Panopticism Technique in Crime Prevention Through Environmental Design*

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ABSTRACT

Objective – Crime prevention through environmental design (CPTED) is a crime prevention philosophy based on the theory that proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, as well as an improvement in the quality of life. Natural surveillance in CPTED aims at keeping potential intruders or criminals under observation. Panopticism is a surveillance concept. The concept of panopticism served the aim of natural surveillance in CPTED. Therefore the objective of this research is to determine the mapping of panopticism concept as one of the technique in crime prevention through environmental design

Methodology/Technique – Qualitative research is used for the study and production of solutions. The method used in this research with the following work sequences: Understanding literature, analysis descriptive, discussion and conclusion.

Findings –These five panopticism techniques can be used as part of natural surveillance in CPTED (three pattern of building design). As result, the three patterns of building design in CPTED that can be implemented with the five panopticism techniques.

Novelty – This paper is about identifying the concept of panopticism as one of the surveillance technique and solutions in crime prevention through environmental design.

Type of Paper: Conceptual

Keywords: Panopticism; Crime Prevention Through Environmental Design (CPTED); Interior; Control Space.

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1. Introduction

One of the most important and underexplored forms of crime control is architecture and interior design. The concept of Crime Prevention through Environmental Design (CPTED) was introduced as crime control in architecture and interior design. Architectural and interior improvement that control crime, in contrast, can be adopted and implemented locally with real effect. Crime prevention through environmental design (CPTED) is a crime prevention philosophy based on the theory that proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, as well as an improvement in the quality of life. CPTED is important to deter criminal activity, and to feel safe within built

environment for other members of the public. It is an approach to prevent criminal behavior through the use of environmental design (including through architecture and interior design) with four mechanism strategies. The design of this particular CPTED should create the four mechanism strategies: natural surveillance, territoriality, build communities and protect the targets of crime. (Katyal, 2002).

Natural surveillance is one of the mechanism strategy of CPTED. Natural surveillance aims at keeping potential intruders or criminals under observation. Environments can be created where the public is able to observe their surrounding spaces while involved in their usual behaviors. Maximum visibility should always be considered in the designs. Buildings can be oriented in certain ways so that windows and points of entry point towards populated spaces within the built environment. This allows for maximum opportunities in terms of surveillance.

Panopticism (which adopted from the word panopticon) was introduced by Foucault, as a diagram of modern power, an architectural model that is ideal to demonstrate the power of modern discipline. Panopticon is a mechanism that allows supervisors conduct a thorough observation of the object is supervised. This means that panopticon allows the application of a certain kind of view. With panopticon, supervisors can observe them constantly and rapidly. As expressed by Foucault, a constant vision ensnares the subject in the many "cage" and many small theaters in which each actor alone, rather individualized and look constantly. (Foucault in Ritzer, 2003: 103). Panopticism (which is based on the concept of panopticon) concept is surveillance with one is totally seen without ever seeing and one sees everything without ever being seen. This concept means that there are people who are being monitored continuously without ever know who is watching, and there are people who are always able to supervise without being seen by the supervised.

Panopticism is a mechanism for the practice of panopticon and surveillance. CPTED natural surveillance is a concept for the built environment which is to deter criminal activity, and to feel safe within built environment for other members of the public. Panopticism principles is the mechanism to surveillance human behavior through environmental design (including architecture and interior design), while CPTED natural surveillance is the concept in build environment to deter criminal activity in the neighborhood. How the mechanism of panopticism as CPTED natural surveillance will be discussed in this paper. The purpose of this research is to study, identify the concept of panopticism as one of the surveillance technique and solutions in crime prevention through environmental design. The objective of this research is to determine the mapping of panopticism concept as one of the technique in crime prevention through environmental design.

2. Methods

Qualitative research is used for the study and production of solutions. The method used in this research with the following work sequences:

- Understanding Literature: reviewing the panopticism literature, natural surveillance and crime prevention through environmental design (CPTED) with normative critical method approach
- Analysis: Descriptive – interpretive method of analysis to the data literature. Descriptive critical method is to get a complete picture and description of the relationship between the phenomenon (panopticism and CPTED) and the criticism interpretive approach (interpretation of the meanings of the text) (Groat, 2002)
- Discussion: A description and discussion about the relationship between panopticism and CPTED from the critical viewpoint of the author (using the method of interpretation criticism).
- Conclusion: The conclusion of both the results from the analysis and discussion, using the method of comparing to get conclusions from the results of the analysis and discussion

3. Result and Findings

As mention before, there are four mechanism strategies to create CPTED: natural surveillance, territoriality, build communities and protect the targets of crime. Panopticism is one of the technique to help creating natural surveillance in CPTED. Panopticism is related to the design of an interior building-space architecture, especially the architectural control / disciplinary architecture (where the power architecture for direct control or prevent certain types of behavior in the space provided (Lockton, 2006) through the design the space. Below is the explanation for CPTED and panopticism.

