

CARROTS, STICKS AND APPLES – MECHANISMS TO ENCOURAGE THE USE OF CPTED

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This paper discusses various mechanisms that could assist in the promotion of CPTED as an essential and useful crime prevention approach and support its effective implementation at the macro as well as micro level. Mechanisms that could be utilised at a national as well as a local level to encourage or enforce the use of CPTED are examined, such as policies and strategies, certification of buildings and developments, manuals and guideline documents etc. The argument is supported with practical examples that the CSIR has been involved with, including the development of a national CPTED guideline document, a provincial CPTED strategy, municipal CPTED guidelines, a strategy to mainstream CPTED into the core business of a local authority, CPTED guidelines for a large urban renewal project etc. The paper is based on experiences within South Africa, but it also draws on an understanding of international practice. This comparison assists in highlighting the importance of considering the local context when deciding on mechanisms to regulate or guide the use of CPTED and when deciding on a particular CPTED intervention.

Introduction

The notion that the physical environment can either increase or reduce the opportunities for crime is not new. Internationally, it has been studied extensively over a number of decades. Earlier research include Jane Jacobs' study of the relationship between crime and street layout and land use and Oscar Newman's development of his "defensible space" ideas aimed at using architectural form to reduce the effects of crime in public housing schemes in the United States. In 1971 C Ray Jeffery developed the concept of "crime prevention through environmental design", or CPTED, a term that is perhaps most widely used today to describe crime prevention approaches involving the planning, design and management of the physical environment. Broader approaches such as situational crime prevention also involve, amongst others, the introduction of environmental changes to reduce opportunities for specific crimes to occur. (Clarke 1997)

There seems to be growing international support for crime prevention through environmental design. In addition to the countries that have traditionally been known for their involvement in CPTED, the conferences of the International CPTED Association (ICA) have in recent years been attended by representatives from other countries as well, including developing countries such as Chile and South Africa.

This paper examines a number of mechanisms available to encourage the use of CPTED and support its effective implementation at national as well as local level. It is based on

experiences within South Africa, but also draws on an understanding of international practice. The next section of the paper provides some background to the introduction of CPTED to South Africa, followed by a brief overview of some mechanisms supporting the implementation of CPTED internationally and a discussion of various mechanisms employed in South Africa.

Introducing CPTED to South Africa

The concept of crime prevention through environmental design was introduced into South Africa fairly recently. The catalyst was the launch of the National Crime Prevention Strategy (NCPS) in 1996. The NCPS highlights four focus areas requiring attention in order to address gaps in the crime prevention efforts embarked upon in the past. These areas form the four pillars of the strategy, one of which is “Reducing crime through environmental design”. (NCPS, 1996) In support of the NCPS, the CSIR, together with the Institute for Security Studies (ISS), embarked on a comprehensive research project in 1997 that focussed on the relationship between crime and the physical environment within the South African context. This project resulted in a number of research reports and publications and placed CPTED on the agenda of the police, government departments, local authorities and other role players in South Africa.

Unfortunately, government has provided little support for the implementation of the NCPS and, with some committed support from the Social Crime Prevention Component of the South African Police Service (SAPS), the CSIR had to take the lead in promoting CPTED in South Africa. The awareness raised led to a number of projects involving the development of various strategies for different agencies to guide the role and use of CPTED. The interest in CPTED is fairly widespread across the country and also across different levels of government as well as the private sector.

The introduction of CPTED in South Africa was therefore spearheaded by research projects complimented by reports, publications and guideline documents. It did not include practical implementation projects, as was the case for instance in Chile. Although there are examples of interventions made to the built environment according to CPTED principles, most of these were not based on a thorough understanding of CPTED but were introduced rather unintentionally. Not many projects have been completed demonstrating physical examples of CPTED interventions, making it difficult to demonstrate the benefits of CPTED with practical South African case studies.

Mechanisms to support the implementation of CPTED

Many different mechanisms or implementation tools are being utilised to promote or encourage the use of CPTED. Different countries have different approaches, and even within a particular country different methods are utilised.

