

**SIXTH INTERNATIONAL URBAN DESIGN CONFERENCE
ICCPP-2018**

'Cities, People and Places'

**Socializing Cities:
Creating people-centered streets and places**

05 October - 07 October, 2018

at

Sri Lanka Foundation Institute
Colombo, Sri Lanka

Organized by

Department of Architecture
University of Moratuwa, Sri Lanka

'Centre for Cities'
University of Moratuwa, Sri Lanka

With Associated Partners

University of Leuven, Belgium
University of Alberta, Canada
University of Luebeck, Germany
University of Bahrain, Bahrain



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Tel : +94 11 2 651 047
Fax : +94 11 2 651 047
Email : iccpp@uom.lk
Web : www.iccpp.lk

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MESSAGES

Prof. K.K.C.K. PERERA
Vice Chancellor
University of Moratuwa



Urban Design Conference titled “International Conference on Cities, People and Places (ICCPP)” is a very important event of the annual calendar of the Department of Architecture, Faculty of Architecture of our University. **People** centered socio-economic development coupled with the technological advancements that are evident in different **places** around the globe, have led to modern **Cities**. **Cities** that embrace nature. Constantly reminding the **people** about the importance of sustainability in each **place** wherever they are located on the globe.

With the quest for innovations and inventions and pursuing sustainable development goals by the **people** living in different **places** around the globe will result in state-of-the-art **cities**.

On the other hand, the rapid urbanization is taking place due to uneven distribution of resources. As a result, there are certain places where majority of the people will choose to migrate and live. By default, Socio-economic needs will have to be fulfilled by establishing the same in such places leading to evolution of cities. The complexities arising out of meeting the needs of the habitats in the current context while ensuring the sustainable environments need no elaboration to any average citizen. Thus, the role of the urban designer becomes important in this context and the conference theme “Socializing Cities: Creating people-centered streets and places” is fitting.

It is our belief that the expert deliberations of this sixth version ICCPP will certainly complement the Vision 2025 of the government especially the mega polis developments.

Let me congratulate the Director of the program of the Urban Design, the Department of Architecture and the participants. Our best wishes for a fruitful conference.

Prof. M. LALITH DE SILVA
Dean of the Faculty of Architecture
University of Moratuwa



I am extremely pleased write this message to the publication on ICCPP 2018, Sixth International Urban Design Conference organized by the Department of Architecture, University of Moratuwa. The Faculty of Architecture has now moved to collaborative research culture through the experience in past conferences. I am happy to note that Research activities are carried as collaborative research at inter university and interfaculty level in addition to, Faculty level, Department level and Individual level. This research conference is generally based on the topics of built environment with a pre-eminent approach to present the research carried out by academia and the industry. I congratulate the Masters Program of Urban Design run by the Department of Architecture of the Faculty of Architecture , for being empowered to consequently organizing as a calendar event , an International Conference of this caliber on " Cities People and Places" (ICCP) in association with its international and national academic partners. This Conference provides a platform for a wider range of research and scholarly work carried out by local and international researchers and practitioners who are involved in Architecture, Building Sciences, Environmental Design, Urban Design, Engineering, Facilities Management, Landscape architecture, Lifestyle and Product design, Project Management Technology and urban Planning.

The theme of this year's International symposium is "Socializing Cities: Creating people centered streets and places". Cities are made of many infrastructure and streets and the places to gather is the most tangible and sensitive amenity formed by these infrastructure of a city as urban spaces. Urban spaces in a City, should promote harmony and socializing of different facets of the communities, through their normal way of life: may it be work, leisure, play, trade business, shopping or entertainment. The places should be of inviting character without pushing them to such space, as there is no alternative, so that they become part of the city. Some of these issues are revealed in Sri Lankan city development process too specially in our policy to revive our cities as megapoleis. Therefore, it is important to discuss these issues at a greater depth in order to bring out an intellectual discourse at this conference. It will also deliberate on the emerging issues related to the Cities, People and Places and outline the future directions to create sustainable and live cities to ensure Socializing through creating people centered streets and places for comfort and harmony.

I am certain that the fifth International Urban Design Conference organized by the Department of Architecture would be a milestone to expand the prospect of research carried out by the staff and students of our faculty.

I wish ICCPP Conference 2018 all success!

Dr. R.M.K.U. RAJAPAKSHA
Head of the Department of Architecture
University of Moratuwa



Sixth international research conference of on urban design organized by the Department of Architecture, University of Moratuwa, ICCPP 2018, invites us to critically think of our responsibilities as stakeholders of the built environments, to stand and take a step forward to implement human centered interventions in achieving urban development goals within a holistic framework. . ICCPP has been bringing together academics, professionals, researches and students to share knowledge and research findings in the field of urban design. The conference is focused on discussing the need of making our urban forms responsive in every way leading for the betterment of environmental, social, economic aspects thus improving sustainable urban strategies.

The enormous effort of Dr. Janaka Wijesundara and the organizing committee in making the conference a success is highly appreciated and valued. I would also like to sincerely thank all the people who have contributed to realizing this Conference. Thank you and congratulations to all the authors for working hard on the papers and presentations. I hope that the papers presented in this publication truly reflect the theme of the Conference and the role that has played and will continue to play in the betterment of our urban environments designed for people

KEYNOTE SPEAKERS

Professor Rebecca L.H. Chiu
Head, Department of Urban Planning and Design
University of Hong Kong, Hong Kong



ACHIEVING SOCIALLY SUSTAINABLE LIVING IN VERTICAL CITIES: IS COMPACT HONG KONG A SUCCESSFUL CASE?

ABSTRACT

Hong Kong is an exemplar of compact city with its composite urban form – a dominant main urban area well connected by public transport with the decentralized but highly concentrated new towns, and a building form featured with super high-rises throughout the city. Hong Kong’s very high population and building densities in the built-up areas and the low housing space standards often attract the questions of how socially sustainable and livable the residential environment is, while this city scores high in environmental sustainability terms. Based on the results of two large scale surveys, one at territorial level and one at the neighbourhood level, this presentation will delve into the social sustainability of Hong Kong’s residential environment, arguing that the planning, design and the management of the large housing estates, the economy of scale built up by the high population density, and the provision of subsidized housing to half of the population directly by the government are the key factors rendering Hong Kong a socially sustainable city to live in the experience of most of its residents.

Professor Rebecca L.H. Chiu

Rebecca L. H. Chiu is Professor and Head of the Department of Urban Planning and Design and Director of the Centre of Urban Studies and Urban Planning and One Belt One Road Urban Observatory at the University of Hong Kong. She is elected Fellow of Academy of Social Sciences in U.K. Her current research interests include housing and urban sustainability in high-density Asian cities, housing in Hong Kong and China, comparative housing and planning studies, liveability in high-density cities and in ageing communities, urban governance and urban management in China and the Belt and Road Region. She is the Founder Chairman of the Asia Pacific Network for Housing Research, and has been appointed to government boards and committees on housing, urban planning, land, urban renewal and natural and heritage conservation in Hong Kong and elsewhere. She is co-author of *Politics, Planning and Housing Supply* in Australia, England and Hong Kong, and chief editor of *Housing Policy and Social Development* in Asia, both published by Routledge.

Deshabandu' Archt. Plnr. Dr. Surath Wickramasinghe
Chairman of Surath Wickramasinghe Associates
Sri Lanka



CHALLENGES FOR CREATING HUMAN CENTRIC URBAN SPACES

ABSTRACT

Today, 55% of the world's population live in urban areas, a proportion that is expected to increase to 68% by 2050. Sri Lanka is no exception; it's urban share is estimated to rise over 60% in 2030.

It is also predicted that 90% of the future growth is to take place in the Cities. At the same time, 20 % of the World Population live in Slums in and around Cities.

In today's context, especially in the developing World, millions of people die due to, epidemics, pollution, droughts, floods, unhygienic conditions, cyclones, earthquakes, terrorism and other similar tragedies. In addition, there are other major issues such as shortages of water, power, housing, traffic congestion, lack of open space, battling poverty and social inequality.

However, in the 21st Century, new challenges have appeared as natural hazards, climate change, poverty reduction and social inclusion being intensified in cities. In this context, Urban Planning faces the huge task to evolve a innovative Plan and Strategy to create a sustainable city integrating it's multiple Infrastructure solutions to meet the challenges for creating a human centric urban spaces.

Deshabandu' Archt. Plnr. Dr. Surath Wickramasinghe

Surath Wickramasinghe graduated as an Architect from the University of Westminster, London and completed a Masters Degree in Planning from the University of Moratuwa, Sri Lanka.

Surath has made an outstanding contribution to Architecture, Urban Planning and Urban Regeneration for over four decades. His career combines a prolific and continued output of significant Architecture and Urban Design Projects including a distinguished list of writings and publications.

Deshabandu' Dr Surath Wickramasinghe is a Chartered Architect and a Chartered Town Planner by Profession. He is the Chairman of Surath Wickramasinghe Associates and has been in practice for nearly 50 years. The Firm provides Multi- Disciplinary Services and has won several Excellence Awards for Architecture from the Sri Lanka Institute of Architects (SLIA). The Infrastructure of the Firm could be considered in par with any International Firms.

In 1990, in recognition of Surath's Services to Architecture, Planning and the Professions of Sri Lanka, he was conferred National Presidential Honors the Title Desabandu' Class I Category.

A Past President of Sri Lanka Institute of Architects (SLIA), Institute of Town Planners, Sri Lanka (ITPSL), the Organization of Professional Associations (OPA) and Immediate Past President, Chamber of Construction Industry, Sri Lanka (CCI). He is an Honorary Fellow of SLIA and the Royal Australian Institute of Architects (RAIA).

Internationally, Past President, Architects Regional Council Asia, (ARCASIA), comprising of 17 Countries and a Past Vice President, Commonwealth Associations of Planners (CAP).

He was awarded the prestigious, SLIA Gold Medal for unique achievements and invaluable

Contributions to Architecture in Sri Lanka. In addition, the Organization of Professional Associations recently awarded him "A Lifetime Award in recognition of outstanding contributions to the Profession and the Nation" the National Apex Award for Professional Excellence in the category Engineering Services.

The University of Westminster in recognition of his achievements in Architecture, Planning, contribution to the Professions and the Construction Industry conferred a Honorary Doctorate DLitt.

Mr. Nayana Mawilmada
Sector Head of the Property Group at
John Keells Holdings, Sri Lanka



“THE EMERGENCE OF COLOMBO 2.0”

ABSTRACT

A discussion about some of the underlying forces driving the urban evolution of Colombo and an overview of some of the associated opportunities and challenges.

