



**RESIDENT'S PERCEPTION AND EFFECTIVE  
SPATIAL PLANNING AND DESIGN ON  
PROPERTY CRIME**

**BY**

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for the degree of Master of Science (Built  
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## **ABSTRACT**

Shelter is a basic need of human life that needs to be met on a priority basis. Its definition in a widest sense includes an area of protection which assures/guarantees safe and secure environment. As crime rates keep on increasing especially property crime, the crime-prevention measure aspect has been taken into consideration in designing housing planning all over the world. The adverse effect of the crime in housing and community development has been highlighted in the literature. It is found that, crime cases had encouraged the fear of crime and simultaneously affected the quality of life. The levels of fear are different according to demographic background, for examples, gender and age, yet they are not significantly different according to the crime rates. This research involved three stages. Firstly, the questionnaires were distributed and observations were carried out to identify the background and the planning and design concept of six detailed areas in Petaling Jaya (PJ). Secondly, the results obtained were analysed using the Statistical Package for the Social Sciences (SPSS). In addition, the spatial and street plan analyses were conducted to analyse the concept and pattern of the design as well as to strengthen the statistical analysis. Finally, the relationship between demographic background and the levels of fear of crime was explored using correlation tests. Furthermore, spatial and street mapping were used to identify the planning and design variables that influenced crime activities. The results were utilised for a comparison between three levels of crime, and to see the relationship between related variables. The findings showed that the spatial planning and design affected the crime incidences. The passive design especially on the space organisation and function, street design and landscape ornament and maintenance contribute to provide a safer and comfortable environment. Furthermore, social interaction becomes the most essential part especially to develop an effective surveillance by residents. In a nutshell, this study demonstrated that the effective spatial planning and design must be emphasised in the neighbourhood development in order to provide an alternative to the physical prevention method.

## خلاصة البحث

الماوى يمثل حاجة اساسية للحياة البشرية التي تحتاج ان تتحقق على اساس الاولوية. تعريفه بمعنى اشمل يتضمن منطقة الحماية التي تضمن بيئة سليمة وامنة. بما ان معدل الجريمة فى ازدياد وخاصة جريمة الممتلكات، اتخذ جانب تدبير منع الجريمة بعين الاعتبار فى تصميم وتخطيط المساكن فى جميع انحاء العالم. فى استعراض الدراسات السابقة، سلط الضؤ على الاثار السلبية للجريمة فى مجال الإسكان وتنمية المجتمع. وجدت هذه الدراسات ان حالات الجريمة ادت الى الخوف من الجريمة وفى الوقت نفسه اثرت على نوعية الحياة. مستويات الخوف اختلفت وفقا للخلفية الديموغرافية ، مثلا اختلاف الجنسين (ذكر\انثى) ، والعمر، ومع ذلك لم تختلف كثيرا وفقا لمعدلات الجريمة. ينطوي هذا البحث على ثلاث مراحل. أولا ، تم توزيع الاستبيانات وتدوين الملاحظات لتحديد الخلفية ومفهوم التخطيط والتصميم فى ستة مناطق مفصلة فى بيتالينغ جايا (PJ). ثانيا ، تم تحليل النتائج التي تم الحصول عليها باستخدام حزمة الإحصائية للعلوم الاجتماعية (SPSS). اضافة الى ذلك اجريت التحليلات لخريطة الشوارع والمكان لتحليل مفهوم ونموذج ونمط التصميم وكذلك لتعزيز التحليل الاحصائي. واخيرا ، تم استكشاف العلاقة بين الخلفية الديموغرافية ومستويات الخوف من الجريمة باستخدام اختبارات العلاقات. وعلاوة على ذلك ، استخدمت خرائط المكان والشارع للتعرف على متغيرات التخطيط والتصميم التي تؤثر على أنشطة الجريمة. واستخدمت النتائج لإجراء مقارنة بين ثلاثة مستويات من الجريمة ، ومعرفة العلاقة بين المتغيرات ذات الصلة. وأظهرت النتائج أن التخطيط المكاني والتصميم أثرعلى وقوع الجريمة. كما ان التصميم الايجابي خصوصا على تنظيم ووظيفة المكان ، وتصميم الشارع وزينة المناظر الطبيعية والصيانة يساهم فى توفير بيئة آمنة ومريحة. وعلاوة على ذلك ، التفاعل الاجتماعي يصبح الجزء الأكثر أهمية خاصة لتطوير المراقبة الفعالة من جانب السكان. باختصار ، أظهرت هذه الدراسة أنه يجب التشديد على التخطيط والتصميم الفعال للمكان فى تطوير الحي من أجل توفير بديل لأسلوب الوقاية الطبيعية. المحافظة على الطبيعة ، الممرات البيئية الحضرية ، الممر الأخضر ، التوازن البيئي ، التنمية المحسنة

## APPROVAL PAGE

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## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Nurfadilah Binti Saadul Kurzi

Signature .....