Many cities in particularly the USA, Canada, the UK and Australia have developed strategies or guidelines to encourage or regulate the use of CPTED. Some cities have formed special CPTED committees or task teams to coordinate and guide the use of CPTED. Organisations such as CPTED Ontario address community safety through the

identification of crime issues and promotion of CPTED solutions.
(www.cptedontario.ca/AboutUs.html)

Ordinances, codes and by-laws could be effective mechanisms of incorporating CPTED into the planning, design and management of the physical environment. The City of Tampa in the USA has created overlay districts which implement design regulations based on basic planning and crime prevention principles.
(www.flcpted.org/newsletters/FCNNNewsletter2-05.pdf and
host.amtac.net/z_docs/lib/L472471210033.pdf)

Tempe AZ in the USA have developed CPTED guidelines to be used by applicants, architects, planners and developers of property within the City of Tempe to assist them in obtaining approved plans for development projects.
(host.amtac.net/z_docs/lib/L686058210798.pdf)

CPTED is also promoted along regional or state lines, such as the Florida CPTED network in the USA, which was started in 1994 by a group of practitioners from a variety of professions. (www.flcpted.org) In Australia, the New South Wales (NSW) State Government has introduced various measures to assist with to reducing crime through better design. For instance, the NSW Department of Urban Affairs and Planning has developed guidelines for “Crime Prevention and the Assessment of Development Applications” to help councils identify crime risk and minimise opportunities for crime through the appropriate assessment of development proposals.
(host.amtac.net/z_docs/lib/L235497210831.pdf)

Other mechanisms involve the evaluation of physical development plans or buildings according to certain criteria in order to provide some form of accreditation. In the UK, “Secured by Design” is an initiative of the UK Police which supports the principles of designing out crime by use of effective crime prevention and security standards for a range of applications. Secured by Design claims that it achieves a reduction of crime risk by combining minimum standards of physical security and well-tested principles of natural surveillance and defensible space. Secured by Design does not guarantee that a particular area will be crime-proof but indicates that the site has been subject to a design process and improved level of security which, in the experience of the police service and other agencies, have been shown to significantly reduce the risks of crime and the fear of crime. (www.securedbydesign.com)

In Dutch ‘Politiekeurmerk Veilig Wonen’ initiative allows for the certification of houses, complexes and neighbourhoods which conform to a set of prescribed guidelines regarding safety and certain physical crime prevention measures. Claimed advantages of having a certificate includes a 90% less change of being burgled, increased general levels of safety and the possibility of reduced insurance premiums.
(www.politiekeurmerk.nl)

Mechanisms to support the implementation of CPTED in South Africa

This section focuses on some of the mechanisms employed within the South African context to support, encourage and guide the implementation of CPTED.

General CPTED manuals and guideline documents

Manuals that deal with general CPTED principles and generic problems play an important role in introducing the concept and possibilities of CPTED to as wide an audience as possible. Not only do they provide guidelines to assist with the implementation of basic CPTED principles, but they also raise awareness and stimulate interest to the extent that the reader often requires more detailed guidance and support with the development of more context specific strategies.

A manual developed by the CSIR for the South African Police Service has played an important role in introducing the concept of CPTED to a wide range of stakeholders. The manual, *Designing Safer Places – A Manual for Crime Prevention through Planning and Design*, provides a brief background to the basic theory behind CPTED and discusses the principles of CPTED as understood within the South African context. It also provides a step-by-step explanation of the process to be followed when developing and implementing a CPTED strategy. The manual contains a range of practical recommendations that deals with the planning of the physical environment, the design of neighbourhoods, public spaces and buildings as well as the management of the built environment and CPTED initiatives. (Kruger et al, 2001)

This manual provides general guidance to those seeking to introduce the concept of CPTED to a particular environment, constituency or organisation. It is particularly useful to those responsible for the planning, design and management of the built environment including architects, landscape architects and urban planners and designers.

Provincial CPTED strategies

The purpose of a provincial strategy is to provide direction to all role players in a province to ensure a common approach to and understanding of CPTED, its principles and their application. This level of strategy provides higher level guidelines aimed at assisting other agencies such as municipalities with the development of more detailed local level strategies. As such it would be based on a general understanding of, for instance, typical crime and socio-economic problems in a particular province, the different types of built and natural environment prevalent in the province, eg cities, large towns, rural towns, dry semi-desert, mountainous etc. Furthermore, the strategy should also take cognisance of initiatives and interventions related to crime prevention and physical planning and development in the province.

It would typically provide practical recommendation regarding the process to follow when developing local level strategies, especially with respect to the analysis of local crime patterns, socio-economic conditions and the physical environment. It could also contain guidance regarding the implementation and coordination of CPTED initiatives as well as the monitoring and evaluation of such initiatives.

The strategy could also include particular goals that the Province aims to achieve in the short, medium and long term as well as possible programmes to achieve these goals. It should also identify the key role players at various levels and their responsibilities.

