

**PHYSICAL ASPECTS OF BUDDHIST SACRED
PLACE IN CONGESTED URBAN CONTEXT.**

**EXAMINATION OF CONTEMPORARY BUDDHIST ARCHITECTURE
IN WESTERN PROVINCE.**

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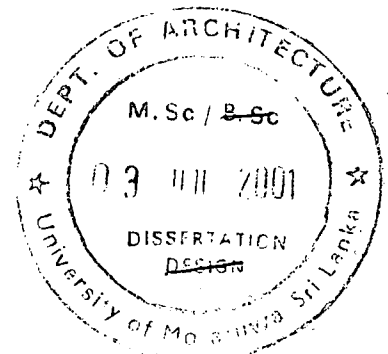
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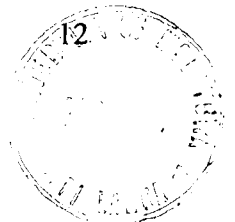
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ABSTRACT

Image and the Imageability are the main physical aspects which can be identified in a place. Capacity of image making of a 'place' is called as the imageability of the place. That ability of a place is determined by its imageable structure which consist with the sensible and perceptual arrangement .

Religious buildings and places evoke special images for people . Because , religion has done a major role of the transition of human beings from barbarians to civilized people. Most Buddhist sacred places in rural areas are possessed with considerable images. But, due to the unavoidable urbanization of towns, the Buddhist sacred places in congested urban contexts have more restrictions of projecting their images. Their perceptual arrangement is not strong as a Buddhist sacred place. The study finds that sensible arrangement can be used as the tool for their physical aspects.

Activities in some urban Buddhist sacred places are less functioning and other unnecessary activities are invading into that Buddhist sacred place. It may lead to the destruction of the Buddhist society . To avoid that dangerous situation, the study proposes that the weaknesses of sensible and perceptual arrangements of Buddhist sacred places in congested urban contexts to be identified and improved to give a certain amount of physical aspects for that Buddhist sacred places.



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INTRODUCTION

INTRODUCTION

0.1 Topic

Religions are not man made. They are formal expressions of collective experiences of beliefs. So that, sacred places are those which are imbued with valued religious meanings particular to communities or groups of people. Signifying the spiritual beliefs of those communities, they provide atmospheres and opportunities for ritual, symbolic abstraction of life.

Urbanization is an unavoidable process of the world. Urbanization results scarcity of lands, higher population density, higher building density, traffic congestion and many other environmental problems. Therefore it is necessary of having religious places at urban environments. But, it is a very difficult task of building such a religious place according to appropriate religion's principles in these urban areas. Here we consider about the Buddhist sacred places in congested urban environments, most of them seem to have a problems of serving the society as a Buddhist sacred place.

The study intends to bring forward a discussion through an examination of what factors, in what relationships of contribute to the physical aspects of a Buddhist sacred place. And focus the discussion further for Buddhist sacred places in congested urban areas in order to highlight the importance of concept oriented approaches in design and development of urban Buddhist sacred places. Which pays a simultaneous attention towards the physical aspect of human built environments.

0.2 Intellectual Basis

The main function of a Buddhist sacred places is to provide appropriate environment to devotees to condition their minds to sense the path leading to Nibbana through purity of mind without any

constraint. The human behaviour in this complex environment seeks a comprehensive guidance that is provided by the images within a person of that environment. Hence, the imageability which provides the necessary basis for such images is an important quality of a Buddhist sacred place.

For urban Buddhist sacred places, the objectives are the same. So that, they have to be achieved their images in some other way from the rural (village) Buddhist sacred places. A well composed urban Buddhist sacred places in a congested environment is a good work of architecture. That situation is achieved only when the desired behaviour of its users is fulfilled, that means when the desired sacred environment is created, if architects and other designers are to discover how to design or perhaps to change the mental image.

0.3 The Need



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With the increase of dense urban environments of today's cities, land is becoming severely partitioned and scarce. This has left a little choice in finding suitable areas for Buddhist sacred places. Application of traditional procedures and silpa texts is meaningless in this context. Therefore it has become necessary to adopt modern architectural means which reflects religiousness of Buddhist sacred places regardless of the site. But present day Buddhist sacred places have problems in projecting the religiousness. This essentially results in their users disorientation. As a measure to preserve the physical aspects of the Buddhist sacred place it is important to have a better view and a dialogue between designer and the user.

0.4 Methodology

This study intends to forward a discussion with regard to the

ways and means of achieving physical aspects to a Buddhist sacred place in a congested urban environment. Therefore as a necessity it pre - views the limitations of the concept of the imageability of an environment and seeks for an appropriate definition for the term imageability.

According to the most suitable methods a place is examined for the imageability in relation to the structuring of its elements (Morphology). The study is evolved with the view that a high imageability of a place is the ability of its element structure to determine the structuring of the images, built in its users.

The place is viewed as a supportive basis to the evoking of images and therefore, the element structure of a place is examined to identify its contribution towards the different aspects of a complete image. The selected realistic examples for Buddhist sacred places in congested urban environments are discussed with illustrations according to the contributory factors mentioned earlier.

0.5 Scope and Limitations.

The study intends to examine the physical aspects as a quality that is constant to a given environment. It views an environment as a place belonging to a particular religious group of a given country. That means, considering only the Buddhists of Sri Lanka as the social group.

The framework to be identified is used as a scale of physical aspects to examine the Buddhist sacred places in urban contexts. Examples are selected from congested areas in Western Province because, that is the most urbanized area in the country.

Finally, this dissertation may be understood as an attempt to a possible research that an attempt to create a first hand theory.



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CHAPTER ONE



CHAPTER ONE

BUDDHIST RELIGIOUS ARCHITECTURE AND ITS EXPRESSION.

1.1 What is Buddhist society

The Buddhist society is mainly two fold; the laymen and priests. Renunciation of worldly pleasures leads one to priesthood and such a person spends a simple life moulded by the Buddhist morals. Bhikkus are regarded as guardians of the lay society and are vested with the responsibility of conveying the 'Dhamma' to them while finding their own salvation. Lord Buddha himself has stressed this point when he advised the first sixty enlightened disciples before sending them as messengers of truth to reach his 'Dhamma' to masses.



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"Go forth O Bhikkus, for the good of the
many for the happiness of the many out of
compassion for the world, for the good,
benefit and happiness of gods and men"¹.

This social system has given birth to varying places of Buddhist veneration. Architecture is creating the appropriate environment for an intended purpose. Such a work of architecture expresses itself through a symbolic language providing its users with three comfort levels, namely physical, physiological and spiritual, and takes its users on to a higher ascent of thought. In achieving this, the proper usage of a particular architectural language according to the set of physical and social aspects is necessary. In the same way in order to create the desired Buddhist environment, the usage of a language guided by a set of aspects becomes necessary.

1.2 The Essence of Buddhist philosophy

Buddhism empowers humanity, the power of human being. The Buddha Himself being a human being, repels the concept of Almighty God. As the Buddha disclosed that among all living creatures, man is supreme. This concept strength man to look upon himself rather than changing on to unknown powers for salvation.

The Buddha said, I trace only suffering and he said as the ocean has only one taste, that of salt, so my teaching has only one taste, that of liberation.

"These are two extremes of Bhikkus that should be avoided by one seeking the truth. They are the constant attachment to sensual pleasures and the constant addition to self mortification. Avoiding these two extremes 'Bhikkus' the 'Thathagatha' has discovered the middle path which promotes sight, knowledge, peace higher wisdom, Enlightenment and Nibbana"²

It is the noble eight - fold path. The method of training for the liberation from all suffering are applied by following the noble eight fold path of right understanding, right thought, right speech, right action, right living, right exertion, right mindfulness and right concentration of mind. Trooding this path to Enlightenment Buddha discovered the four noble truths. The first is the universality of sorrow. The second is the cause of suffering. The third one clearly points out the possibility of the cessation of suffering.

¹ Narada Maha Thera - The Buddha and His teachings . 1977 , P - 108

² Ruberu JJ Annual Magazin of university Buddhist brother hood . Colombo Pg. 45

The fourth noble truth teaches the path leading to the cessation of suffering. It is the noble eight-fold path mentioned earlier,

"this can be broadly classified into morality (Sila), concentration (Samadhi) and wisdom (Pragna). The perfection of these three qualities brings out an inner purification, leading to the eradication of craving and ignorance and to the attainment of ultimate knowledge, wisdom and supreme Enlightenment"³

The Buddhists believe in the doctrine of "Karma" which declares that happiness and unhappiness are alike the results of action; that prosperity and adversity are produced for each individual by his own deeds, words and thoughts; that the law is impersonal, that it has no agent behind, directing it or administering it.



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All love relationship and friendship is ultimately alone in the journey through birth, decay, death and rebirth, each of us must face these facts absolutely alone. Even a Buddha can, but teach each of us how to face these things and how to overcome them. If the cause of suffering is primarily psychological then it must follow that the cure also is psychological.

The realization of true values of Buddhism comes only to the man meditates successfully.

"for meditation one needs seclusion, because they are worldings and wrapped and wrapped in the world, tend to question the retirement to solitude of the beyond worldly religious meditation"⁴

³ Ruberu JJ Annual Magazine of university Buddhist brotherhood, Colombo Pg. 45

⁴ Kassapa Journal P 23

To coordinate that philosophical attitudes with people, the 'philosophical centres' had evolved. They were arranged to facilitate these objectives of the Buddhist philosophy. That centres were emerged from the places as Buddhist sacred places where Buddhist monks resided.

1.3 Evolution of the Buddhist sacred place.

During the early period of Lord Buddha, there was no built residences for Buddhist monks. They resided under shades of trees and mountains, natural caves or little shady walls, cut off straws etc. Count Anepidu wanted to construct such a residence and therefore he had to obtain the concurrence of the Lord Buddha, for the same. Then the Lord Buddha had instructed how the residences for meditating monks should be constructed.

Chullawagga Pali explains the principles stated by the Lord Buddha in erecting such residences. Residences must be under "Pas Vederum Len - Five sorts of caves namely; 'Vihara', 'Attayoga', 'Pasada', 'Hammiya' and 'Guha'. The beginning of such residences knows as Senasana".⁵

These residences had been gradually developed to cater the need such as health, security, meditation and so forth.

