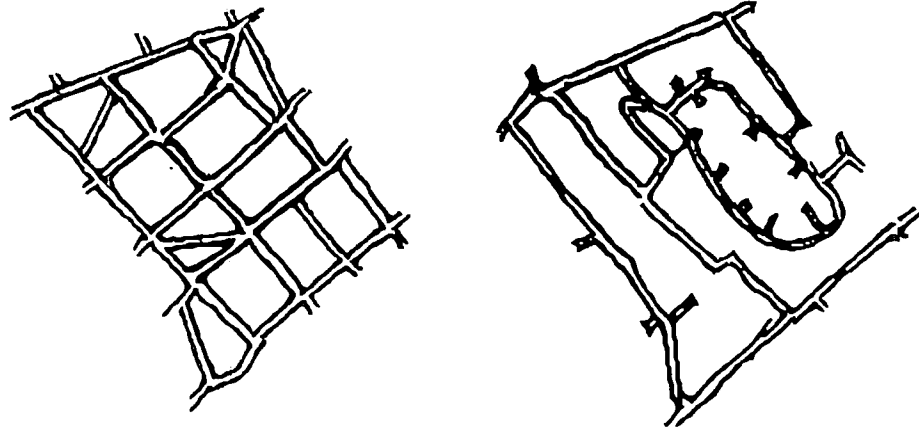


Fig. 19

Source – Bentley, 1985: 12



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Fig. 20

When a town contains smaller blocks it gives more choice of accessibility. It results in more spatial linkages and strengthens the permeability. As an example townscapes which develop as a unit will have less permeability than the same with smaller blocks.

As discussed above permeability is a key factor, which will enhance the function of a town, which keeps it more habitable for human and activities. Permeability increases the responsiveness of people towards a particular built environment or a town.

1.3 Architectural Ambience as Character in Towns

Character as the architectural ambience of a town, which stands for its authenticity and comprehensiveness of idea. Architectural ambience is generated through physical and psychological dimensions. When these dimensions are distinctive and clear a noticeable character is cast upon the town, from which the character and identity are generated.

Once the relationship and interaction between the spatial forms and socio-cultural relationships are weakened the character becomes less identifiable and its uniqueness begins to drop down. When a town becomes characterless it becomes non-existent and eventually it could not be recognized.

As explained earlier architectural ambience is a complex idea, which is made by constituents, and attributes, which are spatial form, activity, imagiability, legibility and permeability. For the ease of studying these areas are separated but in the live context of a town, they interact and complement each other giving a significant signal and an image glorifying the character of a town.

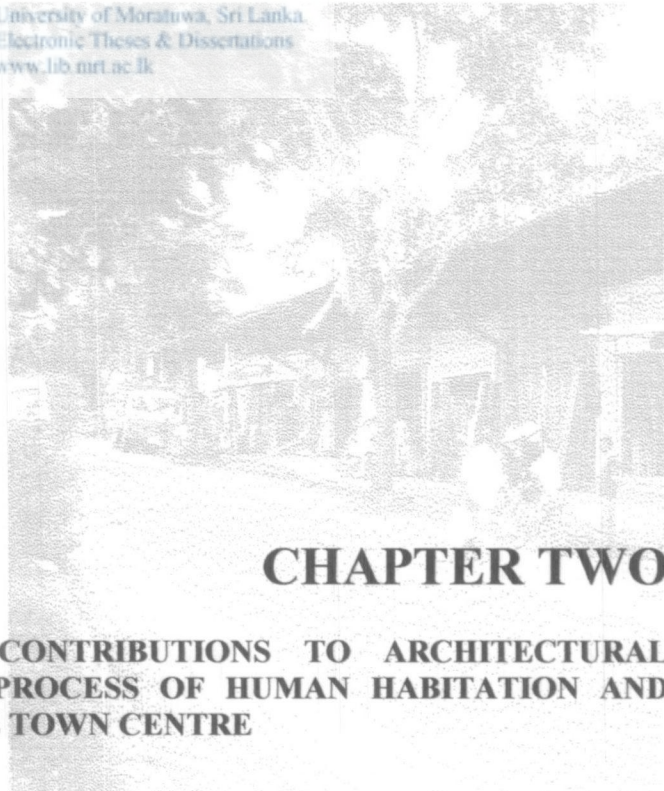
CONCLUDING REMARKS

- In analyzing the character of town, architectural ambience is the major component, which had embedded the different social aspect of a town, the different environmental and economical forces which had shaped the form of the landscape.
- Architectural ambience is a complex quality, which encompasses physical and psychological aspects of townships and even in a single architectural entity.
- Architectural ambience helps to constitute a unique and an inherent character, which could be found only at a single place. This creates character in towns making them distinctively identifiable entity.





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CHAPTER TWO

**TOWNS AND THEIR CONTRIBUTIONS TO ARCHITECTURAL
AMBIENCE THROUGH PROCESS OF HUMAN HABITATION AND
THE POTENTIAL OF THE TOWN CENTRE**

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2.0 TOWNS AND THEIR CONTRIBUTIONS TO ARCHITECTURAL AMBIENCE THROUGH PROCESS OF HUMAN HABITATION AND THE POTENTIAL OF TOWN CENTRE

2.1 Emergence of Town

The town is the major component in the evolution process of human settlement. Settlements in the early times of history emerged as small villages in the agro based society. The development of agriculture is the first time in the history of mankind that an attempt was made to influence the natural landscape.

The topography of the landscape pushed the village to its success in some instances. As the village of the valley became more productive and more mature, regional centers for their common activities evolved. During the early stages, the village was devoted to reinforcing its self-sufficient and self-contained economy and to improving its agricultural production. Later, each of the villages became specialized in agriculture and handicrafts and produced a complimentary variety of products. With the development of the surplus, the need for trade arose and led to the begging of a regional self-sufficient economy and the regional growth centre. The site of the regional growth centre was usually selected because it was geographically central, easily accessible, and comfortable.

“ The creation of the village was a result of humankind’s growing maturity” (Golany., 1995: 53).

The village was the basic social, cultural, and economical unity in the human civilization. The village multiply it self in creating more social bonds with each other and with the environment.

The primary idea of the growth centre was to exchange goods in a centrally based location. The site provides an adequate space for marketing, for ceremonial events, for assembling, for worshipping, and for other communal acts in day-to-day lives. The growth centre which has started in the size of a village started to go out of fixed bounds. And it grew beyond the size of a village, and in these centres the main function of the inhabitants was not agriculture.

The emergence of the town made its way through the village to a more different social level with a different set of spaces, which influenced by a transportation link with the next growth centre.



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2.2 Essence of Town

Essence is the particular nature of quality of an entity or any substance, which represents its uniqueness and its identity. In this sense it could be link to the character of a person or a place or a thing or in simple terms the character of an entity. The essence could be the extract of an entity which has all the characters which made ups the entity.

In this sense the town would be an entity with uniqueness and character, which is inherent and embedded in it. And the essence of the town will be the distinctive characters which is intrinsic to the town it self. These



qualities in the town are bound to its character by the environment, society and culture and the usage of the town.

In more simple terms to clarify the argument the town represents or reflects its people's social interaction and its interaction with the environment. And in this sense there would not be two similar towns existing in the world, because of the diversity of topography, environment and the social value systems.

2.3 Components of the Town

The idea of components of town is emerged with essence of town, which was deep-rooted values, and aspirations of the society and its environment. Studies have been carried out on towns in order to understand what towns are made of in achieving uniqueness.

Leon Krier has analyzed the city in term of building types and public spaces organized in the form of urban blocks thus establishing the view that a city is a composition of physical components. (Krier L, 1984, p.40-46)

Rodger Trancik explaining the figure ground theory in urban design has further supported this argument by expressing the urban form as a composition of solids and voids. But however the designer's statements and observations as identified and given much emphasis to the physical respect of the town with out acknowledging the presence and the participation of the social component, which adds life to a town, which brings it into existence.

Town in a direct and clear way can be compared to “living” components of a house. And it is clear that they are not limited to a physical entity it is made of a home essentially contains it human components. The family members and also other aspects associated with and represented by the family.

Therefore the Components of a town could be identified as;

- Physical Component (form and space)
- Socio-cultural Component (people and social activities)
- Functional Component (activities and behaviors)
- Historical Component
- Organizational Component (relationship between spatial and other components)

Although the components are identified separately they cannot exist in the built environment independent of each other. They compliment each other by their presence. However the absence of one of these components will create a significant void in the structure of the town. But the magnitude and the value of these components could not be measured in relation to each other because, they would be different from each other.

2.4 Origination of Towns

The history of originating of towns reveals that it has happened in two different processors, which are namely as naturally originated or happened towns and created or planned interventions of townships.

2.4.1 Spontaneously Developed Towns

As converse in previous facts the spontaneously developed towns were regarded as growth centres which were beyond villages and which has influenced by the social and environmental aspects of the context. In these developments, the hierarchy was automatically made by the social and cultural components and the economy of the civilization.

This sort of settlements were the initial background of the emergence of great cities, and human settlers searched for land which were fertile enough for agriculture and when they found such land they settled in with there minimum resources and then afterwards they started to dominate the landscape. The first such civilizations was appeared on fertile valleys near riverbeds and nurtured with time.

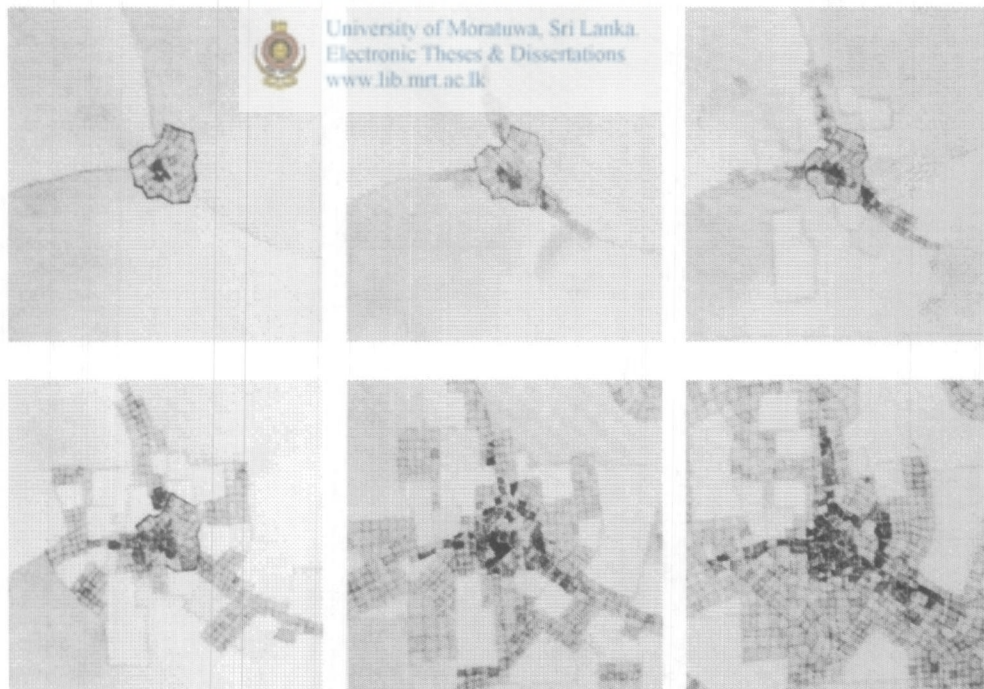


Fig. 21 - The process of spontaneous development, as the built up area expands, leaving gaps and zones of varied use that are modified in subsequent spaces.

Source - Kostof, 1992: 34

2.4.2 Planned Towns

Towns, which were created, by architects emerged with the civilized world. With the dawn of the industrial revolution new ideas emerged in designing and planning new towns. Novel ideas of the industrial revolution had made its way for new breed of technology and imaginative thinking. As a result of it mass production of materials were possible, and quick erection of buildings were achievable with the new technology available.

In the mid 18th century the face of the European cities gradually changed with the immense numbers of industries and their workers settlements. The living quality of city dweller went down day by day and the governments were seeking solutions of creating new settlements for the working class. The idea of planned towns were born in this era and it has made its way to the third millennium.

The early planned towns in the Industrial cities had the intention of housing as many dweller units inside the town. With the advent of 19th century modernist architects namely Mies Van Deroeh, Le Corbusier philosophized a new concept for town designing. They were fascinated and inspired by the invention of the automobile and its place in the urban context. With the automobile the distance that people could travel began to expand and the designers and architects at that time created the urban environment in proportion to those distances. As a result of it new towns such as Milton Keynes and cities such as Chandigarh and Brasilia emerged on the landscape.

