The spatial configuration of crime in Surabaya

P R Satiawan¹, K P Tucunan¹ and R Y Azarine¹

¹ Urban and Regional Planning Department, Institut Teknologi Sepuluh Nopember

Email: puturudy@yahoo.com

Abstract. As a second larger city in Indonesia, Surabaya is listed among highest crime rate city in this country. One of the prominent crime in Surabaya is a street crime. This is a type of crime that often occurs in public spaces which can be experienced by anyone. One of the urban planner guideline in integrating spatial approach to prevent crime is defensible space theory, this research is deducting the theory as a variable as well as inducting variable that might vary between location to country. Using ethnographic approach, the interview was conducted with a crime offenders that later triangulate with the other conventional expert. This research found that there are two (2) types of space in each crime incident, which researcher defined as a action space and defense space. Action space consist of three types of space which are: the observation space, the execution space, and the escape space. Meanwhile, the defense space can be categorized as space that can be maintained positively and space that can be maintained neutral.

Keywords: crime, spatial configuration, defensible space, action space

1. Introduction

Surabaya is the second largest city in Indonesia after Jakarta. As a metropolitan city, Surabaya has a number of complete facilities and infrastructure such as ports, highways, highways, strategic infrastructure, where these advantages make Surabaya a trading city that plays a very important and strategic role in the national economic arena. With such potential, Surabaya is an attractive place for many people to live and work. Besides having a number of relative advantages, the large population in Surabaya also turned out to increase the chances of various crimes.

According to the Surabaya Police press release, in 2017 in the city of Surabaya there were indicated 15 spots that were prone to crime. To some extent, this is one proof that crime tends to occur repeatedly in the same place. On the other hand, city residents have their own perceptions of places that are prone to crime. Therefore it is necessary to do a study that raises the phenomenon of the relationship between the incidence of crime and the space for the occurrence of crime.
2. Literature review

2.1. Crime
Crime is all kinds of actions that are economically and psychologically harmful, which violate applicable laws and social and religious norms. It can be interpreted that, criminal acts are all actions in the form of words, actions, and behavior economically, and socially psychologically are very detrimental to society and make the safety of citizens threatened both already written in criminal law and not [1].

Sahetapy dan Reksodipuro (in [1]) said that crime is any act that is prohibited by public law to protect the public and given sanctions in the form of criminal acts by the state. These deeds are punished for violating the social norms of society, namely the existence of behavior that is considered inappropriate by its citizens. Meanwhile, Paul Tappan (in [2]) said that crime is an intentional act or omission in violation of criminal law (statutory or case law), committed without defense or justification, and sanctioned by the state as a felony or misdemeanor. Willian Blackstone (in [2]) also define that a crime is an act committed or omitted in violation of a public law either forbidding or commanding it.

Forms of crime include [1]:
a. Theft  
b. Immorality  
c. Pickpocketing 
d. Mugging 
e. Stabbing with sharp weapons / fire 
f. Persecution 
g. Murder  
h. Fraud  
i. Corruption

2.2. Crime and the environmental design
Prevention of crime through the concept of Crime Prevention Through Environment Design (CPTED) covers the design, maintenance and use of the built environment to improve the quality of life and reduce the incidence and fear of crime. There are two important things in the CPTED concept [3], namely:
a. Activity Support  
   Activity support involves passive and active efforts to promote the presence of responsible pedestrians in certain areas, thereby increasing the social value of the area 
b. Management and Maintenance  
   Landscape maintenance, lighting and other features are very important to ensure that the CPTED element meets its intended purpose

In the implementation stage of CPTED concept, the most important thing is that crimes against people and property tend not to occur if there are other people around. The presence of others will:
a. Prevent crime  
b. Helps catch criminals  
c. Calling for help from others  
d. Report the crime and act as a witness

