Improvement of Environment Security and Decrease of Crimes with the Confirmation of CPTED (with the Emphasis on Iran’s Condition)

Seyed Manaf Hashemi
Islamic Azad University, Science and Research, Iran

Hadi Mahmoudinejad
Department of Architecture, Faculty of Art, University of Tarbiat Modares, Iran

Omid Ahadian (Corresponding author)
Islamic Azad University, Hamedan branch, Young Researchers Club, Iran

Received: February 23, 2011 Accepted: March 28, 2011 doi:10.5539/jsd.v4n3p142

Abstract

Nowadays attention to the understanding of citizen's security and the improvement of them is one of the most important issues for the professional and theatrical issue for the citizens. Apart from the effect of social and cultural, the result of programming and secure environment of the city and the pattern of the behavior of the citizens and the Improvement and quality of environmental surrounding, the acceptance feature and the effect of the city framework is due to the decrease of city people or the decrease of crimes, is an important and difficult issue is focused on city planning theory. In this research after mentioning the abstract for motivation and the vital opinion in the security public, the role of city framework (programming the environmental design) in the decrease and prediction of crimes in the city in the function of CPTED.

The meaning, principle, paradigms and the strategy function is mentioned. This issue is important in this way that today in the process of open space design in the city and potential of city buildings in decreasing or preventing crimes. The recent function can be designed in a suitable and proper way in a residential location in decreasing crimes; the aim is to improve the quality of life and increase of citizen's support.

The recent survey is analyzed by documents and evidence. The use of this project is utilized to make a better residential location for the citizens. The result of this recent survey is analyzed by evidence and the experience of utilize and it can be attested that the city design from the average crime and crimes have been decrease, the use of this project is mentioned.

Keywords: Urban design, Decrease of crimes, Social, Super vision, Control availability, CPTED

1. Introduction

The function of CPTED (prevention from crime with the use of environmental design) can be utilized as the function of motivation. For being useful and intellectual and for improving the residential environment and decrease in the crimes in such effectual ways that you can see the increase in social investment, improvement in life stile quality, average in increase of satisfaction of citizen and the consequence in the social welfare. In this research there are agreements in the opinions and the function of CPTED in two dimension-1- decrease of crimes in city from one side increase of security and safety of open areas, these two reasons can be effective (Gronland, 2000).

The attention of the recent decades can be taken into account because of the increase of crimes in the open public place and mid open spaces. In spite of the investment and the budget spent on these issues, the management did not get a satisfactory result (Cozens et al., 2001).

Despite the investment, the system of defense and also the presence of citizens in the supervision of environment in addition to, uselessness of the patterns of space was in such a way that the result obtained, the interference of framework slowly was involved as an obligation to design process. Two Canadian researcher (Weckerle and Whitzman, 1995) there approaches for the safe city and emphasize on the management and prediction of crimes
have been suggested. These approaches among the government and the citizen especially to the reclusive group and the outsiders, Prediction of social and physical change is taken into consideration. Welerel and Whitzman for promoting security and safety in city places there ways have been mentioned.

- Recognition of environment.
- Supervision of others.
- Help attendance in case of necessity.

Unity of the components of the environment design, security and safety are increased by presenting the facilities for showing the pattern rimes (Wekerle and Whitzman, 1995). In the safe city, securities in those cities are certain and people can feel the safeties of the place and they don't feel any danger. Actually the base of a security city is more concentrated on the issue the danger reach to minimum. On this base any interference event on the frame of the city according to the report of the city is taken place. The new approach of environmental design is noted at this point that paying attention to the construction of city frame and compilation and implementation, special criterion in them can be prevention (Wilson and Knelling, 1989). That this way from decreases of natural potential around the city for crimes or providing facilities to commit crimes.

