

PREVENTION OF CRIME IN HOUSING THROUGH ENVIRONMENTAL PLANNING

Ida Noorjulianti Sugijanto

Faculty of Architecture, Planning and Surveying , Universiti Teknologi MARA, Shah Alam, MALAYSIA

ABSTRACT

Various factors influence the occurrence of crimes such as biological, imbalanced social and economic distribution and psychological factors, but if there are principles in physical planning which can reduce or prevent crimes then the public and professionals as well as decision makers should be made aware and educated on these principles. It is then their responsibility to consider these principles in their preliminary planning. This paper intends to instill awareness amongst local environmental co-creators, decision makers and the general public of the importance of addressing secure and safe design in their preliminary planning stage. It also highlights possible environmental planning principles formed on the basis of 'territoriality' and 'defensible space' that could contribute towards crime prevention in housing. Due to space limitations, this paper discusses only Crime Prevention Through Environmental Design (CPTED) principles related to physical planning inclusive of a brief case study of one of the local housing crime 'hot-spots' in Negeri Sembilan.

INTRODUCTION

Various factors influence the occurrence of crimes such as biological, imbalanced social and economic distribution and psychological factors but criminologists recognise the interrelation of crime and environmental planning. In western countries, extensive research has been conducted on the relationship between crime and the physical environment. The Environmental Criminology Research Institute (ECRI, U.S., 2001) acknowledged the fact that the crime scene and its evidentiary contents are contributing factors towards crime.

It was Jacobs (1961) who brought to light the issue on the city planner's failure to consider safety in the planning of communities. Her works narrowed significantly on urban planning and elements of design that may jeopardise community safety. Ensued was Newman's concept of 'defensible space' (1973), motivated by the early death of the Pruitt-Igoe project, which associated crime enhancement or reduction with the physical environmental design.

Various related disciplines have surfaced in western countries due to engaging interests on the relationship between crime and the built environment. 'Environmental Criminology' (EC) in the United States, and 'Crime Prevention through Environmental Design' (CPTED) in the United States and Canada; and 'Security by Design' (5BD) in United Kingdom are related disciplines founded on the basis of crime prevention and environmental planning. However, in the Malaysian context, the negative effects of the relationship between failed environmental planning and crime in housing have not been brought to an alarming light. Local environmental co-creators - professionals, educationalists, government and local authorities have yet to consider the safety

and security issue at the preliminary planning stage. This has resulted in failed environmental planning, with repercussion for social ills.

PREVENTION OF CRIME IN HOUSING THROUGH ENVIRONMENTAL PLANNING

The relationship between crime and environmental planning in housing areas, simply put, is caused by the fact that the environment has not been planned with the safety and security of humans, in mind. Daily news of robberies, theft, kidnapping and even murder committed in housing areas are the norm. This is just an example of what can be expected when security and safety is not a prime concern at the initial planning stage. The saying “Home Sweet Home” would no longer ring true should we feel unsafe and insecure even in our own homes.

Two key points put forward by Cozens, (2002) in his paper of ‘Sustainable Development and Crime Prevention Through Environmental Design for the British City. Towards an Effective Urban Environmentalism for the 21st Century’ can be highlighted:

- i) Safety and security issue is one of the fourteen key headline indicators to be considered in gearing towards sustainable development;
- ii) CPTED theory can contribute towards positive urban regeneration programmes under Local Agenda 21 (LA21).

In sustainable development planning, one has to plan for the optimum quality of life for everyone - including both the present and, most importantly, future generations. This ‘optimum quality of life’ has to include the safety and security of all living things - flora, fauna, organisms and human beings.

BACKGROUND OF CPTED

Dr. C. Ray Jeffrey’s Crime Prevention Through Environmental Design (CPTED) formed the basis for The National Crime Prevention Institute, U.S. (NCPI) that was established in 1971. One theory that formed the basis of CPTED was Oscar Newman’s ‘defensible space’ (1973).

DEFINITIONS OF TERM

‘Housing’ in this paper is identified as urban housing without the gated system (physical and manpower means of security such as gates or security guards). This would usually include low, low-medium and medium cost housing projects.

CPTED as defined by the NCPI is “the proper design and effective use of the built environment that can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life.” It serves to highlight that we should not take human safety and security for granted and suggests that there are forms of physical planning that need to be adopted that could deter or minimise crime.

‘Territoriality’ is defined as spatial perception, space enclosing and is associated with social psychology (Canadian Thesaurus of Construction Science and Technology, CTCST, 2002). It is based upon the assumption that people will protect the spaces they define as their territory, with their possessive mode. This defensive state can help to reduce the occurrence of crimes.

'Defensible space' can be defined as a theory that encompasses a wide range of planning and design strategies that focus attention on reassigning the perceived ownership of residential space (HUD, 2002). Father of 'Defensible space' defined it as spaces that are intentionally designed to be supervised - either directly or indirectly in order to maintain safety and security (Newman, 1973). The concepts of territoriality and defensible space are very closely related. The two are based on the theory that people will only defend their space if they take pride in the space and claim territoriality over it. Once the 'sense of belonging' is attached to the space, they will automatically defend the space from being intruded by strangers.