Meanwhile, there are 4 important aspects in the CPTED that are published by the Government of Singapore [4], namely:
a. Natural surveillance  
b. Natural access control  
c. Territorial reinforcement  
d. Maintenance and management
Crowe (in [5]) highlight the assessment of CPTED with what he calls the “Three-D Approach”. Essentially, the Three-D Approach is based on the notion that human space is designed to fulfill three functions:

a. All human space has some designated purpose
b. All human space has social, cultural, legal, of physical definitons that prescribe the desired and accepted behaviors
c. All human space is designed to support and control the desired behaviors

2.3. Crime in the context of space

The majority of the studies describe the causes of crime including non-physical constraints, such as economics, social, etc. However, the cause of the crime itself can come from factors that are generally recognized by the community. Brantingham & Brantingham (in [6]) requires that at least 4 things make a crime happen:

a. the existence of law
b. the presence of the attacker
c. the existence of the victim
d. the existence of the place to commit a crime

Paulsen & Robinson (in [6]) stated that crime must have a legal component to state that someone is defined as being against the law. Besides that the incidence of crime must also be accompanied by an attacker and the presence of victims, and the most important thing is the existence of an appropriate space for committing a crime.

The Spatial Theories of Crime based on Environmental Criminology states that there are two main components of crime, namely badness which includes motivation and opportunities, and aspects of crime location which include mobility, awareness space, right target and choice. The two aspects mentioned above have 4 dimensions namely:

a. Legal dimension
b. Victim dimension
c. Offender dimension
d. Spatial dimension

2.4. Defensible space

The concept of the defensible space area is a concept of space that is associated with resistance to crime. According to Tucunan [6] the concept of the defensible space area has 2 approaches, namely a mezo approach (related to the character of space and community) and a micro-approach (related to design - architectural aspects).

Tucunan [6] mentions that the concept of defensible space does not only explain architectural concepts, but defensible space is also a concept of how space can interact with its people to defend against acts of crime embodied in design. Newman [7] defined defensible space as a model for residential environments which inhibits crime by creating the physical expression of a social fabric that defends itself.

Defensible space is a theory that utilizes social control and good supervision by the local residents to maintain their living environment, and this is highly dependent on the design of the urban environment itself. A good urban environment will be able to generate informal social control which is at the core of the defensible space.

Defensible space relies on self-help, not on government intervention, so it is not vulnerable to withdrawal of support from the government. This depends on the involvement of citizens to reduce crime and eliminate the presence of criminals. It has the ability to bring people from different economic and racial conditions together in a mutually beneficial entity. For low-income people, defensible space can benefit their lives and
the opportunity to improve the world around them through their own actions and improve their quality of life.

To create a defensible space, an environment must have a monitoring system. This system relies heavily on the design of circulation in public spaces and placement of family units around public spaces so that residents can look at the road or neighbors. In designing this space, it takes an understanding of territory, a real picture of the building, and clear restrictions on public space and private space.

The greater the number of people sharing communal space, the more difficult it is for people to identify ownership because the public feels they have the right to control or determine the activities that occur within them. It is easier for outsiders to gain access and linger in the area in a shared building 24-100 families, than in a building with 6 to 12 families.

2.5. Characteristics of space that can trigger crime

Elizabeth Wood (in [5]) said that there was a real difference in the level of crime between a quiet and poorly maintained environment with a crowded, well-maintained environment and supervision from its inhabitants. Oscar Newman states that attention to activities that occur on the road is termed 'the eyes on the street', which shows that occupants' attention to their environment is very effective in suppressing the potential for crime [7].

Crime is concentrated geographically and demographically [8]. Residents in urban areas are exposed to a higher risk of being victims of crime compared to residents in rural areas [8]. In this consideration, there is no doubt that the design of the built environment and spatial planning can influence behavior and opportunities for crime in society. According to Nes [9], human behavior that takes place in a space, and spatial planning provides various opportunities for interaction in society. Interaction between people can make a community safe or insecure which is a basic part of people's welfare [10].

