THE PETRONAS TWIN TOWERS AND THE KUALA LUMPUR CITY CENTRE
FROM THE PERSPECTIVE OF CRITICAL REGIONALISM

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A thesis submitted in fulfilment of the
requirements for the award of the degree of
Master of Architecture

Faculty of Built Environment
Universiti Teknologi Malaysia

JUNE 2012
To my beloved parents
ACKNOWLEDGEMENTS

I would like to extend my profound gratitude to my supervisor, Dr. Gurupiah Mursib, who worked effortlessly to see that I finished my work with good quality, for the knowledge she impacted on me and for her kindness. I am also thankful to Assoc. Prof. Mohammad Jaffar and Dr. Muktar Mai for the light they showed me in my thesis.

I am also thankful to my colleagues at the research lab for their support, advice and their assistance at various occasions. To Dodo Yakub, Juliet, Jibril, Idris, Lesa, my uncles Saidu and Abdulrahman, and my many other friends unfortunately it is impossible to mention all their names because of the limited space. Their views and tips were useful indeed. A very special thanks to my sisters, brother and my family members, I am indeed grateful.
Critical regionalism is a post modern theory conceived as an architecture of resistance to bring back humanistic agenda to architecture to create a contemporary regional identity, an aspect which modernism neglected. This thesis cites an already established strategy of critical regionalism which is a combination of the visions of the progenitors of the theory. This thesis groups these strategies into place-making and place-form making concepts, and distinguishes them through the meanings which they manifest through experience of place and physical form of place respectively. The purpose of this research was to use place-making and place-form making concepts to examine how the mega development of Petronas Twin Towers and Kuala Lumpur City Centre (KLCC) established meaning in the built-form using place making and place-form making concepts. Human agenda in architecture is manifested by shared meanings and experience of place that stimulate human response which are achievable through place making and place-form making methods. The thesis explored a descriptive and interpretative research methodology while simultaneously using critical regionalism as a theoretical lens to critically analyze the mega development of KLCC. The thesis strove to expand knowledge on critical regionalism through place making and place form making methods that stimulate human response and build a contemporary regional identity. Mega developments which are places for recreation, symbols of pride and community identity, like KLCC, should be developed with the intention and art of place making and place form making methods to stimulate human response. The thesis contribution to Malaysian context lies in the expansion of knowledge of critical regionalism because it is a concept that has not been established yet in Malaysia.
ABSTRAK

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LIST OF ABBREVIATIONS

JMI  - Jalan Masjid India
JP   - Jalan Petaling
JTAR - Jalan Tunku Abdulrahman
KLCC - Kuala Lumpur City Center
PTT  - Petronas Twin Towers
1.1 Overview

The surge of construction booms at an extreme pace and the infatuation with the machine age aesthetic provided by modern movement starting from the American mid west through central Europe to countries just coming through independence, resulted in the spread of architectural expression around the world that failed to respond to its context and setting. This in turn produced meaningless and placeless architecture marked by mediocre civilizations. Questions of representation and architectural language sprung up about the status of modern architecture and apologies were made. Critical regionalism represents a genre of architecture that provides solution to placelessness, homogeneity, world culture, dehumanization of architecture and environment; all of which encapsulated modernism. This new regionalism started in the late 1940’s till present as an awareness of, to an effort to counter the issues mentioned above 1.

The thesis reviews the emergence of critical regionalism as a strategy to counter the problems brought by modern and postmodern architecture. It shows the development of architect’s works as regional development in a globalized world.

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The thesis reviews a framework of the strategies of critical regionalism and uses this framework to analyse the development of Kuala Lumpur City Centre.

The thesis would reveal how a contemporary regional identity of a region was constructed through embracing the forces of globalization and mediating the values of a region. The thesis begins by suggesting that a new identity was born out of the consequence of building the Petronas Twin Towers (PTT) and place-making developed through the modes of production of Kuala Lumpur City Centre (KLCC). Foreign influences brings out diversity, prevents narrowness of ideas and nostalgia which is associated with sentiments and deep sense of emotions.

