Think Crime!

Using Evidence, Theory and Crime Prevention Through Environmental Design (CPTED) for Planning Safer Cities by Paul M. Cozens (2014-08-02

Chapters 2 ad 6 from the book Cozens (2014)

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Using Evidence, Theory and Crime Prevention Through Environmental Design (CPTED) for Planning Safer Cities

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Praxis Education

Chapter 2: Did you say Big-Ted, Little-Ted or Sep-Ted (CPTED)?

We shape our buildings; thereafter they shape us

(Winston Churchill)

Introduction

This chapter begins by discussing the early origins of security and crime prevention – and ultimately, the historical background to CPTED. It sets out each of the CPTED concepts commonly referred to in guidelines throughout the world. CPTED (pronounced *sep-ted*) is an acronym for Crime Prevention Through Environmental Design which asserts that 'the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life' (Crowe, 2000, p46). In Britain, and parts of Europe, they have adopted the term *Designing Out Crime*. These terms are used interchangeably throughout this book.

The focus of CPTED is to influence the design, management and use of the built environment; to clearly define the boundaries and preferred use of urban spaces; optimize opportunities for surveillance; and create and maintain a positive image to reduce criminal opportunities. A well-maintained and appropriately-used urban environment is regarded as one that indicates a sense of ownership and suggests a sense of social control exists within that community. Within such a setting, offenders are more visible to legitimate users and may feel more at risk of being challenged, reported or apprehended. Legitimate users may also feel a sense of responsibility to watch over such spaces and potentially intervene (e.g. call the police). Together these factors can encourage offenders to perceive heightened risks of offending that are not worth taking.

Learning outcomes

After reading this chapter, you will be able to;

- Discuss the early origins of security, crime prevention and the ideas of CPTED.
- Explain the concept of territoriality and cite examples.
- Discuss the concept of surveillance and list some examples.
- Outline the concept of image management and cite examples.
- Explain the concept of access control and provide examples.
- Discuss the concept of activity support and cite examples.
- Outline the concept of target hardening and list examples.
- Explain the concept of geographical juxtaposition and cite some examples.
- Identify basic types of information and data required in order to apply the process of CPTED.

Early Origins of Security and Crime Prevention

Reflecting on the history of the use of designing human environments for security and protection helps in a broader creative understanding of CPTED. Clear echoes of designs from the remote and recent pasts have relevance for crime prevention today and for the future. Modern CPTED initiatives such as enhancing surveillance, controlling territory and impeding access derive form ideas developed over centuries and across cultures.

For millennia, human settlements have sought to provide for the safety, security and well-being of their residents. Communities have consistently located close to water, food and other vital resources. From early prehistoric cave-dwellers to medieval and modern cities, community safety and security have been central issues.

Security primarily by geography

One historical example of designing to improve security and reduce 'crime' via the use of environments was choice of location. Initially, settlements used existing topography, land formations and the physical environment to protect them from potential risks (real and perceived). High ground allowed wide panoramic views of the surrounding area and early notification of the approach of potential attackers (humans or animals).

Some locations offered the potential of natural security for protection from attack or pillage, such as on a mountain, as in Figure 2, or behind a ravine or fast flowing river.

Figure 2: Environmentally-based protection by building halfway up a rock face

Other naturally secure 'walls' and fencing were achieved by excavation, for example, the cave dwellings in Figure 3.
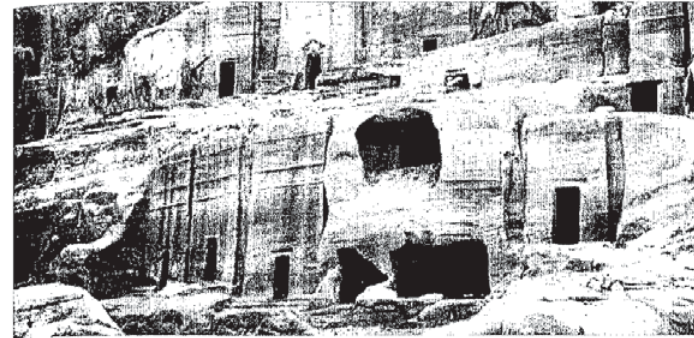
Figure 3: Environmentally-based protection by cave dwelling

Primarily this comprised modifications of the landscape to enhance the safety of the inhabitants of settlements. When humans began to farm and cultivate grain and domesticate animals, they needed a fixed location. In this *settlement* they needed to store and protect supplies and domesticated animals from theft. The ancient city of Jericho was built around 7000BC, to defend the fruits of the Neolithic agricultural revolution from attack and theft by 'others'. In this respect, 'war' might be considered as a large-scale form of theft.

Security inspired by geography

Common early examples of secure settlements involved modifications of the natural landscape. At the smaller scale these involved the use of fencing around early settlements, At a larger scale were artificial earthworks involving ditches, moats, narrow bridges, earth fortifications, barriers, choke points, high ground, ramparts and hill forts (see Figure 4: Maiden Castle earthworks, Dorset, England (public domain)..

Figure 4: Maiden Castle earthworks, Dorset, England (public domain).

Different levels of protection were needed for different circumstances and this led to the evolution of fenced compounds, walled towns and castles. Different strategies were used to

address crime occurring within these compounds, cities and castles. A hierarchy of space served to define the use and users of different parts these 'secured' environments. Doors gates, locks, and hidden passages / spaces restricted access to important buildings and rooms. For immediate household protection, height was a typical environmental design strategy for security and as a defence against perceived risks. Ladders were used to provide access to upper floors and could be raised to prevent access from lower floors. This was especially relevant at night, when residents slept.

Evolution of secured strongholds

At the larger scale, the evolution of the abilities of defenders and attackers created an 'arms race' of attacking strategies and defensive environmental designs. This resulted in the emergence of waves of designs of castles with a variety of fortifications using landscaping, protective walls and moats. Further developments included drawbridges, portcullises, arrow loops and guard towers. Sao Jorge castle in Lisbon shows tall barrier wall, external boundaries to offer 'stand-off' distance, controlled and protected single-point entry, multiple protected regions, a hierarchy of control, and good external and internal surveillance (see Figure 5.
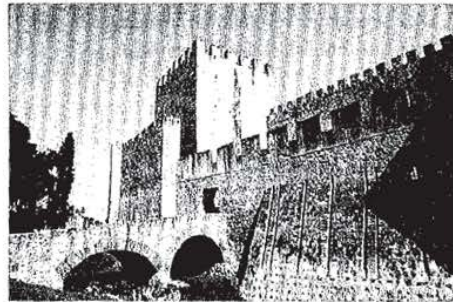

Figure 5: Example of traditional small European castle (Sao Jorge, Lisbon)

These reflect the historical use of the environment to manipulate potential risks. Hill forts, citadels and castles all protected their inhabitants from attack from 'outsiders'. This was achieved by promoting surveillance, defining territory and controlling access.

In less difficult contexts than those that required the full protection of castles, settlements still needed some protection from large scale pillage and theft from other settlements. The solution typically was the walled town. This commonly comprised a continuous high wall at the boundary of the town with a strictly limited number entries that could be controlled, closed and secured. Between dusk and dawn, many walled cities closed their gates. The gate itself being another form of environmental design for protection.

The wall offered vantage points for surveillance, and opportunity to use missiles to discourage potential intruders. Outside the wall was a ditch that had the properties of providing a 'stand-off' distance and increasing the apparent height of the wall and hence its protective ability.

Walls and bastions

The idea of a single protective boundary wall became increasingly developed in its detail to provide greater security. This was particularly the case for cities in regions in Europe marked by ongoing war for control of territory and resources. One development was simply to double-up on the walls. This meant attackers attempts to breach the second wall would be weakened by the effort to breach the first wall and the subsequent restriction on bringing up additional resources. Attackers who gained access could also potentially be trapped between both walls and targeted by the defenders on both walls (see Figure 6).
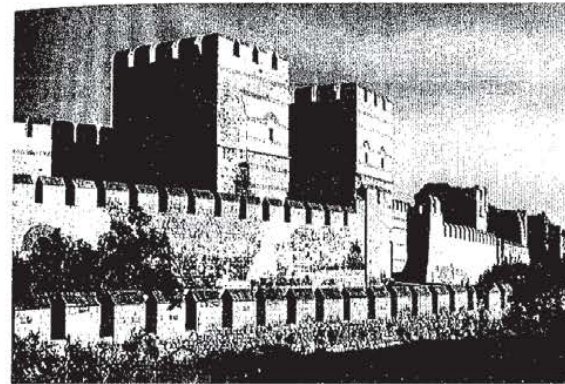

Figure 6: Double walled city (Istanbul multiple city walls)

