Examination of the impact of colour On Spatial Progression:

With special reference to selected buildings in Sri Lanka.



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72. "04"

University of Moratuwa

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85449

DECLARATION

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



UOM Verified Signature

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Damith Perera

EXAMINATION OF THE IMPACT OF COLOUR ON SPATIAL PROGRESSION: WITH SPECIAL REFERENCE TO SELECTED BUILDINGS IN SRI LANKA.

CONTENTS

Destaution		Page :
Declaration		1
Acknowledgements		ii
Contents		iii
List of Illustrations		vi
Abstract		xi
INTRODUCTION		1
CHAPTER ONE		5
Architecture	as a meaningful Spatial Experience	
1.1. What is	S Architecture? Oraduwa, Sri Lanka. Electronic Theses & Dissertations	5
1.2. Purpos	e of Architecture	6
1.3. Constit	uents of Architecture	7
1.3.1.	Form	7
1.3.2.	Spatial Orchestration	8
1.3.3.	Detailing	9
	1.3.3.1. Volume	10
	1.3.3.2. Height	10
	1.3.3.3. Texture	11
	1.3.3.4. Light	11
	1.3.3.5. Colour	12
1.3.4.	Elements of Architecture	14
	1.3.4.1 Composition	14
	1.3.4.2 Scale	15
	1.3.4.3 Proportion	17
	1.3.4.4 Rhythm	19
	1.3.4.5 Spatial progression	20

CHAPTER TWO	0		22
Colour	in Architecture		
2.1. C	Colour in genera	1	22
2	.1.1. What is	colour?	22
2	.1.2. Colour	spectrum	26
2	.1.3. Significa	ance of colour	27
2	1.1.4. Colour	wheel	28
2	1.1.5. Psycholo	ogy of Colour	30
2.2. C	Colour expression	n	32
2	.2.1 Warm Co	lours (Hot Colours)	32
	2.2.1.1.	Red	32
	2.2.1.2.	Pink	33
	2.2.1.3.	Orange	34
	2.2.1.4.	Yellow	35
2	.2.2 Cool Colo	ity of Moratuwa, Sri Lanka. UTSheses & Dissertations	37
	2.2.2.1	Green	37
	2.2.2.2	Blue	38
	2.2.2.3	Violet / Purple	39
	2.2.2.4	Brown	40
2	2.3 Neutral C	olours	41
	2.2.3.1.	White	41
	2.2.3.2.	Black	42
	2.2.3.3.	Grey / Silver	43

CHAPTER T	IAPTER THREE		45
The	impact o	f colour on meaningful spatial experience	
3.1.	Spatial	progression – The forces	45
	3.1.1.	Full and push	45
	3.1.2.	Movement	47
	3.1.3.	Here and there	48
	3.1.4.	This and that	52
	3.1.5.	Pause	53
3.2.	Spatial	progression – The episodes	54
	3.2.1.	Approach way	55
	3.2.2.	About to enter	58
	3.2.3.	Entering	59
	3.2.4.	Entry sensation	63
	3.2.5.	Having entered	67
	3.2.6.	University of Moratuwa, Sri Lanka. Climaxinic Theses & Dissertations www.lib.mrt.ac.lk	69
CHAPTER F	'OUR		71
Cas	e studies		71
4.1.	sos ch	ildren's Village – Filiyandala	72
4.2.	Sri Lanl	xa Institute of Information Technologies	
	(SLIIT)	– Malabe	87
4.3.	Lighthe	use Hotel – Galle	95
CONCLUSI	ONS		108
BIBLIOGRA	РНҮ		110

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List of Illustrations

Figure 1	: The two rooms with a different furniture	
	arrangements.	7
Figure 2	: Result of experiment in the form of a graph.	8
Figure 3	: Colours make different types of environments.	13
Figure 4	: Colour can make a good composition.	14
Figure 5	: Warm colours make reduce the scale of the house.	15
Figure 6	: Cool colours make multiply the scale of the house.	15
Figure 7	: Froportion gives a directional quality to the space	18
Figure 8	: White colour increases the proportions of a room	18
Figure 9	: Colour can change or break the rhythm.	19
Figure 10	: Different volumes and shapes of spaces articulate to	
	strength of the progression	20
Figure 11	: Progression path can be manipulated in different ways	21
Figure 12	: A Indian lady with a bright colour saree.	23
Figure 13	: Indian ladies with colourful saree	24
Figure 14	: Colours have a prominent place in fashion	24
Figure 15	: Colourful threads become colourful clothes	25
Figure 16	: Colourful ceramic wear giving a rich look	25
Figure 17	: White light through a prism	26
Figure 18	: Colour spectrum	26
Figure 19	: Yellow makes warm inside the church	27
Figure 20	: Sir Isaac Newton's colour wheel	28
Figure 21	: Colour wheel	29
Figure 22	: Blue giving coolness	30
Figure 23	: The room gets warm by yellow wall	30
Figure 24	: Red can be used to create excitement and intensity	33
Figure 25	: Pink is a swooning and romantic colour	34
Figure 26	: This lively colour can be used to enhance the warmth	
	and activity	35
Figure 27	: Yellow makes space more dominant and powerful	36
Figure 28	: Yellow can be successfully applied, where bright	
	moods are required	36
Figure 29	: Green is a calming comforting and healing colour	37

Figure 30	: Blue can be used to build a peaceful environment for	
	spiritual escape and dreaming	38
Figure 31	: Violet provides an excellent restful background	39
Figure 32	: Brown can epitomize the warmth of home	40
Figure 33	: White has a great potential to recede walls of a room	41
Figure 34	: White colour is used in architecture of hot climatic	
	Countries	42
Figure 35	: Black give the feeling of emptiness	43
Figure 36	: Grey giving a cool quality to rooms	44
Figure 37	: Red colour door pulls out people	45
Figure 38	: Yellow pushes people to the blue area.	46
Figure 39	: Red block pulls people from other places.	47
Figure 40	: Yellow can increase the speed and activeness of	
	ones walk	47
Figure 41	: The room shows the difference between "here"	
	and "there"	49
Figure 42	: "There" is brighter than "here"	50
Figure 43	: "Here" is cooler than "There" in Lanka	51
Figure 44	: The white object makes the "that" force.	52
Figure 45	: Black ball makes the "this" force.	53
Figure 46	: Fause helps to direct and change the moods.	54
Figure 47	: Colourful staircase celebrates the approach way.	57
Figure 48	: White makes the calming approach way.	57
Figure 49	: Yellow makes the entrance warmer.	58
Figure 50	: Entrance is dominated by a white frame in	
	red background.	60
Figure 51	: Frojected entrance welcomes the building.	61
Figure 52	: Fink emphasises the entrance	61
Figure 53	: Formation of entry using different spatial	
	arrangements.	63
Figure 54	: Entrance changes the feelings of a person.	64
Figure 55	: Yellow Columns give a feeling of aggressive.	64
Figure 56	: Dull colour give a feeling of Aged quality.	65
Figure 57	: White colour entrance give a calming quality.	65
Figure 58	: Two entrances indicate two different environments	66

Figure 59	: Red coloured interior space makes energetic and	
	passionate feeling	68
Figure 60	: Green coloured interior makes calm, comfort feeling.	68
Figure 61	: Blue ocean enhance the climax.	69
Figure 62	: Grey colour wall relieve the tiredness of the people	73
Figure 63	: The multipurpose hall creates as a pausing point and	
	direct to the classroom block by using Orange coloured	
	rafters and white coloured narrow colonnade corridor.	74
Figure 64	: Two places that create the feeling of here and there	74
Figure 65	: The place that serves as a pull factor	75
Figure66	: Colourful area makes a pause and directs to the	
	classrooms by using the roof.	75
Figure 67	: Orange coloured roof helps to give a feeling of	
	direction to the classrooms.	76
Figure 68	: The direction ends up in the classrooms, because of	
	the warm colours used for doors.	76
Figure 69	: Flay frames and the building indicates the idea of	
	here and there essity of Moratuwa, Sri Lanka.	77
Figure 70	: Main entrance that provides the frame to the	
	youth village building	78
Figure 71	: Grey colour paving in the middle of the grass lawn	
	looks like a carpet.	78
Figure 72	: The sculpture that makes a pull	79
Figure 73	: Red columns that gives the warning to stop. Not to	
	enter to the area.	79
Figure 74	: Entering is creates by a grey colour entrance	80
Figure 75	: The lobby makes a feeling about "having entered"	80
Figure 76	: Colourful colonnade structure giving a having	
	entered quality	81
Figure 77	: Different activities are going on	81
Figure 78	: Religious activities are taking place	82
Figure 79	: Children relaxing in the hall	82
Figure 80	: Dinning area that creates a push factor	82
Figure 81	: Playful colours makes the climax of the	
	enatial progression	83

Figure 82	: Colours used and hidden entrances create the	
	push factor.	84
Figure 83	: Warm colours used for retired mothers' houses.	84
Figure 84	: Narrow path that is going towards an open area	
	through warm coloured houses.	85
Figure 85	: The open area that creates the pausing point and	
	the climax.	85
Figure 86	: Red wall create a pull factor	87
Figure 87	: The security hut makes a pause	88
Figure 88	: Two different walls create "here" and "there" forces	88
Figure 89	: Two different walls create "push" and "pull" force.	89
Figure 90	: Entrance to the building	89
Figure 91	: Entry sensation of the building	90
Figure 92	: Orange colour entrance creates a pull factor and	
	red coloured beam creates a barrier.	90
Figure 93	: Red beam of the main entrance creates a barrier.	91
Figure 94	: Cylindrical object creates the "that" force of	
	spatial progression of Moratuwa, Sri Lanka.	91
Figure 95	: Red box creates a pull factor	92
Figure 96	: Red box at the car park	92
Figure 97	: Red stair case pulls people	93
Figure 98	: Stair case make a movement due to the red colour	
	interior.	93
Figure 99	: Approach way to the hotel.	95
Figure 100	: About to enter of the building.	95
Figure 101	: Old Dutch fort, Galle.	96
Figure 102	: Entrance for the Dutch fort.	96
Figure 103	: The gloomy entrance to the hotel shows a similarity	
	to the entrance of the fortress.	97
Figure 104	: The entrance is the main point that makes a change	
	in the feelings of the person who is using it.	97
Figure 105	: Stair way plays a drama.	98
Figure 106	: White patch at the first floor level "pulls" there.	98
Figure 107	: White patch at the second level	99
Figure 108	· White coloured lobby at the first level	90

Figure 109	: Climax of the hotel.	100
Figure 110	: Warm colours have effected in weakening the	
	impact of cool colours at the climax	100
Figure 111	: Green colour grass lawn makes a pause.	101
Figure 112	: Can see the stairway through the opening.	101
Figure 113	: Green patch "pulls" people to that area.	102
Figure 114	: The green patch is shows the "calming" effect.	102
Figure 115	: Stair way helps to move to the main transitional point.	103
Figure 116	: Orange colour wall and pot serves as a push factor.	103
Figure 117	: The pool can see at this level.	103
Figure 118	: The linear shape corridor allowing person to feel	
	the beauty of the green patch.	104
Figure 119	: Light and shadow makes different characteristics for	
	the corridor.	104
Figure 120	: This colours helps to pull people from the lobby.	105
Figure 121	: Blue colour ocean and the pool connects together	105
Figure 122	: The white patch at the second level.	106
Figure 123	: The blue ocean ers cools the mind.nka. Electronic Theses & Dissertations www.lib.mrt.ac.lk	106

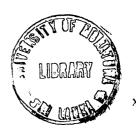
Abstract

Colour is a very close phenomenon to human life. Colour plays an important and significant role in human activities. It is evident though colour is important in human activities some times it is been used without a meaning or rationale. In most instances it can be seen that colours are used without much thinking. When using colours to decorate buildings it is very essential to think about the building's functions, user's expectations and the context in which the building is constructed. But frequently it can be seen that constructors of buildings have drawn their attention much on outer appearance rather than on the above factors in selecting and using colours. Colours can be efficiently used to emphasize the feelings belonging to certain places of the building. But this aspect has not been taken into consideration in many instances. Because of this trend people do not draw much attention on using colours meaningfully. This tendency has caused negligence in using the colours meaningfully and on a rational basis. Therefore the present study focuses its attention on examining how different colours are being used in buildings and how colours are used by the designers and constructors in order to increase the spatial progression of buildings. This study specially examines the role of architecture in promoting the use of colour in improving the effect of spatial progression in buildings.

