

## Territoriality Concept for Crime Prevention in Interior Design

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**Abstract:** Territory is a particular area in which are owned or maintained (either physically or through rules and symbols). Territory can provide a sense of security from the danger that is happening out there. Territory is one of the variables in Crime prevention through environmental design concept, yet the concept of territory as a crime prevention in the interior is less concerned. Therefore, this research will explain and expose the territory concept as crime prevention method in interior design in public space where people expect to see strangers in this space. For the result, territory concept can be achieved as a crime prevention in interior design, with mechanisms that should be applied in each type: the boundary between areas; limitation to the symbolic; supervision and control of space.

**Key words:** Territoriality, crime prevention, interior, environmental, crime prevention

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### INTRODUCTION

Security one of the fundamental's need for any person. It is also one of rights should be obtained or enjoyed every person. People expect to see strangers in public space, therefore they need their secure feeling in this particular space. One way to increase the safety feeling and reduce the number of crime is by designing a proper environment using Crime Prevention Through Design Environment (CPTED) concept and principles. The environment especially a building or room can designed as a crime prevention.

Territory is one of the concept in Crime Prevention Through Design Environment (CPTED). Territory is a certain areas where owned or maintained (whether it be physically or through rules and symbols) which can identified as area belonging to a person or group and one of the ways to prevent the can communicate ownership territory this is through personalization. Past research shown that an environment with territoriality concept can provide security need for person.

Territoriality is one of the concept for crime prevention has been introduced in environmental and architecture design but there not in interior design field. Therefore, this research will explore the territory concept as one of design method for crime prevention through interior design.

### CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

Before we discuss about territoriality concept, here some state of the art from CPTED (Crime Prevention through Environmental Design) theory. In 1971, a criminologist and sociologist Dr. C.R. Jeffrey, sparked a

new approach on Crime Prevention Through Environmental Design (CPTED) (Clancey *et al.*, 2012). This theory explained about how a proper design and an effective use of the built environment can lead to a reduction in the fear of crime, incidence of crime, increase secure feeling and improved quality of life. CPTED mission is to create safer environments and improve the quality of life through the use of CPTED principles and strategies (O'Shea and Awwad-Rafferty, 2009).

This CPTED approach has been widely used in various countries of Europe, America, including in Asia. Past research has shown the effectiveness of CPTED approach in the reduction of crime and fear of personal safety (Crowe, 2013). This study also shows that CPTED has been successfully used in a long time. In Asia, Abdullah's study in a residential complex in Penang, showed that the presence of the gateway according to these concept can give you a sense of citizens and increasing citizens' secure feeling against criminality (Crowe, 2013)

Limitations of CPTED approach as proposed by Savile, was how to face an irrational criminals and there is a space was not protected because of social and cultural factors (Cozens *et al.*, 2005). In Korea, a study found that the major crimes that occurred is mostly related to urban planning and architecture elements. He concluded that CPTED is a valuable measurement tool for crime prevention and support the activities of citizens and should be include environmental management, commercial facility repair and reinforcement of security equipment in the building (Kang, 2013). Prior studies have demonstrated the benefits and effectiveness of using CPTED approach to prevention crime in public spaces.

Since, the initiation of CPTED approach by Jeffrey, this CPTED theory has been progressing. The basis of the

theory of the first generation are studies on space and place with regard to the introduction of environmental, security and defense environment that focuses on the design solution in reducing or preventing property crime (Clancey *et al.*, 2012; Cozens *et al.*, 2005). Later in development, leading to the second generation CPTED which is not only emphasize the physical environment aspects but also the social factors. This second generation uses risk assessment (risk assessment), socio-demographic profile, community participation.

Initially, the strategy of CPTED include: Control naturally (to maximize the chances of supervision)) access control naturally (through design that can control the entrance and exit to and from a particular space) strengthening and maintenance of the area, (by forming communities and zones identified in the community). Katyal developed this initial CPTED strategy by adding the strategy principle into four parts: natural surveillance, territoriality, build communities and protect the target from crime (Katyal, 2002). This has become an important point in crime prevention mechanism (Fig. 1).