As attacking and defensive technologies developed, and gunpowder became used in armaments, the walls of settlements adapted to reflect these new and emerging threats. The invention of gunpowder and cannon, for example, made earlier castle fortifications more vulnerable to attack. The successful Ottoman attack on Constantinople in 1453 is testament to this development. Castles used height, tall towers and high battlement walls to provide security from climbing defenders. The transition to gunpowder and cannon rendered tall fortifications less effective and easier to knock down or pierce by missiles. Fortification walls were modified to respond to this new form of attack. They attempted to increase the effort required to breach the fortifications through the use of heavy *bastion* walls that provided increased safety against cannon attack, see Figure 7.
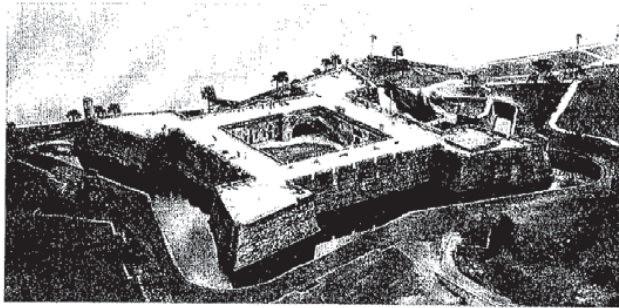
Figure 7: Bastions wall (public domain. Source: http://www.loc.gov/pictures/item/fi0095.photos.053658p/)

Later this evolved into designs for security and community safety in which the whole surrounding 'wall' comprised layers of bastions as in Geneva, see Figure 8.
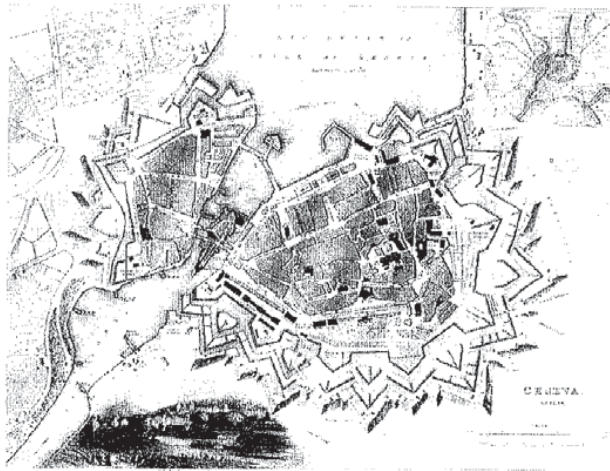

Figure 8: Geneva's bastion wall (http://en.wikipedia.org/wiki/File:Map_of_Geneva_in_1841.jpg, Creative Commons Attribution-Share Alike 3.0.)

Security through early street lighting

In the 17th Century, Louis XIV of France (1643-1715) installed 7,000 street lamps following the vandalism of his broad boulevards and landscaped areas at night. This was one of the first, large scale night-time lighting projects. At that time, most 'normal' citizens did not venture out after dark, and those involved in nefarious business at night benefited by the darkness and lack of observation and policing. The streetlamps of Louis XIV enabled surveillance. It satisfied the need to distinguish between thieves and outlaws and legitimate travellers and citizens (Zahm, 2007). The benefits of the street lighting extended to the

normal populace beyond reducing vandalism. Now, people routinely use urban space and the city streets after dark. Lighting assisted this fundamental change in lifestyle and behaviour.

Slum clearance and redevelopment

During the Industrial Revolution in the UK and elsewhere significant population growth and unplanned development occurred, especially in the Victorian era. The rapid unplanned expansion led in most industrial cities and towns to the emergence of many 'slums' and ghettos associated with disease and crime. During the 19th century, in the public health era that followed attempts were made to improve sanitary conditions, reduce disease and reduce crime. This was effected by slum clearances involving the demolition and re-design of vulnerable and 'dangerous' places. At the time, authorities believed these problems had similar origins. Del Carmen and Robinson (2000) suggested that CPTED strategies (although the phrase had not yet emerged as such) were used in this process of regeneration and renewal of the 19th century city.

'Echoes from the Past'

One particularly interesting historical example involves the early use of a CPTED strategy. In England in 1285, King Edward I enacted the Statute of Winchester to safeguard passage along highways. The purpose, in community safety terms, was to eliminate areas of concealment provided by ditches and vegetation along highways. Landowners were instructed to remove vegetation and ditches providing opportunities for offenders to hide. Landowners were held responsible for attacks that occurred as a result of their failure to change the landscape to enable the surveillance that would reduce opportunities. This is clearly an 'echo from the past' – since in America today, courts are increasingly holding landlords and others liable for failing to take sufficient design and security precautions to prevent criminal attack on their guests / customers. Such cases have often resulted in CPTED specialists being called upon to act as expert witnesses.

Having discussed some examples of the historical origins of security and crime prevention, seven modern strategies for CPTED are discussed below, along with some examples.

The 7 strategies of CPTED

Many CPTED strategies derive from Jane Jacobs' (1961) observations in her publication, *The Death and Life of Great American Cities*. Others can be traced back to *Crime Prevention Through Environmental Design* (Jeffery, 1971) and *Defensible Space: Crime Prevention Through Urban Design* (Newman, 1972). Jeffery (1971) originally coined the term *CPTED*, though it is acknowledged that modern CPTED emerged not from Jeffery, but from Newman (Jeffery, 1976). One important reason for this is Jeffery's work was more complex and recommended the need for significant and long-term research while Newman's was relatively simpler and had the potential for immediate application (Andresen, 2010).

Newman (1972) promoted the use of the design of the environment to enhance surveillance and territoriality (sense of ownership), in part by delineating between private and public space. It also involved the idea that a positive public 'image' of a neighbourhood, (whether the buildings and environment were well-cared for and maintained) had a positive effect on reducing crime. Taken together these emerged as a simple package of concepts and strategies that became known as CPTED (Crowe, 2000). The ideas derive from the work of numerous contributors including (among others); (Angel, 1968; Clarke & Mayhew, 1980; Coleman, 1985; Crowe, 1991, 2000; Jacobs, 1961; Jeffery, 1969, 1971; Merry, 1981; Newman, 1972; Perlgut, 1983; J. Q. Wilson & Kelling, 1982; Wood, 1961).

The seven concepts of CPTED are;

- Territoriality
- Surveillance
- Image Management
- Access Control
- Activity Support
- Target Hardening
- Geographical juxtaposition (wider environment)

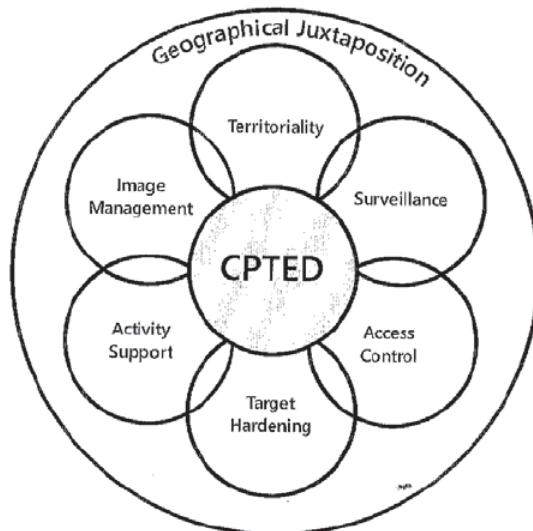They are illustrated in Figure 9 and discussed in detail below.

Figure 9: Adapted from Cozens, Saville and Hillier (2005). Crime Prevention Through Environmental Design (CPTED): A Review and Modern Bibliography. Journal of Property Management. Volume 23, Issue 5, pp328-356.

Territoriality

Territoriality has at times been considered the primary concept from which all the others are derived. It is a human emotion / response where people define a space as their own, and are motivated to control it through legal ownership, or by adopting and managing that space (Armitage, 2013). *Territoriality* is a complex human inclination to acquire, define, own, manage or control space, based on perceptions, emotions, motivations, goals and resources. It can operate at various scales, including the individual (e.g. a room), a group (e.g. a family house) or a community (e.g. a neighbourhood) (Ekblom, 2011).

It involves defining the preferred use of space and encouraging legitimate individuals and groups to regard particular areas as their own space. It also involves defending the spaces appropriately from criminals and criminal activities. *Territoriality* helps provide residents with a system for controlling areas surrounding their homes (e.g. streets, and grounds outside properties and common areas within shared apartment buildings). It involves barriers and design that clearly defines and delineates between private, semi-private and public spaces (Newman, 1972). This can send a message to outsiders to 'keep out' (Reynald, 2009).

The design concept of *territoriality* seeks to promote notions of proprietary concern and a *sense of ownership* by legitimate users of a public or semi-public space. Such spaces are considered to 'belong' to an individual / group, where some level of responsibility is implied for that space. *Territoriality* helps to define acceptable patterns of usage and behaviours in particular locations. In theory, offending is less likely to occur in spaces perceived to be under the responsibility and control of others, who may intervene or call the police for example. This can help in reducing criminal opportunities by discouraging the presence of illegitimate users or modifying their behaviour. How spaces are managed, cared-for and monitored is also a component of territoriality and is part of the concept of image management.

Examples include;

- 'Symbolic' barriers such as signage can help define and indicate the use for a specific space and who the intended users are.
- Subtle changes in road texture or colour symbolically indicate where a different area of ownership or responsibility begins or ends.
- Entry statements can be used to define where the boundaries of a residential estate begin.
- 'Real' barriers can support symbolic barriers and include landscaping, fences or walls.
- Landscaping and artwork can help assign / define ownership and responsibility to specific spaces.
- Well-maintained front gardens with attractive flower arrangements and landscaping indicate care and a sense of ownership.
- Poorly-maintained spaces (e.g. parks) indicate neglect and a lack of responsibility and care.

- Well-used spaces, (e.g. parks) promote use and help enhance territoriality.
- Poorly-used spaces (including parks) can become defined and used as the 'territory' of others.
- Unassigned spaces do not have any defined use, purpose or ownership and can be adopted by others – including offenders.
- Clearly numbered or named properties in streets symbolically support territoriality.