"The first 'Arama' constructed by the 'Anepidu situ', namely Jethawanaramaya contained 'Viharas', 'Privenas', Doorways, 'Kapiyakuti', 'Vesikili', and 'Kesikil' (latrines), 'Sakman malu', (working terraces), 'Sakman Hall, (Walking halls) 'Lin' (wells), 'Lin Hall', (well with shelters), 'Ganthagara' (bath rooms with hot water), ponds and shelters."⁶

⁵ Chullawagga pali - Buddha Jayanthi Thripitaka 1983, P - 128

⁶ Chullawagga pali - Buddha Jayanthi Thripitaka. 1987 - P - 80

After the arrival of Maha Mahinda Thero, the majority of the society became devoted to Buddhism and there was a need of building for the monks and religions purposes. Due to the spreading of Buddhism, more and more religious activities were centred around Buddhist sacred places and as a result, various kinds of buildings; Image houses, Chapter houses, Preaching halls Bo - Maluwa , and so forth come in to satisfy requirements of relevant activities.

1.4 Meaning of religious activities

The traditionally accepted order of selection of worship is the 'Chaitya', the Bo - tree and the Image house. This is because the 'chaitya' contains 'Saririka' or 'Sarvagna Dhatu', physical relic of Buddha. Its worship is felt to be equiralent to the worship of the living Buddha himself. The Bodhi tree is also a 'Paribhogika chaitya', since the Buddhas used it. The Buddha does not engage himself in tree worship as such when he worships at the Bo - tree. People worship a symbol of enlightenment and of the Buddha. The image house is the place where a stature of the Buddha is placed for worship.

1.5 Effective elements of Buddhist sacred place

The buildings in Buddhist sacred places (either in monasteries or temples) can be divided into three categories corresponding to the Buddhist Triad, the Buddha Dhamma and Sanga that is

- a) The built forms related to 'Buddha'
- b) The built forms related to 'Dhamma'
- c) The built forms related to 'Sanga'

The essential requirements of a Buddhist sacred place are;

- i. Symbols to represent the Buddha
- ii. The provision of suitable facilities for the exposition of Dhamma
- iii. Accommodation for the Sangha.

Even the simplest strictures or enclosures which satisfies those three requirements could be called a Buddhist sacred place (or Vihara or an Arama). Therefore it can be categorized the three fold architectural division which derives from this as

- i. Shrines and sanctuaries
- ii. Ecclesiastical buildings
- iii. Residential buildings

1.5.1 Shrines and Sanctuaries.

These consist of monuments enshrining relics symbolic representations or the actual image of the Buddha. They serve as memorials to the master proclaiming and protecting ritual manifestation of his sacred presence.

The three kinds of objects that have come to be worshipped in Buddhist sacred places are commonly classified as 'Saririka', Paribhogika and 'Uddeshika', which respectively mean bodily relics of the Buddha articles used by the Buddha or the Bo-tree and Images or other visual representations of the Buddha.

The corresponding major objects commonly found in Sri Lankan Buddhist sacred places are Stupa or 'Chetiyagara', Bo-tree or 'Bodhigara' and the Image house.

1.5.1.1 Stupa or Dagaba

The popular term used today is Dagaba which consists of 'Dhatu' meaning relic and 'Garbha'. Originally, stupas were erected to contain the corporeal relics of Buddha, a Praseka Buddha a 'Sravaka' or a Chakravarthi king.

"The man worthy of a thupa, are four in number which are the four? A Thathagatha an able awakened one, is worthy of a 'Thupa' one awakened for himself alone is worthy of a thupa. A king of kings is worthy of a Thupa" ⁷

The stupa, the main characteristic monument of Buddhism throughout its long history, occupies a special position, through not only on account for its primacy. In so far as it employs the common building materials and methods, contains internal chambers and displays familiar architectural details and motifs, it is an architectural form.

However, there is no means of access to its interior according to the through meaning of symbolic expression. Though conceived in architectural terms, it occupies rather than encloses space and thus, it can be seen as a monumental sculpture rather than architectural form.

Charles Jencks states ;

"In Religious expression., Dome is the symbol of wisdom, carries the themes of intellectual light carried by the divine Wisdom, in to its structural and elevation. Natural and conventional sign of sanctity or propens intensities the vertical trust by gathering visual forces in tighter space of it focuses vertical forces in to one point. ⁸



⁷ Rahula, Walpola - History of Buddhism in Ceylon P - 11

⁸ Silva Roland - Religious Architecture in early and medieval Sri Lanka, 1988 P - 14

In the stupa, this part the 'Kotha' ; top of the 'Koth Kerella' menas symbolically the ultimate Truth; Nibbana

1.5.1.2 Bo-maluwa or Bo - tree

In ancient Buddhist sacred places , they have the 'Bodhigara', which was a structure constructed to house around the Bo- tree. In contemporary Buddhist sacred places , the 'Bodhigara' constitutes the Bodhi - tree and Bodhi maluwa which is raised square 'Maluwa' enclosed by a half wall with four entrances at the cardinal points or less. The 'Bodhi' stands at the centre of the 'Maluwa' on an inner square 'Maluwa' which is entered by some time only one doorway, through a flight of steps. The space between the inner square Maluwa and outer wall formed the 'Pradakshina patha';

1.5.1.3 Image house or Pathimagara



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"The 'Pathimagara' in its essential form derives from, monastic cell, the 'Kuti' " ⁹

It is infact designed as a single residential chamber for the Buddha image which occupies the central position within the shrine chamber sometimes multiplied into three or more figures . The image house makes people respect Lord Buddha and its teaching and should help them to concentrate without being hampered by mental stresses.

1.5.2 Residential buildings

This was the monastery, the ' Sangharama' or in our particular use of term the ' Vihara' . The explained elements are the major once which a Buddhist sacred place possesses for its service. Other than these, gradually, they include buildings such as 'Pirivena's' (school for

⁹ Banayake, HT Sri Lankan Monastic Architecture , 1986 P - 55



Bhikkus), Dhamma Schools, vocational training institutes and so forth for their social activities.

1.5.3 Ecclesiastical buildings

Following building types can be included in the general category of ecclesiastical structures 'Uposathagara' (chapter house) 'Padhanaghara' , 'Pustakalya' (Library) and many 'salas' such as 'Dhamma sala' , Chatussala, ubatthanasala' and 'Sannipathasala' etc. But in contemporary Buddhist sacred places, the more important type is the preaching hall or 'Dhamma sala' . The sangha and the lay people, met together for a monastic or religious purpose in these buildings .

Ven. Walpola Rahula points out that ;

"..... the accommodation for preaching and hearing the Dhamma was a feature indispensable to Vihara or a monastery." ¹⁰

During the early days they would have been constructed of perishable materials as it is hardly seen in ruins too . But in the course of time, there appears to have been erected fairly large buildings for this purpose with the increase of devotees.

¹⁰ Rahula Walpola What the Buddha Taught , 1956 P 129, 130



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CHAPTER TWO

CHAPTER TWO

2.0 PHYSICAL ASPECTS OF AN ENVIRONMENT

In this chapter it is intended to discuss what are physical aspects of a place and how the physical aspects of a place can be identified within a reasonable frame work.

2.1 The image

Image is one of the physical aspects of a place and the term 'image' can be used in various uses with various meanings. One image can be taken from the reflection of an object from a mirror or shiny surface. The second use of the 'image' is a perceptual one, that means 'likeness', it may be conceptual or exist in some sensory mode.

Canter showed that both types of images however are similar in that they only imitate some assumed reality.

'Environmental Image' is 3rd type of image. it is the main concerning factor of this study.

Building has described the environmental image as a mental picture which is a product of experiences, attitudes, memories and immediate sensations used to interpret information of the human environment.

2.1.1 Essential aspects of the image .

Boulding has described four essential aspects of the image

1. Spatial aspect

It is the physical elements within the image, comprising a particular part of space, assumed for the 'mental picture'.

2. Relational aspect

That means the inter-relationship between the above elements themselves and the relationship of the holder of that image.

3. Value aspect

It refers to qualities of these elements or their organization, the holder cares for as a member of a particular social group.



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4. The emotional aspect

This denotes the feelings evoked by that 'mental' picture and the overall arrangement of its elements, within the holder of the image.

"It is a complex of these that makes an image what a person believes to be 'true' and therefore, none of the political, cultural or any other type of event taking place within an environment is understood without relating to their image."¹¹

2.1.2 Image making & relationship between "Abhidhamma".

It is also clarified by Lynch showing the environmental image as

¹¹ Boulding K - The Image, 1961. P - 46



the resultant of two way process between the observer and his environment. His clarification helps one to identify factor responsible for an image .

- i. The ability of a person
- ii. The capacity of an environment.

'Abidhamma' has explained image making of the ability of a person as five progressive steps. But, those are explained in following manner for the convenience.

- i. Passa & Vedana (Sensing)

Human beings receive information through five senses . They are visual (eye) auditory (ear) olfactory (smell) , gustatory (taste) and tactile stimuli (touch). This receipt is the beginning of the image making process & what is said at 'Passa' . This information is brought to the brain by nerves and that keeps man in touch with the external world what creates ' Vedana'.

- ii. Sanga and Sangskara (Preception)

This consist with two major steps ; first is the organism's awareness on objects and events in the environment or 'Sanga' and the second is the 'sangskara' in which the sensory information is edited.

- iii. Vingana (Cognition)

The cognition is the beliefs, values , percepts and attitudes of a person who has brought up of his environment . Actually , it depends on the person's cultural & associational backgrounds , age , sex, occupation and many other factors.

These processes are operated simultaneously to build images. The amount to which these sub processes complete their tasks determines the nature of the image. The completion of these processes varies from one person to another as well as from one situation to another.

2.2 Imageability of an environment

Other physical aspect of an environment is Imageability. Imageability of a place can be defined as a necessary quality of a place, to evoke vividly identified, powerfully structured, highly meaningful and highly approximated images in its users. This shows that all the places are imageable for its users. But all the places are not equally imageable.

That unequal situation leads us to examine the necessities and determinants of the imageability of a place.

2.2.1 Imageable structure

'Shulz' has explained that the image of a place as a (relatively) stable perceptual schemata & consists of,

- i. The center of a place
- ii. The enclosure of a place
- iii. The continuity of a place

Centre which is discussed here corresponds with an elements existing within the place. And also the continuity and the enclosure of those images correspond with the arrangement of elements within the place.

2.2.1.1 The centre of a place

It is a general behaviour of human beings to perceive places with reference to a particular element as a centre is noticed since the earliest times. When a place is used the user of the place may consider his preferable element as the centre of 'his place' and therefore centralizes that element within his image.