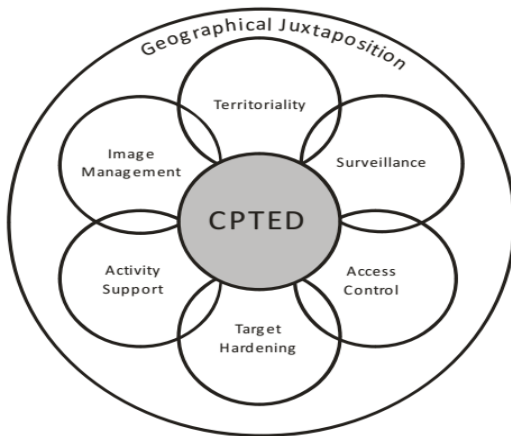


Fig. 1: CPTED's scope

The first strategy in the CPTED is the concept of surveillance, restricting criminal acts by increasing the perception of actor about the possibility of being watched and seen by either natural or mechanical (Lang, 1987). The correct application of natural surveillance can influence the decision of the criminal. Research in criminal behavior indicates that the decision of the offender to commit an offense heavily influenced by cues risks perceived by the perpetrator. Therefore, it is necessary to maximize the natural surveillance by maximizing the visibility of people, their free point of view (for example made of glass walls and wooden fences are low) to the parking area and the entrance to the building including doors and windows that lead out onto the streets, sidewalks and front porches. Good lighting is also one design concept natural surveillance. The variety of user activity around the neighborhood can also create natural surveillance.

So in general, the concept of natural surveillance is strongly associated with conditioning the surrounding environment. Results of research on crime prevention through environmental mentioned that the perception of the natural surveillance with the highest security of a public space is supported with good lighting arrangement, the openness of a public space and a variety of user activity around public spaces (Katyal *et al.*, 2002).

The first two strategies that mentioned above: natural surveillance and access control; mainly directed for user's perception so they feel safer from perpetrators. The third strategy is the strengthening of the area/territory and maintenance based on the assumption that the design and management of the environment can help users to feel a sense of ownership of a territory (Katyal, 2002). While the fourth strategy is to build communities through socialization and training. CPTED concept of this discussion is limited to the external environment, not involving the concept of the space environment (interior). And the focus of this study is the third strategy is the strengthening of the area (Fig. 2).

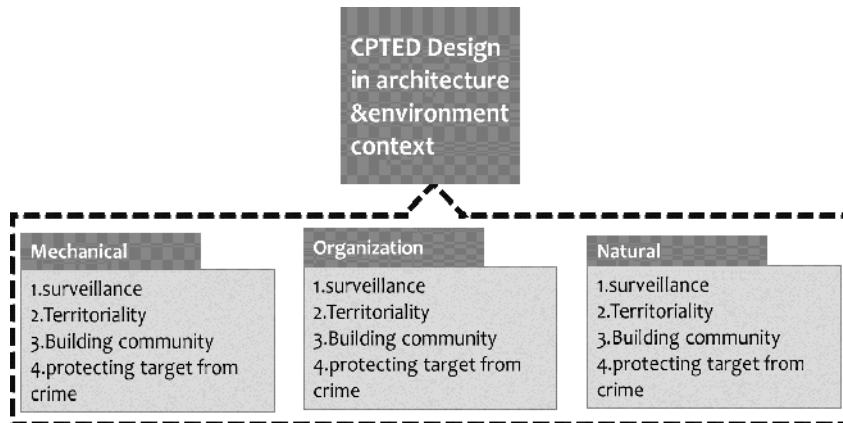


Fig. 2: Summary of CPTED's concepts and strategies

## **TERRITORIALITY CONCEPT**

According to Leon Pastalan in Lang, the concept of territoriality linked human territory is defined as the space which is limited to a person or group of people to use and keep it as an exclusive space and involves identification, psychology of a place, a symbol of a possessive behavior and arrangement of objects in the area. While Irwin Altman in Lang defines territorial behavior as a mechanism of behavior restriction and self/ others that involve personalization or labeling of a place or object and communicates that the place is already owned by a person or group of people (Lang, 1987).

Delaney (2005) in the book "Territory: Short Introduction" defines that the territory is providing security for the inside from the hazards that are going on out there. While Rapoport (1969) defines territory as a particular area where owned or maintained (either physically or through rules and symbols) which can be identified as an area belonging to a person or group and one way that people can communicate ownership territories this is through personalization. Territory involving personal space, status and some of the dominant culture and biological action and reaction.