Access control and *surveillance* also help promote territoriality by enhancing the levels of informal social control for legitimate users. These concepts act in combination. They use the physical attributes to promote opportunities for surveillance; using the placement of windows, for example.

Surveillance

The promotion of *surveillance* is a long-established crime prevention strategy. *Surveillance* is the task of watching and monitoring spaces for the presence of offenders and suspicious behaviour (Ekblom, 2011). Surveillance is therefore the capacity of the built form to provide opportunities for residents and others to see and potentially identify offenders and suspicious behaviour (Newman, 1972). The environment can strengthen or weaken the capacity for surveillance to take place. Design, architecture, urban design and planning can influence these opportunities for surveillance. It refers to the way an area is designed and how this affects the ability of users to observe. This *surveillance* can be seen as a form of *capable guardianship* that can help reduce crime. It achieves this when offenders perceive that they can be observed (even if they are not), and are thus less likely to offend. Surveillance opportunities may also increase the potential for intervention, apprehension and prosecution. In theory, surveillance reinforces territoriality by reducing residents' fear. It does this by promoting the notion of being under constant observation of other residents (Newman, 1972). Surveillance can promote personal safety by encouraging more frequent use of space, increasing surveillance still further and improving the capacity and desire to defend that space (Reynald, 2009). In general, criminals do not want to be observed committing crimes. Being seen could mean that criminals find their activities are more likely to get reported or challenged, and they may be apprehended, arrested and prosecuted. This may represent too much of a heightened risk for some offenders.

Contrasting forms of surveillance include *formal* or *organised surveillance* (e.g. police and security patrols) and *mechanical / electronic surveillance* (e.g. street lighting and CCTV – see Chapter 8).

Examples include;

- The configuration and orientation of buildings so their windows and entrances overlook vulnerable spaces – such as car parks.
- The configuration of buildings to locate well-used rooms and their windows so they face the street.
- The design of streets to ensure the entrances of houses are overlooked by neighbours and / or passers-by.

- The interior design of retail stores can enhance surveillance in the placement of aisles, advertisements posters and the location of the check-out / tills.
- The placement of doors and windows to enhance inter-visibility between buildings in the same street (e.g. as provided by terraced housing).
- Relocating a gathering area / ATM or public phone box to a location with better opportunities for surveillance.
- Landscaping which does not impede surveillance or provide opportunities for concealment.
- Recesses and alcoves limit surveillance opportunities and should be avoided.
- Organised surveillance is provided by local stakeholders (e.g. shop keepers, retail staff, security guards, ticket collectors on public transport).
- Mechanical / electronic surveillance (e.g. street lighting and CCTV)

Image management

The design, management and use of the built form can exhibit positive or negative signals or indicators about it. These can influence the perception of space. *Image management* refers to designing and maintaining the appearance of a space to have positive emotionally-driven behavioural effects. Design has the capacity to influence the perception of the uniqueness, isolation or stigma of a space (Newman, 1972, p102). Some use the term 'management and maintenance' to refer to this concept. *Image management* seeks to promote a positive image and transmit positive signals to all users. Residents are more likely to care for and take pride in their local environment if it is regarded in a positive light. Offending can be more likely in locations where control and responsibility are not visible and where the negative signals / imagery dominate (Perlgut, 1983; J. Q. Wilson & Kelling, 1982). This is sometimes known as the *broken windows* theory (Wilson and Kelling 1982). If it is viewed negatively, residents may be less likely to maintain it – and more likely to want to vandalise it or even tear it down (Newman, 1972).

Places with derelict and vacant land can be problematic and encourage unwanted behaviours. *Image management* can help to ensure the continued, effective functioning of the physical environment in crime prevention terms. A dirty, vandalized and poorly-maintained space can indicate that no individual, group or agency is taking responsibility for controlling or managing the space. Poorly-maintained urban space can attract crime and deter use by legitimate users. Vacant and unmaintained premises have been found to behave like *crime magnets* and result in increased attraction of a range of deviant and criminal offences to an area. Clean, well-maintained and well-ordered places signify that the space is under the responsibility and control of some individual / group / agency. This reinforces the sense of territoriality and perception that spaces are defended. It sends the visual statement that the space is managed and 'cared for' and certain behaviours are not tolerated. It also deprives criminals of the 'rewards' in terms of public evidence of vandalism or graffiti being quickly removed.

Examples include:

- The general maintenance of a clean, tidy and well-maintained public and semi-public realm (e.g. front gardens, parks and open spaces).
- The rapid and routine repair of any broken fences, walls, gates and play equipment in the public realm.
- The routine monitoring and rapid repair of street lamps, lighting poles, CCTV cameras and broken locks.
- The rapid and routine repair of acts of vandalism, such as broken windows.
- The rapid and routine removal of acts of graffiti.
- The rapid removal of stolen / burned-out or vandalised vehicles.
- The rapid and regular removal of rubbish dumped illegally.
- Regular weeding / gardening in green spaces in the public realm.
- Regular landscaping and pruning of shrubs in pedestrian access ways (PAWs) or in public opens space.
- The rapid and routine removal of syringes and other drug-related (and alcohol-related) detritus / debris in the community.
- Fencing off and boarding up derelict properties to prevent illegal access, crime or injury.
- Encouraging absentee landlords to maintain or board up vacant or derelict properties.

Access control

The CPTED concept of using spatial definition and patterns of circulation to deny access to potential targets is known as *natural access control*. It involves clearly defining entry and exit points. It helps to guide people in, through and out of spaces through the placement of signs, entrances, exits, fences, walls, landscaping and lighting. Natural strategies exploit the capacity of the local built form to facilitate and control access (and surveillance) to reinforce positive and legitimate behaviours in a space. *Natural access control* links closely with territoriality in creating clear boundaries between public, semi-public, and private areas and defining legitimate behaviours. There is also *organised* (e.g. security personnel) and *mechanical access control* (e.g. electronic boom gates, locks and bolts). *Access control* reduces opportunities for crime by the control of access causing an increased feeling of risk in offenders. It can also empower local stakeholders to watch over spaces and potentially intervene.

Examples include;

- Zoning areas as unrestricted, controlled and restricted, using signage, fencing, pavement treatments and colour.
- Boom gates to restrict vehicular access into pedestrian only zones in a retail precinct, business or gated community.
- Reducing the number of routes through a public housing area.
- Removing overhead walkways in a public housing area.
- Enclosing ground floor entrances to public housing complexes to create new lobbies with a concierge.

- Street closures using barriers (e.g. bollards).
- Reconfiguring a grid layout into a cul-de-sac to reduce access.
- Protective screens on buses to prevent assaults on drivers.
- Automatic electronic entry / exit gates at public transit stations.
- Electronic entry systems to buildings (e.g. flats, Universities, government buildings).
- Gating of alleyways / rear laneways.

Activity support

Increased levels of public activity by individuals and groups can help to increase the role of legitimate uses of public space to reduce crime. The concept of *activity support* is to deliberately design formal and informal support for increasing the levels of human activity in particular spaces as a crime prevention strategy. *Activity support* uses design and signage to encourage particular behaviours in particular locations in public and semi-public spaces. It places *unsafe* activities (such as those involving money transactions) in *safe* locations (those with high levels of activity and with surveillance opportunities). In part, this is because *safe* activities can attract increased numbers of legitimate users who may then act to discourage offending.

Increased numbers of legitimate participants may provide additional *eyes on the street* and more potential *capable guardians* who might witness crime, report incidents, or intervene by calling the police (or other actions). This increases the potential risks for offenders. This in turn reduces the opportunities for undertaking crimes, potentially reducing crime. *Activity support* must be used with care because the increase in legitimate users might also actually encourage and provide additional potential targets for crime (e.g. pick pocketing). It might also act to inadvertently provide more offenders as a result of increased users.

Examples include;

- Using itinerant vendors in locations and at times when other land uses are closed (e.g. a mobile hamburger or hotdog stall or van).
- Locating a children's play area within view of well-used, local land-uses such as a café, coffee shop or shopping area.
- Locate ATMs, bus stops and phone boxes close to locations where other users are likely to congregate.
- Placing certain types of land-uses next to others which complement each other.
- Places to eat, taxi ranks and certain retail outlets can be located close to transport hubs such as train stations and bus terminals.
- Keep certain land-uses open beyond their normal operating times by subsidizing them – so they can provide activity support to vulnerable spaces at vulnerable times.
- Stagger the closing times of pubs and clubs to gradually reduce the crowds trying to get home at night.
- Use fewer train carriages at night to congregate users in closer proximity.

Target hardening

Target hardening is a long-established and traditional crime prevention technique to increase the effort and risk of offending, and reduce the rewards. Target hardening focuses on denying or limiting access to a crime target using physical barriers such as fences, gates, security doors and locks to harden targets. At the micro-scale, it can be considered a form of *access control*. There is some disagreement whether *target hardening* should be considered a component of CPTED. The excessive use of target hardening can result in the development of a *fortress mentality* which can be problematic. Fear of crime and emphasis of target hardening approaches can encourage citizens to withdraw behind domestic physical barriers. *Gated communities* are an example of this *fortressification* of the urban environment. These factors work against other CPTED strategies because they reduce the self-policing capacity of community as a whole, and can undermine CPTED strategies such as surveillance, territoriality, image maintenance and the legitimate use of space.