Mr. Nayana Mawilmada

Mr. Mawilmada is the Sector Head of the Property Group at John Keells Holdings, one of Sri Lanka's largest listed conglomerates. He is an urban development specialist with extensive international experience planning, facilitating, and managing large scale urban development, real estate and infrastructure projects across 15 countries. Prior to joining John Keells, Nayana served as the Director General of the Urban Development Authority, and as the Head of Investments for the Western Regional Megapolis Planning Project in the Government of Sri Lanka. Nayana's academic training includes an MBA from Harvard Business School, a Master of City Planning from Massachusetts Institute of Technology (MIT), and a Bachelor of Architecture from Hampton University in the USA. He is also a 2017 Eisenhower Fellow.

ORGANISING COMMITTEE

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Dr. Janaka Wijesundara

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CONFERENCE INFORMATION

International conference on 'Cities, People & Places' –ICCPP-2018

The event is organized by the Department of Architecture of University of Moratuwa in collaboration with joint international academic institutions and is held on 05th, 06st and 07th of October 2018 at the Sri Lanka Foundation Institute at No. 100, Sri Lanka Padanama Mawatha, Independence Square, Colombo 07.

Conference Secretariat

Department of Architecture,
University of Moratuwa, Katubedda
Sri Lanka.
Tel : +94 11 2651047, Fax: +94 11 2 651 047
Email : iccpp@uom.lk
Web : www.iccpp.lk

Language

The official language of the conference is English. There will be no simultaneous translations.

Dress code

Conference - business, lounge or national
Dinner - smart casual

Registration

Conference delegates can collect their materials at the registration desk at the Sri Lanka Foundation Institute in Colombo. Opening times of the registration desk will be from 1.45 pm to 6.30 pm on 05th Of October from 8.30 am to 5.30 pm on 06st October 2018.

Secretariat room

During the conference, the secretariat room is located at the Sri Lanka Foundation Institute in Colombo where the main conference is being held. The opening hours of the secretariat will be from 8.30am – 7.00 Pm on 05th October to 06st October 2018.

Certificate of Attendance

A certificate of attendance will be issued to all participants after the conference sum up.

Awards

The paper presentation award and the best presentation award will be awarded during the conference and at the summing up session.

Liability

The organizing committee is not liable for personal accidents, loss or damages to private properties of registered participants during the conference. Participants should make their own arrangements with respect to personal insurance.

Disclaimer

Whilst every attempt be made to ensure that all aspects of the conference mentioned in this announcement will take place as scheduled, the organizing committee reserves the prerogative to make last minute changes should the need arise without prior notice.

PROGRAM

Day 1

Friday, 05 October, 2018

INAUGURATION

- 01:30 p.m. Arrival of Guests and registration
01:50 p.m. Arrival of the Keynote Speakers
02:00 p.m. Arrival of the Chief Guest
02:05 p.m. Procession Proceeds to Auditorium
02:20 p.m. Lighting of the Traditional Oil Lamp
02:30 p.m. National Anthem
02:35 p.m. Ceremonial Inauguration of ICCPP- 2018
Theme Video Presentation
02:40 p.m. Welcome Address by Dr. Janaka Wijesundara, Conference Chair-
ICCPP 2018
02:50 p.m. Address by Dr. Upendra Rajapaksha, Head of the Department of
Architecture
02:55 p.m. Address by Prof. Lalith De Silva, the Dean of the Faculty of Architecture
03:00 p.m. Address by Prof. Kapila Perera, Vice Chancellor of the University of Moratuwa
03:10 p.m. Address by the Chief Guest, Dr. Wijeyadasa Rajapakse, Minister of
Higher Education and Cultural Affairs
03.25 p.m. Presentation on the Urban Design Summer Workshop 2018
03.35 p.m. Keynote Address -1: Professor Rebecca L.H. Chiu, Head,
Department of Urban Planning and Design, University of Hong Kong,
Hong Kong
04.05 p.m. Keynote Address -2: Deshabandu' Archt. Plnr. Dr.Surath Wickramasinghe
Chairman of Surath Wickramasinghe Associates, Sri Lanka
04.35 p.m. Keynote Address -3: Mr. Nayana Mawilmada, Sector Head of the
Property Group at John Keells Holdings, Sri Lanka
05:05 p.m. Vote of Thanks
05:10 p.m. Sri Lankan Cultural Pageant, performed by University of Kelaniya, Sri Lanka
06.55 p.m. Conference Dinner
08.00 p.m. END of the Program (Day 1)

Day 2

Saturday, 06 October, 2018

SCIENTIFIC CONFERENCE

- 08.30-08.45 a.m. Conference Registration
- 08:45-08.55 a.m. Arrival of the Keynote Speakers
- 08.55-09.00 a.m. Procession Proceeds to Auditorium
- 09:00-09.05 a.m. Lighting of the Traditional Oil Lamp
- 09:05-09.10 a.m. National Anthem
- 09.10-09.15 a.m. Theme Video
- 09.15-09.20 a.m. Welcome speech by Dr. Janaka Wijesundara, Conference Chair, ICCPP-2018
- 09.20-09.25 a.m. Presentation on the pre- conference Urban Design Workshop 2018
- 09.25-10.10 a.m. Keynote speech 1, Professor Rebecca L.H. Chiu, Head, Department of Urban Planning and Design, University of Hong Kong, Hong Kong
- 10.10-10.40 a.m. Keynote speech 2, Deshabandu' Ar/Plnr.Dr.Surath Wickramasinghe Chairman of Surath Wickramasinghe Associates,Sri Lanka
- 10.40-11.10 a.m. Keynote speech 3, Mr. Nayana Mawilmada, Sector Head of the Property Group at John Keells Holdings, Sri Lanka
- 11.10-11.20 a.m. Tea break
- 11.20-01.00 p.m. Parallel Sessions- Session-1A, 1B, 1C, 1D
- 01.00-01.45 p.m. Lunch
- 01.45-03.15 p.m. Parallel Sessions- Session-2A, 2B, 2C, 2D
- 03.15-03.30 p.m. Tea break
- 03.30-05.00 p.m. Parallel Sessions- Session-3A, 3B, 3C
- 05.00-05.05 p.m. All participants get together at the Main Auditorium
- 05.05-05.35 p.m. Discussion, concluding remarks by Prof. Ranjith Dayarathne, University of Bahrain
- 05.35-05.40 p.m. Vote of thanks
- 05.40 p.m. END of the Program (Day 2)

Day 3

Sunday, 07 October 2018

CULTURAL TOURS – (Tour registration required)

06.00a.m. – 06.30p.m. Tour Option 1- Sigiriya Archaeological/Cultural tour

06.00a.m. – 06.30p.m. Tour Option2- Geoffrey Bawa Garden/Architecture, Galle
City -Southern tour

END of the Program (Day 3)

DAY - 1 Friday, 05th October 2018 - ICCPP 2018 - INAUGURATION

Time	
13.30 - 13.50	Arrival of Guests and registration
13.50 - 14.00	Arrival of the keynote Speakers
14.00 - 14.05	Arrival of the Chief Guest
14.05 - 14.20	Procession Proceeds to Auditorium
14.20 - 14.30	Lighting of the Traditional Oil Lamp
14.30 - 14.35	National Anthem
14.35 - 14.40	Ceremonial Inauguration of ICCPP- 2018, Theme Video Presentation
14.40 - 14.50	Welcome Address by Dr. Janaka Wijesundara, Conference Chair- ICCPP - 2018
14.50 - 14.55	Address by Dr. Upendra Rajapaksha, Head of the Department of Architecture, University of Moratuwa, Sri Lanka
14.55 - 15.00	Address by Prof. Lalith De Silva, Dean of the Faculty of Architecture, University of Moratuwa, Sri Lanka
15.00 - 15.10	Address by Prof. Kapila Perera, Vice Chancellor, University of Moratuwa, Sri Lanka
15.10 - 15.25	Address by the Chief Guest: Dr. Wijeyadasa Rajapakse, Minister of Higher Education and Cultural Affairs
15.25 - 15.35	Presentation on the Urban Design Summer Workshop-2018 conducted by the University of Moratuwa
15.35 - 16.05	Keynote Speaker -1: Professor Rebecca L.H. Chiu, Head, Department of Urban Planning and Design, University of Hong Kong, Hong Kong
16.05 - 16.35	Keynote Speaker -2: Archt. PInr.Dr.Surath Wickramasinghe Chairman of Surath Wickramasinghe Associates, Sri Lanka
16.35 - 17.05	Keynote Speaker -3: Mr. Nayana Mawilmada, Sector Head of the Property Group at John Keells Holdings, Sri Lanka
17.05 - 17.10	Vote of Thanks by Archt. Janaka Dharmasena
17.10 - 17.20	Tea Break
17.20 - 18.20	Sri Lankan Cultural Pageant, performed by the Department of Fine Arts, University of Kelaniya, Sri Lanka
18.20 - 20.00	Conference Dinner
20.00	END of the Program

DAY-2		Saturday, 06th October 2018 - ICCPP2018 - SCIENTIFIC CONFERENCE	
Time			
08.30 - 08.45	Conference Registration		
08:45 - 08:55	Arrival of the Chief Guest and Keynote Speakers		
08.55 - 09.00	Procession Proceeds to Auditorium		
09.00 - 09.05	Lighting of the Traditional Oil Lamp		
09.05 - 09.10	National Anthem		
09.10 - 09.15	Theme Video Presentation		
09.15 - 09.20	Welcome Address by Dr. Janaka Wijesundara, Conference Chair, ICCPP-2018		
09.20 - 09.25	Presentation on the Urban Design Summer Workshop 2018 conducted by the University of Moratuwa & University of Lueven		
09.25 - 10.10	Key note speaker 1- Professor Rebecca L.H. Chiu, Head, Department of Urban Planning and Design, University of Hong Kong, Hong Kong		
10.10 - 10.40	Key note speaker 2- Archt. Plnr. Dr. Surath Wickramasinghe Chairman of Surath Wickramasinghe Associates, Sri Lanka		
10.40 - 11.10	Keynote Speaker -3: Mr. Nayana Mawilmada, Sector Head of the Property Group at John Keells Holdings, Sri Lanka		
11.10 - 11.20	Tea break		
11.20 - 12.55	Session 1A - Cultural Dimentions of Creating Places	Session 1B - Making Sustainable and Green Neighbourhoods	Session 1C - Creating Places for Living
11.20 - 11.45	CH-01	SL-11	SL-01
11.45 - 12.10	SL-14	SL-28	SL-09
12.10 - 12.35	BG-01	SL-08	SL-22
12.35 - 12.55	Q&A	Q&A	Q&A
12.55 - 13.45		Lunch	
13.45 - 15.15	Session 2A - On the Edges of Streets and Places	Session 2B - Perception and Experience of Place	Session 2C - Transformations of Place
13.45 - 14.10	SL-21	SL-26	PK-06
14.10 - 14.35	BD-01	SL-29	SL-18
14.35 - 15.00	PK-10	Q&A	NZ-01
15.00 - 15.15	Q&A	Q&A	Q&A
15.15 - 15.30		Tea break	
15.30 - 17.00	Session 3A - Transition and Place	Session 3B - Extruding the 'Otherness' of Places	Session 3C - Urban Greening Initiations
15.30 - 15.55	SL-23	SL-16	SL-25
15.55 - 16.20	BD-10	SL-13	SL-31
16.20 - 16.45	SL-30	SL-24	SL-27
16.45 - 17.00	Q&A	Q&A	Q&A
17.00 - 17.05	All participants get together at the Main Auditorium		
17.05 - 17.35	Discussion and concluding remarks by Prof. Ranjith Dayaratne, University of Bahrain		
17.35 - 05.40	Vote of thanks		