The first chapter discusses the nature of architecture and its role in the field of building construction. It also examines about the elements and details that are used for spatial progression The chapter discusses in details how colour can be used as a detail for improving spatial progression of a building.

The second chapter is used to examine how colour is used in different selected buildings as a detail to improve spatial progression. It gives an understanding about how different colours can be used to emphasize different effects in buildings. The chapter discusses about the psychological background of colours and how these psychological elements influence the feelings and moods of people. Also the chapter gives an understanding about the meanings and expressions of different colours.

The third chapter deals with force and episodes used for emphasizing spatial progression and how colour as a detail can be used to emphasize spatial progression. In this context application of colours in three different buildings in Sri Lanka has been critically examined. The buildings, which were examined, are the buildings of SOS Village in Filiyandala, buildings of Sri Lanka Institute of Information Technology in Malabe and the building of the Light House Hotel in Galle.





Introduction

Introduction

Colour is a medium for expression of the ideas as well as textures, volumes, spaces, patterns of a building. It is a way of expressing the feelings of people about buildings. Colours help people to progress automatically from one place to another. It is a physical as well as mental reaction. Colours can be divided in to two groups as follows.

- 1. Cool Colours
- 2. Hot Colours (Warm Colours)

But unfortunately most of the architects fail to use colours to enhance the spatial quality and the spatial progression. Therefore people show a hesitation to apply colours proposed by architects in their buildings. Therefore the correct application of colours is gradually missing in the field of Architecture.

Observation

In Architecture the spatial progression of a building is an important characteristic The Spatial Progression helps to increase the significance of the building. A building constructed keeping that aspect in mind attracts people more than a building constructed without giving much attention to this aspect. Such a building would definitely be a theme for discussion among people.

University of Moratuwa, Sri Lanka.

Architects employ different kinds of strategies to highlight the Spatial Progression of a building. They use different materials, textures, lighting, thickness, heights, volumes and colours as strategies to improve spatial progression in the buildings they design. They are in a position to increase the spatial progression in their buildings in this manner. Spatial progression improves the quality of buildings. Buildings differ from each other according to spatial quality. Also the spatial quality of buildings differs from each other. The spatial quality of a residential house may differ from that of an office building. The strategies and other things used to improve the qualities of calmness and quietness of the house environment is quite different from the strategies used to maintain the efficiency of an office.

Though the Architects use materials, textures, lighting, thickness, lighting, and volumes to improve spatial progression and spatial quality it can be seen that some are not paying much attention on colour they use in the buildings they plan. The colours they use are been used as a strategy to increase the outer beauty and appearance of the building rather than its spatial progression and spatial quality. Therefore many buildings where the colours are used without a reasonable basis have been a theme of criticism. Lot of architects do not apply colours meaningfully to enhance the spatial progression of the building.

Criticality of Observation

If the colours are not intelligently used to improve spatial progression and spatial quality in constructing buildings such buildings will not be accepted as buildings of quality. If the correct colours are not applied in correct places the building would definitely become uncomfortable to the users of the building. For example if in an office the colours which increase the efficiency are not applied it might cause a reduction of the efficiency of work of the employees in that office. The decrease of efficiency of workers would definitely cause losses to the owners or authorities.

As a result, there is a tendency among people to resist to the use of colour that enhances the spatial progression in buildings. They show a hesitation to use colour. Therefore the colour usage is gradually declining in Architecture.

Causes

The following are the causes that have lead to this situation

- 1. People do not know about the difference between colour and other materials that are used to enhance the spatial progression.
- 2. Colour application is gradually vanishing from building design.
- 3. Feople are becoming unaware of the use of colour as the cheapest way to enhance the spatial progression.
- 4. Use of other materials that can be used to enhance the spatial progression, which are expensive than colour application.

Remedies

The following can considered as remedies to correct this situation.

- 1. Architects must educate people about the difference between colour and other materials used to enhance spatial progression. They should apply suitable colour in appropriate places to improve people's understanding.
- 2. Architects must safeguard the practice of colour application in architecture by using suitable colour to enhance the spatial progression.
- 3. Architects must educate people by showing that colour is the cheapest material. Also they should show that colour is easy to apply to enhance the spatial progression than other materials.

Intention of the study

In this exercise an attempt will be taken to study about the difference between colour and other materials in spatial progression and how the spatial progression be enhanced by using suitable colours.

Scope of the Study

The relationship between the buildings and colour is a key feature in Architecture. Colour can change the whole feature of any building. Any body can apply any colour for any place of a building but the best solution should be the meaningful application of colour. It is a very hard exercise. For example applying colour in houses, in temples, in public buildings is different from each other. Architects must have an idea about colour and their uses. The use of the building and the kind of people who are living in that building and the behaviour patterns of people are the factors that an Architect should consider in selecting colour.

Limitation of the study

This study is limited to the study of colour as a detail which improves spatial progression of a building. This appears to be a limitation of the study as there are many other details such as volumes, spaces and lighting. The present study is confined only to colour as a detail that emphasize the spatial progression of the building.

Methods of study

The study area will be focused on selected public buildings of Sri Lanka, The concept of spatial progression and the meanings of colour will be studied with the available and existing data.

The following approaches would be employed to accomplish the study.

- 1. Firstly studying about the architecture.
- 2. Secondly studying about the determination of colour.
- 3. Thirdly studying about the language of architecture and spatial progression.
- 4. Finally studying about the impact of colour in spatial progression.

Line of Reasoning

- 1. Architects do not use colour to enhance the spatial progression of a building.
- 2. There is an emerging tendency to use unnecessary and unsuitable colour
- 3. There is a growing dislike among people to use colour in their buildings and colour application is gradually vanishing from architecture.

Architects must keep the practice of colour application in architecture by using suitable colours to enhance the spatial progression.



Chapter One

Architecture as a meaningful spatial experience.

1.1. What is Architecture?

With the origin of the human mankind and the evolution of the civilization the human mankind has tried to provide themselves with a shelter. In the early times he had the practice of using hollows of trees, caves as their shelters. At a later time when their needs were broaden he thought of constructing permanent houses for them. When they were moving from place to place as shepherds the need for permanent shelters did not emerge. But when they turned to farming and started live in one place the need for having more improved permanent shelters arose. Therefore they had to think about constructing houses suitable for their broadening needs. This gave the way for thinking of planning houses to suit their vivid needs.

Architecture is an art and it is a profession related to construction of buildings. Architects are involved in planning and creating plans for buildings such as houses, schools, hotels, hospitals, playgrounds, factories, offices, theatres etc. In general the standard of a city is decided upon the quality of buildings it has.

Architecture possesses artistic qualities but it faces practical problems when designs are made. If the building designed cannot be used comfortably, its appearance or beauty gives no meaning. In other fields of art the artiste creates things with the intention of selling them. But in architecture an architect creates a plan when a client comes to him and asks for it. He creates the plan to suit the client. If the client does not like the plan crated by him there is no way of selling it. Also as in other fields of art an architect cannot create a plan according to his own ideas and needs because this work is controlled by the needs and requirements of the client. In other fields of art the artiste has the total freedom to create

the object according to his needs and requirements. Also an architect has to take into consideration the environment where the building will be constructed. He has to draw attention to the sun path, wind direction, characters of the place etc in preparing a plan for a building. These factors control the freedom of the architect in designing buildings.

Architecture is one of the oldest art forms in the world. Though it is different to trace the origin of architecture it is found in every society. By studying different buildings in different societies it is possible to understand the ideas, needs that have governed the construction of those buildings. For example the buildings in Greece explain the needs, ideas and thinking of the people lived in those societies during that period.

1.2. Purpose of Architecture

Human being is intelligent than any other species. Therefore the man is able to fulfil his basic needs such as food, clothes and shelter, without much difficulty. In constructing houses for shelter he has the ability in creating houses to suit his needs. In building a house in addition to the need for providing shelter he may try to convey a message too. For example some people build a house and cover it with a high wall in the four sides to show their pride. Any space can be used to improve the efficiency of the activity taking place in that particular space and also the feelings of the people living in that space. A building constructed by a person is able to reflect that persons feelings, expectation, attitudes etc.

Architecture is a silent art. It can be used to express the rhythm of the heart and feelings of people. Architecture which speaks about a built environment can be used to change the behaviour patterns of people.



1.3. Constituents of Architecture

1.3.1. Form

The basic characteristic of a volume is its form. The form plays a dominant role in the architectural space. The size and the shape of enclosed planes or the elements, which are used to define the space, as well as inter-relationship of planes and the surface character of these enclosed planes, mainly determine form.

The correct measure of the form is its shape, which is the main feature that helps to identify the form. The form is the unison of different geometrical shapes. Geometrical shapes such as circles, squares, cubes, triangles, etc. contain in the form. Apart from this by using planes it is possible to create different spatial forms. This helps to construct different spatial qualities.

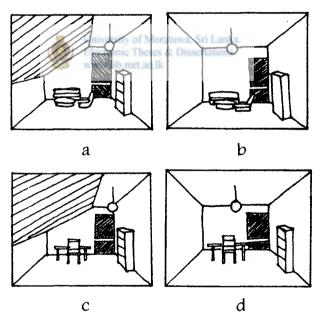


Figure 1: The two rooms with different furniture arrangements. Source: Psychology for Architects - David Canter

David Canter, the author of "Fsychology for Architects" describes an experimental approach to assess the effective factors of the qualities of "friendliness" of an interior space in his book. He has used similar types of four rooms called "a",

"b", "c", "d" for his experiment. The room "a" and "c" is different from the rooms "b" and "d" in regard to the roof angle. The rooms "a" and "b" are different from the rooms "c" and "d" in relation to furniture.

According to his experiment the "friendliness" is higher in room with sloping roof and easy chairs than the room with flat roof and office chairs. Therefore according to this experiment, it is easy to understand the form that generates the different qualities of spaces.

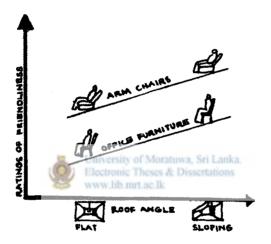


Figure 2: Result of experiment in the form of a graph.

Source: Psychology for Architects - David Canter

1.3.2. Spatial orchestration

In any building there is a sequence in progression from the entrance to the end. This progression is different from building to building. This happens depending on different functions of the building. Architects creates buildings differently according to their functions. In this context to increase the efficiency of progression, expressions are developed in relation to functions of the spaces.

In the progression the speed of the walk, direction of the walk and the stop can be indicated efficiently through these spaces. Narrow corridors can be used to create movements, straight paths can be used to create direction and large volumes can create pause. The spaces need to be arranged meaningfully to give these commands. According to the meaning of the building by creating movements, pause, turn and change of direction in appropriate places the important of the building can be increased. When a person comes to the climax of the walk, the experience one has gathered through the walk tends to increase.

At the end of the progression a complete understanding in the person about the building takes place. As a result of this understanding he comes to know the way he should behave inside the building, the kind of people living in that building, the kind of activities taking place in that building. Because of this understanding he becomes a person who is adaptable to that environment.

The things described above take place when the spaces in the building are used meaningfully in relation to the progression of the building. The orchestration of spaces appropriately to suit the progression is known as spatial orchestration.

1.3.3. Detailing

In architecture, creators try to convey a message, a feeling through their creation. In relation to this objective the creator uses certain details in his creation. These details can be named as volume, height, texture, light and colour. Though these details differ from each other the service done by them is the same. Creators use these details separately one by one or together.

1.3.3.1. Volume

A volume has a three dimensional picture. Length, width and depth are the features of a volume. All volumes consist of points (vertical), lines (edges), planes (surface).

Form is a primary character of identification of a volume. A volume can be either solid or void.