2.2.1.2 The enclosure of a place

The place is experienced by a user as an 'inside' in contrast to its surrounding 'outside'. The demarcation of the 'inside' makes the place a domain that allows it to be perceived as a profound 'whole'. The size of the place is determined by the enclosure which is not demarcated by a physical boundary, but may be an abstract one.

2.2.1.3 The continuity of a place

When an element is centered at the place, the other elements have to be arranged in relation to the centre within the enclosure of it. The directional relationship with other objects to the centre and to the enclosure establishes continuity within a place.

The high imageability structure is dependent upon the strength of the imageable structure of a place and the next is going imageable structure of a place.

Relph analyses the image of a place in generally it has two structuring. The vertical structure and the horizontal structure. Horizontal structure means one of the social distributions of knowledge about the place. Vertical structure means one of intensity and depth of experiences of the place.

He further expresses that the vertical structure has a direct relationship with arrangement of physical elements of the place.

2.2.2 Factors of the imageable structure of a place

Considering above facts (2.2.1.3) , it gives an idea to identify two determinant factors of the imageable structure of place.

- i. The strength of arrangement of physical elements , which they are 'sensible' for the user . This is named as the sensibility of a place. The sensible arrangement of a place includes both static elements, such as natural landscape and man made structures, and dynamic elements such as movement of people, flowing water, vehicles, air , rain, temperature, sounds , snowfalls, smells and so forth. And this sensible arrangement within a place , is related to its context.

And other factor is perceptuality. It is purely effective in the arrangement of perceived physical elements within the image. This is the knowledge common to all users of its context which may comprise various meanings , assigned on each part of the place as well as on the place as a whole. This knowledge helps the imageability of place, purely in terms of perception and therefore is given the name 'perceptuality'.

The 'emotional' & 'value' aspects of the image are the major contributors for the perceptual arrangements of a place. And it is seen on two fundamental principles of the image , the center and the continuity.



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CHAPTER THREE

CHAPTER THREE

PHYSICAL ASPECTS OF BUDDHIST SACRED PLACE.

3.1 Image and Imageability of a Buddhist Sacred place.

This part will explain how a Buddhist Sacred place has been organised to facilitate its objectives. The Buddhist sacred place must be able to evoke a proper 'image' for people. So that it essentially needs an imageable structure to the Buddhist sacred place as mentioned in chapter two 'Sensibility' and 'perceptuality' are the determinant factors according to it.

3.2 Sensibility of a Buddhist sacred place.

'Sensibility' is the ability of conveying messages through the senses of man. And man sensed the outer world from five senses.

- I. Visual - eye
- II. Auditory - ear
- III. Olfactory - smell
- IV. Gustatory - taste
- V. Tactile stimuli - touch

If we consider this situation only four senses are activating for the sensibility of a Buddhist sacred place. There are,

- i. Visual sensibility
- ii. Auditory sensibility
- iii. Olfactory sensibility
- iv. Tactile stimuli sensibility.

3.2.1 Visuall sensibility

Following physical situations of Buddhist scared place are mainly contribute for the sensibility from visually. And visuall sensibility is the most important factor of sense of a Buddhist sacred place.

- i. Location
- ii. Entrance
- iii. Lay out

3.2.1.1 Location of a Buddhist sacred place

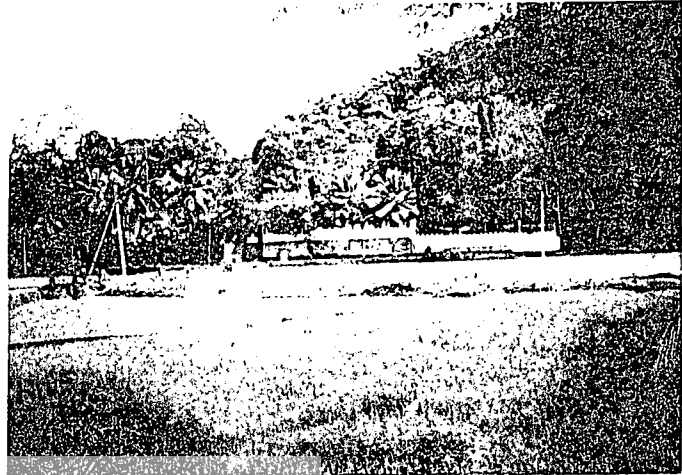
Location has a considerable ability of giving visual message. In traditional Buddhist sacred places, they are specially concerned about the location. In this places, various features can be seen, such as isolation from residential areas, locating the centre of the village or paddy fields. Locating the higher elevation, close to the river or open spaces and so forth.

Fig. 1 Buddhist sacred place on a higher elevation yougashramaya - Agalawatta.



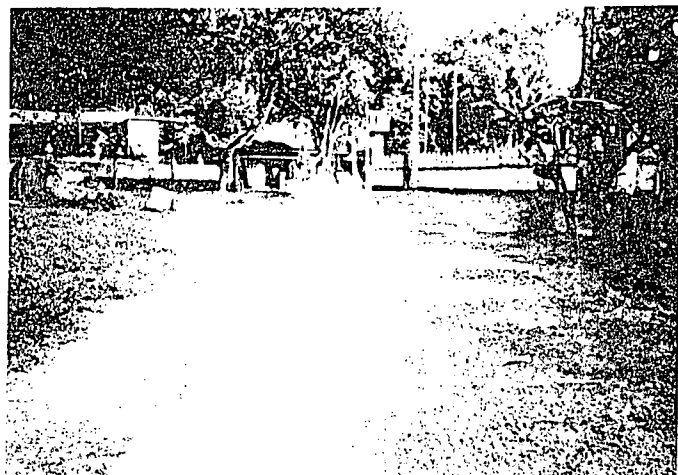
Selection of suitable locations and environments for the Buddhist sacred place is important in order to achieve success in the development concentration, tranquillity, calmness and serenity of inner thoughts of the devotees. Buddhist sacred places can function very well in places having an environment of calmness. Serenity and tranquillity in an isolated but dominant surrounding.

Fig. 2 Good isolations form the village Abaya Purana Vihara - Kolahakada.



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Fig. 3 Visual sensibility of Buddhist sacred place palanda Raja Maha Vihara - Boduraliya



3.2.1.2 Entrance of a Buddhist sacred place

Entrance has a considerable ability of given visual sensibility . Entrance of the Buddhist sacred place is also an important feature which these are several type of entrances can be identified.

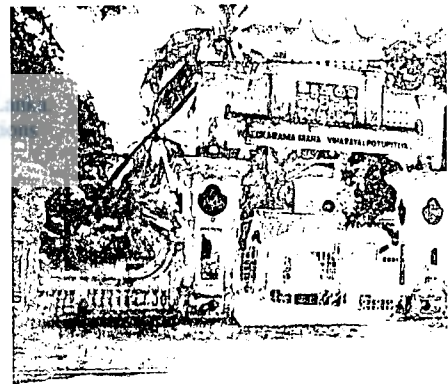
I. Entrance with the Pandal or roof gate.

This is common visualizing element in Buddhist scared places. It has a considerable place of the sensible arrangement . most of them sensible arrangement. Most of them are decorated with various motifs.

Fig. 4 'Makara Thorana' at the entrance of Vatukarama Maha Vihara - Pothupitiya.



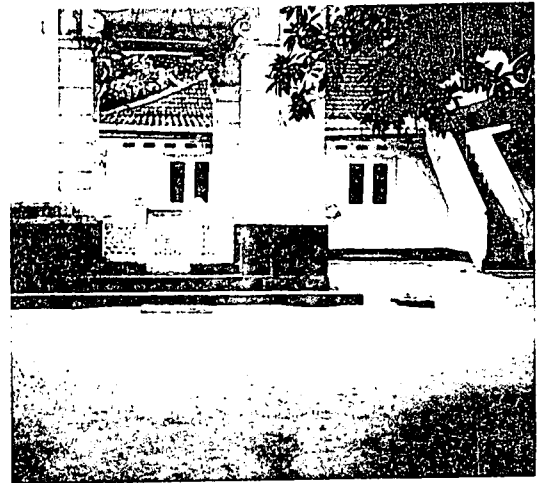
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II entrance with bell tower

It gives considerable visual and auditory sensible arrangement

Fig. 5 Bell tower as the entrance - create strong sensibility and perceptuality 'Poovaranaya' - Agalawatta.



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Some Buddhist sacred places have used various structures such as the roofed gate as the sameway

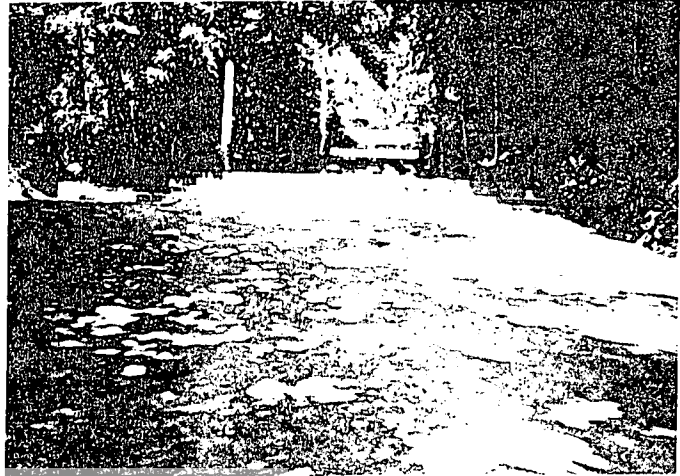
Fig. 6 Roof pandal as the entrance 'Len Raja Maha Vihara' - Warakagoda - Horana



III. Entrance with a formal access way

In this situation, a worshipper is subjected to a control to some extent. And the long access path visualizes the Buddhist sacred place a long time before entering the Buddhist sacred place. This gives dominant quality for the Buddhist sacred place.