3.1 Crime Prevention Through Environmental Design

As mention before, crime prevention through environmental design (CPTED) is a crime prevention philosophy based on the theory that proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, as well as an improvement in the quality of life. The notion of Crime Prevention Through Environmental Design (CPTED) appeared in a 1971 book by criminologist and sociologist C. Ray Jeffery. The elements in CPTED are similar to defensible space theory by Oscar Newman, which focuses on design solutions in reducing or preventing property crimes.

At first, the strategies to approach CPTED are: natural surveillance (to maximize opportunities for surveillance), natural access control (design to control the ingress and egress of persons to and from a specific space), territorial reinforcement and maintenance (creating residents recognizable and identifiable zones within communities). The first two strategies, natural surveillance and natural access control, are mainly geared towards promoting the offenders' risk perception by keeping users and outsiders under observation and denying access to potential targets. On the other hand, territorial reinforcement and maintenance are based on the assumption that the design and management of the environment can help the user of a property to feel a sense of ownership over a territory. (Katyal, 2002). Katyal in his paper Architecture of Control, developed from these three mechanism to four mechanism strategies to create CPTED: natural surveillance, territoriality, build communities and protect the targets of crime. The focus on these paper is the natural surveillance

The Natural Surveillance in CPTED concept refers to the arrangement of physical design features involved with the activities and the people in order to maximize opportunities for surveillance at the right moment in time and space, consequently leading to crime discouragement (Katyal, 2002). Natural surveillance refers to the use of architecture to create spaces that are easily viewed by residents, neighbours, and bystanders. The goal of the natural surveillance is to deter crime. Natural surveillance can be facilitated using three principal mechanisms: diversity of building use (diversity of use would bring people outdoors and increase natural surveillance because there a consistency in population throughout the day), building design (architectural-interior design can create and conditioned the building to be a natural surveillance), and lighting (lighting can help anyone viewing and encourages people to be in the area in the first place because the greater visibility creates a sense of security). An architecture – interior with natural surveillance concept can help develop the conditions under which people are more likely to intervene and act as watchers. Therefore, natural surveillance is needed in architecture-interior design

3.1 Panopticism Techniques

Panopticism from Michel Foucault which adopted from panopticon (a prison building with a tower in the middle that allows people who are in the tower can view all the prison cells, while the prisoners cannot see the people inside the tower), is a diagram of modern power, an architectural model that is ideal to demonstrate the power of the modern discipline. In the prison by Bentham's design, each individual in the cell could see watchtowers, but do not know who was in the control tower. Supervisors can continuously monitor the individual who is in the cells without ever can be seen by those who watched. They become the object information and never be the subject of communication. Mastery of the individual through a monitoring mechanism and architecture formed in such a way that has shaped the concept panopticism. Panopticon system into a form that allows the control to obtain compliance and regularity with minimizing unpredictable actions. Panopticon system is allowed the absence of control and