1.3.3.2. Height

Height can be used in the manner the volume is used for giving different feelings to people in architecture. Height influences the impact of volume too. Height can be used as a separate detail to increase the impact of the space for increasing feelings in people. When the height of a space is low a feeling of uneasiness of staying or living in a building is developed in people. When the height is increased a feeling to stay longer inside a space is developed in the minds of people. By using these situations there is the possibility to develop spatial progression.

How volume and height should be treated in a creation or construction should be considered at the very first stages of creation or construction. That is a major consideration of volume and height. There is no way of thinking about the volume or height after the completion of the creation is completed. After the completion of the creation with difficulties artificial lights, texture and colour can be used to give an impression on volume and height. In general a creator always keeps these facts in mind when doing a creation.

1.3.3.3. Texture

Texture is a medium of conveying messages. It is an accent element. Texture is the upper layer of a surface. Textures can convey messages effectively. It could help to maintain the relationships with its surrounding. Therefore it has a greater effect and greater support to achieve necessary expressions.

1.3.3.4. Light



The sun is the main and most powerful source that provides light. Though the sun provides light in the daytime it becomes dark in the night forcing people to use artificial lightings for illumination. Illumination during the night-time by using artificial lightings is not the only objective but also there is a need to enhance the quality of the space by using lightings.

Also there is a need to draw the attention of the people to certain objects by using a special rays of light towards that object. Also by using light and dark from place to place it is possible to increase the spatial progression. In this manner lighting plays a diverse role in the area of architecture.

1.3.3.5. Colour

The architectural use of colour serves the following two purposes:

- Colours are used as a medium of beautification of buildings
- 2. They are used as a medium of conveying messages

Therefore colour is a powerful tool in architecture Colour is a strong medium in conveying a messages fast. Similar to texture, light, volume and material. Colours have meanings and these meanings help to convey messages in different forms. The meanings of some colours differ from society to society and from country to country. For example the white colour has different meanings in different societies and cultures. How colours are used in conveying messages can be understood very easily. As an example, the traffic lights on roads are created with a combination of three colours, red, amber and green. Each of these colours conveys a message to vehicle drivers. Red colour light conveys the message "stop", amber colour light, conveys the message "get ready" and finally the green colour light conveys the message "go". This colour system is very efficient in conveying messages than any other technique.

Colours are used in architecture as a strong medium of communication. The designers can reinforce their ideas in the design by using correct colour in correct places.



Figure 3: Colours make different types of environments.

Source: Casa Mexicana - Porter, Tim Street, Stewart Gilardi House, Mexico City, Architect Luis Barragan

This picture shows that by using blue a cool colour and yellow a warm colour two environments have been emphasized. In the area where yellow is used it is possible to move actively and where blue is used the movements become very slow and calm. This area allows one to spend the time peacefully.

1.3.4 Elements of Architecture

1.3.4.1 Composition

"Composition in architecture at its best is a thorough understanding or feeling for the rhythmic value of the repetition of effects for the coup of the utmost possible contrast of mass or ornament or of colour and the correct gauging of the scale and incidental necessary to complete a general scheme"

(Howard 1955)



Figure 4: Colour can make a good composition.

Source: Tropical Asian Houses – Pawell, Robert

Kajugaha House, Colombo,

Architect Madhura Premathilake.

This picture shows a house situated close to a cemetery. The new house amidst the tombs looks very old. But as the house is painted depicting the tombs in the cemetery, a blend between the new house and the cemetery can be observed. The area in the house painted with orange colour as tombs in the cemetery has become discoloured and creates a similarity between the house and the cemetery.

1.3.4.2 Scale

While proportion refers to the mathematical relationships among the real dimensions of a form or space, scale refers to how we perceive the size of a building element or space relative to other forms. In visually measuring the size of an element, we tend to use other elements of known size in their context as measuring devices".

(Ching, 1979, 326)



Figure 5: Warm colours reduce the scale of the house.

Source: Impression of Arabia – Mauger, Thierry

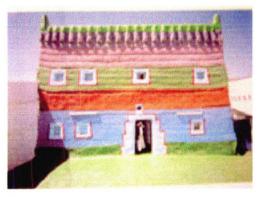


Figure 6: Cool colours multiply the scale of the house.

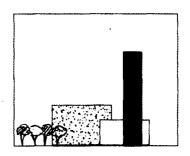
Source: Impression of Arabia – Mauger, Thierry

These two pictures show how the same house has been painted at two occasions. The first picture shows how warm colours have been used extensively and the second picture shows how cool colours have been used extensively. These two pictures show how the house painted with warm colours show a decrease in the scale than the scale of the house painted with cool colours. This is because of the ability of warm colours to grasp at once. It allows to grasp the whole house at once. Thus leads to an illusion of decrease of the scale. All cool colours used in a house cannot be grasped at once and this situation leads to an illusion of increase of the scale. This condition makes the appearance of the house to be larger than what it is.

According to Francis D.K. Ching, the scale can be divided in to two parts as follows.

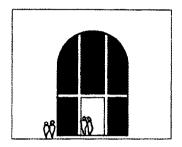
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1. Generic scale - The size of a building element relative to other forms in its context.



Source: Architecture: Form, space and order Ching, Francic D. K.

2. Human scale ~ The size of a building element or space relative to the dimensions and proportions of the human body.

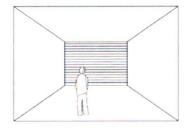


Source: Architecture: Form, space and order Ching, Francic D. K.



1.3.4.3. Proportion

Proportion is a ratio between the related distances, lengths or sizes of masses and areas. It can be either three-dimensional or two-dimensional. Proportions can give different spatial qualities and it can be used for spatial progression, such as to pull people from one place to another, to keep the movements by narrow paths, to pause the people in large-scale lobbies.



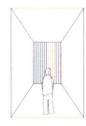


Figure 7: Proportion gives a directional quality to the space

Proportions help to give a directional quality to the space. By changing the proportions a space can be made a small scale one or large-scale space. Therefore the proportion is playing a vital role in creation a specific spatial quality within a space.



Figure 8: White colour increases the proportions of a room

Source: Impressionen – Kawall, Bettina.

The space found here shows it as a very large area. This place appears to be relatively larger because white colour has been applied to every surface. If blue or black colour is applied to these surfaces the appearance would have been quite different. If these colours are applied it would definitely resemble relatively a small space. White colour is very efficient in giving an appearance of increased proportions in small spaces.

UNIVERSITY OF MORATUWA, SRI LANKA

With special reference to selected buildings in Sri Lanka.

Chapter One: Architecture as a meaningful spatial experience

1.3.4.4. Rhythm

"Rhythm refers to the regular or harmonious recurrence of line, shapes, forms or colours. It incorporates the fundamental notion of repetition as a device to organize forms and spaces in architecture."

(Ching, 1979, 368)

The rhythm is formed by the recurrence of line shapes, forms, heights, and also colours. The simplest form of repetition is a linear pattern of elements.

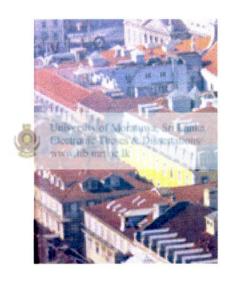




Figure 9: Colour can change or break the rhythm.

Source: Colourscape - Lancaster, Michael

This picture shows a series of houses painted with the same colours and which have the same scale. A certain kind of rhythm can be seen in these houses. But this rhythm has been disturbed because of the reason that yellow is been used in one building. Because of this reason this building differs from the other buildings. This building creates a separate character.

1.3.4.5. Spatial progression

The collections of different spaces and their locations can be considered as architectural products. Spatial progression is not meant only for visual satisfaction. When people walk through spaces the spatial progression develops feelings in them. When spaces are organized to create feelings in people and to transmit message a systematic approach is adopted. There can be seen a starting point and a terminating point clearly. Later when this journey through space comes to the climax different qualities and roles come in to appearance. In this journey the sensation that develop at different places lead to develop a total feeling about the progression. For this a correct order of spaces is required. The correct order of spaces can transmit correct messages. This helps to create meaningful spaces.

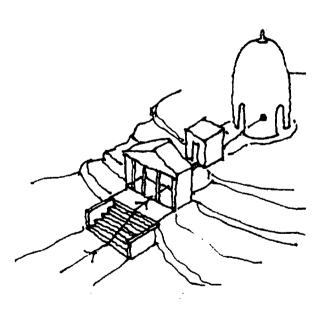


Figure 10: Different volumes and shapes of spaces articulate to strength of the progression

Examination of the impact of colour On Spatial Progression:
With special reference to selected buildings in Sri Lanka.

Chapter One: Architecture as a meaningful spatial experience

This kind of meaningful products is found not only in architecture. This can be found in subjects like art. This kind of meaningful productions can found in musical creations too.

Accordingly the path of this journey can be of different forms. It can be a straight one or a curvilinear one. In this journey the person who is doing the journey may turn, pause, stop and change the direction.

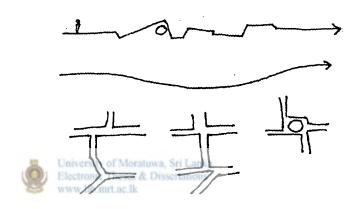


Figure 11: Progression path can be manipulated in different ways

Source: Architecture: Form, space and order Ching, Francic D. K.



Chapter Two

Colour in Architecture

Chapter Two

Colour in Architecture.

2.1. Colour in general

2.1.1. What is colour?

Every object in the world has a specific colour. Among the nine planets in the universe the earth is the most colourful planet. The plants, animals, rivers, mountains etc. are all different with colours. The rainbow is a phenomenon, which symbolizes the beauty of colours. The Feacock among the birds is a complex of colours. The morning and the evening sky is another collection of colours. Not only in the nature but also in the life of the man colour has given a prominent place. The man always takes much trouble to keep his environment colourful. The man uses colours in his dresses, houses and equipments to make them attractive.

Colours are often used to convey certain messages. In the eastern countries white flags are used to convey the message of a death but in western countries it is conveyed by black. This practice has come from the early past. Hoisting a white flag at a war denotes the defeat of an army which symbolises peace as well.

Apart from this man uses different colours in vehicles and also in advertisements to attract people.

The process of seeing colours is a complex one. Colours emerge from sunlight. The human eye and the brain convert the sun light into different colours. In 1966 sir Isaac Newton discovered that sunlight contains colours. Though there are numerous number of rays contained in the sunlight the human eye can perceive only

seven of them as colours. According to Newton These colours are Violet, Indigo, Blue, Green, Yellow, Orange and Red. These colours are indicated by the acronym VIBGYOR.

The human eye can see the colour of an object because of the process that rays of light fall on the particular object and absorb the colours not relevant to that object and then again reflect the relevant colour of the object. If an object looks white it means the rays of light that are fallen on the object have not absorbed any amount of colours of that object and have reflected all the rays of light that are fallen on the object. In the same manner if an object looks black, it means that the object has absorbed all colours contain in sunlight and nothing has been reflected on the object.



Figure 12: A Indian lady with a bright colour saree.

Source: Rajasthan - Singhe, Kishore



Figure 13: Indian ladies with colourful sarees Source: Delhi, Agra and Jaipur - Bose, Biraj

The red sarees worn by the Indian women symbolize the marriage. Also the red colour symbolizes the strength and the youthfulness in these women.

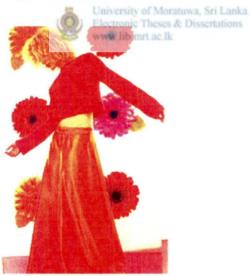


Figure 14: Colours have a prominent place in fashion Source: Impressionen - Kawall, Bettina

There is a colour in everything that man uses. In the past though the people used pale colours to indicate the simplicity of their lives at present it can be seen that frequently dark colours are being used.



Figure 15: Colourful threads become colourful clothes Source: Morocco – Modern - Herbert, Y.M.P.A.



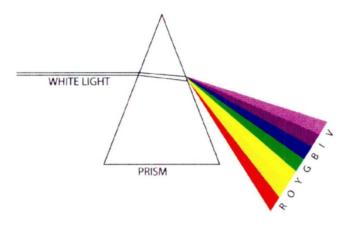




Figure 16: Colourful ceramic wear giving a rich look Source: Morocco – Modern - Herbert, Y.M.P.A.