According to the rule in this survey is described as the principle, the understanding and the objectives of the reports are mentioned and in the end, the facilities and the techniques and the rules that can enacted in the suburban and the cities. The importance of the survey can be summarized in this way that nowadays the least capacity potential decrease and prevention is taken into account. on this basis the city planner or architect in the process of designing and replacing open space for city plan or plan building must take this point into account that space design should be so designed that it will decrease the possibility of supervising the areas or the ways to decrease the possible crimes and it should be prevented. The generalization and the development of this approach in city planning shows that the effective if this system in the increase of security and at the same time the result obtained in the interference of citizens and according to this base it is necessary to adapt to criterions and the past principles that the Iranians city planners used traditional ways, steps were taken to build the city with security and decrease the crimes to a suitable limit (Geason and Wilson, 1989) or at least make it to maximize and provide a safe and secure city for the citizens. The security is important for the new approaches of city planning thus the security and safetyfiness of the city is needed (Crime Information Analysais Centre, 2000) the way of the research have also the approaches with the documents and analysis, that can be used in the available source; supervision of the environment. After predicting the historical the design is used in traditional city planning and traditional architecture, they are also used by the government members and city house planners. Tools that have been collected by the information provided / source and steps that are used in the recent survey for research and study include books and magazines in English language. They consist of research field, application, correspondent documents from the professional experts and at the same time, study and internet research that connects with the topic such as international World Bank (WB) and the research through out the world like South Africa (C.S.I.R) (Napier et al., 1998) and in general, analysis of study, internet site local government of the city, like Edmonton (City of Edmonton Planning and Development, 1995), Durham (City of Durham County, 2004), Virginia Beach (City of Virginia Beach CPTED Committee, 2000), Tucson (City of Tucson, 2003), Florida county (Plaster and Carter, 1993), Baltimore county (Office of Planning in Baltimore, 2000), Lismore (Lismore City Council, 2000), Adelaide (Government of South Australia, 2002). Analysis and rebuilding of site International Institute of Crime (N.I.C.P, 2006), National Committee Crime prevention (N.C.P.C, 2000), It has been tried the required information containing approaches (CPTED) in logical framework.

2. The description and the meaning of the function of CPTED

This function can be design usefully and the best use of all elements existing in unnatural (artificial) environments for decreasing the city crimes which directly or un directly have great effect for increasing the quality of life, in satisfying the citizens, improvement in lifestyle (Timothy, 2000). Society center of crime (NICP 2006), this function has been designed and used in making life better, for decreasing or lowering the crimes and improve the life.

The international committee CPTED has used this process for decreasing and preventing crimes. The National organization prevention of crime (NCPC 2000).

This committee has also used this area skillfully which can decrease the potential crimes.

Tim Crow, (manager department international prevention of crimes has used the design of environment). This project has been known as the security way that predicts the action from the city design and program for decreasing the problem of offence and crimes.
According to this process, the function can be named as the components in designing the city area that from the design and the city plan for preventing to commit crimes or can be used in the decrease of crime (Fleisher and Heinemann, 1996).

The World Bank is believed that this type of design is possible that the citizen is the main key for their own protection for creating a social environment and the result was a success.

Petrella (2004) has predicted three main reasons for committing crimes:

A) The law act
   - programming the police patrol
   - Improvement of communication and availability
   - obeying the law
   - completing the supervision
B) The danger groups and social prediction
   - The program of harm (women, children, youngsters)
   - The educational program
   - The development of aid and victims
   - The facilities of spending leisure times for youngsters
C) The program and management of physical
   - The street light
   - Public place and gardens
   - Design of streets, building parks etc for decreasing the possibility of crime.

The social prevention and the suitable design and environment program that without regarding them, we can't decrease the crimes in the city.

The above example are as important as the prevention is better than cure and this is only possible in today society, in these days the punishment after the crime is more taken into consideration (Poyner, 1983).

In such a way that first the crime should be committed and then they think of the result or the role of those example given, first some crimes is done then the prevention is thought about.

The recent approaches are possible and with the help of design of framework of city from the framework of building and plan design and the place where crime is committed, we can use a suitable place for keeping away from crime.

The city building is a place for citizens and on the other hand it is a place for crimes and it is not a public place or a crowded place where there is a lot of crime we can design a city plan or building to prevent city crimes. Many crimes in the city are reported or not reported, un willingly or willingly and predicated or un predicated are taken place, each while happening are dependent in the city structure in some way because if the environment of crime is not handy, the crimes are decrease automatically (National Crime Prevention Council of U.S, 1997).