observation. Supervision can be done discontinued, the effect of continuous supervised is continued. In this Panopticon prison, it is a concept for monitoring and observing the user and generates a highly effective surveillance. Panopticon also is an experimental mechanism for changing behavior and to train people to be good and true. Panopticon scheme can be used as a way to change the thinking and behavior of people effectively and efficiently, and increase one's knowledge. Not only physical behavior, but also psychologically and knowledge. Panopticism has the concept of one is totally seen without ever seeing and one sees everything without ever being seen. Therefore the meaning of panopticism principle means that on one hand, there are people who are being monitored continuously without ever know who is watching, and on the other hand there are people who are always able to supervise without being seen by the supervised. The mechanism of panopticism is based on the explanation of the technique of power and discipline mechanism panoptisisme concept. It can be concluded that there are several techniques developed from disiplinary power and panopticism, namely: (1) the existence of the bulkhead / partitioning and grouped / grouping and enclosure (peripheric ring), (2) control and organization of the function, behavior and human activities that can be done with the distribution scheduling techniques, lighting (where the monitored area is always lighter than the area of supervising, the aim is for people who cannot figure watched the movements of people watching) , (3) the existence of an orientation center and hierarchy that shows the ranking, and the latter (4) technical system should be run (a condition that needs to be followed by those who supervised, so that both the system and the system interior surveillance systems / surveillance). These techniques can be more detail and specific. There are five techniques developed from disiplinary power and panopticism, namely: (1) enclosure: grouping / enclosing in panopticism aims to facilitate the control and supervision through the characterization and classification, (2) partitioning: a clear insulation of panopticism through insulation and clear openings management, aims to control and facilitate the monitoring of user activity control and organization of the function, behavior and human activities, (3) Functional organization: controlling human activities in panopticism will help creating disciplinary power in society (4) rank / hierarchy and orientation center: the existence of an orientation center and hierarchy that shows the ranking, and the latter. Orientation center and hierarchy has role to supervise subordinates. (5) Composition of power: technical and technology system should be run (a condition that needs to be followed by those who supervised, so that of the system interior surveillance systems) (see figure 1). This conclude that panopticism is part of the control architecture, helps us to understand the logic of the structure and the impact of space as the controlling power, especially in surveillance control.
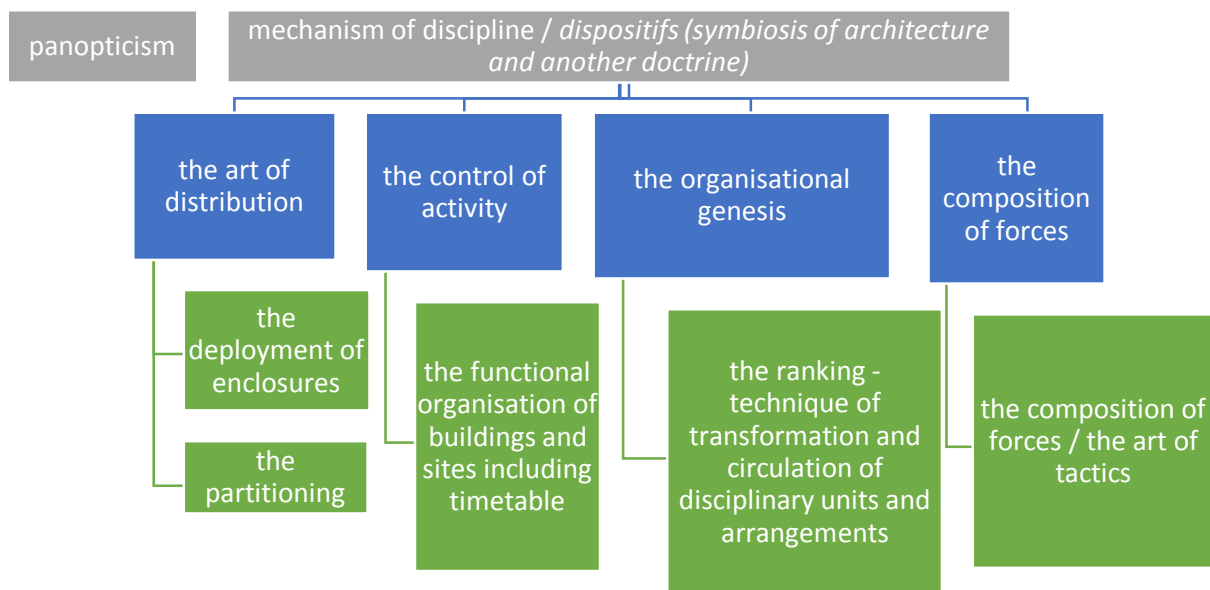

Figure 1. The mechanism concept of panopticism

4. Discussion

Natural surveillance is one of the mechanism strategy of CPTED. Natural surveillance aims at keeping potential intruders or criminals under observation. There are three principal mechanisms in natural surveillance (diversity in use, building design and lighting). Panopticism as a surveillance techniques in architecture-interior, can be planned in spatial planning. The panopticism techniques can be patterned through spatial planning. It can shape the activity through allocation, canalization or coding and their relationship through the mechanism presented in panopticon project. Spatial planning could bring the existence of the power of surveillance to accommodate that activity. Therefore, panopticism techniques can be used at the building design principal mechanism in natural surveillance.

Dan Lockton (2011), suggested that there are three elements of building design that can be used to control and surveillance. The three building design pattern of architecture control are: (1) the physical arrangement of building elements pattern, (2) material properties pattern and (3) surveillance pattern. These three pattern are the things that we need consider in order to design a building with natural surveillance. Here is a discussion of the third pattern control architecture design for more details:

As mention before, there are four mechanism strategies to create CPTED: natural surveillance, territoriality, build communities and protect the targets of crime. Panopticism is one of the technique to help creating natural surveillance in CPTED. Panopticism is related to the design of an interior building-space architecture, especially the architectural control / disciplinary architecture (where the power architecture for direct control or prevent certain types of behavior in the space provided (Lockton, 2006) through the design the space. Below is the explanation for CPTED and panopticism.