2.1.2. Colour spectrum

In 1966, Sir Isaac Newton discovered that colours are contained in white rays of light. He discovered this by sending white rays of light through a prism. The following diagram shows the experiment of Newton.



University of Moratuwa, Sri Lanka,

Figure 17: White light through a prism

He has found seven different colours and declared that the colours are not visible to the human eye. The collection of these colours is known as the colour spectrum. The human eye can see the colours in the spectrum while other rays are not visible. The rays that are not visible can be identified as ultra violet, infrared, radio wavelengths, and gamma rays, x-rays. The following diagram depicts the visible colours and non-visible rays.

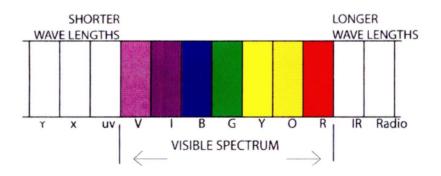


Figure 18: Colour spectrum

2.1.3. Significance of colour

A colour may have a specific deep meaning, which differs from society to society and culture to culture. For example the colour that is been used to denote a feeling of sorrow is white in Asia while it is black in European countries. In Thailand it is the purple colour while in South Africa it is red colour. But in India brown colour is used to denote sorrow.

Colour also is been used as a medium of signal. The white colour is a signal for indicating the defeat in a war. The yellow colour ribbon is used to indicate the support for an army. The red colour is used as a signal to indicate a danger. Colour can also be used as an expression of insurance of certain rights of people.

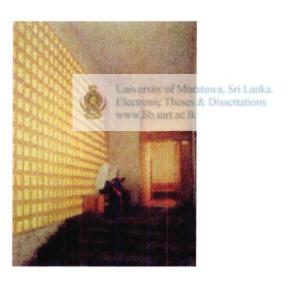


Figure 19: Yellow makes warm inside the church

Source: Barragan - Portugal, Armando Salas Chapel and Convent Restoration, Mexico City, Architect Luis Barragan.

The use of yellow colour in church has been able to make it a more dominant and powerful place. Also the yellow colour has been able to provide a calm and quiet environment that brings in internal peace in a person which is preached by religions.

2.1.4. Colour wheel

"When all possible hues are arranged around the edge of a circle, purple can be positioned conveniently between the red and violet to create a continuous sequence of hues, known usually as a colour wheel"

(Berry and Martin, 1991, 11)

This colour wheel concept was introduced by Sir Isaac Newton with the colour spectrum on a circle.

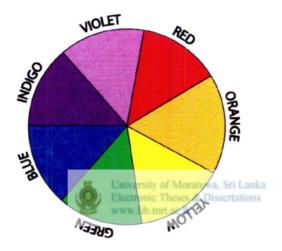


Figure 20: Sir Isaac Newton's colour wheel

Source: Colour in Townscape - Dattmann, Martina

By "Using a prism Newton found that white contained all the colours of the spectrum. The bands of colour he differentiated were red, orange, yellow, green, blue, indigo and violet; with purple, which did not appear either in the light spectrum or in the colour wheel. Newton derived from it, that these colours give a continuous series.

In the centre of the colour wheel formed by bringing the red and violet ends of the spectrum together, Newton assumed white to be, and he placed progressive mixtures of white with all the spectral hues between centre and periphery. The sectors of the

wheel differed in size according to the observed width of the bands of the light spectrum"

(Gabriel, 1981, 66)

The three primary colours purple (Magenta), yellow and turquoise-blue (Cyan), are also known as process colours. (The secondary colours are also three; mixing with two colours out of three primary colours forms those. The complimentary colours are opposite side of each colour on the colour wheel.) Complimentary colours enhance each other and they are pleasing to the eye.



Figure 21: Colour wheel

When comparing two colours in the colour wheel it can be seen that one colour is darker or lighter than the other. This nature is called as a difference of tone or value. Colours can easily change the tone by adding white or black.

The cool colours range from blue to violet and they represent half of the colour wheel and have shorter wavelengths and have a calming effect. Bright cool colours generate more excitement than when light or dark cool colours are used.

Warm colours range from red to yellow and they represent the other half of the colour wheel. They have the longest wavelengths. Warm colours can get attention of people and they have qualities of aggression and action.

2.1.5. Psychology of Colours

A significant change can be made in human mind through the use of colours. Colours can be used to improve as well as to reduce feelings of people. Because of these reasons creators use different colours in their creations in order to increase the impact of feelings of people.

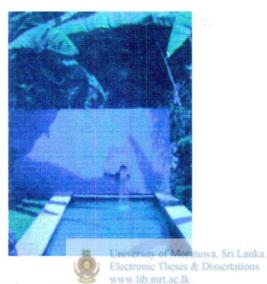


Figure 22: Blue giving coolness

Source: Mexican contemporary – Herbert, Y.M.P.A.

Blue and green are two cool colours. This colours develop peace and lightness in human mind. This picture increases the qualities of calmness, comfort and healing in human mind.



Figure 23: The room gets warm by yellow wall Source: Miami Hot and Cool - Cerwinske, Laura

The yellow colour enhances playfulness as it is a warm colour. This colour can be used in dining rooms and in spaces for entertainment where bright moods are required as it is a colour that increases moods of human beings.

The meanings of use of colours inside large buildings are to maintain the moods of people for a long time. The objective of using colours like red, orange and yellow inside a fast—food restaurant is to keep the customers for a long time and to motivate them to eat more and more food. The red colour is used in a Casino hall in order to develop the feeling of the evening in the customers and to prevent them from the feeling that time is moving.

The finding of psychological researchers show that use of different colours in factories can improve or decrease the productivity of the people. A research done in 1970 shows that application of certain colours in a factory has caused a reduction in the productivity and also it has become a hindrance to the eye. The blue is calm and cooling and it has been found that application of blue colour in the rooms of a prison has helped to calm down the prisoners and reduce their stress. It has been found that by applying blue and white colours in hospitals a feeling of relaxation and relief can be developed in patients. The application of orange colour in rooms can increase the feeling of warm. In the same manner application of colours like violet, blue and green can increase the feeling of coolness. These examples explain that application of different colours can develop different feelings in the human mind.

2.2. Colour expression

Colours play an important role in architecture. Colours can have specific characteristics in architecture. A colour that can be used to stimulate the idea of warmth cannot be used at the same time to stimulate the idea of coolness. Therefore colour application must be done carefully in architecture. If wrong colours are applied in a wrong place, it gives a wrong meaning and feeling. This can lead to a distortion of the value of architecture in expressing feelings of people.

There is a strong relationship between colour and emotions. Colours help people to overcome their emotions easily. The human brain plays a major role in promoting positive reactions in people to colours. The brain helps people to feel emotions related to colours.

Colours can be categorized in to three groups as follows according to their qualities.

- 1. Warm colours (Hot Colours)
- 2. Cool colours by of Moratuwa, Sri Lanka.
- 3. Neutral colours aclk

2.2.1. Warm colours (Hot Colours)



2.2.1.1. Red

This colour is far away from white and black. Normally this is the first colour that children use. Australian aborigines paint their weapons with red colour, because they believe that it gives meanings such as loyalty, victory, and protection. Likewise red colour is used to symbolise anger, danger, blood, fire and violence also. This stimulating energetic and passionate colour can be used to create excitement and intensity. Therefore the ability of red colour, which is capable of inducing appetite, is suitable for places where meals are served.



Figure 24: Red can be used to create excitement and intensity

Source: Mexican contemporary – Herbert, Y.M.P.A.

Red colour increases the mental power of people. The use of red colour decreases the proportions of space. By applying red colour in a wall it is possible to show that the wall is jutting forward. The red can be used in general to highlight the feelings of anger, danger and qualities like blood, flame and violence.

This colour has an ability to reduce the apparent proportions of a room. When red is applied to a wall it appears as if the wall is pushed forward.

2.2.1.2. Pink

Pink is a colour lighter than red. It is made by mixing white with red. Pink is a soft colour than red. Pink is a swooning and romantic colour associated with little girls. It symbolises innocence, purity and connects with good health. Pink can be used to indicate playful, tender, flirting and alluring characteristics. The shades of pink are good for muscle relaxation and for releasing tense emotions.

Therefore it is a good colour for comfort and healing. Pink colour is good for bedrooms to get the calming effect. Also it helps to achieve a balance in attitudes of difficult children.



Figure 25: Pink is a swooning and romantic colour University of Moratuwa, Sri Lanka.

Source: Mexican contemporary – Herbert, Y.M.P.A. www.lib.mrt.ac.lk

The pink colour can be used to indicate the characteristics such as playfulness, tenderness, flirting and alluring. Also pink colour is used to indicate purity, innocence and good health.

2.2.1.3. Orange

This colour also can be used to stimulate the energy as efficiently as the red colour. Orange creates flexibility and friendliness. This lively colour can be used to enhance the qualities such as warmth and activity. This colour also can be used to stimulate the appetite.



Figure 26: This lively colour can be used to enhance the warmth and activity Source: Barragan - Portugal, Armando Salas Luis Barragan House, Mexico City, Architect Luis Barragan

The orange colour is used to increase the warm of a space and the activeness of people.

2.2.1.4. Yellow

This colour is an uplifting and cheerful colour. But its shades are creating various effects. Lighter yellow creates a free and light feeling. The dark yellow has the ability in making space more—dominant and powerful. Yellow is seen as the colour of the intellect. Yellow colour affects human brain functions. Yellow colour can be successfully applied in places, where bright moods are required. This is therefore appropriate for places such as dinning and entertainment spaces.

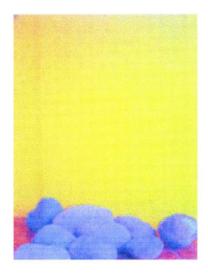


Figure 27: Yellow makes space more dominant and powerful

Source: Mexican contemporary – Herbert, Y.M.P.A.

A space with the yellow colour can increase the brightness of the mind. It helps to develop strength and the activeness of people remaining in a space where yellow colour is used.





Figure 28: Yellow can be successfully applied, where bright moods are required

Source: Pacific Island - Herbert, Y.M.P.A.

2.2.2. Cool colours

2.2.2.1. Green

Green has been seen as an evil colour in Middle Ages. It now has a meaning of colour of the nature. It represents growth, new life and harmony.

It has been identified as a colour that causes the least effect to the brain. Green is a calming, comforting, healing and non-aggressive colour. Green colour has an effect in balancing the heart, the lungs and blood circulation. It regulates breathing patterns and stimulates growth. The yellow colour is used in colour therapy to heal and reduce mental stress.



Figure 29: Green is a calming comforting and healing colour

The green colour is the most closest colour to the human being. The green colour can be seen in the environment in different shades and degrees. It is a calm, comfort, healing and non aggressive colour.

2.2.2.2. Blue

The blue colour, reminds us the sky and sea. In the early periods Greeks and Romans accepted the sky blue as the colour of Jupiter and Zeus.

The blue is a good colour that can be used to have significant effect on the space. It can be used to push back the walls in small rooms and can maximise the feeling of space. Blue colour shows a connection with coolness, protection and formality and also it can be used to build a peaceful environment for spiritual escape and dreaming. Likewise blue is used to stimulate the human body in bringing down the blood pressure. When the blue is applied in a bedroom, it will encourage a deep and peaceful sleep.

Darker shades of blue can create elegance in a normal reception room. Lighter shades of blue are creating a peaceful environment and lightweight quality for any room.



Figure 30: Blue can be used to build a peaceful environment for spiritual escape and dreaming.

Source: Impressionen - Kawall, Bettina

This is a colour that agrees highly with a peaceful environment. It can be used to increase the qualities such as calmness, coolness, protection and formality.

2.2.2.3. Violet / Purple

It is a unique mixture of red and blue. Leonardo da Vinci thought that the meditation was ten times effective under a purple light. Purple colour has a religious significance. Violet colour is associated with the passion of Jesus Christ. Violet – purple hues can be used to create theatrical environments. Violet provides an excellent restful background.