This is only important that society research show that fright from crime event is on the way of decreasing and the feeling of security and safety will decrease.

3. Experience, aim, location and benefits of CPTED

In history, prevention of crimes through environment design, training can be taken into considerations (Meyer and Qhobela, 1998) which are shown in Table I.

As it is shown in the Table 1, support of the social aim and improvement in supervising the public and increase of public area, and the elements of independence in city area and destruction of the rural area, the facilities and security in the city.

The aim of the approach is increase of city security with decrease of crime in the city which is a tool for decreasing or preventing the city crime (Smith, 1996). By showing artificial environment by physical or frame work and by using influential barrier, two layer glass window and secure doors or doors with metal fences. These are the precautions which prevent the crimes from happening in the city I such a way that city crimes are decreased. For recent approach, a location is taken into consideration that depends on crime institute are divided into two parts. These two parts are included for physical and social aspects that the physical aspects and their
control are noticed in the criminal aspects. In the social location prevention of crime in the city behavior is based on psychological environment and the location of frame to prevent the criminal behavior is from the framework and the standard of environment design. In addition to these approaches there are some benefits like to have a better quality of life and increase of citizens and encouragement of city life; decrease of crimes in the city and decrease of capacity of crimes in the city (NICP 2006). Increase of social activities and economic activities and increase of local cooperation and contribution are pointed here.

4. The main principle approach of CPTED

According to documents, experiences, proofs and opinions of international experts in this field we can point to the principle that can be used for environmental design. The use of this principle and the understanding of the figurative, it plays an important role in preventing the environmental design crime. These principles are:

4.1 Available control

By using this principle, we can decrease the probability available for committing crime (Kruger et al., 1997). We can get help from the citizens, pedestrians or residents occupying that location. By controlling the exit and entrance door of complex building in the city site and the location of lights and the natured surveillance of site, these steps can be taken to prevent the crime happening in the residential area. This principle is to decrease the potential available to the crime location. In the Table 2 some international steps have been discussed.

4.2 The reinforce natural kingdom

Kingdom is thought as the separation of private residence to public places and it takes place according to be possessive of something. This principle comes from the feeling of possession and the characteristic of proprietor is made. And it is possible that the umbrella concept is being used. It is needed to be reminded that it can be considered as having the citizen feeling of possessing compared to residential location and rural areas. The presences of strangers are a problem or a threat for the residents in those places. In another way only after having those feeling the citizens can prevent strangers from entering the residential places; in Table 2 some international suggestions are mentioned.

4.3 Repair and Preservation

By repairing and preserving the city furniture and bill boards and other boards and street lights and landscape we can decrease the expenditure of the city. In addition, decrease in the expense of city leads to decrease of crime. In Table 2 some internationals suggestions are mentioned.

4.4 Natural supervision

Natural supervision means ability to build city environment from being obvious and supervise easily. This can be done with the help of citizens and police forces. These are possible city environment is clear and can be seen and places that cannot be controlled that is blind spot is avoidable (Landsman, 2000). This problem can be solved by city planning and housing when green areas are considered so that blind spot are hidden by fences, bush and trees, shrubs and these fences allow other to supervise the area. In Table 2 some internationals suggestions are mentioned.

4.5 Social activities support

It means that these facilities are possible to activate same social activities in the city area like providing job situations and create educational welfare. It can improve social activities (Designing Safer Communities, 2003). Many social crimes happen and control system is less or lack of physical humanity, in this system many ways have been tried so that social activity occur and in reality city area and areas where there is possibility that there are lot of crimes being committed. In Table 2 suggestions are given in this subject.

5. The guideline for CPTED

For preventing and decreasing the rate of crimes, we can apply the system of environment design and reach to the guideline (NICP, 2006) which by the help of National council of crime is done.

This guideline can be explained in this way:

City should be designed in such a way that the area in the city could be supervised to prevent the suspected social activities.

- Definition of controlled area for city construction.
- Natural supervision of pedestrians in the city.
- Definition of specified public area, mid public and private.
Creation of effective facilities for security in insecure place.
Prevention of insecure area in the secure area of the city.