The thesis chose the PTT and the whole of KLCC development for analysis not as much as it is an icon, a symbol of Malaysian pride, a contemporary regional identity but also because it is a quintessential example of a cultural object in a social context; and its potential applicability to many megalopolitan situations around the world. With this it serves as a critique to architectural modernity’s social injustice for creating images and buildings that represents and suits the lifestyle of the elites.

The need to analyze the KLCC project from the framework of critical regionalism stems from the fact that critical regionalism as a genre of architecture is located at the interstices of humanities, with the aim of rehumanizing architecture and the built environment, its critique of social injustices and the need to establish human community.

Nature forms extended totalities of places and together with the man-made structure constitute an identity. The experience of a place is revealed in a building, site and self\(^2\). This research would therefore analyse the experience of PTT, the Masjid Asy-Syakirin (mosque), the Conventional Centre and the KLCC Park holistically, as buildings and site respectively for place-identities; and analyse them within the theoretical view of place-form and place-making concepts of critical regionalism. Through this approach the thesis would contribute to the understanding

of PTT as a contemporary regional identity and its contribution towards place-making of Kuala Lumpur City Centre through the framework of critical regionalism.

1.2 Issues: World Civilization and Mega Projects

It would seem that as we approach the second quarter of the 21st century the two primary issues facing modernity and humanity are environmental identity and experiential crisis. The two are related, one cannot be resolved without reducing the effects of the other. Everywhere we go we find the same bad movie, the same projected images, the same kind of design of places and spaces. Universalization of architectural expression through the standardized production of building component created meaningless architecture – an architecture without an identity and character; because of this a nation loses its genius loci (spirit of place), its self-consciousness of its own individuality (personality).

With the vast amount of iconic structures that pervades our city, what we see before our eyes are mediocre civilizations. Nowadays we are unable to differentiate which city or place we are situated in; Modern technology, through the internet and media, has prevented us from direct experience with places which is fundamental to understanding architecture at a deeper level.

Modern tourism through technology proved that the experience of different places is a major human interest but this idea becomes lost without its character as pollution, traffic congestion and noise has overcome this perception of thinking. We seem to constantly overlook a poor setting in a different way unlike when making decisions about an outfit or a car, maybe it is because the ramifications are not as subtle as a sense of place; yet the accumulation of bad place experience have been proven to be significant problem in places where universal civilization had dominated, humans begin to lose their ties with history. The character of a building is as important as its functionality.
Nowadays architects, designers and planners alike tend to put priority in design for cars around buildings than how pedestrians find their ways around buildings. Regions and cities are designed to favour highways for cars while industrialization has created skyscrapers which have resulted in social effects on people\(^3\). The paper can also find justification from the examples cited by the progenitors of this genre of architecture; where they cited many examples from Europe and parts of Asia but none from Malaysia.

1.3 Research Problem

The PTT and KLCC mega development was a product of Wawasan 2020 (Vision 2020); a programme launched in 1991 by the former Prime Minister Tun Dr. Mahathir Mohamad. It was a vision and target to transform Malaysia into a developed nation\(^4\). Therefore in order to put Malaysia on the map the Malaysian government saw the building industry as the engine of the economy\(^5\). Therefore, the PTT and KLCC would be constructed as part of this vision. Mega projects are perceived as massive buildings or infrastructure of a scale and cost implication as vast as hardly comprehensible to the common man. In 1991, the PTT and KLCC was the new mega project to be conceived as the image of the city and country. The PTT in particular was to be designed as a landmark and monument for national aspiration; from this perspective there is always a tendency to produce an internationalized image to satisfy the clientele’s vision\(^6\).

From the review of existing literature on PTT and KLCC by Cesar Pelli & Micheal Crosbie (2001), Galal Abada (2004) et al., there was no comprehensive study on KLCC and available studies only laid emphasis on the construction process of PTT, the concept of its form, material aesthetics, the structure, cultural symbolism,  

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services and design constraints during construction. Therefore there has been no comprehensive study on the PTT and KLCC in terms of its potential for humanism by addressing components that foster place making experiences (traditional or international). On the other hand critical regionalism is located at the interstices of humanism therefore it is suitable for analysing human projects like the PTT and KLCC. Gurupiah Mursib in her thesis ‘Regionalism Thinking in the Discourse of Malaysia’ (2007) outlined already established strategies by the progenitors of critical regionalism. This thesis groups these strategies into place making and place form making to analyse the mega development of KLCC and PTT and sees them as techniques that are able to heighten the awareness of buildings to stimulate human response and create a contemporary regional identity.