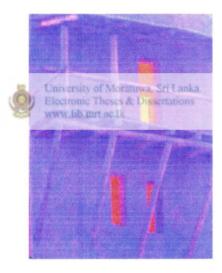


Figure 31 : Violet provides an excellent restful background

Source: Mexico – Houses of the Pacific ~Pierre, Marie

Violet is a colour that can be used best to express the feelings of a mind. According to Learnado Da Vinci a purple colour light can be used to increases the effect of meditation by ten times.

2.2.2.4. Brown

Brown is associated with earth, wood and other natural materials. It has a practical, wholesome character that epitomises the forces of nature as well as stability comfort and the warmth of home.

Tints of brown colour can be cool and shades of brown colour can be warm. The warmer colours of brown such as golden brown, tan can accelerate the appetite. Brown is combining well with rich colours such as purple and gold or lighter colours such as beige and cream.



Figure 32: Brown can epitomize the warmth of home

Source: Casa Mexicana - Porter, Tim Street, Stewart

This colour can be named as an earth colour. By applying this colour the warmth and the comfortableness can be enhanced.

2.2.3 Neutral colours

2.2.3.1. White

The white colour is in fact a non-colour. It is the combination of all the colours of spectrum. White is symbolising the purity and heavenly figures. It is also associated with youth, relevance and humility and believed to be relieving pain. Frequently white colour is used in architecture of hot climatic countries, because of its reflectivity. White colour has a great potential to recede walls of a room than any other colour. It can have great intensity and can be a stark, soulless choice in large or cold rooms.

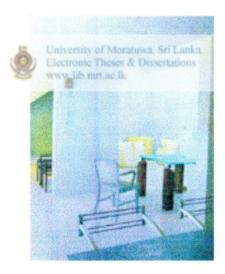


Figure 33: White has a great potential to recede walls of a room

Source: Miami Hot and Cool - Cerwinske, Laura

Application of white on a space increases its brightness because this colour reflects all rays of light. It increases the brightness of the space and as well implies that the space is also increased.



Figure 34: White colour is used in architecture of hot climatic countries

Town Hall, Colombo.

In countries where tropical climates are found, the white colour is widely used. The reason for this is that the white colour when applied can be used to reduce the warmth inside rooms. As the white colour is capable of reflecting the rays of light that fall on the walls it helps to regulate the warmth inside houses. Therefore white is used to create a good environment inside the buildings without much warmth.

2.2.3.2. Black

Black is not reflective to light. Black can be empty and oppressive when used in large areas. It is also making a room feel much smaller than its normal size. Black is giving the sense of protection and mystery. Black coloured interiors can be dramatic and expressive, when used to illuminate colour schemes with bright colours and neutral shades.



Figure 35: Black give the feeling of emptiness

The black colour absorbs all the light rays that fall on it. It cannot reflect rays of light. Because of this the black colour cannot be directly seen by the human eye. Therefore use of black pillars does not disturb the view of this place. In this way by applying black colour in a wall in an office where the table of the chief of the office is kept, it is possible to make others see all the movements of the head as their eyes focuss on the head instead of focusing them on the black wall.

2.2.3.3. Grey / Silver

Grey is a colour that is in between black and white, which is a neutral shade. It has cool cloudy qualities. Black is a purring colour associated with peace, calm and uncertainly. Silver colour is also having the same cool, noble, quality as well as grey. But it is a more animated and spiritual colour. Grey and silver colours can be combined effectively with other cool colours such as blue and green.



Figure 36: Grey giving a cool quality to rooms Source: Beautiful Homes - MPH Publishers

Grey is also a colour that fall into the group of cool colours as blue and green. It can heal ones temperaments and usual Laga tiredness and mental Electronic Theses & Dissertations



Chapter Three

The impact of colour on meaningful spatial experience

Chapter Three

The impact of colour on meaningful spatial experience

3.1. Spatial progression – The forces

Spatial progression and episodes are different from each other. But they have some kind of relationship. Spatial progression helps to emphasise the architectural episodes. The parts of spatial progression are as follows.

3.1.1. Pull factor and push factor

Pull factor and push factor play an important role in spatial progression in architecture. Pull factor of spatial progression invites people to the building. Therefore it helps to feel the spatial experience of the building. Simply it means, that it pulls the person from one point to another.

The push factor means, that it pushes the person from one point to another. These two factors can stimulate persons by using colours as well as texture, light, volume, material and height.



Figure 37 : Red colour door pulls out people Source: Colour in architecture - Architectural design

This picture shows that the main gate with the red colour attracts the people to its direction. For this purpose all the colours used in this building have been utilized. To increase the warmth of the entrance the two sides of the building have been painted with blue which is a cool colour and gradually hot colours such as yellow and orange are used to increase the quality of warmth. For the gate the most hottest colour has been used.

In this building composing of colours has been done in order to make the entrance gradually warm. When changing from cool colours to warm colours is done gradually the quality of warmth can be felt strongly. Though main entrance is smaller in scale than the other sections its proportions show an accuracy. Because of this reason it serves as a pull factor.



Figure 38: Yellow pushes people to the blue area.

Source: Colourscape - Lancaster, Michael

The yellow does not allow anybody to stay around as it contains the quality of warmth. Likewise the blue colour seen in front increases the peacefulness and lightness in the mind of a person and this quality attracts the people to move towards that direction.



Figure 39: Red block pulls people from other places.

Source: Colourscape ~ Lancaster, Michael

The red building here differentiates significantly from other buildings and is capable of drawing attention of people. This helps to motivate people to move towards that direction. A certain kind of rhythm can be seen in this line of houses. The colours used and their proportions and scales maintain this rhythm. But the building with red colour has disturbed the rhythm in other buildings and it has taken a prominent place. As this red colour building is appearing different from other buildings it is being used as a pull factor.

3.1.2. Movement

This element is very important to keep people moving in the building. It helps to move towards to a space.

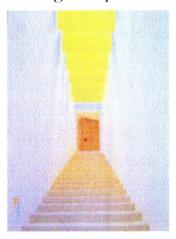


Figure 40:Yellow can increase the speed and activeness of ones walk.

Source: Mexican contemporary - Herbert, Y.M.P.A.

The yellow colour beams above shown in the picture increases the qualities of energy and activeness in people. It can increase the speed and the activeness of ones walk.

By reducing the proportions in the space it has been intended to develop the feeling of leaving the place soon in a person. Therefore when a person enters this place a feeling of leaving the place soon occurs in him. Yellow colour has been used in the pergolas to reduce the proportion. The sunrays falling inside through the pergolas mix the darkness in the steps with light and create a certain rhythm. This rhythm helps one to move easily without focusing attention on any other distractive objective.

3.1.3. Here and there theses & Dissertations www.lib.mrt.ac.lk

These two words give enormous help to progression. "Here" is the place which is around a person. "There" is away from the "here". These two words help to identify the sense of position. A person may feel "here", the position of where he is, because of "there". This "here" and "there" concept helps to lead or connect two different spaces. But at the same time it is showing the difference of the two spaces.

"Entering a building, a room within a building, or a defined field of exterior space, involves the act of penetrating a vertical plane that distinguishes on space from another, and separates "here" from "there"".

(Ching, 1979, 256)



Figure 41: The room shows the difference between "here" and "there"

Source: Morocco – Modern ~ Herbert, Y.M.P.A.

This picture shows two places different from each other in the same building. The yellow colour space looks likes a living room and the white space looks like a bedroom. As the living room is painted with yellow colour it appears as a place where active behaviour is heightened. It can be considered as a place where bright moods are developed. As the bedroom is painted with white colour it reflects ideas, which are quite different from those that emanate from the living room. As it is a bedroom using of hot colours can disturb the activities taking place there.

The two spaces here contain two different colours and therefore the proportions differ from each other. Proportions of the yellow space look smaller than the proportions of the white space. This leads one to name these two spaces as 'Here' and 'There'. 'Here' and 'There' can be highlighted effectively by using colours correctly.



Figure 42: "There" is brighter than "here"

Source: Mexican contemporary ~ Herbert, Y.M.P.A.

This picture shows the use of two similar colours. But it can be seen that the area where orange colour is used provides an environment quite different from the environment created in the area where yellow colour is used. The area where yellow colour is used provides more active environment.

Though the two spaces found here contain same type of colours, the tones of the colours differ from each other. The composition of colours has been able to make one space differ from the other. It shows that the colour composition can emphasize the 'Here' and 'There' force of a place.



Figure 43: "Here" is cooler than "There"

Source: Casa Mexicana - Porter, Tim Street, Stewart

Here it can be be clearly seen two different environments. In the area with blue relaxing, free and peaceful environment can be seen and in the area with pink colour that type of environment cannot be felt. A feeling of getting evacuated from that area occurs.

Though the walls of the building shown in this picture are white in two sides of them a warm and a cool colour has been applied. In composing colours, blue a cool colour has been used to a place to make it a place where people can stay and the warm colour is used to enhance movement. This shows that the correct compose of colours improve the efficiency of related activities in different places.



3.1.4. This and that

This concept of "this" and "that" is very similar to the concept of "here" and "there", but is a more object based description. There are different explanations of "here" and "there". Anyway when all these explanations are summarized, these two concepts mean two different spaces. But "this" and "that" refers to two different objects in those two spaces.

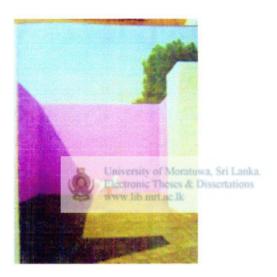


Figure 44: The white object makes the "that" force.

Source: Barragan - Portugal, Armando Salas Luis Barragan House, Mexico City, Architect Luis Barragan

The white object that appears before the pink colour background displays relatively difference in "that" from "this".



Figure 45: Black ball makes the "this" force. Source: Mexican contemporary - Herbert, Y.M.P.A

The black colour ball kept in an orange background displays relatively a different effect as it is been seen looked from a different angle at a different object.

The black ball shown in this picture is large in terms of scale and thus can be seen immediately. Therefore in this instance the scale has played an important role in increasing 'This' force.

3.1.5. Pause

Pause does not mean to stop but it is a stopping place. It tends actually to create a space to wait for a moment. Continuous journey break in this space. It is a place where the journey tends to turn to different directions and changes different moods. In this space people can feel the difference between the end of the first part of the journey and the beginning of the second part of the journey.



Figure 46: Pause helps to direct and change the moods Source: Mexican contemporary - Herbert, Y.M.P.A

According to this picture the space found in the midway of the progression disturbs the progression. It can be considered as a pausing point of the spatial progression. The feelings emerged on the way come to a climax of the development at this point. Also at this point the progression is focussed to different directions and it causes a change in moods too. According to this picture there are two directions that the progression can take place. One direction is found in the building itself and the other direction is found outside the building. As and when a person selects one of these directions and move along it, feelings tend to change accordingly.

3.2. Spatial progression – The episodes

Every place has a sequence of progress. In relation to the progress there can be different types of experience in different spaces. When a person starts the journey from one place and approaches the climax at a middle point and terminates at an end point and it creates a situation for him to feel the spatial progression. There are some places where one can feel the progress of the journey. Such a progress contains certain components such as, "about to enter, entering, have entered, moving towards climax, false climax, climax, exit". These are called architectural episodes.

3.2.1. Approach way

Normally a person approaches to enter the building along a path. This is the first episode of the circulation system, the person experiences the form of the building at this stage, he sees the building, experiences it and uses the building.

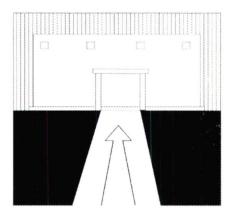
The approach can vary from design to design, because of the differences of concept and locations. The approach can be frontal, oblique or spiral.

1. Frontal approach

The frontal approach helps to go straight to the entrance of the building using a straight, axial path. The journey's end is clearly

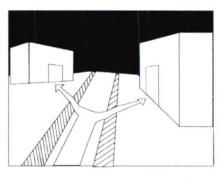


University of Moratuwa, Sri Lanka, Electronic Theses & Dissert Visible in frontal approach.



Source: Architecture: Form, space and order Ching, Francic D. K. 2. Oblique approach

This approach enhances the perspective quality the building, its front facade and form.



Source: Architecture: Form, space and order Ching, Francic D. K.

