The concept of 'flexibility' in placemaking: An examination of an alternate perception.

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Abstract

The concept of "flexibility' has been, is, and will be an indispensable component in the subject of placemaking. It represents the situation based adaptability or changeability of a place, which would surely be an essential feature in future placemaking process.
This study aims to find out the evolution of this concept of 'flexibility' in placemaking in an overall aspect. How it has been in past, how it developed along with time and people, its contemporary interpretation; then to get an idea based on these information as to what approach it would lead in future.

The dissertation is intended as an introductory attempt, to encourage other studies related to the concept of 'flexibility' in placemaking, as it is a vast subject with so many facets to it, which are still to be and should be explored in depth.

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Introduction

Topic explanation

Space is the opportunity; place is the understood reality (Harrison & Dourish, 1996), of the built environment. It is the closest entity to a person. It could be referred to as a concrete spatial locality, but also as an imaginary, mythic or literary location, which is not limited by dimensions. It is something more than an abstract location. It's a totality made up of concrete things having material substance, shape, texture, and colour. These things determine an 'environmental character' which is the essence of "place". A place is therefore a qualitative "total" phenomenon, which we cannot reduce to any of its properties; such as spatial relationships without losing it's concrete nature out of site. This factor gives a certain identity to a place.

People react to this identity or they adapt the place to suit their needs. Different activities need different environments to take place in a satisfactory way. Functions, even the most basic ones such as eating and sleeping, take place in very different ways, and demand places with different properties, in accordance with different cultural traditions, and different environmental conditions. For example, a dwelling has to be "protective", an office "practical", a ballroom "festive", and a church "solemn", etc...

Architecture is the formation of space using tangible elements and they are with meaning, created for different purpose, to house different activity patterns of people. This gives the clear idea that the spaces within the form must be created in harmony with the human response to activity pattern to take part in it. As Snyder, J. observes the relationship of spaces,

"All spaces, interior and exterior are experienced by people passing through them in a definite sequence. Spaces do not occur in isolation, they are linked together. Thus the effect of space depends on the spaces that come before and after it. All spatial sequences should be functional, and legible".

The structure of a place is not fixed eternal state. As a rule places change, sometimes rapidly due to issues such as, culture, attitudes, economic conditions, scarcities, etc...these factors demand multifunctional spaces. Since this arises the necessity of performing a collection of activities at a single place, change of spatial character related to each function should happen within that one place. Although character is to be changed, it shouldn't happen in isolation in response to each and every activity. This could result in 'placelessness'. Instead this change of quality should happen in relation to each other and end up in unity, producing a whole new meaning to the place. This only, will give the 'flexible place' its own unique character where its user will be most comfortable. Let us clarify the issue further. The scientist Blaise Pascal has said that, *"the multitude which cannot be reduced to unity is confusion; unity which is not dependant on multitude is tyranny"*

Since olden days this concept of flexibility existed. It had a different character or a meaning than it has now. The way it responded to it's users then, was different from how it responds to people now. The cause may be the changing attitudes, cultures and other demands, along with time.

Since, place – human, relationship is a deeply bound phenomenon, it's various concepts change, along with the change of people. This applies to the concept of flexibility as well. But past, present and future do not occur in isolation. Present is shaped by past experiences; future will be formed on present occurrences. Each

carries something from the past in order to form its character in future. So does the concept of 'flexibility in placemaking'. Although it changes along with time and varying demands, it's character and quality depends largely on precedence. So in order to provide future with successful flexible solutions, past and present occurrences of this concept has to be studied and they should be altered and applied, to suit the future changes.

Architectural problem/ Issue

"Human activities are often characterised as a theatre.(All the world is a stage) and consequently the built environment may be seen as a stage. People play roles, and so building becomes stage settings and props that support the life shows".
(Snyder, J.C. , 1979, p. 31)

Man and his immediate environment have a very strong interrelationship with each other. For various interactions of man, as individuals or as smaller groups, or as larger groups, they look for different environments. Man creates artificial environments to have these interactions. Due to various facts such as, culture, attitudes, beliefs, economic issues, scarcities, etc... a concept of flexibility is in existence from past up to present. Although there could be seen such places which have achieved the intended character of flexible places, where it's user feels comfortable and a sense of belonging in olden times, this success could be observed as decreasing along with time. The reason maybe that, in ancient times, the sense of place, the character of a place, must have been one of the first priorities of placemaking. People shaped their places to suit themselves so that they felt most comfortable there.
But as the demand for such places started to grow, and also due to the reason that people's decisions started to rely on facts and quantities, their understanding and reactions to things have started to lose its meaning. So have these 'places', where they have lost their meanings and their responses to human feelings and senses. This has caused the 'loss of place'.
Loss of 'place' means loss of identity of space. Changing attitudes of people also has given rise to the danger of losing the Identity of place. The 'place' concept is not appreciated by present society as it should. Reasons may be,
The increased knowledge of science, contributes to the increased attention towards the materialisticness of the world. The real value of 'place' is reduced to 'nothingness'. This could be due to the impact of 'positivistic' thought of the century, where concept tends to deny anything beyond, what is seen, and also the glorification of "objects" and 'objectification' of the world. As a result, the 'intrinsicness' of 'place' is reduced.This results in a monotonous experience of 'sameness', where every space not only looks alike, but offers the same bland possibilities for experience. This fact is very well described by Relph,
"If we take the current environmental situation, it's state of deep endemic crisis seems evident. The crisis according to our hypothesis consists above all in the incapacity to express places, which are endowed with meaningful values; response to needs of physical health, capable of stimulating a grasp of existential identity. In other words it becomes justified to speak of a chronic condition of placelessness".
(Relph, 1976)

In the case of 'flexible place', risk of occurring 'placelessness' is at a much higher level than in other places. Unless this place is appropriately designed to achieve a unity, to attain its own unique character through flexibility, the particular place being unable to cope or respond to the quick change of activity, which takes place in it, will result in meaninglessness. This would confuse its user, as he's not sure of to which quality he should respond since it changes from time to time so quickly. If the user is uncomfortable within one place, that place would not succeed and if the person is forced to use such a place continuously, it could cause adverse psychological consequences. If a person is not comfortable at one place, it would effect his activities, behaviour, responses and emotions, etc...which is an unhealthy situation of human habitation.

Rationale/ Need of study

Main reason for this loss of 'place, may be due to our attitude towards the concept of 'place', our inability to recognize the importance of creating the opposite of 'loss of place' – to the ' need of places'. At present, there is a strong current of opinion that these formal processes of making architecture often do not result in good place making. A recurrent theme is that projects succeed on the quantitative side, but fail in terms of reflecting appropriate spirit, values or feelings. The reasons for this are varied, and certainly not simple. A brief identification of two of the main reasons can begin to describe the challenge faced by those involved with design in general, and by the architectural community in particular. One reason lies in the emphasis, which our culture places on addressing life experiences primarily through reason and logical, linear thought. It promotes analytical, fact based reasoning, and detail-driven sequential processes. This "left-brain" functioning emphasizes the quantifiable at the expense of the qualitative. It does not promote the holistic, intuitive, integrating, interpersonal and experiential aspects of our beings. This cultural preference leaves us in a severe bind: our nature calls for a whole response yet our culture works against its accomplishment. As a result, the buildings and the environments, which we create, become incomplete and dissatisfying.

A second reason arises from the fact that design professionals, as members of the culture, are naturally coloured by their background. They are educated and mature within this system, and have as much difficulty functioning beyond its bounds as anyone else. By training and encouragement, architects become skillful at bringing rational order to buildings and at developing designs, which achieve predetermined quantifiable results. But they share with the rest of the culture a forgetfulness of how to place "being" before "doing," of how to embody interiority, of how to work with values and symbols and feelings.

If this situation continues, it will result in people having to use qualitatively unstable 'flexible' rooms, or else they will have to pay a high price to create comfortable separate spaces for each and every function, as contemporary situation demands a high price for everything including land and construction of buildings. As a result, people have become uncomfortable and unstable, with a lot of problems psychologically and otherwise.

In past also, this 'flexible' space concept has been used successfully in small spaces to suit the demands of that day. Past attempts may have been successful, because they were more concerned about the 'place' than anything else so that they took trouble to find out ways to create 'places' with multi- functional usage. Needs, cultures, attitudes, of people, and everything else changes along with time. Interpretation of 'place' should also change with these related aspects. But the need for 'flexibility' in place making was, is and will be, an essential fact in architecture and human habitation, in past, present and the future. Only the way of interpreting the 'flexible place' would change as it depends on all above-mentioned variables. The present is linked with the past and the future would be linked with the present. It is a continuous journey in which future will be formed from the experiences of past. So would be the case in architecture and also the concept of flexibility. In order to create a successful 'flexible place', one should look at the past situation where it was successful and adapt it to present or future with appropriate alterations to fulfil the changing demands along with time.

At present the need for flexibility could be seen as rising, because not only the cultures and attitudes change but also the demand for land, shelter and other built spaces could be seen as increasing. But along with these demands the availability of land does not grow. So that people tend to go towards the flexible solution more and more; and this will continue to grow along with time. But this has increased the problem, which was described above, the 'loss of place'. Because these places are supposed to house more than one activity within a single place, the changing quality of it will contribute to the placelessness, unless the issue has been addressed properly. This fact gives rise to a need of studying the 'flexible place', it's need to the user, it's influence on people, it's history and present situation, in order to find successful flexible solutions for future human demands; quantitative and most importantly, qualitative.

Objectives

Since ancient times flexible places have existed. Various demands have given the necessity of such places and from the evidence, which have been found, one could observe a very good response to them on behalf of their users. People have formed these flexible places to suit their own activities and needs and these places have been changed and shaped further by these people in order to make them much comfortable. Since the user himself has done this it could be observed that these places have succeeded in giving the maximum comfort to them. One could understand that, although the historical man didn't know the exact wordings for the process, these places were formed aiming to achieve the right quality each of them should posses,. For example, the first living place around a fire makes it clear their desire for making places. They tried to give significance to one 'place' out of a vast terrain, where they marked a boundary by the lit up circle of the fire. All the happenings, such as eating, sleeping, communicating, etc... occurred within that circle. Various intensities of light provided the right quality for each activity. For example, well-lit area was used for eating and the dimly lit zone was used for sleeping. Although the whole place was a single entity, it was demarcated to various zones by light and shadows. By changing the intensity of light they were able to change the quality to fulfil their needs. The

flexibility started at this point, evolved along with time and changing demands of the human habitation. It evolved from small common open spaces like in African villages to most private office spaces or residential units one could see today. This indicates that the concept of flexibility in place making is not a brand new idea, but a concept which has evolved and developed over a very long period of time to fulfil various demands of their users. These demands as well as alternative solutions in regard of flexibility, are different according to each and every time period as the ways of thinking, beliefs, knowledge, etc... of people also have evolved along with time.

The 'flexibility' discussed in this dissertation is not an 'unfinished' or 'undifferentiated' notion of flexibility; instead it concerns a very well thought out, well organized or well designed situation of the concept. Intension of this study is to seek out past and present situations of flexibility in placemaking, and how it has worked in regard of it's user's activities, the need of it and it's influence on the user etc.... Then to analyse the positive aspects of this concept, how it has been evolved along with time to fulfil varying demands, qualitative and quantitative; and then to find out best possible solutions as to how, good flexible places could be achieved where the users would feel comfortable to do their various activities. This dissertation is intended as a guideline for other studies, which could be done in regard of this subject.

Scope/ Limitations

This subject involves a vast area, which has many facets to it. Since this dissertation cannot cover the whole subject matter it is intended to discuss the 'concept of flexibility' in place making in an overall manner. It is intended as an introductory study for other related studies, which could be done in a much comprehensive and a subjective approach. This dissertation will not be done in a case study method, but would take actual occurrences of the concept as examples to understand its history, its evolution and the contemporary situation. From these findings, would come to a conclusion as to what approach the concept would lead in future and what should be done in order to make them successful.

Method of study

This dissertation concerns an evolution of the concept of 'flexibility'. It is intended to extract existing data from literature sources and to use actual interpretations of this concept to get an understanding on the present perception of it. Some selected situations would be considered as example when studying this fact, since this dissertation intends to study the subject in an overall aspect. It is intended to formulate a futuristic idea as to what approach this concept of 'flexibility' would take, based on the information this study would discover. Information would be gathered through literature sources and through discussion with persons who are well conversant in this subject and an analysis would be done based on this information to come to a conclusion.

Chapter one

Concept of 'Flexibility' in placemaking.

Introduction

From this chapter, it is intended firstly to identify, what is a 'place', how it conveys its quality or the character and its relevance to man. Then it goes further in explaining the specific concept of 'flexibility', in regard to making of 'place', meaning of 'flexibility', why it is needed in the act of 'place making', and how it is related to the built environment.

1.1 Place

1.1.1 An introduction :

'Place' obviously we mean something more than abstract location. We mean a totality made up of concrete things having material substance, shape, texture and colour. Together these things determines an 'environmental character' which is the essence of place. In general a place is given as such a character or ' atmosphere'. A place is therefore a qualitative, 'total' phenomenon, which we cannot reduce to any of its properties, such as spatial relationships, without losing its concrete nature out of site.
' Place'; a word used in our day to day life, which makes a difference in the way we look at things, at life, the way we orientate ourselves, and the way we generally conceptualize the world around us. Most general of terms in reference to 'place' is particularly a rich term. It has geographical, architectural, and social meanings. It could be further explained as follows in relation with space, " *space is the opportunity, place is the understood reality*"(Harrison & Dourish, 1996). As Relph (1976, p:141) explains it,

"*Places are not abstractions or concepts, but are directly experienced phenomena of the lived world, and hence are full of meanings*".
A place is generally a space with something added - social meaning, convention, cultural understandings about role, function and nature and so on. A sense of place transforms the space.
Distinct and diverse places are manifestations of the deep involvement of people who have experienced, and lived in them, where such attachment to places is as important as other close relationships we maintain with other people and things. Unselfconscious intentionality of the person defines these places as profound centers of their existence. This phrase is conformed more by the statement Heidegger (1958, p: 19) has made,
"*To be human is to live in a world that is filled with significant places : to be human is to have and to know your place*".

1.1.2 'Place' – a definition

'Place' could be referred to as the ' perceptual entity' of built environment, academically. It could be also referred to as a concrete spatial locality, but also as an imaginary, mythic or literary location. 'Place' has been defined by so many over the periods of time; Aristotle has defined it as,
"*Thus the place of anything is the first unmoved boundary of what surrounds it*"
Aristotle (212a.20)

Aristotle's vision of a limited cosmos has been overthrown by renaissance thought, which accepted the universe as an infinite void. The interpretation of place as a system of receptacles, starting with the smallest objects, each contained by larger ones, leads consequently to the universe as a whole. (pg: 18, 19) Presently the 'place' is believed to be an entity, which is not limited by dimensions (a dining room is a 'place' as well as a whole country). And though a place is mostly associated with a sense of familiarity and security one can also speak of arcane or mysterious places. But according to ponsi, (1985, p: 215)

What all places have in common is, '*their intrinsic capacity to transmit meanings*'.

The identity of place may be rooted in the physical setting, objects, and activities; but they are not a property of them, rather they are properties of human intentions, experiences and the degree of involvement that the person has with the place. Meaning of 'place' is always bounded with its users. There's more to a person and environment than interaction. When a person changes from a room without anything else changing; the room changes. Person gives meaning to a room/ space. If the next person who comes in to this room and stays for a long time there, he acquires a certain significance by that room. Person gives a certain status to the environment whereas it works the other way round as well.

'Place' and its significance to emotions of people, is described by Kevin Lynch(1981, p :132) as follows,

"*The direct enjoyment of vivid perception is further enlarged, because sensible identifiable places are convenient pegs on which to hang personal memories, feelings, and values*".

1.1.3 Character of a place

'Space' gives 'place', a character. ' Space is a very important aspect of the environment, it is not a simple, and unitary concept' (Rapoport, 1970). Space is more than three dimensional physical space. At different times and in different contexts one is in effect dealing with different 'kinds' of space. It displays how a 'place' could acquire different meanings/ characters at different times and contexts.

Apart for these aspects, spatial characteristics of the built environment also greatly influence and reflect the organization of communication of meaning of the related 'place'. Space is experienced as the three dimensional extension of the world which is around us- the intervals, relationships, and distances between people and people, people and things, things and things and things and space; is at heart of the built environment. This creates the meaning/ character of a place. So that, in a situation where people mean a 'good' environment, it is achieved through the quality of space, by applying the set rules of spatial quality to achieve this good environment or rather the 'good place'.

Identity, character, value of 'place' changes according to various contexts, locations and people. People always seek environments in which he's most comfortable. If it's not, he changes it to suit himself. Like this, man alters the character of a place to suit himself or seek places, which provide him with maximum comfort. Place is continuously and simultaneously made at every stage, by it's users, by their own experience as well as by their presence and by their acts. Man gives meaning to a place by being there. 'Place' can manipulate man, it can induce certain forces in life

of a man whether he is at home, at work, leisure or at worship. The environment quality of each of these places is such, that it is conductive to and encourages an activity that has to take place within.

" A place is simply somewhere, to do something. It is somewhere to do something that matters to the doer(s) and is seen by the doer as appropriate or fitting for doing. Thus it is evident that, once a person enters in some sort of ongoing relations with a place or intends to enter in to such relations, the simple place starts to become something more". (Downton, P., P: 112)

The experiences and activities in one place may be different to two people. The car driver and the pedestrian are involved in two different types of activities, at the same time in a place of the street. Experiences of that place are different to two activities. And also the meaning of the place is different; therefore activities depend a great deal on the attitude and meaning of that place.

Architecture is the formation of space using tangible elements and they are with meaning, created for different purposes, to house different activity patterns of people. It could be seen that meaning could change according to the need may it be physical or emotional or otherwise. So that it is clear, that the spaces within the built form must be created in harmony with the human response and the activity pattern to take place within it.

1.2 Relationship of man and place

Our surroundings truly do act as mirrors, reflecting the values, dreams, fears, and fascinations of the individuals and societies that have shaped them. We can, if we wish, read them like a book, pointing out item, by item what was in the minds and hearts of those who created and shaped a place. An interesting curiosity, yet more than that. These images in stone and steel, those dreams in faded neon and spalling stucco deeply affect and shape us. They affect us as strongly even as they in their turn were affected and shaped by their makers. They affect us in part because they convey the true fears behind our painted smiles, the cruelty behind the benign surfaces of actions, the love behind the modest gesture. They affect us because they clarify and embody our dreams, marshalling our inner resources to their achievement. They affect us as they show, often with a beauty or ugliness which makes their message even more poignant, the confusion of our goals, the inconsistency of our actions, the humanness of our lives. They affect us because they do not lie, and stand witness to our lives as they are - in their fullness or in their emptiness.