1.4 Aims

The main aim of this research is to use the strategies of critical regionalism outlined by Gurupiah Mursib, 2007 to critically analyse the mega development of Kuala Lumpur City Centre. Critical regionalism is a post modern theory driven by many ideologies that attempts to create a contemporary regional identity by focusing on contextual forces, aesthetic potentials of buildings structural and constructive modes and those consciousness-raising techniques that stimulate human responses. These issues make critical regionalism a diverse field which Gurupiah Mursib, 2007 articulates in her thesis. This thesis uses this strategy as a tool for studying the mega development of Kuala Lumpur City Centre and proposes this strategy for future developments.

1.5 Objectives

The objective of this thesis is:

i. To examine how the mega development of PTT and KLCC contributed in creating a contemporary regional identity.
ii. To use the theory of critical regionalism to examine the existence of meaning and human response through:
   - Place making
   - Place-form Making

### 1.6 Research Questions

The following statements are questions the thesis intends to answer at the end of the study.

i. What is the critical stance of critical regionalism in terms of mega development?

ii. What and how does humanism affect place-making and place-form making?

iii. Can the KLCC development demonstrate different approaches to the task of place-making and place-form making?

iv. Can the strategies of critical regionalism serve as a solution to the development of critical regionalism?

### 1.7 Significance of the Study

The following explains the rationale and implications of undertaking this research

i. The significance of reviewing the strategies of critical regionalism in this study would serve as a framework to study other architects works and mega developments.

ii. Through this framework it attempts to counter the current tendency of modern architecture’s idiosyncrasy of deriving its legitimacy from art, other than architecture and humanities.
iii. This discourse shows the significance of the KLCC project as a potential paradigm for future mega developments.

iv. Finally, the thesis hopes to serve as a cornerstone for understanding contemporary regional developments of other places and communities.

1.8 Research Methodology

In the adaptation of a research model of socio-physical environment by Amran Hamzah and Dann et al, by Gurupiah Mursib, 2007 in her thesis, she established four methods for research in a socio-physical phenomena, they are: empirical model, descriptive model, model theory and analytical model.

![Figure 1.1: Model review of descriptive and theoretical research in the context of the overall research model of socio-physical phenomena. (Adopted from Amran Hamzah and Dann et. Al, 1997)](image-url)
(i) **Empirical model:** It is concerned about the methodology rather than theory in understanding of positivism, review of an already measured phenomenon, and the use of empirical facts that exist independently from the observer. This model is widely used in experimental research within a controlled laboratory.

(ii) **Descriptive model:** It emphasizes naturalism approach between the observer and the subject, and this can be achieved in the form of descriptive naturalism which concedes to low theory. The model is mostly used in the ethnographic study of cultures in the natural environment such as villages.

(iii) **Theory Model:** Combines the descriptive techniques with platform theory. This method is widely used in the ethno methodology study, the combination of ethnography with a platform based on a specific theory.

(iv) **Analytic Theory:** It is the most scientific and excellent approach in terms of theory and methodology. This model is widely used in social science research to explain the phenomenon specialized in the analytical methods and supported by a foundation of knowledge based concept that is excellent.

1.9 **Descriptive Research and Research Theory**

This thesis combined the methods of descriptive research and research theory because it is suites the purpose of the study – placeness of PTT & KLCC and gives the research a step by step method for data collection. Descriptive research gives the opportunity to transform lived experience into written textual expressions – the essence of which is a reflexive reliving and reflective appropriation of something meaningful. The aim is to objectify personal lived experience in order to determine the meanings embodied in the study area. At the same time the relevance of combining it with a research theory is to work with a known framework to underpin thesis arguments.
Descriptive documentary is used at the literature review stage to review the theory of critical regionalism, to elaborate on the issues and strategies and to cite some architects works as regional development in a globalized world. The aim is to undercover meaning and increase knowledge; in order to do so, critical regionalism serves as an outlook tower for the descriptive research.