Date.....

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*Nurfadilah Saadul Kurzi, July 2011*

*“I dedicate this research wholeheartedly to my beloved family;  
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## LIST OF ABBREVIATIONS

ABS	: Australian Bureau of Statistics
CCTV	: Closed Circuit Television
CPPD	: Centre of Public Policies Studies
CPTED	: Crime Prevention through Environmental Design
e.g.	: ( <i>Exempligratia</i> ); for example
et al.	: ( <i>et alia</i> ); and others
GACOS	: Gated and Guarded Community Schemes
GIS	: Geographical Information System
HCH	: High Crime Housing
IBE	: Islamic Built Environment
i.e.	: That is
JPBD	: Town and Country Planning Department ( <i>Jabatan Perancangan Bandar dan Desa</i> )
JPPMBPJ	: Urban and Regional Planning Department of Majlis Bandaraya Petaling Jaya
LCH	: Low Crime Housing
MBPJ	: Majlis Bandaraya Petaling Jaya
MCH	: Medium Crime Housing
MEOPSS	: Massachusetts Executive Office of Public Safety and Security
MQLI	: Malaysian Quality of Life
MP	: Malaysian Plan ( <i>Rancangan Malaysia</i> )
NCPC	: National Capital Planning Commission

NDP	: National Development Policy ( <i>Dasar Pembangunan Negara</i> )
NEP	: New Economic Policy ( <i>Dasar Ekonomi Baru</i> )
PBT	: Local Authority ( <i>Pihak Berkuasa Tempatan</i> )
PBUH	: Peace Be Upon Him (for prophet Muhammad)
PJLP	: Petaling Jaya Local Plan
RMPPF	: Royal Malaysian Police Force
RPC	: Royal Police Commission
SPSS	: Statistical Package for Social Science
UCR	: Uniform Crime Reporting
UN	: United Nation
UN Habitat	: Centre of Human Settlement of United Nation

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 BACKGROUND**

Shelter is a basic need of human life that needs to be met on a priority basis (Gelani, 1996). The definition of shelter itself is widely understood as an area of protection which assures/guarantees safe and secure environment. It is postulated that an increase in population will result in higher demands for housing. As people become more affluent, they are able to afford quality houses, paying special attention to the housing architecture. Besides, the spatial planning and design features are also the main components in the house compound. It is very much perceived as the manipulation of outdoor environment which concerns with health, safety and welfare issues (Hopper and Droge, 2006; Serageldin, 1996). According to Aldrin (2000) and Gelani (1996), the outdoor landscape is one of the features and symbols of territorial and social control by the governance and conveyed social access and interaction.

Islam has provided certain parameters and principles in building Muslim houses, which are derived from Al-Quran and Sunnah. The optimal model of Muslim housing should be bounded by three policy parameters, which are spatial extend, main focal point and population (Gelani, 1996). As explained by Hopper and Droge (2006) and Serageldin (1996), the design idea is based on the daily activity routines, space used for users' activities and their movements which identify the attachment of people with space that suits the functions and manipulation. In relation to safety, Islam constantly emphasis the social deals as its central capital for any developments. Rules have been set up as the attribute for built environment which with ideals formation of

variables environment could accommodate the safe social life (Gelani, 1996; Ozkan, 1996).

Nevertheless, crime has become one of the major concerns in housing planning and design all over the world. In Malaysia, crime has become the main subject taken up by all professionals involved in the housing development. Therefore, in order to combat criminal problems, architects, town planners, housing managers, residents and local communities need to work together, be more responsive and take on more responsibilities. Furthermore, spreading awareness on crime activities by media coverage is another strategy for crime prevention and safety program.