4.1 The Physical Arrangement of Building Elements Pattern

The physical arrangement of building elements pattern is from the aspect of positioning and layout. By placing these aspects in certain places, it can support or break the interaction between people. It can block access to a place and can also be used to direct the public. In addition, the layout can be used to influence and control the purchaser as in an amusement park. (Lockton, 2011). Elements of buildings could be building elements floors, walls, ceilings, windows, doors, stairs and furniture (Ching, 2002). Even down to the small space of the building elements such as mirrors, signage, and other decorating element instance. Pattern arrangement of building elements of this space aims to regulate human movement patterns and determine what is seen and not seen from a certain perspective. As furnishings aims to meet the functional objectives and influence its behavior and arrangement of furniture that will affect the activities and behavior of its users in this case is to create surveillance. (Haryadi, 2010).

Partitioning as a clear insulation of panopticism; enclosing in panopticism aims to facilitate the control and supervision; functional organization as the controlling human activities in panopticism; and the existence of an orientation center and hierarchy that has role to supervise can be used as panopticism techniques in the physical arrangement building pattern.

4.2 Material Propoerties Pattern

The change of material can change certain behaviors, such as chairs with hard material at fast food restaurants make customers feel uncomfortable to eat quickly. (Lockton, 2011) In addition to the material, there are colors that also have an important role to create atmosphere and support the realization of certain behaviors. (Haryadi, 2010). Certain behaviors can be changed and surveillance through the use of materials and colors.

Partitioning as a clear insulation of panopticism; enclosing in panopticism aims to facilitate the control and supervision; functional organization as the controlling human activities in panopticism; and the existence of an orientation center and hierarchy that has role to supervise can be used as panopticism techniques in the material properties pattern

4.3 Surveillance Pattern

The pattern surveillance is through the design layout and technology that facilitate or restrict visibility of activity or group of people. Oversight through the design layout pattern can be classified based on the type of surveillance space. The space can be classified and designed to surveillance, block or filter the user. There are 5 types of space classification: (1) stealthy space (spaces are intentionally hidden from public sight), (2) slippery space (space that is visible but not to be approached) (3) crusty space (space that is not accessible because of the barrier) (4) prickly space (the space cannot be occupied by a comfortable due to the activity of walking, sitting and standing) and (5) Jittery space (space that is constantly under surveillance). The existence of the design layout based on the type of space will facilitate monitoring surveillance pattern.

Partitioning as a clear insulation of panopticism; enclosing in panopticism aims to facilitate the control and supervision; functional organization as the controlling human activities in panopticism; the existence of an orientation center and hierarchy that has role to supervise; and technical and technology surveillance system can be used as panopticism techniques in surveillance pattern

Table 1. Conclusion of Panopticism and Natural Surveillance

No	Panopticism Theory	Pattern of Building Design in Natural Surveillance		Conclusion
1	Partitioning	The physical arrangement of building elements pattern	v	Shape and size of the space and furniture can be used as partition.
		Material Properties Pattern	v	Partitioning through the use of material and colour
		Surveillance Pattern	v	Partition as part of the layouting, classified based on type of space and technology.
2	Enclosure / grouping	The physical arrangement of building elements pattern	v	Shape and size of the space and furniture can be clustered.
		Material Properties Pattern	v	Grouping based on the character of colour and material.
		Surveillance Pattern	v	Grouping based on type and classification of space and technology
3	Functional organization / Control Activity	The physical arrangement of building elements pattern	v	Control user activity from positioning of space elements.
		Material Properties Pattern	v	User activity can be control using material and color in space and furniture.
		Surveillance Pattern	v	Controlling user activity from technology and interior system.
4	Rank / hierarchy and orientation center	The physical arrangement of building elements pattern	v	Shape and size of the space and furniture can be arranged based on hierarchy and orientation center
		Material Properties Pattern	v	The contras of color and material can help hierarchy and orientation center of panopticism
		Surveillance Pattern	v	Technology and classified space can be center oriented and create hierarchy.

5	The system interior surveillance systems	The physical arrangement of building elements pattern	-	
		Material Properties Pattern	-	
		Surveillance Pattern	V	CCTV technology, technology of opening, and its location can help surveillance.

5. Conclusions, Implications and Significance

As mention before, there are four mechanism strategies to create CPTED: natural surveillance, territoriality, build communities and protect the targets of crime. Panopticism is one of the technique to help creating natural surveillance in CPTED. Panopticism is related to the design of an interior building-space architecture, especially the architectural control / disciplinary architecture (where the power architecture for direct control or prevent certain types of behavior in the space provided (Lockton, 2006) through the design the space. Panopticism is related to the design of a building-space architecture, especially the architectural control. Panopticism technique is closely related to the formation and design of space in architecture. Therefore, in natural surveillance (CPTED); panopticism is part of the building design. These five panopticism techniques can be used as part of natural surveillance in CPTED (three pattern of building design). As result, the three patterns of building design in CPTED that can be implemented with the five panopticism techniques. The three patterns is: (1) the physical arrangement of building elements pattern (2) material properties pattern (3) Surveillance pattern.

Acknowledgements

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