An important aspect of a provincial strategy is that it should be developed in close consultation with all stakeholders and that it should be realistic in what it can achieve and how it should be implemented. Such a strategy should not prescribe at a level of detail where the local context is a determining factor. It should, however provide enough guidance to ensure that strategies developed at local level address detailed issues appropriately.

Municipal CPTED strategies and guidelines

Actual CPTED projects and programmes are most often implemented at local level. Interventions implemented by a municipality should ideally be guided by a local CPTED strategy developed to respond to the specific context.

An example of such a strategy is one developed for a large urban municipality in the Gauteng Province of South Africa as the result of the municipality's crime prevention strategy which identified "urban redesign for public safety" as a focus area. The development of the strategy consisted of two phases, namely an analysis phase and a second phase which involved the development of recommendations and guidelines. Some of the key problems identified relate to spatial fragmentation, which is reinforced by mono-functional zoning, separated land uses or urban precincts and divisive elements such as rapid transport routes, buffer-strips, road reserves and vacant or undeveloped land. Linked to this are the problems associated with institutional fragmentation, such as a lack of alignment between different municipal boundaries and a lack of integration between the different departments, the police and other service providers.

The analysis phase included a study of the nature of the crime problems experienced, current and future spatial development initiatives and physical planning strategies, the characteristics of the environment, especially as it relates to criminal activity, socio-economic conditions within the municipal area and the institutional structure within which the strategy will be implemented.

The recommendations developed in the second phase had two components. The first contains recommendation regarding the implementation of the strategy and identifies spatial objectives, deals with institutional and policy challenges and proposes mechanisms and structures that could support and encourage implementation. The second component provides detailed practical design recommendations to address specific environmental problems identified through the analysis.

Unfortunately it is difficult to ascertain whether this strategy has ever been implemented since, not long after completion of the document, the metropolitan area was divided through a demarcation process and incorporated into different local authorities.

Another example involves a strategy to mainstream CPTED into the core business of a local authority. In this case the city required a study of the core business of a number of municipal departments and the identification of roles and responsibilities of each department with respect to CPTED.

CPTED as part of city crime prevention strategies or policies

In some cases the role of environmental design in crime prevention is addressed in more comprehensive crime prevention strategies or policies developed at a municipal level. This could have the advantage of increasing the chances of CPTED recommendations being implemented successfully because they form part of an integrated crime prevention initiative.

For instance, a community-based crime prevention strategy developed for a coastal municipality in South Africa contained specific CPTED recommendations to address the very particular challenges created by the environment in the area. This area has very specific crime problems related to the characteristics of the environment. Parts of the town were developed around a network of green areas intended to act as “lungs” but which have now become crime hot spots and access and escape routes for offenders. (See Figure 1.) The integrated crime prevention strategy developed for the municipality includes a programme dealing with the physical environment. The first project implemented involves the identification and classification of all open spaces and vacant land with the intention of identifying appropriate uses for unused land and identifying land available for development.



Figure 1: Green areas have become crime hot spots and access and escape routes

A CPTED project has also been implemented to assist with achieving one of the other objectives of this strategy, namely to improve the relationship between the community and the police and increase levels of trust. The project involves a process to include the police and members of the community in workshops to identify environmental crime problems, mapping and photographing these and developing responses to the problems.

Another example is that of a safer city policy developed for a large city in South Africa. During the analysis phase a number of spatial and environmental problems were identified which lead to the inclusion of specific CPTED related recommendations. For instance, it is recommended that the Department for Housing, City Planning and Environmental Management be responsible for integrating CPTED into the daily functions and practices of its work, that building applications conform to CPTED principles, informal settlement upgrading takes place according to CPTED principles and that crime data should be reflected in spatial development frameworks so that safety issues can inform and add value to decisions as to where future development interventions should occur.

Project-specific CPTED guidelines

Project specific CPTED guidelines could be very useful in guiding the planning and design of urban areas so as to integrate CPTED principles into physical development projects from the outset. For instance, CPTED guidelines based on an analysis of a localised context could assist architects and urban designers responsible for urban renewal or upgrading projects to contribute to achieving objectives related to safety and security.

The project team of one of the most prominent urban renewal projects in South Africa understood the value of CPTED in assisting with achieving the objective of reducing levels of crime and violence. They commissioned the CSIR to develop CPTED guidelines for seven precincts within the larger project area. Each area was analysed in order to identify specific crime and environmental problems so as to be able to develop appropriate architectural and urban design guidelines. The intention with the guidelines were to assist the professional teams responsible for physical development projects such as housing, social and recreational facilities and municipal infrastructure with incorporating CPTED principles during the design phase.