PLANNING OF HOUSING FOR THE PREVENTION OF CRIME

Jacobs (1961) in her book 'Death and Life of Great American Cities' states that in planning for safe neighbourhood streets, three essential main qualities are:

- i) There must be clear demarcation between public and private space;
- ii) Planning and design should cater for 'eyes on the street' belonging to the occupants;
- iii) Streets should have sidewalks/pedestrian walkways that are used continuously.

Six objectives in relation to physical planning of the environment as adapted from Crowe's CPTED (2000) are:

- i) Access control - to prevent or restrict unauthorised access to building grounds and interior. Access Control is necessary because offenders commit crime on the basis of 'the ease of escape' due to the various means of access routes out of the crime scene. Limiting traffic and pedestrian ingress/egress to the site by creating a cul-de-sac road system instead of a grid is an example of access control.
- ii) Surveillance through physical design - opportunities for surveillance can be heightened through physical design mechanisms. This concept is similar to Jacobs' 'eyes on the street' concept in which with more natural surveillance ('eyes on the street' belonging to the occupants), the risk of detection is higher thus deterring offenders from committing the crime.
- iii) Territorial identity - differentiating and demarcating private from public space through spatial design that fosters interaction among residents with more 'eyes on the street' concept, injecting territoriality with a defensive mode. Achievement of territoriality requires the achievement of natural access control and natural surveillance.
- iv) Design and construction - the design, construction and maintenance of houses and the surrounding environment are important to instill in residents a sense of pride and territoriality.
- v) Land use - establish land use policies to prevent negative or social ills.
- vi) Neighbourhood image - planning of the streets and sidewalks to foster interaction leading to the development of a good neighbourhood image. This is to encourage residents' cohesion and control over their environment.

'Defensive space' theory, although highly commendable has been challenged by critics. Environmental criminology emerged in the 1970s, as saviour to the weaknesses of the defensible space by encompassing a number of different approaches in the wider environmental determinants of crime.



Figure 1: Lack of Individual identity of houses

CASE STUDY - NEGERI SEMBILAN

This low-medium cost housing is one of the state's crime 'hot spots'. A view of the site found various negative characteristics verifying the absence of CPTED planning principles: the lack of individual identity of houses, poor management and maintenance of the outdoor environment, lack of distinction between private and public space, no green or recreational space to foster residents' interaction, back lane neglect, improper location of utility poles and multitude access routes, among others.

Applications of Crowe's CPTED Physical planning principles that can contribute in reducing crime are:

- i) Decrease the size and scale of a neighbourhood boundary. This housing area constitutes a virtual sea of houses - without breaks or boundaries formed by public green areas. Efficient management, maintenance and territoriality are difficult to achieve. Size and scale control of neighbourhood boundaries through the location and design of green areas is necessary to foster residents' interaction, increasing territoriality through natural surveillance.
- ii) Access control. The adoption of a grid planning system provides multiple escape routes for offenders. Closing of several access routes to limit through traffic would give natural access control to reduce the 'ease of escape'.
- iii) Mini-neighbourhood planning with territorial identity and multi land use planning. Monotony of design without individual identity erodes residents' sense of pride in their house and environment. Mixed land-use planning is to encourage social interaction and the breaking of economic barriers.
- iv) User Input. Residents' involvement and cooperation in the preliminary planning stage is important to inject their sense of pride in the project. The project can then be tailored to the users' needs and wants rather than the developers' fancy.
- v) Proper post-occupancy maintenance. Housing areas need to be constantly maintained for hygienic, aesthetic and safety reasons. Streetlights for example, can play an important role in reducing social ills and crime.

Physical planning principle implementation cannot be successful in combating crime if residents

are ignorant of their responsibility in keeping their housing areas safe. Residents should form a neighbourhood committee as a supplement to the precautionary measures of physical planning.



Figure 2: Improper location of utility poles at the back lane offenders use the poles to climb to the roof top to gain entry to houses

GATED VS. NON-GATED

In planning for residential communities, the issue of gated vs. non-gated designs will often come to mind. The gated system is not part of the physical design of the defensible space theory. Research in Keystone Point, Miami indicates that the gated system does not make a significant difference in the deterrence, decrease or increase of crimes. Rather, it merely suggests to residents that they are safer. It does, therefore, help to increase the property value due to this feeling of 'safeness'. However, the gated system can make a difference since it heightens the difficulty of intrusion access and increases the offender's risk of being caught.

CPTED SUCCESS

Success of CPTED principles depend on various factors and underlying these factors are the need to educate, to create awareness and to acknowledge the need for crime reduction measures - in which physical planning can play a part.