As auxiliary terms, 'place', 'environment', and 'landscape' are not yet sharply defined and, since they can always be used in new connections, they will probably not be clearly defined within the foreseeable future. Herein lies their productiveness: they reveal relations with socio-cultural aspects of 'built environments'. In this respect Hummon (:34) has made a notable contribution. He makes use of the already considerable literature on 'place and identity'. At the level of dwelling and the community, "*places are environmental contexts with real consequences for people.*" From descriptions of a place of residence given in response to questions, one can detect quite different relations to it. They range from "*being deeply rooted*" in the place to "*estrangement from current locality,*" and "*adaptable",* exhibiting "*a sense of*

place relativity" to those "*whose place perspectives are very thin*", ..."*who have only an unclear sense of home*" and are characterized as "*without place*".. And while these attitudes are sometimes dependent on the character of people, in other cases they seem to be determined by earlier places and the conditions of the immediate place of residence..

As humans, we have a wonderful capability to appreciate untouched nature; woods, mountain valleys and even vast plains can ground us in our experience of life, refresh us, and fill us with awe. Few of us, however, can simply live in nature without some form of intervention. Exigencies such as personal need, the demands of culture or the effects of climate lead us to modify our environment. To do so may be to engage in an act as simple as the placement of a plant or as complex as the development of a city. This act may be characterized by spontaneity and immediacy, or by great deliberation, involvement and expenditure of energy. At its very best, place making greatly enlarges our capacity to experience and to participate in life. The making of place is able to affect us so deeply for a number of reasons: It is activity, which is rooted in our nature. We naturally seek to modify our environment, to adjust it to our basic needs and preferences, whatever their magnitude. We can see this in an action as simple as rearranging the cushions for greater comfort when we sit in a friend's armchair. Place making allows us to objectify our interiority. We have a very basic need to manifest our intangible inner life in concrete forms in our outer world. Place making allows us to express our individuality. We love to make our mark on the world, regardless of how humble it may be. Place making allows us to establish expressions, which go beyond the individual to the communal level. It enables us to give voice to, and enter into dialogue about intrinsic aspects of human life, which bind us into families, communities, businesses and cultures. The making of place allows finding our place as human beings within the myriad of life systems, which make up our planet and, ultimately, the cosmos. It is highly fulfilling activity. In its finest form place making accomplishes three ends:

It engages the whole person, all of the qualitative realities of our lives. It calls forth our intellect, will, feelings, values, memories, creativity, hopes and vision.

Place making also addresses all of the concrete, quantitative factors of our circumstance.

Lastly, the making of place provides us with a means of relating qualitative realities to quantitative factors in a manner which outcomes are both physically and emotionally satisfying.

Basically, the search is for relationships between two very different fields of our human existence: direct experience of concrete things and knowledge of their meaning.

The psychology of our human and cultural nature - our values, our beliefs, our fears, our memories - all direct our actions or block them from certain paths, and determine much of the satisfaction or unhappiness that results from our interaction with places. The surroundings we create reflect these deepest and most hidden values.

Of importance here is that the soul of people and place are interactive. Our soul alters the essence of places we use, and their essence alters our own soul. And the essence of built places and the human soul interacting with them is definitely strong enough to alter the lives of people using those places. The good or bad energy of users of a place linger to affect subsequent users. Our interaction with place is additive and cumulative. We need to both design and live our lives aware of this dialog.
Temporal categories are important elements in this relationship between built form and culture. Since human attitudes are always shown in relation to continuity and change, "before" and "after" has something to say, in whatever dimension. For instance, in describing the development of a small Portuguese town, Lawrence (:59) shows how the changeover to new ways is not a reflection of real needs, but is clearly motivated by ideas of status and, just like the new forms, the traditional behaviour of the inhabitants also changes, slowly but surely.

1.3 **Flexibility in place making**

" The fountains mingle with the river,
And the rivers with the ocean,
The winds of heaven mix forever,
With a sweet emotion, nothing in the world is single,
All things by a law divine,
In one another's being mingle...
-Percy Bysshe Shelly, *"Love's philosophy"*

The nature around us, is a place made of so many different elements. It changes its character or meaning so quickly that we don't even have time to notice these changes. It changes along with time; some times this 'place' of 'nature' is transformed in to a brightly lit, activated place, sometimes it is gloomy and full of tranquillity, and similarly it changes its quality from time to time. People and other beings responds to these changes of the character of this 'place', sometimes they are not even aware of their response to it because they are so comfortably adapted to this happening. Natural environment around us is so very well formed with each of these meanings being mingled with each other, then by being able to change slightly or drastically, to provide the maximum comfort to any living being when they do any activity, may it be eating, sleeping, running, talking or just simply; existing. So it could be said that the best 'flexible place' is the natural environment around us, which is formed of earth as its floor and sky as its roof and the in between, being the living place.

"Consider the earth and its landscape stretched out below the firmament. Where water meets land and mountain meets plain; where desert contrasts with vegetation and nights give way to night and day... in the coming together of opposing yet complimentary dyads, where the polarities of yin and yang are inextricably woven in to the fabric of existence things are as they are, spared in their own nature".
(Guneratne, S. R., 1994)

1.3.1 What is flexibility of place

'Flexibility' is the ability of change of character of a place along with each activity, taking place in it. This situation does not mean that the change is permanent, but it changes from time to time without changing its concrete quality which has given that place, its meaning. This is the quality, which expresses the easiness to manage or persuade or change.

In many Buddhist countries this philosophy is adapted to their life styles. For example, in Japan; 'Mujo' meaning impermanence stemmed from the Buddhist teaching of evanescence and the transitory nature of life and brought forth the concept of flexibility and transience in expressions of daily life. Nothing was thus fixed in space and time but was subjected to innumerable changes reflecting the universal truth of life itself. The fleeting shadows in the Japanese room were a constant symbol of this notion. They adapted this concept to their architecture, and to their simple way of living.

In order for flexibility to feel comfortable, each and every changing character of that particular place should mingle with each other and come to a unity. This 'flexible place' should have its own meaning.

The notion of 'Shibui' in Japanese is understood as a state of absolute quietude. One could approach this quietude through incompleteness: the unfinished statement, the incomplete pattern where there was always a space left for ones imagination - for instance, in many traditional Japanese paintings there was often a clouded area without detail as compared with the rest of the picture. This required the observer to complete the painting with his or her own imagination before visualizing the painting - a reminder of the fact that only one who mentally completed the incomplete could discover true beauty. In the traditional Japanese room, the shadows created precisely such a clouded area. This 'incompleteness' is not an outcome of mere ignorance; it is a well thought out, well-designed notion of 'incompleteness'. A flexible place should have this quality, where a few concrete elements will provide its meaning, and a 'clouded' component will allow this place to change its character in response to each activity, which will take place within it. This will help to achieve the 'resident' quality of that place which will provide its user the maximum comfort he expects. It is a vision of the rhythmic iteration of sound, of song, of complex vibration, harmonics and overtones that give rise to and maintain the entire complex interfolding structure of the universe.

Flexibility is one of democracy's most fundamental conditions. Flexibility stands in strong contrast to the demand for continuity and stability.

1.3.2 Need for flexibility in placemaking

Man is expected to do various activities in order survive. Sometimes various demands require him to do things as a collective. It could be a multiplicity of functions or a multiple of users.

Different activities need different environments to take place in a satisfactory way. Functions, even the most basic ones such as eating and sleeping, take place in very different ways, and demand places with different properties, in accordance with different cultural traditions, and different environmental conditions. For example, a

dwelling has to be "protective", an office "practical", a ballroom "festive", and a church "solemn", etc... When these characters are created, destroyed or otherwise removed from the daily lives of the people the strong bond, which exist between the man and the place could be changed with a subsequent tangible loss in the basic quality of life. So that when a multiple of activities takes place in a single place, it should be able to provide the proper environment quality in order for user to be comfortable in it. This demands flexibility in that place. Place should be able to transform its character or meaning to best suit the activity or the user who is using it at a time.

Man is much used to change. They are still spiritually evolving in the world. People are still entangled in the world of multiplicity. They should be weaned gradually, away from their phenomenal world. Gradually because, from their state of perceiving multiplicity, the world of ideal form and that of beyond form, would seem remote indeed and perhaps invisible altogether. Aforesaid relationship of multiplicity and man, generates the requirement of flexibility in a place, as man is used to respond to a particular environmental character in order to succeed in his doings.

Flexibility in placemaking, complicated. It's all about the people who live in a place and about their individual and collective needs and wants. One might say that the fuel that energizes placemaking is each individual's selfish wish to have the best possible life for himself and his family. But pursuit of one person's self interest leads to conflict with someone else's - so flexibility is needed in reconciling clashes between the users of a 'common place'.

The mood is enriched when character of a place reflects through symbolical representation by many ways of arranged formations to touch the inner self. This formation of the elements or embellishments conflict seeking a balance and thereby harmonise in between the opposites of the surroundings and the inner self. This situation provides the maximum comfort to its user. In order to achieve this harmony of the inner self and the meaning conveyed by the place in a multipurpose or multi use situation, the placement and arrangement of elements should be to comply with the concept of flexibility.

1.3.3 Flexibility and the built environment

Thirty spokes converge upon a single hub;
It is on the hole in the center that the use of the car hinges

We make a vessel from a lump of clay;
It is the empty space within the vessel that makes it useful

We make door and windows for a room;
But it is these empty spaces that make the room livable

Thus while tangible has advantages;
It is the intangible that makes it useful
(Lao Tzu ,c.550 B.C.)

The verse indicates the importance of 'space' to man. It describes the built environment very clearly; its concept of 'mass being the servant of the void'. In a flexible situation, spatial quality or rather the character of a place changes constantly and this is achieved through the appropriate formation of the mass or rather the built environment. This fact explains the relationship of flexibility and the built environment.
Built environment could form the space within it and in the situation of flexibility; the built environment should be created to force a transformation within its spaces to suit each and every changing activity. Built environment is a setting to support, facilitate and sustain human behaviour and that when people find out that the built environment does not accommodate their intended behaviour they change the built environment to suit their requirements.
Architecture is the product of human habitation, and in order to create meaningful spaces, it should be designed to grow and change with people and their activities.
Architecture has its own mode of embellishments suited to his own genius. There is proper mode of articulating the elements to symbolise the meaning in a space though each element in a space gives the same image to the feeling. A colour, a texture, has a proper level, proportion and intensification to suite the proportion of the space. The sciences and technology has a same architectronic level which gives the feeling in a space when all these levels suits its total harmony the beauty is realised and tasted.

As a general principle, motion is carried out in infinite, three- dimensional "space". On the contrary, "Space" shows the extension of things, their coexistence, their posture toward each other and their distance from each other. This ability in the built environment has enabled the existence of 'flexible place'. Architectural place has the ability to extend, change, transform and coexist various characters or qualities. This provides it, its flexible ability. In order to achieve this the built environment should be manipulated to control the space within it. This motion in quality or rather the character is reversible. But, motion in "time" is not reversible, all events proceed in one direction: past to present to future. This phenomenon is true to everything, including the meaning of "flexibility".

To condense the facts;

'Place' could be referred to as the ' perceptual entity' of built environment, academically. It could be also referred to as a concrete spatial locality, but also as an imaginary, mythic or literary location. A place is generally a space with something added - social meaning, convention, cultural understandings about role, function and nature and so on. Distinct and diverse places are manifestations of the deep involvement of people who have experienced, and lived in them, where such attachment to places is as important as other close relationships we maintain with other people and things.
'Space' gives 'place', a character. ' *Space is a very important aspect of the environment, it is not a simple, and unitary concept'* (Rapoport, 1970). Space is more than three-dimensional physical space. At different times and in different contexts one

is in effect dealing with different 'kinds' of space. It displays how a 'place' could acquire different meanings/ characters at different times and contexts.
The identity of place may be rooted in the physical setting, objects, and activities; but they are not a property of them, rather they are properties of human intentions, experiences and the degree of involvement that the person has with the place. The psychology of our human and cultural nature - our values, our beliefs, our fears, our memories - all direct our actions or block them from certain paths, and determine much of the satisfaction or unhappiness that results from our interaction with places. The surroundings we create reflect these deepest and most hidden values. Of importance here is that the soul of people and place are interactive. Our soul alters the essence of places we use, and their essence alters our own soul. And the essence of built places and the human soul interacting with them is definitely strong enough to alter the lives of people using those places. Architecture is the product of human habitation, and in order to create meaningful spaces, it should be designed to grow and change with people and their activities.
Flexibility' is the ability of change of character of a place along with each activity, taking place in it. This situation does not mean that the change is permanent, but it changes from time to time without changing its concrete quality which has given that place, its meaning. This is the quality, which expresses the easiness to manage or persuade or change.

Different activities need different environments to take place in a satisfactory way. So that when a multiple of activities takes place in a single place, it should be able to provide the proper environment quality in order for user to be comfortable in it. This demands flexibility in that place. Place should be able to transform its character or meaning to best suit the activity or the user who is using it at a time. In order for flexibility to feel comfortable, each and every changing character of that particular place should mingle with each other and come to a unity. This 'flexible place' should have its own meaning.

As a general principle, motion is carried out in infinite, three- dimensional "space". On the contrary, "Space" shows the extension of things, their coexistence, their posture toward each other and their distance from each other. This ability in the built environment has enabled the existence of 'flexible place'. Architectural place has the ability to extend, change, transform and coexist various characters or qualities. This provides it, its flexible ability. In order to achieve this the built environment should be manipulated to control the space within it

Chapter two

An evolution of the concept of 'flexibility' in place making.

Introduction

This chapter attempts to seek the historical aspect of the concept of 'flexibility' in placemaking, in what aspects it changed along with time, and the causes for these changes to occur.

2.1 History of flexibility in placemaking

"Of all things, I honour beginnings. I believe though, that what was has always been, and what is has always been, and what will be has always been."

(Louis Kahn, 1994, p: 4)

So has the concept of 'flexibility' in placemaking. It has a history spanning up to the length when man learnt to make home at one place. Unknowingly at the beginning, then purposefully, people chose many flexible solutions to their day to day demands in place making. Varying cultures, attitudes, needs and many other variables shaped the 'flexible place' in various habitations and along the time span of history.

2.1.1 Global situation

Different habitations in the world perceived the flexible place in different ways. Yet some situations have been able to create a globally accepted trend in place making and architecture. For example, each period evolved along the span of history created architectural interpretations original to each of these periods. Reason being that attitudes and cultures, needs and technology changed along with each of these periods, which were interpreted in to architectural language in the place making process. It is very important to look in to each of these approaches related to flexibility in place making, and its evolution in order to find solutions for future place making demands in flexibility; as future always is formed by past experiences.

2.1.1.1 Pre – historic period.

One could say that making of flexible places started from the earliest days when man lived by hunting. Although prehistoric man gathered food and hunted separately, they gathered around a common fire, which was their place of multi habitation at night.

Fig.1 – Earliest place of 'flexibility' was around the fire the hunters gathered at night. (Source: The history of the city, Benevolo)

The boundary being the lit up circle, around it these people were bound to the fire making it their communal space. There were no boundaries within it. This was considered as a single space shared by many, which was flexible enough to accommodate everybody's varying activities. Varying degrees of light caused by the fire enabled to create various atmospheres within the place to do various functions. There are even some societies in the modern world, isolated by jungle and desert that have still not progressed beyond this stage.

Yet what is important is to consider the purposefully built or thought out 'flexible' places as they are the ones which have contributed much to the contemporary situations of flexible place making. Successful flexibility in placemaking seemed to happen when what was built was done unselfconsciously by different people at different times. People seem to get pleasure from the variety and diversity, which resulted. When one studies the evolution of this concept there could be seen a fact that mostly it occurred in open public places which were later seen to be more and more internalised with time and changing attitudes, cultures, demands, etc...

Inhabitants of the temperate zone learned to produce their own food by growing crops and raring cattle. They also organized permanent settlements, which included cultivated land where food could be produced than merely gathered, shelters for people and for domestic animals, stores for food for a whole season or even longer, the equipment needed and worshipped, and these became first villages. This gave a new dimension to the idea of flexibility in place making. For example, in Cameroon villages, the village consists of one major space, where huts, which opened to the centre, defined its border. Multi habitation happened in the open space, it functioned as the communal space, place of economic activities, place for recreation, and many more functions. Along with each function the space was able to change its character as it had the ability to grow and incorporate the shelters or to disengage from them as the need arose.

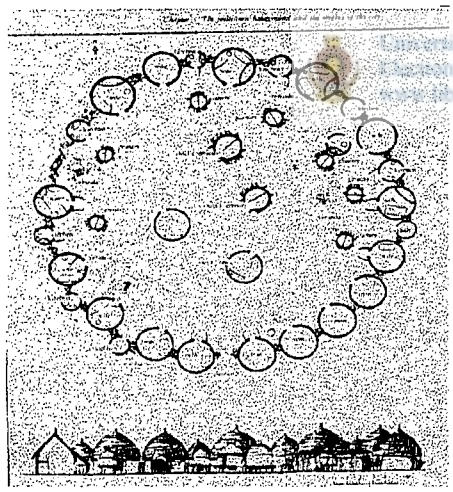
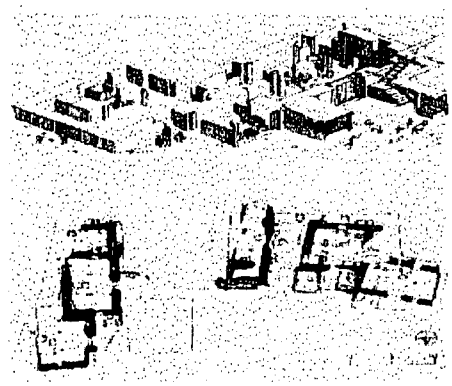


Fig.2 – Communal space acted as a flexible entity within this It was able to incorporate the dwellings in the boundary to its space or could function as an individual entity according to each functional need.
(Source: The history of the city, Benevolo)



Much more developed stages of Neolithic villages displayed flexibility within their shelters. Some consisted of large rooms, supported by wooden columns and divided by lightweight partitions, which housed many functions within it. Partitions provided a flexibility, which helped to suit the shared lifestyle of people during this era.

Fig.3 –Houses in the Neolithic village of Hacilar: Turkey. *C*.5000BC (Source: The history of the city, Benevolo)

2.1.1.2 Greek and Roman periods

This era depicted a much controlled version of the concept of 'flexibility' in placemaking, as they processed a much advanced in many aspects, including the built environment. Architecture in these periods depicted the democracy they practiced. Most of the public spaces were arranged in a flexible manner to enhance the freedom they enjoyed.

The Agora

The Agora would be designated – the public open space that would serve as the multi purpose gathering place of the new citizens and their focus of self-government. The word market place inadequately describes the concept of the Greek agora. The agora was the public forum of all the inhabitants and on all days, a bustling place that served as the democratic alternative to the two great organizing foci of non – Greek cities, the temple precinct and the palace complex.

