

Crime Prevention At Business Complexes: A Case Study At Centurion Centre

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1 Introduction

In this section of research, crime prevention at business complexes was examined and Oscar Newman's defensible space theory was used in the analysis. Centurion Centre, Centurion was chosen as a case study because it has an open plan design. This has the effect that some parts of the centre cannot be closed at night. Centurion Centre was described in terms of the defensible space mechanisms. A crime prevention model was drawn up for Centurion Centre and recommendations were made regarding the security of future designs for business complexes. This field of study and approach to crime prevention is, however, very new in South Africa and suggestions for more research have been made.

In this article all the findings of this research will be discussed. The findings are used as basis for recommendations and suggestions for further research possibilities.

2 Findings

The research resulted in the following findings:

2.1 The individual human and social milieu as well as the criminal law crime prevention theories, was found unsuitable for the explanation of crime in business complexes such as Centurion Centre. These models only focus on the offender and his origin and not on crime as such. By making use of punishment and the treatment of offenders they aim to prevent the re-occurrence of crime. This implies that criminal activity must take place before any "treatment" can be done. Very little to none attention is given to making the potential victim more defensible.

2.2 Although the defensible space theory model of Oscar Newman is designed for crime prevention in residential areas, it has the potential to be applied in business premises. The guiding principle of his theory is to utilize the environment in the prevention of crime. When a potential target is identified it can be made

defensible by using the environmental design. Environmental design has already been used in different fields by people such as Poyner, Grissworld and Jeffery. Worldwide various studies have been conducted on for example the effect that illumination and the closure of streets has on crime. Although the concept of defensible space originates in making apartments more defensible it can be applied to any environment where people live and work.

2.3 The defensible space theory of Newman emphasize the following aspect in the prevention of crime in residential areas, namely: location, image, territoriality, symbolic barriers and surveillance. Although Newman refers indirectly to access control in his work he does not identify it as a separate, pertinent category as Poyner did. However he is still regarded a one of the first persons that developed definite categories in environmental design for the prevention of crime.

2.4 These same aspects of location, image, territoriality, symbolic barriers and access control is present at Centurion Centre. The researcher found that the architects included some of Oscar Newman's elements, although their design was not based on it.

2.5 It was found that Centurion Centre was well placed for the prevention of crime with regard to location. The image of the centre as well as the image of territorial control portrayed by the area, is of such a nature that it contributes to the prevention of crime. The symbolic barriers present at the centre also prevents crime. The manner in which surveillance (active and passive) as well as access control (especially access control conducted at places such as the parking spaces) are linked together and is a positive point which shows that the defensible space model of Oscar Newman can be applied at this centre.

Different hypothesis were used in guiding this research to investigate certain applicable components of the defensible space model. For the aim of this investigation it was decided to focus on the location, physical and symbolic barriers, surveillance and access control, because these components have the most impact on crime prevention in the centre.

The image of Centurion Centre was not tested as it fell outside the perimeters of this research. The involvement of the public would have to be gained as only they can comment on the impression that the buildings present to them. It was decided to rather involve the owners and managers of business in the study and obtain their input because the crimes and crime prevention measures would have the most impact on them. The image of the building was reviewed although not tested. The result and findings of the hypotheses are described in the following table.

Table 1 - Hypotheses and Findings	
Hypothesis	Finding
Location - There is a correlation between the occurrence of theft and the location of businesses next to public roads.	There is a correlation between the occurrence of theft and the location of businesses next to public roads.
Physical barriers - There is a correlation between the presence physical barriers and the occurrence of crime.	The presence of physical barriers have no correlation on the incidence of crime at Centurion Centre.
Symbolic barriers - There is a correlation between the incidence of crime and the usage of stickers on business windows, warning that the businesses are members of a security organization.	There is no correlation between the incidence of crime and the usage of stickers on business windows, warning that the businesses are members of a security organization.
Surveillance - There is correlation between the view from within a business on a public road and the occurrence of theft.	There is a correlation between the occurrence of theft and the view form within a business on a public road.
Surveillance - There is a correlation between the view from within a business on a public road and the time that thefts take place.	There is a correlation between the view from within a business on a public road and the time that thefts take place.
Surveillance - There is a correlation between theft and the usage of floodlights surrounding a business.	There is a correlation between theft and the usage of floodlights surrounding a business.
Surveillance - There is a correlation between theft and the incidence of streetlights surrounding a business.	There is a correlation between theft and the incidence of streetlights surrounding a business.
Access control - There is a correlation between the making use of access control and the incidence of crime.	Only tendencies was found at this hypothesis. People who tend to make more use of access control have had earlier incidence of assault.