The study by Oscar Newman [7] shows that tall buildings with lobbies, elevators, fire escape, tap and corridors isolated from public view, have high potential crime rates, rather than low buildings. The concept of territoriality can be used as a basis for creating informal social supervision spaces, so that people can avoid criminal acts by taking the necessary protective measures. Jacobs (in [10]) states that the more people can look towards the road, the less likely crime is on the road.

There are elements that influence the existence of crime [6], namely:

1. Lighting

   Sufficient lighting is very important so that people can see and be seen clearly. From a security standpoint, strategically placed lighting can have an effect in reducing the fear of criminal acts. Sufficient lighting available during the day can provide security and reduce the chance of crime compared to night. Because the lighting during the day makes people and goods clearly visible, and not too glare which can result in the invisible person being seen.

2. Natural Surveillance and Sight Lines

   Natural surveillance can be achieved through design and maintenance that allows people to carry out their normal activities while easily observing the space around them, as well as removing hiding places for people involved in criminal activities, while sight lines are defined as lines of vision. The inability to see what lies ahead along the route due to sharp angles, walls, fences, bushes or poles can be a serious obstacle to feeling safe. The high density of activities or buildings can reduce the level of sight lines, while with reduced sight lines, the level of natural surveillance will also decrease. Weak natural surveillance will create opportunities for crime.

3. Building Design

   Building design greatly affects the chances of crime. Characteristics of buildings or areas that do not allow owners or residents to monitor whoever enters will be vulnerable to crime. The number of spaces that are stuck or do not have alternative roads will cause a sense of being trapped or isolated. According
to Newman [7] tall buildings can cause crime because access to the building is too difficult to achieve if crime occurs. The smaller the public space in the area or building will lead to higher chances of crime.

4. Mixed Landuse
The existence of mixed land use reduces the chances of crime. This is because mixed use will increase interaction within the community. In addition, activities in a land use that have a high chance of crime can be reduced to other activities with lower opportunities.

5. Landscaping
The density of plants can affect the chances of crime. The more tight and high the plant will reduce visibility and this will reduce the ability to monitor the environment.

6. Pathways/Accessbility
Locations that have many choices of exits will have a greater chance of crime. This is due to the choice of ways to escape for the perpetrators, especially if the perpetrators recognize the area.

7. Territorial Reinforcement
Territorial reinforcement is a way to foster a sense of territory in an environment through urban design. What is considered important is the sense of ownership of the area, so that the criminals do not carry out their actions in the region. The area can be either a private area or a public area.

3. Methods
The method used in formulating a crime room configuration is based on the perceptions of criminals, victims, police, legal experts, and sociologists. Their perception is used to identify the configuration of "safe" space and configuration of "dangerous" spaces. This perception is adapted to the criminal mindset based on the experience of carrying out a number of criminal activities. Thus, the space configuration will be formulated based on several points of view.

The Content Analysis (CA) method is an in-depth analysis that is used to identify objectively, systematically and generally. Objectives means sticking to rules or procedures so that if done by other researchers will produce similar conclusions. Systematic means that the determination of content or categories is carried out in accordance with the rules that are applied consistently. General means that the invention must rely on relevant theoretical references. Information obtained from Content Analysis can be linked to other attributes of the document and has high theoretical relevance.

| Indicator                          | Variable          |
|------------------------------------|-------------------|
| Place                              | Isolated          |
| Isolated Impression                | Isolated Impression |
| Building Design                    |                   |
| Place                              | Crowd             |
| Pathway/Accessibility              | Accessibility     |
| Place                              |                   |
| Mobility                           |                   |
| Territorial Reinforcement          | Sense of Territory |
| Space Awareness                    |                   |
| Choose                             | Route Choosing    |
| Safe Choice                        |                   |
| Social Control                     |                   |
| Activity Support                   |                   |
| Urban Area                         |                   |
| Land Use Mix                       |                   |