Fig. 7 Long path through the natural environment. 'Len Raja Maha Vihara'- Warakagoda

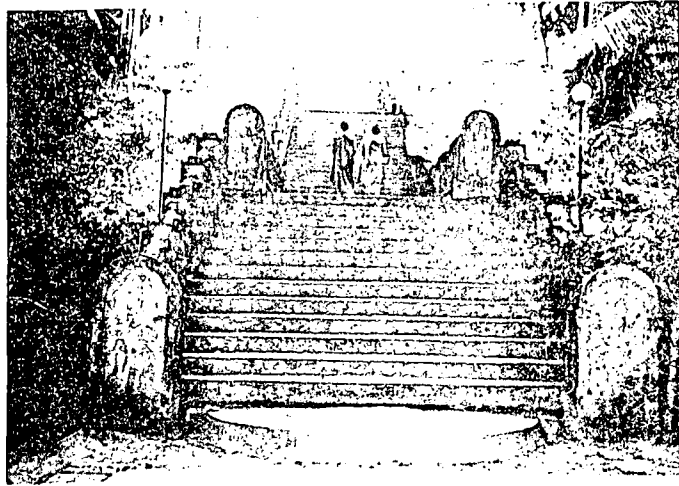


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IV. Entrance with steps

In this situation for the worshipper to think about the Buddhist sacred place and get down from the outer thoughts 'while' he visualizing the Buddhist sacred place for a long time. This type also gives a dominant quality to the Buddhist sacred place.

Fig. 8 Directly
focus to the
stupa .
'Manhabndiya
Purana Vihara' -
Kalawila



3.2.1.3 Layout of a Buddhist sacred place

This can be divided in two types . one is arrangement of the structures . Other thing is internal spaces.



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Arrangement of the structures within the Buddhist sacred place can be given a fair amount of visual identity for the Buddhist sacred places. Some Buddhist sacred places have a good arrangement of buildings to facilitates the worship in a proper way which has commonly identified as 'Saririka' , ;'Paribhogika' and 'Uddeshika'. Stupa has a special form than other buildings in the Buddhist scared place and more visualistic place is the stupa in their layout the Buddhist sacred places.

Internal space is other type of layout. 'Weli maluwa' around the stupa and 'Bo-maluwa' around the Bo - tree are arranged with spaciousness and colour to give that sort of environment. Buddhist sacred places with golden fine sands and spacious 'weli maluwa's given a serene environment for devotees.

Fig. 9 'Bo -
Maluwa'
with a serene
Environment

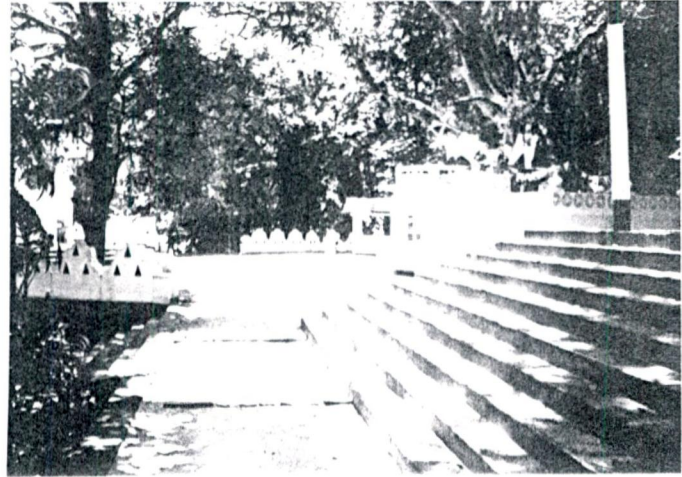
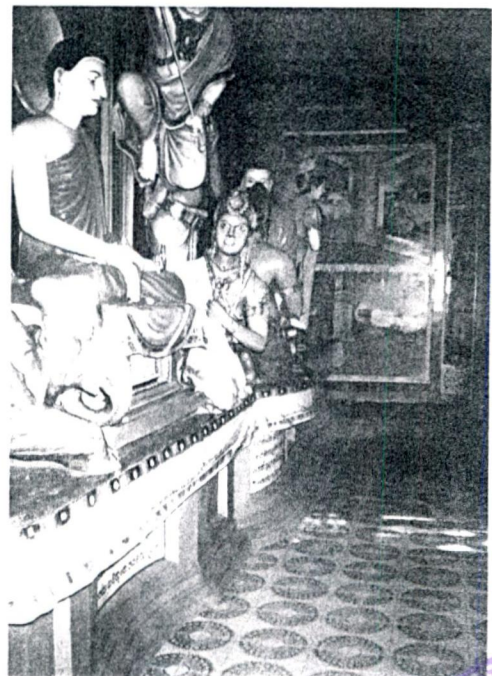


Image houses are arranged with various techniques to give visual impressions for devotees. Most of the image houses in Buddhist sacred places consist of a path around the Buddha's chamber for worshipping by walking around (Pradakshina patha a)

Fig. 10
Strong Visual
sensitivity
internal space
interior of the
image house
Sri Sudharashanaramaya
- Matugama



Preaching hall also has several types of aspects to facilitate the task which is done inside it. They have a big roof and have a sense of spaciousness inside it. So that internal spaces within the Buddhist sacred place have a good task of visual sensibility.

3.2.2 Auditory sensibility

Before worshipper is entering to the Buddhist sacred place he hears the sounds of the 'Bell' (Gantara) or Hewisi (Drumming) which seems to invite him to the Buddhist sacred place.

In a Buddhist sacred place, these sounds occur within a silent environment. Therefore, noises from outside the Buddhist sacred place, destroy the good sensibility for a good image of a Buddhist sacred place. Specially some Buddhist sacred places located at the mountain tops close to the river have a good windy environment. These winds create sounds of blowing and movements of leaves of trees specially leaves of Bo-tree. It gives sensibility of the Buddhist sacred place.

3.2.3 Olfactory sensibility

Large land areas and long accessing paths are located in some village - Buddhist sacred places. Those places were filled with fragrance blossoming plants like temple trees, Rukaththana, wathusudda, Sepalika and so on.

Josse - sticks and 'Kapura' are the other common sensing fragrances of a Buddhist sacred place.

Worshippers who come to the Buddhist sacred place and walk within the Buddhist sacred place feel these fragrances of flowers. That gives the devotee the message about the place, Bad smells from a polluted environment is also applied in the same way.

Fig. 11
Weli Maluwa
with
temple trees.



3.2.4 Tactile stimulation sensibility

Buddhist sacred places have steps for its entrance and that steps give hard touch to the worshipper's feet, after he enters the Weli Maluwa (sand area) around the stupa and Bo - Maluwa (sand area) around the Bo - tree, that areas give a soft touch to the feet.

Worshipper enter the image house where the floor is finished with the materials giving a cool touch to his feet. Places are located in windy & harmfully areas gives a comfortable touch of winds to the worshipper.

Fig. 12
Tactile stimulation
sensitivity
'Mauhandiya
Purana Vihara' -
Kalawila



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3.3 Perceptuality of a Buddhist sacred place

Dissanayake mentioned about the

"Warakagoda Len Raja Maha Vihara', the Bodhi goes to back to Anuradhapura period and it is believed that this Bodhi is a branch of Sri Maha bodhi at Anuradhapura"¹²

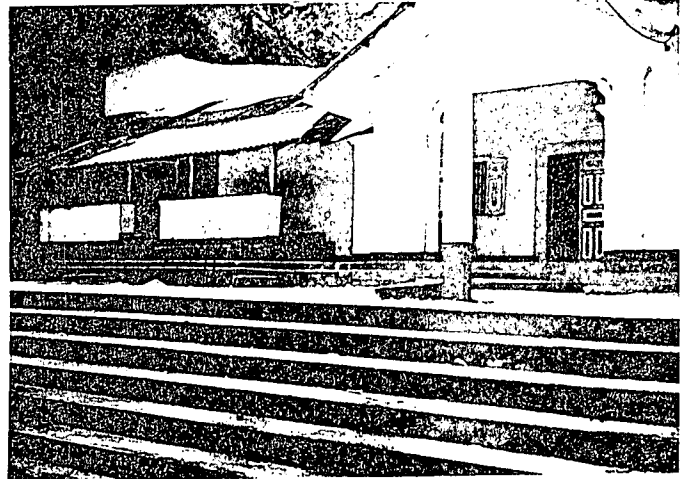
This facts coming from various historical information gives the people a perception about the 'Bodhi'.

The perceptual framework of Kelaniya Viharaya is related with Buddha's visit to Kelaniya. Buddhist believe that there is a seat carved

¹² Dissanayaka J.B. Sinhala Vihara Vihara 1996 , P - 63

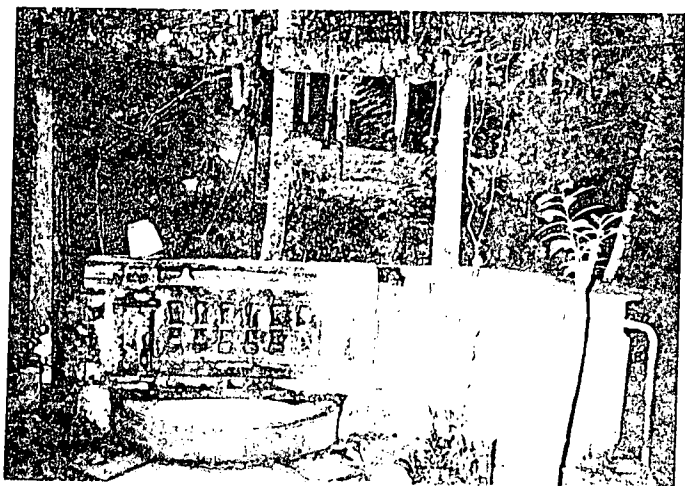
with gems which was used by Buddha, at that occasion is enshrined inside the 'stupa' of Kelaniya Viharaya.

Fig. 13
History
the main factor
for perception
'Len Raja
Maha Viharaya"
- Warakagoda.



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Fig. 14
Hisotirela
monuments
in a Buddhist
sacred place.
'Manhandiya
Purana Vihara',
Kalawila.





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CHAPTER FOUR

CHAPTER FOUR

4.0 BUDDHIST SACRED PLACE IN CONGESTED URBAN CONTEXTS.

In this chapter intended to discuss what happened to the Buddhist sacred places in Western Province in Sri Lanka when located in congested urban environments. And this chapter of the essay examines how the Buddhist sacred places have evoked their physical aspects within people in urban contexts.

4.1 Buddhist sacred place in an urban context

4.1.1 Urbanization

Cann & Irwin express that, the urban places of the present urban revolution have resulted from two processes; one is urbanization and other thing is urban growth.

Urbanization means that

"the process by which proportion of the population of a country living in its urban places increases and the proportion living in rural areas decreases. Urbanization is associated with the shift in employment from primary industry to secondary and tertiary industries".¹³

¹³, Cann and Irwin - Space, place, Economic and settlement, 1984 P - 382

4.1.2 Urban growth

Urban growth is

"the process by which there is an increase in the number of urban dwellers but not in the proportions of urban dwellers within a country."