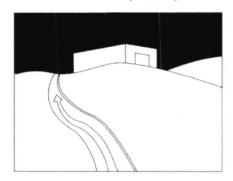
3. Spiral approach

The spiral approach of the building will be visible in part by



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University of Moratuwa, Sri Lanke. Therefore it stimulates the quality and the value of the building. It also emphasises the three dimensional form of the building. The entrance of the building will be hidden until the termination of the journey.



Architecture: Form, Source: space and order Ching, Francic D. K.

Examination of the impact of colour On Spatial Progression:

With special reference to selected buildings in Sri Lanka.

Chapter Three: The impact of colour on meaningful spatial experience



Figure 47: Colourful staircase celebrates the approach way. Source: Mexican contemporary - Herbert, Y.M.P.A

The colours included in this picture indicate the area starting from the stairway as a busy area. This is because more hot colours are used in this area. Therefore this area can be considered as a place full of energetic, warm and entertaining activities rather than a place of relaxing and peaceful.

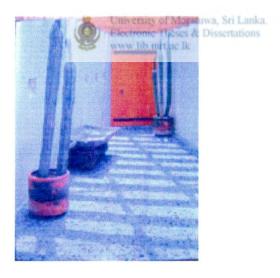


Figure 48: White makes the calming approach way. Source: Mexican contemporary - Herbert, Y.M.P.A

This picture is different from earlier picture. The colours found in this picture tend to think that this place is a relaxing, and peaceful place. This is because the white and grey colours used in this area develop the feeling of restfulness, calmness and coolness.

3.2.2. About to enter

This space is the immediate defined exterior space before the main entrance. It is in between the building approach and the entrance of the building. This space acts as a transitional point of the journey. It is providing a specific feeling of entering in specific built form. The size of this space varies in different types of buildings. This space, which is in between, the entry point of the building and the approach way can be manipulated to make a big impact of a person's experience.



Figure 49: Yellow makes the entrance warmer.

Source: Barragan - Portugal, Armando Salas Eduardo Prieto Lopez House, Mexico City, Architect Luis Barragan

The yellow colour used in a white background in the gate has made it the most important place in the environment. Also a warm, energetic and active quality can be observed here.

In this place as a result of colour composition the entrance has been more emphasized. The yellow wall in a white background helps to be see immediately.

3.2.3. Entering

"Since the act of entry is essentially one of piercing a vertical plane, it can be signified in more subtle ways than punching a hole in a wall. It can be the passage through an implied, rather than real, plane, established by two pillars or an overhead beam. In more subtle situations, where visual and spatial continuity between two spaces is desired a change in level can mark the passage from one place to another

(Ching, 1979,256)

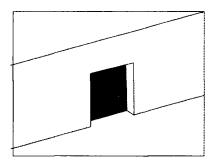
The feeling of entering can be the pass or the boundary line of a territory or gate. This element acts as a transitional place from outer world to inner world.

The people who enter the new place will change their mind and get ready to behave to suit that place. This change of mind takes place from the approach.

Entrances can be categorised as follows.

1. Flush entrances

These entrances are intended to maintain the continuity of wall surface.



Source: Architecture: Form, space and order Ching, Francic D. K.



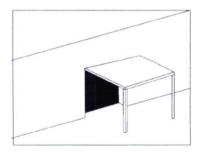


Figure 50: Entrance is dominated by a white frame in red background.

Source: Mexican contemporary - Herbert, Y.M.P.A

The red colour painted in the wall where the door is fixed warmly welcomes the people entering the area. The red colour develops the feeling of security and victory along with the feelings related to danger and violence at the same time.

2. Projected entrances ~ These entrances are used at the end of the approach.



Source: Architecture: Form, space and order Ching, Francic D. K. Examination of the impact of colour On Spatial Progression:

With special reference to selected buildings in Sri Lanka.

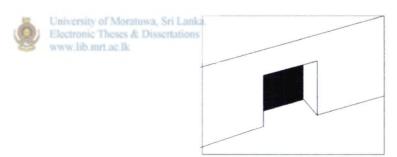
Chapter Three: The impact of colour on meaningful spatial experience



Figure 51: Projected entrance welcomes the building. Source: Colour in Townscape - Dattmann, Martina

3. Recessed entrances

These entrances provide a shelter and take a small portion of exterior section of the building in to the interior of the building.

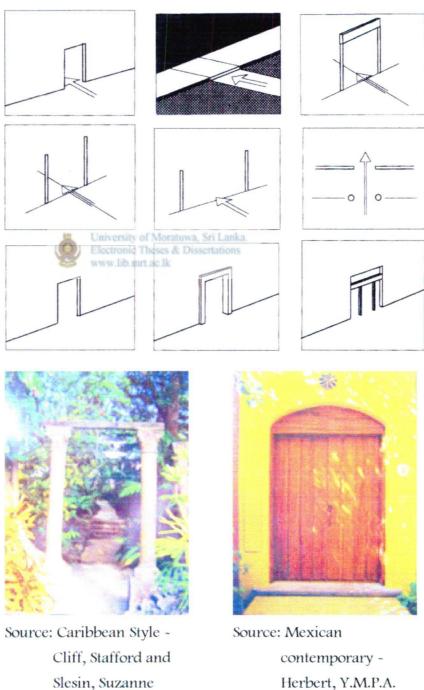


Source: Architecture: Form, space and order Ching, Francic D. K.



Figure 52: Pink emphasises the entrance

This picture shows a restaurant. But the colour used for the entrance is not agreeable. It is because the pink colour shows playful, tenderness, flirting and alluring characteristics. But this colour is not suitable for a Restaurant. The suitable colours for a Restaurant would be red, orange or yellow. Because these colours have the ability to keep the customers inside the restaurant for a longer time.

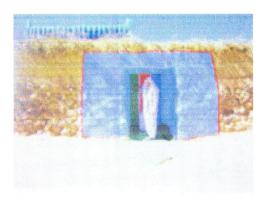


Herbert, Y.M.P.A.

Examination of the impact of colour On Spatial Progression:

With special reference to selected buildings in Sri Lanka.

Chapter Three: The impact of colour on meaningful spatial experience



Source: Impression of Arabia - Mauger, Thierry



Source: Geoffrey Bawa - Taylor, Brian Brace

Figure 53: Formation of entry using different spatial arrangements.

3.2.4. Entry sensation

The location of the main entrance of a building is a factor that can be used to improve the quality of that building. This entrance can be named as the main transitional point of the spatial progression of the building. It can be used to improve the feeling that is emerged in the person who is entering the building. Also it helps to develop the understanding about the kind of building he has entered into in the person. This can be located in the place where direct entry could be made to the building. It is defined as the point of entering the building.

It can be sometimes visually connect with an exterior place, which is covered by the building.

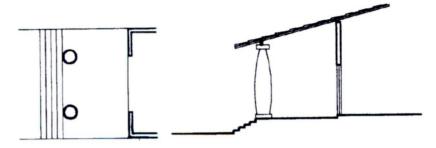


Figure 54: Entrance changes the feelings of a person.

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This entrance shows the desired quality of the spatial progression of the building. The interior of the entrance can develop a feeling about location and the nature of the building. The size, texture and colour of the entrance improve its quality and aesthetic value. Also it helps to mould the feelings and modes of behaviour of the people who are inside.

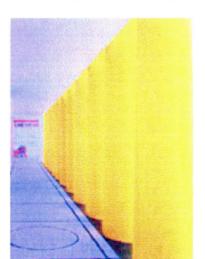


Figure 55: Yellow Columns give a feeling of aggressive. Source: Mexico – Houses of the Pacific - Pierre, Marie

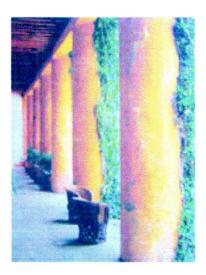


Figure 56: Dull colour give a feeling of Aged quality. Source: Casa Mexicana - Porter, Tim Street, Stewart



Figure 57: White colour entrance give a calming quality. Source: Geoffrey Bawa - Taylor, Brian Brace

Though these three pictures do not show the same place the three places look similar. Even then these three pictures indicate three different environments. In the space shown by the first picture white and yellow mixed colours are used. These colours have been applied methodically, carefully and neatly. The yellow colour makes that space a more dominant and powerful place. Because of the yellow colour this place, contains energy,

movements and bright moods. Therefore this place can be considered as a place suitable for youths. This is because the characteristics such as energy, bright moods found in them are agreeing with the feelings promoted by the colours applied in the space. But the environment depicted by the second picture is quite different form the fist one. There the colours, orange, white and colours mixed with green are seen. Colours found there are painted with colours mixed with green colour. The colours here are not neatly applied. The grey colour used in the floor and the dilapidated pillars with orange colour of this area gives a humble feeling to the effect that it is a place that old and orphan people live. That is because the colours used in this space do not provide bright moods and energetic feelings. The environment shown in the third picture is totally different from the two environments shown in the previous two pictures. There a series of white pillars can be seen. These white pillars indicate characteristics such as purity quietness. Therefore this area can be taken as one existing in between the two age levels mentioned above. Therefore when one enters and passes these three areas he gets three feelings different from each other. Though the three entrances are similar the different colours used in them develop three different feelings.



Figure 58: Two entrances indicate two different environments. Source: Java Style - Schoppert, Peter

Examination of the impact of colour On Spatial Progression:
With special reference to selected buildings in Sri Lanka.
Chapter Three: The impact of colour on meaningful spatial experience

The two entrances shown by this picture are similar. But the colours used in doors and windows are different. One is red which is a hot colour and the other is green which is a cool colour. Therefore the two entrances indicate two different environments. The red colour entrance indicates the characteristics related to loyalty, victory, protection, danger and violence as well. The green colour shows quite different characteristics which can be named as calmness, comfort, and healing. Because of this it is possible for anyone to develop feelings related to different moods.

3.2.5. Having entered

The place, which gives clear direction to go to another place or places, gives the feeling of having entered. It can have one direction or many. This place can be well-defined interior space or exterior space. This entrance can be located on central area of the space or can be off centred.

"In terms of location, an entrance can be centred within the frontal plane of a building or it can be placed off-centre and creates its own symmetrical condition about its opening. The location of an entrance, relative to the form of the space entered will determine the configuration of the path and the pattern of the activities within the space."

(Ching, 1943, 257)

The entrance provides the transitional element forming a link between inside and out side.



Examination of the impact of colour On Spatial Progression:

With special reference to selected buildings in Sri Lanka.

Chapter Three: The impact of colour on meaningful spatial experience



Figure 59: Red coloured interior space makes energetic and passionate feeling

Source: Caribbean Style - Cliff, Stafford and Slesin, Suzanne



Figure 60: Green coloured interior makes calm, comfort feeling.

Source: Caribbean Style - Cliff, Stafford and Slesin, Suzanne

A person who enters with moods related to the entrance hopes to have the same type of feeling after being entered. In this manner he continues to retain the moods he has in his mind in the same manner. After that he will be moved to different directions through the entrances found in different sections.

3.2.6. Climax

This is the destination or the focal point of the whole process, which represents the main purpose of the built form and to which other spaces are arranged to progress towards. Being the most important space in the series of spaces, it has become the "core space", which has direct influence for the necessary meaning of the built form. This climax as the centre of interest usually becomes the largest space in the sequence. According to the terminating point and the entry point of the space it provides different sensations.



Figure 61: Blue ocean enhance the climax.

Source: Mexico – Houses of the Pacific ~ Pierre, Marie

A person who walks along the narrow corridor gets disturbed feelings. Because the narrowness of the corridor and the red colour used in it develops the feelings related to danger, fire and violence in him. As soon as he passes this area he comes to an area painted with cool colours like blue and green. These colours develop feelings related to a relaxed, peaceful environment. As soon as a person leaves the narrow corridor and comes out he sees the widely spread blue sea and the sky. This releases the tension that is prevailing in the mind.

Examination of the impact of colour On Spatial Progression:

With special reference to selected buildings in Sri Lanka.

Chapter Three: The impact of colour on meaningful spatial experience

In this building red colour has been used to show the narrowness of the corridor that leads to the climax. It has helped to decrease its scale. As the scale is reduced one feels uncomfortable when staying at this place. When one tries to get rid of the uncomfortable feeling he starts to see a space with larger proportions. It is outside the building. It is certainly more comfortable than the corridor. In this way scale and proportions can be used to emphasize the climax.





