

Urban planning and the prevention of crime; theories and experiences

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Introduction

The scope of WG2 is the preparation of a draft standard (to be presented to TC325) which specifies the methods of assessment and requirements for area planning for new and existing built environments to minimise crime and fear of crime.

Let us try to break down the line of reasoning presented here.

1 What?

The problem obviously is crime (délinquance/Kriminalität) and fear (la crainte/Angst) of crime.

2 How?

Area planning - or district planning, urban planning, urbanisation, Stadtplanung - is seen as one of the solutions.

Because crime and fear of crime do concentrate in urban environments I propose to use the word 'urban planning'. In using this word the English vocabulary is lined up with the French (l'urbanisation/l'urbanisme) and German (Stadtplanung).

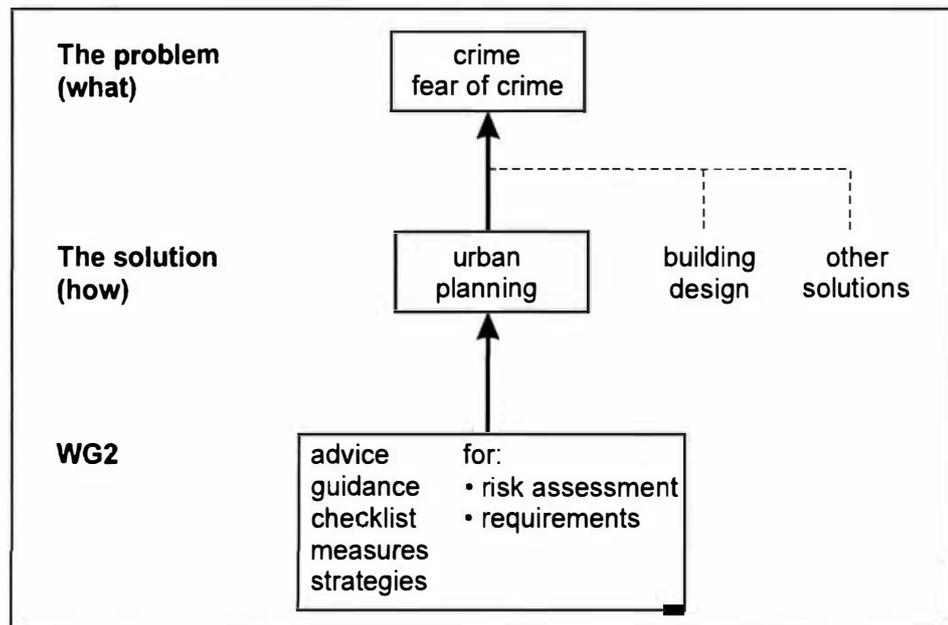
It is assumed that urban planning¹ can prevent, reduce or minimise crime and fear of crime.

3 Our task; the aim of WG2

Hence the aim of WG2 is to help those engaged in urban planning² with:

- methods of assessment (méthodes d'évaluation, Bewertungskriterien) for the crime risks involved in a given plan/area;
- performance requirements (conditions d'exécution, Anforderungen) for the prevention of those crime risks.

Summarizing this line of reasoning in one scheme.



So there is a lot of work to be done.

Note 1 Or at least the results of this activity.

Note 2 People engaged in urban planning: urban planners, local/regional authorities, governmental bodies, housing associations, consultants, landscape specialists, etc..

But where do we start, which advise and guidance can be given to the noble art of urban planning if one wants to prevent crime and fear of crime?

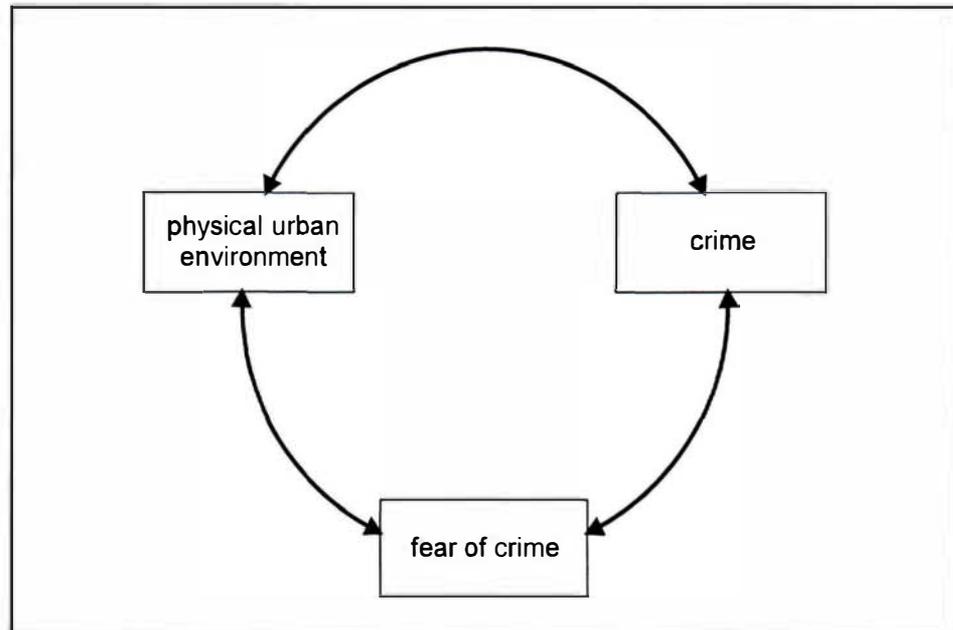
I would suggest one should try to learn from research and knowledge which is already available.