Examples include;

- Locking doors and windows.
- Upgrading the security at entrances by installation deadbolt locks on doors.
- Installing security screens for windows and doors.
- Installing roller shutters on windows and garages.
- Reinforcing the strength of the doors and door frames.
- Reinforcing the strength of windows (e.g. double glazing or toughened glass), windows frames and locks.
- Installing stronger / higher fences and walls.
- Installing more secure gates providing entry to businesses, residential estates or schools.
- Installing and monitoring electronic alarm systems.
- The use of security patrols in and around the premises of retail, commercial, business or residential streets, for example.
- The use of property marking.

Geographical juxtaposition

Different types of premises and activities are statistically associated with different levels of crime. For example, premises serving alcohol are typically associated with higher levels of crime in their environs than churches. When multiple high-crime risk situations are located close together, this can lead to higher levels of crime. *Geographical juxtaposition (Newman, 1972)* concerns the capacity of spaces to influence crime in adjacent areas and vice versa. This can be seen in the ways that the high-crime levels in one location can spill over into adjacent locations. It can be seen in the ways that crime levels are higher near transport hubs and the pathways between areas of night-time entertainment and access to public transport.

Using the crime prevention concept of *geographical juxtaposition* involves assessing the potential influence on crime levels, of proximal land-uses that may generate crime. It is important in identifying local crime risks to have a clear understanding of how these land-uses are connected and utilised.

Examples include;

- Various local land-uses are likely to impact on any proposed development, for example: pubs, bottle shops, off licences, pharmacies, pawn shops, cash converters and schools.
- Underused, vacant or derelict sites could impact on a proposed development or site.
- Large densities and flows of people at specific times may impact on a development or site, such as fans from a sporting competition or music performance, a protest march or a community event.
- Low densities and lack of pedestrian movement when local land uses close, can impact on a development / site.

It is important to note how, depending on the type and scale of a building / development, it will usually be necessary to think about *all* of the seven concepts outlined above. It is necessary to think about the potential that some of the CPTED concepts you are considering for a building / development may actually work against each other. One framework which can help you to weigh up all the CPTED options is to use the 3D approach.

Crowe's 3-D approach

In the *3-D Approach* taught in CPTED training, Crowe (2000) emphasised that all spaces need a *designated* purpose that socially, culturally, legally or physically *defines* acceptable patterns of use. This designation and definition of purpose and acceptable behaviours can then be supported by the *design* of the physical attributes of that space. Crowe's approach poses a range of questions about designation, definition and design, such as;

- Is the purpose of a space clearly designated?
- Is the use of the space clearly defined?
- Does the design match the intended use?
- Does the space clearly belong to someone / some group?
- Does the design facilitate access control and promote surveillance?
- Is there any conflict or confusion between purpose and definition?
- Is there any use / user conflicts?

Crowe's 3-D Approach succinctly integrates many of the dimensions of CPTED. It is important to think about whether any of the individual CPTED concepts conflict with each other in any way. Don't forget – a large brick wall will define territoriality and act as a barrier to a burglar – but once over it, the wall hinders surveillance and the burglar cannot be seen from the street when breaking in the house. Too much lighting can hinder surveillance.

Having discussed the seven concepts of CPTED and the 3-D Approach, you now have a basic understanding. Importantly, there is much more information and data needed to guide

thinking about whether and how to use each / all of the CPTED concepts for a new or existing development in different contexts.

CPTED information and data requirements

In order that decisions about CPTED are based on sound judgements about risks and the local context, it is imperative several types of information and data be collected and used. CPTED 'is a process and not a belief system' (Crowe, 2000, p6). Therefore, more thinking is needed to develop this process – and more information and data must be collected. The concepts are not enough on their own.

There are various types of data required for good CPTED planning, including those very briefly highlighted by Crowe (2000). These include information about crime analysis, demographics, land-use, information from observations and information gained from residents or users of the built form. Importantly, few guidelines on CPTED have provided any detailed, practical or useable knowledge, theories or evidence to help in this search for this vital information and data. This book seeks to fill this gap and provide information and data to improve the application of CPTED as a process – not as an outcome. Part of that process involves the development of a deeper understanding of much more information and data about crime and the environment. The types of information and data required to use the seven concepts more effectively as a process, are revealed when you ask the following questions;

- How can you measure crime and the fear of crime in relation to a new or existing building / development?
- How does the nature and use of the local and broader environment affect crime in any new or existing building / development? What land-uses commonly provide more crime risks?
- How do individual / community perceptions and fear of crime affect the built form and how it is used? How does this affect any new or existing building / development?
- How do the social dimensions of the local and broader environment affect new and existing buildings and development? How can local communities promote and support the use of CPTED?
- How can you conduct a detailed assessment of the local and broader crime risks associated with a new or existing building / development? How do you conduct a CPTED audit?
- How can you optimise the use of street lighting and CCTV associated with a new or existing building / development?
- What local, regional or national policies on CPTED can be helpful in designing or approving a new or existing development?
- How can you ensure your new or existing development is not compromised by too much crime prevention and security? What can you do to integrate CPTED with public health and sustainability concerns?

- How do you design products by 'Thinking Crime' – and why is this also important for built environment professionals working on new or existing buildings / developments?
- What do you do when the evidence contradicts CPTED practices and assumptions? How can you negotiate these complexities in the design and development of new and existing buildings / development?
- Why is it important to think about changing places, criminals, activities and technology? How can you adapt your CPTED thinking to changing contexts and problems?

Finally, a common thread through all of these questions is how does all this information and data help you implement CPTED more effectively as a process? Each of these sources of information and data are discussed in detail in the following chapters.

Summary

This chapter has briefly discussed the early origins of security and crime prevention and indicated CPTED ideas are not necessarily new. It has outlined the seven concepts to CPTED as they are understood in the 21st Century. We have also provided some practical examples. This chapter has also highlighted the significant need for further information and data to underpin decision-making.

Implementing the seven CPTED concepts without more information and data is unlikely to result in success. This data stimulates more thinking and is required to apply CPTED as a scientific process, not just as a design outcome. What is new is what comes next. The following chapters help you identify and gather all the relevant information and data required for you to do the job properly, in the context of your local environment.

associations made about buildings and the crime opportunities facilitated by them. Spatial studies of *fear of crime* can provide insights into local crime patterns that recorded crime statistics data cannot reveal.

Reflecting on the earlier quotation from Leonardo Da Vinci, this chapter has highlighted how important *perceptions* are to our knowledge and understanding of how we use the built form and how we use the processes of CPTED. The next chapter discusses the topic of 2nd Generation CPTED and the necessity to understand the social dimensions to CPTED.

Chapter 6: The people side of CPTED?

The police are the public and the public are the police; the police being the only members of the public who are paid to give full time attention to duties which are incumbent on every citizen in the interests of community welfare and existence.

Sir Robert Peel

Introduction

In this chapter, the focus is on understanding and using *social* aspects of crime prevention to support *situational* CPTED. In spite of the *situational* focus of CPTED, the *social* dimensions of CPTED have long been acknowledged as contributing useful benefits and improved effectiveness (Atlas, 1991; Merry, 1981; Newman & Franck, 1980). CPTED has now been developed beyond its initial physical focus on *situational* issues to include closely-related *social* measures.

During the 30 years following the publication of *Defensible Space (Newman, 1972)*, Newman became increasingly aware of the interdependence between CPTED and the development of communities. Newman commented that for CPTED, 'it is critical to the success of the plan that as many people as possible participate', and that 'when Defensible Space concepts are applied thoughtfully and with complete grassroots involvement, results can make neighbourhoods more liveable and increase the sense of community' (Newman, 1996, pp. 43, 58). This, in turn, increases the effectiveness of CPTED interventions.

The *situational* aspects of CPTED result in changes in planning and design that provide the *stage* on which everyday life is acted out. The built form does not, however, determine behaviour, but it can influence routine activities and how urban spaces are used, abused and misused. Crime is part of everyday life and its routine activities. Where the urban environment is designed to promote surveillance, this does not force people to observe the acts of others, nor does it cause them to act as capable guardians. *Defensible spaces* may be undefended for a variety of reasons, including self-interest, apathy and fear of crime. Some well-designed defensible spaces may be taken over by offenders and become *offensible spaces*, as happened in Hulme in the UK (Mackay & Davey, 2006). In some circumstances, *defensible spaces* can become *indefensible*, that is, incapable of being defended, for example, during urban riots or war. All these changes in the role of spaces are driven by social factors and often involve break down and entrenched conflicts in communities. Community conflicts undermine those aspects of crime prevention that depend on social cohesion, collective efficacy and quality of life.

Until recently, the *social factors* that support CPTED have not been sufficiently integrated within CPTED thinking or practices (Saville & Cleveland, 1997). Many practitioners are aware of this, and that environmental design alone, is not always sufficient. More is needed to promote self-policing, social control and crime-related responses within communities.

Addressing sources of conflict in communities also has benefits in terms of crime prevention.

Given the complexity of crime, and its dependence on many aspects of socio-cultural milieu, taking into account the *social dimension* should always be part of the CPTED process. The social dimension can be seen as part of the *environmental backcloth* of crime and crime prevention, as discussed earlier.