Table 1. The Variables Observed
4. Results

4.1. Spatial characteristics of crime

There are 15 crime-prone spots in Surabaya, those spots has various form of the space like corridor-shaped space and area-shaped space. The corridor-shaped space are located in Surabaya main roads such as in MERR (Ir. Soekarno St.), Dupak St., Mayjend HR. Muhammad St., Demak St., Kartini St., Diponegoro St., Tanjungsari St., Mayjend. Sungkono St., and Bubutan St. The area defined as area-shaped space are scattered randomly in several Surabaya sub district such as in Genteng, Tambaksari, Pakal, Benowo, Karangrejo, and Gubeng.

According to Newman [7], there are crime-related characteristic of space, namely:

a. No/less social control space;
b. Urban space;
c. Isolated space;
d. No/less controlling space;
e. Obscure or less lighting space;
f. Deserted space;
g. High/ low accessible space;
h. No/less surveillance;
i. Not/less maintained;
j. Mix land use;
k. High/low density buildings/vegetation,
l. Space that not public (private space).

Any space that match with one of those characteristics above mentioned mostly vulnerable to crime. However, the empirical evidence from 15 crime-prone spot’s in Surabaya shown that not all of those characteristics above are affecting crime or are encouraging the criminals to commit the crime. In fact, most of all characteristics associated with crime obtained from the theory are not proven, and on the contrary, some are having opposite characteristic. All of the fifteen crime-prone spots in Surabaya are having their own route options and this is in accordance with the theory. Meanwhile, some characteristics such as isolated space, space that not public, and obscure or less lighting are totally in the opposite way with the empirical

| Indicator                      | Variable   |
|--------------------------------|------------|
| Land Use Mix                   | Activity Balance |
| Activity Support               | Well-maintained |
| Management and Maintainance    | Tidy       |
| Society Existence              | Public Space |
| Surveillance                   | Visibility  |
| Building Design                | Building Density |
| Natural Surveillance           | Eyesight Angle |
| Landscaping                    | Light |
| Territorial Reinforcement      | Space Possessing |
| Lighting                       | Lighting   |

Sources: Analysis, 2018
condition. Actually all of 15 crime-prone spots in Surabaya are not isolated space, it is also public space, and also has high level of brightness. The rest of the space characteristics identified above are not completely existed in 15 crime-prone spots in Surabaya.

On the opposite of the regular theory of defensible space area, the most common characteristic of crime-prone spots in Surabaya are crowded space and not deserted space and also has social control. It is also maintained space with a good surveillance and non mixed use of land-use. However some spatial crime characteristics are found proven in most crime-prone spots. Largely, some crime-prone spots in Surabaya have strategic accessibility, and in a high density buildings/vegetation environment.

Perceptions of the characteristics of space differ from one experts to another. This depends on their background and experience in building their own minds about space, especially the space for crime. Differences in background and experience can be specified in 5 categories. These categories are the criminals themselves, victims, police investigators, legal experts, and sociologists. The five categories represent their background and experience. Criminals have their own knowledge of location, who is the target, choice of routes, and so on. Such knowledge will be difficult to understand because their knowledge and thoughts about the crime space are built through a very long process of experience. The victims are community representations. From the character of the community's mind, we can find out whether or not there is a gap between villain's perception and public perception. The police investigator has his own point of view built on the investigation into the crime. Experts represent their respective scientific fields.

In certain cases, the theories believed by experts are not always true. During this time the police and experts tried to analyze where crime had occurred, so that further crimes were expected to be anticipated. But the construction of thinking is not the same as the construction of thinking of criminals so that anticipation does not always pay off.