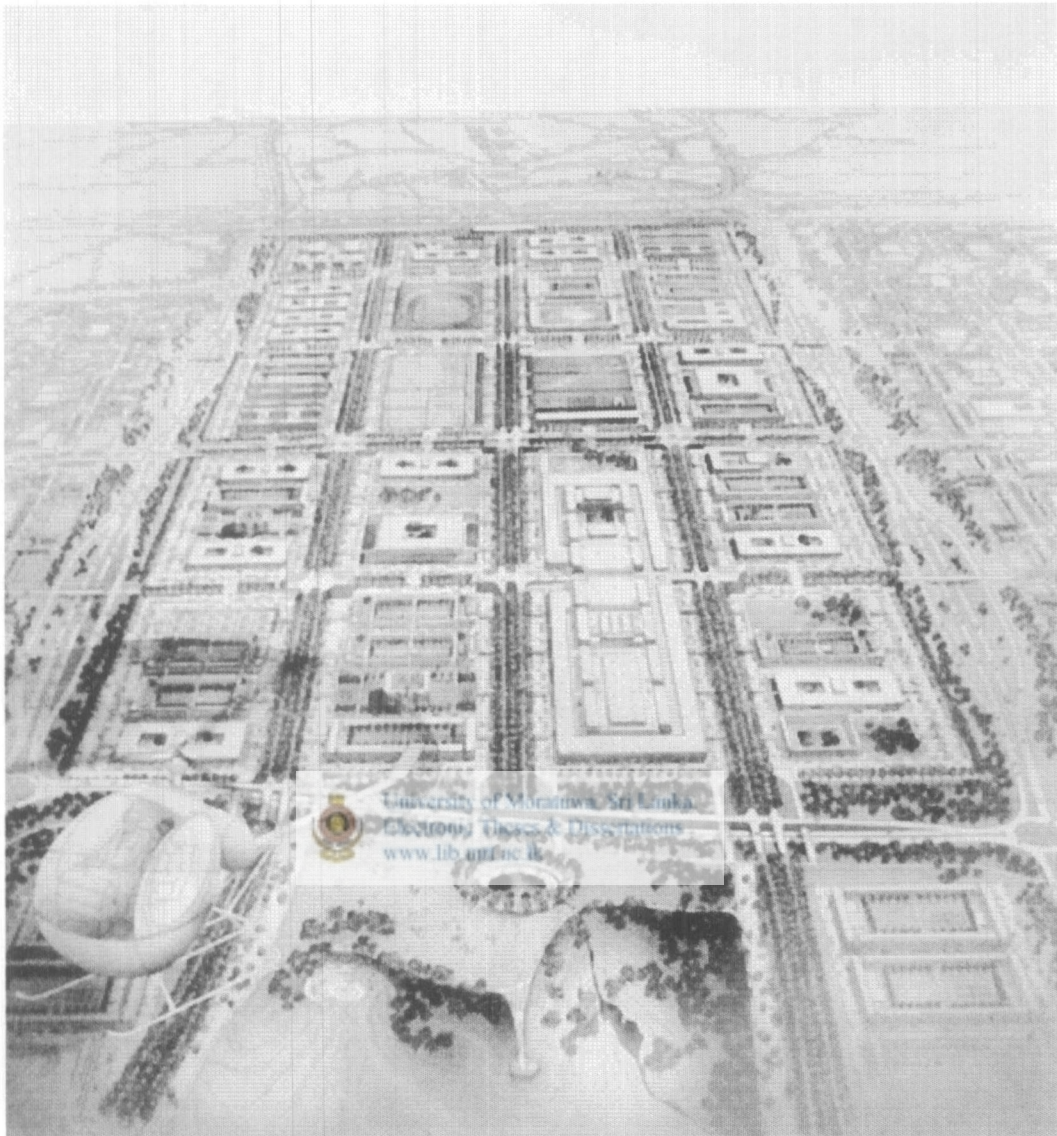


Fig. 22 - Milton Keynes, England.

Source – Kostof, 1978: 156

A modernist town, which was designed and built for the industries and its people. Which were the last of the English new towns founded in 1967.

2.5 Utilization of Townships and its Human Habitation

The townships are constantly bound with cultural and social ties that live and work in there. A meaning is added to a township by the constant use and the rigorous pounding of human activities. Townships act as organisms, which connect and relate human activities and physical forms.

Through the reaction of these components the identity is embedded within the particular township, which has particular people and activities. People use the townships and they relate themselves to the town. With this process the town develops with the social, cultural and the economical aspirations of its people. To be more simple it develops and modifies itself with human habitation.

The human habitation is far more different than similar from each other. This could be identified looking at the world context. With the changing cultural, social and environmental limitations different societies act and work in different ways to create different identities to each other. This human habitation has implemented a particular identity to its township.

For example a town in the western world if compared with a town in the eastern world with a majority of different religion, and cultural aspirations would have identifiable characteristics, which could be used to distinguish each other.

The township reaches its utmost utilization when it is incorporated with the human habitation. The habitability could be understood in more simple terms as basic parameters of human habitation.

Those identified factors are;

- i. Locational factor
- ii. Socio-Cultural Factor
- iii. Time Factor.

2.5.1 Utilization of Townships

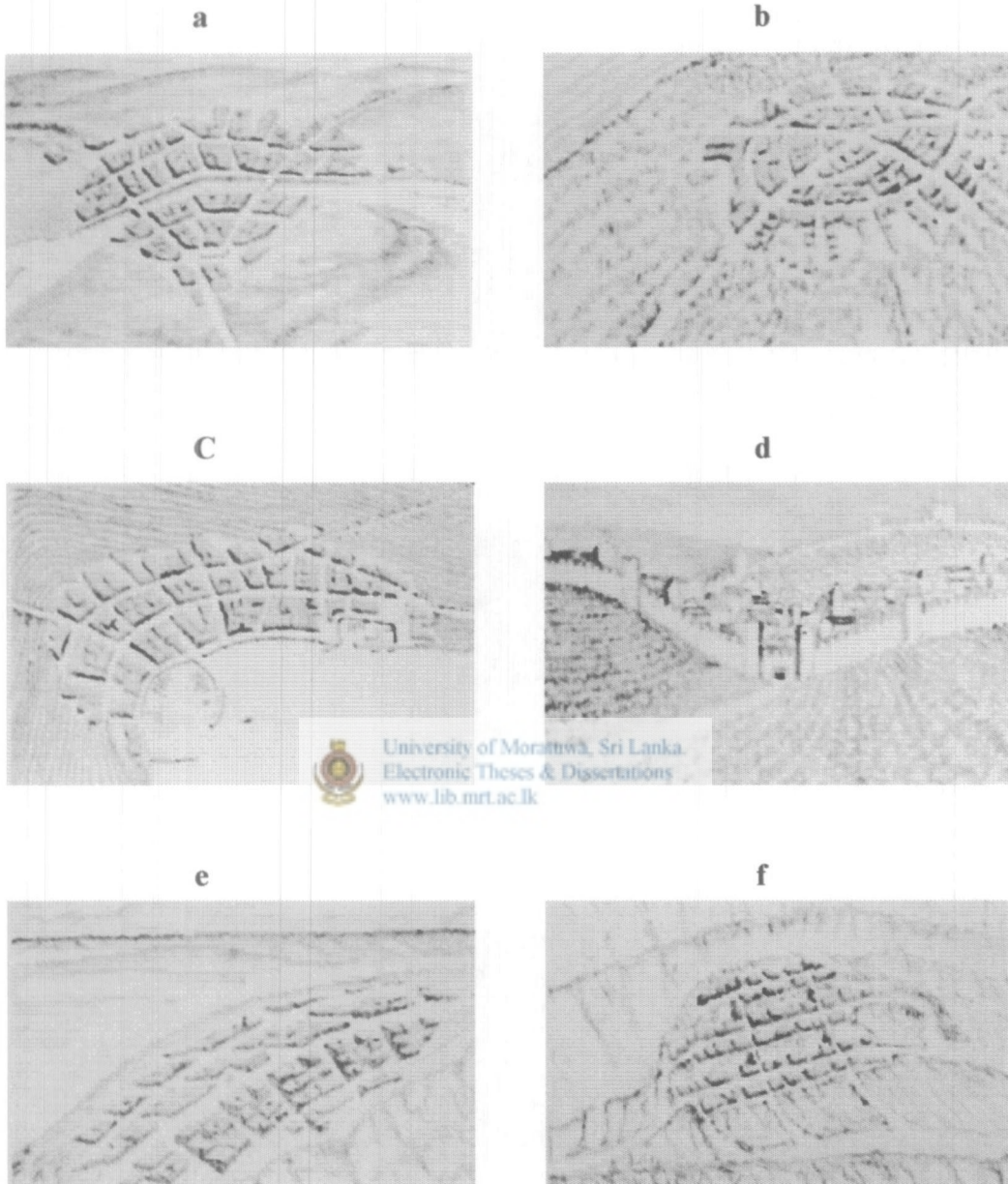
The utilization of townships mainly depends on its ability to satisfy the deeper psychological needs of the human being.

2.5.1.1 Locational Factor

Each and every individual utilize the township as a space. Man interacts with the space and perceives and experiences many things and reacts accordingly. These reactions may differ from place to place due to its location. The utilization of townships differs from not only location, but also with the topography and environmental conditions.

As the location changes with the topography and the environment, the response made in the settlement pattern changes. The topographical changes and the answers of the settlements are explained by Spiro Kostof in his book '*The City Shaped*'.

Fig. 23 - Topography as a determinant factor of settlements.



a. Riverine Settlement

b. Hilltop Town

c. Natural Harbor

d. Defensive site

e. Linear Ridge

f. Sloped Terrain

Source – Kostof, 1978: 54

Environmental differences in shaping townships and settlements.

Fig. 24 – An Islamic Settlement
in a arid climate
Source – Steele, 1992: 68



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Fig. 25 – A hillside valley town
Oberstdorf, Germany



2.5.1.2 Socio-cultural Factor

Society and culture is the most important aspects, which influence the human behavior and thus shape the environment. The habitable condition of a specific environment also differs according to the specific society or a certain cultural framework. The same physical environment creates different livable conditions to different cultural groups creating different settlements and townships.

Socio-cultural values change from region to region, country to country and society to society. Each society contains their own value system, which moderate their living and working spaces accordingly. Their city layout pattern, building forms, and even the detailing vary according to their inherent value system and believe which finally affects the form of the settlement and the township.

“One could look at the cities of some different culture, to see how variations in value affect city form. The medieval Islamic city for example with its emphasis on privacy is markedly different from the cities we are accustomed to. Its dense dendritic pattern seems at first very mysterious to us, until underlined values are understood”. (Lynch, 1981)

Settlements through out the world, firstly originated as a defense strategy or a religious ceremonial centre. Here, people willingly to their faith for their mysterious higher power which was considered sacred. In the same way they maintained a hierarchy of the built environment giving prominence to the religious organization. The spaces of these settlements were well governed by these socio-cultural and religious believes.

2.5.1.3 Time Factor

The built environment evolves and changes with time within the same cultural group and within the same physical parameters. Moreover, it contains different livable conditions at different times. The event that takes place within an environment has a significant relationship with its changing socio-cultural and economical contexts.

Changing needs and demands of people from time to time affecting the living conditions and thus it reflects on the built environment. On the other hand in this evolving process of a society and space regulate a value system influencing the living conditions and the form of a settlement.

2.5.2 Failure of Chandigarh and Brasilia

Chandigarh and Brasilia were design and built adapting the new ideas of the modernist era. These great cities were designed in a period where the automobile had a great effect on the built environment. Both of these cities were designed and built on bare lands which was spread on a vast area. This was regarded as a painting on a clean canvas.

Le Corbusier's design principles took shape on the vast bare landscapes of India. In his idealistic designs Le Corbusier responded only to a single factor, which was the orientation of the building, which was located according to the sun path.

The concept was to build high-rise buildings with the high density and leaving vast open spaces as gardens and paths, which connects them. The highway was a major part in all the designs, which made it the element of the landscape.