International bank WB for preventing and for preventing and stopping crimes in environment design for local government is a task.

According to this they from supervision of city organization with the cooperation of the local people living around the area is possible. Regard to guideline in this point is that we can try to the citizen abilities or from the capacity of local people (like CBONGO'S) from city planning he was able to reach to his goals. Without any suspicion every progress in city planning development only looking at the city we can part the guideline in reaching the aim of increasing a better lifestyle. We can point out the role of a mayor in a city.

Supervision and control, well lead and arrangement.
Cooperation and use of capabilities of local people.
Access of plant, identification of the exact spot of crimes.
Economic help, specify strategy of guideline

In addition to International bank in the role of local government/ mayor should play on important role for preventing crimes from environmental design from special system to improve the city area. It can be mentioned as follows.

Diagnosis: Identification and specify the location crime and express the problem and specialties of danger.
Design of Action plan: Progress of local design average and long term.
Man & Imp: management and programming time and plan and suggest the budget.
Evaluation: evaluate on aims in doing the design project.

6. A look to the recent experiences in Iran

It is true that learning language is the traditional pattern in city planning, it depending on experience and culture, social together in marking public areas a success. Cooperation of citizens to supervision the local area is the main cause to prevent the crime, because any stranger in building the ancient place were recognized by the citizen and people and the local shopkeepers were controlling the area.

The presence of night walker and night guards is also important that now still in constructing the areas in the city, they are still seen. Moreover building the city people and have the feeling of possession makes the environment design.

The most important thing in the traditional area in Iran, the cover, the privacy in residential place, the prejudice of people was also important. The designed window is on of the cause in addition that is cause, privacy in people's life it makes a good facade, however it prevents the sign from inside and outside and the location of windows were situation in the height of 2.5 meters and it prevented any sign from outside. First of all for privacy and on the other hand it increases the supervision for the residents. From the pattern and design of the building we can distinguish the indoors and outdoors. The entrance door in the corner side and the supervision of immigrants and probable outsiders and the rooms in the house were situated in such a way that the surrounding and the going and coming of people were supervised.

The traditional architecture which is similar to our survey is also referred to the closeness and attachment of the houses. In any way the main features of the traditional architecture help to prevent crime through environmental design we can conclude that:

Creating the entrance and exit doors and the system of rooms cause the supervision.
Create the steps available in residential area and decrease the possibility of entering the houses easily.
Create houses with yards and control and supervise on the rooms.

4. Increase of local communication with the neighbors and interacting on the problems of committee.

The most important step to prevent crimes from environment design in traditional house planning, Whit increase of dense population and residential complex, houses that are attached to each other are depended that facilitates the supervision on complex center and commercial complexes.

The word "committee" in housing and city planning is the main traditional pattern, which increase the social behavior supervision of citizen and overcome the kingdom of city. This shows that attention of environment
traditional architecture and city design of Iran, although nowadays these types of design are impossible. But it shows that we must focus on the way to stop crimes from environmental design and taking into consideration the condition of location and time a few steps have been taken.

7. Discussion and conclusion

The improvement of everyday crime in the structure of the city framework and this is unnoticed by the architecture and city planners the principle of crime environment cause the new approach in the possibility of the CPTED to enact the design for the building or the city planners to improve in the structure of building. This is important when these things are conducted and may be it will lead to city security and the measurement of satisfaction of the citizens, it is one of the ways for increasing the welfare of the city. Traditional architecture and city planning, According to the above statement it should be tried to utilize the ways of CPTED in the process of architecture or in city planning design should be done. In the motivation of building the city with traditional architecture many important rules should be followed; by using these principles the design could be better developed and could decrease the crimes and could prevent crimes from happening in the city.

A) Enforcement of natural kingdom

In this topic we can deal with the sense of proprietor or ownership people to their city and the suburbs, the facilities can be provided so that the citizens would understand that the city belongs to them and they would try to increase the security safety.

B) Control availability;

For residential site and the way of the exit and entrance sites proper visually and special definition can be used in the sites to create special supervision for the exit and the entrance.

C) Natural supervision-

In this case it seems that supervision on citizens on open space is possible and create blind environment which would be unavailable to all things that decrease crime potential.