4.1.1 The criminals

According to the perpetrators of the crime, there are a number of conditions considered before committing an evil act. The perpetrators of crime prefer to choose spaces that are not isolated, in the form of public spaces, and spaces with bright lights. This is contrary to the characteristics of space in the theory of evil. In the theory of crime, most cases of crime occur in isolated spaces, private spaces, and spaces that are not so clearly characterized. However, what is believed by criminals is different, according to them, isolated spaces, private spaces, quiet spaces, and unclear spaces tend to be avoided by society. Factually crimes occur in all types of spaces where there are potential victims of crime in the room, so that perpetrators of crimes will always follow the pattern of community activities in carrying out their evil actions. Crime incidents can be divided into three stages where these three stages occur sequentially.

The first stage is observation where the perpetrators of crime try to idealize space, potential victims, and the habits of prospective victims, the community, and every component of space, namely the design of buildings, CCTV, street furniture, even a spot on the road in the form of standing water. Criminals will go around two or three times to observe the conditions and circumstances around. This traveling activity is facilitated by certain road patterns. U-turn and ring road will make it easier for criminals to go around without stopping.

The second stage is the execution where at this stage of execution the main target of the perpetrators is the situation of crowds, open spaces, public spaces, and bright spaces. Private and quiet space tends to be avoided by society. The execution space is often different from the observation room, because in the process of execution, criminals use more instinct about space. After determining the target of the crime, the perpetrator will follow the target until the right time. The right time is defined as a calculation that takes into account the evil habits of the target, and the character of the space itself.

The last step is to flee after the perpetrator of the crime executes. The choice of route when escaping can differ from one execution to another. Criminals are faced with many route options to escape. In general,
criminals prefer to choose wide streets or alleys because on narrow roads or alleys, usually social control is very high because of strong ties in the community in narrow spaces.

These three stages require and at the same time increase the knowledge of the perpetrators of the sense of territory (Figure 1.).

![Figure 1. Example of Crime Territory in Surabaya Roads from The Criminal Point of View](source: field survey, 2018)

4.1.2 The victim/society
Public perception of space in general has similarities with the characteristics of space according to the theory of crime. Isolated space, accessible space, not tight social ties, smaller social controls, unclear spaces, less ownership of areas, and areas that are not well understood, can affect crime. According to public perceptions, the perpetrators of crimes generally come from low social strata, and this is synonymous with poorly maintained space. There is a perception in the perpetrators that victims generally live in relatively well-maintained spaces, because often victims are identified as humans from the upper economic class. Well-maintained spaces are generally characterized by low building density, where this causes social ties in the community to be often low. The low density of buildings will have implications for the low supervision of the surrounding environment by building owners.

4.1.3 The police investigator
From police records, most crimes occur in open spaces, public spaces, and during the day. Most of the perpetrators of crimes caught in these spaces were not due to high public awareness, but because of the fragility of the security system in the room. Inter-personal interactions in the public space have no effect to reduce or prevent crime. According to the investigator, if the criminals consider accessibility factors, the only accessibility that is considered when they escape is police accessibility.

Most crime incidents occur in residential areas and in road spaces. Crimes in road spaces often occur in commercial areas. Criminals will follow the target wherever they go and execute at the right time and in the right space.

Awareness in the community itself is one of the things that can reduce or prevent crime. The environment with caring people tends to protect their environment when there are strangers entering their neighborhood.
Awareness in the community will make every member of the community know each other, and quickly realize when there are strangers coming to their environment.

4.1.4 The law expert

What experts think and analyze is largely the same as the characteristics of space according to the theory of evil. Legal experts believe that crime takes place in isolated and lonely spaces, because this kind of space can reduce the possibility of finding evidence. Evidence can be in the form of people, recordings, or others. According to legal experts, accessibility is highly considered, where accessibility is not always related to road patterns, but also access. Limited areas or exclusive spaces and require special permits safer than inclusive spaces that can be accessed by anyone. A room that requires a special permit and has one gate system, it is much easier to supervise the surrounding environment. Fewer route options will be safer. Public space has the same opportunities and contributions in determining the success or failure of a crime event. Public space is an inclusive space, a space that can be accessed by everyone, has a high risk of crime because there is an opportunity to find evidence of crime.