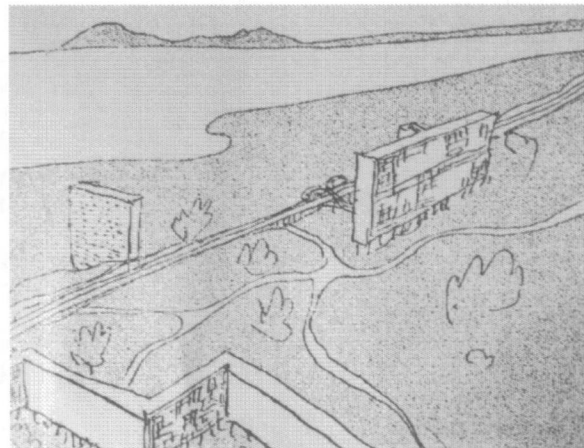


Fig. 26 – Modern city of Le Corbusier
Source – Bacon, 1967: 231



Le Corbusier concentrated on using new materials, and was functionally separated and the automobile was expected to connect the city. The weakness of this idea was that it had neglected the idea of growth of the town.

The designing of Chandigarh was influenced by this concept. The architectural composition of the city is considered a masterpiece of all time with a magnificent balance of solids and voids.



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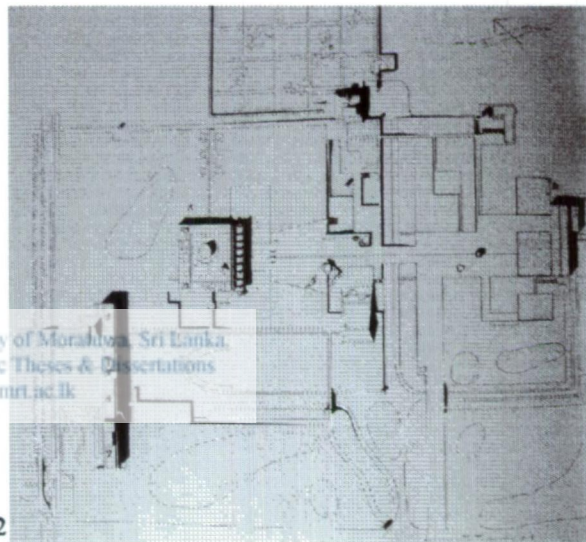


Fig. 27 – Plan of Chandigarh

Source – Bacon, 1967:232

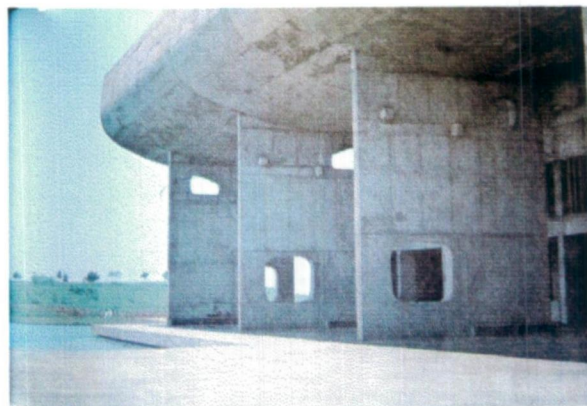


Fig. 28 – Ministry building
Chandigarh

Source – Bacon, 1967: 233

Though the design was magnificent in the architectural sense for the people of India or for it users the town was too much to grasp. They were not used to these unusual scale and the buildings in reality was set so apart to achieve architectural excellence, which eventually failed the project.

The same phenomenon took place in Brasilia. Where the architects had no concern to the social and the habitable factors which would make a city more prosperous and which would complement the architectural intent in the city.

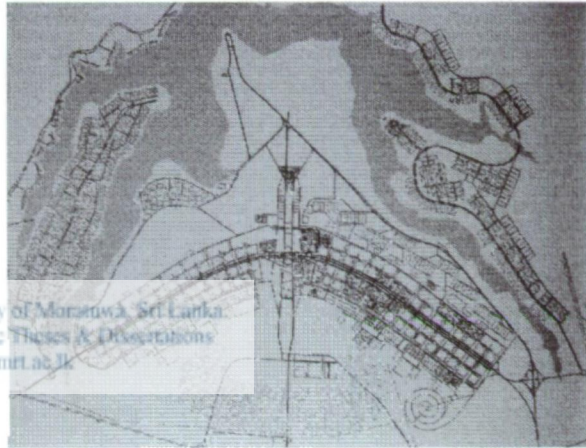


Fig. 29 – Plan of Brasilia
Source – Bacon, 1967: 234



Fig. 30 – Landscape of Brasilia
Source – Bacon, 1967: 234

2.6 Town Centre and its Contribution to Architectural Ambience

The town centre is the most significant and the focal point, which the entire town is bounded together as a single entity. Towns were developed and great cities emerged organizing themselves around the town centre. The town centre is the heart of the city, which reflects all the modes, and the aspirations of its culture and people. The town centre is the most accessible part of the whole urban system making its existence vital in the built fabric.

The town centre is the most intense space which all the activities are centralized and where the forms have been carved by the vast number of factors, which shapes the environment. The town centre is the ideal location which could be used to depict the unique character of the particular town and they're by its architectural ambience.



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2.6.1 Town Centre – Definition and its Importance

Town centre is the hub of social life of a town and it acts as the centralized position for the entire town and it is the climax node of the town experience where the meaning of town is embedded.

Town centre is the key element, which makes the environment socially habitable. The town centre provides orientation to its dwellers and for the outsiders. The town centre has the potential to generate and interact the society and the town centre is the heart of town's social structure.

The town centre is a collection of multi faced elements and activities which ensures a human presence throughout the day. With these intense human activities the town centre has the potential of forming it self according to the human habitation.

Towns and cities in the world have been developed through long span of time to serve the increasing needs of the human being. To fulfill and to satisfy these human aspirations they have performed different functions.

The town centre being the main public space in the town is the space where these functions and activities took place. Generally small towns consist with one centre, while larger ones have more than one. With the socially assigned function of the town or a particular area of a town, those centres within that area reflect the particular characteristics of that of the function.



Depending on the function that the town centre performs the following types could be identified.

- Commercial centre
- Cultural centre
- Administrative centre

In identifying townships from each other the character of the town centre place a vital role. As it is described in the above particular centres depict their town's function and their particular way of human habitation. Therefore the existence of a town centre of an inherent quality of its town is essential in distinguishing towns.

2.6.2 Town Centre as a Generator of Imagiability and Architectural Ambience

Imagiability is the major factor, which makes the town habitable. It is rather spontaneous and very subjective, and yet an image once established in the minds of people it becomes harder to remove that image. It helps people to experience the town and it provides habitable conditions to the town dweller.

Towns and cities evoke different images when they are experienced by people. Town centre due to its distinctive spatial arrangement, social potential is the best case, which is used to evoke an image of the city. When imagiability becomes high, the perception of urban structure becomes ease and automatically it becomes more accessible and a simple place to understand.



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Man's understanding of world is based on how he lived in world. He identifies his world in the form of images, which in turn builds up his world, which is true to him. People uses these images as references to understand and respond to events, persons, character and objects that exists in the town he lived in. These images guide a person within his own world and there by determine his belongingness with the environment he lives. The town centre being a distinctive spatial entity in the town's structure, helps to build up these meaningful images, which will give a comprehensive idea about the town.

2.7 Settlements in Sri Lanka

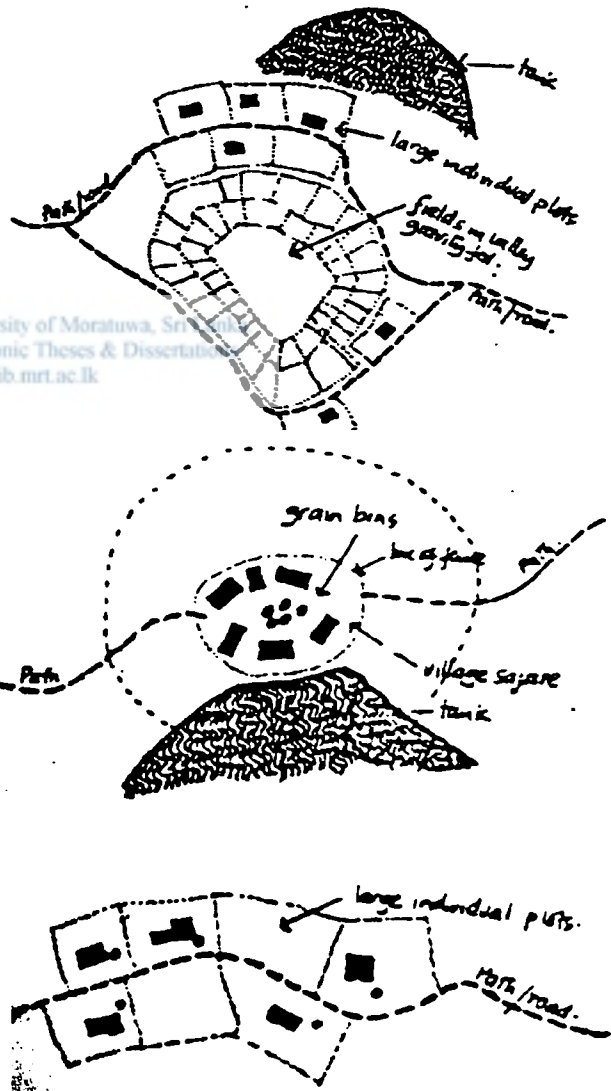
2.7.1 Agro Based Rural Settlements

The earliest settlements of Sri Lanka originated with the agro based society and the Buddhist influence. Most of these settlements were widely spread over the dry zone where the basic method was to cultivate using collected water.

In a way these sustainable village units were created upon a man made environment and the landscape was dominated by the tank which was it self is an artificial creation of man.

The traditional "Purana Gama" or the Tank Based village had a specific environment created with the landscape. The paddy fields were located below the water retaining area and earth bund.

Fig. 31,32,33 – Agro-based settlement patterns in Sri Lanka



The village clusters were located on a higher ground over looking the paddy fields in a hierarchy. The houses shared a common forecourt, which was called the “Mada Midula” which was a small-scale arena where the public activities took place in the community. The village leader had a comparatively large house than the others. And their wealth was displayed using the “wee-bissa”.

Considering these facts the tank fed village itself would be the primarily settlement where planning was taken in to consideration. These settlements thrived throughout our history to the very present day. From region to region they have adapted to their environments in a very special way, and it might be the reason for their survival to this very day.

Although the tank fed villages has a very simple generic form variations of its basic module could be seen in various parts of the island, and they have adapted to various topographies or land formations, which could be found in the country.

2.7.2 Village Centre

The village centre is the primary evolutionary stage of a town centre.

“Where a large town was seen to be at the centre of a fertile region to supply the needs of an agricultural plain, with the agricultural activities distributed in concentric circles around this centre”. (Baskin, 1966:17)

The village centre is a place of importance with its functional, ceremonial and cultural errands performed on it. The concept of village centre is the

basic stepping-stone of the emergence of agro based town settlements in the country. Because the fertile land interconnected through a network of connections to the next village centre and to the main town centre which served them.

These villages were gradually changing with time with the aspirations of its people. Some village centres, which were socially and physically legible, became richer in resources and gradually developed into small town ships embedding their pure agricultural character.

These types of towns could be found on the northern plains of Sri Lanka where once agriculture flourished.



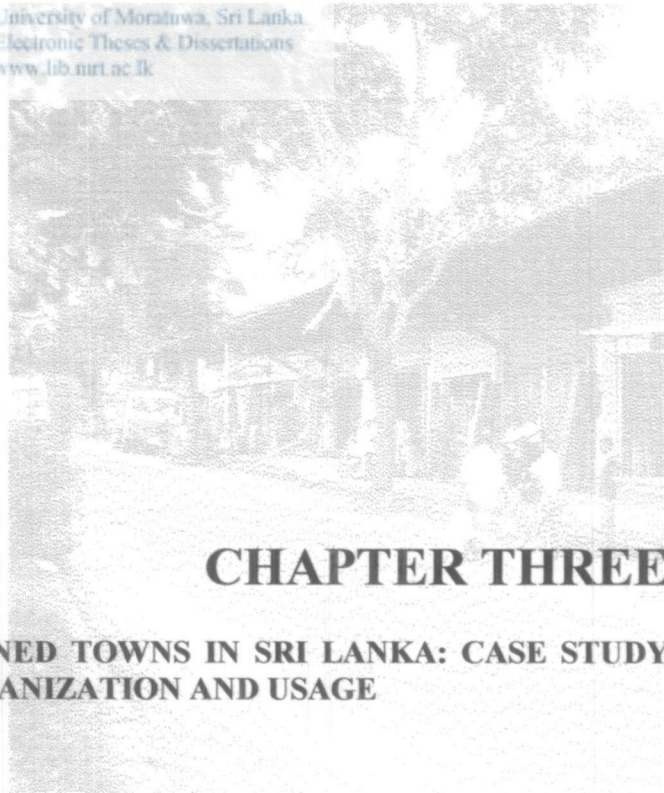
CONCLUDING REMARKS

- Towns emerged due to human habitation had created different towns in different regions of the world embedding their inherent qualities within their built forms.
- Through the spontaneous process of development, towns evolved through centuries and millennia's adapting to the people's needs and aspirations.
- Planned towns, which were designed and created '*instantly*', changed the views and attitudes which people had towards towns.
- The planned town's inhabitants had to fit into a town, which was not compatible with their social aspirations.
- The town centre which was the key element of the spontaneous development process act as the main component of a town, creating inherent character and identity.