Descriptive research design usually involves observing, explaining and describing a phenomenon in a natural setting without influencing the behaviour in anyway. Descriptive research design is a unique way of establishing a hypothesis. Valerie Janesick (1994) in her book “The Dance of Qualitative Research Design” laments that whether you want to frame your work in terms of ‘Validity’, ‘Reliability’ and ‘Credibility’, what is important is the richness of information and the researcher remain passionate about uncovering meaning. She writes that it involves describing and explaining, and how a given description fits into a given explanation; substance is vital and ‘knowing’ becomes the desirable end.

1.10 Research Design and Framework

Research design and framework refers to the schemata for data acquisition, a hypothetical structure which shows a direction for the thesis. The figure 1.10 below further explicates this procedure. It consists of 4 main branches which include objectives, research methods, findings and data collection. The objective moves the thesis to the literature review; the literature review explains the evolution, conception and progenitors of critical regionalism. Through the literature the thesis would be able to establish a gap, make a hypothesis, narrate a framework and analyze the problem. The second wing consists of the research methodology which involves a combination of descriptive and research theory. The descriptive method involves a phenomenological approach which involves literal observation and describing. On the other hand the research theory serves as a lens for analysis which helps us to explain reason, support or reject and compare findings. The third wing is data collection which involves primary and secondary data collection. Primary data involves first hand information collected through field work while secondary data
involves data collected from literature to establish the intentions of the architects and stakeholders.

Figure 1.2: Research Design Framework (Adapted from Gurupiah Mursib). (Source: Authors).
Table 1.1 explains the field work done using descriptive research methodology in PTT and KLCC. The first column, the objective (what the thesis wants to know), begins with a question of inquiry that guides the field work - to enable the thesis choose the appropriate methodology shown in the third column. In the second column, the area of the study is chosen according to the rationale shown in the last column, to capture the meaning of the experience exhibited in the built environment. The fourth column is the time period needed to undertake the study.

**Table 1.1: Descriptive research done in PTT and KLCC. (Source: Authors).**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Area</th>
<th>Method</th>
<th>Time</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>To examine the social ideology of organizing tours to sky bridge</td>
<td>Sky bridge</td>
<td>Observation, interpretation and taking of photographs</td>
<td>30 mins</td>
<td>To interpret personal lived - experience derived from walking inside the sky bridge</td>
</tr>
<tr>
<td>To interpret response to craftsmanship</td>
<td>Entrance lobby</td>
<td>Observation through photography and comparison with parent source</td>
<td>undetermined</td>
<td>To determine regional aspects in the design of PTT</td>
</tr>
<tr>
<td>To interpret the influence of sunlight on stainless steel cladding of PTT</td>
<td>Outside the towers</td>
<td>Observation through photography</td>
<td>• Sunrise • Midday • Sunset</td>
<td>To establish the different scenery created by the sunlight on the visual appearance of the towers</td>
</tr>
<tr>
<td>To examine the different routes people take to the PTT &amp; KLCC</td>
<td>• Basement of PTT</td>
<td>Observing the channels through which visitors pass through while moving around KLCC site.</td>
<td>undetermined</td>
<td>To determine the accessibility of KLCC</td>
</tr>
<tr>
<td>To examine the visibility of PTT from different vantage positions around the city</td>
<td>• Jalan Tun Razak • Ampang road • North Klang expressway</td>
<td>Driving and observation through photography</td>
<td>undetermined</td>
<td>To establish the effect of the topography of KL on the way people view the PTT</td>
</tr>
</tbody>
</table>
To observe the skyline of PTT and Golden Triangle

Golden Triangle

Using pictures taken by the architect – Cesar Pelli

undetermined

To identify the skyline identity

To examine the inspiration behind the architecture of Masjid Asy Syakirin

Masjid Asy Syakirin

Comparison with Traditional Malay mosques and finding the parent source

undetermined

To establish the style of architecture

To examine the expression of civic design in PTT & KLCC

PTT & KLCC

Observation & interpretation of activities associated in the buildings

undetermined

To determine the social ideology the designs engenders

To examine regional and global design expressions in the designs of PTT & KLCC

PTT & KLCC

Observation & interpretation

undetermined

To determine the qualities of sense of place in the design

1.11 Limitations of the Study

This research is restricted to the setting of KLCC involving the PTT, the mosque (Masjid Asy-Syakirin), the convention centre and the park. It uses the strategies of critical regionalism cited by Gurupiah Mursib in her thesis as a framework for analysing the mega development of KLCC. The strategies would be further grouped into two headings: Place-Making and Place-Form making principles. Thus this thesis is therefore limited to the setting of PTT and KLCC and does not include the regional identity of Malaysian architecture.