Therefore I will briefly summarize some main sources of research and knowledge. There must be some lessons that can be drawn from that.



Three concepts

The theme needs to be approached in a logical and analytical way. Hence, the main concepts of the theme have first to be pinpointed.



There are in fact *three* concepts.

- The physical environment: buildings, streets, roads, parks, etc. These are the variables urban planning is trying to act upon.
- Crime; criminal offenses that really happened: a burglary, an act of vandalism, a robbery, street violence, car crime, etc.
- Fear of crime, or (more generally speaking) feelings of insecurity.

The three concepts are interrelated, but these relationships are certainly not of a simple causal nature.

Crime <--> fear of crime

Take for example the *relationship* between *crime* and *fear of crime* or *feelings of insecurity*.

Research has shown this relation to be a dynamic and sophisticated one. Not necessarily all people living in a high crime area feel insecure. Some may, some may not.

Differences in fear may be 'caused' by people's age, lifestyle, experiences in being a crime victim, gender, amount of contact people have in their community, perception of neighbourhood decline or rehabilitation, socio-economic or cultural background. There are even examples of crime-ridden neighbourhoods where most residents still feel pretty secure.

Crime is obviously 'only one of those things' that causes fear and feelings of insecurity. Its influence can be counteracted by other things.

It follows that preventing crime (or bringing crime rates down) does not necessarily mean that fear of crime/feelings of insecurity are tempered too.

I guess this is a warning one should bear in mind.

Built environment <--> (fear of) crime

The relationship between the built environment and fear of crime/feelings of insecurity is a tricky one too.

Over and over again research has shown city centres to be unsafe. Nearly all types of crime do flourish in city centres: violence, burglary, theft, robbery and vandalism.

Yet city centres - or shopping centres - are perceived by people as being safe and secure places.

Other places or neighbourhoods are perceived as unsafe, those places or neighbourhoods in fact being quite safe and harmless.

People can obviously mistakenly interpret certain cues.

- A crowded street, full of people who are cosily shopping and drinking their coffee and beers in or outside pubs, may be wrongly seen as 'security' of 'safety', because nobody is able to see the offenders - as it were - 'hidden' in the crowd.
- A lonely street, littered and vandalised, may again be mistakenly seen as insecure but when all offenders are drinking their beers in the city centre (burgling other people's homes in faraway well-to-do neighbourhoods), this may in fact be quite a safe street.

In a nutshell what is summarized here is the scientific debate that followed the publication of Jane Jacobs' book 'The Death and Life of Great American Cities'.

Jane Jacobs

Jane Jacobs focussed on the places where crime is committed and the physical characteristics of those places.

The essential part of Jacobs' theory is simple. As Jacobs puts it: City streets are unsafe because they are deserted. This problem can be solved by giving streets three main qualities:

- a clear demarcation between public and private space;
- there must be eyes on the streets.

Eyes of residents and eyes of people who are just passing by.

Buildings must be oriented to the street.

- Streets must be used continuously, both to add to the number of effective eyes and to induce people in buildings to watch the streets.

For Jacobs, crime prevention and 'natural surveillance' are more or less the same. That is why she has placed high hopes on night shops, restaurants, pubs, bars, etc.