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CHAPTER THREE

**CONTEMPORARY PLANNED TOWNS IN SRI LANKA: CASE STUDY
BASED ON SPATIAL ORGANIZATION AND USAGE**

CHAPTER THREE

3.0 CONTEMPORARY PLANNED TOWNS IN SRI LANKA - CASESTUDY BASED ON SPATIAL ORGANIZATION AND USAGE

3.1 Contemporary Towns in Sri Lanka – Mahaweli Towns

The accelerated Mahaweli programme was the largest multi purpose project in Sri Lanka. The main purpose of this project was to generate electricity through hydro power stations. Where it was generated with the water of reservoirs, which were built along the Mahaweli River. One of the main objects of the Mahaweli programme was to cultivate the dry zone from Mahiyangana to Pollonnaruwa areas, which was the down stream of Mahaweli. Until the Mahaweli project is implemented the eastern plains of Sri Lanka was covered with thick jungle and several small settlements dotted the landscape.

Under the Mahaweli scheme two types of planned towns emerged. The first type of towns were located in the eastern plains so that the diverted Mahaweli water would cultivate the paddy, which supported other related functions. Such examples are Giradurukotte and Deattakandiya. The other type was the resettlement town of the original towns, which was flooded by the Mahaweli reservoirs. Theldeniya is such an example for becoming inhabitable. The study concentrates on the design principles of Mahaweli towns and how they have been implemented in the realistic realm and further their success and failures in becoming habitable settlements for people.

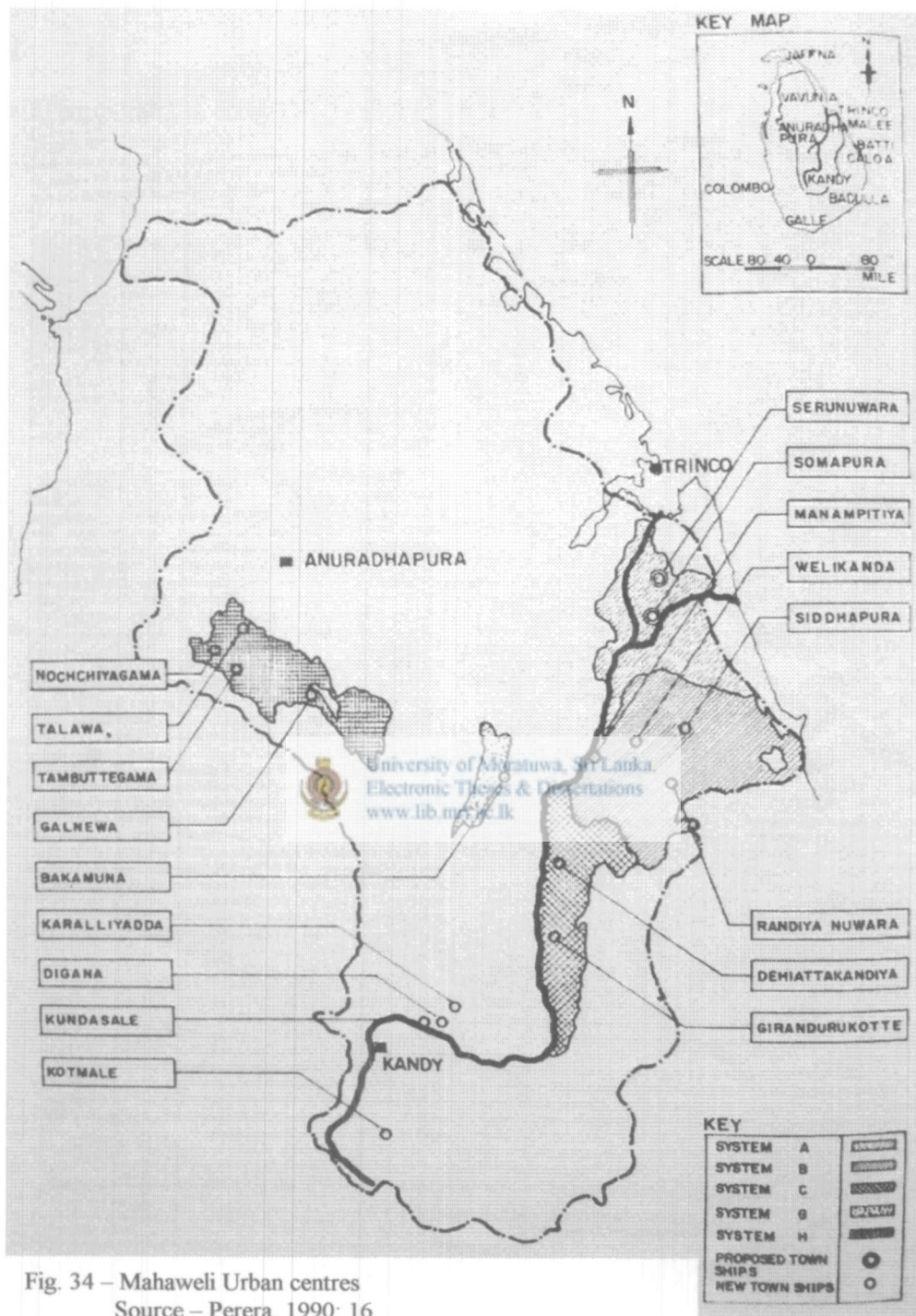


Fig. 34 – Mahaweli Urban centres
Source – Perera, 1990: 16



3.1.1 Concept of Mahaweli Towns

The Danish architect Plesner who was the chief architect set out the concept based upon set of principles to make what he has called “good town”.

A good town is a town where the town centre is closely built and concentrated and so that the distance to shops, banks, schools, post offices, hospitals will be short and pleasant as possible under the shade of trees or arcades and safely away from the traffic, and no main roads should pass through the town and the vehicles with business only should be allowed to enter. Further Temporary structures and shanties should not be allowed to form at any time during the development of the town.

Therefore to achieve this for Mahaweli Towns, eight principles, which must be, satisfy by a good town, were outlined. (Fernando, 1988: 2)

They are;

- ***Principle One***

The town must not be on a main road but close to a main road and visible from it thereby allowing vehicles to by pass and enter if they so wish.

Fig. 34 a Entrance to the Digana town from Theldeniya-Kandy



The first principle has been implemented straightforwardly in all most all the instances of Mahaweli towns. The basic idea was to allow to people who do not wish to visit the town, to bypass the town and reduce the traffic inflow, which runs through town. There are positive and negative impacts, which has resulted by this principle.

In one hand the town has been separated from the main flow of traffic isolating it in the landscape. The town would have been more successful if it would achieve good legibility and they're by good permeability.

The achievements, which would have resulted by exposing the town to the main traffic was, not

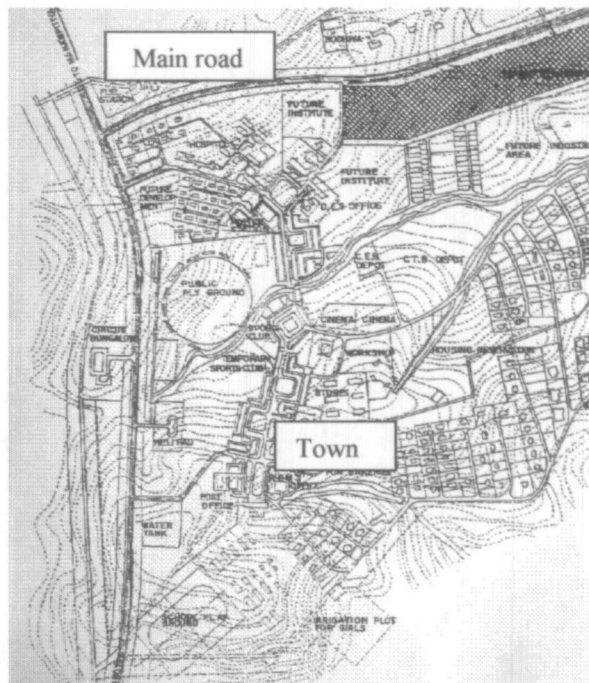


Fig. 35 - Location Plan of Dehiattakandiya (Not to Scale)

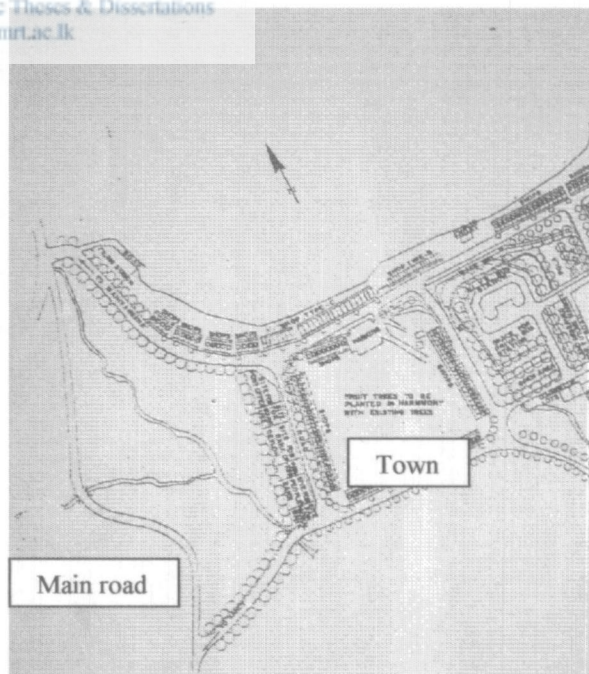


Fig. 36 - Location plan of Digana (Not to scale)

realize in the design principles. The town is not visible from the main road or the highway because a forest area screens the town from the highway. This results in less permeability and lesser legibility.

This basic design principle would be a success in the developed world, because they are trying to convert their urban areas to more serene and calm sub-urban areas, which are away from noisy and congested highways. But in our local context where the road brings the success and development to the village this basic principle tends to fail. All the activities are related to the street and the street becomes a social place with interaction between people who constantly passes by the town or the village.

- ***Principle Two***

The town must center on a “main street” where shops, hotels, banks, post offices are all concentrated, near to hospitals, secondary schools, bus terminals thus bringing the life of the town together.



Fig. 37 - Main street
Dehiattakandiya
with the clock tower
at the back drop

The concept of the main street has been emphasized in all the Mahaweli towns. This concept in the usual practice adds character and variety to a

particular town. But in Mahaweli towns the emphasis to the main street is defined by the road width as the variable parameter. The built pattern and the architectural rhythm in all most all the buildings are similar in scale and proportion. This sole factor makes it difficult to distinguish the main street from the other minor streets of the whole township.

In a town where spontaneous development has taken place the main street sets the street hierarchy giving order and discipline to the other by-streets. The main street remains on the top of the hierarchy with an inherent character and other streets develop the proportion of the built fabric in accordance with the main street.



Fig. 38 - Layout plan of Karaliyadda (not to scale)

The similarity of built forms in the main street and other streets is seen clearly in Karaliyadda where a similar pattern is copied.

In this example commercial buildings of the main street are similar in scale and proportion to those of the cross street.

Therefore establishing a hierarchy of streets becomes ever more difficult and the activities become diluted inside the street structure without giving emphasis to the main street.

When the role of the main street is not emphasized clearly, the growth and the expansion which it creates with the evolution of time and human activities becomes lethargic.



Fig. 39 - Built forms in the Main street in Karaliyadda

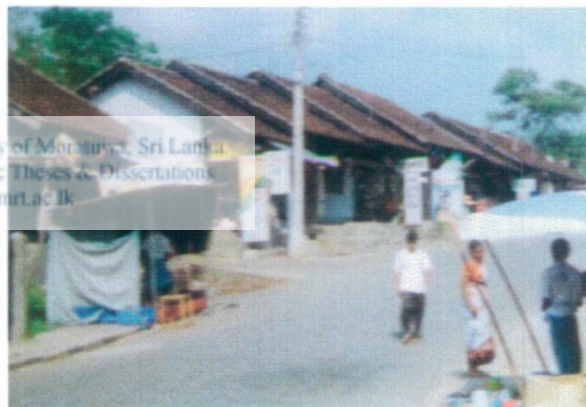


Fig. 40 - Built forms in the Cross street in Karaliyadda



- **Principle Three**

Shade must be provided all through the town by planting, arcades, eaves and other architectural devisers for pedestrian comfort.