The general concept of territoriality is always associated with the activity and spatial behavior of someone in defending its territory include the nature and quality in maintaining the territory and the territory itself can be summed up as a place with restrictions to the characteristics of the territory is tagging of a place; personalization defending space from intrusion and few function that is needed to meet the physiological basis of cognitive and aesthetic needs (Lang, 1987). The concept of territoriality is always connected to territoriality itself or the place of territoriality. The function of the territory is allow the fulfillment of basic human needs.

According to Jon Lang, humans have 4 basic needs that must be met: the need for identity (the need for belongingness, self-esteem and self-actualization); the need for stimulation (fulfillment and self-actualization); the need for security (free from threats, attacks and self-confidence) and the need for a frame of reference (anything that involves the maintenance of one's relationship with others or the surrounding environment). So, the function of the need for identity is linked to the psychological needs of human; the stimulation and security's need associated with the physical and physiological needs and the frame of reference associated with the fulfillment of social needs (Lang, 1987)

The type of territory expressed by Lang (1987) Altman in Hadinugroho (2002) and Sommer in Wilson (1989) defines 3 types of territories:

- Personal space (space itself)
- Home base (space is maintained active)
- Home range (setting behavior which is formed of a person's life - related activities)

While, Lang (1987) categorize the territory there are four types:

- Attached territory (bubble room/space bubble)
- Central territory (space that can be personalized as workspace/workstation)
- Supporting territory (which is semi-private space-space that can be owned by an association or semi-public-space that is not owned by anyone)
- Peripheral territory (public space-used by individuals or groups but are not personalized or not owned)

Hadinugroho (2002) there are three types of territory:

- Primary territory (owned and personalized as a permanent action from the owners; others believe that this territory is owned by the owners in the long term; the owners have complete control over him)
- Secondary territory (not owned and can be personalized and may be personalized in a certain period of time; only used by the user are considered capable and qualified to use it; there are some rights to control of the user when the user was using it)
- Public territory (not owned and sometimes can be personalized in a temporary period; can be used by the possibility of multiple users; control very difficult)

Wilson (1984) categorizes four types of territories, namely:

- Public territory as a garden that can provide access to human freedom
- Home territory where the public area taken by a person or a group such as a toilet or circulation in the open office areas/open office
- Interaction territory is the area where there might be social gatherings such as the family room
- Territory body is the most private and owned by an individual such as a bedroom (Table 1)

The next context is about the mechanisms of territorial control for spatial behavior (from the personal side and defensible space). The control mechanism to personalize a space is always associated with the identification and marking of the place.

Table 1: Comparison of type territory

Writer	Territory type		
	1	2	3
Porteus	Personal space	Home base	Home range
Hussein El-sharkawy	Attached territory	Central territory supporting territory	Peripheral territory
Irwin Altman	Primary territory	Secondary territory	Public territory
Robert Sommer	body territory	Interaction territory home territory	Public territory

Our personal space is often a three-dimensional bubble that is around us and moves with us. This personal bubble space can be entered with the permission and its size depends on the culture and situation. When our personal space is violated, then we will feel stress because our territory has been invaded. Edward T. Hall introduced three zones called intimate, personal and social. Our personal bubble space is not in a perfect sphere but far behind our back (and this is one reason why we prefer to sit in front of a wall.) According to Augustin (2009), there are several factors that affect the size of our personal space bubble.

Related to status (where the greater the distance between the statuses of two people, the greater the distance between them) Related to gender where two adult men tend to choose interpersonal distance away, while the two more mature ladies love to interact and be in close proximity. And when mixed (men and women), the interpersonal distance will differ depending on their relationship. Men usually have a larger profile than women in the same situation. Men pay more attention to the interruption of the front against their personal space, while women interruptions from the side. Women are much more stressed when they are away from others, whereas men feel stress if they are too close to others. Related to the physical where the higher people require a larger space than shorter one. Related to age whereas adults need personal zone larger than children.

Personality factors also affect the personal space, where people are more prone to anxiety keep a distance and have a zone of greater personal space. Introvert people also require a larger personal space. Related to cultural factors which in some cultures, people in the northern weather (such as Germany) require a larger personal space than those in southern weather. In a high ambient temperature we will feel claustrophobic than the room temperature is low. And when a seat is already 60% occupied, we will consider it fully and will seek another seat if possible. If the bubble of personal space we are on one side of urgency, then the other side will be larger dimensions, for example, we would feel better if we had to stand or sit adjacent to others in the room with high ceiling than the lower ceiling. In a low ceiling room, or away from the door or window, we will need larger personal bubble space (Siti Rasidah, and Aldrin, 2011).