Chapter Four

Case studies

Chapter Four

Case studies

With the objective of showing how colours have been used in architecture to emphasize spatial progression in different ways three well-known buildings in Sri Lanka have been sighted in this study. Well-known architects Mr. C. Anjalendran, Mr. Suchith Mohotti and Mr. Geoffry Bawa have planned these three complexes of buildings belonging to the SOS Village, Sri Lanka Institute of Information Technologies and Light House Hotel respectively. These three architects differ much from each other for their experience, age, ets. And also The functions of each building and the nature of the users of these three buildings differ very much from each other.

The SOS Village buildings have been planned for small children and therefore the colours used in these buildings agree with the thinking pattern of the children. The colour scheme proposed by the architect suits the feelings and emotions of small children.

The Sri Lanka Institute of Information Technologies building is meant for youths and therefore the architect Mr. Suchith Mohotti has selected a colour scheme that is agreeable with the thinking patterns and emotions of youths. He has chosen colours for these buildings that suit the emotions and playful behaviour of youths.

The Light House Hotel Building Is Used by a kind of people who are basically different from the above two kinds of people. They are the Tourists (local as well as foreign) looking for a place to relax and spend the time quietly and peacefully. To suit the needs of such elderly people who are looking for a calm and quite place the architect Mr. Geoffry Bawa very few colours that serve this purpose.

These three examples show that the colours used in these three building complexes, which have different functions, and different kind of users have been able to emphasize spatial progression effectively in three different ways. It is important to study how spatial progression has been emphasized in three complexes of buildings by using different colour scheme.

4.1. SOS Children village – Piliyandala.

Establishing SOS village for orphan children in 1946 by Dr. Hermann Gmeiner in Austria was a great event in the history of world. There are such 248 SOS villages for children and 512 related community projects in 96 different countries in the world. In Sri Lanka also there is a SOS village established. These SOS villages throughout the world do an immense service to the orphan children.

The first SOS village in Sri Lanka was established at Piliyandala. After that two branches of SOS villages have been established in Galle and Nuwara Eliya. At Piliyandala the SOS village has been established as the first phase and then later a school, a training centre for mothers and also a home for the aged mothers have been established as the second phase.

The well-known architect Mr.C. Anjalendran has designed these buildings. He has selected colours for these buildings according to his own words to suit the small children in the village. He says that he has selected and applied the colours in the same manner as they are found in the minds of the small children. According to him this has made the village their own one. For this work he has got the assistance of Barbara Sansoni.

"He uses colour and design to provide the child with a positive out look on life, and to provide a secure home life which the child has been denied".

(Isaac, 1990,17)

"The colours for this complex was provided by Barbara Sansoni. Her colours leads one through this complex, and the interaction of these colours make directional movement through this symmetrical building a much varied experience."

(The Sri Lanka Architect, 1989, 4)

The School

The space, which starts from the main entrance of the Hermann Gmeiner School, ends up at a large multipurpose hall, which is open from three sides. It can be identified as the episode of having entered in the journey to the school. This is because the rubble wall of the building with grey colour is able to relieve the tiredness of the people entering the premise and also a large extent of green colour land is visible from there. A kind of pause

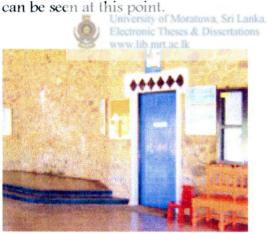


Figure 62: Grey colour wall relieve the tiredness of the people

School, SOS Village, Piliyandala. Architect C. Anjalendran



Figure 63: The multipurpose hall creates as a pausing point and direct to the classroom block by using Orange coloured rafters and white coloured narrow colonnade corridor.

School, SOS Village, Piliyandala.

Architect C. Anjalendran

In order to invite the people to come into the classrooms the rafters of the building have been painted with Orange colour. Also the narrow corridors with white coloured pillars and the Orange coloured rafters are serving as a pull factor that attracts people to enter to the premise. Also the coloured cemented benches erected on the sides of the corridor pull the people forward. There is a difference between these benches and the corridor. The corridor develops a feeling of movement while the benches create a feeling of pause.



Figure 64: Two places that create the feeling of here and there *School, SOS Village, Piliyandala.*



Figure 65: The place that serves as a pull factor School, SOS Village, Piliyandala.

Architect C. Anjalendran

The first phase of the journey ends at the lobby area which is painted by small children and that serves as the entrance to the classrooms. This area serves as a pausing point. The Orange coloured rafters of this building point the eyes of the people to the entrance. The large beam, which rests the Orange coloured rafters, takes the people's rattention from the lobby area to the classrooms.





Figure 66: Colourful area makes a pause and directs to the classrooms by using the roof.

School, SOS Village, Piliyandala.

Architect C. Anjalendran

The corridor of the classrooms has grey coloured rubble walls and a line of white coloured pillars. Both of these colours are neutral colours and the orange colour in the rafters is a warm colour. The Examination of the impact of colour On Spatial Progression:
With special reference to selected buildings in Sri Lanka.
Chapter Four: Case Studies

orange colour develops a warm feeling in the small children to go into the classrooms. This happens because the neutral colours used in the two sides the corridor do not attract the minds of small children and this warm colour in the rafters push the children to go into the classrooms. The doors of the classrooms, which are painted with warm colours, help children to stop their journey at the classroom.

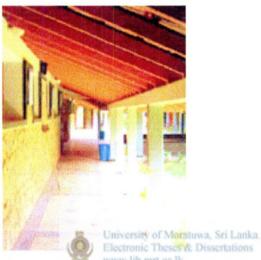


Figure 67: Orange coloured roof helps to give a feeling of direction to the classrooms.

School, SOS Village, Piliyandala.

Architect C. Anjalendran



Figure 68: The direction ends up in the classrooms, because of the warm colours used for doors.

School, SOS Village, Piliyandala.

The area with colourful frames and other objects can be identified as a space meant for playing. The building with grey coloured walls, seen in the background is the classroom block. There is a vast difference in the activities taken place in these two places. This explains forces that cause "here" and "there".



Figure 69: Play frames and the building indicates the idea of here

and there ity of Moratuwa, Sri Lanka. School, SOS Village, Piliyandala.

SOS youth village

The entrances to the SOS youth village are found little away from the main entrance to the school. This entrance serves as frame to the building and it directs the people forward. The grass lawn with the approach way with cement paving looks like a beautiful carpet.



Figure 70: Main entrance that provides the frame to the youth

SOS youth village, SOS Village, Piliyandala. Architect C. Anjalendran



Figure 71: Grey colour paving in the middle of the grass lawn looks like a carpet.

SOS youth village, SOS Village, Piliyandala.

The orange coloured sculpture in the area attracts the people towards that area and the playgrounds found beyond that point brings the journey in to a pause. When a person passes this point he can see the residence of the director of the youth village. The two red colour pillars there give the warning not to enter to that area.



Figure 72: The sculpture that makes a pull SOS youth village, SOS Village, Piliyandala.





Figure 73: Red columns that gives the warning to stop. Not to enter to the area.

SOS youth village, SOS Village, Piliyandala.

Architect C. Anjalendran

In the youth building people enter through a grey coloured arch to a place, which is constructed with rubble. This place is painted with neutral colours like grey, black and white. Though the yellow coloured beam in this piece of building gives the message to enter, the red pillars seen in the front of the entrance convey the message not to enter because that is the area where the students' dormitory is situated.



Figure 74: Entering is creates by a grey colour entrance SOS youth village, SOS Village, Piliyandala.

Architect C. Anjalendran

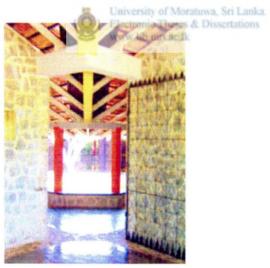


Figure 75: The lobby makes a feeling about "having entered" SOS youth village, SOS Village, Piliyandala.

Architect C. Anjalendran

At the end the multipurpose hall can be seen. This place is used for dining, religious activities, and playing and recreation activities. This place can be considered as the climax of the spatial progression. The colours in the building are used to tally with the Examination of the impact of colour On Spatial Progression: With special reference to selected buildings in Sri Lanka. Chapter Four: Case Studies

nature of activities taking place there and these colours develop the feeling "having entered". Also the place where red and yellow chairs and tables are found develops the push factor because it is the place where the children dine. In order to increase the quality of relaxation the cool colours like blue, violet, green have been used to beautify the place.



Figure 76: Colourful colonnade structure giving a having entered quality

SOS youth village, SOS Village, Piliyandala.

Architect C. Anjalendran ac lk



Figure 77: Different activities are going on SOS youth village, SOS Village, Piliyandala. Architect C. Anjalendran



Figure 78: Religious activities are taking place SOS youth village, SOS Village, Piliyandala. Architect C. Anjalendran



Figure 79: Children relaxing in the hall SOS youth village, SOS Village, Piliyandala. Architect C. Anjalendran



Figure 80: Dinning area that creates a push factor SOS youth village, SOS Village, Piliyandala.

Architect C. Anjalendran





Figure 81: Playful colours makes the climax of the spatial progression

SOS youth village, SOS Village, Piliyandala.

Architect C. Anjalendran



The mothers who look after the children in the village can live in the same village when they are retired. Houses are being provided for such mothers. These houses are situated in a separate section of the village and there are few houses in that section. There is no special entrance to these houses and the most popular colours used in these houses are orange, yellow and red, which are considered as warm colours. These colours are being used to give a feeling of warmth to those who are living in these houses. As the entrances to these houses are not erected clearly the colours used for the pillars found in front of these houses serve as a push factor.



Figure 82: Colours used and hidden entrances create the push factor.

Retired mothers' houses, SOS Village, Piliyandala. Architect C. Anjalendran



Figure 83: Warm colours used for retired mothers' houses.
Retired mothers' houses, SOS Village, Piliyandala.
Architect C. Anjalendran

The entering to these houses is done through the above and the warm colours used in these houses develop a warm feeling in the minds of those who visit the houses. A person who comes along a narrow path way enters to a large open area. It is a green colour area. In this area the person gets a cool feeling as he was coming from a warm area. It is a pausing point and also the climax, because this area that gives a cool feeling is surrounded with houses giving warm feeling.



Figure 84: Narrow path that is going towards an open area through warm coloured houses.

Retired mothers' houses, SOS Village, Piliyandala.

Architect C. Anjalendran



Figure 85: The open area that creates the pausing point and the climax.

Retired mothers' houses, SOS Village, Piliyandala.

Conclusion

In the Hermann Gmeiner school colours have been used to suit the small children studying and living there. By using these colours it has been able to arrange heights, proportions and scales to suit the small children. Also the colours have been effectively used in the corridors and in classrooms to shape the minds of small children and to motivate them for learning. Though at the beginning their attention is not focussed on learning as they enter the class block they start to focus their attention on learning. Colours have been used very effectively to this effect. These colours have been used to organize their attention towards learning. Also the colours used to enhance the feelings of relaxation are quite different from the colours used in class rooms. The colours used in the area where they relax increase the feeling of freedom, relaxation and entertainment.

The colours used in retired mothers' houses help to increase the sense of security, warmth and affection.

In the spatial progression the related forces such as pull, push, movement, here, there, pause etc and episodes such as entering, entry sensation, having entered, climax etc. have been used in an effective way. Colours have been used efficiently to emphasize the above forces and episodes. But there is a lack of usage of colours efficiently in emphasizing the forces such as this and that and episodes such as approach and about to enter.



4.2. Sri Lanka Institute of Information Technologies (SLIIT) Malabe

Architect Suchith Mohotti has designed the SLIIT building and it is situated in Malambe – Kaduwela road. This building is constructed in a very large land and though it has a main entrance the small entrance located in a side is frequently used. Therefore the spatial progression caused when entered to the premises through these two entrances is different from each other.