DAY - 3 Sunday, 07th October 2018 - ICCPP2018 - CULTURAL TOURS

Time	Tour Registration required
06.00 - 18.30	Tour Option 1- Visiting Sigiriya Archaeological / Cultural Site in North Western Province
06.00 - 18.30	Tour Option 2- Visiting Geoffrey Bawa Gardens and Architecture, Galle Heritage City-Southern Tour

DETAIL SESSION PLAN

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 1A

Theme : Cultural Dimensions of Crating Places
Session Chair : Archt. Prof. Samitha Manawadu
Session Co-Chair : Archt. Dr. Anishka Hettiarachchi
Venue/Time : Hall No: 1 / 11.20 - 12.55

Time	Paper ID, Title and Author(s)
11.20 - 11.45	CH-01 SPATIAL CULTURE OF THE PETTAH MARKET: COMPOSITION, EVOLUTION AND RECONSTRUCTION Junhua He
11.45 - 12.10	SL-14 SENSE OF COMMUNITY AND SOCIAL LIFE IN THE FISHING NEIGHBOURHOOD OF GURUNAGAR, JAFFNA, SRILANKA Arthy Yogalingam
12.10 - 12.35	BG-01 EXTRA-CURRICULAR, INTERCULTURAL LEARNING MODULES ON URBAN LAYERING AND THE SOCIAL PERCEPTION OF CITIES: THE CASE OF THE KUL-UOM SUMMER WORKSHOP ON VAUXHALL STREET, COLOMBO Koen De Wandeler
12.35 - 12.55	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 1B

Theme : **Making Sustainable Places and Green
Neighbourhoods**

Session Chair : **Arch. D. H. Wijewardene**

Session Co-Chair : **Dr. Nayanthara De Silva**

Venue/Time : **Hall No: 2 / 11.20 - 12.55**

Time **Paper ID, Title and Author(s)**

11.20 - 11.45	SL-11 TOWARDS GREENER CITIES; INVESTIGATING THE POTENTIALS OF VERTICAL GREENING IN TROPICS AS A DESIGN APPROACH TO CREATE SUSTAINABLE URBAN ENVIRONMENTS H. T. Rupasinghe, R. U. Halwatura, T. A. N. T. Perera
11.45 – 12.10	SL-28 URBAN FORM IN SUSTAINABLE NEIGHBOURHOODS Jeeva Wijesundara, U.G.D. Weerasinghe, Ranjith Perera
12.10 - 12.35	SL-08 EXAMINATION OF NEWLY ESTABLISHED BICYCLE LANES IN SRI LANKA WITH SPECIAL REFERENCE TO PILIYANDALA AND KATUBEDDA Niranjala Dahanayaka, Nayomi Kankanamge
12.35 - 12.55	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 1C

Theme : **Creating Places for Living**
Session Chair : **Archt. Plnr. Pali Wijerathne**
Session Co-Chair : **Archt. Shobha Senevirathne**
Venue/Time : **Hall No: 3 / 11.20 – 12.55**

Time	Paper ID, Title and Author(s)
11.20 – 11.45	SL-01 MEASURING THE SUITABILITY OF URBAN RESIDENTIAL ZONES IN GALLE CITY: A GIS ANALYSIS D. B. C. Jayasinghe, G. P.T. S. Hemakumara, P. Hewage
11.45 – 12.10	SL-09 A STUDY ON THE PROCESS OF STUDENTIFICATION:A CASE STUDY OF KATUBEDDA NEIGHBOURHOOD D. Shanmugarajah, Nayomi Kankanamge, R. Ratnayake, S. Kariyawasam
12.10 – 12.35	SL-22 AN ANALYTICAL STUDY OF THE CHANGES ON “WEWA” BASED CULTURAL LANDSCAPE WITH THE EVOLUTION OF AGRICULTURAL PRACTICES H. M. T. Sandaruwan Bandara, Shiranee Balasooriya
12.35 – 12.55	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 1D

Theme : Hidden Dimensions of Urban Places
Session Chair : Archt. Dr. D. P. Chandrasekara
Session Co-Chair : Archt. Kolitha Perera
Venue/Time : Hall No: 3 / 11.20 – 12.55

Time Paper ID, Title and Author(s)

11.20 – 11.45	PK-11 THE CHARING CROSS: UNFOLDING A GENIUS LOCI IN THE CITY OF LAHORE Hafsa Imtiaz , Mehreen Mustafa
11.45 – 12.10	SL-03 FACTORS AFFECTING IMAGEABILITY AND LEGIBILITY OF AN URBAN ENVIRONMENT: INSIGHTS FROM COLOMBO, SRI LANKA W. K. S. Suvimali, Amanda Rajapakshe
12.10 – 12.35	SL-20 HOW SMART THE CITY OF COLOMBO IN SRI LANKA: ANALYSIS USING MODERN BUILDINGS M. M. I. S. Mapa, Nayanthara De Silva, C. R. De Silva
12.35 – 12.55	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 2B

Theme : Perception and Experience of Place

Session Chair : Archt. Plnr. Piyal Silva

Session Co-Chair : Archt. Mihiri Hirudini

Venue/Time : Hall No: 2 / 13.45 - 15.15

Time Paper ID, Title and Author(s)

13.45 - 14.10	SL-26 “TO SEE WITHOUT BEING SEEN”LANDSCAPE PERCEPTION WITH PRIMITIVE HUMAN PREFERENCES IN URBAN RESTORATIVE ENVIRONMENTS Gayathri Kawshalya, Janaka Dharmasena
14.10 - 14.35	SL-29 EXPERIENCING LANDSCAPES WITH SPATIAL NAVIGATION BY VISUALLY IMPAIRED CHILDREN OF THE BLIND SCHOOL, RATMALANA, SRI LANKA D. J. A. M. P. Karunanayaka, A. A. Hettiarachchi
14.35 - 15.15	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 2C

Theme : Transformations of Place
Session Chair : Prof. Rahula Attalage
Session Co-Chair : Dr. K.A.K. Devapriya
Venue/Time : Hall No: 3 / 13.45 - 15.15

Time	Paper ID, Title and Author(s)
13.45 - 14.10	PK-06 CITY AND TERRORISM MAPPING THE IMPACT OF TERROR AND PARANOIA ON URBAN CULTURE AND FABRIC OF LAHORE CITY Hafsa Imtiaz
14.10 - 14.35	SL -18 SAND MINING: A STUDY OF SPATIAL CHANGES IN IMMEDIATE LANDSCAPE WITH REFERENCE TO A CASE OF MAHAWELI RIVER H. M. C. Shashiprabha Herath, U. G. D. Weerasinghe
14.35 - 15.00	NZ-01 PENAL MODIFICATIONS: THE ANGLOCIZING OF TE WHANGANUI A TARA Christine McCarthy
15.00 - 15.15	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 2D

Theme : **Urban Context and User**
Session Chair : **Prof. L. S. R. Perera**
Session Co-Chair : **Archt. Anuka Weththasinghe**
Venue/Time : **Hall No: 3 / 13.45 - 15.15**

Time **Paper ID, Title and Author(s)**

13.45 - 14.10 SL-05
STUDY ON THE IMPACT OF LINES, FORMS AND TEXTURES OF HARD LANDSCAPE MATERIALS IN PROVIDING SENSE OF DIRECTION IN STREETSCAPES
H. R. N. Irangika, A. A. Hettiarachchi

14.10 - 14.35 SL -15
EFFECTIVENESS OF ADOPTED URBAN SPACES FOR SOCIAL ACTIVITIES: A STUDY WITH REFERENCE TO KANDY CITY
E. G. C. L. Edirisinghe, Janaka Dharmasena

14.35 - 15.15 Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 3A

Theme : Transition and Place
Session Chair : Dr. Y. G. Sandanayake
Session Co-Chair : Archt. Janaka Dharmasena
Venue/Time : Hall No: 1 / 15.30 - 17.00

Time Paper ID, Title and Author(s)

15.30 - 15.55	SL-23 KNOWLEDGE TRANSFERRING LANDSCAPE: STUDY OF NATURE RESPONDING QUALITY IN VERNACULAR LANDSCAPE ARCHITECTURE WITH SPATIAL REFERENCE TO RITIGALA T. M. Nishan Gunathilaka, A. A. Hettiarachchi
15.55 - 16.20	BD-10 RAILWAY TRANSFERENCE URBANISM: RAILWAY STATION AS A POTENTIAL SOCIO-ECONOMIC URBAN COMPONENT Lubabah Sadia, Srijon Barua, Simita Roy
16.20 - 16.45	SL-30 THE IMPACT OF TRANSFORMATION OF CULTURAL LANDSCAPE ON SOCIAL BEHAVIORAL PATTERNS IN JAFFNA Umakaran Menalanan, D. P. Chandrasekara
16.45 - 17.00	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 3B

Theme : Extruding the 'Otherness' of Places

Session Chair : Archt. D. B. Nawaratne

Session Co-Chair : Archt. Jeeva Wijesundara

Venue/Time : Hall No: 2 / 15.30 - 17.00

Time	Paper ID, Title and Author(s)
15.30 - 15.55	SL-16 A STUDY OF FACTORS THAT INFLUENCE ON FORMATION OF DESIRE LINES IN URBAN LANDSCAPES H. S. L. L. Perera, Kowshika Gunasena
15.55 - 16.20	SL-13 AN INVESTIGATION OF GREEN SPACE WITHIN HIGH- RISE CONDOMINIUM SITES IN SRI LANKA Nadeeka Jayaweera, Supun Rodrigo, Jeyanthi Nadaraja Upendra Rajapaksha, Chathuri Jayasinghe
16.20 - 16.45	SL-24 MONITORING OF HISTORICAL/HERITAGE SITES WITH INTERNET OF THINGS Mohamed Fazil Mohamed Firdhous
16.45 - 17.00	Final Discussion and award of certificates of attendance

DETAILED SESSION PLAN

Saturday, 06 October 2018

Session 3C

Theme : Urban Greening Initiations
Session Chair : Archt. Dr. Senaka Darmathilaka
Session Co-Chair : Archt. Pradeep Fernando
Venue/Time : Hall No: 2 / 15.30 - 17.00