Hierarchy and the type of territory is necessary in order to create a good feeling and helps maintain a feeling of security of the person. These two are the control mechanism in defensible space. This hierarchy is an important territory for the community who require security. Oscar Newman in Lang wrote several hypotheses about how this mechanism is stored and assist territorial control their environment to individuals and groups. This mechanism controls conceptualized within the defensible space. Newman in Lang defines the conditions of defensible space as a substitute for a series of mechanisms real and symbolic barrier; barring a clear area; and possible improvements to supervision are combined to bring an environment for occupant's control. Defensible space is a residential living environment which can be inhabited and the occupants could provide security for the family, neighbors and friends (Lang, 1987)

According to Lang (1987) there are 4 characteristics of the layout environment that can help to create defensible space:

- A clear hierarchy territory (from public to semipublic, semiprivate to private)
- Place doors and windows in the area who can assist natural surveillance at the entrance and seating.
- The use of shapes and building materials that are not harmful
- Construction of the residential area whose residents are not threatened

The concept of territoriality is related spatial behavior of people in maintaining their territory. The analysis of an interior place associated with territorial behavior of a person, can be analyzed through the function of the territory, types of territories and control mechanisms of the territory. Understanding the concept of territoriality will help a designer in designing a place with this concept and definitely will be increasing the crime prevention (Table 2).

Strengthening territoriality is used to enhance the understanding of the importance of space especially as a crime prevention in interior design. Interior with the concept of territory, represent the two mechanisms concepts territories. First: space with the concept of territory that can create a sense of ownership (personalization space) or a mechanism of personal control territory. The control mechanism to personalize a

Table 2: Territory as crime prevention in interior design

Primary	Secondary	Public
Real boundry	Not really a real boundary	No real boundary
Have symbolic boundary	Could have symbolic boundary	Do not have symbolic boundary
Clear area of boundary	Grey area boundary	No clear area of boundary
Control and clear Surveillance	Could have control and partly clear surveillance	No Control and clear Surveillance
Defensible +++	Defensible ++	Defensible +
Personalization+++	Personalization ++	Personalization +

space is always associated with the identification and marking of the place. Second: the room with the concept of territory that can create a sense of security (defensible space) or the control mechanism of defense. Hierarchy and the type of territory is necessary in order to create a good feeling and helps maintain a feeling of security of the person (the hierarchy of the territory is the presence of a clear marker between private space, private semi-public and semi-public spaces). Territory hierarchy is important in a society that requires security. Strengthening this territory boosted by using buildings, fences, sidewalks, interior layout planning, signs, lighting and landscaping to express ownership (personalization) and defines public space, semi-public and private (defensible).

So there are three things that must be considered that the mechanism of this territory can be applied optimally, namely: the boundary between areas; limit the symbolic; supervision and control of space. Thirdly it is applied directly on the category of territory.

The category for interior territory that can be use is the the category of territory by Hadinugroho (2002). This territory category is divided into 3. Territory Primary (owned and personalized as a permanent action from the owners; others believe that this territory is owned by the owners in the long term; the owners have complete control over him), so the boundary area, the limits of symbolic and monitoring and control room had to be there and clear. Territory secondary (not owned and can be personalized and may be personalized in a certain period of time; only used by the user are considered capable and qualified to use it; there are some rights to control of the user when the user was using it.) So, boundary area symbolic boundaries and supervision and control room there and not so obvious. Territory public (not owned and sometimes can be personalized in a temporary period; can be used by the possibility of multiple users; control very difficult), so the line, symbolic boundaries and supervision as well control room should not be there and it is unclear. Category territories have primary mechanism defensible space and the highest personalization. Public category pick mechanism defensible space and personalization lowest.

## CONCLUSION

For the conclusion, the concept of territory in interior space can be categorized into three types: primary territory (expression defensible space personalization and highest), secondary territory (expression personalization and defensible space is being) and public territory (expression defensible space and the lowest personalization). In order for the concept of this territory can be achieved as a crime prevention in interior design, there are three things that a mechanism should be applied in each type: the boundary between areas; limit the symbolic; supervision and control of space. Thirdly it is applied directly on the type of territory.

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