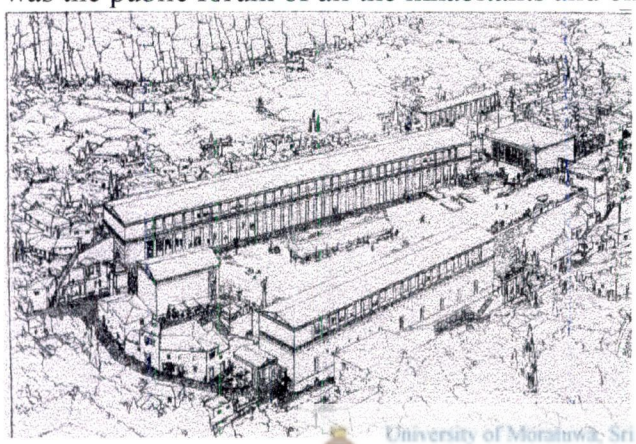


Fig.4 – Agora served for many purposes, changing itself with every function. (Source: The history of the city, Benevolo)

It was the scene of public speeches, 'citizen' assemblies, shows as well as social and commercial activity. About the 'market place', the public buildings of most consequence for municipal administration tended to gather, as did for facilities for shopping and display. The stoa was one of the freestanding buildings that loosely hugged this public space. At Miletus the stoas became elements of a total design, making the open space formal and monumental without enclosing it. Way the Agora was designed encouraged much flexibility within that place. The public open space was bounded by a building, which opened to it through a colonnaded space. It allowed the building to link with the activities took place in the open space. Based on changing functions of the open space, the internal spaces of the 'Stoa' was able to acquire different meanings and characters.

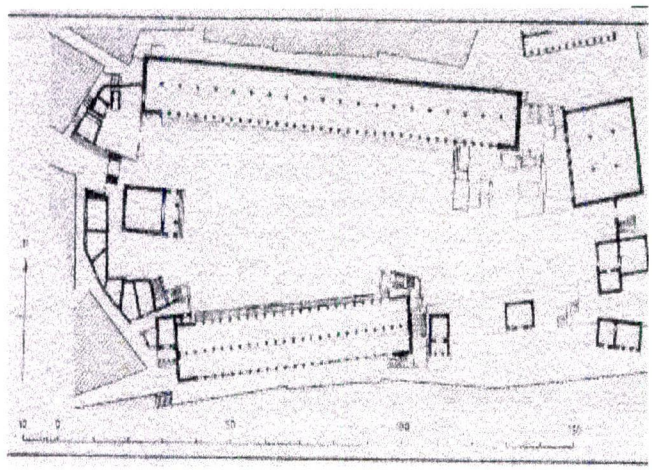


fig.5 – 'Open space' and the 'Stoa' processed the ability to change as an when the activities changed in each of them. Their arrangement allowed this flexibility. (Greek Agora: Plan form) (Source: The history of the city, Benevolo)

This space was able to grow in such a manner to suit the requirements and also functioned as a demarcation between two different activities took place within the same place. This represents the dynamic and ever shifting interrelationship between the open and the built, which was present in older Greek cities.

2.1.1.3 Islamic period

Fig. 418 Aerial view of the townscape of Tripoli; each house has its own private courtyard, whether large or small, on to which it faces.

Islamic architecture followed the teachings of the Koran. They lacked public open spaces. Instead their buildings were mostly inward looking. All the day to day activities were done within the building enclosure. Main causes for this attitude lay behind the teachings of their religion and the climate.

Fig.6 – Islamic city with its inward looking buildings (Source: The history of the city, Benevolo)

Although men and women lived on separate quarters they mostly lived as extended families following a multi habitation system. This called for requirements of multi habitable spaces, which were flexible enough to do their varying work including the religious activities. Main binding element of the Islamic dwelling was the central courtyard, which was a highly flexible entity and functioned in many aspects. It was in control of the rest of the spaces arranged around it. It had the ability to change these spaces by changing itself. The courtyard changed according to various seasonal changes and to the time of the day. This altered the activity patterns of the surrounding spaces, as the spatial quality of these spaces, was solely dependent on this central courtyard. People used the same space for different activities along with the change of, time of the day or the seasons of a year.

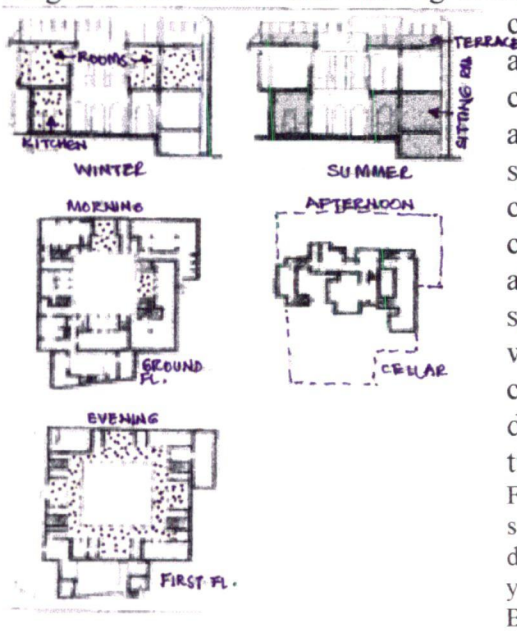


Fig.7 – The rooms are distributed round the courtyard so as to allow them to be used for different purposes, depending on the time of the day or the season of the year; these particular drawings are of a house in Bagdhad. (Source: The history of the city, Benevolo)

2.1.1.4 Middle age and Baroque periods of Europe.

Most of the flexible places during these periods could be said as public open spaces. During the Middle Ages in Europe, the function of the public squares was at a high state. They occupied a lot of activities ranging from recreation to economic and to community functions. These squares transformed themselves from a very peaceful atmosphere to a very busy and dynamic quality depending on the functions and users they occupied.

Fig.8 – View of the market place in Nuremberg. The public square has transformed in to a dynamic atmosphere.(Middle Ages – Europe)(Source: 'Action!!! We're filming in Montmartre' by Kumar de Silva. 1999)

Quality of the open square depended greatly on the functions of the buildings, which bounded it. They were mostly incorporated in the activities of the public square. Corridors, which tied these buildings to the open space functioned as a transitional space and acted flexibly to the varying demands of the users. They either divided these two elements from each other or combined them depending on the demands of the functions took place.

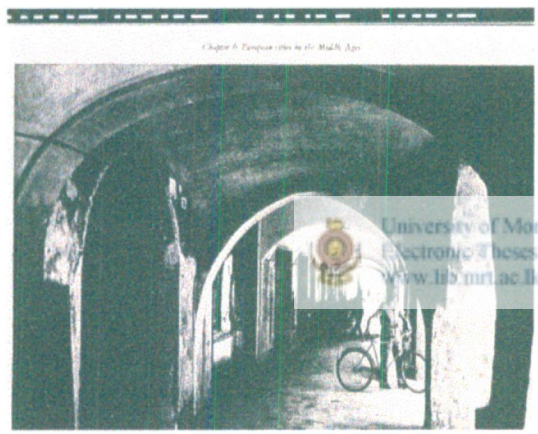


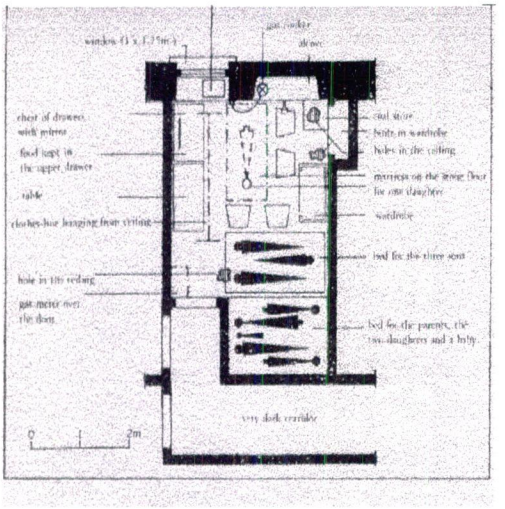
Fig.9 – Portico acted as a transitional space, which, was arranged with solids and voids that contributed to its flexibility as a divider or a combiner of spaces. (Gattinara. View of the porticoed central square: Middle Ages – Europe). (Source: The history of the city, Benevolo)

Baroque European streets functioned in a highly flexible manner. They were usually narrow streets, which were demarcated by tall buildings on either side. They not only functioned as elements of transportation but also as places of public interaction. They were sometime transformed in to places of celebration. Sense of enclosure created by the buildings on either side created this atmosphere of functionality within these streets. People considered them as another space rather than simply a street used for walking. Their narrowness itself contributed to this flexible quality, as a variation of activities were forced to occur within it. Elements like steps have contributed to this effect, as they have slowed down the people and also have transformed the sense of the street in to a static quality.

Fig.10 – A nineteenth century photograph of one of the streets in Central Naples (Baroque Europe) (Source: The history of the city, Benevolo)

2.1.1.5 Industrial revolution

From the mid eighteenth century onwards, the Industrial revolution began to change the course of history, first in England and then in the rest of the world. The main factor is the increase of population and their migration towards industrial areas to make a living. People had to live in very high-density situation, which evolved a need for 'flexible spaces' as they had to share a lot of spaces since it was scarce. There were residential situations, which were formed to suit their flexible and multipurpose demands. Yet these conditions were not up to the standards in which people could comfortably live. So that one cold say, the flexible spaces, which were evolved during this era was due to scarcity of living space than the need originally for flexible spaces.



Most workers' houses consisted of just a single room in which many functions took place. Cooking, sleeping, dining, washing, and many more activities were housed within this space.

Fig.11 –An Artisan's dwelling for nine people, discovered in Glasgow in 1948 displays the single space within which all the functions of living took place. (Source: The history of the city, Benevolo)

2.1.1.6 Modern movement

Modern movement architecture represented a very straightforward, minimalist approach. Architects like Mies van der Rohe, Frank Lloyd Wright have tried and succeeded in creating flexibility in some of their designs during modern movement incorporating its concepts in to their designs.

Frank Lloyd Wright was one of the first architects to understand the implications of strong, delicate column and beam structures. What these made possible, in his view, was the "open plan": a succession of spaces that could merge in to one another, often without door separations, and lightly insulated from one another by screens of opaque or translucent or transparent materials, which made it possible to create 'flexibility' in buildings. Both Le Corbusier and Mies van der Rohe adopted Wright's notions of the "open plan" and, if anything carried his notions even further: the one room house, or one room apartment, became an aesthetic triumph that every modern architect sought to achieve. One common characteristic in their attempts was to create interwoven spaces, which flow in to each other. This has provided the ability to extend or suppress a space according to varying situations. Write's philosophical concept of open spaces flowing in to each other and separated by screens came out of the traditions of Japanese architecture, out of both the simplest Japanese house and the most elaborate palace, like Katsura.

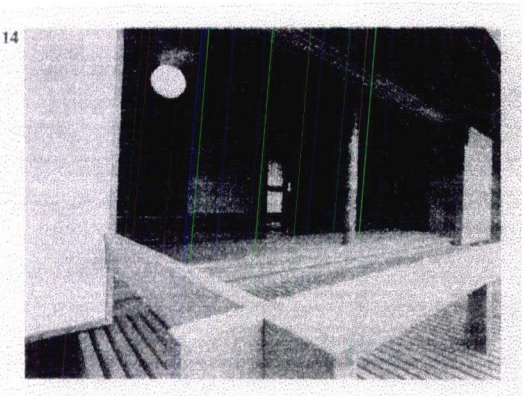


fig.12 –A modern house in the Japanese tradition.

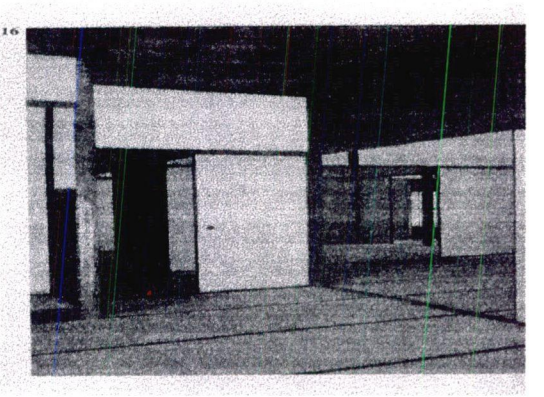
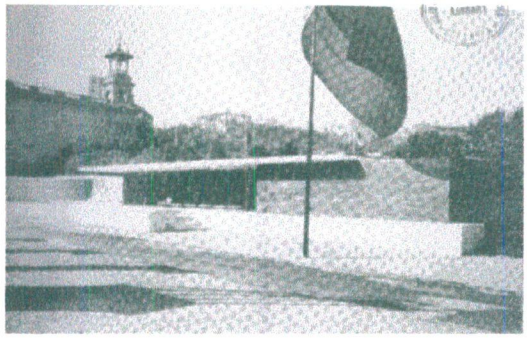


fig.13 – Interior of Katsura palace – Koyoto.
The plan is entirely open, and spaces are separated by sliding screens. (Source: Form follows Fiasco – why modern architecture hasn't worked , Peter Blake, 1977)

Organic architecture was definitely a new sense of shelter for human life. Walls became screens, often glass screens, and the new open plan spread space upon a concrete ground mat: the whole structure intimate and wide upon and of the ground itself. Even the walls played a new role or disappeared altogether. A new sense of space in appropriate human scale pervaded not only the structure but the life itself lived in it was broadened, made more free and more flexible, because of sympathetic freedom of plan and structure. The interior to be lived in became the reality of the whole performance. Building as a box, was gone. The integral character of the third dimension was born to architecture. To break open boxlike spaces, Write sort ways to dissolve corners.

To Write, spaces were meant to be fluid, free flowing, flexible and informal like the American lifestyle. In Write houses, living places tend to blend together. Closed rooms are limited to bathrooms and bedrooms. He beckoned Americans to break out of their boxes, reach outside – visually, through window walls, and actually, using terraces, porches and sensitive site planning. He also used space as a technique for controlling experiences within a building; this enabled to create a collectivity of ' changing experiences' through 'flexibility' in his designs. Advances in glass technology, more than any other innovation permitted Write to break open the box. Glass enabled to balance solid screens with light screens so that the building would no longer have to be confining. Glass actually dissolved the intersections, it allowed Write to integrate inside and outside spaces, blurring the distinction between them.

The architect most clearly aware of the problem – of the impending divorce of Form from Function - was the late Mies van der Rohe. He was infact deeply troubled by it, and his concept of "universal space" – that is a structure capable of accepting almost any kind of function – continues to be an interesting notion and is explored in many different areas of building. Mies's famous dictum "*Less is more*" has contributed greatly to this achievement of 'flexibility', or 'universality', in his buildings. He produced long, low glass-sheathed buildings in which the interiors were treated as a series of free-flowing spaces with minimal walls, usually of rare marbles and woods. One of the greatest creations of his is the 'German pavilion' designed for the international exposition at Barcelona in 1929.



It is truly one of the few manifestations of the contemporary spirit that justifies comparison with the great architecture of the past. He incorporated many characteristics of his previous work, such as insistence on expert craftsmanship and rich materials, respect for the regular steel skeleton and preoccupation with extending walls in to space intern ordering them.

Fig.14 – German pavilion, Barcelona (Source: Philip Johnson, Mies van der Rohe, 1978.)

Mies's style was characterized by its severe simplicity and the refinement of its exposed structural elements. Although not the first architect to work in this mode, he carried rationalism and functionalism to their ultimate stage of development.

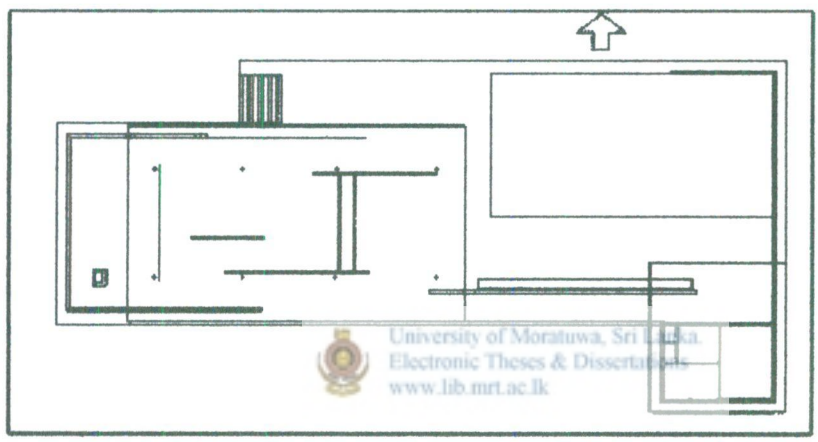


Fig.15 –Plan: German pavilion, Barcelona.

Simple plan form allows spaces to flow in to each other yet allowing each space to retain its own identity.
(Source: The Barcelona Pavilion, Matiu Carr, 1997)

The design is simultaneously simple and complex; its ingredients are merely steel columns and independent rectangular planes of various materials placed vertically as walls or horizontally as roofs; but they are disposed in such a way that space is channeled rather than confined – it is never stopped, but is allowed to flow continuously. This arrangement has allowed each space to either extend or to confine itself.

Fig.16 – Freestanding elements have achieved in channeling spaces rather than confining them. (Source: The Barcelona Pavilion, Matiu Carr, 1997)

Each element has been placed in a way so that each space acquires a defined quality, which has given it, its own identity, yet allowing the space to extend according to each situation. It could be said that 'flexibility' in this building has been achieved by placing certain physical elements within a space just to give that space certain

significance. By doing this, Mies has introduced a new conception to the function of the wall. The unit of the design is no longer the cubic room but the free standing wall, which breaks the traditional box by sliding out from beneath the roof and extending in to the landscape. Instead of forming a closed volume, these independent walls, joined only by panes of glass, create a new ambiguous sensation of space. 'Space' is rather 'wrapped' around these elements rather than 'trapped' within it. This has given it the freedom to change, to grow or to reduce.

Use of material has greatly contributed to the 'flexibility' of the pavilion. Use of glass to partition two spaces has allowed the visual extension of the spaces as well as it has allowed light to flow in changing the quality of the space throughout the day. Use of the slender material like glass and steel has softened the definitions of each space allowing them to merge with each other when the effect is needed. Use of marble has achieved the unity or the wholeness of the building, as its strong quality has tied all the spaces together. But this has not destroyed the free flowing effect of the spaces as these elements are placed as independently standing elements. Studied exactness of disposing, minimum of stands, cases and partitions has enabled the achievement of maximum individual and total effect. A well thought out 'unfinishedness' of each space has given it this flexibility.

fig.17 – Glazed partitions: visual extension of spaces (Source: The Barcelona Pavilion, Matiu Carr, 1997)

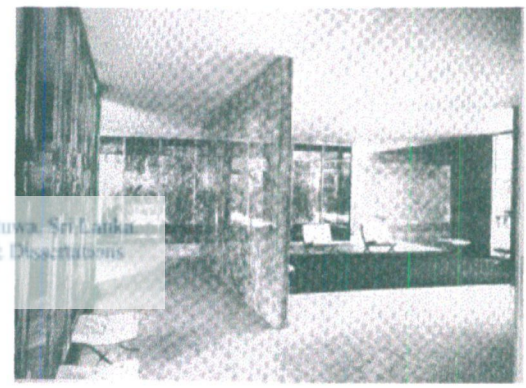
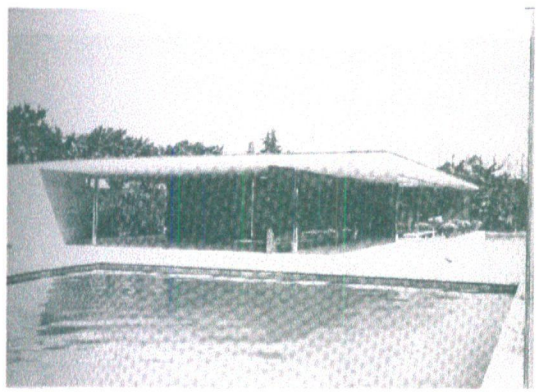
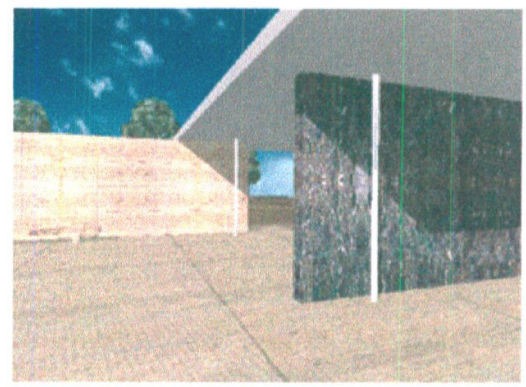


fig.18 – Independently standing walls connected only by panes of glass , create an ambiguous sensation of space
(Source: Philip Johnson, Mies van der Rohe, 1978.)