With regard to these findings some recommendations were made, including the following:

3 Recommendations

The following recommendations are made based on the above mentioned findings:

3.1 Centurion Centre portray the right image according to the specifications of Newman's theory. It is therefore recommended that the premises be maintained as is at present. This implicates that the grounds be kept clean and neat to create the image that there are people present that take responsibility for activities that take place in their environment.

3.2 Parking lots.

Sufficient parking is provided for the personnel and potential clients of businesses. Motor vehicle guards and washers serve as symbolic and physical barriers and it is recommended that the status quo be upheld. If possible, watch tours should be instituted to provide the opportunity for active surveillance by the caretakers of the parking lots. These structures are already part of the present landscape and will not give rise to fear amongst the public. Twenty four hour observation can also be effected by rigging up closed circuit television to survey the activities of members of the public and offenders.

It is suggested that the open parking lots be fully fenced with a transparent barrier such as a wire fence, and manned booms be installed. At some of the parking lots, low wooden fences are already in place which serves as symbolic barriers. These type of barriers will prevent that the feeling of "openness" which is achieved by the present design will not be lost.

3.3 Central Centurion Centre

It is suggested that only one security company should be employed for the security. This company should operate from a central control room. This is the ideal because it stops the offender from moving systematically from the one side of the business center through to the other side. Otherwise it is recommended that regular meetings be conducted between the two existing security firms with the view to exchange information and mutual relations be promoted. Existing cooperation between grass root level personnel can be enhanced and used more effectively. The managers of businesses, the South African Police Service and the City Council of Centurion could also be activated to participate.

The closed passages can be secured by closed circuit television as well as notice boards stating the use of closed circuit television. Shops containing merchandise of high value should be placed more in the center of these passages, where it will not be so accessible to crimes such as armed robbery. Although owners and managers of businesses are responsible for improvement of their own internal security measures based on their own needs. For example the usage of metal detectors which are used in detecting the removal of goods that are not paid for.

3.4 The level of security at the four public toilets will be increased if closed circuit television is rigged up. Considering that putting up closed circuit televisions will be very expensive the permanent stationing of security guards at the toilets can be used as a cheaper solution. This recommendation is especially important for the safe guarding of the public toilets situated apart from the main passage in the Fashion Mall. At the Boulevard Mall two way mirrors can be installed at the T-junction of the passages. Fake windows can be placed against the walls to create the illusion of surveillance.

3.5 The open-air passage for pedestrians can be divided by placing a permanent structure accommodating stalls. This will increase the opportunity for surveillance as well as providing the owners of stalls a view of bypassing pedestrians.

3.6 According to the security firms no problems have occurred at the service tunnel. However it is advised that the service tunnel entrances be guarded more strictly, especially when goods and money are being delivered to the different shops. This is very important over weekends when this area is very quiet. Putting up CCTV, connected to a central control room, will ensure that any suspicious activities will be noticed immediately and can be acted on.

In table 2 the recommendations, based on the findings or the research, which serve as the a crime prevention model for Centurion Centre, is summarized.