Time	Paper ID, Title and Author(s)
15.30 - 15.55	SL-25 THE ROLE OF LANDSCAPE IN PLACE ATTACHMENT: A STUDY OF KAMACHCHODAI AND MORA WALA LOCALES AT NEGOMBO J. S. M. B. Silva, D. P. Chandrasekara
15.55 - 16.20	SL-31 A STUDY ON IMPORTANCE OF BLUE SPACE IN URBAN PARKS TO HUMAN WELL-BEING, WITH REFERENCE TO COLOMBO CITY, SRI LANKA Shameen Randika Dharmasena
16.20 - 16.45	SL-27 IMPACT OF URBAN PARKS ON WELL-BEING OF NEIGHBOURHOOD RESIDENTS Binushka Suvimal, Janaka Dharmasena
16.45 - 17.00	Final Discussion and award of certificates of attendance

ABSTRACTS OF THE PROCEEDINGS

SIXTH INTERNATIONAL URBAN DESIGN CONFERENCE
ICCPP-2018

'Cities, People and Places'

Theme:
Socializing Cities:
Creating people-centered streets and places

Edited by
Janaka Wijesundara
Ranjith Dayarathne

Department of Architecture
University of Moratuwa
Sri Lanka

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PAPER ABSTRACTS

SPATIAL CULTURE OF THE PETTAH MARKET: COMPOSITION, EVOLUTION AND RECONSTRUCTION

Junhua He*

Academy of architecture, Xiamen University Tan KahKee College, China

ABSTRACT

The market arises from the exchange of goods. The evolution of the market was closely linked with the mutual influence of cities, people and culture. Different groups of people have come to the Pettah market one after another, not only prospering the local merchandise trade but also transplanting vastly different architectural cultures here. This article discusses in five representations of the Pettah market: historical evolution, style building, vertical planning, functional layout, spatial scale, and so on. The author has comprehensively analyzed the influences of colonial cultures and local cultures, immigrant cultures; and has objectively focused on the degree of spatial culture superposition in the Pettah market. These are the historical values about the Pettah market; it deserves to be protected, the link between the Pettah market itself and the surrounding environment of the Pettah market is symbiotic relationship. The plan of surgical interventional therapy is based on detailed data model analysis. This stereoscopic transportation system implanted by surgery can solve the existing problems. Try to invest less and achieve the goal of protecting and developing the market.

Keywords: Port, block, Evolution, five representations, detailed data model analysis, stereoscopic transportation system

* Corresponding Author: Junhua He; E-mail- Heyi71@126.com

SENSE OF COMMUNITY AND SOCIAL LIFE IN THE FISHING NEIGHBOURHOOD OF GURUNAGAR, JAFFNA, SRI LANKA

Arthy Yogalingam*

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Today, urbanities are less involved in local communities which have resulted in a claim that the significance and the role of space and neighbourhood layout in the creation of local communities have been exaggerated. Community research has developed a few indices for evaluating the sense of community and social life, but has not focused on the significance of a sense of community in neighbourhoods. Sense of community and social life are two key concepts related to social cohesion, which have been the subject of wide ranging studies in several disciplines including sociology, psychology and built environment. Social life studies have been mostly conducted in the built environment discipline focusing on city centers or periphery areas; while sense of community studies were mostly the target of sociologists and psychologists focusing on neighbourhoods. As a result, the role of the built environment on the sense of community and social life of neighbourhood is considered as a missing gap in the most of the literatures.

As clearly shown by the topic, this paper explores the sense of community and social life of Gurunagar fishing neighbourhood and investigates how particular fishing community plays a vital role in their own territory in terms of physical, social, economic and environmental aspects and highlights its magnitude in achieving as a successful neighbourhood. Also, this research was conducted through observations, photographic surveys, spatial analysis, interviews and discussions with those who live in the selected case study area.

Keywords: Sense of community, social life, neighbourhood, Gurunagar

*Corresponding Author: Arthy Yogalingam; E-mail- arthy156@gmail.com

EXTRA-CURRICULAR, INTERCULTURAL LEARNING MODULES ON URBAN LAYERING AND THE SOCIAL PERCEPTION OF CITIES: THE CASE OF THE KUL-UOM SUMMER WORKSHOP ON VAUXHALL STREET, COLOMBO

Koen De Wandeler*

KU Leuven Faculty of Architecture, Brussels, Belgium

ABSTRACT

Since 2013, the Department of Architecture of the University of Moratuwa (DA-UoM) and the KU Leuven Faculty of Architecture (KUL-FAR) have jointly been exploring various types of extra- and co-curricular activities. Having successfully set up the International Urban Design Workshops in parallel with the International Conference "Cities, People and Places" (ICCPP), cooperation also covered in- and out-going mobility, guest-lecturing, joint research and student supervision. With the 2018 KUL-UoM summer workshop, the organizers launched yet another experiment introducing extracurricular intercultural learning to their respective students.

The workshop is situated against the backdrop accelerated urbanization of the past decade that has consolidated the position of the Colombo metropolitan region as Sri Lanka's international gateway and its top commercial and financial hub. Urban development strategies initially envisioned city beautification, urban regeneration and revitalization of landmark cultural heritage sites. Mega development projects through public-private partnerships and/or land concessions to local or overseas investors now are balanced with projects envisaging greater social equity and inclusiveness. The KUL-UoM workshop acted on this approach by examining the urban layering and social perception of the neighbourhoods along Vauxhall Street, since these are facing profound transformation due to the urban redevelopment plans proposed for Slave Island and the vicinity of Beira Lake.

This paper outlines the conceptual framework of this initiative and the format that was developed in view of the workshop objectives. It then reviews how this first joint summer workshop was initiated, prepared, and conducted. Next, it critically assesses the envisaged outcomes in terms of concept, method, logistics and learning process. Final reflections outline the lessons learnt and explore how experimental modules like this

*Corresponding Author: Koen De Wandeler; E-mail- koen.dewandeler@kuleuven.be

workshop can be developed as complementary contributions to the curricula offered at KUL and UoM.

Keywords: Colombo, urban layering, urban redevelopment, Intercultural learning, extracurricular workshop.

TOWARDS GREENER CITIES; INVESTIGATING THE POTENTIALS OF VERTICAL GREENING IN TROPICS AS A DESIGN APPROACH TO CREATE SUSTAINABLE URBAN ENVIRONMENTS

H.T. Rupasinghe*, R. U. Halwatura

Department of Civil Engineering, University of Moratuwa, Sri Lanka

T. A. N.T. Perera

Department of Agricultural Engineering, University of Ruhuna, Sri Lanka

ABSTRACT

The rapid population acceleration and urbanization pressurize the need of more living places leading to considerably high artificial constructed structures and comparatively less vegetation. Vertical greening is identified and implemented as an interesting integration in improving urban environmental quality and life standards. Energy saving, influencing biodiversity, noise attenuation and many more benefits are associated with the vertical greening. In Sri Lankan context the practice of vertical greening is still at an initial stage and the knowledge on the system is very limited. The paper presents the results of experimental design conducted to identify plant performance to select a plant species for vertical greening in local context. Twelve plant species were selected for the study. Plant health was rated for all plants using a 3 point scale. 1 = thriving, 2 = alive, but with signs of pest, disease or other stresses, 3 = dead. Plant height and leaf area were measured along with visual assessments of plant development stages and pest/disease incidence. Temperature reduction was measured for selected species. Inter-species variations were identified using one-way ANOVA followed by Tukey's pairwise comparison. In terms of actual performance, *Roheo spathacea*, *Axonopus compressus*, *Ophiopogon japonicus*, *Axonopus fissifolius* displayed the greatest survival and coverage on an extensive green wall. Highest LAI obtained from *Roheo spathacea* (3.99) followed by *Axonopus compressus* (0.99) over the trial period.

Keywords: vertical greening, plant physiological parameters, leaf area index, Mean temperature difference.

*Corresponding Author: H.T. Rupasinghe; E-mail- himalshilive@gmail.com

URBAN FORM IN SUSTAINABLE NEIGHBOURHOODS

Jeeva Wijesundara*, U. G. D. Weerasinghe, Ranjith Perera

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Urban form is the generalized physical indicator or the manifestation of a built-up area. It demonstrates physical patterns, layouts and structures of neighbourhood designs, which defines the physical character of neighborhoods and communities within the City. Overall, the city or neighbourhood forms are constituted and configured of a set of 'elements' of its urban form, which could be identified as streets, street blocks, plots and buildings. In each of these configurations, elements are combined in a specific way, originating a different identifiable character, unique to each and every neighbourhood or city.

Neighborhoods always possess a strong physical reality inside cities with distinctive physical, social and economic characteristics. They are the main 'unit' of city which play a key role in formation of cities. Elements and composition of such formation or the urban form of a neighbourhood are identified as key factors that are claimed to influence sustainability and human behaviour. As an important concept in Planning and Architecture, sustainability is central in consideration of development of cities, and neighbourhoods. Cities cannot be considered sustainable if their component neighbourhoods, do not meet sustainability criteria.

This paper intends to examine the relationship between urban form and neighbourhood sustainability to identify urban form of a sustainable neighbourhood. It investigates the elements and composition of urban form that attempted to promote sustainable neighbourhoods, reaching compatible sustainability concepts.

Keywords: Urban Form, Sustainable Neighbourhoods, Relationship, Compatibility

* Corresponding Author: Jeeva Wijesundara; E-mail- jeevawijesundara@yahoo.com

EXAMINATION OF NEWLY ESTABLISHED BICYCLE LANES IN SRI LANKA WITH SPECIAL REFERENCE TO PILIYANDALA AND KATUBEDDA

Niranjala Dahanayaka,*Nayomi Kankanamge

Department of Town and Country Planning,
University of Moratuwa, Sri Lanka

Abstract

With the increasing use of motorized modes and related infrastructure, different issues such as traffic congestion, environment pollution and road accidents made cities not liveable for citizens. Promoting Non-Motorized Transportation (NMT) modes is the emerging substitution against this issue. Sri Lankan government recently promotes bicycle lanes following the concept of, "world bike to work day". Under this project, few bicycle lanes were promoted in several towns including Piliyandala and Malabe. Although this was meant to reduce the traffic and make cities environmentally friendly, accidents increased in the areas of Katubedda and Piliyandala, after implementing the bicycle lanes. While appreciating the initiation of promoting bicycle lanes, research findings show the requirement of promoting proper infrastructure to encourage bicycle riding. Accordingly, this research suggests a GIS based bikeability index, to evaluate the bikeability (ability to ride) of bicycle lanes, for the betterment of decision making. In order to develop the index research derived different variables through literature research and, were validated through interviews with bicycle riders of Piliyandala-Katubedda bicycle lane. The results received after applying the developed index, highlighted the areas of Piliyandala-Katubedda bicycle lane, which might lead to severe traffic issues and life losses, if the existing design exist for long.