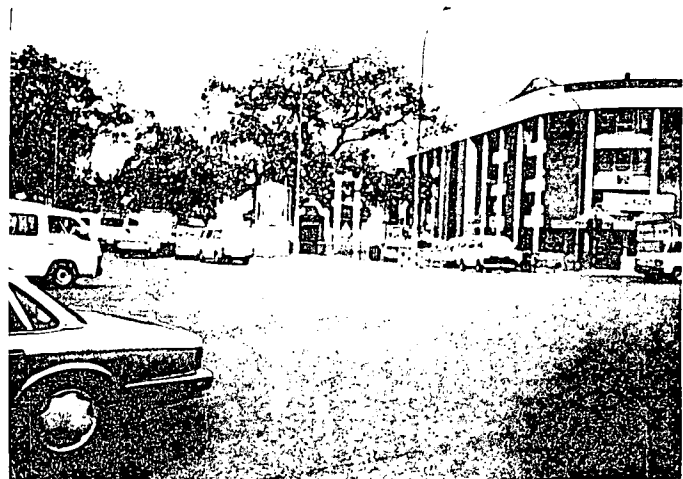
¹⁴

4.1.3 Setting of a Buddhist sacred place in urban context

In urban environments, the population density is higher. they need dwellings and infrastructure facilities. But subsequently they need educational religious and recreational facilities.

Buddhist sacred places in urban contexts have to face various problems in this situation like , noisy environments in to the traffic flow , scarcity of lands , other industrial works , and so forth. All these qualities are included in unfavorable places which Lord Buddha has mentioned for carryout religious activities . Due to the unfavorable situation of urbanization and need of Buddhist sacred places in these areas it has to face unfavorable situations. And that Buddhist sacred places should be able to keep the image in people's mind to carryout their religious activities properly and devotedly.

Fig. 15
Buddhist
sacred place
among traffic
flow Borella
Junction.



¹⁴ Camn and Irwin - Space , propel , place: Economic and settlement. 1984 P - 387

4.2 Physical aspects of Buddhist sacred place in a congested urban context.

4.2.1 Sensibility of an urban Buddhist sacred place

This is the most commonly identified determinant factor of achieving imageability by urban Buddhist sacred places.

4.2.1.1 Visual sensibility

This is the most important applicable sense of an urban Buddhist sacred place.

I. Location

Most of Buddhist sacred places do not have a good visual sensibility than rural temples. Some have only a least amount of this aspect which are located in some corners of urban blocks.

Fig. 16
A rare
location within
an urban context
have good
sensibility
'Ganagamaya'
Colombo.

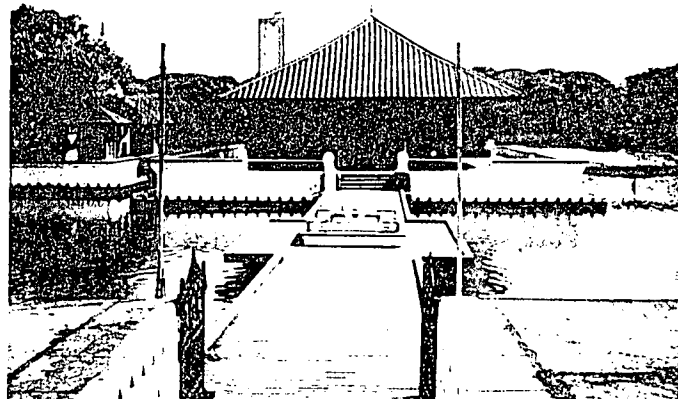
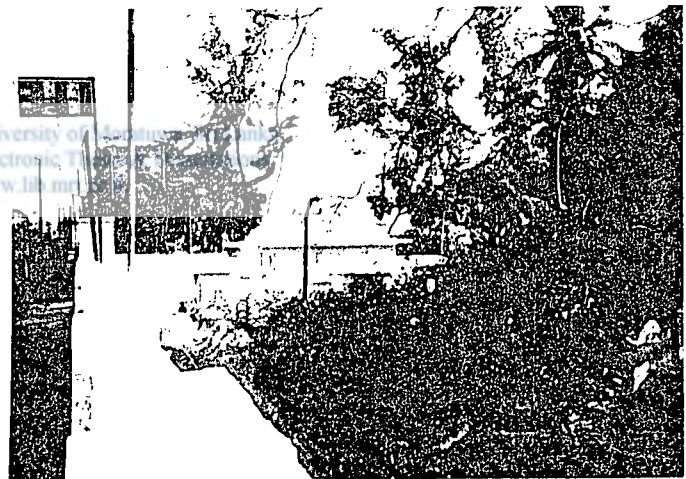


Fig. 17
Only the locational
aspect supports its
sensible
arrangement -
'Bodhiraja viharaya'
Pettah Junction.



Fig. 18
Stupa is
more prominent
building visual
sensitivity -
'Dhamendharamaya'
- Mt. Laviniya



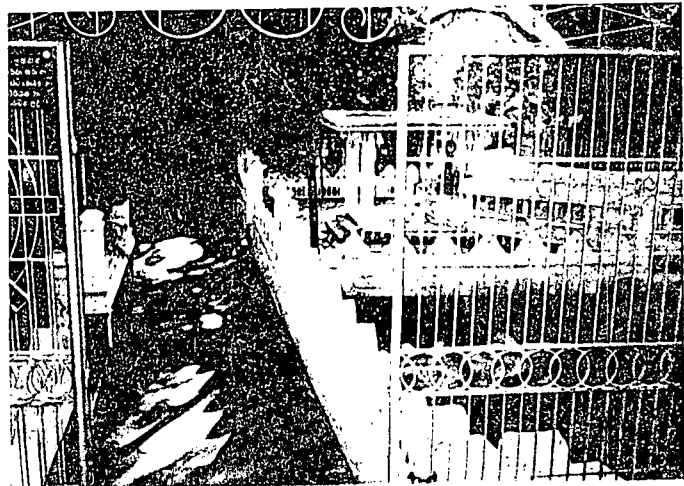
II. Entrance

This is most commonly used visual sensing feature of urban Buddhist sacred places. Most of Buddhist sacred places cannot use entrances with long accessing paths and formal accessing paths, because of the scarcity of land. Pandal with decorative elements and roof gate structures, steel structures are used as entrances of urban Buddhist sacred places.

Fig. 19
Disturbing the
Entrance
'Pushparamaya'
Rathmalana



Fig 20
Entrance
have steel
structures
'Dharmendramaya' -
Mt. Lavinia



III. Layout

a) Arrangement of the structures

Arrangement of the structures of the urban - Buddhist sacred places have no. ... considerable contribution for the visual sense. But some have arranged their structures to take a certain amount of visual advantage within the restricted site.

Some have placed a giant Buddha image closer to the entrance and it gives visual expression for a person before entering to the Buddhist sacred place. Some urban Buddhist sacred places have tended to arrange structures at different levels. They have built the image house preaching hall and the stupa in the same building with several floors. They have built the structures of urban Buddhist sacred places at above or underground surfaces.



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Fig. 21
Giant Buddha
Image - the main
element of the sensible
arrangement - Buddhist
sacred place -Dehiwala.

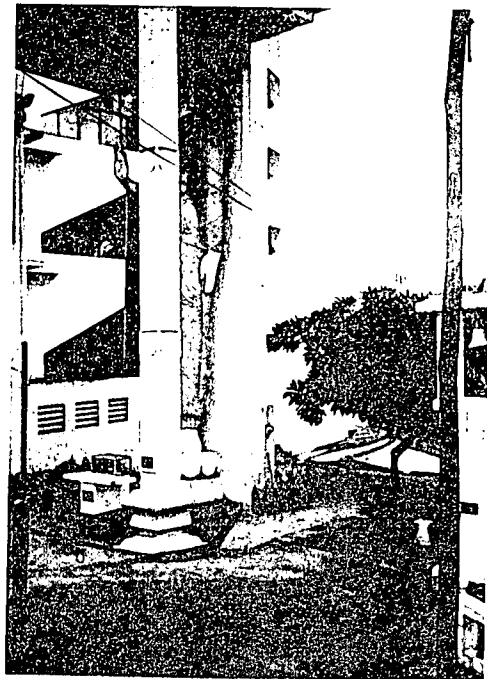


Fig. 22
Land scarcity
and have a
dominance
Buddhist
sacred place
at Moratuwa.

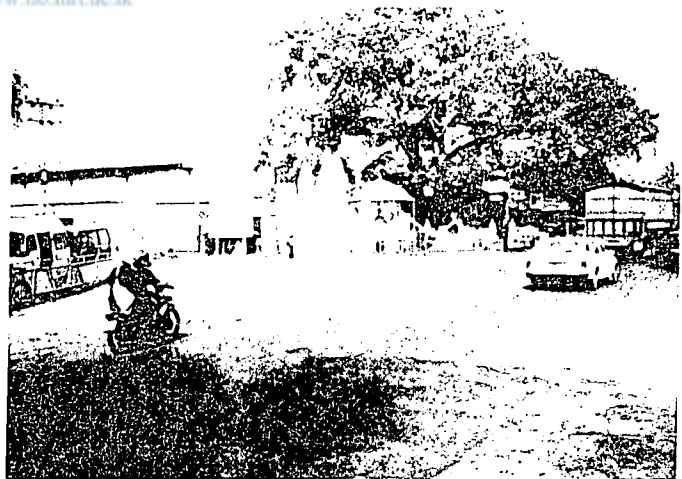


Some have evolved around the Bo - trees and they built structures around it with an entrance at the middle of it.



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Fig. 23
Bo - Tree
around the
structures
'Bo - tree'
Angulana Junction

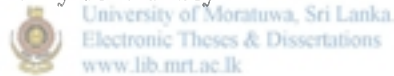


b) Internal spaces of urban Buddhist sacred places .

Most of Buddhist sacred of places have not utilized internal spaces properly for their visual sensibility. Because of the lack of space, the 'Weli maluwa' and 'Bo maluwa' are not practical in urban Buddhist sacred places.

Some Buddhist sacred places have placed the stupa with 'Weli maluwa' at the top of the image house or the preaching hall and it gives visual sensibility. Internal spaces of the image house, preaching hall and other buildings have not been used properly in some Buddhist sacred places in urban situation. But some of them have done well to attract the worshipper's eye.