(Source: Philip Johnson, Mies van der Rohe, 1978.)



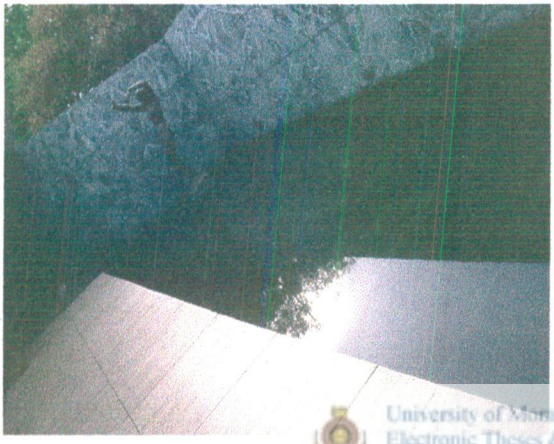
(Source: The Barcelona Pavilion, Matiu Carr, 1997)

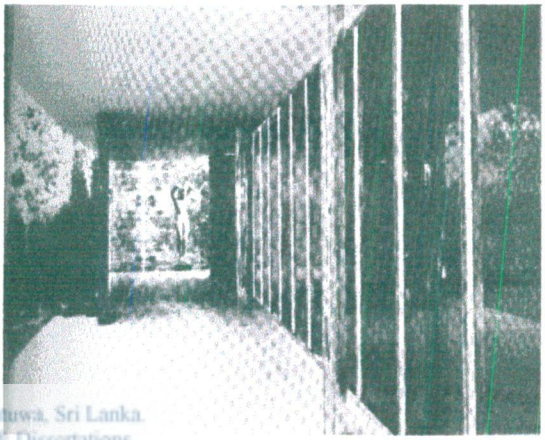
fig.19,20 – Solid, horizontal and vertical elements unite the whole place- both. Interior and exterior.

"It is evident that a (horizontal) plane, is more clearly perceived when something is placed upon it, for instance a tree, an upright – it becomes spatially active... if the tree throws a shadow on the earth's surface, then the spatial relations of both are again emphasized, spatial ideas again stimulated... We can now understand how the position and significance of single objects work for the representation of total space. We see that when the single objects are properly used, the spatial effectiveness of the whole is greatly strengthened... in this double role of spatial effectiveness, for the whole and for the parts, we have the result of an artistic welding of parts in to a whole."

(Hildebrand, p: 88, 89)

In the Barcelona pavilion, solid elements represent the tree. And the spaces wrapped around them changes in response to various issues that crop up, functionally, environmentally, or otherwise.

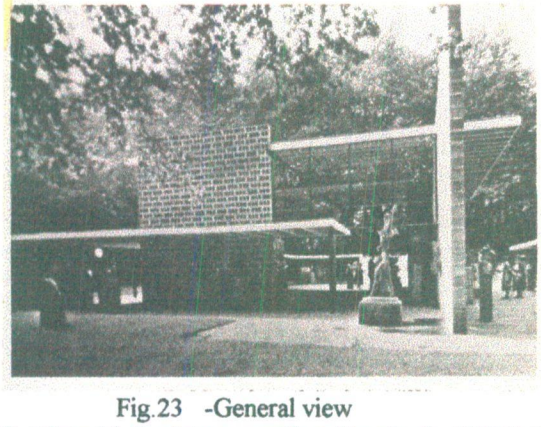




(Source: The Barcelona Pavilion, Matiu Carr, 1997) (Source: Philip Johnson, Mies van der Rohe, 1978.)

fig.21,22 – Statue of George Kolbe is probably the only solid object in this building. It functions as a communicator to the visitor. It contributes to the unity of the building by acting as a reference point.

De stijl and post De stijl architecture represented a similar form of architecture with an abstract configuration of elements.



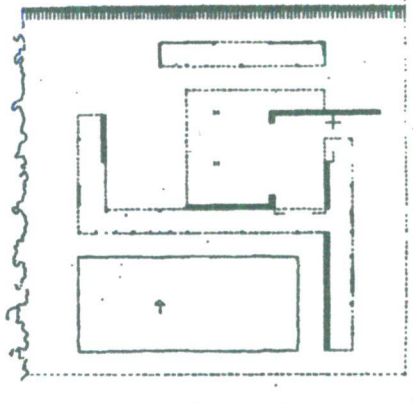


Fig.23 -General view fig.24 -Plan

G. Rietveld. Sculpture pavilion, Sonsbeek, (1954) (Source: Form follows Fiasco – why modern architecture hasn't worked , Peter Blake, 1977)

It has followed a similar approach as in the Barcelona pavilion, using walls as elements to channel spaces and combine them instead if completely enclosing and dividing each of them to separate spaces. Walls have extended to the exterior landscape, incorporating it in to the building so that the spaces could either extend to the outside giving a sense of freedom to the user or they could be limited to the interior providing a sheltered, protective quality.

2.1.1.7 Traditional Japanese architecture

Traditional Japanese architecture displays a 'flexibility' than any other type of architecture in the rest of the world. Main force behind this approach could be understood as their devotion to Buddhism and trying to incorporate its philosophy in to their lifestyles. The impermanence of everything, which is taught in Buddhism, is depicted in Japanese architecture. Their spaces were not fixed, specified spaces, they changed along with each function. And this flexibility was achieved by light, shadows, partitions, and the plan forms of buildings.

The principal style of Japanese dwelling of the upper class is unexcelled for its refinement and simplicity. Interior posts form a supporting skeleton for the roof. The exterior walls usually consist of movable panels that slide in grooves providing a flexibility to join with the exterior or to detach from it. Wood panels (used at night or in rainy weather) alternate with screens of mounted rice paper (used in warm weather). The way in which Japanese view the interior and the exterior of the house is a key aspect of traditional design. Instead of seeing the inside and outside as two distinctly different environments, they are thought of as being continuous elements. This concept is embodied in the Japanese veranda (engawa), which acts as a kind of transition space from inside to outside the house.

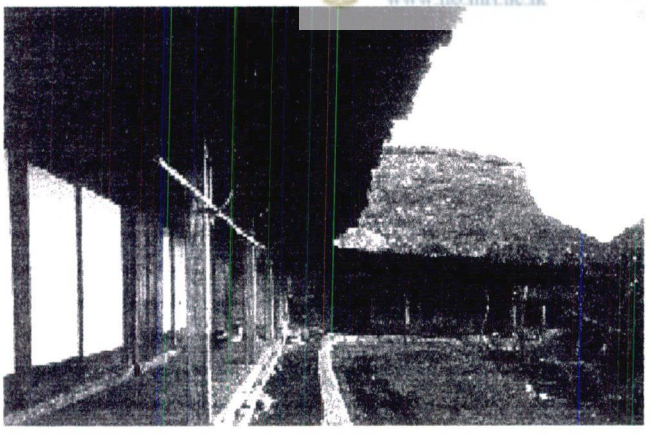


Fig.25 – External walls were of moveable panels, which provided flexibility to the house; and the verandah acted as the transitional space between inside and outside. (Source: The Columbia Encyclopedia, Sixth Edition. 2001)

The interior of Japanese houses in the past was virtually open, without even screens to partition off individual spaces. Gradually as more thought was given to particular areas and their functions, such as eating, sleeping, or dressing, interiors were flexibly subdivided by screens (shoji) into a series of airy spaces. Paper-covered sliding doors (shoji or fusuma), which are still found in traditional homes, came afterward. Though they serve poorly as sound barriers, they do provide some privacy and can be removed to open up the entire space (except, of course, for the columns that support the house). Shoji also admit light.

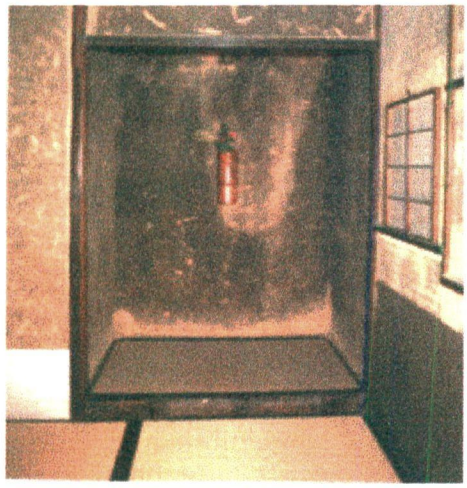


Fig.26 – Interiors of traditional Japanese dwellings were flexibly subdivided by screens (shoji) into a series of airy spaces. (Detached Katsura palace) (Source: The beauty of Japanese Architecture in Kansai, Nakamura Toshinori,1997)

In traditional Japan, the room was merely a transient place, made up of simple autonomous planes that at most made a cube or a quadrangle within which architectural space was then momentarily created by placing in the transient furniture for the occasion. Thus the quintessential Japanese room was not a composition of geometry and playing in the void. This phenomenon was enhanced by the fact that in a traditional Japanese room geometric figures, but of the depth of dark, dim and ambiguous shadows and minimal light, the walls are finished with a single neutral color that would be subjected to subtle changes in its hues - a conscious device to enhance the presence of the shadows and activate the user part by part until he comprehended that the total effect of the room was far greater than the sum of its various parts. Thus the traditional Japanese room was not comprehended through the amount of light that came in like the Western reading of a room, but the amount of light that did not come in.

Fig.27 – Traditional Japanese spaces greatly depended on light and shadows, which created a flexibility to suite each of their uses. (Source: The beauty of Japanese Architecture in Kansai, Nakamura Toshinori,1997)

The traditional Japanese room was thus at best a subjectively evoked space, transcending formal definition but eliciting a mental definition that was brought forth by the perceptions of the moods one felt in it. And it was here that the darkness and shadows played such a significant part. For the very manner in which light as an architectural element was used in traditional Japanese space differed significantly from the West.

In the traditional Japanese room, there was no such differentiation of spatial hierarchy. At best there was an ambiguity of spatial definition. Though the 'Tokonoma' or the scroll alcove was by far the most important part of the room, it was only understood as a holistic part of a larger system that was bathed not so much in a uniformly diffused light, but more so in a subdued darkness. The scroll, the flowers and the shelves were not ornaments but modes of enhancing shadows, the real ornaments of the room. Nowhere was this more evident than in the manner in which the Japanese made their living places. The novelist Junichiro Tanizaki notes that "*In making for ourselves a place to live, we first spread a parasol to throw a shadow on the earth, and in the pale light of the shadow we put together a house.* "

2.1.2 Sri Lankan situation.

Respect to environment, simple lifestyle, cultures and religion and sense of sharing often resulted in 'flexibility' in ancient Sri Lankan attitude of place making. Almost every situation created a very democratic and minimalist atmosphere. Yet, residential places and communal places possessed a flexibility more than any other situation. The reason maybe that, they were the most related to their lifestyle and were created by users themselves who knew which approach would make them most comfortable.

Earliest villages, which were called "Purana gama" or tank fed villages that were arranged around a common courtyard, adapted this flexible quality from the common court to their most inner residential spaces. The courtyard was their communal space, play space, place where their wealth was gathered, and incorporated many more other functions. It quite effectively ordered the spirit of adjoining interior spaces, in response to activity took place within it.

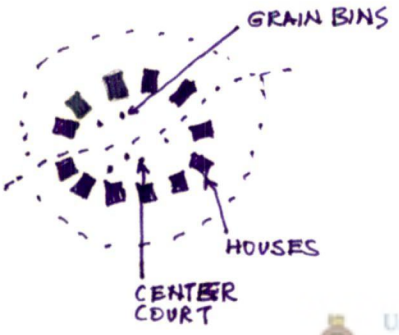


Fig.28 – layout of a "puranagama"

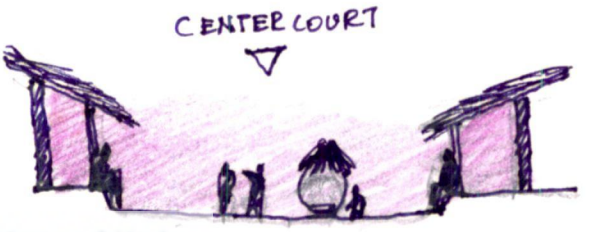


fig.29 – A cross section showing the expansion and Seperation of each space according to each activity

"Pila" was opened to this common courtyard. It functioned as a place where visitors were entertained, where people had their meals, where women weaved their mats, etc... These two spaces, the communal space and the "pila" extended, combined or detached from each other along with every function took place within its confines. For instance, when a visitor is entertained at the "pila" it transformed its quality in to a private, individual space belonging to that particular house, then when people sit at it and eat or when they rest there during evenings, they used to converse with each other across the common court and this incorporated the "pila" and the common courtyard in to a one making the whole settlement as one house so on and so forth.

fig.30 – Relationship of the "pila" and the common cortyard

In the hill country the villages were arranged along a pathway and the houses were individual entities of the village. They were mostly inward houses, may be due to the forces of the environment such as wind and rain. These houses were arranged around a very flexible internal courtyard, which incorporated many functions within it. Varying degrees of light created different qualities within this place, from public to private. Open, well lit areas functioned as communal areas and were used by children for playing, and by others for drying things, mat weaving, eating etc... while the darker area was used for sleeping purposes by men.

fig.31, 32 – Varying degrees of light created the backdrop for various atmospheres in which several functions took place.

Apart for residential buildings, 'Ambalama' which is a public building functioned as a highly flexible building. Since it occupied several functions from a resting place to a place of community, it was built in a certain flexible manner to house all these uses and all types of users. It was a shelter with a minimum amount of elements to separate it from the natural environment. It incorporated the surroundings in to its space and only turned away from it during night. It was flexible enough to produce a sense of security to a sense of freedom or a welcome quality. Its flexibility changed with the time of the day and the type of functions took place within it. The achievement may lie in the fact that the building was minimally enclosed and having a simple layout.

Fig. 33 – 'Ambalama' a flexible place for various situations.

2.2 Evolution of the concept from past to present.

"The past should be altered by the present as much as the present is directed by the past... the difference between the present and the past is that the conscious present is an awareness of the past in a way and to an extent which the past's awareness of itself cannot show."

(T.S. Eliot, 1994, p:10)

As described earlier, perception of 'place' and its variables such as 'flexibility', mainly depended on the attitudes, cultures, needs, and other differences of people who made them. As their attitudes changed, the way they made places differed.

When considering the evolution of the concept, earliest man started to gather during nighttimes and they didn't care much for their privacy. This attitude formulated the approach they used in making their places. They created a single definition of place by lighting a fire, which created their space of flexibility. It had no boundaries, no private places, just a single lit up volume where every activity took place within varying intensities of light.

As man developed, he started to care about privacy, yet desired to live as a collective and to share, thus creating situations where all shelters opened to a common open space. They retained their privacy, but did most of their activities within the common space, which had the ability to change its character to suit each situation. Shelters were also arranged in a flexible manner as they often functioned as multi functional and multi habitable spaces.

Along with time, places attained a clear demarcation between the private and public. Various forces such as politics and attitudes encouraged flexible places to exist as public entities. Situations like Greek Agoras, which were an outcome of people's choice of democracy, and public squares and streets in Baroque and Middle Ages Europe, outcome of people's preference for celebration of public and recreational activities, held this spirit in their character. They were adaptable to suit each changing activity and were clearly defined by buildings, which contributed to this flexibility. They didn't occupy any defined private places, as the functions were purely public, yet had the ability to transform in to any form of character required by their users.

At a later stage in the path of evolution, flexibility of place making came to be a much more organized process and slowly started to get more and more internalised with the peoples desire for privacy. Some were forced to be flexible to fulfil various demands of living and scarcities, while the rest were created for the enjoyment of its user. Flexibility evolved out of scarcities proved to be very tight and unappealing situations such as in industrial revolution period. Yet Modern movement saw a new approach in flexible place making. Although this period followed a very rigid and minimalist approach, this concept was also used by some architects to create successful flexible places. Minimum amount of solid elements were used to channel spaces and to connect them instead of dividing them. Physical elements like walls and roofs were given new meaning. Walls were used for channelling of space rather than to enclose. Freedom within space was achieved by the use of new materials like glass and steel and they were successfully used to dissolve boundaries. These approaches and

materials enabled the architects of this era to achieve a very successful flexibility within these spaces.
Religion and the natural environment played a marked effect on flexible approach in place making. Japanese people followed the philosophy of 'impermanence' taught in Buddhism, in their architecture. This created a flexibility in their places, none other architectural interpretation could match. All their elements were slender and impermanent to help create the flexibility within their places. Natural light and shadows heightened this quality within these places. Even furniture contributed to achieve the maximum flexibility within Japanese spaces. They incorporated natural environment to their architecture. Islamic religion forced the buildings to look inward. All the spaces had to be around the courtyard, which was a flexible entity within this enclosed space. It contributed to the changes, which occurred in rest of the spaces along the time of the day or seasons of the year.

Likewise one could see an evolution of the concept of flexibility, changing from an unorganised open situation to an organized open one. And then to a very well designed, well thought out, internalised spatial situation shaped by time and people.

" The best in Modernism can be profoundly rooted in tradition; and the best in tradition has to do with a dynamic process of rethinking cultural core ideas. It is a question of penetrating the underlying generating principles and symbolic substructures of the past, realizing where they are relevant... and transforming them in to the present circumstances".

(Curtis, W., 1985)

Chapter three

A contemporary interpretation of 'Flexibility' in placemaking.

Introduction

This chapter aims to seek out, the changing perceptions of the concept of 'flexibility' in place making and the architectural interpretation, and to find out actual occurrences of the concept in the global and Sri Lankan situations, how they have been achieved and the ways in which the concept has been interpreted in a contemporary sense.