Table 2 - Crime Prevention Model for Centurion Centre
1. Location
<p><u>Already present</u></p> <ul style="list-style-type: none"> - The community in which the centre is located, is reasonably involved in the safeguarding of their environment. - Centre is situated between three main roads, connected to the internal parking lots , providing constant flow of traffic. Centre is situated in a safe area. - The central part of the lower open air passage is surrounded by businesses that are open at varying times. This ensures a constant flow of members of the public.
2 Image
<p><u>Already present</u></p> <ul style="list-style-type: none"> - Buildings are built of good quality material and finished of with durable decorations. - The center grounds are clean, neat and are kept in good order. - The lake, which tends to get unsightly, is cleaned and upgraded on a regular basis. <p><u>Additions</u></p> <p>The premises must be maintained in line with the current standard.</p>
3 Surveillance

Table 2 - Crime Prevention Model for Centurion Centre

3.1 Passive surveillance

Already present

- Great open area (parking lots and pedestrian routes) providing unobstructed viewing.
- Most businesses have windows, ensuring surveillance from within and from the outside.
- The walls of the enclosed passages in Central Centurion Center are mostly made of glass which mainly provide the same surveillance opportunities as mentioned above.
- Public streets, most of the internal grounds and pedestrian routes are supplied with sufficient lighting.
- Uninterrupted lines of sight exist between the parking lots towards the buildings, and from the buildings towards the lake. This excludes certain parts of the pedestrian route surrounding Centurion lake.

Additions

- Placement of two way mirrors in the turns of the passages as well as one way mirrors creating the illusion of surveillance.
- The open air passage can be divided with a permanent structure housing small stalls . These will also serve as physical barriers.

3.2 Active surveillance

Already present

- The South African Police Service, focussing on visible policing, patrol the area.
- The security of Centurion City Council patrol the parking lots on an irregular basis.
- Two police officials do foot patrols in the business centre on a permanent basis. They also serves as a physical barrier.
- There are motor vehicle guards working in the parking lots.

Additions

- Start utilizing the already present watch tours in the parking lots. They also serves as symbolic barriers.
- Put op CCTV in the following areas:
 - + Parking lots + In the passages of Central Centurion Centre
 - + Public toilets + Service tunnel

4 Territoriality

Table 2 - Crime Prevention Model for Centurion Centre

4.1 Symbolic barriers

Already present

- Car washers and car guards in the parking lots. They also serve as physical barriers.
- Enclosed passages of Central Centurion Centre is wide enough for pedestrian traffic although narrow enough to provide a feeling of safety.

Additions

- The status quo in the parking lots must be upheld.
- Fencing in of the parking lots with a transparent fence to serve as a physical barrier.
- Notice boards, stating the use of CCTV can be placed in the following areas:
 - + Parking lots + The passages of Central Centurion Centre
 - + Public toilets + Service tunnel

4.2 Physical barriers

Already present

- The big parking lots surrounding the buildings and the businesses slow down and inhibit the flight of offenders on foot and /or their motor vehicles.
- Some of the parking lots are already fenced in by wooden fences, separating it from the public roads and sidewalks.
- Very little to no parking is provided outside the centre's premises.
- Security personnel patrol the buildings and premises on a regular basis.
- Good relations exists between the entrance areas and the territorially defined spaces.

Additions

- Using only one security firm in Central Centurion Centre for both buildings with a central control room is recommended.

or

- Monthly meeting between the two security firms.
- Activate more role players such as the South African Police Services and the security branch of the City Council of Centurion.
- Increase the security measures within the shops themselves.

5 Access control

Already present

- Most of the underground parking are supplied with mechanized booms.
- The passages of Central Centurion Centre are locked at night.

Additions

- Installing manned booms at the open air parking lots.
- The guarding of the entrances of the service tunnel must be improved.
- Placement of shops with merchandise of a high value in the centre of the passages.
- Presence of security guards at the entrances of public toilets to also serve as physical barriers.
- The entrances of banks accommodated in other buildings should not be place on the side of the main roads but closer to the inside of the centre premises.
- Together with this suggestion the smaller street surrounding these buildings should also be provided with speed bumps.