Keywords: Bikeability Index, Bicycle lane, Safety, Accidents, Design Guidelines

*Corresponding Author: Nayomi Kankanamge; E-mail- nayomi.kankanamge26@gmail.com

MEASURING THE SUITABILITY OF URBAN RESIDENTIAL ZONES IN GALLE CITY: A GIS ANALYSIS

D. B. C. Jayasinghe *

Faculty of Graduate studies, University of Ruhuna, Matara, Sri Lanka

G. P. T. S Hemakumara, P. Hewage

Dept. of Geography, Faculty of Humanities and Social Sciences, University of Ruhuna, Sri Lanka

ABSTRACT

Urbanization is an unending process because increasing numbers of people are attracted to urban areas in the hope of finding better and more convenient living conditions. As a result, the demand for residential land in the areas surrounding cities has become very high. In fact, urban sprawl is a universal phenomenon that exists in most developed and developing countries today. Due to this, most cities now face the very challenging task of providing habitable land with better infrastructure to fulfill the residential demand. Under the prevailing situation though, most of the areas demarcated for residential use are unable to provide better facilities and living conditions for those wishing to move in there. This is a common problem in Galle, which is the Capital of the Southern Province and a densely populated city.

According to the proposed zoning plan (2008-2025) of the Urban Development Authority, eight Primary residential zones have been demarcated within the Galle Municipal Council limits. This paper evaluates the prevailing challenges confronting these primary residential zones by measuring their suitability levels using four key criteria, which are, level of infrastructure, land value, road accessibility and proximity to town center. GIS based weighted overlay analysis has been applied to measure the level of suitability of each residential zone. Results of the analysis have shown that 0.41% of the land is highly suitable, 31% of land is moderately suitable, 63% of land is barely suitable, while 5% is quite unsuitable for residential use. Knowing this can help the planners and policy makers to monitor the urban land development process and formulate appropriate urban growth policies and strategies for the city. Apart from that, many stakeholders are trying to understand the nature of the residential property market that follows in the immediate wake of property development. This will be useful for the people who are looking for

* Corresponding Author: chathurika; E-mail- chathurika_jayasingha@yahoo.com

suitable and profitable places to purchase their residential properties and to identify the development level of the area.

Keywords: Urbanization, Residential zoning, Residential and suitability, Geographic Information System, Weighted overlay analysis

A STUDY ON THE PROCESS OF STUDENTIFICATION: A CASE STUDY OF KATUBEDDA NEIGHBOURHOOD

D. Shanmugarajah*, Nayomi Kankanamge, R. Ratnayake,
S. Kariyawasam

Department of Town & Country Planning, University of Moratuwa, Sri Lanka

ABSTRACT

Studentification has been identified as a form of gentrification by many scholars. Spatial restrictions in an urban fabric, which are close to academic intuitions, lead to studentification. This form of gentrification is popular in many countries such as the United Kingdom and the United States of America where universities create towns and cities. Such studentification characteristics also could be identified around some of the leading universities in Sri Lanka. University of Moratuwa is one such university in Sri Lanka where students from all over the country come for their higher education. Clearly, the impacts of university students could be observed in the immediate vicinity. Thus, this research incorporates both qualitative and quantitative tools to provide a comprehensive explanation for this phenomenon. The objective of this study is to investigate the studentification process took place around the Moratuwa University. The process of studentification is examined through the lenses of economic, spatial and cultural changes that have occurred in the area. More than 200 land lords within a 500m walking distance from the university were interviewed to achieve the research objective. The study results show that the university has a great impact in changing the community in various dimensions such as standards of living and quality of life. The increasing demand for student accommodation has changed the entire socioeconomic structure of the community living around the university. New investors have started to invest in this area targeting the students as their main consumer base. This study provides economic, social, cultural and physical evidences and the assessment can advance the understanding about the process of studentification happening in the Moratuwa university neighbourhood. Local authorities and city planners will be benefited from this study in making future decisions on land use and infrastructure.

Keywords: Gentrification studentification, investors, displacement, reinvestment, university neighbourhood

*Corresponding Author: D. Shanmugarajah; E-mail- shanmugarajahdhivya@gmail.com

AN ANALYTICAL STUDY OF THE CHANGES ON “WEWA” BASED CULTURAL LANDSCAPE WITH THE EVOLUTION OF AGRICULTURAL PRACTICES

H. M. T. Sandaruwan Bandara*, Shiranee Balasooriya
Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

The Sri Lankan society is at a rapid changing process due to various socio-economic and political involvement resulting local cultures in rural areas have been reshaped. This creates the alteration of biodiversity, landscape, agriculture, economy, culture, technology and politics.

“Wewa” is a dominant and unique feature in Sri Lankan landscape. The “Wewa” is mainly built for the fulfilment of water requirement in dry zone agriculture and day today use. A healthy “Wewa” system is important for sustainability of those aspects.

This study investigates, how the agricultural evolution has affected to change the character of “Wewa” based landscape with special reference to the selected components of the “Wewa system” namely, Gas gommana (tree belt), Mukalana (catchment forest), Kulu Wewa (silt trapping tank), Kattakaduwa (interceptor), Hena (Chena), Gamgoda (hamlet), Landa (shrub land), Kumburu yaaya (paddy field) and the Wewa (tank).

The impacts were identified with the changes and distribution of the connected components through the patch dynamics. Set in, die away and the changes of the connectivity among each and every component that has identified through the graph theory. Changes happened in the “Wewa” landscape can be identified by studying these factors. The data were collected by interviewing the researchers who studied about the “Wewa”, villagers and farmers in the particular village. Time series analysis maps used to analyze the changes of the landscape throughout the time.

The study concludes, agricultural practices are directly and indirectly affected on the changes of “Wewa” based landscape. The result shows Mukalana (catchment forest), Kattakaduwa (interceptor), Hena (Chena), Landa (shrub land) are fully ruined due to the changes of agriculture practices. And other components also considerably affected.

*Corresponding Author: H. M. T. Sandaruwan Bandara;

E-mail- sandaruwanbandaramail@gmail.com

This study will help to create a new way to study and get influence from the ancient sustainable agricultural practices to prevent the misuse of “Wewa” and protect them for the future in a sustainable manner.

Keywords: Wewa, agricultural practices, cultural landscape, tank village,

THE CHARING CROSS: UNFOLDING A GENIUS LOCI IN THE CITY OF LAHORE

Hafsa Imtiaz*, Mehreen Mustafa

National College of Arts, Lahore, Pakistan and
Institute for Art and Culture, Lahore, Pakistan

ABSTRACT

The Charing Cross, Lahore may be ranked as more than simply the junction of roads. It is a memorial representing architectural, social and cultural history of Lahore. Imprints of Colonial, post-colonial and modern era can be traced if the evolution of architectural space and elements of The Charing Cross, Lahore are closely examined. The multi-faceted space of The Charing Cross, Lahore is understood if a temporal cross-section of the square is cut and critically analyzed. Designed and built during the British (colonial) times the square has, from the beginning, marked its genius through its ideal location and spatial quality. From being a centrally located square with carefully marked monuments and buildings to a democratic and recently a politically charged demonstration space, the square in Lahore has changed with time yet it retains its *Genius loci* through its form and events. Also, number of attempts made for shifting the location and position of monument within the confined periphery of chowk demonstrates how the monument has been perceived and treated by ruling elite and people of Lahore city in different times. The Charing Cross, Lahore in this paper is seen as a palimpsest with each layer of time and space reinforcing the genius loci of the square within the city of Lahore. The paper analyzes the juxtaposition of time and space boundaries that have contributed in making the historic chowk of The Charing Cross Lahore, a, genius loci. The paper begins with an introduction to the space; in this case The Charing Cross Lahore, with a brief background to its history and evolution. The paper then move towards introducing the theory and the methodology through which the paper signifies the square in relation to the events. Supported by the critical analysis of the historical (physical and social) evolution of the square, the paper establishes the significance of The Charing Cross as a genius Loci, in the city of Lahore.

Keywords: The Charing Cross, Place making, Genius Loci, Public space, event, time.

*Corresponding Author: Hafsa Imtiaz; E-mail- hafsaimtiaz@gmail.com

FACTORS AFFECTING IMAGEABILITY AND LEGIBILITY OF AN URBAN ENVIRONMENT: INSIGHTS FROM COLOMBO, SRI LANKA

W. K. S. Suvimali*, Amanda Rajapakshe

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

A person's orientation in the environment, basically depends on the visual perception on the physical elements in his surrounding environment and most importantly urban places should express an identity and a clear identifiable image. However due to the rapid urbanization and industrialization mega dynamic man-made developments commenced all over the world. Most of the buildings only focused for functional purposes. Because of this, user has to face complex experience in an urban environment. When people are unable to identify spaces precisely to make clear orientation, they get into difficulty in an urban setting. Imageability and legibility are always bound with physical setting of the environment. The aim of this study is to understand and inquire the qualities of organization of the landscape elements in identified urban space and how it influences the memory of people and how they help to read the city to recall the city spaces. The case study is a chosen sector within Colombo 07. It is a mixed residential zone recently upgraded with urban design and landscape proposals to increase the connectivity and permeability within. The study is based on a survey, including questionnaire and mind maps to collect data on the subject. Through a questionnaire highly imageable and legible places are identified, and through the same questionnaire landscape elements and their qualities of organization which affect to imageability and legibility are identified. Based on the summary and analysis of the data indicated two highly imageable and legible places in the area. According to the conclusion of data analysis the position, shape/form, number of elements are the major qualities of organization of landscape elements which highly affected the Imageability and Legibility in an Urban environment, suggesting that this information could be used more effectively to refurbish existing and design new urban landscapes as public spaces.

Keywords- Visual perception, Imageability, Legibility, urban environment, Landscape elements

*Corresponding Author: W.K.S. Suvimali; E-mail- sewwandikasuvimali@gmail.com

HOW SMART THE CITY OF COLOMBO IN SRI LANKA: ANALYSIS USING MODERN BUILDINGS

M. M. I. S. Mapa, Nayanthara De Silva*, C. R. De Silva

Department of Building Economics, Department of Computer Science and
Engineering, University of Moratuwa, Sri Lanka

ABSTRACT

“Smart” building is a fast-growing concept around the world which has been risen during last few decades. It reduces the life cycle cost of the building with an optimal combination of comfort and energy along with many other benefits. This concept has been largely adapted in developed countries, but yet to achieve many improvements in this field in developing countries. Smartness has many dimensions such as technology, economy, user interaction and adaptability that enable an automated enterprise within a built environment. Since this is still at the adolescent stage in developing countries, the efficiency of buildings by being smart in the built environment are not well achieved.

This paper presents a comprehensive smartness scoring model that designed to measure the level of smartness. Eleven main criteria and 41 variables were considered to model the smartness. Further the model is applied in sixteen modern buildings Sri Lanka.

Results revealed that average smartness is 42%. This indicates that the country needs many improvements to achieve level of the best of the smartness.