Crime can also be caused by the community itself. When community ties are weak, people are indifferent, criminals will take advantage of their actions. Therefore the community must have concern for one another, feel ownership and responsibility to protect their territory, so that the possibility of crime in their environment can be reduced. The character of the location and design of the building also affects the ability of the community and also the apparatus to conduct supervision. In essence, crime is a battle between people (potential victims of crime) and perpetrators of crimes, especially related to the control and ownership of a region.

4.1.5 The sociology expert

From a sociological point of view, crime usually occurs in isolated spaces, because criminals feel that there are no rules they must obey in isolated spaces. Isolated is not only related to physical aspects or buildings, but also open space where it is very possible for someone to feel isolated in an open space. The more accessible a space, the more vulnerable the space is from crime activities.

Criminals have a number of options in carrying out their actions. Each option has its own advantages and risks. Route selection is included in the consideration of criminals. All ways to escape must be considered. The existence of route options is one of the factors causing crime. Social ties in society have a big impact to reduce the possibility of crime. An environment that is well understood by every member of the community is usually one of the characteristics of a community that has strong social ties. This social bond will increase their desire to own and protect their territory. Internal readiness is generally synonymous with a well-maintained environment so that a well-cared environment will be safer from crime. Basically, high-density settlements have stronger social bonds than low-density settlements. Low density buildings can increase their internal readiness through the provision of facilities such as CCTV. CCTV itself can be used as a preventive instrument that can symbolize the existence of a well-maintained space because it has good and adequate security facilities.

Criminals are often perceived as poor people who are identified as domiciled in slums, so that spaces that are identical to the domicile of rich people tend to be targets of crime. There is a stigma that states that criminals are always looking for what they do not have. There is a mindset in the community that if one room with high crime risks makes an effort to reduce risk, it will increase the risk of crime in the other space, because if one space increases internal preparedness, criminals will automatically try to find other potential spaces.

Criminals are easier to commit crimes in public spaces. Criminal instincts that will determine in public space are like what criminals will do. Some characteristics of the scheme of time and location that are targeted by criminals are the time of day, unclear space, crowded spaces by humans, empty space.
Both the community and criminals have their own perceptions in terms of territorial control, but the difference is that for criminals, the presence of the community is often used as a marker for mapping the territory of crime. These markers can only be seen and understood by fellow criminals. There is the possibility of overlap between space occupied by criminals and space controlled by the community. In this case, the level of overlapping is the beginning of the occurrence of crime.

4.2. Spatial configuration of crime

According to the assumption of criminals behavior and their criminal mind, crime pattern can be analysed which supported by several viewpoints, and spatial configuration of crime can be constructed in Figure 2. That spatial configuration consists of two kinds of space, namely defensible space, that was originally created by Newman [7], refer to the physical layout of communities to allow residents to control the areas around their homes, and action space, refer to a space that opposed to defensible space, which is favourable for criminals to commit their crime. The word “action” refers to the term developed by Wikström [11] on his research raised the concept of Situational Action Theory (SAT).

4.2.1 Action space

Action space is a conducive space for criminals to commit their crime. Action space boundaries exist only in criminals’s state of mind. There are three steps in one crime incident, namely a) observation, b) execution, and c) escape. Observation, execution, and escape are three different activities which have their own specific characteristics. Observation is a process to figure out the condition at specific time concerning the opportunities, risks, space pattern, target selection, and observe target habit within a very short time. After selecting a target at observation step, criminals will follow their target until execution time. Afterwards, criminals get away through specific pattern of space in escape step.

1. Observation Step
   a. Observation Access Pattern
b. Sense of Territory
In the observation step, sense of territory is a space defined by criminals to understand and memorize all the space characteristics, that includes street furniture, buildings, alleys, society habits, lighting, and rush hour habit. It is useful for determining the timing, execution location, strategy, and motives in the execution step.