4.2.1.2 Auditory sensibility



The sensible arrangement of the structure has not gain a considerable support from the sense of audition (ear), because of the unavoidable noisy surrounding in some of urban areas. But some have gained that by using sounds of bells and installing loud speakers for chanting 'Pirith', 'Dhamma Desana' and 'Kavi Bana'.

4.2.1.3 Olfactory sensibility

The sense of olfaction has to be meaningless in urban contexts, due to bad smell of polluted areas. But they have this sense to some extent by the fragrance from offered flowers, burning 'Kapuru' (camphor) oil and so forth.

4.2.1.4 Tactile stimuli sensibility

Urban Buddhist sacred places haven't enough spaces for the 'weli maluwa' . 'Bo maluwa', flight of steps and so forth . As the results this sense does a lesser task.

But some Buddhist sacred places have done it to a certain extent by locating the 'stupa' and 'weli maluwa' on the roof of another building.

Steps to go up to the 'weli maluwa' and a worshipper touches the steps with his feet and enters the 'weli maluwa' with fine sand on his feet. Some times that top level is more windy and gives a cool effect than on the ground

4.2.2 Perceptuality of an urban Buddhist sacred place



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Perceptual arrangement of an urban Buddhist sacred place has a less contribution for its imageable structure . Three factors can be identified for perceptuality of an urban Buddhist sacred places.

I. Historical Background -

Some have historical back ground . In many Buddhist sacred places, the historical factor is not strong enough for the perception.

II. Socio - cultural activities

It gives some amount of perception for them . Some Buddhist Sacred places have special retuals like 'Perchaha' (processions) and so forth . It would be a very important perceptual fact for people. It will increase the perceptuality of the Buddhist sacred place.



III. Beliefs

Some urban Buddhist sacred places have tried to generate beliefs with it by including gods within it. They have built 'Devalas' and carryout 'Shanthi Karma' and other 'Poojas' by them. Newly added thing for some urban Buddhist sacred places by their Bhikkus in 'Sai' centers and 'Bhajan songs' for their rituals.

Those facts improve the purceptuality of an urban Buddhist sacred place.

Fig. 24
Historical
Monument
interior of the
image house at
Ratmalana 'Pusparamaya'



CASE STUDIES ONE

Kalutara Buddhist sacred place complex (Kalutara Bodhi)

This Buddhist sacred place is located in the Kalutara urban area, close to the 'Kalu Ganga' (river). This site has totally cleared in 1920 s, by the Kalutara Bodhi development program under the guidance of Sri Cyril Zoyza 2 who initiated this programe.

Sensibility of the ' Kalutara Bodhi'

Sensible arrangement is more prominent than the perceptual arrangement. The Bo-tree has caused the establishment of the 'Kalutara Bodhi'. It has a strong imageable structure caused by its sensible arrangement which has a 'Big stupa' surrounded by a wall with curves, entrances with 'Thorana' (pandals), decorative walls and so forth.



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Another main sensible factor is achieved from its location which is on the bank of 'Kalu Gnaga' and at the end of the bridge.

Fig. 25

Vast dominant
stupa & Kalu Ganga
strong sensibility.

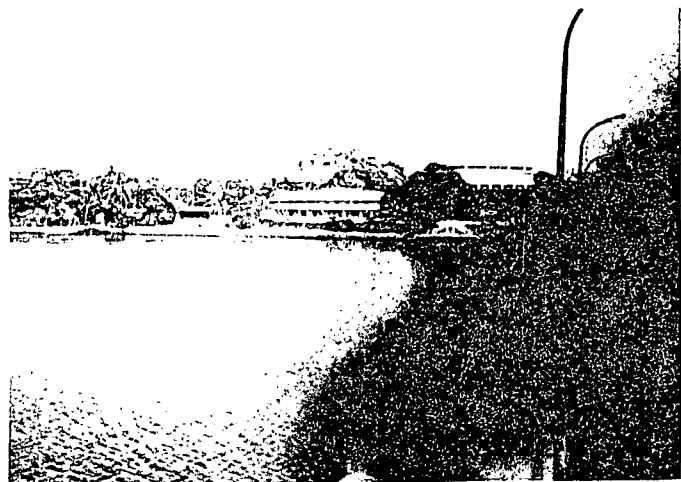
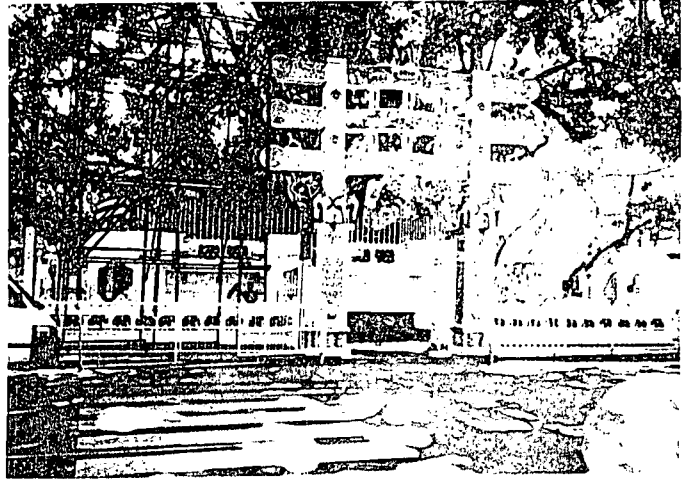


Fig. 26
Entrance
of 'Thorana' &
Bo - tree -
good sensibility



The bridge is sensed as the entrance path to the place across the river with cool winds and a vast water surface.

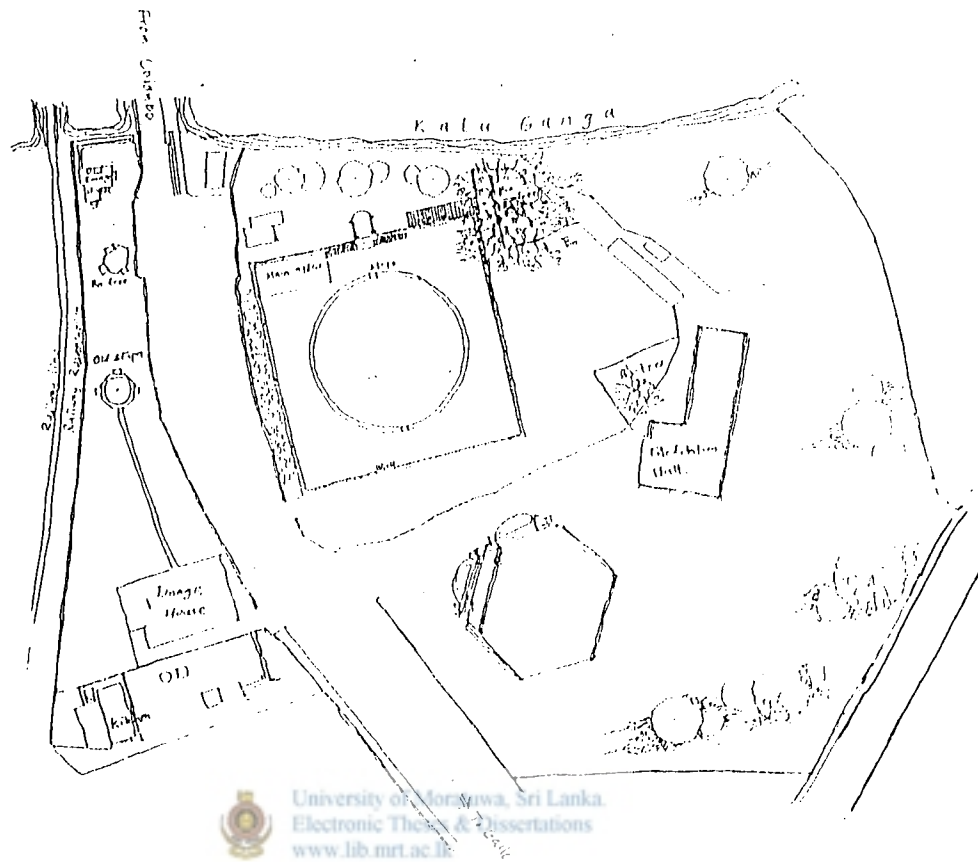


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The particular site is divided in to two by Colombo - Galle main road which, runs across the site. The western part which is almost flat and linear in shape consists a small stupa, sacred Bo - tree , two houses and a resting place for monks. The other part which is hilly consists a vatadage (Large stupa), ancient Bo tree and a preaching hall.

And these is no any order or dicipline either in layout as there are two accesses and so on. No deveotee is directed properly to worship the symbolic objects according to their hierarchical order and importance.

This site would have been an ideal location for a place for worship during ancient times, as there was no noise making traffic as at present. Neither massive bridges nor railway track was there too. It was a very quiet setting situated on hill and was only accessible from the Kalu - ganga.



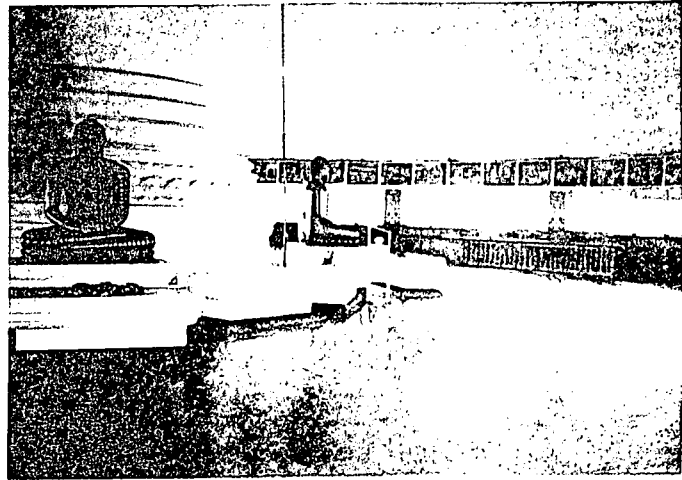
Lay out of the Kalutara Bodhi

As the results more restrictions have their physical aspects of 'Kalutara Bodhi'.