The strategy document contains reports on the analysis of the crime situation and included GIS maps highlighting some of the relationships between crime and the physical environment. The project area has a very high crime rate, particularly crimes such as murder, attempted murder, serious assault, rape, robbery of motor vehicles and the illegal possession of firearms and ammunition. (See Figure 2)

Although it is still difficult to say whether any sustainable impact has been made on the crime situation in the project area, some visible physical changes have been made that have improved the quality of live of many of the residents. (See Figures 3 to 7)

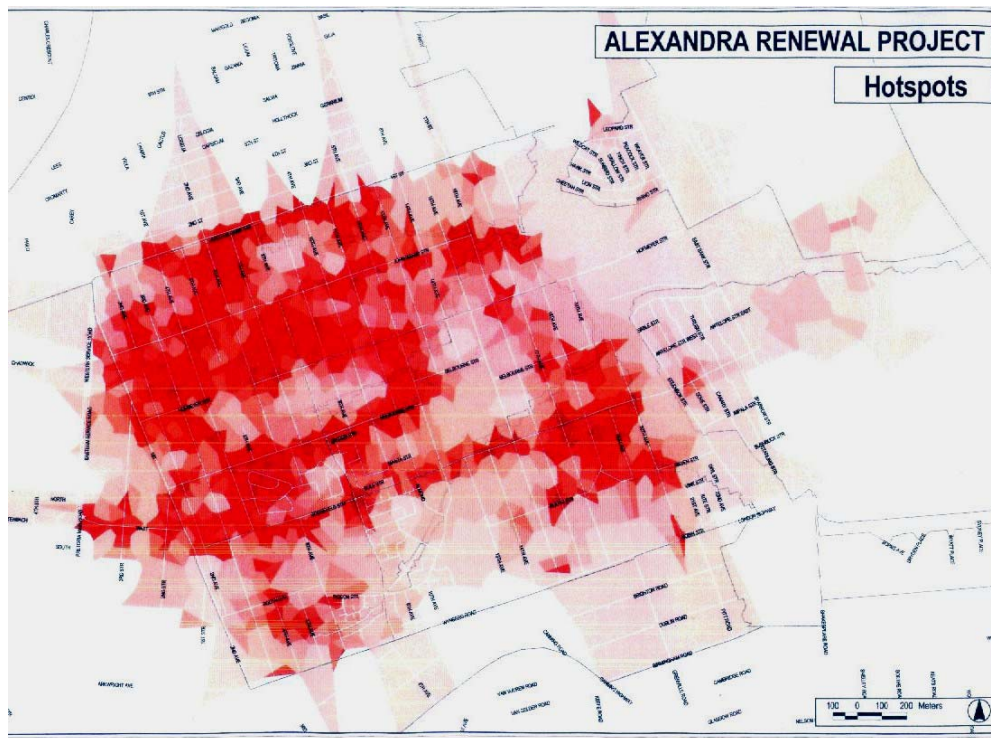


Figure 2: Analysis of hot spots as part of a CPTED strategy for an urban renewal project



Figure 3: Improving living conditions by providing medium density housing as part of an urban renewal project *(Photos - Alexandra Renewal Project)*



Figure 4: Improving infrastructure to make it more pedestrian friendly as part of an urban renewal project *(Photos - Alexandra Renewal Project)*



Figure 5: Improving infrastructure such as roads as part of an urban renewal project *(Photos - Alexandra Renewal Project)*



Figure 6: Improving living conditions and the quality of the environment as part of an urban renewal project (Photos - Alexandra Renewal Project)



Figure 7: “Crime and grime” image versus a clean, positive environment as part of an urban renewal project (Photos - Alexandra Renewal Project)

Conclusion

There are clearly a wide range of mechanisms available to promote, encourage, support and enforce the use of CPTED. Certain mechanisms make use of incentives, such as certification schemes that could have marketing value and financial rewards for developers and users. Others make it compulsory by providing standards in the form of codes and by-laws that have to be adhered to.

In some cases, however, mechanisms are put in place merely to comply with administrative directives or to meet political requirements. These are often the strategies developed in response to a demand from superiors in a municipal structure, and they are in most cases not implemented.

The most appropriate mechanism for a particular country, city or project will depend on various factors and the specific context within which CPTED initiatives will be implemented. In South Africa, CPTED has perhaps a far more ambitious role to play than in some developed countries. Given the fragmented nature of the apartheid city, it has to support the vision of other government strategies, policies and framework documents to restructure the form and spatial character of South Africa’s cities and towns.

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