D) Social support

Creation and design of social activities in places in which has potential for crimes, we can increase the supervision to people, so that this region can control the going and coming of outsiders (those pedestrians or with means of transportation). These would be a place for controlling the citizens.

E) Repair and protection

By repairing and protecting the public utilities specially the basement of the building of the city we can get help from natural supervision and shape the natural kingdom and social activities could decrease the potential crimes; so that the citizen's supervision will increase. Also in the recent times Of Iran more attention should be given to the city and decrease the cries happening in the city.

• Training of Architecture and city planning

For decreasing crimes, attention is not paid to Architecture and design, we can understand that the reasons are not having any training to prevent crimes in environmental design. For these professors the importance for designing and architecture design is emphasized to the students and if possible units or courses for students and examinations have been used and strategy of CPTED, security of city and environment design have been taken into consideration.

• The National Construction Law

We can point that many countries have the laws and enactment for obeying. The laws to prevent crimes in environment, According to these laws we can enact the framework in the buildings so that everyone could obey the laws.

• Trend of city design and architecture

The process of architecture and city design should do something to prevent city crimes and environmental design and create environmental city and potential for crimes. It seems that architecture and city planner should design plans and residential sites or residential complexes.

• Cultural and social locations

In this relation we can create suitable location for cultural and social activities in the cities, so that the citizens would care and protect their environment. This problem can only be solved if people tried to accept that the cities
like their houses are for their own. The more they pay attention to this problem they can protect the public places and this will lead to the decrease of crimes.

- Social communion

It should be said that only the help of people in the process of city planning in the approaches of social communion, improvement is expected in the recent situation.

Why people are so unconcerned about the cities? We can develop a city without the interference of people and decide about hr local region, it is needed to make them aware of the city or region in which they are living that is theirs, their own property and there is not much difference at their homes and the city that they inhabit. In anyway they have to accept that only the crimes will decrease if they themselves have to participate in directing the region and now that they are unconcerned about their region it only make the situation worse.

- Cultural education in the society

People have to be culturally educated and people's opinion on open space in the city and the region that they are living could be changed. Cultural opinion in the level in management in Iran, we have to go along way to get a satisfactory result because the belief and their habits and their opinion are a structural society. And works should be done in a prolong time/short time. Anyway people must accept that only they could cooperate more in social activities in order to improve the structure of course the role of social organization and committee centre are required. The plan of social safety that have been started and is still continuing it has been seen that after sometime, the fear of people from scoundrels have decreased and in fact people are certain of their deeds people have started to be active in social activities and it showed that with a proper management we can expect a good result with people's cooperation.

- Codification of introductions of framework design

The content and distance between the building (mass in space) the route and the corridor, site available and residential complexes, is available for public and even searching residents and union of sites in the city in crimes that there is effected. So it is needed to have a proper frame work of the city and residential complexes depended on the content of buildings and distance between them and etc…

This problem in other countries and municipalities/local government are found. In Iran this type of design have to be designed according to the culture and tradition and psychology relations because it cannot be done without paying attention to cultural and tradition of that country design and housing plan can be built.

References


Florida Criminal justice Executive institute, Tallahassee, Florida.


Table 1. Experiences of CPTED application and consideration of scientist and the citizens