The shaded pedestrian path is a common design feature, which has been used to create a pleasant atmosphere within the town, which has been commonly used in the main street. The negative impact of the added tree line is that it further widens the main street creating an inhumane scale in the street.



Fig. 41 - Shaded pedestrian pathways at Dehiattakandiya

When the opposite sides of the streets does not interrelate each other, the street atmosphere is badly affected. Therefore the creation of an identity becomes far more difficult.

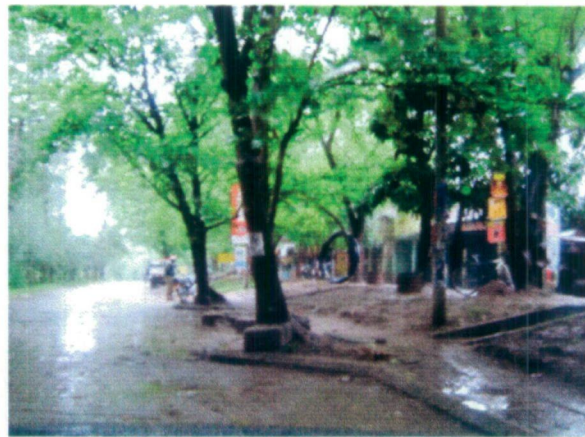


Fig. 42 - Shaded pedestrian pathway at Girandurukotte

In the end all the different spaces of the town becomes similar to each other. And the different towns become similar to each other.

- ***Principle Four***

The shops are the heart of the town and they form the true centre.

The true centre must be architecturally designed and built.

Thereafter sold or least to shop keepers and thus to avoid the usual situations where shop keepers built essentially to their own need and criteria, leading often to temporary solutions, becoming over the years, permanent chaos.

The town centre is the most vital component of a town, which creates the special character, which is facilitated by the diverse human activities. The town centre is a collection of different elements, which acts as a single entity, which enhances legibility and permeability. But the principle clearly states that no future expansions are possible. And it is true to its words because all the expansion avenues of the town centre are blocked by either buildings or wide roads.



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This strategy has given all the Mahaweli towns a single character without being able to specify an inherent character to each and every one of them. Then the human activities are restricted specially in a situation where built forms are provided at the very inception of growth. The limitation of human activities in the sense of creating new built forms has resulted a major disturbance to the formation of the character.

When the essences of human activities are not blended with its built forms the particular towns unique inherent quality do not come into being. The provision for development with human habitation should be vitally signified specially in the cases of planned towns. Because the planned towns begin it self with all the amenities and facilities there to be provided in a town.

As an example Digana where the intended designed town centre remains constant while another real town centre with the aid of human habitation has been created between the Digana planned town and the Mahiyangana road.



Fig. 43 - The haphazard growth of the built fabric along the Mahiyangana road Digana which has created another town centre

- ***Principle Five***

Vehicles and bullock carts, tractors, etc; must have access everywhere and also parking spaces. Convenient parking should be available but must not dominate or poison the town. The design must take into account vehicular speed.

In accordance with this principle all the Mahaweli towns has ample parking spaces which are cleared of trees and prepared by laying tar. These massive car parks creates inhuman atmosphere to the town dweller. The same situation is applied to the bus terminals of the Mahaweli towns. A large portion of the town's land is allocated to car parks and bus terminals creating large gaps in between the built forms. Although corridors and pathways are provided to pedestrians people tends to create their circulation paths by the evolution of time and usage. These pathways, which are created by time, increase the legibility and permeability of a town creating more humane environment.

But in Mahaweli towns spontaneous development of these pathways are obstructed by the vast car parks and the central bus station, which blocks the human circulation and natural movement.



Fig. 44 - Disserted bus stand of Digana

For instance in Digana the designed central bus station and all the parking spaces are mostly abundant. The bus halt on Mahiyangana road outside the town has developed in to a large-scale bus stand.



Fig. 45 - The almost empty bus stand and the car park Girandurukotte

In Girandurukotte the central bus station and the adjoining car park is mostly deserted. The issue of over designing is clearly depicted on this instance. It seems that people of Girandurukotte is still not ready for a town as such.

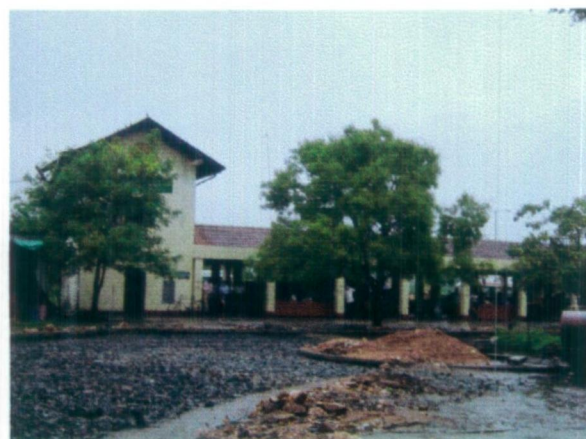


Fig.46 - Bus stand at Dehiattakandiya

- ***Principle Six***

To prevent shanty growth, all unutilized lands during the process of growth should be allocated to major institutions, who should act as trustees for same.

The practical application of this principle is somewhat difficult in the actual context of town planning and designing. Most of the institutions, which are located in the towns, are mostly at its peak. And it could be stated at looking at their physical appearance and lack of activities that they are underutilized. Once again the issue of over design comes into concern.

For an example the existing bus terminals are clearly over designed and it will take few more decades that it will be used to it's peak. In a situation such as this the allocation of land for different institutions become impracticable.



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- ***Principle Seven***

The town character and quality in the centre must retain its consistency during the process of growth of the town and must remain a “concentrated town” over time.

This principle is a vital concept, which is helpful to create the particular character, which is unique about the town. Town centre as mentioned before is a collection of elements, which houses physical entities and activities. In all the Mahaweli towns the centralized town centre has not come into being and because of this factor the strong town character which

would emerged through the architectural ambience of the town centre is not distinctively depicted.

- ***Principle Eight***

All buildings by private parties and state agencies should be in accordance with strict planning guidelines and regulations.

(Fernando, 1988: 2-3)

This principle is the most vital factor, which has controlled the development of towns, and it has its positive and negative impacts on the townships character. The haphazard development within the town is clearly restricted resulting pure order and the built environment. But in the immediate boundary of the town where spontaneous habitation takes place unplanned growth or expansion of the town is taken place. But in all the Mahaweli towns the strict order of the built fabric has created a monotonous architectural language, which is repeated in all the towns.



Fig. 47 - Commercial buildings Kundasale



Fig. 48 - Commercial buildings karaliyadda

As seen in the figures strict guidelines and regulations result in monotonous built fabric.

3.1.2 The Town and the Town Centre

The designers' strong emphasis on the town centre was to create it as solid and stable as possible. It is stated that it should be able to grow without any of the relationship of the centre been disrupted. And it was a Plesner's principle stated that the centre is solely for the purpose of shopping.

The town centre had to accommodate vehicular access enabling vehicular traffic to circulate around the town centre forming a link to the various designated services. And it also links the radial roads, which formed the town.

Residential land office use was also introduced to the town centre both from the viewpoint of utility and architectural volume (Fernando, 1998:2-3).



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3.1.3 The Town Scale and Identity

According to Plesner's principle the town should be visible and is perceived from a distance. And he also states that it is also necessary that each settlement generate its own identity. But it is questionable that if it is possible to generate an identity when modifications were restricted.

This fact is clearly outlined in the principle four, where there is no possibility of building any additions to the existing built fabric. The identity is generated through the character in which the town develops through the years of evolution. But in planned towns the town as a whole

entity is designed and planned and then it is put into human use. The practical gap, which occurs due to this particular phenomenon, exists specially on planned towns, in contrast to a town, which have been developing gradually.

And so, it is essential and vital that the designers of these towns would have their emphasis on the generators of character in towns. This idea should be strongly highlighted when new towns are designed in short periods of time.

Scale and proportions of buildings, detailing, road width, building hierarchy, pavements, landmarks, and all the realistic elements of a practical town should be put into the initial design stage of a town.

Character is generated by the collaboration of human habitation and built forms. It is essential to have room in newly planned and designed towns to accommodate and complement and more importantly to grow and modify with it's people.

In Mahaweli towns a single architectural thing has been repeated it self all most in all the instances which it had been practiced. Mahaweli towns as an entity have its own character but they lack the ability to stand independently in the context as a whole. Further they are not distinguish within the Mahaweli towns because, the individual Mahaweli towns does not depict a strong character of their own.

3.2 Case Studies Based on Spatial Organization and Usage

The basic concept of Mahaweli towns was to locate it away from the Main road and to maintain a “forest” between the town centre and the road. This basic principle has been tried out in all townships, which were implemented under the Mahaweli scheme.

The study area covers the towns of Dehiattakandiya, Girandurukotte, Digana, Karaliyadda, and Kundasale, which are different from their magnitudes, and usage.

About 15 years has past after the implementation of these schemes and these towns have matured enough to study its usage and its adaptation to its environment and to its people.



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3.2.1 Dehiattakandiya

Dehiattakandiya new town serves as a main agricultural based service centre in the Mahaweli programme. It was implemented as a new irrigation settlement in the down stream area of the Mahaweli.

It is situated in the dry zone 31km away from Mahiyangana, which is a significant religious town in the country. The town was created upon a bare land, which were covered with vegetation and with no significant land formation or other features to relate to other than for mild level differences, which are very minor.

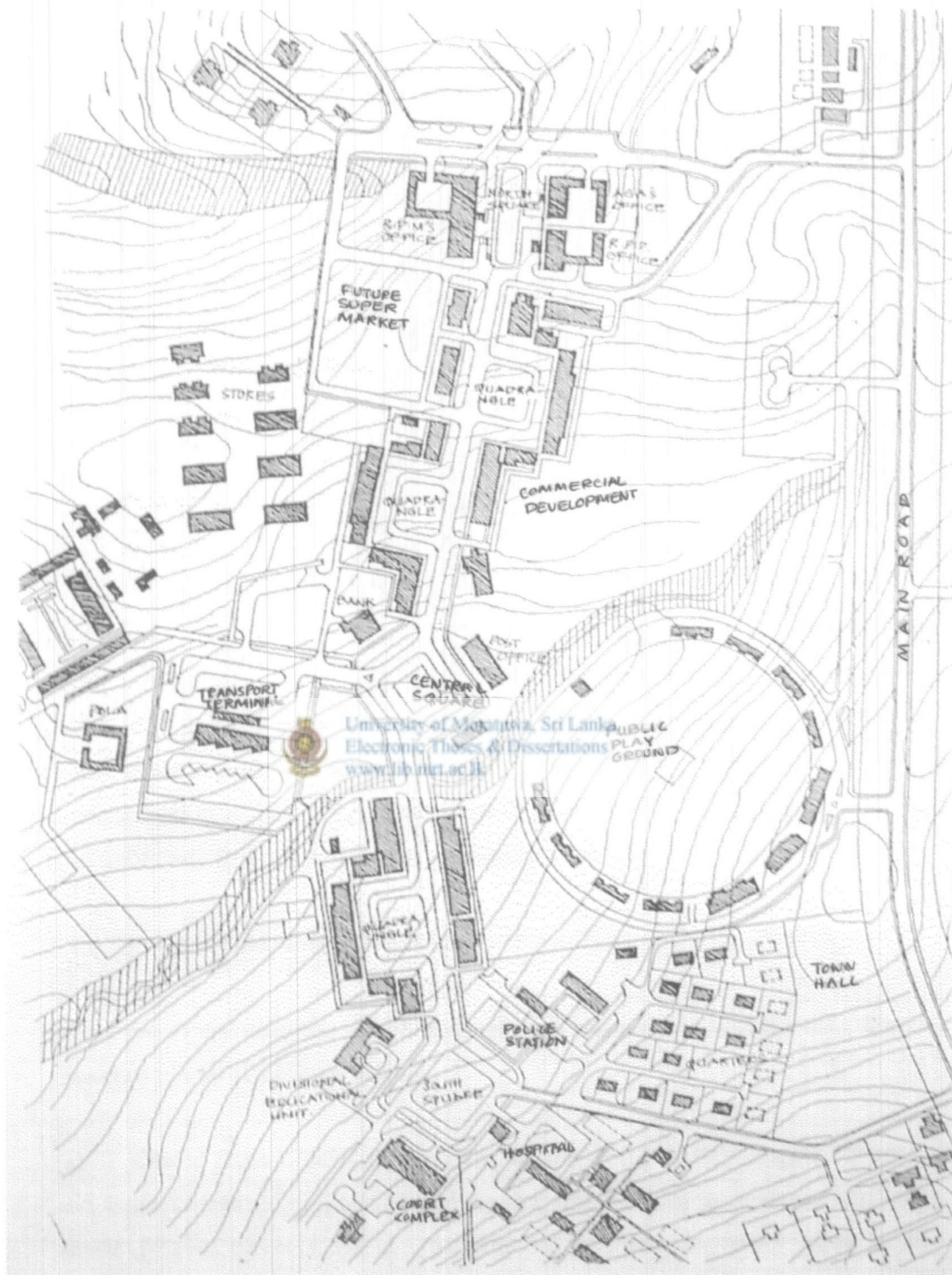


Fig. 49 - Spatial organization of Dehiattakandiya

3.2.1.1 Spatial Form of the Dehiattakandiya Township

In Dehiattakandiya, the town is formed parallel to the main road, which is Mahiyangana, Pollonnaruwa main road. Following the principles of Mahaweli towns a forest strip has been maintained between the main road and the town. The forest area of Dehiattakandiya has formed a visual barrier to the town from the main road. The town is formed in a shape of a by-pass, from the main road it could be approach in two access roads. The town has a linier organization of spaces with small insertions of “squares”. There are three such squares with different activites located around them.