The integration of supportive *social* aspects of crime prevention into CPTED best practices has led to the need for a new name, to differentiate it from early *situational* CPTED. The most common term, which first appeared in the USA, is *2nd Generation CPTED* (Saville & Cleveland, 1997), to contrast with the earlier situational *1st Generation CPTED*. More recently, CPTED that includes support of social factors has also been called *Community CPTED* (Plaster Carter, 2002) in light of the primary focus on social factors that build communities. At the time of writing, it appears *2nd Generation CPTED* is becoming the more established of the two terms.

A note of caution

A 2013 meta-review of evaluations of *social* and *situational* crime prevention strongly indicated the quality of evidence of success or failure of different approaches is considerably weaker than has been assumed (A. Morgan & Homel, 2013). The authors draw attention to the need for significant improvement in the evaluation and testing of crime prevention strategies and interventions. This applies both to 1st Generation and 2nd Generation CPTED. The relationships between social and situational CPTED, described in this chapter, are from the best knowledge available at this time. It may be that future data from improved evaluations of 1st and 2nd Generation CPTED may result in revisions.

Learning outcomes;

After reading this chapter, you will be able to:

1. Explain why *social* factors are important to the effectiveness of CPTED initiatives.
2. Outline the four concepts of 2nd Generation CPTED.
3. Analyse basic socio-economic and demographic indicators for crime to support CPTED interventions.
4. Describe practical ways 2nd Generation CPTED uses social strategies to support the situational approach of 1st Generation CPTED.
5. Explain how 2nd Generation CPTED strategies can improve the effectiveness of CPTED.
6. Outline how to use socio-economic and demographic indicators for crime to integrate and support analysis using Routine Activity Theory.
7. Describe the basic differences between situational and social crime prevention.
8. Compare 2nd Generation CPTED with social crime prevention and social planning.
9. Describe an Integrated Dynamic Model for CPTED.

Importance of social factors to CPTED

Traditional 1st Generation CPTED processes focus on designing changes to environments and products to reduce opportunities for crime. In practical terms, this is a *situational* crime prevention approach that focuses largely on the *situations* in which crime occurs. The quality and quantity of crime prevention benefits from it, however, often depend on *social* factors. For example, as Newman pointed out, the effectiveness of CPTED interventions will be different in high-rise buildings, whose tenants are socio-economically deprived young families, compared to CPTED interventions in high-rise buildings tenanted by relatively wealthy retirees (Newman, 1972). Neighbourhoods with a high level of community support will differ in crime and crime prevention outcomes from neighbourhoods dominated by alienated disconnected families.

2nd Generation CPTED follows 1st Generation CPTED principles, and, additionally, takes into account the role of social factors to improve the potential for successful outcomes.

An understanding of socio-economic and demographic indicators for crime (for victims and offenders) is crucial for planners, urban designers and built environment professionals responsible for designing to minimise crime. These *social indicators* are important to understand because crime patterns cannot be explained by design alone. Socio-economic and demographic factors influence the number, type and location of victims and offenders and the routine activities that occur. Combining an understanding of the physical and social fabric is a crucial skill for those responsible for creating and maintaining safer places.

Early environmental criminology began by analysing patterns in crime (Guerry et al., 1833; Quetelet, 1842). Researchers investigated differences in social structures, and the related location of offenders and crime rates. Much of this early work was conducted at the Chicago School of Sociology and led to Social Disorganisation Theory (SDT) (Shaw & McKay, 1942). A finding of SDT was in some communities, crime may be influenced by the failure of social institutions and organizations, including schools, business, policing, real estate and group networking.

Cohen and Felson's (1979) *Routine Activity Theory* (RAT) can be seen as a modern extension of *Social Disorganisation Theory*. Although RAT was, initially, essentially about *place*, it has been extended to consider elements of the *social structure* in its perspective.

Environmental criminology, and particularly Routine Activity Theory (RAT) analyses have more recently employed social indicators to study the convergence in time and space of offenders and target (victims) in the absence of capable guardians (L. Cohen & Felson, 1979; Felson, 1993). Ekblom's Conjunction of Criminal Opportunity (1997, 2001, 2010) is useful in understanding this convergence. This are discussed later in this chapter.

Although there is disagreement about their relative importance, numerous socio-economic and demographic variables have been associated with crime. Research has consistently revealed associations between crime and social indicators including: age, gender, household type, household tenure, housing type, residential mobility, income levels, ethnicity, marital status, employment status and educational background.

Pratt and Cullen (2005) conducted a systematic review of 214 quantitative studies, published over a forty-year period, and found *indicators of concentrated disadvantage* (racial heterogeneity, poverty and family disruption) were among the strongest predictors of crime.

Studying the social indicators associated with higher levels of crime requires careful attention to ethical considerations. This is important to avoid stigmatizing individuals and groups that might be associated with crime. It is useful to think about crime-related social factors through the lens of RAT. This offers a way to resolve, and avoid, some of these ethical issues. RAT employs social indicators to study the convergence in time and space, of offenders and targets (victims) in the absence of capable guardians (L. Cohen & Felson, 1979; Felson, 1993). Using RAT reduces the potential for generalising about *high risk* groups because it does not automatically follow that all members of such groups will become criminals or victims.

Felson (1993, p. 401, 409) suggested demographic accountants of crime keep track of the flow of people through crime environments in a similar way to how business accountants keep track of money flowing through financial systems. This RAT-based approach can help to 'trace the crime opportunities available to people as they flow through the social system'. Felson (1993) suggested that social indicators of population and household structure, labour force, consumption and leisure underpin the development of RAT. They are useful in understanding the opportunities for crime afforded to different people – located in different urban spaces at different times. Social indicators seen through the lens of RAT also allows us to understand crime as being part of everyday life. The physical and social dimensions to RAT can help us understand the structure of communities and the ecology of crime.

Ten categories of social indicators associated with routine activities potentially influence the number and location of capable guardians, offenders and victims (targets). They also influence levels of social control, crime and fear of crime as shown in Table 3.

Table 3: Routine Activities Theory and Ten Social Indicators for Crime (Felson, 1993)

Social Variable	RAT – and Association with Crime and Fear of Crime
Age	Most crime is committed by young males who are also the most victimised group since they utilise the amenities of the city more often. High levels of child density are linked with increased levels of crime. Victimisation reduces as individuals age (post 25), and people go out less frequently as they raise a family. Fear of crime increases as individuals age.
Gender	Most crime is committed by young males who are also the most victimised group. Crime committed by women is increasing, as their role outside of the home also changes. Women are more fearful of crime than men.
Household Type	Single person households are more likely to be burgled than households with families. Retired households often exhibit higher levels of fear. Student accommodation is associated with increased crime risk associated with increased potential rewards on offer.
Household Tenure	Rental properties are often associated with higher crime rates than owner-occupied households. Social housing is also associated with increased

	crime risk due to the potential concentration of more offenders and more victims.
Housing Type	High-rise flats and high-density living are associated with increased crime risk. Detached, semi-detached and terraced housing and flats provide different opportunities for crime.
Income	Low income levels are often associated with increased crime risks for certain types of crime, since it affects the activities individuals are able to participate in. Higher incomes can be associated with crime in that these groups are likely to be targeted as having higher potential rewards.
Ethnicity	Ethnic minority status is associated with increased risk of crime and arrest by the police. Ethnic heterogeneity is often associated with increased crime risks since different groups may not understand space, norms and acceptable behaviours in the same way. This may also result in reduced levels of communication and the potential for conflict.
Marital Status	Single persons have increased crime risks associated with their routine behaviour, while married people have reduced risks. Single-parent families often have increased crime risks due to the lack of one (often the male) head of the family.
Employment Status	The type of employment is associated with different crime risks. Lack of employment is associated with increased risk due to the potential for routine activities to be affected. Students have increased crime risks while retirees have reduced risks, but increased levels of fear and anxiety about crime.
Educational Background	Low educational attainment is linked to increased crime risk. Larger schools often have higher crime rates than smaller schools, since guardianship and oversight is easier in smaller, controlled spaces.
Residential mobility -	Stable neighbourhoods are associated with lower crime risks. Communities with high residential mobility are associated with increased crime risk, since there is reduced potential for the development of place attachment and territoriality.

Clearly, social variables can impact on routine activities and influence opportunities for crime. They are also important to the effectiveness of CPTED. 2nd Generation CPTED (Saville and Cleveland, 1997; 2008) evolved from the opportunity-reducing focus of 1st Generation CPTED. It uses social mechanisms to reduce motivations to offend and supports the situational focus of 1st Generation CPTED. Strategies using opportunity *and* motivation-reduction have been shown to be most effective at reducing crime Figure 21 illustrates simply, how situational and social dimensions are linked and are equally important.
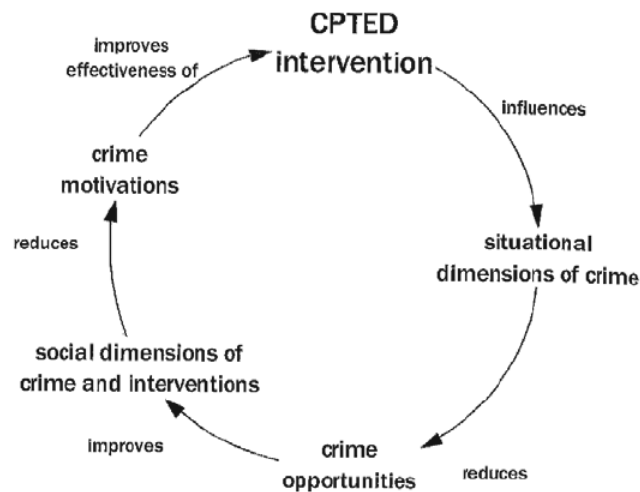
Figure 21: Situational CPTED with social support

The basic concepts of 2nd Generation CPTED

Broadly speaking, 2nd Generation CPTED emphasises four key concepts; *social cohesion, community connectivity, community culture and threshold capacity* (Saville & Cleveland, 1997). These help encourage communities to carryout *eyes on the street* and care about what they are watching (Saville, 2008 #602).