Fig. 27
Visual
Disturbance
of the Buddhist
sacred place
Division of the
site by the main road



Fig. 28
Internal space
in hollow stupa
- comfortable touch
sensitivity



Perceptual arrangement of the 'Kalutara Bodhi'

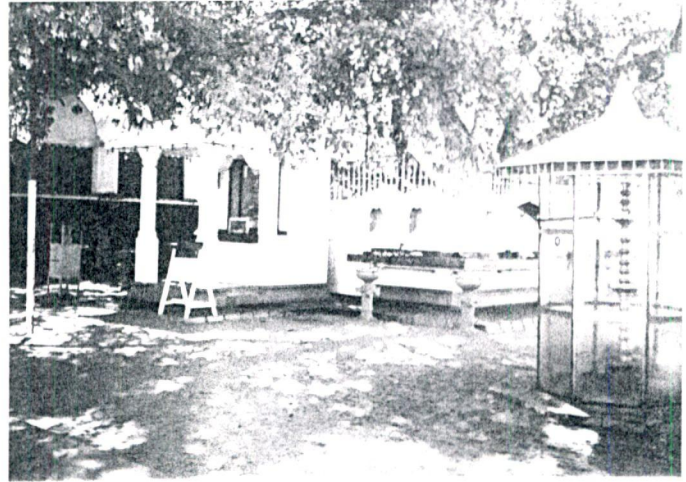
The historical factor is sufficient for this. The history of Kalutara Bodhi goes back to Anuradhapura period and it is believed that this Bodhi is a branch of Sri Maha Bodhi at Anuradhapura. It was believed that there had been a Buddhist sacred place called Gangatilake Viharaya at this site and that has been destroyed by Portuguese.

As the results devotees believe 'Anuhas' obtaining from the 'Kalutara Bodhi' after worshipping that place and rituals.

Fig. 29
Painting inside
the hollow stupa
sensibility and
perceptuality



Fig. 30
Old Bo - Tree
with Bo - Maluwa

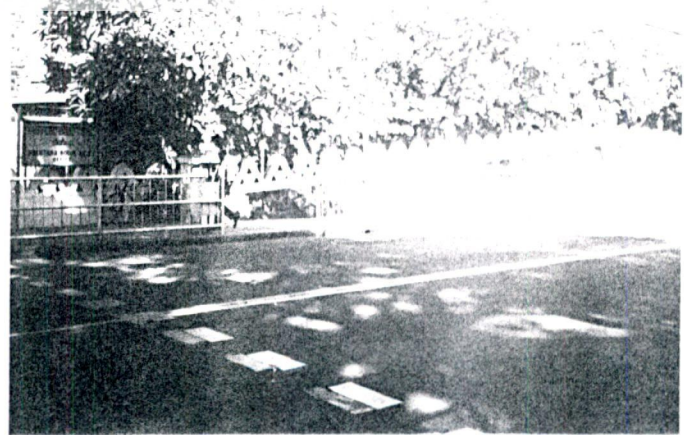


But, the place does not seem to have a strong arrangement of pure perceptual elements other than its Bo - tree which receives money in charity boxes to bestow blessings to the people who travel via Kalutara

Fig. 31
Pure perceptual
element - money
in charity boxes



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CASE STUDIES TWO

Sri Sambuddhaloka Viharaya , Fort

This Buddhist sacred place is located in the heart of Colombo, close to the old parliament, world trade centre and the Hilton Hotel . A proper establishment of the Buddhist sacred place occurred in 1976. Before that, only the Bo - tree was there .

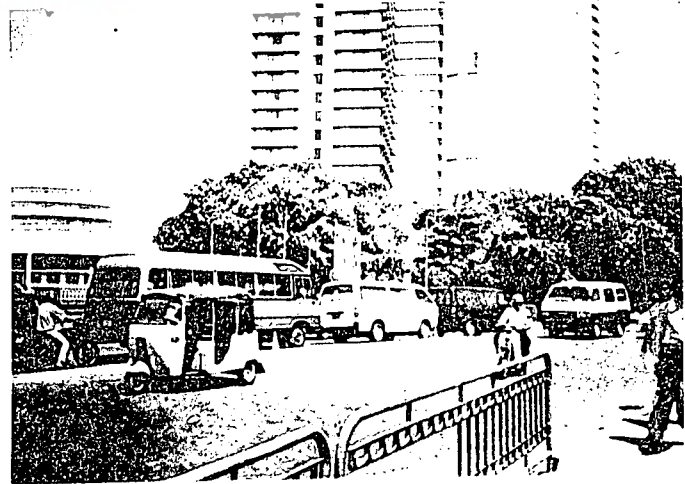
Sensible arrangement

This very strong here by visual sensibility. A visible 'stupa' is placed at corner of the block which is at the entrance way to Colombo from the South. It gives a good visual identity for the Buddhist sacred place externally.

Fig. 32
Dominant
'Stupa' among
other urban fabric
- strong sensibility

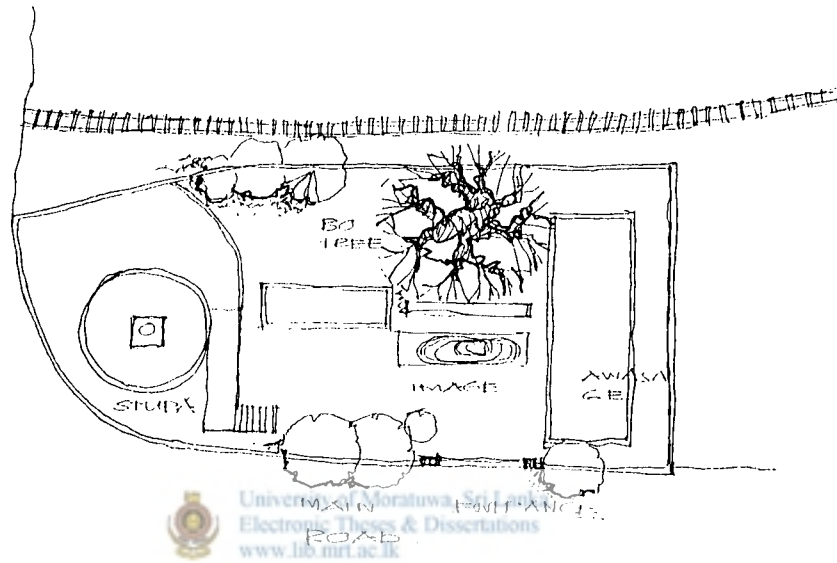


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Internally , there is a giant Buddha stature facing the entrance. And preaching Hall , Library, Image house, 'Awasa Ge', 'Dana sala' Kitchen, rooms for outsiders are properly contained within that limited floor area (extent 52 perches) at several levels. Another attractive

sensible feature is the image house inside the hollow stupa. It's inside walls are decorated with wall paintings.



Lay out of the Sri Sambuddhaloka Viharaya

Fig. 33
Buddha
image facing the
entrance

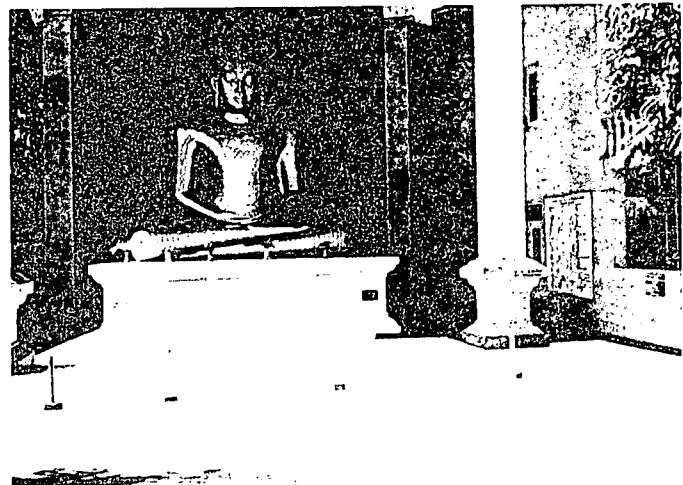


Fig. 34
Land scarcity
- Narrow entrance
to Bo - Maluwa



Perceptual arrangement

Though its historical factor is not strong, it has a perceptual arrangement to a certain extent. It possesses a considerable sacred environment.

The prominent stupa among the other urban built fabrics enables to create a perception within the peoples minds. In addition to that, it is conducted as an international Buddhist library and a centre for Buddhist information. These things also help to the society and help in the perception of the Buddhist sacred place.

Fig. 35
An element for the
Perception -
international
Buddhist library.

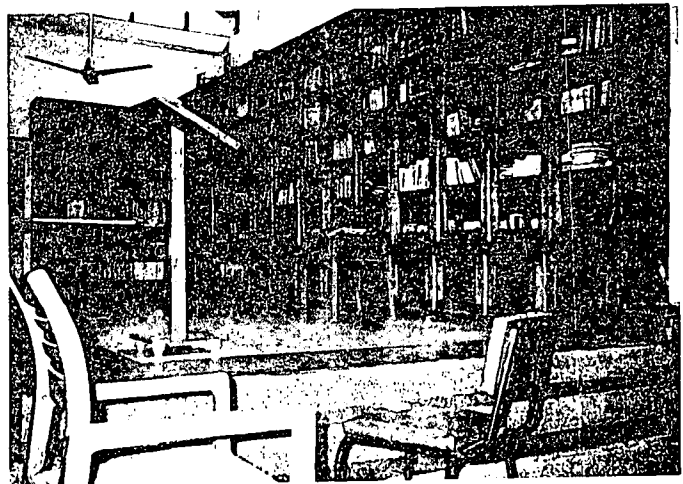


Fig. 36
Painting inside
the hollow stupa -
sensitivity and
perceptuality



And the Buddhist sacred place processes a 'good' image as a Buddhist sacred place (physical aspect) that mean as an urban Buddhist sacred palce, it has achieved its 'image' properly within that site to cope up with the restrictions related to it.



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CASE STUDIES , THREE

Jethawanarama Viharaya

Prince of Wales Mawatha, Colombo

This Buddhist sacred place is located very close to the 'Divulga shandiya' at the prince of Walls Mawatha. This has a considerable site area for its activities . The function of the Buddhist sacred place is not bad to the devotees . The place has 'Devala's and they do things like doing activities using ghosts, fortune telling invoking devils and so forth.

Sensible arrangement

Sensible arrangement is more prominent than the perceptual arrangement. An entrance pandal ('Thorana') and the giant 'Samadhi' Buddha stature facing the road gives visual sensibility to the Buddhist sacred place.