3.2.1.2 Approach to the Town Centre

When traveling from Mahiyangana the entrance to the town is hardly noticeable other than for the Buddha statue and the divided road. The entrance road leads up to a massive roundabout with out any livability or activity. It divides in to four avenues and the destinations are mentioned in signboards and any observer has to travel a fair distance along the roads to find any built structure.

From this observation it is evident that the built structures, which refers to the spatial organization, are not compatible with the human scale. It seems rather the town has been designed by paying undue



Fig. 50 - The non-appealing entrance to the town centre, Dehiattakandiya

attention to the functional segregations and the automobile without emphasizing on the Sri Lankan context.

3.2.1.3 The Town Centre

The approach to the town centre is connected through boulevards, which are about 30m wide, these boulevards are supported by pedestrian paths shaded with trees on both sides.



Fig. 51 - The wide streets with boulevards
Dehiattakandiya

The town centre is in a linear formation, which

runs through and linked with two roundabouts in the far edges.

The town centre consists of three urban pockets, which are enclosed, in three sides with built structures, which forms an urban square, which opens out to the road. These were designated to hold three different commercial functions.



Fig. 52 - The u-shaped shopping clusters
Dehiattakandiya

Even though the functions differ from one another the building doesn't represent the difference between them, and they carry a similar rhythm through out the urban form. The components of the town, which was discussed in earlier chapter, seems have lost its hold on the town. If the three different clusters were designed according to their usage the legibility of the urban environment would have been further more strengthened.

The only distinguish landmark of the town centre was the clock tower. But it lacks the ability to provide orientation to the town.



Fig. 53 - The u-shaped commercial cluster Dehiattakandiya

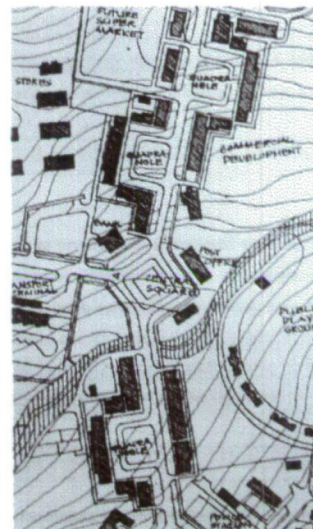


Fig. 54-The three urban pockets with the central square



Fig. 55 - Clock tower which shows all four directions of the town centre - Dehiattakandiya

The visual perception of the clock tower is almost the same in all four directions, which makes it more difficult to figure out the orientation. The clock tower square is meant to be the central space, which binds the town together. But due to the width of the streets and to the monotonous built rhythm of the boulevards the central space is isolated within the context.

3.2.1.4 The Analysis

The hierarchy of built forms, which set the architectural intensity of the town centre, not clearly establishes. The major causes of these phenomena are that there is no distinguish difference in the boulevards, squares or on the built forms.

Because of these the strong sense of spatial progression, which highlights the town centre, has not been benefited by the built forms. In spontaneously organized towns over the years of its growth the town automatically adjusts it self to an individual hierarchy which will enable it to create an identity of itself.

The reason for the functional segregation and the fact that the functions are so far apart, that the designers have thought of, a town which has stopped its evolution, meaning that it has fulfilled its social, and functional needs right at its beginning.

It is evident that to any visitor that the town is fully used in the sense that it has a feeling of absence in its physical atmosphere.

The road, which connects Mahiyangana with Pollonnaruwa, runs along side Dehiattakandiya without going through it in accordance with the

Plesner's principles. From the main road the town is not visible because of the green belt in between as it is another town planning principle in Mahaweli towns.

This has resulted in reducing the permeability of the built environment. Visual perception is the key in understanding the built environment. The town is camouflaged behind the forest no observer could experience the environment.

When permeability is reduced, urban elements, which transmit meaning becomes more of a puzzle to the urban dweller.

In Dehiattakandiya as in all the other Mahaweli towns, the built fabric repeats its self-creating chaos in the minds of the town dweller. This act reduces the legibility of the town without helping its human habitation. The prime example is the three urban clusters, which are similar in shape, size, colour and detailing, which are located in different positions along the linear formation of the town. To understand the differences between these clusters one has to examine the topography and trees in detail.

3.2.2 Girandurukotte

It is situated in the dry zone 15km away from Mahiyangana. The town was created upon a land, which was a site where few single storey buildings and a hospital was located. Girandurukotte is a sub-centre to the agro-based society where the main base located in Dehiattakandiya.

The town is located on an intersection of the road and the town spreads along the secondary road in a linear formation. The town is narrow-fronted towards the main road with few single storey commercial buildings and a filling station. Unlike the other Mahaweli towns Girandurukotte was planned and built around a series of existing buildings, which makes it deviate from the concept of Mahaweli town. For that reason it doesn't consist of a forest strip.



Fig. 56 - Layout plan of Girandurukotte



3.2.2.1 Spatial Form of the Girandurukotte Township

This town has a linear formation of built forms, which is built within two parallel roads. A market and the central bus station dominate the townscape with the series of single and two storey commercial buildings being the backdrop and boundary of the town. Wide corridors are provided to link the market, bus stand, and the commercial buildings.

The commercial buildings create a wide boulevard which stretches to the far end of the town narrowing itself. This walkway is located in an informal arrangement facing shop fronts and it ends at a public square like enclosure towards the end of the town.

The directional force, which the narrowing boulevard creates, would have been more positively taken into the design if the public square, which is at the edge of the boulevard, were visible all the way.

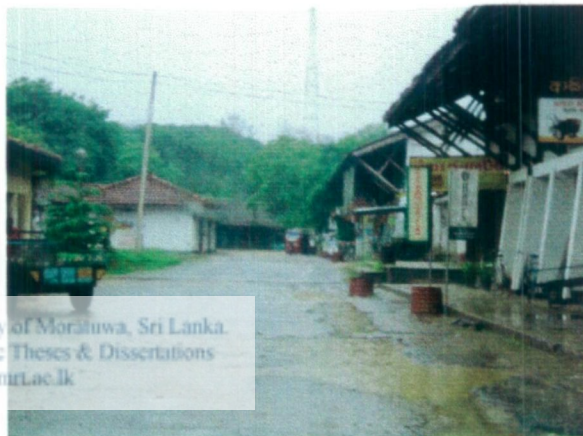


Fig. 57 - The beginning of the informal boulevard



Fig. 58 - The boulevard towards the far end of the town

It would have increased the legibility of the town to a greater extent.



Fig. 59 - The market and the central bus station seen from the wide corridors of the commercial buildings.

3.2.2.2 Approach to the Town Centre

Because of the narrow fronted face of the town with low scale buildings, the Girandurukotte town is hardly noticeable from the main road. But the enclosure, which has been widened with the tree line setting back, add the approach to the town creates a pause.

In this narrow front of the town a filling station and a vast car park forms the entrance to the town.

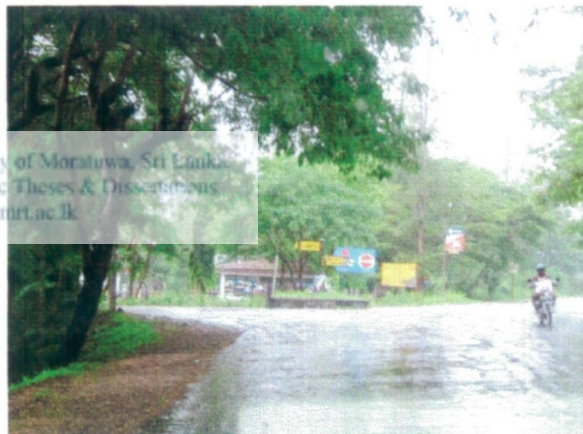


Fig. 60 - Girandurukotte town towards Mahiyangana



Fig. 61 - The narrow town front of Girandurukotte

with this entrance a by-road runs along the town creating an access road to the rare of the town.

Girandurukotte is the only town, which open outs to the main road creating a visual statement of its self. This was done due to the existed commercial strip, which was incorporated with the design.

3.2.2.3The Town Centre

The spatial organization of Girandurukotte doesn't allow for the creation of the proper town centre. The central bus station and the market spread widely in the town centre diminishing the identity of the town centre.

Because of the different functions, which are deliberately and clearly separated the town centre doesn't act as the binding agent of these components. From all of the Mahaweli towns Girandurukotte is the most depopulated and underutilized settlement.



Fig. 62 - Market with the wide road, disserted at the daytime, Girandurukotte

The biggest portion of the Girandurukotte town is allocated to the market, which does not function every day, and for the central bus station where only few buses leave or arrive. These activities do not generate any live meaning, which would enhance the built fabric of the town. This could be

the very reason for that the Girandurukotte town centre has not developed a particular character. When the town centre does not consist of or support or promote activities which generates human habitation will fail to create an atmosphere which encompasses the architectural ambience.

3.2.2.4 The Analysis

Owing to the lack of a city centre the town has a spread out organization without allowing any space to be in a hierarchial order from each other. A dull and an uninteresting built fabric are formed without a hierarchy of built form. With the bus stand in front of the town with wide roads up to 6 m the pedestrian activity has been restricted.

Although there is a square like formation at the extreme end of the town with the ring road facing towards it, its significance is lost owing to its location. If it had been located in the middle of the boulevard the space would be rather more meaningful to the town centre.

Generators of architectural ambience have not been worked out with the location of different activities together with its built forms. It could be further said that the built forms are in a wrong arrangement.



Fig. 63 - The town's square towards the end of the boulevard, although aesthetically pleasing it is not functioning properly in the existing situation

That meant to be public spaces are abundant at the present time, the major cause for this effect may be that of there have been no room left for growth, which is resulted from the human habitation. And one other reason is that the town lacks the elements of imagiability, which creates a strong statement about the town in the minds of its users. The society seems to have neglected the town rather than growing with it and it has resulted growth outside the town further depopulating the town centre. As the town does not complement human habitation it is difficult to form and nature activities, which will help to bring out the special character of the town.

The road, which runs along the town, which is branched off, from the main road, is used to give access to the rear of the town. Along the border of this road a vast parking facility has been provided with a solid built fabric as the backdrop, without any punctuations on it, which would have helped to gain permeability.

The connections, which have been provided to access the main boulevard, are not strongly emphasized and because of this reason, its current usage is in a very minimum level. The connection between pedestrian paths are strongly emphasized, but people do not use them

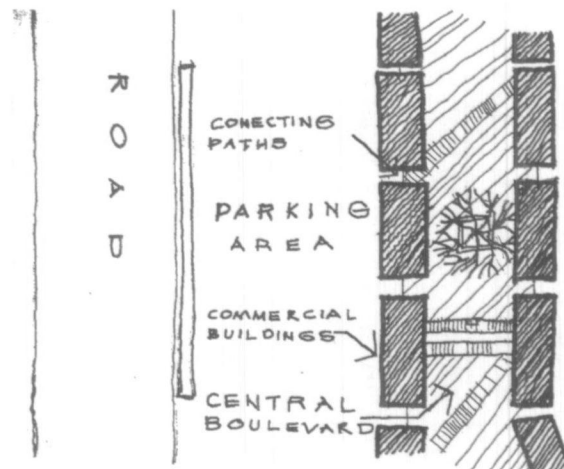


Fig. 64 – The by-road and the cross connections to the main boulevard

owing to the fact that because they lack public activities, people tend to use their own paths diverting or avoiding the intended pedestrian paths.