The idea of crime prevention through environmental design (CPTED) is to reduce crime and fear of crime through the physical environment that influence the behavioural aspects (Siti Rasidah and Aldrin, 2008; Dimmick, 2000; Aldrin, 1999). As stressed by Dimmick (2000), good design and effective manipulation of built environment are crucial in realising the objectives. In short, CPTED can be understood as the crime problem solution through environmental design with a combination approach of design strategies, community action and law enforcement. Therefore, the indicative of physical, social, and psychological needs come as the prior aspects in design studies.

Housing does not only provide shelters, but it also offers safety and comfort. As it comes as the basic needs of human-being, the emphasis on the quality and its environment is very substantial in order to ensure a higher standard of life (Zakiyah, Syarifah and Afifah, 2004).

## **1.2 STATEMENT OF THE PROBLEM**

Nowadays, crimes such as burglary and assault are on the rise, particularly in the cities. Those immoral deeds have threatened the safety of the residents and subsequently led to fear of victimisation and anxiety about crimes. These perceived fears have devastating consequences on the individual and family lives as well as on the society and institutional developments, where economic and social progress may halt.

The CPTED Watch Website in 2008 reported that the crime in housing areas become a fact of life nowadays where there is a rapid rise in the number of criminal cases without witness (Geason and Wilson, 1989). Crime as one of the social problems in the society affects thousands of people's lives each year. Serious crimes against persons and properties generate considerable fear within the community. Thus, the role of CPTED becomes significant to reduce the opportunities of crime and to improve the quality of life. The idea is to look at a whole range of parameters that involve strategies in design, community action and law enforcement that would be required to successfully achieve the objective of crime prevention.

Given the varied nature of crimes in Malaysia, the crime prevention measures are developed accordingly to reduce the criminals' capability, opportunity and intention to commit a crime. The Royal Police Commission (RPC) have listed nine challenges confronted by the Royal Malaysian Police (RMP) and one of them is property crimes which significantly increased from 29% since 1997 with 104,257 cases to 134, 595 cases in 2004 (Sidhu, 2008). As recorded by Sidhu (2008), the index of crime in 2007 by RMP showed that 90% of the crime reported involved property offences, while the rest 10% involved violence. Given the concern on the crime index, property crime was chosen as the specific subject of the study.

Different strategies have already been implemented to combat this issue. While preventive measures include punishments as a crime deterrent, the early stage of housing design is more concerned about providing a secured environment in fighting the crime. Physical environment is an influential attribute in directly facilitating or prohibiting the opportunity to commit crimes. Poor housing quality and degradation of physical environment are widely believed to perpetuate the cycle of crime. However, there is an implication where the cycle of crime exists. Thus, physical environment can lead to social consequences, which can either inhibit or enhance the opportunities of crime or in some ways; crime could turn out attracting other crimes. Therefore, this research accentuates the crucial subject to ensure that the design best avoids the possibility of displacing the crime (Dimmick, 2000). The research involves the problems of less consideration given to spatial planning and design that leads to crime incidences, and the effectiveness of CPTED concept in allocating a comfortable and safe residential environment.

### **1.3 RESEARCH HYPOTHESIS**

The effective spatial planning and design may reduce the property crime incidences, increase in the safety level, lessen the fear of crime and create residents' satisfaction of their neighbourhood.

### **1.4 RESEARCH QUESTIONS**

The research questions are developed in accordance to the research hypothesis, which are;

1. What are the residents' perceptions on the safety level and, planning and design measures in their residential area?

2. What is the planning and design concept of safety applied currently in the residential area?
3. What are the suitable planning and design variables for Malaysian terrace housings that are able to reduce property crimes?

### **1.5 RESEARCH AIM**

This study aims to identify the effective spatial planning and design variables that can reduce property crimes, create a safer housing environment and meet the residents' satisfaction of their neighbourhood.

### **1.6 RESEARCH OBJECTIVES**

In order to achieve the research aim, three objectives are listed as follows:

1. To determine the resident's perceptions on the safety level and, planning and design measures in their current residence.
2. To identify the current safety measures applied in spatial planning and design in the residential areas.
3. To propose effective spatial planning and design through outcomes of objectives (1) and (2) that can reduce property crime in Malaysian terrace housing.