Keywords: Smart buildings, intelligent buildings, building performance, Smartness assessment

*Corresponding Author: Nayanthara De Silva; E-mail- endds@uom.lk

EDGE MORPHOLOGICAL CHARACTERISTICS OF DESIGNED URBAN PUBLIC SPACES: STUDY OF SELECTED PUBLIC SPACES IN COLOMBO

Tharuka Madurangi*, Janaka Dharmasena**

Department of Architecture, University of Moratuwa, Moratuwa, Sri Lanka

ABSTRACT

Public spaces are vital for a vibrant and healthy urban society. It is pertinent to design such public spaces with very specific and clear intentions. Sri Lankan cities do not have many designed public spaces. When they have, they are either from colonial time or the very recent past without any continuity in between. Parks and squares that are recognized as public spaces in the local context, sometimes are not purposefully designed or developed as spaces with appropriate morphological elements. The effectiveness of public places will be greatly increased if appropriate morphological characteristics are taken into account at the design stage. Some of these characteristics are Edge Character, Visual Profile of the Top Edge and Edge set back of the surrounding built fabric. These characteristics can be collectively labelled as '**Edge Responsiveness**'. Therefore, the aim of this study is to have an analysis of the characteristics at the edge of such designed public spaces in Colombo, Sri Lanka. This will help in creating more socially responsive urban spaces and will be useful as a design guideline for such work. The research focuses on four selected designed public space: two parks and two squares and their ability to satisfy the typologically appropriate design attributes. It is evident from the results of the analysis that the '**Edge**' is generally neglected or ignored when designing these spaces leading to less responsive public spaces.

Keywords: Design Urban Public Spaces, Urban Edge Responsiveness, Urban Space Typology, City Squares, Urban Parks

*Corresponding Authors: W.T. Madurangi, E-mail - tharukaweerakkody@yahoo.com
S.W.J.H. Dharmasena, E-mail- janakahedh@gmail.com

IMPACT ANALYSIS OF URBAN STREET EDGES OF RESIDENTIAL AREAS IN DHAKA, BANGLADESH

Nabila Sayed*, Nazmul Ahmed Roni*
Mohammad Saifuzzaman*

Department of Architecture, Primeasia University, Dhaka, Bangladesh

ABSTRACT

Streets act as circulation spaces for vehicles as well as fundamental public spaces for urban people. The edges of the streets are very significant elements, while defining the character of the streets. It is observed that, boundary elements in urban residential areas, generally form the edges of their adjacent streets. If the boundary elements respond to its context, it will create a coherence of private space and the public realm, which can improve the urban experience. Dhaka, being the busiest mega polis of Bangladesh, has been experiencing a boost in residential sector, where, the development is primarily focused on individual architectural entities, rather considering an overall view of the urban area as a holistic entity. It is found in most of the cases, that, private buildings are simply ignoring the outdoor public environment by erecting solid boundary elements. However, this type of boundary elements completely separates the private and public domain, which creates a negative effect on the street environment. Therefore, the main objective of this study is to explore the existing situation of street edges of urban residential areas in Dhaka, and also to identify the impact of different types of street edges on their surrounding environment. Henceforth, a small portion of Dhanmondi, the oldest planned residential area of Dhaka, has been taken as study area. This research was principally based on observation and field survey. Books, journals, documents from websites etc. are the sources of secondary data. It is clearly demonstrated that, visually and physically permeable street edges create positive environmental scopes for both commuters and dwellers.

Keywords: Urban area, Residential area, Street edge, Boundary element, Foot path, Setback

*Corresponding Authors: Nabila Sayed; E-mail- 124arch0719@gmail.com

Nazmul Ahmed Roni; E-mail- 124arch0710@gmail.com

Mohammad Saifuzzaman; E-mail- zaman_arch1122@yahoo.com

INTEGRATING WORKSPACES AND COMMUNAL SPACES FOR IMPROVING BUILT ENVIRONMENT OF DHOBI GHAT COMMUNITY IN KARACHI

Sanober Khan*

NED University of Engineering and Technology, Department of
Architecture and Planning, Karachi, Pakistan,

ABSTRACT

Have you ever experienced hiring a person who can take dirty clothes from your doorstep, wash them and bring them back to you ironed? In South-Asian context this type of service providers are known as DHOBI and the place where they wash clothes is known as Ghat, this place is known as DHOBI GHAT. They live- work in communities, to earn money for their household expenses.

This research sheds light on the understanding of Dhobi Ghats and how they are made operational. This research demonstrates the oldest Dhobi Ghat community of Karachi along the Lyari River, site also served as only breathing space in neighbourhood comprising of concrete jungle. Since, it was considered as the largest open-air laundry in Asia. This Dhobi Ghat spreads 11 acres along fresh water river bed, but now river is much polluted. It employs 500 workers who work and live in the same neighbourhood.

Dhobi Ghat has served Karachi even before the time of independence. The aim of research was to specify the lack of connectivity between site and community after the working hours, and this space become deserted for neighbourhood. Furthermore, this tradition is gradually vanishing in their new generations.

Research is based on observations, primary data collection through various resources including interviews with community and corresponding authorities. International case studies were taken to understand the world-wide working scenario of washing culture. Secondary data sorted out through various reports, journals, books and internet.

The finding indicates inappropriate working conditions. Also, community suffer their living spaces for their work. This pattern of lifestyle not only disturbs the individual, but also impacting on whole society.

*Corresponding Author: Sanober Khan; E-mail- ar.sanober.khan@gmail.com

In conclusion, the Dhobi community is in need to revitalize the necessities for stability purpose. And, need to remove barrier between community and neighbourhood workspace for the betterment of livelihood.

Keywords: Dhobi Ghat, Karachi, Liyari River, Communal workspaces, Traditional washing ways, cultural-specific community.

“TO SEE WITHOUT BEING SEEN” LANDSCAPE PERCEPTION WITH PRIMITIVE HUMAN PREFERENCES IN URBAN RESTORATIVE ENVIRONMENTS

Gayathri Kawshalya*, Janaka Dharmasena**

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

The ambiguous relationship between humans and the environment runs back to millions of years and the concept 'to see without being seen' has been evolved from that era. As Appleton J claims, in his Habitat theory, the genes of our ancestors who preferred such environments are still with us and we still prefer environments with our biological instincts. Appleton interprets the environments which support the ability to see as 'prospects' and the environments which support not to be seen as the 'refuges' in his prospect-refuge theory. The perception or the preference of the users has been the most impacted factor in the success of any designed space. In this study four different Urban Restorative Environments have been selected to test the 'prospects' and 'refuges' preference of the users of those places. This is tested under four aspects of the 'prospects-refuges' relationship such as; Strong prospect (open view, open observing point), Inversely balanced (close view, open observing point), Perfectly balanced (open view and closed observing point) and Strong refuge (close view and close observing point) in order to inquire the subjective perspective of preference which claims that the preference is based on the individuals. The perception of the selected spaces of Beddagana Wetland Park, Sri Jayawardanepura Kotte and Diyasaru Park, Thalawathugoda has been explored with the normal users as well as the experts in the Landscape design field. This study shows that the highest preference from both the user groups has been towards the 'Perfectly balanced' prospect refuge scenario which supports the ability to see without being seen. This result may be useful in designing specific spaces of urban landscapes.

Keywords: Landscape perception, subjective, Prospect, Refuge, Urban restorative environments

*Corresponding Authors: Gayathri Kawshalya; E-mail- gaya3kawshalya93@gmail.com
S.W.J.H. Dharmasena E-mail- janakahedh@gmail.com

EXPERIENCING LANDSCAPES WITH SPATIAL NAVIGATION BY VISUALLY IMPAIRED CHILDREN OF THE BLIND SCHOOL, RATMALANA, SRI LANKA

D. J. A. M. P. Karunanayaka* , A. A. Hettiarachchi

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Navigation through the environment helps experiencing the landscape by all the users including the ones who are having different sensory capabilities. The current research study focuses on spatial navigation of visually impaired in experiencing landscape Architecture. The research objectives were to explore the nature of sensual perception and the parameters pertaining to experiencing a familiar Architectural landscape by visually impaired children leading to favored and dis-favored navigations. The research study was conducted with a sample of visually impaired children (n=10, age=15-20, male: 5 and female: 5), who are students of blind school, Ratmalana. Sensory Ethnography was adopted as the principal method and the data collection was done via small group observations, interviews and discussions. The hierarchy of sensory modalities associated with perception of visually impaired was identified as; haptic perception (34.5%), auditory perception (34.5%), olfactory perception (14%) and visual perception (17%) respectively. The psychological factors associated with overall navigation of visually impaired were recognized as; sense of comfort (30.5%), sense of freedom (21%), sense of discomfort (30.5%), sense of safety (9%) and sense of being unsafe (9%). The significant parameters leading to favored navigation were identified as less distance to the destination, availability of solid and void difference, natural ventilation, thermal comfort, connections to nature, less glare and being uncrowned. Dis-favored navigation were found to associate with more distance, crowded spaces, more turn-offs in the paths, darker spaces, spaces with more glare and noise. This investigation highlights the importance of transcending beyond the bias of vision and addressing different perception modalities when designing landscape architectural interventions to achieve optimal and inclusive spatial navigation.

Keywords: Visually impaired, Sense, Perception, Experiencing the landscape, Ratmalana, Sri Lanka

*Corresponding Author: D. J. A. M. P. Karunanayaka; E-mail- madusanka.praba@gmail.com

CITY AND TERRORISM MAPPING THE IMPACT OF TERROR AND PARANOIA ON URBAN CULTURE AND FABRIC OF LAHORE CITY

Hafsa Imtiaz*

National College of Arts, Lahore, Pakistan

ABSTRACT

Post 9/11 saw a shift in the way people started behaving, using and even looking at the city of Lahore, although the transformation remained subtle and slow. Starting in 2006 Lahore saw malicious terrorist attacks which targeted government buildings, public and religious places. It has been recorded by "CIRCLE" that the attacks in "Punjab account for only 18% of attacks in the whole of the country, yet in terms of deaths, Punjab is 18 percent of the casualty figure of KPK and 19 percent of the casualty figure of FATA".¹

The past decade has taken its toll on the city of Lahore, impacting the physical as well as the social fabric of the city. Terrorism has given rise to an environment of "insecurity" in Lahore, which is rapidly reshaping not only the fabric of the city but the everyday life of the residents and the socio-economic dynamics as well. The strength of this fear can be measured by understanding how people behave, move (in the city), interact, use and reminisce public spaces. In such conditions fear and paranoia becomes one of the most important tools for its people to map the city and to understand society in its true form it becomes imperative to understand the fabric of the city within such realm. The paper shall aim to understate various kinds of violence and terrorism forms prevailing in the city, their evolution. Mapping of the area of Mall road shall be used to understand the direct impact in terms of design elements that have altered the fabric of the place and photographic survey shall be done to highlight the transformation in the built environment over the years.

Keywords: Terror, fear, paranoia, city, mapping, public spaces, public buildings,

*Corresponding Author: Hafsa Imtiaz; E-mail- hafsaimtiaz@gmail.com

SAND MINING: A STUDY OF SPATIAL CHANGES IN IMMEDIATE LANDSCAPE WITH REFERENCE TO A CASE OF MAHAWELI RIVER

H. M. C. Shashiprabha Herath^{*}, U. G. D. Weerasinghe

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

In recent times, proportion of using natural resources has increased with the emerging construction industries all over the world. After the industrial revolution, the mechanized activities were highly demanded because of its higher efficiency. Therefore the manual practices were slipped away from the society with the introduction of mechanized activities in order to fulfill this demand.