3.1 Changing perception of 'flexible place' in the contemporary world

Our world is composed of a network of interconnected, mutually supportive "happenings" and if he is to survive, man must take cognizance of this intricate system of existence. Indeed the very existential functions are the network, which binds and forms the substratum for all functions of existence that occur within its confines. Contemporary demands have forced every 'place' to reduce little by little and it still is reducing in size. This causes the concentration of functions to a smaller place than before. But still the need for the balance of this network of functions is essential for the man's well being.
The way of perceiving every thing changes along with time. It could be rooted in those experiences and achievements of mankind in how the outgoing 20th century represents them and/or perceptions of any kind connected with moving towards a new time sequence during the turning of the millennium. Whether associations are based upon individual experiences cultural mentalities and backgrounds, intentions or locations, the 'place' shall inspire, also receive, absorb, forward and direct them constructively and so become a vital binding element in space and time. The perception of 'flexible place' will no doubt follow the same course.

'Flexible place' has acquired a new sensibility along with time. This sensibility can be characterized as sensitivity to the neutral, the undefined, the implicit; qualities that are not confined to architectural substance but also find powerful expression in a new spatial sensibility. The spatial changes are nonetheless crucial to recent architecture. After the explicitly defined spatiality of postmodernism and deconstructivism, it looks as if the decade old ideal of boundless and undefined space is set to become the main motive for architects. This boundless space is no dangerous wilderness or frightening emptiness, but rather a controlled vacuum, for if there is one thing that characterizes this age it is total control. The undefined space is not an emptiness, but a safe container, a flexible shell.
From a strictly art historical perspective, the rise of such notions as undefindness, boundlessness and neutrality can be seen as a reaction to the ruling tendency of the preceding, postmodern, period. Yet it is also possible to look outside architecture for an explanation for changes within the architectural domain. The first thing that to present itself is' globalization'. Inevitably, increased mobility and telecommunications and the rise of new media, all of which have been ascribed a major role in the globalization process, also affect architecture and in that they alter our experience of time and especially relevant in this context – space.

Although the individual's radius of action continues to expand as a result of increasing mobility, 'place' itself is being steadily reduced to a zone that is traversed, an interval in a continuous movement interrupted at most for a brief stopover. Scarcely anybody has a clearly formulated opinion about this transit zone. Most seem indifferent to what this in-between 'place' looks like, accepting it as inevitable. The 'flexible place' has come to be as just another place without any significance to it. It is coming to a phase where people can't relate to such a place as it is fastly becoming typical and losing its quality as a whole. Reason may lie behind the facts of 'globalization'; typical thinking worldwide, evolvement of a global culture in architecture, so on and so forth.

3.2 Changing perceptions of the architectural interpretation

Globalization, technological advancement, vast variety of material, etc ... enabled the architect go a long way in his architectural interpretations; in some instants he has forgotten the function of place making, over a desire to be imaginative and to produce the most outstanding creations.

In the 1970s, it seemed as if one architectural world - the world not only of international modernism, but also of craftsmanship, of conservatism - had died while another world - the world of high-precision, machine-made, radical, architecture - was taking over. This, then, is the natural starting point for an exploration of the sea change that has taken place in architecture worldwide, in the 30 years leading up to the Millennium.

Mies van der Rohe repeatedly remarked that one cannot invent a new kind of architecture every Monday morning, however in the final third of the twentieth century, it seemed at times as if the world was trying to disprove that assertion with movement after movement, style after style. We have seen new vernacular, new classicism, new regionalism, post-modernism, high-tech, organic architecture, deconstruction, eco-architecture, cosmological architecture, ultra-minimalism, and the inevitable return to the period of heroic, "white modern" architecture by a new generation. Thus "high-tech" came to be seen as just another style, virtually a kit of parts, to be called on by any competent architect when the need arose. Buildings by Rogers, Foster, Nicholas Grim Shaw, Jean Nouvel and Renzo Piano continued to be highly crafted one-offs, though Foster achieved something like a production-line effect with his lesser steel-framed, glass-clad buildings, and Piano developed an oft-repeated private language of terracotta panelling, developed over many projects. Instead, high-tech fell into the hands of more anonymous "commercial" practices who took up the products and methods developed by, or in the wake of, these pioneers.

Fig.34 – Latter part of the 20th century saw the evolvement of 'high tech' building (Nokia office-Helsinki by Pekka Helin and Tuomo Siitonen) (source: - Nokia House- Espoo, Osmo Lappo, 1998)

It was not until the advent of "green" buildings, for offices, universities and the like, that a different language began to evolve: the architecture of wind towers and turbines, solar chimneys, cross-ventilation or tholos-like stack-effect atria, double-wall glazing, heat-sink heavy masonry or lightweight solar-powered skins. Consequently a great deal of experimentation with trad materials, used modernistically, began to take place from the mid 1990s. The other side of the coin was the first generation of "green" high-tech buildings, where the use of a limited selection of suitable industrialized systems meant that a building by one architect could end up looking uncannily like a building by another, with such notable exceptions as the work of Hamzah and Yeang in Malaysia. This sameness may change as the industries develop more products. It is arguable - but perfectly possible - that the "green" movement signals the biggest shift in the appearance of architecture since the advent of heroic modernism in the 1920s. Then again, stylistic inertia is a powerful force in its own right, with architects often ready to adapt old forms than to embrace new ones. This tendency is inevitable and ancient: thus the Greeks faithfully copied all the details of timber temples into the new technology of stone.

The most basic changes in architecture occur not because of academic theory or pure experiment, but because of changes in the way people live, work, are governed, travel, entertain themselves, regard the outside world.

3.3 'Flexibility' – the contemporary situation

"Let us imagine total space as a body of water, in to which we may sink certain vessels, and thus be able to define individual volumes of water without, however, destroying the idea of a continuous mass of water enveloping all... Since we do not conceive nature with the eye alone, nor from a single point of view, but rather as something always changing, always in motion, to be taken in by all our senses at once. We live and move with a consciousness of space surrounding us... since the volume of a single object is suggested by the outlines of its form, so a certain volume of air may be indicated by several objects put together, for the boundaries of the objects also/ limit the volumes of air, which lie between them. Our task is, to order these objects in such a way, that the vision – and – movement, aroused by them shall not remain separate, but cooperate and lead from one another, on and on, in all directions."
(Hildebrand, p: 87, 88)

Attitudes, habits, ideologies, living patterns and many other functions of people have changed drastically during last few years. Globalization, technological advancement, finances etc... could be held responsible to this change of people. Concept of 'place', has also acquired different meanings to suit the contemporary world. Place making processes have adapted to these changes as well. So that, although the 'flexible place' is still very much in existence and felt as a need, very much than before the way it is perceived, the way it is interpreted, has changed along with the ways of people.

During the last third of the twentieth century, there was an increase in impermanence of the built composition - which anyway was a change well signalled by the theorists of the 1960s from Cedric Price and the Archigram group onwards.

The contemporary flexible place came to be a place where you don't nestle in. The architecture of flexible places require a physical environment, which can be quickly reconfigured –Flexible places are designed to accommodate a variety of uses within a given space... Moveable partitions, built-in wall units, flexible lighting systems and movable or collapsible furnishings are typically associated with these types of spaces. The main property of this place is enclosed. Through the opening space is able to extend in various degrees. Thus the boundaries and the openings are the two main elements of this created space and it is the different articulation of these, that a place gains a different environment quality. Of the boundaries the flow representing ground the wall the horizontal extension and the ceiling was the sky giving the vertical. The goal is to use interior spaces more efficiently and to reduce the need for single use occupancy in residential and other building types. For example, a kitchen could be designed as a place for food preparation as well as a place for conversation, for play, for eating and for reading. A single-family dwelling could accommodate a family room together with a home office and a den. A converted warehouse could combine a meeting space with a daycare and exercise room. At the extreme, the "office" can become just a computer terminal. The neutrality of new buildings also results from their 'global currency' as investment units; the space itself needs the uniformity and transparency of money. This is why the style elements of new – economy buildings become what US architectural critic Ada Louise Huxtable calls "skin architecture": the surface of the building dolled – up with design, it's innards ever more neutral, standard, and capable of instant refiguration.

We need to overlay different activities in the same space, as family activity once overlay working space. The incompleteness of capitalist time returns us to the issue, which marked the very emergence of the industrial city. A city, which broke apart the domus- the spatial relation which had before the coming of industrial capitalism, combined family, work, ceremonial public spaces and more informal social spaces. Today, we need to repair the collectivity of space to combat the serial time of modern labour.

"Collaboration in Placemaking," an article Lorenc wrote for Signs of the Times (January 2000), he notes: "*The spaces that emerge with such energized collaboration are richer for the effort and stronger as a collective as opposed to having individual components expressed in their own narratives.*"

Within the last 20 years focus has been directed towards concept of 'flexible place' a lot. This term is important, because it raises the discussion above the level of usual architectural practice. Seen from an theoritical point of view, this attitude is an important sign of a departure from the popular traditional ideas of architects, namely that they know from the outset what a building is (deductive thinking, as required by religion), and a turning to scientific method, which proceeds from individual cases, via classifying concepts, to the general rule (inductive thinking, as applied in natural

sciences). The most important result of this incipient inductive procedure lies in the fact that, of necessity, it sets its sights on everything built by man. A tremendous opening up, liberation from hackneyed doctrines becomes visible. A huge amount of material is spread out in front of the enquiring architect, as a new challenge to his curiosity! If, with Thomas Kuhn, one perceives a new paradigm in this reorientation emanating from Kansas, it is also possible to recognize an emerging "scientific revolution".

3.3.1 Global situation

It seems that the globe is becoming a place with one culture, one ideology, one aim. Attitudes have come to be similar, may it be in United States, Japan or India. People seem to be becoming one global community with common aims, aspirations, attitudes, needs, etc... so that architecture is becoming homogenized to serve this global community. There could be seen many instances where 'flexibility' adapted in common building types, mostly in public places.

All styles, however, do not suit all building types or places. An airport terminal requires a different type of flexibility from an office, and could not attempt to apply the same approach to sports stadia or skyscrapers. A religious building, one might think, could be anywhere and be made of anything: but not so, it would seem that in most cases a certain opacity and solidity is required to achieve its divinity and flexibility. Theatres and concert halls have acoustic and lighting demands that partly force against lightweight architecture in order to achieve its required flexibility: the architecture of public spaces, in contrast, can be positively ethereal. art galleries and museums, as much as shopping centres, must turn their backs on the world with windowless spaces, but can counterbalance those with their 'low' recreational elements - the cafes, the shops and flexible interiors. Schools must contain a certain variety of spaces and carry out certain functions that tend to be expressed, by all architects everywhere, in a limited number of plan forms - relating the big communal space to cell-like teaching space, a form adopted increasingly by office space planners. All this may seem truistic, but in the relentless categorising of architectural styles - as if style was something that floated above the function of the buildings - it tends to be forgotten that places in their unformed state, as a set of needs, have their own demands, and that those demands may well suit one approach rather than another.

3.3.1.1 Office Buildings

Office buildings, found that gearing up for the electronic information revolution meant rediscovering their early 20th century roots, in the form of tall-ceilinged rooms arranged around an atrium. Despite the presence of this historical readymade, more research went into the design of offices than any other aspect of the built environment, from the ergonomic design of chairs and keyboards to the ability of total flexibility within their spaces. Since all big office buildings came to share the same American-derived steel-frame construction system, and since others would nearly

always come to fit out the finished building, once again only the external elevations were left for the named architect to have any fun with. The office building became less like a piece of architecture, and much more like a very large piece of office equipment.

fig.35 – Office buildings of steel and glass with spaces arranged around an atrium have become typical in the contemporary world.(Nokia building, Helsinki) (source: - Nokia House- Espoo, Osmo Lappo, 1998)

Schedules of accommodation for large office complexes incorporate large quantities of identical spatial units, which are achieved by ever adaptable partitioning systems. They have to be divided up with a sense of scale so that the internal working environment functions flexibly and to avoid massive monotony in the architecture. Office spaces are becoming more and more typical as they adopt the same scientific technologies all over the world. Layouts have become typical open plans, which are divided in to various sections by partitioning systems. This has allowed them to function in a flexible manner, which has become almost an essential requirement when it comes to office architecture.

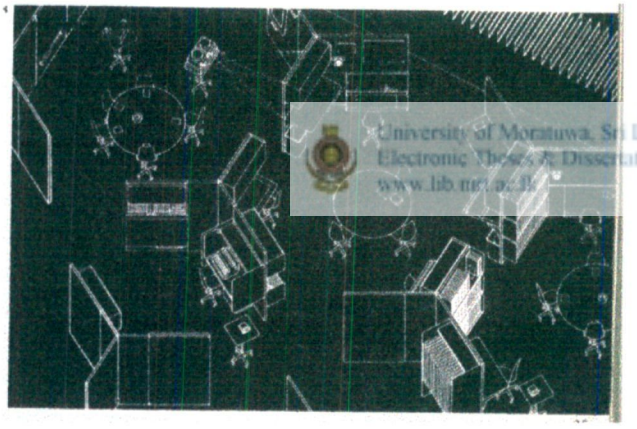


fig.36 – Birds eye view of a typical office space – (Source: In Depth: Modern Office- New office environments still include plenty of furniture, Molly Greenberg, 2000).

Partitioning systems have come to be very popular in creating flexible office spaces. They have the ability to demarcate a workspace from another temporarily, which could be altered to best suit the requirement when needed. It allows change of a place, either as a maximally enclosed place to provide the privacy needed for conferences and other important work and yet it could be altered to respond to the rest of the office space, to communicate with it.

Fig.37 - Partitioning could be used in many ways either to provide maximum privacy or to communicate with the rest of the office. (Source: In Depth: Modern Office- New office environments still include plenty of furniture, Molly Greenberg, 2000).

Modern systems such as the Pathways system, has evolved from the cubicle concept to more designed use of space. The Pathways wall panels, for defining personal space, are beyond modular and are so flexible in design that they slide horizontally to make walls bigger or smaller by one-inch increments. Vertically, stack and change walls can rise part way or all the way to the ceiling. Walls can be short, nearly non-existent or tall. Wall skins can change easily from fabric to tackboard to whiteboard or to slatwall for attaching office tools.

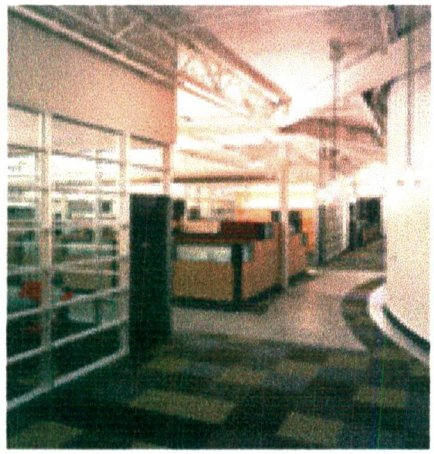


Fig.38 – Modern partitioning systems provide maximum flexibility - IDEC corporate facility - Sunnyvale, CA
(Source: Kwan Henmi Office Interiors, 2000)

Nokia building represents the generation of contemporary 'flexible situation' in placemaking. It displays a 'flexibility', which has been achieved in answer to the present day demands and functions within an enclosed space by using contemporary high tech methods and materials. The aim of the design was to achieve an interactive office environment that would encourage creative thinking. In both, the spaces are arranged around a large atrium, which at ground floor level acts as a multi purpose piazza, restaurant, assembly and exhibition space. A flexible, adaptable and repetitive spatial unit has been evolved for the working spaces, where communication is encouraged by visibility from one space to another and one group of spaces to the next.

Another contributory factor for flexibility in a typical office space is the lighting system. In most modern offices artificial lighting systems provide a maximum flexibility to the place. They could regulate any place to achieve a desired quality. Various intensities of light provide the backdrop to various functions. For instance when a space is occupied for conferences or discussions, focus on to the discussion area could be achieved by artificial lighting arrangements and the spatial quality or the effect could be changed in the same space by the lighting system to serve another purpose.

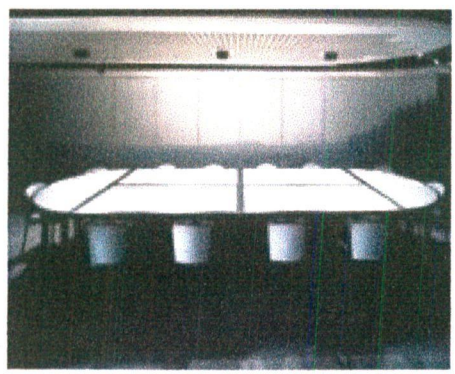


Fig.39, 40 – 'Sense of focus', achieved in a conference room by the use of artificial lighting to suit the function. (Source: Kwan Henmi Office Interiors, 2000)

Contemporary office environments demand a maximum use of space within their buildings and this has utilized even the corridors for several purposes rather than just for transportation. In some instances they are being used as display areas, in which case the artificial lighting systems have played a great role in transforming the quality of the corridor from its original purpose. At times lighting is used to give the corridors a sense of direction and at other times they could be adjusted to give a static quality or to highlight a specific place of importance within the corridor.

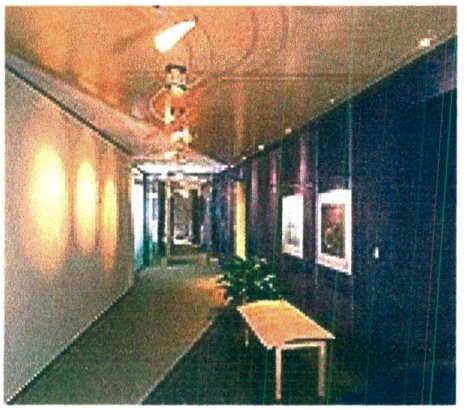


Fig.41 - Lighting could provide flexibility even to a narrow corridor by changing its quality from time to time to suit the requirement. (Source: Office Lighting for Public and Support Spaces, James R Benya)

As office spaces are getting tighter and tighter the corridors have started to become narrower. As a solution to this in most offices, artificial lighting has been used in a way to achieve a much wider effect and these systems are being used in creative ways to avoid the monotony that could occur in a narrow corridor.

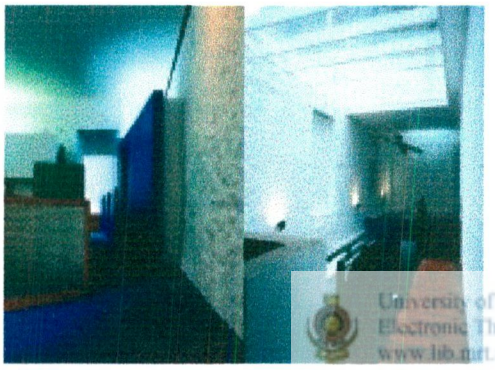


Fig.42 – Lighting has been used to break the monotony of a narrow space. (Source: Office Lighting for Public and Support Spaces, James R Benya)

Tight office spaces have proved very difficult to achieve the suitable atmosphere within them without the use of new technology. Artificial lighting systems have provided evidence as a very effective mode to achieve the flexibility, which has become an essential necessity within contemporary office spaces.