When a person enters to the premises through the small gate he has to walk across the security hut. He will first meet the white wall and the gate in his approach way. The red coloured wall seen through this gate works as a pull factor. The person who is coming through this gate passes the blue coloured security hut. As the security hut is blue in colour it develops a cool feeling in the person. It naturally becomes a pausing point but practically it cannot be used as a pausing point.



Figure 86: Red wall creates a pull factor

SLIIT - Malambe

Architect Suchith Mohotti



Figure 87 : The security hut makes a pause SLIIT – Malambe Architect Suchith Mohotti

The circular red wall seems to be pushing the people towards the orange coloured wall. In this instance the red wall functions as a push factor. The different activities that take place in between the red wall and the orange wall a "here and there" force can be seen.



Figure 88: Two different walls create "here" and "there" forces

SLIIT – Malambe

Architect Suchith Mohotti



Figure 89: Two different walls create "push" and "pull" force.

SLIIT – Malambe

Architect Suchith Mohotti

When a person enters the next narrow corridor with the blue colour seen in the large extent of space in that area develops a cooling effect in him and also the entering episode in the spatial progression can be felt. The final end of this space is painted with orange colour and it gives a feeling to a person that he is being warmly welcomed to the premise. It can be called as the entry sensation of the spatial progression.



Figure 90 : Entrance to the building SLIIT – Malambe Architect Suchith Mohotti



Figure 91 : Entry sensation of the building SLIIT – Malambe
Architect Suchith Mohotti

If a person enters to this premise through the main gate he will see the large building in front of him. When looking from the main gate the other small gate can be seen and its orange colour serves as a pull factor. Also the two orange strips painted on the floor on both sides looks like a carpet that invites people into the premise. But the red beam seen across disturbs people walking forward. This red beam appears to be a barrier erected to disturb the main entrance. Also in the episode of "about to enter" another similar red beam can be seen.



Figure 92: Orange colour entrance creates a pull factor and red coloured beam creates a barrier.

SLIIT – Malambe

Architect Suchith Mohotti



Figure 93: Red beam of the main entrance creates a barrier.

SLIIT – Malambe

Architect Suchith Mohotti

When somebody looks from the open at the main lobby, which is in front of the building, he can see a cylindrical section. It is a form that does not agree with the function of the building and can be called on object. Therefore it can be considered as a force of "that".



Figure 94 : Cylindrical object creates the "that" force of spatial progression

SLIIT – Malambe

Architect Suchith Mohotti

When walking towards the building a section with warm red colour can be seen in the area, which is painted with a cool colour. It serves as a pull factor to that area. But when a person goes to that area he can see the car park.



Figure 95 : Red box creates a pull factor SLIIT – Malambe Architect Suchith Mohotti



Figure 96 : Red box at the car park SLIIT – Malambe Architect Suchith Mohotti

The staircase, which leads to the car park, is also painted with the red colour. It also functions as a pull factor. As this is red in colour its inside gives a warm feeling, there is no possibility of staying inside for a long time. Therefore a natural movement takes place in this area.



Figure 97 : Red stair case pulls people SLIIT – Malambe Architect Suchith Mohotti



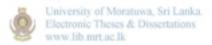
Figure 98: Stair case make a movement due to the red colour interior.

SLITT – Malambe Architect Suchith Mohotti

Conclusion

This institution is an Educational Institute and mostly youths come here for education. Their feelings are quite different from the feelings of children and adults. They like to spend their time freely, lightly and as well as actively. Therefore the colours used in this building resemble the feelings of youths. There is an agreement between the colours used in this building and the general feelings of the youth. Therefore this building becomes one of their own buildings because of the colours used in it.

In this building different colours have been used to emphasize forces such as pull, push, movement, there, here, that etc and episodes such as approach way, about to enter, entering sensation etc. But there is a lack of usage of colours to emphasize the forces such as this and pause and episodes such as entering, having entered, climax etc.





4.3. Lighthouse Hotel – Galle

The Lighthouse Hotel created by emminent architect Geoffrey Bawa is situated close to the Dadella village, which is in the Galle – Colombo road. As soon as a person who is coming from Galle sees the lighthouse hotel it reminds him the Old Dutch fortress. The front wall of the hotel, which is built with brown stones, reminds of the rampart of the fortress and the green grassland around recollects the area surrounding the fortress. Also the gloomy entrance to the hotel shows a similarity to the entrance of the fortress. Also the orange colour paint used in the wall of the first floor enhances the old look of the hotel and provides a dilapidated look to the building.



Figure 99: Approach way to the hotel.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 100: About to enter of the building.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 101: Old Dutch fort, Galle.



Figure 102: Entrance to the Dutch fort.

The entrance is the main point that makes a change in the feelings of the person who is using it. It is the essential characteristic of a spatial progression. It can make a change in the pattern of behaviour of a person. The unpolished black stones laid in the floor around the entrance gives a feeling to a person that he is entering to the old Galle fortress.



Figure 103: The gloomy entrance to the hotel shows a similarity to the entrance of the fortress.

Lighthouse Hotel – Galle Architect Geoffry Bawa



Figure 104: The entrance is the main point that makes a change in the feelings of the person who is using it.

Lighthouse Hotel – Galle Architect Geoffry Bawa

The lobby of the entrance of the hotel is painted with white colour. It looks as a place, which reduces the tiredness of a person who is entering that premises. When a person walks forward from that point he can see through the entrance a wall painted with orange colour. When one walks towards that side he can see a gloomy environment. The pool found there and the copper handrails indicate the arrival of Dutch soldiers to Sri Lanka. The orange colour wall with red colour scars symbolizes the war that took place with the Dutch.



Figure 105 : Stair way plays a drama. Lighthouse Hotel – Galle Architect Geoffry Bawa

When a person climbs through the stair way he can see a white patch in the second level. The white patch found in the first level functions as a pull factor and it pulls a person through the stairway to the lobby. In this context the white patch in the second level acts as the "there" force and the white patch in the first level acts as the "here" force.



Figure 106: White patch at the first floor level "pulls" there.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 107: White patch at the second level Lighthouse Hotel – Galle Architect Geoffry Bawa



Figure 108 : White coloured lobby at the first level.

Lighthouse Hotel – Galle

Architect Geoffry Bawa

When a person gets away from the gloomy stairway and enters to the white colour lobby he can see the wide blue ocean. The breeze coming from the ocean helps to increase the cooling effect present there. This is the climax episode of this hotel. A person gets pulled to this place without his knowledge.



Figure 109 : Climax of the hotel.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 110: Warm colours have effected in weakening the impact of cool colours at the climax

Lighthouse Hotel – Galle Architect Geoffry Bawa

The cool colours found here, the blue colour of the water of the ocean, grey of polished cement and the green colour grass lawn make the place a pausing point.



Figure 111 : Green colour grass lawn makes a pause.

Lighthouse Hotel – Galle

Architect Geoffry Bawa

When a person turns from this point and walks back he can see the orange colour stairway through the opening of the white wall. It again reminds the past. When one walks towards that place he will be pulled automatically towards to another place because of the greenery found there.

University of Moratuwa, Sri Lanka.



Figure 112 : Can see the stairway through the opening.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 113: Green patch "pulls" people to that area.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 114: The green patch is shows the "calming" effect.

Lighthouse Hotel – Galle

Architect Geoffry Bawa

A person walking forward will be pulled forward through the corridor allowing him to feel the beauty of the green patch. This linear shape corridor extends upwards and draws one's attention to two places. One of them is the orange colour wall, which is framed with a white wall and pot. The other is the blue colour ocean and the pool. Between these two places the cool environment constituted of cool colours like blue and green pulls a person. The other side, which is the area with rooms, serves as a push factor.



Figure 115: Stair way helps to move to the main transitional point.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 116: Orange colour wall and pot serves as a push factor.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



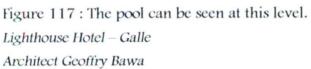




Figure 118: The linear shape corridor allowing person to feel the beauty of the green patch.

Lighthouse Hotel – Galle Architect Geoffry Bawa

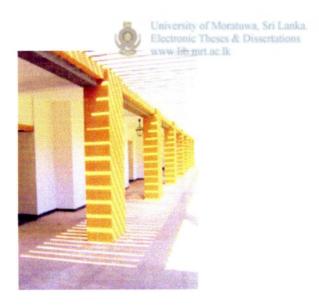


Figure 119: Light and shadow makes different characteristics for the corridor.

Lighthouse Hotel – Galle Architect Geoffry Bawa



Figure 120 : This colour helps to pull people from the lobby.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 121 : Blue colour ocean and the pool connects together.

Lighthouse Hotel – Galle

Architect Geoffry Bawa

The black colour columns found here do not disturb the view of the pool. Therefore a natural pulling can be seen towards that side.

At the end when one enters through the white patch at the second level he can see the wide blue ocean. He will be continuously looking at the ocean as it cools the mind.





Figure 122: The white patch at the second level.

Lighthouse Hotel – Galle

Architect Geoffry Bawa



Figure 123: The blue ocean cools the mind.

Lighthouse Hotel – Galle

Architect Geoffry Bawa

Examination of the impact of colour On Spatial Progression:
With special reference to selected buildings in Sri Lanka.
Chapter Four: Case Studies

Conclusion

The colours used in the Hotel are limited in number. Normally people come to a hotel to have a change from the monotonous environment they live and to eat and enjoy. Therefore they try to have a chance to entertain and enjoy and to forget their normal day-to-day busy life.

If in a place of this nature vivid different colours are applied it wont help them to forget their normal busy life but certainly would increase the usual feelings they have in their minds. Therefore they need a place like the Light House Hotel where less colours are being used to paint it and which takes them to a calm and quiet environment. This quality can be seen highly in the Light House building. The less number of colours used in this building helps people to develop calm and quite feelings. It can be seen that colours have been used in this building to emphasize every force and episode related to spatial progression other than the forces of this and that.





Conclusions

Conclusions

In architecture the role played by volume, height, texture, light and colour is very significant in highlighting the intentions of the architect and as well as to focus the expectations of the user.

Specially the contribution of colours in showing the spatial progression of a building is very important. But in recent times it was evident that colours are used in buildings without much meaning. In most instances colours are used just to differentiate the building from other buildings, to attract the people or as a means of increasing the outer appearance of the building rather than as a means of improving spatial progression. Some times it can be seen that colours are being used in buildings without considering their appropriateness to the environment where the building is constructed. Therefore it can be understood that at present the importance of colours is fading away in the field of architecture.

It was clear that in the buildings of SOS village, Piliyandala and Sri Lanka Institute of Information Technologies, Malabe — used for collection of information for the preparation of the current thesis that many colours have been used to improve spatial progression. In the other building — Lighthouse Hotel, Galle — colours have been used at a minimum level. In any of these buildings all the episodes and forces that can be used for improvement of spatial progression have not been utilized. In the case studies it was found, that the colours are satisfactorily used to highlight the forces such as "pull", "movement", "here", "there" and "pause" and also to highlight the episodes such as "approach way", "entering", "entry sensation" and "having entered". Yet it is evident that necessary attention is not drawn to use colours to emphasize the forces such as "push", "this" and "that" and also episodes such as "about to enter" and "climax".

In two of the buildings out of the three buildings used for collection of information colours have been used excessively. In the other building colours used are limited to a less number. The SOS village buildings have used too much of colours and have been satisfactorily able to utilize colours to improve spatial

progression. According to the architect the bright colour used in most of the buildings, is the most suitable colours for small children. Spatial progression means the process that helps a person to transfer from one place to another without much disturbance to his feelings, which are created, by different places of the building. When the spatial progression is perfect and sound a person do not get the feeling that he is being lost at any point of the building.

In the Lighthouse hotel building colours have been used to emphasize spatial progression in a quite different manner. A limited number of colours has been used for this purpose. Because of this a person who enters the Lighthouse hotel building can move from one space to the other without getting his feelings much disturbed. He is able to move from place to place with excitement and joyfully. This walk takes place without much effort. He without much effort move to the place, which is necessary to move and pauses' at the place which, is necessary to pause. Hence the progression takes place in a natural way.

The colours can be used excessively as is the case in the SOS village buildings and limitedly as found in the Lighthouse hotel for improving spatial progression. It will enhance the quality of the building. The control of colours increases the simplicity of the building.



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