The bedrock of 2nd Generation CPTED is *social cohesion*. This focuses on creating an environment where there is mutual respect and appreciation of the similarities and differences that make people and groups unique within a community. It is about recognising, supporting and celebrating community diversity. A cohesive community shares a common vision and a sense of belonging, values diversity, and works to develop positive relationships between people from different backgrounds, in the workplace and in the community.

Community connectivity is required to create partnerships within the community. These connections form the basis to coordinate activities and programs with both government and non-government agencies. Well-connected and integrated communities are more empowered and develop a stronger sense of place. Community connections can encourage and sustain *self-policing*, and discourage crime and deviant behaviour.

Community culture is about residents coming together to share a sense of place and why they may be inclined to display any territoriality. In practice, this involves setting up and participating in festivals, cultural events, youth clubs (discussed in detail below) and commemorating significant community events and people. A strong sense of community

can galvanise the neighbourhood and encourage positive outlooks and behaviours. It can also promote self-policing. This, however, must be balanced by what occasionally results in a *dark side* of some communities, in which conformity to a specific culture or group in the community can be pursued to the exclusion and disadvantage of other ethnic or socio-economic groups.

Neighbourhoods can be viewed as ecosystems that have finite carrying capacities for certain land-uses and activities. The management of the *threshold capacity* is intended to keep the neighbourhood ecosystem within the levels that promote human-scale and pedestrian-oriented neighbourhood functioning. The *threshold capacity* has not been exceeded where the size and density of development does not inadvertently promote anonymity. Any ecosystem that exceeds its carrying capacity is subject to various forms of breakdown and malfunctioning. Human neighbourhood ecosystems that exceed their carrying capacity result in increased levels of crime. Exceeding the *threshold capacity* is associated with *tipping points*, at which the functioning of the neighbourhood changes significantly, typically in problematic crime prevention terms.

This can occur in many aspects of neighbourhoods. For example, a *tipping point* (Saville 1996) can be reached with regard to a high concentration of bars in a city centre. At that point, the density of patrons, and increases in offending behaviours due to *environmental juxtaposition*, can exceed the ability for police and emergency services to function effectively. Another example of a *tipping point* occurs with the migration of traditional and law-abiding residents out of a suburb suffering crime pressures. Beyond the tipping point the rate of exodus of law-abiding residents increases. Such a process can result in the rapid transformation of a stable, law-abiding neighbourhood into a less-stable *transient* neighbourhood. Maintenance of a neighbourhood's appearance has a tipping point when the neighbourhood capacity for maintenance is exceeded with increasing concentrations of abandoned and derelict properties. Levels of poor maintenance and dereliction can attract vandalism and graffiti, reducing the image of the neighbourhood and the benefits of maintenance. The combination is a downward spiral of dereliction and crime.

All these examples of lack of management, or exceeding *threshold capacity,* can destabilize the neighbourhood ecosystem, and encourage crime and anti-social behaviours. Viewing neighbourhoods as *ecosystems* with *tipping points* returns to the early *social ecology* origins of CPTED of the time of Jacobs (1961) and before.

Other concepts include *inclusion* and *identity* (Brassard, 2003). Healthy and safe communities are *inclusive,* and in them, people can creatively generate and implement practical ideas for improving their existing environments. *Inclusion* supports the active participation of community members in decision-making processes involving the management of, or modifications to, their neighbourhood. Equality of access to amenities and services is an important element of *inclusivity.* The participatory dimension of *inclusivity* has been demonstrated as being crucial to the effectiveness of CPTED (Sarkissian, Cook, & Walsh, 1997).

Another method of 2ⁿᵈ Generation CPTED is engaging with the community to undertake local safety audits of perceived problems. This can be done whilst walking in and around the streets, open spaces and land-uses of the neighbourhood and its communities. Community members should be included in developing strategies to potentially solve local problems and encouraged to participate in the creation of local fear of crime maps. Involvement and participation in the development of community accords with community planning for decision-making processes, conflict resolution and enhancing social interactions, and can also help nurture 2ⁿᵈ Generation CPTED (Saville & Cleveland, 1997).

Some have argued this approach represents *social crime prevention,* and, therefore, is not within the remit of CPTED. The alternative argument is crime prevention practitioners (including planners) are only tackling half of the task, if they design spaces to support community safety, and ignore the community itself.

Examples of 2nd Generation CPTED

The revitalisation of a highly stigmatised neighbourhood was reported by Sarkissian and Dunstan (2003) as an Australian case study of the 2ⁿᵈ Generation CPTED process. After extensive community consultation and engagement, physical design modifications were implemented in combination with community building initiatives. These included local art exhibitions, musical performances and storytelling in the local park, a location formerly under-used and actively avoided by most residents.

Local schools and young people were integral to the program. A local residents' group was formed and local issues and perspectives were raised and discussed in a participatory framework. The objective of 'turning the place around' was established. The local park became the stage on which this social activity took place, and the venue for a community celebration of the revitalisation of the area. This celebration culminated in the burning of an effigy, designed by the community, filled with residents' hand-written notes detailing the negative stigma formerly associated with the place. The effigy was called 'The Stigma' and represented all that was negative about the area and its past history.

This process served to engage the community and foster a more positive sense of place. It supported the physical CPTED modifications to reduce opportunities for crime. This approach highlights the interdisciplinary focus of creating and maintaining sustainable communities. It echoes elements and processes of co-design and place-making.

Figure 22 and Figure 23 illustrate how 2ⁿᵈ Generation CPTED was used to enable the community to identify crime issues and develop strategies for improving a local railway station in South Wales (UK). Fear of crime was identified as an issue and the shelter was highlighted as being a personal safety concern. The new transparent shelter in Figure 2 optimises surveillance and inter-visibility with the local streets and replaces the dark and foreboding 'image' of the non-permeable brick shelter in Figure 22. After the station was modified there was a 33% increase in passenger usage (Cozens *et al.*, 2004).

Figure 22: Railway Station before CPTED Modifications

Figure 23: Railway Station after CPTED Modifications

Having discussed the key social concepts and examples of 2ⁿᵈ Generation CPTED, there are a variety of practical ways they can be applied.

Practical application of social considerations in CPTED

For practical crime prevention purposes, *social issues* are connected to CPTED in two ways. On the one hand, by addressing the social issues relating to a CPTED intervention, it is possible to improve the effectiveness of that intervention to reduce crime. On the other hand, reducing crime by CPTED interventions can improve social conditions, build social capital and communities and improve quality of life. Together, they offer a tightly-linked *virtuous spiral of interventions* that both reduce crime and improve quality of life and social capital of communities (see Figure 25).
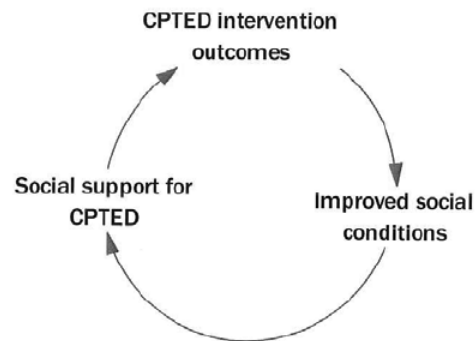
Figure 24: Virtuous Circle of Support of Situational and Social Crime Prevention Outcomes

In his review of 25 years of the use of defensible space in CPTED, Newman identified four practical social factors that clearly resonate with 2nd Generation CPTED (Newman, 1996). Firstly, resident participation is critical. Secondly, there must be good quality schools in the neighbourhood. Third, it is necessary to have effective links with local organisations. Finally, it is important design appropriate places for people to play and recreate, and places for people to simply sit. Alongside Newman's four insights are many practical strategies for improving the effectiveness of 2nd Generation CPTED by considering social factors. These include:

- Activating communities
- Improving the quality of 'eyes' on the street
- Thinking about communities using RAT
- Thinking about communities using the Conjunction of Criminal Opportunity
- Human-scale development
- Local meeting places
- Youth work and youth centres
- SafeGrowth planning

Successful CPTED initiatives can help to strengthen community relationships. Strengthening communities can assist in increasing levels of informal social control as well as deterring actual or potential offenders. This may be done by encouraging those who are at risk of offending to feel more integrated within a community, through youth work interventions, youth and community centres, parent support groups and Neighborhood Watch, for example. Alongside 1st Generation CPTED strategies, all of these can improve quality of life, reduce motivations and opportunities for offending. They can also strengthen informal control within communities to reduce crime by increasing the potential for community members to keep an 'eye out' for one another. That is, by providing more opportunities for informal surveillance.