Therefore the need of effective conservation strategies was identified by every country to control and preserve these natural resources. But the case emerges where these legal bodies fail to minimize unauthorized use of natural resources. However, it will lead to a stress on resource management for the future generations.

This research based on a case of sand mining that leads to stress towards the immediate landscape to meet goals of a group of people. In fact, the issues on sand mining emerged in recent past in Sri Lanka to meet the economic advancement of people. There is a conflict between regulations or the actions that take to control environmental degradation and social behaviors of the context. And the other hand the need of addressing sustainable development strategies which consider human as an equal owner of natural systems emerged more than the ecological balance which may consider human as a disturbance of these natural systems.

Therefore this study based on both physical and social alterations cause form sand mining of Mahaweli River. Yet this has been understood as separate cases in many types of research. The significant changes on the landscape which are impacted by social and physical consequences analyze by using a theoretical model.

However, it assesses the relative impacts on landscape composition and configuration based on physical structure. And place attachment of people based on its identity, dependence, social bonding and place expectation.

^{*}Corresponding Author: H. M. C. Shashiprabha Herath; E-mail- chathu93108@gmail.com

PENAL MODIFICATIONS: THE ANGLOCIZING OF TE WHANGANUI A TARA

Christine McCarthy*

School of Architecture, Victoria University, Wellington, New Zealand

ABSTRACT

This paper examines the urban modifications made by prisoners which contributed to the development and conversion of Te Whanganui a Tara (lit=the great harbour of Tara) into the Anglo-colonial city of Wellington in New Zealand. The importance of prison labour in the creation of urban places was particularly supported by the needs of the colony, as Pratt notes in *Punishment in a perfect society* "it was claimed that "as labour is scarce in the colony, the best practical remedy would seem to be to authorize [the prisoners'] detention in the colony and their employment at hard labour on some useful public work" (p88). The new town-cum-city was both shaped by inmates and, as its making was hard labour punishment, directed its prisoner-makers towards a desired Victorian reformation. The paper documents the prison labour deployed in the creation of New Zealand's capital city, with a particular emphasis on road-making and public institutions, and considers the social ramifications of the seemingly pervasive presence of prisoners throughout this urban space and their interface with other Wellington citizens.

Keywords: Prison labour gangs, chain gangs, urban space, public space, New Zealand, Wellington.

*Corresponding Author: Christine McCarthy; E-mail- christine.mccarthy@vuw.ac.nz

STUDY ON THE IMPACT OF LINES, FORMS AND TEXTURES OF HARD LANDSCAPE MATERIALS IN PROVIDING SENSE OF DIRECTION IN STREETSCAPES

H. R. N. Irangika*, A. A. Hettiarachchi

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Street design is a vital element in creating a pedestrian-friendly environment. The manner as to how hard landscape materials have been integrated in streetscapes play a vital role in assisting the movement and behavior of pedestrians. The current investigation looks in to the influence of design elements; line, form and textures of hard landscape materials in providing sense of direction for the pedestrians.

Two streetscapes having specific characteristics were selected as cases within the urban context of Colombo namely around Independence Arcade and Viharamahadewi Park. Data collection was done using a questionnaire survey with randomly selected pedestrians and via a photographic survey.

The research affirmed that the influence of lines, forms and textures acts positively in designing streetscapes in the urban cities. Pedestrians were found to be more aware on using the hard landscape materials in streetscapes. They demonstrated the ability to sense landscape materials and their subtle changes in lines, forms and textures. The sense of materials, pedestrian movement pattern and material qualities were influencing in aiding the sense of direction by the said design elements in the streetscapes. Colour and pattern of the hard landscape materials were found as other factors influencing the human sense of direction.

The overall data represents that 22% of the interlock paving, 20% of curbs, 17% of concrete paving and 15% of tar were sensed by the pedestrians within these case studies. Textures, forms and lines of these materials contributed 26%, 23% and 20% respectively in providing the sense of direction through the above hard landscape materials. Accordingly, careful manipulation of lines, forms and textures of the hard landscape materials was found as useful in designing the streetscapes in providing the sense of direction for pedestrians.

Keywords: Landscape, streetscapes, pedestrians, lines, forms, textures, hard landscape materials

*Corresponding Author: H. R. N. Irangika; E-mail- nadeeshairangika@gmail.com

EFFECTIVENESS OF ADOPTED URBAN SPACES FOR SOCIAL ACTIVITIES: A STUDY WITH REFERENCE TO KANDY CITY

E. G. C. L. Edirisinghe*, Janaka Dharmasena

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

The adopted urban spaces are considered as pivotal for social activities in cities throughout the history. These spaces reflect the complexities of their cities' "social", "economical" and "cultural" contexts. Also adopted spaces contrast the activity patterns in urban areas. Recently done scholarly researches have stated that most urban public spaces are designed without considering human activity patterns and their adopted spaces. Those are declined with the development projects according to the lack of investigation on them. There for it becomes a pertinent issue to drive a scholarly research on the subject matter and reveal the opportunities as same as the relationships between the adopted spaces and the social activities.

This research related to the need of, understanding the relationship of social activity patterns, adopted urban spaces and role of adopted spaces in urban context to fill the gaps of social activity web. It was done based on the place making theories and principles combining with some of the scholarly statements about human perception on spaces. Study has focused on how adopted spaces are related to the social activities and what are the significant factors of adopted spaces which influencing the social activities. According to the theories, five factors were selected as tools to measure the effectiveness of adopted spaces as "Variety", "Comfort", "Safety", "Permeability" and "Scale".

Kandy city was selected to study the phenomenon. A literature survey mix method of qualitative and quantitative surveys with field observations and questionnaire based interviews were used for data collecting. Further, raw data were analyzed by using Activity maps, Space syntax methods and using logical comparisons.

The study shows that measured five factors influenced people for their social activities and activity patterns promotes to create the spaces which are responsive for need and interactions and it further strengths the interrelationship between spaces. This research offers

*Corresponding Author: E. G. C. L. Edirisinghe;

insights for the future developments which could be able to negative further landscape architectural design processes.

Key words – Adopted urban spaces, Social activities, activity patterns, urban public spaces, Effectiveness

KNOWLEDGE TRANSFERRING LANDSCAPE: STUDY OF NATURE RESPONDING QUALITY IN VERNACULAR LANDSCAPE ARCHITECTURE WITH SPATIAL REFERENCE TO RITIGALA

T. M. Nishan Gunathilaka*, A. A. Hettiarachchi
Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

The modern developments based on economic value or the identity of a place with its significant characteristics without considering the historic image or the spirit of the place cause negative consequences as we experience today. If the knowledge behind landscape may not transferring, it will create conflicted landscapes in future. Therefore, this research emphasize that the ancient designers' constructions of natural phenomenon directly affect the flow of knowledge; at least that facts can be emphasized within the new developments.

Development and change in historical landscapes cannot be avoided. Nonetheless, conservation cannot be neglected either, since it holds the responsibility for preserving the proud history, image, spirit of place and ancient, traditional knowledge base these historic locations embody. However, there can be conflicting situations with such developments adversely affecting its ability to transfer authentic knowledge to the present. Understanding the parameters which need to be preserved in order to support knowledge transferring ability of a historical landscape will be a plus point during these inevitable processes of development and conservation for the future generations to have a real image about the past.

The existing literature suggests that landscapes have the ability of transferring knowledge to the contemporary users. The study hypothesized that the quality of responding and designing in harmony with nature in ancient designing is a means of transferring knowledge of its history to present generations. Ritigala, which was built according to natural factors and components having less modifications and disturbances due to development has been investigated as a case study.

Theoretical framework was built by using the philosophy of empiricism, theories of landscape and knowledge transformation, Kaplan's

*Corresponding Author: T. M. Nishan Gunathilaka; E-mail- nishan10th@gmail.com

information processing theory and Kevin Lynch's imageability concept. As identified by the pilot survey, most of the Sri Lankan visitors demonstrated to have a pre-conceived knowledge about Ritigala, before visiting the site. Thus, foreign visitors having a lesser knowledge about Ritigala were selected as respondents of the final questionnaire survey for valid results.

The study revealed that the nature responding quality which was adopted during the design and construction of Ritigala has clearly affected its ability to communicate with the visitors as a medium of knowledge transfer. It is recommended to conduct further studies considering other vernacular landscape parameters such as influence of Buddhism and influence of India.

Keywords - Landscape, knowledge transformation, vernacular landscape, empiricism

RAILWAY TRANSFERENCE URBANISM: RAILWAY STATION AS A POTENTIAL SOCIO-ECONOMIC URBAN COMPONENT

Lubabah Sadia*, Srijon Barua, Simita Roy

Department of Architecture, University of Asia Pacific, Bangladesh

ABSTRACT

Railway transit corridor routes of 2855 Km in Bangladesh is cohesively integrated with important sections of the existing urban fabric of the country. Almost 65 million passengers and 2.52 million tons of freight are carried each year by railways in Bangladesh. At present, the role of railway transits and the urbanity surrounding railway stations in Dhaka city are almost greyed out to the least as they are neither encouraged nor promptly used as daily commuter modes. As a result, the ease of transference of urban people is now in an alarming condition throughout the city.

The research focuses on formulating a land use policy that can promote the railway transference by improving the relations among the urban-built environment, user groups and their economic activities in the Tejgaon station area, a major railway transit of Dhaka city. Regarding the 1200 m radius of Transit Oriented Development (TOD), the study involved participants' observations including an ethnographic study and a questionnaire survey for the collection of both qualitative and quantitative data. The sample context Tejgaonis the core industrial area of Dhaka city that is adjacent to Kawran Bazar, which is the largest wholesale and retail kitchen raw market of the city. Kawran Bazar is intricately connected with the kitchen raw economy of at least twelve districts of the country.

This paper explores the transference potential of high speed locomotion of railway by finding and proposing new & efficient land use programs among the user group of the railway station, adjacent wholesale market economy and the neighbourhood units. Design strategies proposes balance of the 'non-place' with dynamic urban place. Finally, an integrated plan is suggested to balance different layers of urban movement for pedestrian, vehicular and locomotives to foster better mobility performance in each of aforementioned scenarios.