The most cost effective way for improving the security of an already existing structure is to improve the security from the inside to the outside (Redelinghuys 1998). This implies that the security of the shops must be improved first before moving to the external environment such as the parking lots.

4 Recommendations

Against the background of the above mentioned findings and recommendations the following findings are made for other similar business complexes:

4.1 It is important that architects and security officials work together when a new business complex are being planned. It is easier and more cost effective to design a security system together with the new building than securing an already existing building (Redelinghuys 1998).

4.2 Redelinghuys (1998) emphasize the environment in which a building will be placed. He says that if the same building be put in the city centre of Pretoria or in Soweto, the security measures taken will differ. The location of a business complex will therefore also have an effect on the security measures taken.

4.3 The architects and the security officials must compromise between the aesthetics of a building complex and the securing thereof. The image of business complex must always be kept in mind.

4.4 Natural opportunity for surveillance, for example the placement of windows and open spaces must be planned beforehand, as well as physical and symbolic barriers which enhances territoriality.

4.5 The planning of access control to the premises and the buildings will be influenced by the purpose for which the building complex is erected. One should look at elements such as the securing of personnel and property. The safety of the public should also be kept in mind.

4.6 In a South African study, which was conducted by a project team of the CSIR's section of Building Technology and the Institute for Security Studies, "Environmental design for safer communities in South Africa" (Napier et al. 1998), the researchers described public buildings and shopping complexes according to different features. Some of these features are the following:

4.6.1 Utilizing the building premises as a whole (organic approach).

4.6.2 Image of the building.

4.6.3 Open parking lots.

4.6.4 Parking garages.

4.6.5 Underground pedestrian tunnels.

4.6.6 Blind walls.

4.6.7 Building entrances

4.6.8 Service entrance of building.

4.6.9 Toilets in public buildings.

4.6.10 Entertainment clusters.

4.6.11 Surveillance through the use of close circuit television (CCTV).

These features can be used as a checklist when designing a building complex.

Adaptations of the security system should take place whenever new buildings or structures are added to the existing building premises.

5. Suggestions for further research

Based on the findings and recommendations, the following suggestions are made towards further research:

5.1 A variety of commercial banks are situated in and around Centurion Centre. It would be a good idea to compare the crimes taking place at these banks with their location and structure. This will determine what characteristics makes a bank safe or vulnerable.

5.2 A survey can be done on a regular basis (for e.g. every three months) at the same shops to determine the kind of crime taking place there and the security measures that are being used.

5.3 After a long period of time another study can be undertaken, as the building are getting older.

5.4 Another interesting study can be done during the transitional phase at Centurion Centre when Centurion Mall is being built. This will cause the parking lots to be cut down and moved out of the building site. During the building process the chances for burglaries and thefts will increase, a common occurrence in all areas where new structures are being erected.

5.5 The elements, which lead to crimes within a business complex, should be studied with the view of categorizing them better.

5.6 The influence that the usage of motor vehicle guards on the prevention of theft of and/or from motor vehicles should be investigated.

5.7 Is a ground level parking lot safer than a multi-level parking lot?

5.8 The recommendations made towards other similar business complexes should be researched as well.

6 Conclusion

This research was based on Oscar Newman's defensible space model for crime prevention. Some of the elements of his theory were applied and tested at Centurion Centre. This enabled the researcher to make recommendations for better crime prevention at Centurion Centre and business complexes in general. These findings fit in with the new direction that South Africa has taken, underlined by such papers as the state document "The white paper" and the policing priorities of the South African Police Service. Even though environmental design for crime prevention is not the only answer to the prevention of crime it does in fact contribute to the prevention and decreasing of crime. It can then be used as a helpful tool in the prevention of crime together with other initiatives. As Napier et al. (1998:184) states " *Safety and security for the few is not good enough. The greatest challenge is to achieve cities and towns that are safe for all their residents, whether rich or poor. For this all to happen social crime prevention and safer design must become an integral part of the culture of all people interested in a better lifestyle, if the country is to succeed in creating viable and sustainable communities.*"

7 Bibliography

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