### **1.7 RESEARCH METHODOLOGY**

This research seeks to develop an understanding of the importance of crime prevention method in the early stage of development of housing area. Besides, it also aims to promote awareness and enhance knowledge for every individual and organisations responsible for prevention measures. Therefore, the research

methodology is developed in a systematic way so that the research is carried out smoothly/uninterruptedly to achieve the best possible results, hence leading to sound spatial planning and design measures. There are five stages in this study and are depicted in Figure 1.1.

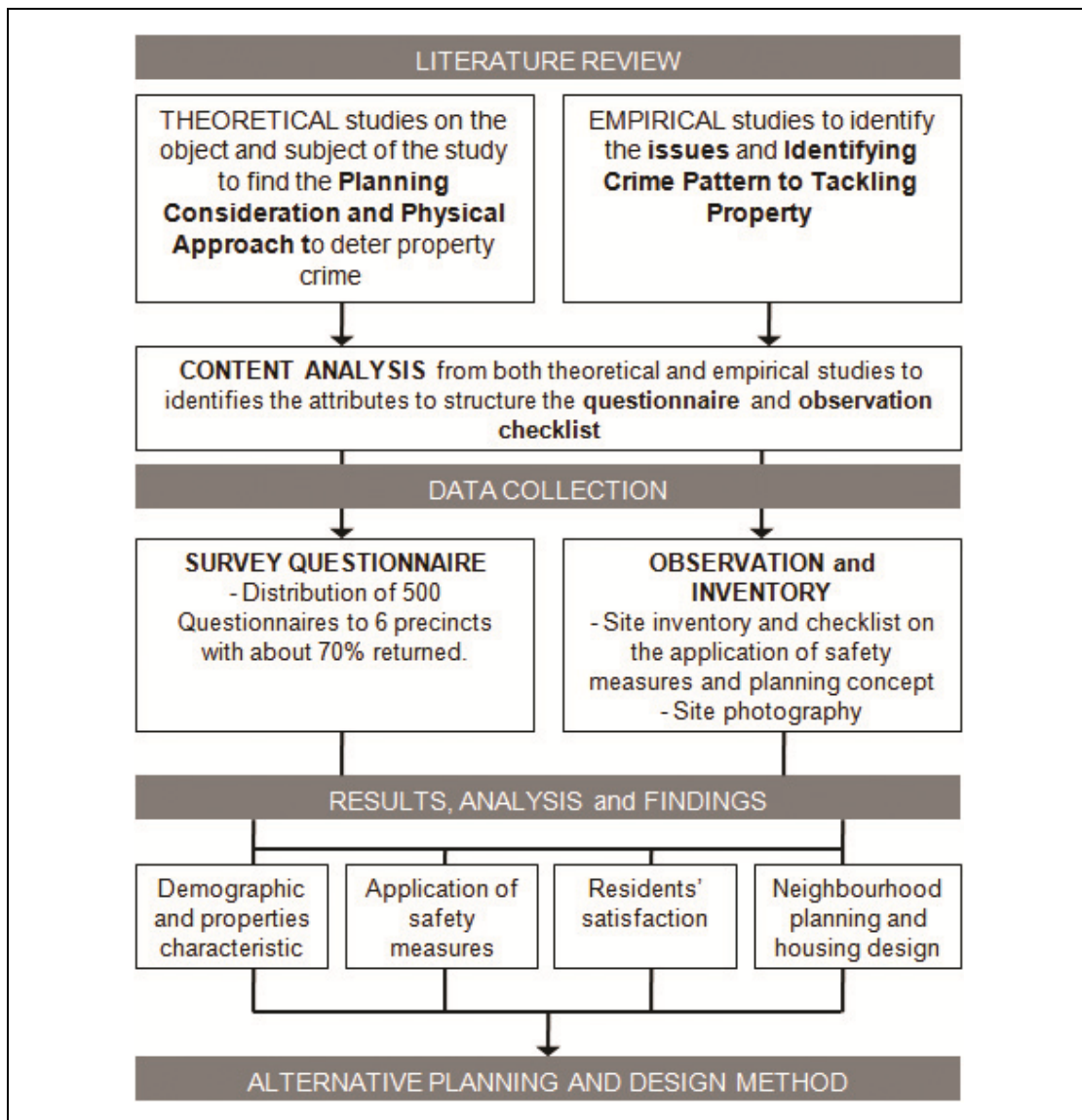


Figure 1.1: Flow chart of Research Methodology