Decision makers need to review and if necessary, incorporate existing regulations and codes governing the physical environment with CPTED principles, with the objective of curbing major social ills and crime. It is also crucial that implementation of consistent and strict enforcement is followed for regulations are meaningless if enforcement is poor.

Review or re-evaluation need to be done on the design of housing areas. Post- occupancy evaluation of housing areas incorporating CPTED principles should be conducted. This is to verify the success of the principles or otherwise, as factors such as geographical location, social characteristics, culture and religion may have bearings on the difference or similarity of results. Successes of CPTED principles are precedents and should be permanently documented to ensure the public and authority's knowledge, acceptance and validation of these principles.



Figure 3: Back lane stigma: residents of the upper houses can act as 'eye on the street' for the residents of the lower houses but this theory does not apply because of the 'back lane stigma'



Figure 4: Poor street design and poor management of the environment resident will not defend their space if they do not take pride in it

CONCLUSION

Humans have paved the way for technological advances, forcing man to live in mass housing with all the inadequacies of lack of green space, bare minimum of natural lighting and ventilation, and the lack of distinctive design distinction. The concept of the 'man on the street' has been replaced by the 'man in a car on the street', which further erodes human interactions and contributes to the loss of 'sense of place', 'territoriality' and 'defensible space'.

Safety and security in built environment design now emphasise available technologies rather than spatial design, and enhanced only within the fire preventive rules and regulations. Planning is now done with man's theoretical attitude towards what the built environment should be rather than what the built environment consists of. CPTED planning principles attempt to prevent or

reduce occurrence of crime with variable results. It should be noted that the variable result should not be the reason for non-application of its principles. Since human factors are very much the determinants of CPTED success, the result can be highly unpredictable.

Planning for safety and security is the responsibility of all, and issues of territoriality, defensible space and community safety should be one of the priority issues addressed at the initial planning stage. This could lead to a more safe and secure home environment for Malaysians. Failure to consider these issues is itself, an act of crime.

ACKNOWLEDGEMENT

Sincere thanks and gratitude to Assoc. Prof. Dr. Mohd. Yusoff Abbas, UTM, for opening my eyes to a world of crime in which physical planning may be the impetus. Gratitude also goes to Puan Rosta Harun, UPM.

REFERENCES

- Abbas, M.Y. (2000) Proxemics in Waiting Areas of Health Centres: A Cross Cultural Study (PhD. Thesis. U.K.: The University of Sheffield)
- Atlas, R. (2002) Building Design Can Provide Defensible Space <http://www.cptedsecurity.com/builddes.htm>. 8 August 2002)
- Atlas, R. (1997) Designing Safe Communities and Neighborhoods (APA Planning Conference. <http://www.cpted-security.com/barricad1.htm>)
- Crawford, Adam (1998) Crime Prevention and Community safety (UK: Addison Wesley Longman Limited)
- Cozens, P M (2002) Sustainable Urban Development and Crime Prevention Through Environmental Design for the British City. Towards an Effective Urban Environmentalism for the 21st Century (International Journal of Urban Policy and Planning U.K. 19, 2: 129-137)
- Crowe, T.D. (2000) Crime Prevention Through Environmental Design: Applications of Architectural Design and Space Management Concepts (Butterworth-Heinemann)
- Crowe, T.D. (2001a) Crime and the Design of Residential Property: Exploring The Theoretical Background (Property Management 19, 2: 136-164)
- Crowe, T.D. (2001b) Crime and the Design of Residential Property: Exploring The Perception of Planning Professionals, Burglars and Other Users (Property Management 19, 4: 222-248)
- (ECRI) Environmental Criminology Research Inc. (2002) Geographic Profiling (<http://www.ecricanada.com/about/index.html>)
- Gilhing, D. (1997) Crime Prevention-Theory, Policy and Politics (London: UCL Press) (HUD) Housing and Urban Development (2002) Update from 'Defensible Space' Pioneer Oscar Newman (<http://www.huduser.org/periodicals/rrr/newman.html>)
- Jacobs, J. (1961) The Death and Life of Great American Cities: The Failure of Town Planning (Penguin, Hammondsworth)
- Icing, S.K. (2001) Territoriality. Aloha International 2001 (<http://www.huna.org/html/territor.html>)
- (NHI) National Housing Institute (1997) Defensible Space. Oscar Newman (<http://www.nhi.org/online.issues/93/defense.html>)
- Newman, O. (1973) Defensible Space: People and Design in the Violent City (Architectural Press, London)

- Newman, O. & Franck, K.A. (1980) *Factors Influencing Crime and Stability in Urban Housing Development* (US Department of Justice, Washington)
- Poyner, B. & Webb, B. (1991) *Crime Free Housing* (Butterworth-Heinemann, Oxford)
- Taylor, Y.-S. (2002) Data Watch -Change in Violent Crime in the 100 Largest Cities of the US: 1980- 2000 (*International Journal of Urban Policy and Planning* U.K. 19, 2: 123-128)