Fig.43 – Artificial lighting systems have succeeded in achieving a maximum level of flexibility in spatial quality of a space. (Source: Office Lighting for Public and Support Spaces, James R Benya)

Contemporary office layouts are becoming more and more typical although they are flexible. Yet there could be seen a new interest towards a more humane approach to this flexible office requirement. Theorists like Christopher Alexander is doing research on contemporary office environments, which could be understood as a good sign for future office architecture.

Describing the user-layout design process in the Architectural Record article, Christopher Alexander says: It is essential to stress that this process is entirely

different from the layout process available in computerized systems using modular components. These systems allow the user to arrange and rearrange the modules. This research shows that any process of arranging and rearranging modules is fundamentally limited, and cannot produce the kind of comfort the deep and simple feelings that we are seeking. Profound adaptation in which things are comfortably related to one another can only occur when the elements involved are all capable of very fine dimensional variation. The aspect of the layout process itself, which is necessary to make this non-modularity work, is that it is a process of differentiation (similar to the process of embryonic development) in which the parts are gradually differentiated from the whole instead of the whole being made up from modular parts. He further states, that it is all right to say that individuals and groups have control over their realms and their work environments, but it simply won't work unless the actual physical materials the building is made of, and the structural systems by which it is put together, actually invite and facilitate this adaptation. Many office systems have been designed to be "flexible", yet they often involve merely the rearrangement of standard components. While the size of the space may change, the character really does not. Also, over the passage of time, there is no gradual improvement of the workplace, as each arrangement completely obliterates the previous one.

The patterns developed in A Pattern Language, if correctly followed, will lead one to an environment of an authentic quality. Yet the state of the typical commercial office building is so abysmal in this respect that it is felt necessary to underscore the issues here. It requires attention to the physical quality at all scales of the realms developed in this office language, and across scales. It is not a prescription for style, but is a concern that should underlie all styles. It goes beyond a thoughtful attention to textures, surfaces, colors and materiality.

Five mechanics in a funky, grimy garage may have created an environment much more alive than a place that has received the most considered attention to detail. Conversions of warehouses often exude a genuineness and character lacking in the commercial spec building. The latter may have something to do with the variety of spaces and unlikely mix of character inevitable when transforming a building to an unintended use. It also may have something to do with being purposeful. When something is purposeful it tends to be unique, rather than typical. It engages the existing conditions rather than imposing upon them. In a similar manner, innovation and invention can have a positive influence. "*To imitate provides no proof of a creative spirit in ourselves*", as told by Ananda Coomaraswamy, and "*nothing but the accidental appearance of a living culture can be evoked*". To Coomaraswamy, the most inspiring work is that which is a *"unique expression of time and circumstance"*. Therefore, we suggest using materials and structural systems, which would invite change, and allow changes to accumulate, gradually fine-tuning some areas very closely to the real human needs that exist there. Other arrangements, for which the need became obsolete, would disappear over time. (But the space that housed them might retain faint traces, a sentiment, of their previous use.)

Our office buildings require considerable attention to the visual impression they impose upon us. Their presence is a reflection of our selves. They should be imbued

with positive qualities, such as beauty and purpose. They should be unique to their conditions, not typical. They should offer variety and multiple centers to their inhabitants, not monotonous and imposed. They should feel genuine, not superficial, and in so doing, reflect the authentic and creative spirit of their builders.

(Alexander, C.; Architectural Record)

3.3.1.2 Educational buildings

Designing successful brain-compatible learning environments will require design professionals to transform the traditional disciplined approach in to a much more flexible one. Embracing the concept of "flexibility " in placemaking - as opposed to conventional space design is critical when understanding the way in which design principles for optimal learning environments would be approached. When designing for optimal learning environments, design must be approached in a holistic, systemic way, comprising not only the physical setting, but also the social, organizational, academic, and emotional environments that is integral to the experience of place. Reducing these design principles to "physical" design solutions negates the potential for creating authentically brain-compatible learning environments.

Present day education system is heading towards a more independent and a more experience-based situation where student have much freedom, to discover things, to be creative and to experiment. Flexibility in learning environment evokes the sense of freedom and therefore it has the capability to develop one's creative ability and desire for exploration and discovery. Every object, color, texture, and spatial configuration, as well as their selection and placement, has educational significance. Flexibility in each of them encourages more active participation from students. It encourages them to think flexibly, think of new things and feel free to activate their ideas.

Fig.44 -"*The Med. School asked us to create a fun, lively breakout space, where professors and students can hang out and relax.*" The result is a *"celebration of light,"* a serpentine spine that offers a flexible environment for socializing or studying. *"It's a very well-used space"*- Mackey Mitchell.
(Washington University School of Medicine)

Simple geometric forms and shapes of buildings generate flexibility in them. Openness in school buildings plays an inevitable role to express the freedom within

them. Freestanding walls and partitions also contribute to the flexibility of that space. They could be used in various ways to encourage the sense of creativity, originality, within the minds of its students. In the sense, these elements could be used in the process of learning itself, with the active participation of the students to manipulate these elements to create various atmospheres within a single place, or to give different meanings to these elements and spaces to suit various situations.

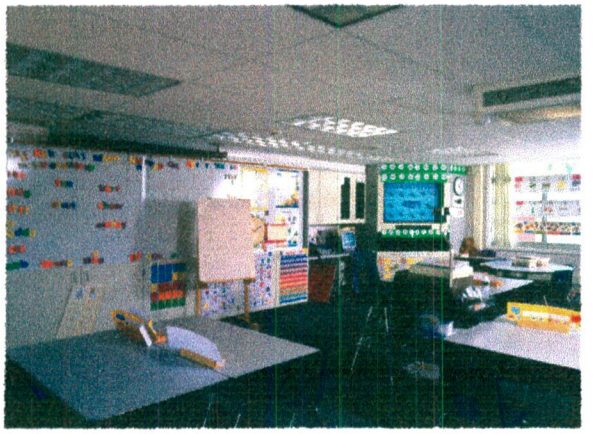


Fig.45 – Partitioning and freestanding walls, allows adaptability to any situation. (Halecrest Elementary in the Chula Vista Elementary School District).(Source: San Diago Business Journal)

Contemporary architecture has started to adapt to rapidly evolving information technology, and to local conditions and regional cultures. They involve computer technology in their learning environments. These systems have lead to open plan systems where the spaces could be adapted to different purposes and the wireless computer systems have contributed much to this 'flexibility' as they prove to be easily moveable and adjustable. Educational environments are slowly coming under the influence of computer technology which incorporate lighting systems that shuts off when there in no movement or change its intensity in response to various situations, or high volume air conditioning systems that can be adjusted automatically

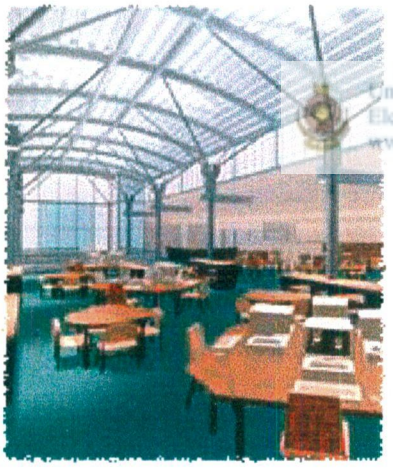


Fig:46 -shift towards an Information technology based education system has allowed for a more flexible and adaptable approach in designing learning environments. (Interior of Westview High School, planned in the Poway Unified School District) (Source: San Diago Business Journal)

Fig.47 – More and more educational environments are coming to being, which consist of technological devices such as electronically controlled 'flexible' lighting systems that can change the character of a place easily. (Interior of Westview High school, planned in the Poway Unified School District) (Source: San Diago Business Journal)

Present schools are changing their perception as 'places limited just for students', and becoming active part of local community welfare and has started to provide an access to education of the population and other social and culture uses by the community, "*The trend is toward making schools available to the general public for performances, night school, recreation or library study,*" says Bob Schaefer, president L. A. Schaefer Construction Co. This demand for a 'flexible' approach in school design, which is adaptable to both; the students as well as the community. It would need the creation of spaces which could transform from an educational atmosphere to a much communal one.

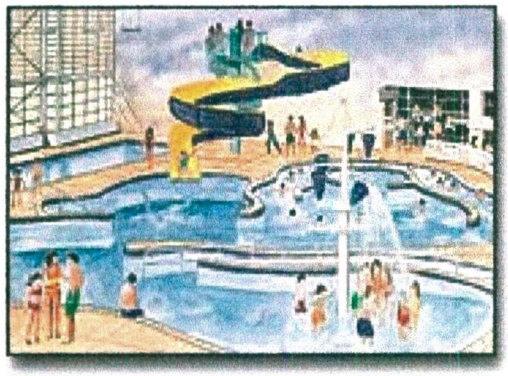


fig.48 -Shared school buildings, present a new set of challenges; Designing of easily adaptable spaces by both parties is one major aspect. (The new shared recreation facility at Clayton center)

The school has become simulator of society. The learning spaces are becoming flexible to suit variety of activities, different from the traditional studying system. Architecture of school buildings have started to be an art of future, a perpetual project whose spaces are designed to accommodate the changing patterns of society, politics and economy, respond to human creativity and cultural continuity. It has begun to dispense not only knowledge, but also the direction that is proper and good for enrichment of human life.

Contemporary flexible alternative has proved to be a good improvement in regard of Learning environments. It has helped to develop, a trust, a relationship between teachers and students, through encouragement of active participation of both parties. This kind of environment also helps students to become more independent - responsible, in many cases, for their own learning. A highly flexible classroom supports the curriculum and the teachers by acting as a regenerative research and resource center; hallways have become display areas, "*not just circulation routes, but galleries, where parents can know what's going on, and kids can show what they're doing and leave their imprints.*" (Trivers). Students get excited about learning; they are not bored or turned off. Hostility toward previously boring schools is changed into curious creativity. In this more informal - but more efficient - setting, the trust relationship and respect for children becomes the basis for transmittal of democratic value systems. Seating students in rigid rows, insisting on constant surveillance, staffing schools with narcotic agents and guard dogs, or surrounding the school with chain-link fences are only preparing students for a police state - not for a democracy. People value their freedom, and if schools are here to support the needs of society - not solely to determine them - then we need to rethink the architectural, educational aura of our schools. They should provide the setting for students not as prisons, but as healthy, humanized, exciting places to live, learn, and prepare for the future.

3.3.1.3 Public buildings

More and more contemporary public buildings are shifting towards a trend in accommodating more than one specific function within their premises. This has made it a requirement for public buildings to be designed in an adaptable way to respond to a variety of functions and a variety of users comfortably. This fact has encouraged designers towards a more flexible approach when creating such places. The high level of public interaction has created the necessity following a more humane approach. Yet the level of information and knowledge, which is exchanged within these places of interaction has contributed, and has made it a necessity to use very advance and well - developed methods to create a 'flexibility' to suit the contemporary demands.

Libraries

"*Libraries do many things. They collect, organize and preserve; they make knowledge accessible - not books, but knowledge*".

(Arylyn Gell Mason , USA)

Technological changes are sweeping across the world, affecting societies, businesses at a speed and to a degree that certainly is without any precedent in history. One of the most and major driving forces behind these changes are new developments in computer and network technology which are revolutionizing world-wide communications and the methods by which information is stored, accessed, communicated, published and applied. Contemporary library users are not looking on libraries not only as a source of books, but also a considerable source of information and education in all the newer forms. When looking at the future prospects of libraries, there is one thing that immediately comes to mind, the all-embracing computerization. We all know that the supply of electronic information is increasing, but also that for the next decades printed material on paper, books, will still continue the most important data carries. The technological development, which has transformed the most aspects of our society, has also transferred the libraries and will do so even more in the years to come.

Since decades, flexibility is one of the qualities in the requirements of a library building, which has high priority in the planning process. Library planning requirements have changed during this century slowly at first but more rapidly in the last thirty years of 20th century. Changing together with the needs of libraries and its users. Desirable qualities of a modern library building as described by Harry Faulkner-Brown, A library should be: flexible, compact, accessible, extendable, varied, organized, comfortable, constant in environment, secure and economic. (IFLA library building seminar, Bremen Germany, 1977).

The library has developed itself into a social/cultural center, which works in close cooperation with the community. Traditional interpretation of introverted, "silence is golden" type of library system has given way to a much more open, dynamic and multi purpose system, which demands a high scale of flexibility in their spatial arrangements. Contemporary standards of a library always looking for, an

interrelationship of areas and services, their mutual influence and connections and their ability to change, to be flexible. Spaces are visually connected with the outside world, extending the library functions in to the public domain. Internal spaces are often arranged in open plan systems to accommodate various civic activities.

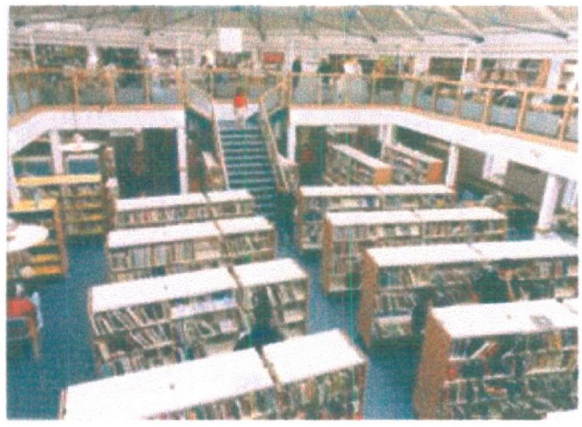


Fig.49 – Open plan arrangement has allowed for easy change by just rearranging furniture (Leamington Spa).

This flexibility guarantees that the space can be constantly adapted without requiring demolition or other structural adaptations, but purely by moving about the furniture. Partitioning systems are used to demarcate areas such as display areas, various subject areas, etc... which could be easily rearranged to achieve a totally new look. This system has succeeded in avoiding the monotony, in exhibition purposes and conceiving a spirit for human creativity.

Modern high-tech systems, transparency, openness in plan, has contributed to the ability of accommodating a variety of civic functions within one space; for example the Grand café of the library of Eindhoven which is created using high – tech methods, serves as a reading room, for lectures, debates, concerts, and other cultural activities. Library will transform and present itself adaptable through varying demands.

Library could be said as the most in relation with the development of Information technology. It accommodates a lot of electronic facilities at present, which has directed towards a very high tech, intelligent approach in library design. It has enabled a very high capacity of flexibility within these buildings, which are electronically controlled. Most of these facilities have opted for much open and temporary type of spaces, which could be changed as required by the use of electronic devices. Many library buildings contain 'adaptable' lighting systems in their auditoriums and similar spaces, which needs constant change in its spatial quality. Some even accommodate electronic facilities to change and shift partitioning systems to suit varying requirements. The library can call for and inspire any type of associations and interpretations becoming a place of contemplation and dispute in every imaginable respect.

Fig.50 – Computer controlled louvers orders the daylight that comes in to these common spaces, achieving a variation of the spatial quality from time to time. (Source: Phoenix Central Library- Marco Torraca and Eric Weber, 1995)

Exhibition spaces

When it comes to exhibition spaces, may it be in western countries or eastern, the street or the square could be stated as the best example. It provides a flexibility like no other public place does. It provides environments for dramatical displays, playing, gathering, painting, eating, etc... For example in Hong Kong there are public places which promote exhibitions, so that People can experience art without going to the museum or theatre.

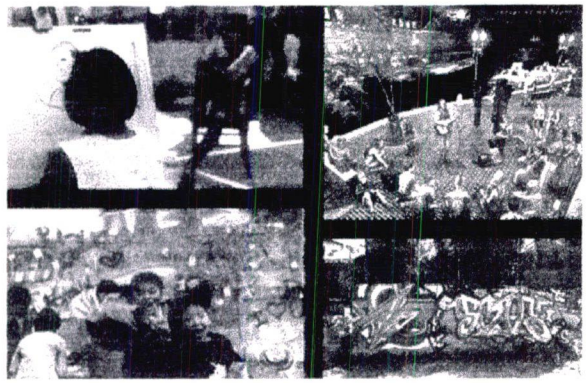


fig.51 - Hongkong Culture: ... street art, street performance ... casual and informal expression.

Contemporary designers are beginning to see the exhibition spaces as a part of the open public places. Main reason being that enclosed, specialized exhibition spaces are often seem to be failing. One cause for this is that people are too busy to allocate a space of their time to actually go in to these buildings and enjoy what's in it.

More and more contemporary designers have started to incorporate public activities and try to make these exhibition spaces 'flexible' in order to catch public attention. By dissolving those spaces for performing and exhibiting art into the entertainment and information complex, people can appreciate and participate art in more casual and informal way as street art and street performance. Thus, art is transformed back to its primary purpose as fun in the people's lives. Many such places have a very dynamic aura to it. Most of them contain spaces, which are actually very dynamic and quickly changeable, in function and in character. This has prevented the occurrence of dullness within these spaces, which has succeeded in attracting more public attention and response.

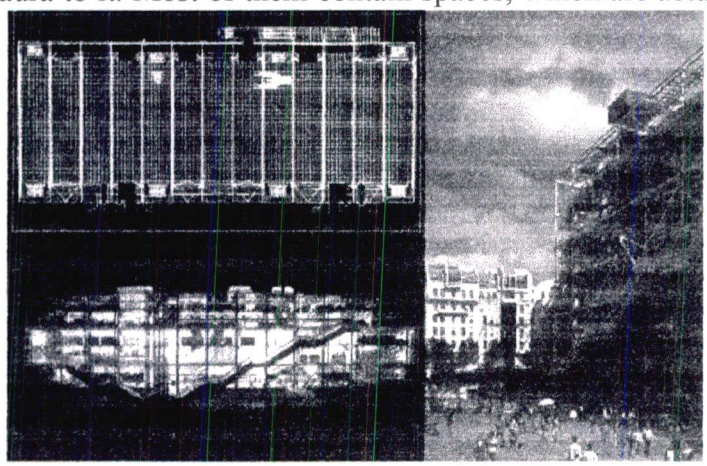


fig.52 – Contemporary Exhibition centers incorporate public activities to their premises, a fact that attract many visitors and a higher requirement for 'flexibility' in their designs. (Pompidou Centre, Paris)

As an example, the transparency of the Centre Pompidou is proved successful to bring art out of the confined museum or high institutions back to the street. Such transparency between inside and outside is not only created by the glass cladding facing the open plaza, the programmatic strategy is also helpful in which the circulation layer is exposed and become the facade of the building. Thus, the people inside the building can overlook the performance in the plaza and at the same time they themselves become the objects to be exhibited from the people in the plaza.

Also, the sloping the plaza, forms an open theatre looking on the images and audio-video screen mounted on the building facade. The boundary between outside and inside is blurred and thus narrows the gap between culture and daily life of people.