As it was mentioned before the central bus station and the car park take up much of the space of the town obstructing human paths, which would generate naturally. The designers have thought to provide a single boulevard, which would be branched off to other streets.

The Maha Girandurukotte tank is located near by, but it has not been taken as a design element, which would have complement the town.

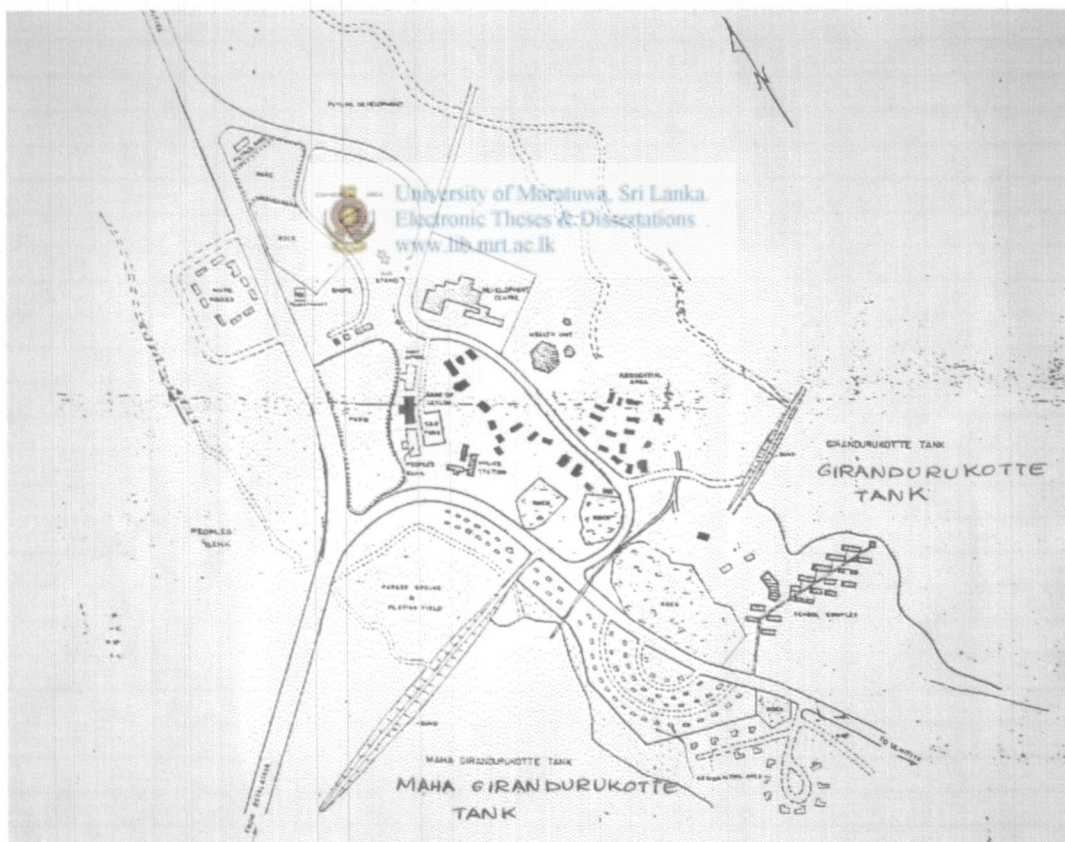


Fig. 65 - Layout plan of Girandurukotte, with the neglected water resources

3.2.3 Digana

Digana is a resettlement town under the Mahaweli hydropower project. It was developed as a commercial town to compensate the loss of the Theldeniya town which was a well established thriving town during the time before it submerged.

Digana is 16 Km away from Kandy. Digana town acts as the main town to the Digana village and the industrial estate. This town is the most inhabited town from all the other Mahaweli towns.

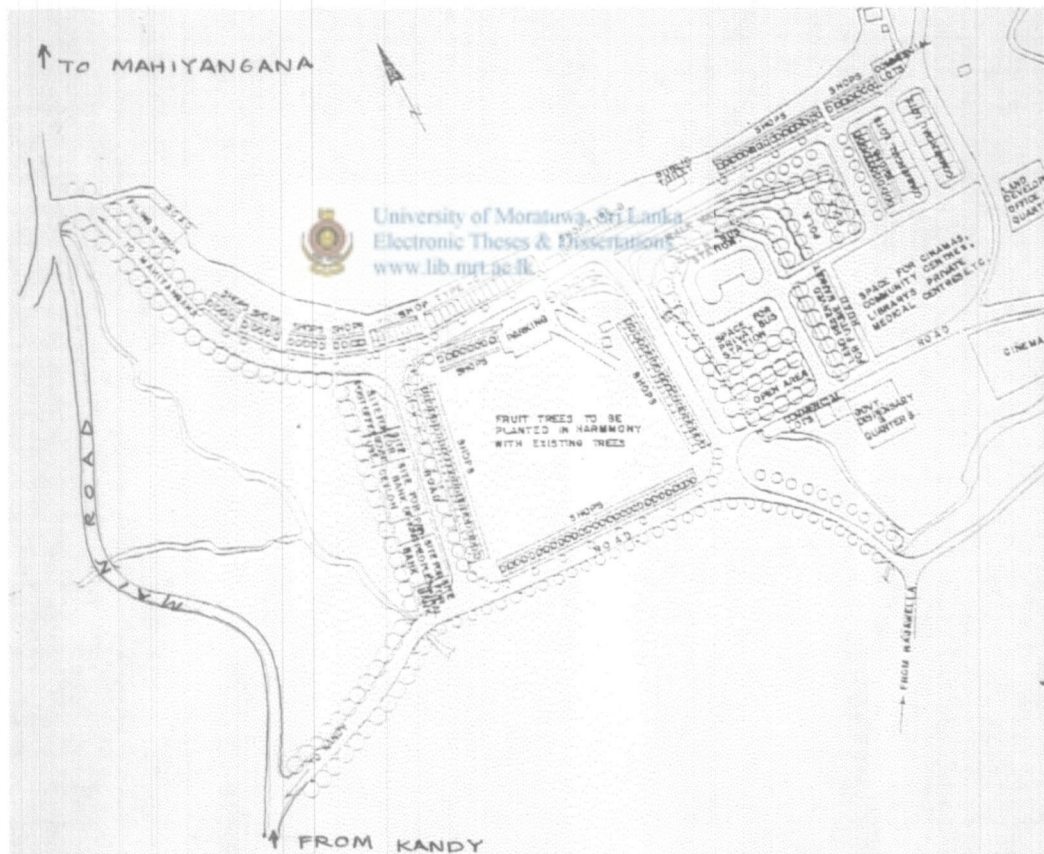


Fig. 66 – The Layout Plan of Digana

3.2.3.1 Spatial Form of the Digana Township

Following the footsteps of the concept of Mahaweli towns Digana is created with a well-maintained forest area creating the barrier between the town and the main road.

The town is situated in a sloping site with roads from different elevations and sloping streets with commercial activities. The topography has helped its formation positively to create significant spatial organizations. Abiding to the principles of Mahaweli towns, which has a ring road, which serves the town and it, connects the town to the main road.

Because small streets penetrate to the town leading to the residential areas, a lot of activities could be seen within the town and to its outskirts.

Most of these activities are commercial based.



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The central bus station has a prominent character serving the town centre. It bounds the shopping street on either sides of it, and further the open space of the central bus station gives the better view of the surrounding area.



Fig. 67 - The central bus station with the cinema in the backdrop, Digana

The commercial buildings, which houses shopping arcades, are elevated above the central bus station giving a clear view of the cinema across the central bus station.

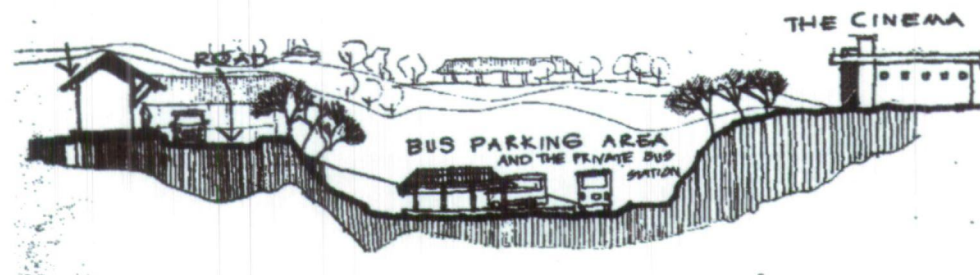


Fig. 68 – Section through the commercial strip and the central bus station

3.2.3.2 Approach to the Town Centre

There are two routes, to approach Digana. The approach has been significant from the Kandy town, which is known as the Kundasale-Digana road. When traveling from Kandy the road inclined gradually to an intersection where the roads towards the Diganan town are visualized from the planted forest. The approach road is extremely wide with

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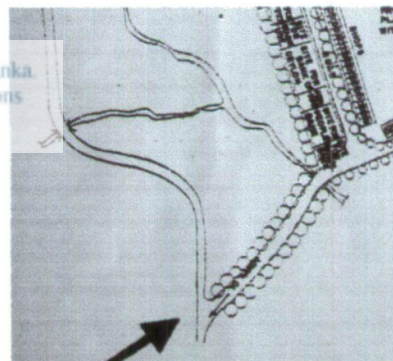


Fig. 69 - Entrance road and roundabout to Digana town centre



Fig. 70 - Entrance road to Digana with the 'forest' alongside – Kundasala, Digana road

foliage and pavements along side the road. The road approaches a roundabout, which divides the road into two directions with shops of single and two storey heights enclosing the entrance space.



Fig. 71 - Entrance roundabout and commercial buildings towards Digana town centre

The spatial arrangement of the roundabout would have been designed in a more meaningful way if the commercial buildings on the different directions were connected to form corner shops.

In the existing situations blind walls of the shops face the roundabout with a small opening of the passageway. Human activities would have been facilitated with a more organized design in the roundabout. Because they generate and form different functions and activities.



Fig. 72 - Blind walls of the commercial strip facing the roundabout.

The other road, which reaches Digana, is the Madawala-Katugasthota road, which reaches the town at a higher elevation. This road connects the main road to Mahiyangana.



Fig. 73 - The road intersection at the Madawala

The Madawala road, the Kundasala road and the road which circulates around the town converge into a junction creating intense activities within this area.



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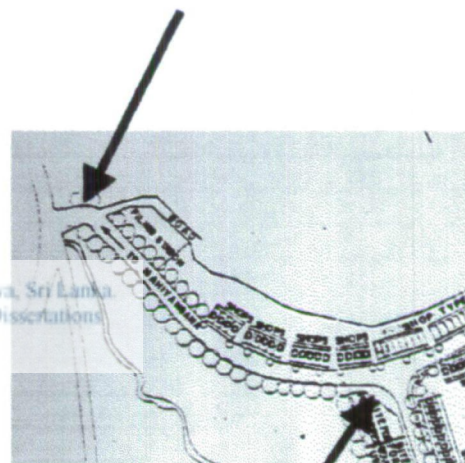


Fig. 74 - Layout of roads at Digana in the Madawala road

The circular road has different levels of approach to the town creating a good imagiability within the town. With clearly identifiable junctions, which are different from each other, helps to promote the legibility of the built environment of Digana.



Fig. 75 - Commercial buildings with the intersection within the town

3.2.3.3 The Town Centre

The Digana town is more organized and has greater visibility from the town centre to the other activities of the town, because of its topographical location with the level changes. The town centre is the collection of the bus stand with the collaboration of the commercial buildings with its streets facing each other.

Although the town centre is dispersed with the built forms it is correct to say that it has spaces, which have potential to be the town centre.