<table>
<thead>
<tr>
<th>Decade 1966</th>
<th>Jin Jacobs, the book of life and death in the city of America (Jacobs, 1961)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Safe street in the city is needed</td>
<td></td>
</tr>
<tr>
<td>2. Division of assessment public and private areas</td>
<td></td>
</tr>
<tr>
<td>3. Variation and application and mixture of both</td>
<td></td>
</tr>
<tr>
<td>4. Useful effect and prevention from pedestrian presence in the city area for decreasing the predictable crime.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Decrease of natural potential of crime in the city</td>
<td></td>
</tr>
<tr>
<td>2. Citizen should see and should be seen (public supervision)</td>
<td></td>
</tr>
<tr>
<td>3. Visibility and obvious in public places</td>
<td></td>
</tr>
<tr>
<td>4. Willingness of people and reportage and come face to face with crime.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Show the theory of broken window (broken window gives facilities and opportunities to criminals for committing crimes) (Wilson and Knelling, 1982)</td>
<td></td>
</tr>
<tr>
<td>2. Decrease of natural potential in the area of the city</td>
<td></td>
</tr>
<tr>
<td>3. Point to the problems of artificial environment</td>
<td></td>
</tr>
<tr>
<td>4. Point and emphasis of useless law and the standards of design and architecture</td>
<td></td>
</tr>
<tr>
<td>5. Plan barrier for natural environment and prevent the facilities in decrease of crimes in the city</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Show strategy and systematization of the approaches. Exhibition events and international conferences is mentioned cities:</td>
<td></td>
</tr>
<tr>
<td>1996/ 1st Calgary/Canada</td>
<td></td>
</tr>
<tr>
<td>1997/ 2nd Orland/FL/USA</td>
<td></td>
</tr>
<tr>
<td>1998/ 3rd Washington/USA</td>
<td></td>
</tr>
<tr>
<td>1999/ 4th Mississauga/Canada</td>
<td></td>
</tr>
<tr>
<td>2000/ 5th Oakland/SA/USA</td>
<td></td>
</tr>
<tr>
<td>2001/ 6th Brisbane/Australia</td>
<td></td>
</tr>
<tr>
<td>2002/ 7th Calgary/Canada</td>
<td></td>
</tr>
<tr>
<td>2003/ 8th Amsterdam/Netherland</td>
<td></td>
</tr>
<tr>
<td>2004/ 9th Brisbane/Australia</td>
<td></td>
</tr>
<tr>
<td>2005/ 10th Santiago/Chile</td>
<td></td>
</tr>
<tr>
<td>2006/ 11th Calgary/Canada</td>
<td></td>
</tr>
<tr>
<td>Recommended in the approaches</td>
<td>Handy Control</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1. Simultaneous use of area with the help of consumer from remedy environment design</td>
<td>1. Use of prevention barrier like wall, fences</td>
</tr>
<tr>
<td>2. Use of billboard, sign and symbols from visual arts</td>
<td>2. Warning people, checking the exit and entrance doors</td>
</tr>
<tr>
<td>3. Increase of natural supervision and development of possession from social organization</td>
<td>3. Suitable use of subways like coverage of floors, septum and building around the residence</td>
</tr>
<tr>
<td>4. Use of strategy and get help from social organization</td>
<td>4. Suitable, sufficient lightning for the gates, entrance doors</td>
</tr>
<tr>
<td>5. Use of house planning and open space, fences in city planning</td>
<td>1. Heeding the standard furniture of the city like street light and city billboards</td>
</tr>
<tr>
<td></td>
<td>2. Attention to city user from city programming</td>
</tr>
<tr>
<td></td>
<td>3. Attention to public place like park, public parking</td>
</tr>
<tr>
<td></td>
<td>4. Suitable places for telephone booth and newspaper stall or vending stall in crime region</td>
</tr>
<tr>
<td></td>
<td>5. Presence of human being to control public place</td>
</tr>
<tr>
<td></td>
<td>6. Increase of sight by using green plants with green city planning</td>
</tr>
<tr>
<td></td>
<td>7. I louse planning site and parking should be clearly seen</td>
</tr>
<tr>
<td></td>
<td>1. Remarking the open space plan with the proper use of the city</td>
</tr>
<tr>
<td></td>
<td>2. Create mass in social activities in the crime region</td>
</tr>
<tr>
<td></td>
<td>3. Economic activities in police forces</td>
</tr>
<tr>
<td></td>
<td>4. Facilities of roads and streets where there is less supervision</td>
</tr>
<tr>
<td></td>
<td>5. Replacement of public areas in sight with less supervision and sight.</td>
</tr>
<tr>
<td></td>
<td>1. Repair and maintenance of city like billboards the communication signs</td>
</tr>
<tr>
<td></td>
<td>2. maintenance of breaking public properties like supporting pedestrians</td>
</tr>
<tr>
<td></td>
<td>3. Landscape of city depending upon the sights and public supervision.</td>
</tr>
</tbody>
</table>

Table 2. Remedy of the problems cited above and suggestion