1.12 Chapter Organization

The study is presented in 8 chapters. Chapter one discusses the issues, problems, objectives, methodology, significance and scope. Chapter two develops
the framework for understanding the concept of critical regionalism. It discusses the issues that raised regionalism thinking in the context of modern and post modern architecture. Chapter three reviews strategies developed by Gurupiah Mursib 2008 for critical regionalism. Chapter four introduces the three projects for analysis; it begins with the history behind the development of the KLCC project, and then gives an insight into the design of each project by looking at the plan and structural form. Chapter five discusses on the history of Malaysian traditional architecture and its transition into modern architecture. Chapter six uses the strategies mentioned in chapter for analyzing the KLCC projects. Chapter seven closes the study with results, discussion and conclusion.

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<th>Thesis Introduction</th>
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<td>• Issues</td>
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<td>• Research Problem</td>
<td></td>
</tr>
<tr>
<td>• Aims</td>
<td></td>
</tr>
<tr>
<td>• Objectives</td>
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<tr>
<td>• Research Questions</td>
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<tr>
<td>• Significance of the study</td>
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<tr>
<td>• Research Methodology</td>
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<td>• Research Design and Framework</td>
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<tr>
<td>• Scope and Limitations</td>
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<td>• Chapter organization</td>
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<table>
<thead>
<tr>
<th>CHAPTER 2</th>
<th>Critical Regionalism as Theoretical Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Proponents and their Concepts</td>
<td></td>
</tr>
<tr>
<td>• Critiques of the Theory</td>
<td></td>
</tr>
</tbody>
</table>

| • Critical Stance of 20th Century Developments |
| • Phenomenology |
| • Architecture Unauthenticated |
| • Paradox Clash of Values |
| • Devoid Humanity |

| • Critical Regionalism Proposals to Return to Humanity for contemporary Regional Identity |
| • Ecological Sustainability |
| • Optimization of Technology |
| • World Culture |
CHAPTER 3
Strategies to Return to Humanity for Contemporary Regional Identity
Stimulating Human Response through Place Making and Place Form Making Methods

Place-Form Making
• Regional Place-Form
• Architectonics
• Climatic and Environmental
• Defamiliarization
• Genius Loci

Place-Making
• Phenomenology
• Contextual
• Humanity and Community
• Cultural Sustainability

CHAPTER 4
Heritage of Malaysian Traditional Architecture and Transition into Modern Architecture

Malay Traditional Architecture
• Malay House
• Mosque

Chinese Traditional Architecture
• Courtyard House
• Temples
• Shop House

British Colonial Architecture
• Neo Classical
• Anglo Straits

Malaysian Transformation and Issue of Corporate Signature
High-Rise Buildings
• High-Rise Buildings
• Industrial/Commercial
• Regional thinking in High-Rise buildings

Summary

CHAPTER 5
PTT & KLCC Developments – History and Architecture

History
Before conception, Urban design, Site location

Projects
Petronas Twin Towers
KLCC Park
Masjid Asy Syakirin
Convention Centre

Design of Projects
Concept
Plan Form
Structural Form

CHAPTER 6
Critical Analysis of PTT & KLCC

Regional Place Form
• PTT
• Convention Centre
• Mosque

Architectonics
• PTT
• Mosque

Defamiliarization
• PTT

Visual vs. Tactile
• PTT

Climatic and Environmental
• PTT
• Convention Centre
• Mosque

Genius Loci
• PTT

Place Making
• PTT
• KLCC Park
• Mosque
• Convention Centre

Phenomenology
**Figure 1.3:** Diagrams showing stages of Research and chapter organisation (Source: Authors).
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