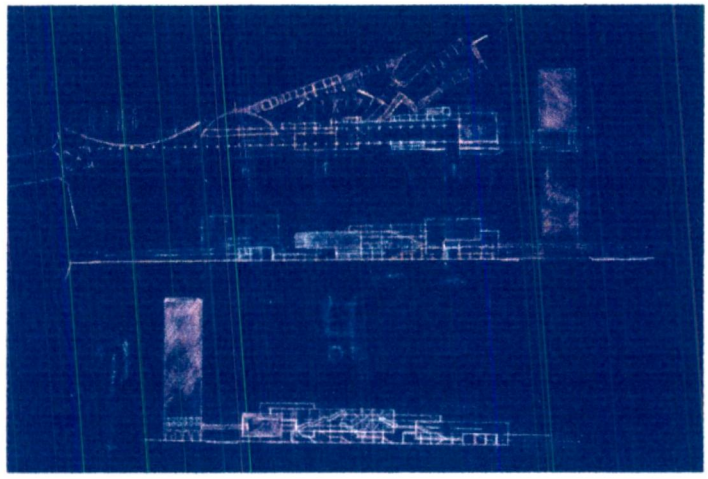


fig.53 – Plan and elevation (Pompidou Centre, Paris)

This transparency has given the building a great amount of flexibility. Blurred demarcation has allowed the outside and inside spaces to merge and acquire different qualities depending on each other's character. Spaces within the building are greatly influenced by the activities, which happen outside and also by the transparent transportation layer. It is a situation of 'give and take' between these different spaces. Hi-tech systems such as audio and video panels fixed to the facades have succeeded in providing different outlook of this building from time to time, and generating various atmospheres within the public plaza.

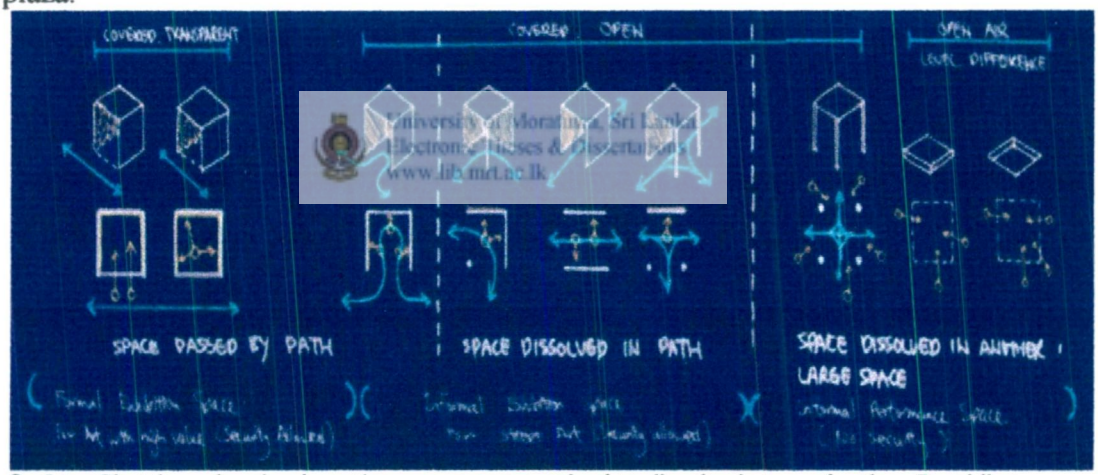


fig.54 - Sketches: showing how the spaces are organized to dissolve in to each other. Providing flexibility between the activity of 'Exhibition' and the activity of 'Transportation'.

Layouts themselves promote a flexibility and a public attitude in exhibition spaces. An interplay between the fixed and variable galleries. The fixed galleries most often are located along the periphery of the building . The variable galleries are located at the center, which allows for maximum flexibility. These spaces often acts as a filter and transition to and from the galleries; a space that mingles relations among the multiple functions of museum-going

Fig.55 – Flexibility of the spaces could be achieved by locating the multi purpose/ variable galleries at the center.

A palette of simple materials: Light is the material expression of the concept of the museum interiors. Walls of glass and other materials reflect light in a vibrant manner, alternating translucency and transparency. Intelligently minimized details do not draw attention to themselves but, instead, reinforce the clarity of the spatial concept and enhance the ability of change of these spaces. Glass, wood, concrete and metal, is frequently used to achieve this flexibility.

Fig.56 – Use of light materials and minimum of element has enhanced the flexible ability of the spaces.(Source: Towards a new musium: MoMA)

Places of exhibition have come to be an element, which uses a lot of advance technology to create different spatial qualities within their spaces. A lot of artificial lighting systems, mechanically moveable elements, sound systems, video screens have been adopted often to create various atmospheres within these spaces to enhance the quality of the things which are exhibited; may it be a piece of art, a drama or a musical show. Many of these systems are controlled by computer technology and could be said as a very effective way to change the spatial qualities in very sensitive degrees. Within such places, the user will be able to absorb the maximum essence of what ever exhibited.

Fig.57 – Exhibition spaces have achieved maximum flexibility through new technology (National Bunraku theatre)(Source: Guide to Japan architecture)

3.3.1.4 Residential buildings

Contemporary residential buildings are becoming more and more flexible due to various causes. Changing lifestyles of people, their changing attitudes, trend towards the involvement in their jobs than in family life so on and so forth is making home just another transitional point which facilitate the demands of residence. This movement is making the residential buildings gradually more and more simple in form. Advance technology and new materials have enabled a higher capacity of flexibility in residential buildings in the contemporary world. In a lot of situations one could observe a trend towards interpreting philosophies in flexibility of the past in to contemporary situations by the use of contemporary technology and materials.

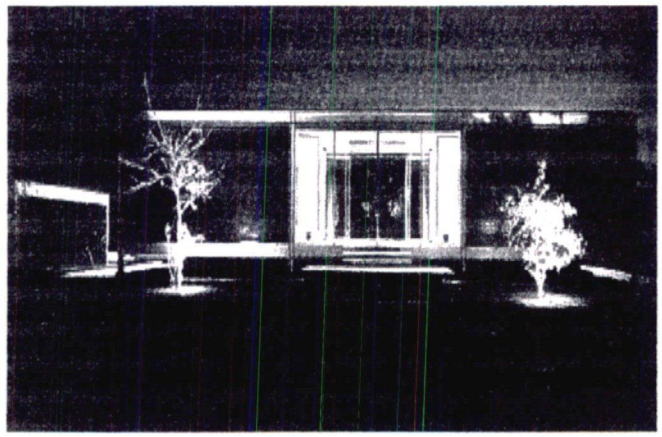


Fig.58 – The house interprets a traditional Japanese philosophy yet in a contemporary manner.(Rosen house, West Los Angeles, California by Craig Ellwood) (Source: Architectural elements: Traditional Japanese house; Western equivalents, Craig Ellwood)

For example in the Rosen house in West Los Angeles, the architect has adopted the traditional Japanese philosophy of residential buildings in to his design and has interpreted it in a contemporary approach. Use of glass instead of rice paper used in traditional Japanese dwellings, has enhanced the intended effect in this house. The link between the outside environment and the interior is further heightened as glass panels have dissolved the barrier between these two spaces by visual linkage. Apart for this, the light quality of the partitions have been further increased by the use of very slender steel frames instead of wooden ones and this has managed to dissolve the spaces in each other linking them together. Introduction of new materials has enhanced the flexibility intended in traditional Japanese architecture in a western situation. Flexibility achieved by natural light and shadows in ancient Japan, has been accomplished by artificial lighting in the contemporary western world. Ability of new materials and technology has achieved the flexibility within the building as well. Spaces are interwoven with each other and could be transformed in to a desired quality by the rearrangement of furniture or elements

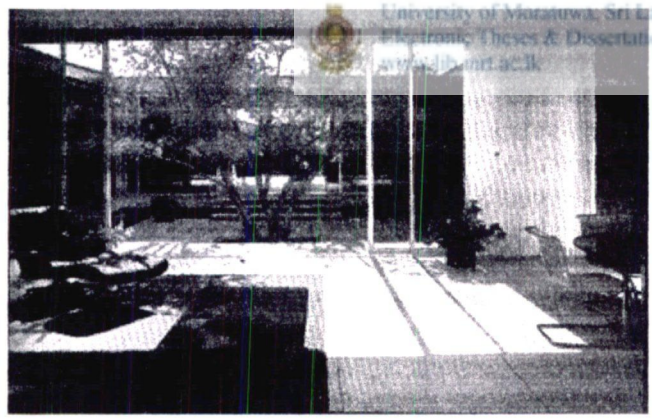


Fig.59 – New materials have provided the facility to extend or change the dimensions and quality of a space easily. (Source: Architectural elements: Traditional Japanese house; Western equivalents, Craig Ellwood)

3.3.2 Sri Lankan situation

Sri Lanka has joined up with the rest of the world on its way to development. It has come under the influences of 'globalization' in everyway. Its open economy has encouraged the country towards a global situation. Rapid development of the media, economic involvements, have changed the attitudes of people and one could observe that the Sri Lankan culture is changing towards a 'global culture' and not slowly

either. This fact has enforced itself on architecture as well. Contemporary architecture is moving towards a global interpretation and the reason may lie in the changing demands of clients and the influence of foreign architects, which is a direct result of globalization.
'Flexible' concept of place making has followed the same course. Almost every type of buildings, from office spaces to the residential have acquired the 'global' way of interpretation. Most of the office, commercial spaces seems to be turning away from their traditional ways and the surrounding environments. Most of contemporary buildings are introverted, flexible places, which survive manly on technological assets. Most of them look typical and the specific function could not be identified, as they all look the same. It seems that these buildings could accommodate any type of function, may it be a shopping mall, office or even a hospital. Many of the interiors have achieved the flexibility through partitioning and artificial lighting systems. Once one is inside such a space, he wouldn't be able to tell whether he is in Sri Lanka or in any other part of the world, because this interpretation of 'flexibility' has turned in to such a typical outlook. Even in them, only a handful of instances could be said as succeeded in achieving a 'flexibility' to suit the global standards; the rest have resulted in disaster due to lack of technical skills, skilled labour, knowledge, etc...

Yet a trend could be seen as evolving from the latter part of the 20th century, which has responded to the character of place, the country, culture, people and the environment; mostly in regard of residential and recreational buildings. It seems that this trend has achieved a 'flexibility', which is authentic and unique to this country or the region. So that it is worthy of giving attention to and trying to adapt to the rest of the building types as well.

"The true basis for the more serious study of the art of architecture lies with those more humble indigenous buildings everywhere... Functions are truthfully conceived and rendered invariably with natural feeling. Results are often beautiful and always instinctive."

(Frank Lloyd Write. p:17, 1994)

3.3.2.1 Residential buildings.

Urbanization and technological advancement has caused a change in the architecture of Sri Lankan residential buildings. But, one could observe that this type of buildings is the least effected by the international trends when comparing to the rest of the building types. Contemporary Sri Lankan residences still hold the native character and the response to tropical quality. This attitude in architecture has contributed much to the 'Flexible' quality in them since early periods. Demands of people have changed a great deal along with time. One could observe that some of the architectural demands, which were an ordinary part of living in early periods, are now considered as assets. For instance, open and spacious residences are a rare occurrence in an urban context. Flexibility has changed its meaning in residential buildings. Instead of it being an outcome of the cultures and attitudes of people, it has transformed in to an outcome of economy, scarcities and other related problems. But there could still be seen products,

which hold the authentic tropical quality indicating a good attitude in the part of architecture against so called 'globalization'.

One such example is the 'Diyabubula'- a product which could be identified as a retreat away from the busy, haphazard, tight urban situation. Although it is in a vast natural environment it has been designed with maximum flexibility.

fig.60 – *"For me, a tropical house is a room without walls, which has only columns and a roof to give shade and shelter"* (Ernesto Bedmar)- ('Diyabubula' at Dambulla by Lucky Senanayake)

The purpose of this 'flexibility' differs from the one found in an urban situation. This 'flexibility' is created purely to represent the freedom one feels at this place. Free flowing quality, and the interlocking of spaces have given it a sense of freedom, which has been the intention of this building. Its minimalistic quality, its openness to the outside natural environment has given it the ability to expand or to reduce itself depending on the state of mind of its user. Placing of its elements have created an enclosure giving the place a sense of security and shelter, yet providing it flexibility to grow towards nature.

Fig.61 – Use of slender elements and a minimum of it, has enabled the space to acquire different dimensions; as an extension of nature or as a sheltered enclosure.

Although this place is perceived as a whole, united place, significance or identity has been achieved in specific spots, by slightly raising the floor or by a slender element. Even these areas have achieved a maximum flexibility. For example, the sleeping area, which is on a raised floor, is comfortably used as a sitting area during day. The space changes along with the uses and the time of the day.

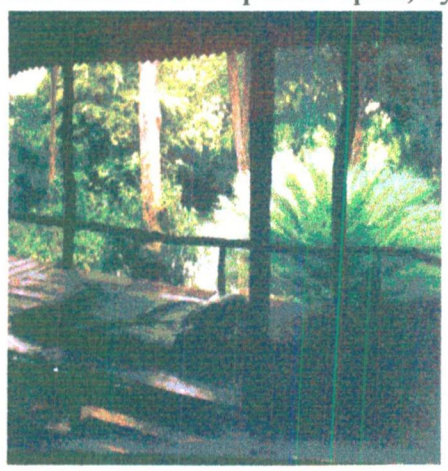


Fig.62 – Space transforms it self according to the use, may it be sleeping or sitting.

Fig.63 – Free flowing quality allows a maximum flexibility for the spaces to grow or to reduce. Spaces could even grow to the outside natural environment. This flexibility gives a sense of freedom to the place; the character this place stands for.

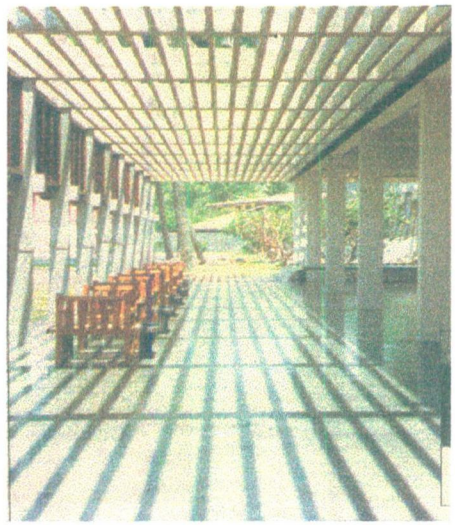
"Tropical architecture does not necessarily imply pitched roofs, sun shades and timber louvers. It is perfectly possible for a tropical house to be open – planned, transparent and thoroughly contemporary; beyond simply replicating indigenous forms."(Ken Lou, 1996)

Glass has contributed much in creating flexible places. Its ability to achieve a dissolving quality to the surroundings and aptitude to create very slender partitioning, has allowed a very high possibility of flexibility in building design. Steel and concrete plays a major part in achieving the flexibility in a building. Although in Sri Lankan residential buildings, use of modern materials liberally, could be said as scarce, one could observe a contemporary trend moving towards this approach. There could be seen some instances where this modern approach has succeeded in enhancing the tropical quality of the country by making the environment and its changes a part of the building itself.

Fig.64 – A highly flexible residential situation which changes its quality along with environmental changes and time.(a private house in the south coast designed by Geoffrey Bawa) (The Architecture of Geoffrey Bawa, D. Robson & C. Daswatte,1998)

As in the above case, use of glass extensively has endowed the space with a flexibility, which changes along with the time of day, the sun, and other environmental changes. It has accomplished in the ability to grow visually or to limit itself to the enclosed space. Light and shadows created with the movement of the sun has broken the monotony, depicting the tropical quality, its sudden changes within this residential space. This attainment of flexibility has achieved the ability to enliven the place and evoke excitement and pleasure in its user, which one feels in a tropical atmosphere. The fact that this space is a simple geometric shape with less definitions within it, has served the purpose of flexibility within it.

3.3.2.2. Recreational buildings



More and more bend towards an architecture original to Sri Lanka, or the Tropics could be observed as evolving in the country in regard of recreational buildings. Reason may be that it is an effective method to draw tourists to these places of recreation such as hotels. Yet one could see that, by incorporating natural elements, these buildings have accomplished a high scale of 'flexibility' within them. In many occasions the tropical sun has played a major part in the changing quality of spaces.

Fig.65 – Pergolas and the tropical sun have achieved flexibility within this space, which changes along with the time of the day and the tropical climate. (Blue Waters hotel – Wadduwa)

It has been ordered in to desired effects by the physical elements of the building. For example, the space shown in the figure shows how the sun has been incorporated in the design by using pergolas. As the sun moves this space change with it consecutively changing the adjoining spaces as well.
In doing so the space has become a binding element of the natural environment and the built, changing the artificial one along with the nature's changes in to various exciting atmospheres. The space has acquired the ability to change the meaning of its adjoining spaces as well. This in turn has enabled these spaces to acquire qualities ranging from subtle to dynamic depending on the natural environment, which could make a user with any type of mood comfortable within it. This quality is enhanced much by the fact that most spaces are not enclosed by solid walls, instead divided by rows of columns allowing the spaces to flow in to each other. Each space has an effect on the next. When one changes constantly the other adopts the same flexibility unless the two are separated completely by solid partitions without any links.

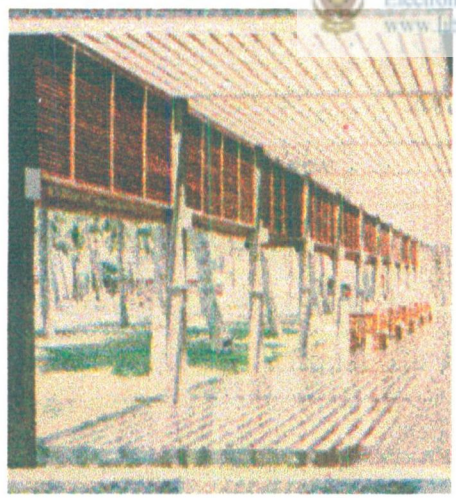


Fig.66 –This space has the ability to link the natural environment and the built and in turn change the quality within the built along with the environmental changes. (Blue Waters hotel – Wadduwa)

Apart for elements, colour plays an important part in qualitative changes of a place. Natural light could do wonders on colour. The combination could give a space a whole new meaning as the intensities of light changes. This intern could change the character of the rest of the built environment surrounding it.

The following illustration depicts a space which is quite enclosed although it allows the sunlight to flow freely in to it. The surrounding walls are somewhat domineering and could be said as controlling the quality of the space. Earthy colour which, is used on it has contributed to this effect. As the colour changes its hue along with the amount of light falls on to it, the space changes its character, changing the adjoining spaces along with it. Fewer amounts of openings or breaks on the surface of these dominating walls have proved as most effective in achieving the changing character of this space.

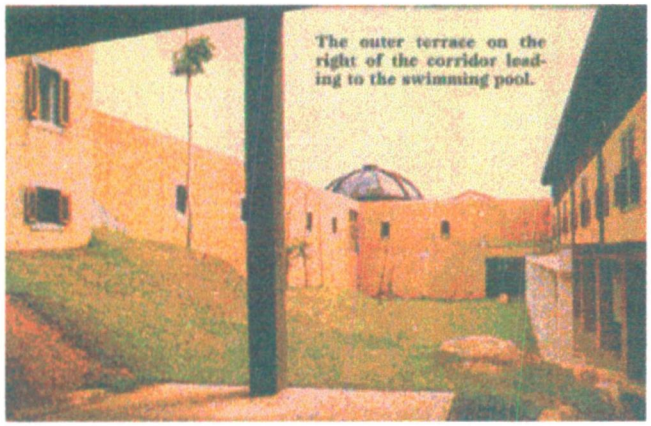


Fig.67– By making dominating elements of a space to change, it could achieve its flexibility. (Lighthouse hotel, Galle)

Use of modern materials such as glass, could soften the demarcations between two spaces allowing them to extend and link, and to allow the natural light to flow in freely which has a capacity to change the character of a place very effectively. Partitioning could be designed to slide so that the physical barrier itself can be removed to alter the spaces to suit each situation.