Fig. 76 - The commercial strip with the street facing the central bus station

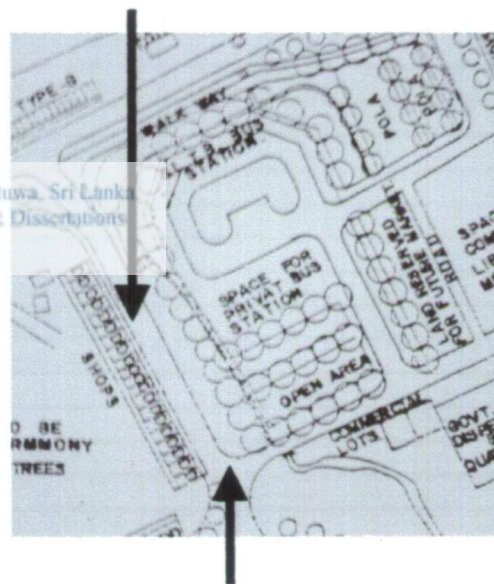


Fig. 77 - The road intersection before the central bus station Digana

3.2.3.4 The Analysis

Digana is the most successful town on the hand of activities and human existence. But like in all the other cases the city centre is not created as an entity. Because of the intense human activities the town tries to expand itself. One of the basic principles of Mahaweli towns is that there design to a certain population limit without allowing it to further expansion. But with the human activities a new portion of the town, which is related to the planned segment, is been developed currently along the Mahiyangana main road. This development is haphazard due to its intense nature of development.

But this development, which has been taken place, is due to the human usage of land and activities formulated by this land use. This area which has been gradually developing over the years has its own character even though it is unplanned and not designed.



Fig. 78 - Haphazard commercial development along the Mahiyangana main road

In Diganan town there are numerous spaces, which could be incorporated, generating a unique architectural ambience. This is due to the fact that different level changes in which the road converges because of the topography of the land. Visualizing different levels of the town from a specific location helps to promote the legibility of the landscape.

Even though the town is trying to develop its character the human activities and habitation, pushing towards the main road towards Mahiyangana - where the economic success is promoted. In the present context a town has been developing along side the main road between the road intersection, which leads to the Digana town, and the road, which leads to the Golf course from the Mahiyangana road.

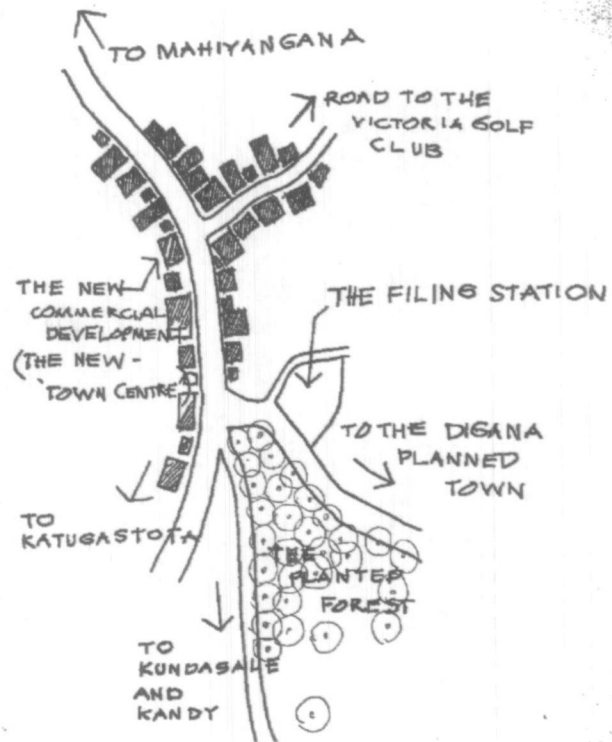


Fig. 79 - The new town centre, which is been developed due to human habitation, Digana

This particular stretch of road was not intended to develop under the planned town programme. In this particular segment the filling station of the original town is a vital element within the new town centre. This generates activities as well as legibility in the environment.

The building density is at a higher level in the commercial strip, along side the road. This particular example shows how the human habitation forms architectural ambience and thereby character.

3.3 Analysis of Architectural Ambience in Selected Townships

The study was concentrated on to the towns of Dehiattakandiya, Girandurukotte, and Digana, which are the most significant townships, which were developed under the Mahaweli, programme.

One of the special features of these towns is the commercial building, which has a same detailing pattern throughout over the townships. The main principle, which is behind in this design, was to create wide corridors to pedestrian access without obstructions of the signboards and other such elements of the shops. This single cell structure has been repeatedly used creating rows of shops in different lengths and in different level changes.



Fig. 80 - Commercial buildings - Digana



Fig. 81 - Commercial buildings - Girandurukotte

The ambience of the built form is the main distinguishable factor, which helps to generate the inherent architectural ambience of a particular town, which helps to clearly differentiate from that of other towns.

These built structures has generated an architectural ambience to Mahaweli towns, but it does not help to distinguish them from each other.

One of the elements of the town, which has been not addressed sufficiently, is the town centre of these towns. The town centre of Girandurukotte is diluted by the vast car park and the central bus station. In Dehiattakandiya because of the vast design scale of the town, the sense of the town centre is weakened. In both these cases imagiability is low due to the fact of the monotonous built fabrics and the boulevards, which connects the different vital locations of the town.

In Dehiattakandiya other than its main street, the paths, edges, districts and nodes depict a similar character, which makes it difficult to create a clear mental image of the town. Without the creation of this image the architectural ambience is not facilitated. But in the case of Digana because of its topographical positioning the paths and nodes are organized in a manner in which it is clear to understand all though they depict the same built fabric.

Different buildings are positioned in different levels creating a visual legibility. It is the sole reason that the town centre of Digana is more habitable than the other two towns.



Fig. 82 - The central bus station and the temple on the hillock

In Dehiattakandiya the town was built upon a level land and the buildings, which are in different locations, which are acting as isolated objects with out relating to each other. When different components of the town are in isolation it is not possible to act as a uniform entity.



Fig. 83 - Central bus station - Dehiattakandiya

In Girandurukotte the vast bus station with its parking area obstructs the pedestrian paths reducing human habitation. In both these examples the building do not complement each other, which is essential in creating a habitable environment, and thereby a particular architectural ambience.



Fig. 84 - Central bus station - Girandurukotte

When the elements of towns act as separate objects, the sense of the town centre which generates the particular identity gets weaker and weaker.

In all these towns the town centre do not consists of elements which are capable of generating imagiability and the layouts of these towns has not been allowed to facilitate legibility and permeability in the living environment.

Particularly in Dehiattakandiya the plots of lands which are allocated to different activities are not in accordance with the human scale. The roundabouts are capable of handling vast amounts of traffic but the town centre does not support very many activities.



Fig. 85 - The roundabout south square - Dehiattakandiya

From all the three towns Digana is the most populated and developed town due to its strategic location within the network of roads. Another factor for its development is that it is closely link with the Kandy town and the other sub-nodes, which are along the Kandy- Mahiyangana road. Another reason for this is converging main roads, which meets in Digana. From the ancient times the meeting of the road was the inception of emergence of towns. It is clearly evident that even though the planned towns existed this particular phenomenon has contributed immensely for the development of Digana and its new centre in the Mahiyangana road.

In our Sri Lankan context most of the activities happen in the open spaces of a town, for example the streets, the market, and public spaces. When these activities and functions are hidden behind a screen, the relationship of people to its environment disrupts.

For a town to thrive and develop with the culture and society it has to have a strong centre with a high weight of imagiability which helps the people to identify and distinguish their home town.



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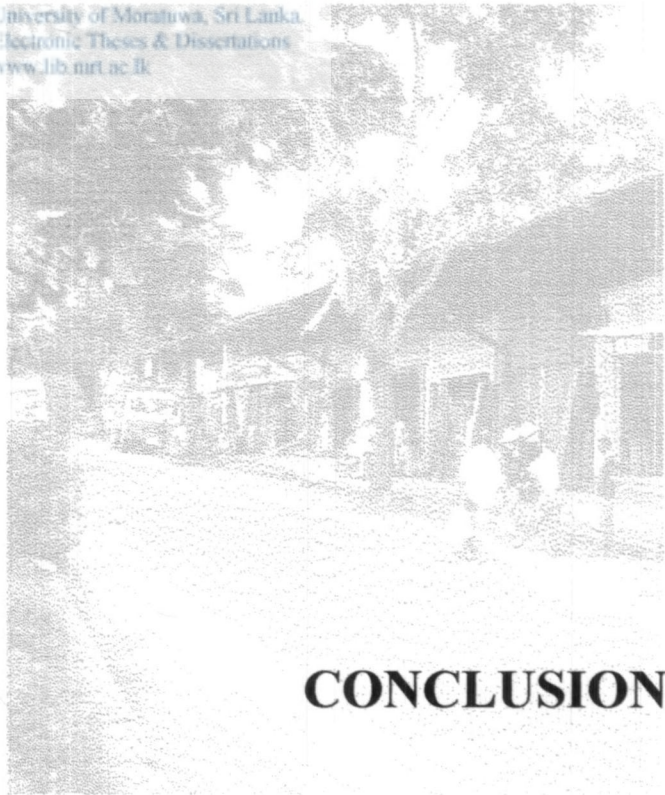
CONCLUDING REMARKS

- Mahaweli Towns was the main instance where new towns were introduced to the Sri Lankan context.
- Owing to their depopulation the design strategies, which were used to design them, had its impact on the final product.
- The Mahaweli Towns, although saturated with all the physical needs of people, the designers have not addressed the psychological aspirations which would have been elaborated through architecture.





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CONCLUSION

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Human is a social being who interacts and modifies his built environment according to his needs. Man as a living being, requires certain needs to be satisfied in order to survive in his environment. Habitability of such environment depends on its capability and capacity to cater for the deeper social needs of the mankind.

Throughout the history of settlements and cities the man has tried to create environment, which would satisfy his needs and aspirations. This social act created great settlements and thereby great cities. These settlements and cities according to their environments, social backgrounds such would be the culture and social aspirations moulded the environment; they live in a particular way reflecting the ambience of its people by the built environment.

The ambience of a settlement is deep routed within its social structure and makes it unique and distinctive from other such settlements, of the same nature and magnitude. Thus it creates a particular character, which is inherited the settlement, and it is modified and evolved through time.

This study - mainly focuses on the architectural ambience, which is generated through human habitation and its existence on contemporary planned towns in Sri Lanka, namely the Mahaweli towns.

When a whole settlement is designed and planned, and built on a bare landscape, it has to generate and communicate the social and the environmental identity of people intended in the environment. The Mahaweli towns, which emerged with the necessity of providing habitable areas for the new settlers, were to an extent

instant solutions. All the new towns were designed according to a concept, which has several principles in it, has been discussed in the study.

One of the major issues, which have been emerged in the reason times, is that these townships are getting depopulated and its celebration and glory is fading away.

A settlement, which has reached its highest point, always consists of a central space, which people refers to - on day to day activities and which is used to orient themselves within that settlement. The town centre adds importance to the settlement by conveying its identity and uniqueness within the settlement. In Mahaweli towns the idea of the town centre is dispersed throughout the built fabric without giving prominence to a central space, which has made it a monolithic built fabric throughout the settlement. A possible cause for this phenomenon may be the fact that the brand-new and the *instant* town has its difficulties in adapting to its people.

Towns are developed, evolved and modified with the process of human habitation, which makes it more social friendly and meaningful. With the usage of people the built fabric takes shape, identifying a hierarchy and creating human friendly scales for this smooth functioning of the settlement. When all the physical needs are fulfilled *instantly* the people try to adapt to the town, rather than the town adapting according to the social framework of its people. At first they tend to change the environment according to their needs but the Mahaweli towns do not allow or facilitate this change. This unconventional process disturbs the spontaneous process of growth and establishes inhuman built environments. One of the concepts of Mahaweli towns is that it has not given opportunity to future expansions or modifications. This has resulted in some

instances abandoning of towns and in some instances unorganized pockets of development.

Another important issue, which faced by the Mahaweli towns is that they are lacking to produce a unique character which will help to identify them individually. All the Mahaweli towns carry a similar built pattern, which makes them rather similar than different. The towns were emerged on a landscape where rich cultural values were knitted with the built environment and these new towns look as alien objects to the local community. Almost every settler in the town, is new to this modern urban landscape and have no deep-routed engagement with the built environment. This has resulted, dull and lethargic built environment, which does not support and facilitate the society formation.

When the town centre speaks of no architectural language the social and the built structure, which bounds, gets weaker and weaker. But in some instances as in Digana where the town has considerably grown throughout the time has used its topography to thrive in the environment and with it, it has linked itself with the other smaller townships in the area. One of the major reasons for this growth is that with its topography and its setting, the town has got the opportunity to modify with the social aspirations of people, which has made it successful than the others.

When designing new towns it is critical to understand the essence of the environment – which it is designed to, and to understand the human spatial relationship - which makes the town more successful with the human habitation. Today, most of the architects and urban designers are accustomed to look at the artifact rather than at the life forces, which has generated the artifact. Thus most towns and settlements have their own share of high prestige but do not meet the community needs.

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