Keywords: Transference, Urbanism, Locomotion, non-place, TOD, community, Interaction

*Corresponding Author: Lubabah Sadia; E-mail- lubabah.sadia@gmail.com

THE IMPACT OF TRANSFORMATION OF CULTURAL LANDSCAPE ON SOCIAL BEHAVIORAL PATTERNS IN JAFFNA

Umakaran Menalanan*, D. P. Chandrasekara

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Jaffna city contains a distinctive social identity. The recognition of the Jaffna historical towns and their character as well as living atmospheres have been under threat since 1980, as a result of civil war, urbanization, and some other intangible factors. The meaningful environment features should be the sense of community and its attachment, recognition, continuity and longevity with the atmosphere we live in. The meaningful environment should be prevailed even though the social behavioral patterns and cultural landscape are being changed. Unfortunately, all the features that make a city unique and add value to the community are continuing to disappear. Therefore, it is imperative to ascertain the reasons behind the changes and provide necessary solutions through findings. The Information Processing Theory and the Place Identity Theory are being applied to analyze and strengthen the transformation of the cultural landscape and the social behavioral patterns. There are several attributes that impact on the behavioral patterns of the people. Case study areas are selected to analyze and visualize the transformation of cultural landscape for it often changes periodically. Considering all these factors, a proper landscape management is desperately needed to preserve the character of Jaffna and its social identity in order to enhance the future of Jaffna.

Keywords: Urbanization, Place attachment, Identity, Continuity, Cultural landscape, Information processing theory, Place identity theory, social behavioral pattern.

*Corresponding Author: Umakaran Menalanan; E-mail- umena01@gmail.com

A STUDY OF FACTORS THAT INFLUENCE ON FORMATION OF DESIRE LINES IN URBAN LANDSCAPES

H. S. L. L. Perera*, Kowshika Gunasena

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Urban contexts consist of both designed pathways those are constructed by authorities and desire lines those are created by pedestrians themselves. The research study was focused on the factors that influence on formation of desire lines and their degree of contribution considering thirteen identified factors namely visual links, distance, topography variations, mental satisfaction, garbage levels, smoke levels, noise levels, regional superstitions, sense of openness, sense of mysteriousness, sense of naturalness, sense of safety and sense of complexity employing a sample of 20 participants from each selected case study areas, "Ali Mudukkuwa", "Pettah" and "Viharamahadevi park" using a questionnaire survey, interviews, discussions and observations.

Study revealed that short distance, visual links, sense of less complexity, crowd and sense of safety as the major factors that influence on formation of desire lines within "Urban core" areas. Shade, sense of calmness, sense of safety and sense of less complexity identified as the factors that have a major influence on forming desire lines in "Urban recreational spaces". For both spaces sense of openness, sense of less complexity, sense of safety and visual links factors are common. Major finding of the study is that the urban dwellers in "Urban core" areas tend to create desire lines to make their lives more convenient within the city rather than feasting their minds and bodies. Unlike "Urban core" areas, people who use "Urban recreational spaces" tend to create desire lines on the basis of feasting their minds and bodies. But no matter whether it is an "Urban core" area or "Urban recreational space" people pay their attention on the sense of security when creating their own paths/ desire lines.

The influence of the gender, time of the day and weather effects were not studied and it is recommended to continue the further studies considering above mentioned facts with a larger sample size.

Keywords – Urban core, desire lines, designed pathways, urban recreational space

*Corresponding Author: H. S. L. L. Perera; E-mail- nadeeshairangika@gmail.com

AN INVESTIGATION OF GREEN SPACE WITHIN HIGH-RISE CONDOMINIUM SITES IN SRI LANKA

Nadeeka Jayaweera* , **Supun Rodrigo*** , **Jeyanthi Nadaraja***
Upendra Rajapaksha*

Department of Architecture, Faculty of Architecture, University of Moratuwa, Sri Lanka

Chathuri Jayasinghe*

Department of Statistics, Faculty of Applied Sciences, University of Jayawardenapura, Sri Lanka

ABSTRACT

Green spaces in cities have a positive impact on the health of the urban population as well as decrease urban heat Island effects. Therefore, green and open space should not be considered a luxury but an integral part of urban planning. For the purpose of this study a space is considered as a “green space” if the land cover has vegetation. The study investigates the impact of high-density housing developments in the Colombo city and its suburbs on green space. 90% of small Condominium developments (number of units ranging from 15 to 65) and 50% of large condominium developments (over 65 units) had less than 1% of green space on site.

The reason for lack of green space was found to be high plot coverage, high FAR, small site extent and no landscape, communal space and green buffer requirement in the current planning and building regulations for condominium developments.

Keywords: Condominium, green space, Sri Lanka, planning, sustainability

*Corresponding Authors: N Jayaweera; E-mail- njayaweera@uom.com
S Rodrigo; E-mail- rodrigo.usn@gmail.com
J Nadaraja; E-mail- jeneenadaraja@gmail.com
RMKU Rajapaksha; E-mail- upendra@uom.com
C L Jayasinghe; E-mail- chathuri@sjp.ac.lk

MONITORING OF HISTORICAL/HERITAGE SITES WITH INTERNET OF THINGS

Mohamed Fazil Mohamed Firdhous*

Faculty of Information Technology, University of Moratuwa, Sri Lanka

ABSTRACT

Historical or heritage sites including buildings, monuments and other structures are considered an important asset for any country or society. They not only reflect the cultural past but also have strategic and economic significance to both the country and the people living in that area. UNESCO has declared the heritage sites belong to the entire world irrespective of where are actually located. Hence governments and other organizations make special efforts to preserve them. One of the important pre-requisites for effective conservation is the proactive monitoring of them. An effective monitoring scheme needs to monitor these sites around the clock and alert the responsible parties when immediate attention is required. This paper presents a model for using Internet of Things for effective monitoring of heritage sites and artifacts along with a prototype system that has been developed for this purpose.

Keywords: Internet of Things, heritage sites and artifacts, tourist attraction, monitoring, Arduino BT, prototype.

*Corresponding Author: Mohamed Fazil Mohamed Firdhous; E-mail- firdhous@uom.lk

THE ROLE OF LANDSCAPE IN PLACE ATTACHMENT: A STUDY OF KAMACHCHODAI AND MORA WALA LOCALES AT NEGOMBO

J. S. M. B. Silva*, D. P. Chandrasekara

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

The human attachments are created physically and mentally which are either materialistic or non-materialistic. The strong bonds people develop with their memories, surroundings, locations, senses and people since birth, is known generally as “attachments”. When an attachment is developed with a particular place it is further defined as “place attachment”. This subject has gained much scientific attention in recent years as a topic interwoven with social sciences and has not been much highlighted in the perspective of landscape architecture. Therefore, this research questions, the impacts and role of landscape in the subject of place attachment. The paper discusses place attachment based on theories by scholars such as Law and Altman and subsequently focuses on the element of “landscape” within it, through literature based on landscape such as that of Robert B. Riley. Space, place and people complement each other by coexisting, thereby defining the landscape and creating an intriguing discussion within the study. Since people and landscape are broad topics, the study limits to a particular landscape with a specific group of users. The selected case studies are two significant landmarks in Sri Lanka, namely; Negombo Mora Wala and Kamachchodai Pola. The research was done by interviewing people, as a human dimension which plays a major role. Subsequently various impacts on place attachment, the landscape and its people were studied as the basic material, within which particular elements according theoretical framework based on the tripartite model theory, were focused in depth through data collection and analysis. An idea on the role of landscape within place attachment is apprehended through comparison and analytical discussions and observations of the existing situation of the sites with the theoretical framework formulated.

Key Words: Place attachment, landscape, place, space, people, place identity, sense of place

*Corresponding Author: J.S.M.B. Silva; E-mail- jellzmarie.jay@gmail.com

A STUDY ON IMPORTANCE OF BLUE SPACE IN URBAN PARKS TO HUMAN WELL-BEING, WITH REFERENCE TO COLOMBO CITY, SRI LANKA

Shameen Randika Dharmasena*

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Urbanization reach to human with lot of positive and negative impacts on their lifestyle. Urban parks are introduced to create healthy living environments in urbanized areas. Blue spaces and Green spaces are two relative terms, but with different meanings, used in urban parks. The two spaces collectively play an important role in achieving health and well-being through urban parks. The study is focused on the blue spaces in urban parks.

Health and well-being is a widely discussed field in research. Main three pillars of human well-being identified as, mental well-being, physical well-being and social well-being. The main objective of the study is highlighting the importance of blue spaces in urban parks to human well-being under three categories, mental, physical and social well-being. The study designed as a non-systematic qualitative research, by analyzing three urban parks in Colombo city as case studies. The data collected through maps, photographs and observations. The data analyzed as a parallel analysis with three case studies.

Among three selected urban parks, 'Diyatha Uyana' park has 'very positive' support from blue spaces to mental and social well-being, while having 'moderate support' to physical well-being. In 'Weras Ganga' park has 'very positive' support from blue spaces to mental and physical well-being and 'moderate' support for social well-being. In 'Urban Wetland Park', has 'negative' support from blue spaces to mental and social well-being and 'moderate' support for the physical well-being. Further studies need to be carried out with quantitative measures to identify the influence of blue spaces to human well-being, produce parameters for blue spaces and can implement the results in planning and designing stages of urban parks in cities.

Keywords: Urban Parks, Blue Spaces, Mental Well-being, Physical Well-being, Social Well-being

*Corresponding Author: Shameen Dharmasena; E-mail- shameen1990@gmail.com

IMPACT OF URBAN PARKS ON WELL-BEING OF NEIGHBOURHOOD RESIDENTS

Binushka Suvimal*, **Janaka Dharmasena****

Department of Architecture, University of Moratuwa, Sri Lanka

ABSTRACT

Landscape architecture is a field which can enrich the well-being of the human that enhance the quality of life. Although the definite relationship is yet to be discovered, the studies of well-being incorporates the concepts of satisfaction with life and the positive effects discussed under health, psychology, sociology etc. Objective of this qualitative investigation is to enquire the impact of urban parks on well-being of the neighbourhood residents under three variable factors such as Physical, Mental, and Social. This study measures the perceptions and preferences of population through their daily schedules, experiences and satisfaction assessed by user's preference on thirteen identified variables influenced from three well-being factors (Physical, Social, and Mental). 20 participants from each park (total 60) were interviewed with a Questionnaire developed to assess the well-being of the neighbourhood of three urban parks (Wetland Park Nugegoda, Weras Ganga Park Bellanviila and Crow island Beach Park in Mattakkuliya) in Colombo. The findings revealed that the Physical and mental well-being has been positively affected while the social wellbeing shows a minor impact by the selected urban parks in Sri Lanka. Another observation of the study is that the impact on social wellbeing is comparatively low in every park while the Crow Island Beach Park showed relatively higher social wellbeing index compared to the others. Whether it is due the design of the park or the more socially inclined lower income category who frequent this park more regularly could not be concluded from this survey, but further research could attend this matter. From the study it is evident that Physical, mental supportiveness is positively provided by the urban parks, but however supportiveness for the social well-being is not delivered to that extent to the nearby residents.

Keywords: Landscape well-being, urban parks, neighbourhood residents, Supportiveness

*Corresponding Authors: Binushka Suvimal, E-mail -binushka93@gmail.com
S.W.J.H. Dharmasena, E-mail- janakahedh@gmail.com

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