Fig.68 – Use of glass partitions has allowed natural light to do wonders within this space and to extend it beyond its physical boundaries linking it with the next.(Lighthouse hotel – Galle)

One could observe a new trend as evolving in cotemporary hotel architecture. Basically this is an outcome of the move towards eco tourism. Such settings have started a movement towards a minimalist approach in its related architecture, allowing the user to experience the nature maximally. This attitude has drawn contemporary architectural interpretation towards flexible place making. Spaces mostly contain only the bare necessities, less demarcation and slender elements, which either dissolve or incorporate the surrounding environment. This has given the spaces freedom to change along with its uses, users and the environment.

Fig.69 - Spatial arrangement and choice of elements contribute a lot to its flexibility. (Adventure Park, Ella.)

Possible monotony has been broken by various level differences within these spaces, which also provide significance for specific functions to take place. Since these definitions are subtle, the space as a whole has the ability to acquire various characters to suit each activity, taking place within it. Each area demarcated by these level differences could, either grow and link with the total or acquire an individual significance to serve each purpose. Apart for these factors, the association it has with the nature enhances its ability of change. Just like the tropics it acquires a capability to change its character from time to time.

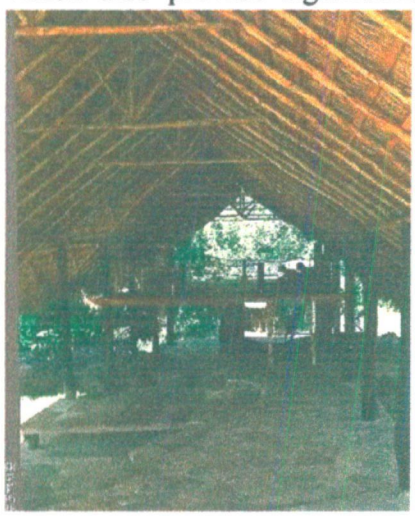


Fig.70 – Level differences have avoided monotony within the space thus giving it ability to acquire various situation-based meanings. (Adventure Park, Ella)

To quote Charles Correa,

"*The complex manifestations of built form in a warm climate where between closed-box and open – to –sky there lies a continuum of zones, with varying definitions and degrees of protection... The boundaries between these various zones are not formal and sharply demarcated, but easy and amorphous. Subtle modulations of light, of the quality of ambient air, register each transition in our senses*".

(Correa, C., 1987)

To sum up the findings;

The way of perceiving every thing changes along with time. So has the perception of 'flexible place'. It has inspired, received and absorbed from past experiences, cultural mentalities and backgrounds, intentions or locations and will forward and direct them constructively to the future.

The newest sensibility can be characterized as sensitivity to the neutral, the undefined, the implicit; qualities that are not confined to architectural substance but also find powerful expression in a new spatial sensibility. This boundless space is no dangerous wilderness or frightening emptiness, but rather a controlled vacuum, for if there is one thing that characterizes this age, it is total control. The undefined space is not an emptiness, but a safe container, a flexible shell. Architecture of such places require a physical environment, which can be quickly reconfigured, ability to accommodate a variety of uses within a given space... The main property of this place is enclosed. Through the opening, space is able to extend in various degrees. Thus the boundaries and the openings are the two main elements of this created space and it is the different articulation of these, that a place gains a different environment quality. Availability of advance technology, huge amount of material and knowledge has enabled the achievement of aforesaid qualities successfully in the contemporary world.

It is possible to look outside architecture for an explanation for changes within the architectural domain. The first thing that to present itself is' globalization'. Inevitably,

increased mobility and telecommunications and the rise of new media, all of which have been ascribed a major role in the globalization process, also affect architecture and in that they alter our experience of time and especially relevant in this context – space. It is driving us towards one global culture, one ideology, one aim. So that architecture is becoming homogenized to serve this global community.

All styles, however, do not suit all building types or places. In the relentless categorising of architectural styles - as if style was something that floated above the function of the buildings - it tends to be forgotten that places in their unformed state, as a set of needs, have their own demands, and that those demands may well suit one approach rather than another. So it is important to investigate some different instances where the concept of flexibility is practiced, in order to get an overall idea as in which way it is heading.

For example, achievement of flexibility in contemporary offices have become more and more typical world wide, as they opt for typical layout, same type of materials such as steel, glass and concrete, similar technologies in partitioning, use of artificial lighting, etc... Yet there could be seen a new interest towards a more humane approach to this flexible office requirement Theorists like Christopher Alexander has researched on this concept and this research shows that any process of arranging and rearranging modules is fundamentally limited, and cannot produce the kind of comfort the deep and simple feelings that we are seeking. Profound adaptation in which things are comfortably related to one another can only occur when the elements involved are all capable of very fine dimensional variation. The aspect of the layout process itself, which is necessary to make this non-modularity work, is that it is a process of differentiation (similar to the process of embryonic development) in which the parts are gradually differentiated from the whole instead of the whole being made up from modular parts.

Since contemporary education system has chosen a much more democratic and independent approach, its architectural interpretation has acquired a flexible stance itself. This has provided the capability to develop one's creative ability and desire for exploration and discovery. Simple geometric forms and shapes of buildings have generated flexibility in them. Openness in school buildings, freestanding walls and partitions also has contributed to express the freedom within this system. Every object, color, texture, and spatial configuration, as well as their selection and placement, has educational significance. Flexibility in each of them has encouraged more active participation from students. It encourages them to think flexibly, think of new things and feel free to activate their ideas.

Libraries in the present world have acquired a new meaning. It no longer only make accessible to books, but provides access to 'knowledge' in an overall sense. Libraries could be said as more in relation with the 'Globalization' process than many other institutions. It has started to function as a global entity, a connection to the rest of the world through knowledge, may it be books, media, electronic methods or otherwise. Contemporary situation of libraries house almost every imaginable situation related to knowledge distribution within one premises plus recreational activities as well. And this has developed a highly flexible approach in architecture. In most cases it could be observed that this flexibility is achieved through high-tech and electronic methods and by using new materials, which has the ability to be ordered to achieve any desired quality.

More and more contemporary designers have started to incorporate public activities in exhibition spaces and making them 'flexible' in order to present them in a much more communal attitude. By the use of materials like glass and steel, exhibition spaces have been extended to public spaces; and new technology; electronic media has achieved highly flexible spaces, which could change along with every different display, situation or atmosphere.

Changing lifestyles of people, their changing attitudes, trend towards the involvement in their jobs than in family life so on and so forth is making home just another transitional point which facilitate the demands of residence. This movement has made the residential buildings gradually more and more simple in form and flexible in character. In a lot of situations one could observe a trend towards interpreting past philosophies of flexibility, in to a contemporary perspective by the use of advanced technology and new materials.

As seen from the examples, it could be identified that the concept of flexibility in the contemporary world is directly influenced by 'globalization'. Advanced technology, electronic media, new flexible materials, and scientific knowledge has played a major role in achieving this concept in the contemporary world and it could be seen a similarity in the approach in which this issue has been addressed worldwide in every type of function. It indicates the movement of place making process and its architectural interpretation as derived from a global phenomenon rather than as an outcome of various cultures, attitudes and interpretations original to different cultures and habitations, which forms the world.

Sri Lanka is also caught up in the 'globalization' process. Rapid development of the media, economic involvements, advancement of the transportation system has shortened the country's distance with the rest of the world. This close global relationship has managed to change the attitudes of people and one could observe that the Sri Lankan culture is rapidly shifting towards a 'global culture'. This fact has enforced itself on architecture as well. The reason may lie in the changing demands of clients and the influence of foreign architecture, which is a direct result of globalization. Most influenced by these forces are the offices and commercial buildings. Although these buildings have adopted these modern trends; apart for a very few instances the rest has resulted in much worse situations than it was before. Lack of technological knowledge, experience and skills has caused many of them to fail.

Yet, more and more bend towards an architecture responsive to Sri Lanka, or the tropics has evolved during the latter part of the twentieth century and still seen as developing in the country, especially in regard of recreational and residential buildings. This indigenous approach, which has absorbed the natural environment and original cultures in to the buildings have achieved a flexibility that is authentic and comfortable to its users. This cannot be said as a fall back in pace with the rest of the world but a more successful approach in creating 'flexible places' where their users will feel comfortable. Not only recreational or residential, but any kind of function could adapt to this approach, since it has proved that the same effect could be achieved by using new materials as well as all the contemporary technology available. This intern will produce flexible places responsive to the 'global culture', yet with their own identity.

Conclusion

A place is generally a space with something added - social meaning, convention, cultural understandings about role, function and nature and so on... They are manifestations of the deep involvement of people. The psychology of our human and cultural nature - our values, our beliefs, our fears, our memories - all direct our actions or block them from certain paths, and determine much of the satisfaction or unhappiness that results from our interaction with places.

'Space' gives 'place', a character. At different times and in different contexts one is in effect dealing with different 'kinds' of space. It displays how a 'place' could acquire different meanings/ characters at different times and contexts. Architecture is the product of human habitation, and in order to create meaningful spaces, it should be designed to grow and change with people and their activities.

Flexibility' is the ability of change of character of a place along with each activity from time to time, without changing its concrete quality which has given that place, its meaning. This is the quality, which expresses the easiness to manage or persuade or change. In order for flexibility to feel comfortable, each and every changing character of that particular place should mingle with each other and come to a unity. This 'flexible place' should have its own meaning. Architectural place has the ability to extend, change, transform and coexist various characters or qualities. This provides it, its flexible ability. In order to achieve this the built environment should be manipulated to control the space within it

As described earlier, perception of 'place' and its variables such as 'flexibility', mainly depend on the attitudes, cultures, needs, and other differences of people who make them. As their attitudes change, the ways they make places differ.

In the line of evolution of the 'flexible place' it transformed from an open, very basic state to a much controlled, open situation, which at later stages slowly began to get internalised; first to a semi enclosure state and then to a fully enclosed place. This change was ordered by the changing perceptions of their users. At first it was evolved out of desire for communal living and lack of constructive knowledge, then as people acquired more knowledge and skills, and as their yearning for privacy grew, the 'flexible place' also began to grow in complexity and became much more defined.

Various movements along the course of this development, and the emergence of new materials and technology further shaped and improved the outcome of 'flexible' interpretations of place making. Slowly man took control over these spaces and he shaped it by using various elements, materials and technology. Availability of a vast variation of materials, technologies and knowledge led to the movement towards 'globalisation', which contributed much to the loss of authenticity, uniqueness and meaning of 'place' and its variables and evolved a 'global culture' where every aspect was homogenized including the interpretation of the concept of 'flexibility' in place making.

'flexible place' has inspired, received and absorbed from past experiences, cultural mentalities and backgrounds, intentions or locations and will forward and direct them constructively to the future.

The newest sensibility can be characterized as sensitivity to the neutral, the undefined, the implicit; qualities that are not confined to architectural substance but also find powerful expression in a new spatial sensibility. This boundless space is no dangerous wilderness or frightening emptiness, but rather a controlled vacuum, for if there is one thing that characterizes this age, it is total control. The undefined space is not an emptiness, but a safe container, a flexible shell. Architecture of such places require a physical environment, which can be quickly reconfigured, ability to accommodate a variety of uses within a given space... The main property of this place is enclosed. Through the opening, space is able to extend in various degrees. Thus the boundaries and the openings are the two main elements of this created space and it is the different articulation of these, that a place gains a different environment quality. Availability of advance technology, vast variation of material and knowledge has enabled the achievement of aforesaid qualities successfully in the contemporary world.

Concept of flexibility in the contemporary world could be said as directly influenced by 'globalization'. The consequences of this are no less noticeable in architecture. On the one hand, the process of internationalization that architecture has undergone since the 1980's can be seen as a part of a more general process of globalization. Advanced technology, electronic media, new flexible materials, and scientific knowledge has played a major role in achieving this concept in the contemporary world and it could be seen a similarity in the approach in which this issue has been addressed worldwide in every type of function. It indicates the movement of place making process and its architectural interpretation as derived from a global phenomenon rather than as an outcome, original to different cultures , habitations, attitudes, etc... which forms the world.

Contemporary trend towards a total control over the environment and use of computer technology could be envisaged as to develop, to serve the future demands in much more advanced levels. And the 'flexible approach' would be an indispensable fact in the future place making process.
When one look at the contemporary global trend towards the computer technology and use of modern materials and techniques in the process of creating places, he would surely see a definite progress towards a more advanced, and an electronic based approach as adaptive in the future circumstances using ultramodern materials and technology, and would be a process fully controlled by man.

Future 'flexible places' could be professed as fully enclosed, virtual environments in which the spatial quality would be altered as preferred, by the use of open software architecture, which incorporates a wide array of display devices and visualization technologies, wireless devices, and human centered and sensor driven interface mechanisms. In the sense this innovative place would even gain the ability to change depending on the human behaviour, movements, or even moods, as technology could be envisioned to achieve such an advanced and sensitive level at that stage.

Fig.71 – for example, future offices might end up with just a worktop and electronic devices in a fully enclosed space of which the character would be transformed to suit any situation, by means of virtual reality, sensory devices and other software architecture. (Source: In Depth: Modern Office- New office environments still include plenty of furniture, Molly Greenberg, 2000).

The aptitude for these places to grow, detach, acquire different circumstance based meanings, could be predicted as to achieve, by means of Network connectivity, technologies for synchronized sharing of high definition video and digital audio and virtual reality solutions. This would give these places the maximum liberation or flexibility, even to grow at a global scale and to acquire various sensibilities to themselves. These places might even gain the ability to present visual generators within its space; views of people doing various activities, since the sense of other peoples' presence and the ongoing awareness of activity allow people to structure their own activity. In the sense, one could expect future flexible places to gain the capacity to generate response related spatial changes, which could even structure the user's activity pattern within that place.

One could envisage that future flexible places would allow users to share and move objects of interest (from their domain of activity) among people and among machines, as best suited to different kinds of activities by the use of software environments. For some uses, they will have the capacity to project items on to full- wall screens or on a projected tabletop, or interact through a variety of mobile devices. An interconnection architecture that will facilitate the dynamic addition and reconfiguration of machines as people enter and leave the place, and as different needs arise might come in to being. Technology could be predicted to acquire capabilities to create dynamic physical environments, endowed with some kind of "memory" and/ or some level of "intelligence", and capable of flexibility responding to the changing requirements of the different communities and activities within them.

Technology is a double-faced sward; it can reduce the density of human connections or, it can serve to facilitate collaboration and knowledge sharing between individuals from different backgrounds and to firmly embed learning in particular life experiences. Yet one could predict that the way things are moving, will end up creating a world with self-contained places which are highly flexible to adapt to any situation and having all the capabilities to stand and function as individual units, having a common global expression to them. This phenomenon would create a situation where the world would consist of a collection of meaningless places with no individual significance, and with no sense of attachment by the part of their users, they would just be a mere existence. This place will become, nothing less than nothing, no anchorage, no hold, and no hook for its user to attach to.

In response to this fact, the present trend would shape itself in to a new architectural interpretation in future. Buildings would become totally independent from the context. 'Flexible shells' with no links to the outside world, which could be put anywhere and look as if they might house just about anything: an office or a school, a bank or a research center, a hotel or apartment, a shopping mall or an airport terminal. The new frame of reference will no longer be dictated by the unique, the authentic or the specific, but by the universal.

"In order to live well, we must truly "inhabit" a place, rather than merely taking up temporary residence." (David Orr)

Man needs to attach to places, and places should provide them the foothold. Places should generate the sense of belonging, should produce the sense of identity, so does the 'flexible place'... it should have its own unitary, independent identity in order for its user to feel comfortable within it.
"Even if one uses the simplest of materials, if these are arranged satisfactorily, and if a certain amount of thought is given to landscape as well; it can give a sense of belonging and pleasure. Pleasure cannot be omitted in these solutions. It is just as important as shelter from rain."

(Geoffrey Bawa,1996, p:30)

This requires a deviation of the way the place making process is moving, mainly in regard of the concept of 'flexibility' as it rapidly is losing its unitary quality, due to the aspiration of achieving a maximum flexibility possible technologically, rather than thinking in a much more humane approach.

The concept should deviate from the homogeneity its heading towards, and be thought at in a local level, it should be specific to a country, a culture, a function, so on and so forth... So that the world will retain its diversity, it's unitary identity and its overall meaning. It should be able; to assimilate global influences with heterogeneous elements of indigenous culture, to fuse old and new, regional and universal. Technology, or materials used could be ultramodern, but the frame of reference will have to be shaped by the unique, the authentic or the specific

This study revealed that Sri Lanka is also caught up in the 'globalization' process. Rapid development of the media, economic involvements, advancement of the transportation system has shortened the country's distance with the rest of the world. Changing demands of clients and the influence of foreign architecture, which is a direct result of globalization, is pushing the country towards a 'Global culture'. Yet, more and more bend towards an architecture responsive to Sri Lanka, or the tropics could be witnessed as evolved during the latter part of the twentieth century and still seen as developing in the country. This indigenous approach, which has absorbed the natural environment and original cultures in to their architecture, have achieved a flexibility that is authentic and comfortable to its users. This cannot be said as a fall back in pace with the rest of the world, as some of the examples have adopted new global technologies and materials to achieve this successful approach in creating 'flexible places' original to the country or the region, where their users will feel

comfortable. One could say, being a fragment behind the rest would sometimes prove advantages, as then one could observe the faults and alter ones course in the right direction. It proves right from what Jaya Ibrahim states,

"We Asians have a distinct advantage over the western world, we have not 'advanced' very far from our traditional roots, hence the survival of the richness of our cultures. We are also in a position to learn from the western world.

This could lead to the most fruitful and creative collaboration in mankind; the fusion of the best in Asia and the West"

(Jaya Ibrahim, 1996, p:22)

This authenticity should not be limited to one country or one culture may it be developed or developing. It should not be limited to one function. Yet the interpretation of 'place' and its various facets such as 'flexibility' should be unique to each occasion and should convey a meaning authentic to itself, where the user will feel comfortable and resident.

From this dissertation it was intended to provide an overall idea about the concept of 'flexibility' in place making. It's past existence, contemporary interpretation and the future possibilities have been looked in to so that an understanding could be gained as to how the concept has been and would be developed. Yet there are possibilities to do comprehensive studies based on various situations of this concept; such as incorporating it in varying functions, different cultures, different environments, so on and so forth... Intention of this dissertation was to provide a starting point to do other in depth studies regarding this subject, which is very much relevant to architecture and human habitation in the movement towards future.

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