2. Execution Step
a. Spatial Instinct
Criminals will execute and select their target according to their own instinct. These intuition/instinct is commonly obtained from their crime experience. The term intuition/instinct in this context means spatial considering/calculating knowledge that reside inside their own state of mind. Spatial elements in every criminal’s intuition can be utilized on target selection as well as society activity type selection.

b. Crowd and Open Space
a1) Open Space: Criminals tend to commit their crime in an open space. It is a common situation that society tends to do their activity in an open space instead of in an isolated space. Furthermore, the tendency that many people prefer to be in open space will be affecting society’s perception about feeling.

a2) Crowd: Since there are many people prefer to be in a crowd situation, the criminals used to commit their crime in crowd atmosphere as well. The criminals will always follow the society activity patterns. However, the execution process is much depends on their own criminals’s intuition.

a3) The examples of crowded crime-prone space in streets are like spaces along the road of Dupak St., Kartini St., Tanjungsari St., Pakal, Benowo, Karangrejo. There are no crime-prone spaces in an isolated area.

c. Sense of Territory
Having the sense of territory in the observation step, which includes the memory, knowledge, and control of street furniture, buildings, alleys, society habits, lighting, and rush hour habit, the criminals will exploit them to commit the crime.

d. Public Space

| Theory | Empirical |
|--------|-----------|
| The existence of public space reduces crime risk, because a lot of people can oversee | Criminals tend to commit crime in public space to keep up the pattern of society activities. Societies tend to do their activity in a public space for the reason that they will get secure feeling there. |
| Public space has easier access than private space | |
Mostly, all of the street crime incidents are taken place in public space.

Crime tends to occur in obscure space

Criminals choose bright space rather than obscure space, for the reason that society tend to do their activities in a bright space.

Mostly, all of the crime incidents are taken place in bright space.

3. Escape Step
   a. Escape Access Pattern

   Basic Access
   - Criminals tend to pass public road or big alley

   Escape Access Pattern
   - Public road and big alley identical with weak social bonding. Public road and big alley tend to have indifferent society.

   b. Route Selection

   Theory
   - A space with more route options is more prone to crime incident, because criminals will have more strategies or plans in one series of crime.

   Empirical
   - Route selection is needed by every single criminal in syndicated crime platform, and most of street crime at this time is syndicated crime.
   - Route options can be a U-turn road or crossroads
   - All of crime incidents have their own route options pattern

4.2.2 Defensible space

Defensible space is a space which can reduce crime risk by way of environmental setting and atmosphere. Defensible space is constructed under society’s state of mind, so that crime prevention efforts start from the society itself.

1. Positive Defensible Space
   Positive defensible space is a space characterized where crime reducing and crime prevention can be achieved by increasing some certain factors. The factors are:
   a. Social Control
      Criminals tend to avoid space with strong social bonding within their society. Strong social bonding will increase the desire to possess and protect their surroundings.
   b. Community Sense
      Community sense is characterized by a society who uphold togetherness, without dissension. This condition brings positive impact to their internal readiness to prevent a crime.
   c. Interaction and communication
      The higher the interaction and communication within society, the more they will have mutual understanding among themselves. The society will quickly be aware of when there is stranger get into them.
d. Space authority
   The authority of a territory is actually a situation which the competition between society and criminals to dominate the territory is existed and settled. If criminals dominate the space, those space will turn into action space. If a society dominate the space, the space will be secured from any crime.