Additionally, CPTED can help shape and manage the physical 'stage' on which routine activities occur, to support community-based activities that help reduce crime. Increasing the levels of social participation, e.g. though community-based club and membership activities can 'keep people tied up in low-crime settings' (Felson, 1993, p. 408). This can reduce both opportunities and motivations for crime. It has to be balanced, however, with increased opportunities for victimisation when activities extend late into the evening, or at times and places where there are fewer capable guardians present at street level.

Activating communities

2nd Generation CPTED embraces community participation, capacity building, local responsibility, integration with community safety initiatives and community development. Other strategies include: enhancing local participation and promoting a sense of ownership and sense of place. It was seen that in addition to *weeding* out crime, by crime opportunity-reducing CPTED modifications, a process of *seeding* is needed, to engage and activate the community and encourage *local participation, community pride* and *self-policing*.

There is a substantial literature on activating and supporting the development of communities in the realms of *community development* and *community participation in planning* (participatory planning). Useful sources include: International Association for Community Development (IACD), the Gulbenkian Foundation, the World Bank and UN Habitat (see, also, Brassard, 2003; Cozens, Adamson, & Hillier, 2003; DeKerseredy, Shahid, Renzetti, & Schwartzhuck, 2004; Levan, 2004; Sarkissian & Dunstan, 2003; Saville, 2007).

Communities and the social fabric are highly complex, in reality and theory. Cultural factors, involving social feelings, such as personal respect and responsibility, potentially play a significant and positive role in crime reduction. Concepts such as *social capital* (Bourdieu, 1986; and later, Putnam, 2000; Simmel, 1969 [1905] ; Tonnies, 1955 [1887]) and *collective efficacy* (R Sampson, Raudenbush, & Earls, 1997) have been suggested as the basis for processes that can act as a *social glue* to potentially hold a community together, and improve community outcomes. Their absence can affect the willingness and capability of a community to maintain order in public places.

Improving the quality of eyes on the street

Social factors impact on CPTED since they affect the quality of 'eyes' on the street. A key aspect of the social planning aspect of CPTED focuses on improving the *'eyes'* on the street, in addition to the *'street'* itself. Saville and Cleveland (1997, p1) observed, *'What is significant about Jacobs' 'eyes on the street' are not the sightlines or even the streets, but the eyes'.* This broadens the scope to include the perspectives of victims and capable guardians (in some cases the same person). It is therefore, arguably more holistic, since it attempts to consider all the components in RAT: the motivated offender, the victim or target, and the capable guardian.

However, *eyes on the street* are of course necessarily attached to citizens who must be capable and motivated to respond, individually or collectively. It is the sense of community

that is important. These ideas promote the design and maintenance of functioning communities to assist in developing and enhancing a sense of community pride and well-being.

Thinking about communities using Routine Activity Theory

One way of understanding the role of community development and other social factors in supporting CPTED interventions, is via the Routine Activities Theory crime triangle (see Figure 25).
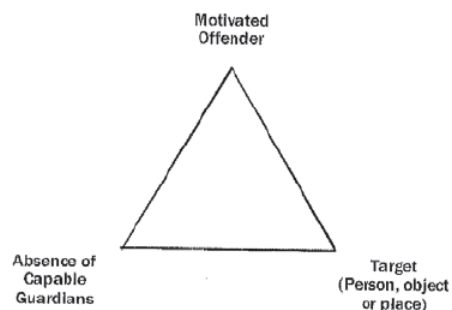

Figure 25: Routine Activities Theory Crime Triangle (L. Cohen & Felson, 1979)

In crime-related situations, capable guardians, potential victims and potential offenders are all typically part of local communities, and their *routine activities* take place within those communities.

Sampson, Eck and Dunhamb (2010) have extended the crime triangle to look at what influences people and organizations to take crime prevention action. In terms of the necessary conditions for crime, the offender, target and place all have a controller: a handler, a guardian or a manager (see Figure 26).
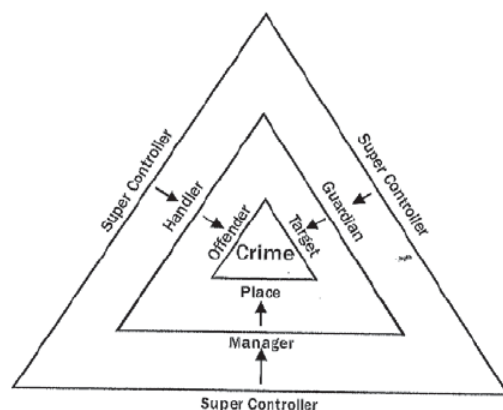

Figure 26: The Extended RAT Triangle with Super Controllers (R. Sampson et al., 2010)

Handlers are those with whom *offenders* have an emotional attachment, such as parents, siblings, friends, religious leaders and coaches. The aim of *handlers* is to help keep potential *offenders* out of trouble. If handlers are effective, offenders may not commit crime in their presence. One example of this principle, is when shopping malls require children to be accompanied by parents.

Guardians protect *targets* and this includes: normal citizen behaviour (e.g. looking out for each other and their property); groups of strangers (e.g. due to their numbers they may provide guardianship); individuals who are specifically employed to protect people and property (e.g. security guards and police); and the routine behaviour of members of the community (L. Cohen & Felson, 1979).

Place managers include: store clerks, lifeguards, flight attendants, cleaners, landlords, bartenders and home owners. They act as if they own places, or act as owners' representatives at these locations. Their objective is to ensure the place's effective functioning (Eck, 1994).

Controllers decide when and how to intervene in crime situations, based on effort, risk, reward, excuses and provocations.

Super controllers are 'the people, organizations and institutions that create the incentives for controllers to prevent or facilitate crime' (R. Sampson et al., 2010). They control the controllers. *Super controllers* utilise situational measures to modify controllers' incentives to prevent crime. There are ten different types of *super controllers* (financial, market, political, courts, media, groups, organizational, regulatory, contractual and family).

The notion of *super controllers* highlights the need for crime prevention strategies to consider influences on handlers, guardians and managers. Concentrations of crime can indicate the failure of one or more types of controller.

The extended *super controllers* triangle, acts as a reminder that an understanding of the structure and character of local communities is essential, for any program seeking to create safer urban environments. It also highlights the importance of understanding the *environmental backcloth*.

Thinking about communities using the Conjunction of Criminal Opportunity

Ekblom's Conjunction of Criminal Opportunity (CCO) (1997, 2001, 2005b) provides a useful framework for drawing together offender-based and placed-based perspectives. The CCO framework expands on the Crime Triangle (Figure 27) and draws attention to eleven separate causal pathways of criminal events involving offenders and aspects of the crime situation that include several social factors involving local communities.

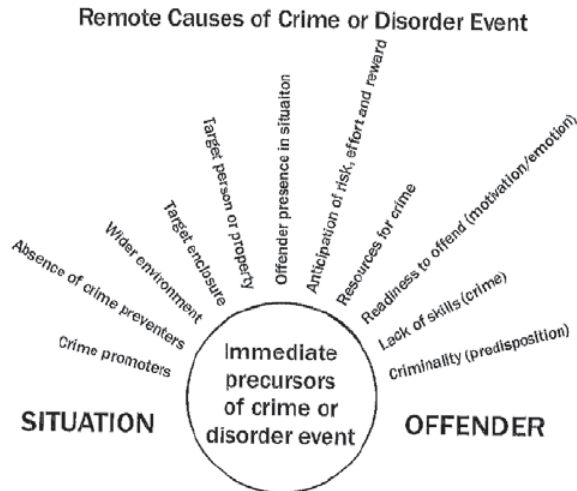## Remote Causes of Crime or Disorder Event

Figure 27: Conjunction of Criminal Opportunity derived from Ekblom (1997)

The COO framework is being used to assist local governments in identifying specific problems and in generating potential solutions to crimes according to their situational and / or offender-based dimensions. The offender-based aspects to the CCO framework are largely related to social factors. The situational factors relate, in part, to the immediate environment.

Research has indicated there is an environmental influence on social interaction and community development. Some of the most advanced CPTED strategies linking social and situational aspects of crime have been developed in the Netherlands. These strategies incorporate the pattern language of Christopher Alexander (1977) and apply this to urban design. According to Saville and Cleveland (1997), several key themes are relevant to 2nd Generation CPTED processes. These include: human-scale developments, local meeting places, youth work centres and *SafeGrowth* planning. These are all promoted via the four broad concepts of 2nd Generation CPTED discussed earlier.

Human-scale developments

Planners often encourage *human-scale* developments to facilitate social support and interaction mechanisms and avoid the *alienation* of individuals and families that comes with large numbers. It may be difficult to get to know neighbours in a development of several hundred homes or in an apartment building of over 300 units. Similar *alienation* can occur for children and young people in high schools with over 3,000 students. Size can affect the stigmatisation of a place but in isolation, it is not the explanation for the absence of territorial feelings for a particular place. For example, although Tokyo (Japan) is one of the largest, densely populated cities in the world with significant potential for alienation, it has one of the lowest reported crime rates.

Local meeting places

Local meeting places are vital to neighbourhoods. They have the effect of reducing alienation by offering avenues for human interaction and support, and providing means of informal social control on behaviour. Their absence can make urban spaces appear empty, unattractive and dangerous.