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Fig. 37
Giant Buddha image
(Thorana) and
temple trees -
element of the
sensible arrangement

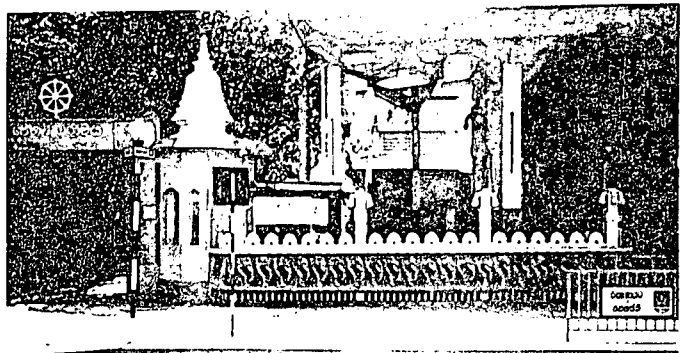


Fig. 38
Access way to
the image house
- good sensibility

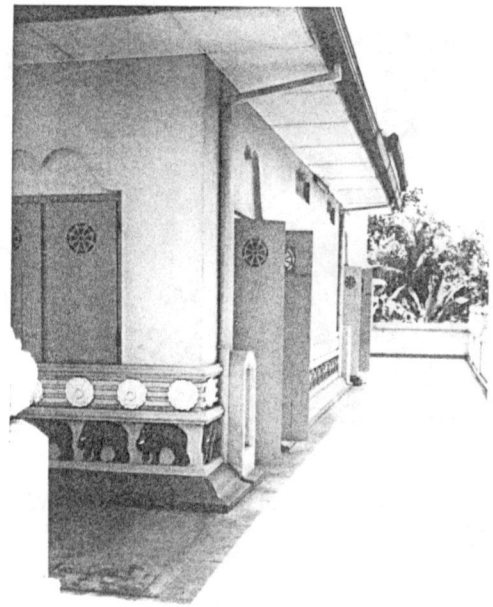
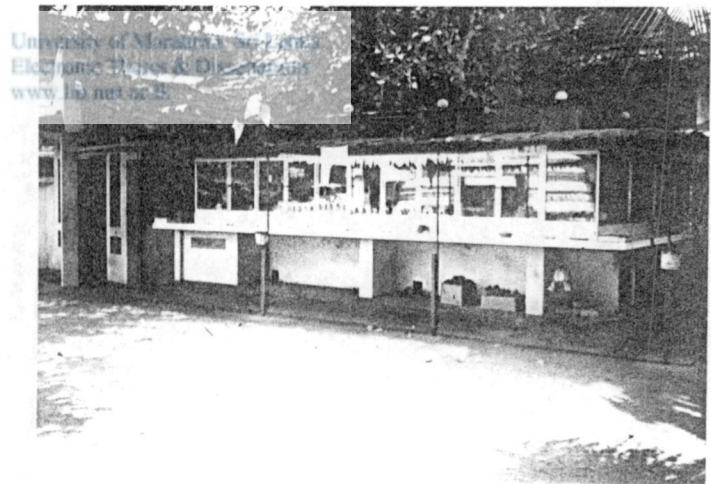
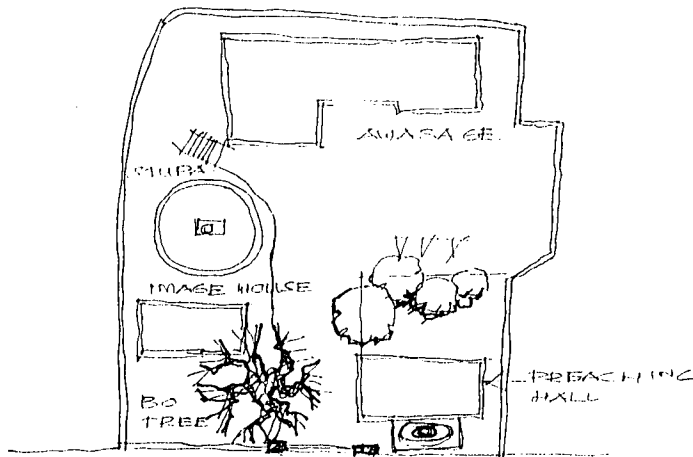


Fig. 39
Bo - Maluwa
with haphazard
built structures





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Lay out of the Jathawanarama Viharaya

Perceptual arrangement

The historical factor is insufficient for this. Therefore Bhikkus have added 'Devala' and emphasize their activities than the Buddhist sacred rituals. These things and other social needs like societies campaigns like blood donations take place here.

And also it can be suggested to improve the perception by starting an annual 'Perehara' (Procession) like festival.

This place has sufficient on 'image' as a Buddhist sacred place. But it can improve its imageability (physical aspect) by avoiding the destructive views like parking vehicles inside the Buddhist sacred place and so forth.

Fig. 40
Devala & Image
house - no
proper
interaction



Fig. 41
Vehicle parking
Destroy the scenic
environment
of the Weli Maluwa



CONCLUSION

The study has discussed the necessity of examining the physical aspects as a constant environmental quality. The image and imageability can be identified as the main physical aspects of environment.

The strength of physical aspects depends on its components which are supported by the arrangement of elements within a place. A place consists of two distinct arrangement of elements which have given the names sensible & perceptual arrangements. These are interact with each other to form the imageable structure of a place which consists of a centre, an enclosure and a continuity. The arrangement of elements in a Buddhist sacred places is determined by the interaction between the sensible and perceptual arrangements.



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As the population density is the result of the urbanization, people need religious places for their religious rituals. So that, they have to locate their religious places within this urban context.

A considerable level of physical aspects for function as a Buddhist sacred place is an important quality of any Buddhist sacred place in any environment. Therefore keeping a good imageability and heightening it has become a prime requirements in the design and development of such congested urban Buddhist sacred places. Such a condition is made possible by,

1. Strengthening the sensible arrangement
 - i. Re-organizing the existing physical elements to highlight the meaning dissolved by the existing physical arrangement.

- ii. Bringing in meanings by introducing meaningful elements , where necessary.
- iii. Removing the existing obstructions as well as possible.

2. Strengthening the perceptual arrangement

Introducing religious festivals like 'Perahara' (Processions) which is organized by the Buddhist sacred place.

The above facts show the necessity of an architectural approach in the design and development of an urban Buddhist sacred place that has a high concern towards the physical setting and the religion of a particular state.

Perceptual arrangement is very poor in most urban Buddhist sacred places. So that the urban Buddhist sacred places which do not have enough sensible arrangement , possess a weak image for them , therefore these Buddhist sacred places are unable to achieve their objectives as Buddhist sacred place. Worshippers rejected that places and so that it tend to invade the Buddhist sacred place by commercial activities and so forth.


That means the sensible arrangement of a congested urban Buddhist sacred place is the primary determinant factor of its physical aspects. Perceptual arrangement is the secondary one.

Therefore, to improve the 'physical aspects' the sensible arrangement have to be improved well. However, these conclusions are valied only within the context of study which is Buddhist sacred places in congested urban contexts in the Western Province.

BIBLIOGRAPHY

1. Anagarika, B. Govinda **The Physiological attitude
of early Buddhist
Philosophy**
Patna University,
India 1936 - 37


2. Basnayake, K. **Sri Lankan Monastic
Architecture**
Sri Satgara publishers,
Delhi, India 1986

3. Boulding, K. **The Image**
University of Michigan
Press,
U.S.A 1961


University of Moratuwa, Sri Lanka
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

4. Boulding , Kenneth, E. **Image and Environment**
Aldine Publishing company.
Chicago U.S.A.

5. Camm, J.C.R. & Lrwin, P.G. **Space, people, place;
Economic & settlement
Geography, Longman
Chishire pty Ltd,
Mellbourne, Australia, 1984**

6. Canter, David **The Psychology of place**
The Architectural press,
London , England 1979
7. Carter, Jojn Ross **Religiousness in Sri Lanka**
Marga Institute,
Sri Lanka 1979
8. Chullawagga Pali **Buddha Jayanthi**
Thripitaka Mark
Government press 1987
9. Dayaratne, R. **Significance of place as the**
 University of Moratuwa, Sri Lanka
Electronic Theses & Dissertations
www.lib.mrt.ac.lk **basis for Design and**
planing
an unpublished paper
1992
10. Dissanayake , J.B **'Sinhala Vehera Vihara'**
S. Godage & brothers,
Colombo 10,
Sri Lanka 1996
11. Hayed Dolores **The power of place.**
The MIT press, Cambridge,
Masachussetts,
London, England 1995

12. Jencks, Charles, A. **Late Modern Architecture:
and other essays**
Academy additions,
London 1980
13. Journal **The Japan Architect**
Sep. 1985
Buddhist temple for an urban
environment by Yasuyuki
Takaguchi Atelier zoka
14. Journal **Ruberu, J.J.**
Annual Magazine of
university Buddhist brother
hood, Colombo .
University Buddhist
The message of Buddha
15. Kasard, J.P. & Parnell, A.M. **Third world cities.**
SAGE publication, Inc.,
U.S.A. 1993
16. Lyle, Emily **Sacred Architecture.**
Edinburgh University Press,
Edinburgh 1992



University of Moratuwa, Sri Lanka
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

17. Lynch, Kevin. **The image of the city**
Massachusetts institute of
Technology, 1960
18. Narada Maha Thero **The Buddha and his
teachings**
The Buddhist Missionary
society,
Kualalampur 1977
19. Nimalasooriya, A **Buddha the Healer.**
Buddhist publication society,
Kandy, Ceylon.
20. Rahula, Walpoia **What the Buddha taught**
Gorden Fraser,
UK 1956
21. Relph, E **Place & Placelessness**
Pion Limited, London,
England 1976
22. Saunders, Peter **Social theory & the Urban
Question**
Ilutchinsone & Co.
(Publishers) Ltd,
UK. 1981



University of Moratuwa, Sri Lanka.
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

23. Shultz, Norberg **Existence, space and architecture**
preager, New York,
U.S.A. 1971
24. Shulz, C. Norberg **Intentions in Architecture**
The Norwegian Research
Council for science and the
Humanities
1966
25. Shulz, C. Norberg **Genious - Loci -**
Towards a phenomenology
of architecture.
Rizzoli International
Publications,
U.S.A. 1980
26. Silva, Roland **Religious Architecture in
Early and Medieval
Sri Lanka.**
1988
27. Ven. Kassapa Bhadanta **'Bosat'**
Daily news press,
Lakehouse, Colombo,
Sri Lanka



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