2. Neutral Defensible Space
   Neutral defense space is space characterized by a situation that increasing or decreasing of some certain factors is not affecting neither crime nor security. The factors are:
   a. Well-maintained neighborhood
      Well-maintained neighborhood is a situation rarely not considered by criminals, so that the changing of its pattern does not affect anything. Well-maintained neighborhood is an internal readiness to prevent a crime.
   b. Tidy neighborhood
      Neatness is an environmental condition rarely not considered by criminals as well, so that the increasing or decreasing of this facto does not affects anything. Neatness can be considered as a security mechanism in crime prevention.
   c. Eyes on street
      Regardless there are much people get together in a space, or in an open space, criminals will continue to do their crime. In the criminal’s perspective, more people who most likely oversee does not affects the decision to do the crime.

5. Conclusion
   Crime mostly happen on the same space. This prove that crime has its own spatial pattern as well as crime behavior has its own pattern. Spatial characteristics of crime mostly believed that a crime space consists of deserted space and obscure space. It can not be denied that deserted and obscure space give threatened feeling. That is why society tends to avoid deserted and obscure space to prevent them from crime incident.
   Crime prevention is a useless thing if what we try to protect is not associated with something that criminals try to find. Therefore, it is important to consider criminals’s viewpoint in this context. The way criminals see a space and a society, they have different mindset since they have various different experience in committing crime. Meanwhile, space characteristics theory which not based on criminals’s mindset could not completely explore crime problem. The problem now is what kind of space that criminals most likely to do their crime, regardless their thinking is conflicting with the society’s or not.
   It is found that criminals have their own territory, they posses a specific set of territory, and they delineate their territory with an imaginary boundaries. Only the member of their community can recognize and identify where the boundary is. Their territory characteristics are commonly consist of bright space and crowded space. That is why the criminals territory is quite similar with the space where society feels secure.
   Territorial controlling is a rivalry situation between society and criminals. The one who has stronger power and has better understanding, memorizing, defending, and protecting the territory will dominate the space. When criminals dominate the territory, the space will definitely turn into crime-prone zone, and vice versa, if society dominates the territory, the space will be a safe zone from crime.

6. References
   [1] Pratiwi, N. N. (2014). Skripsi Kajian Sosiologis Bentuk-Bentuk Kriminalitas di Angkutan Umum. Universitas Lampung.
   [2] Rusman, L. (2014). Skripsi Tinjauan Kriminologis terhadap Kejahatan Perjudian di Kota Bau-Bau. Universitas Hassanudin.
[3] Portland Government. (2015). Crime Prevention Through Environmental Design. Crime Prevention Program. City of Portland.

[4] Singapore Government. (2003). Crime Prevention Through Environmental Design Guidebook. National Crime Prevention Council of Singapore.

[5] Hill, Bryan and Paynich, Rebecca (2014). Fundamentals of Crime Mapping (second edition). John & Bartlett Learning, LLC an Ascend Learning Company

[6] Tucunan, K. (2011). Thesis Pola Ruang Kriminalitas Kota Studi Kasus Kota Surabaya. Universitas Gadjah Mada.

[7] Newman, Oscar (1996). Creating Defensible Space. United States Department of Housing and Urban Development. Office of Policy Development and Research.

[8] Higgins, N., & Millard, B. (2009). Geographic patterns of crime. In A. Walker, J. Flatley, C. Kershaw & D. Moon (Eds.), Home Office Statistical Bulletin-Crime in England and Wales 2008/09 (Vol. 1(11/09)). London: Home Office.

[9] Nes, A. V., Rueb, L. (2009). Proceedings of the 7th International Space Syntax Symposium. Eds.: Koch, D., Marcus, L., Steen, J. Trita-ARK. Spatial behaviour in Dutch dwelling areas: How housing layouts affects the behaviour of its users. Stockholm: Forskningspublikationer.

[10] Aldrin, A., Marzbali, M. H., Razak, N. A., & Tilaki, M. J. M. (2011). A Review of the Effectiveness of Crime Prevention by Design Approaches to battled Sustainable Development. Journal of Sustainable Development, Volume 4, No 1

[11] Manzo, Gianluca, ed (2014). Analytical Sociology: Actions and Networks. First Edition. John Wiley & Sons, Ltd, 77-78