Local meeting places offer the means for establishing a sense of identity with a subsequent sense of territoriality. Identity can be seen as central to the concept of territoriality in 1st generation CPTED thinking. Identity involves awareness of the uniqueness of individuals and communities and their interdependence. Identity can be regarded as the opposite of anonymity (Ardrey, 1966). Identity underpins the idea each community has its own contexts and problems that are acknowledged within and beyond that immediate location. Territoriality is shaped by that framing of public identity and relationship with context. Research has indicated levels of territoriality differ across and within different communities and as such, different communities will vary in terms of their collective efforts to maintain order.

The design and development of local meeting places has not always been managed well. Many regional shopping malls do not offer or represent places of community gathering, or do so badly, in design terms. Adverse consequences can happen, for example, where the only gatherings involve young people. Schools often do not provide students with informal meeting places, and this can inhibit the development, in students, of a sense of a shared belonging, with its implicit reduction in social control. For local meeting places to function effectively, some individual(s), group or organization must take the lead and organize events. These can be as simple as informal meetings, or more formal social events or sporting activities. The active use by members of communities of local meeting places, reduces the risks that those same areas can be used by offenders, e.g. for graffiti, dealing in drugs or acting as a resource for other offending activities.

Youth Work and Youth Centres

Young people (12-25) are over-represented in crime incident statistics and fear of crime surveys, both as victims and offenders. Working with young people, therefore, offers particular potential for improving the effectiveness of CPTED initiatives. In practical terms, young people are at risk of being victims of crime and offenders due to multiple factors. They are exposed to more crime opportunities than other segments of the population:

- Young people are *in between* childhood and adulthood, with all that that implies in their learning of adult attitudes and behaviours.
- Young people are significantly over-represented in unemployment and under-employment. Young people's unemployment rates (16-24 years) in developed countries are currently around 20-25%.
- Young people are targeted by advertising and the media to desire products, status and lifestyles. The lack of ability to fulfil these motivations is a driver for crime.

- Young people's lack of personal assets means that loss of their assets (or freedom) acts less as a disincentive to crime.

In many countries, a cornerstone of successfully reducing offending and victimisation related to young people, involves a partnership between youth work professionals (sometimes called youth and community workers), and crime prevention professionals in criminal justice agencies. Social interventions involving youth work that support CPTED strategies include a variety of approaches.

Youth Workers may work as *street workers* involved in engaging young people at-risk with the aim of providing supportive informal education, engagement with youth centres, support services, and diversion from at risk locations (see, for example, www.infed.org). These approaches integrate with better CPTED design of public spaces, and link with community-based patrols, government support service centres and physically-based youth centres and clubs. An early example, was the work of George Williams in 1844 who, with teams working on the streets of London, created the first YMCA hostel services for young people. An early example in the USA, was the Chicago Area Project in the 1930s (Shaw & McKay, 1942).

Establishing and running youth clubs is an established crime prevention and community-building strategy that offers a basis for supporting CPTED interventions. Youth clubs are places where local young people can find something to do and people to meet. They also represent places where they can acquire life skills. These places also need the interest and support of the local community. They need the resources to run activities and the skilled personnel who know what to do and how to do it. Lack of adequately financed and managed youth clubs and a lack of activities for young people can result in feelings of boredom and social exclusion. This in turn, can lead to groups of young people roaming the streets, simply looking for something to do.

There are significant practical opportunities to linking youth work and CPTED to reduce crime by physical design, in self-reinforcing ways. For example, in poorer urban areas, many high-crime housing complexes have communal buildings and club areas that are under-used or abused (e.g. vandalised) through weak design. Some have become the co-opted territory of local gangs. Improved CPTED input to these centres can improve their functioning, which can improve social conditions, offering better support for improving the effectiveness of subsequent CPTED interventions etc. These issues demonstrate how social factors are closely and inextricably interwoven with the role and practices of CPTED strategies.

SafeGrowth planning

SafeGrowth was the term used by Saville (2007) to represent a specific type of urban design, focused on human-scale development, social interaction and ecological planning that draws on CPTED ideas. Fundamental to *SafeGrowth* is the establishment of a local neighbourhood safety team. The *SafeGrowth* development process includes surveying local resident perceptions and building the capacity of a neighbourhood to monitor and manage its own problems. Its success has been founded on neighbourhood representatives diagnosing local problems, formulating local priorities and developing local strategies and plans to improve the neighbourhood.

SafeGrowth combines the criminal opportunity-reduction of traditional CPTED ideas, with the criminal motivation-reduction of 2nd Generation CPTED. It does this within a framework of neighbourhood governance and community participation. *Speak out sessions* and *local forums* draw on local knowledge and perceptions of crime, to provide the basis for the accurate collection of local crime data, and the undertaking of local CPTED audits. The *SafeGrowth* approach creates a neighbourhood profile on which to build locally-specific strategies to reduce crime and the fear of crime using CPTED principles for the appropriate location and design of physical spaces and facilities. These are identified by the community to potentially reduce opportunities for crime.

The *SafeGrowth* approach provides a starting point for a framework for achieving more collaborative, dynamic, multi-agency approaches to the design of local crime prevention interventions.

Comparisons with Social Crime Prevention and Social Planning

The 2nd Generation CPTED approach is primarily a *situational approach* to crime prevention supported by *social interventions* where appropriate. In contrast, *Social Planning* and *Social Crime Prevention* focus primarily on crime prevention using only *social interventions* (for review, see Sherman et al., 1997). *Social planning* is most commonly based on principles of social justice inclusion, equity, access, participation and human rights and its main aims are to enhance community well-being and effectiveness (Planning Institute of Australia, 2010). Social Crime Prevention can be regarded as part of Social Planning.

Social planners use planning policies and processes to:

- Develop urban spaces that promote health and well-being;
- Plan and implement social services to satisfy the needs and aspirations of citizens more broadly, to produce the best outcomes in terms of social, economic and cultural diversity within the population;
- Reduce crime;
- Contribute to social justice and reduce inequalities; and,
- Create liveable, vibrant, sustainable communities, diverse cultural expressions and social cohesion.

Within Social Planning, Social Crime Prevention focuses primarily on reducing crime via:

- Early childhood or developmental prevention.
- Community development approaches.
- Prevention which focuses on institutions such as schools and employers rather than on individuals.
- Preventative diversion programs for 'at risk' groups.
- Media and other publicity aimed at changing social values.

As can be seen from the above list, the primarily *social focus* of social crime prevention is very different from the primarily *situational* focus of CPTED.

An Integrated Dynamic Model for CPTED

This Integrated Dynamic Model for CPTED brings together elements from Newman's ideas on Defensible Space (1ˢᵗ Generation CPTED), 2ⁿᵈ Generation CPTED, Routine Activity Theory and elements from environmental criminology (e.g. crime generators). The model includes situational and social factors that support CPTED at different scales of analysis.

The Integrated Dynamic Model for CPTED (below) provides the basis for a more informed and intricate multi-agency approach to crime prevention. Knowledge of the social dimensions to crime will potentially improve the use and effectiveness of CPTED. It can help in thinking about the physical design and layout, how a location may be used, and how the community may or may not be involved. The model also encourages thinking beyond this scale to the wider environment and how surrounding uses may influence crime and fear of crime.
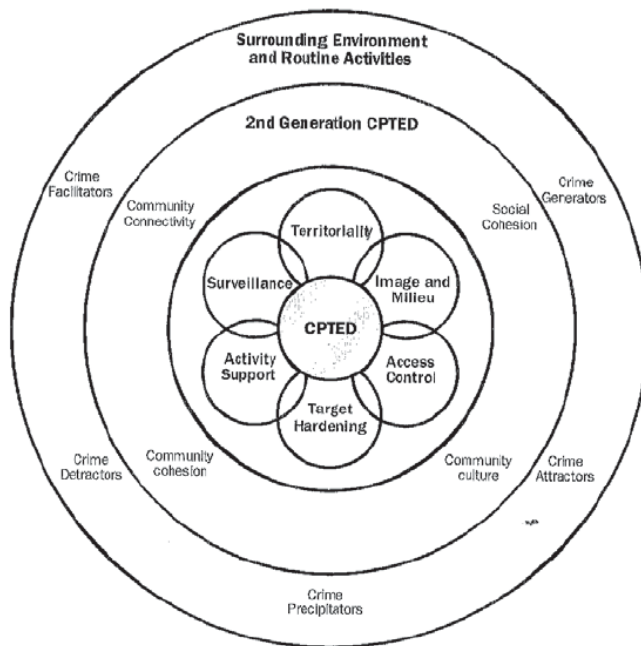

Figure 28: An Integrated Dynamic Model for CPTED.

Summary

The effectiveness of CPTED interventions can be enhanced by addressing social issues. This chapter has described how outcomes for CPTED can be supported and enhanced using a variety of socially-focused approaches, particularly those aimed at supporting community development.

This approach has become known as 2ⁿᵈ generation CPTED. Its *situational* use of *social* strategies to support 1ˢᵗ Generation CPTED contrasts with Social Crime Prevention and Social Planning whose primary focus is *social interventions*.

Reflecting on the quotation from Sir Robert Peel at the beginning of this chapter, the CPTED process and its strategies can become the responsibility of community members. This process can assist planners, architects, communities and the police in developing appropriate responses when issues arise.

The next chapter describes how to undertake a *Crime Risk Assessment* and reviews the data sources necessary to do so.