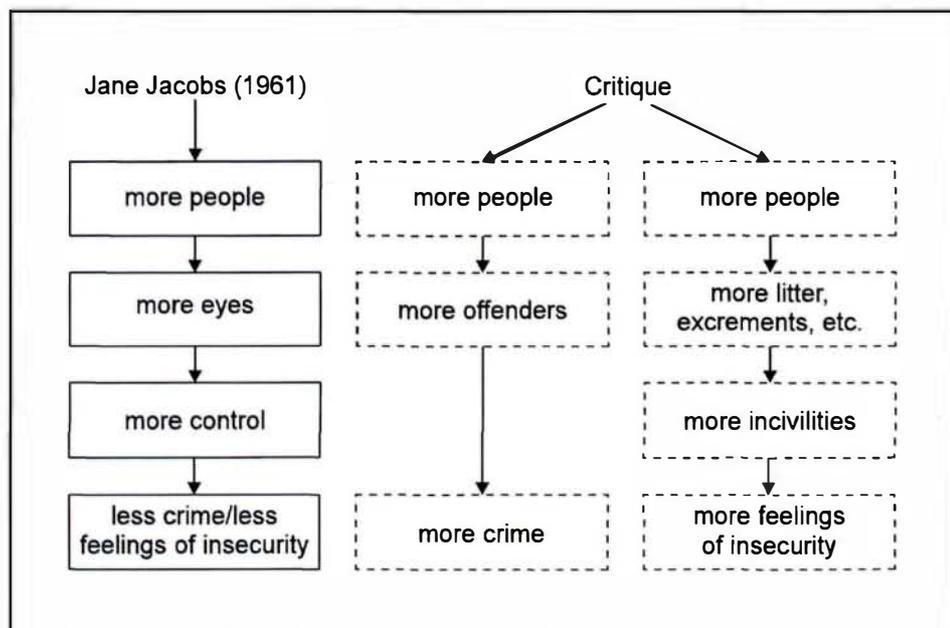
Amenities like this draw people onto the streets. Residents then like to watch the busy and crowded street and natural surveillance (or informal control) results. Crime does not get a chance.

At this point Jacobs' theory fails.

Several research findings show pubs, bars, (night)restaurants to be particular trouble spots.

As was mentioned earlier, the same goes for busy city centres.

In her line of reasoning Jacobs clearly overlooked two other lines that hold as well.



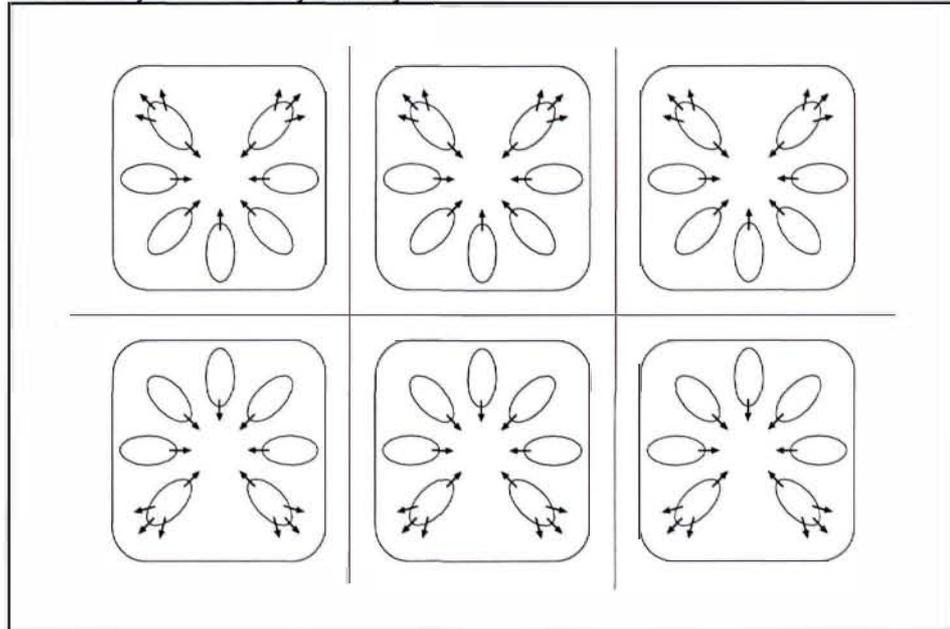
Furthermore, Jacobs seems not only to over-estimate the influence of natural surveillance on offenders; she also over-estimates the influence the physical environment has on human behaviour. Creating better opportunities for natural surveillance (or informal control) does not automatically result in real effective control.

Oscar Newman

In his book 'Defensible Space' Oscar Newman - like Jacobs - held that crime was allowed to flourish because housing design prevented residents from exercising informal control over their environment.

Informal control, Newman argues, springs mainly from natural surveillance coupled with a feeling of territoriality deep within the resident's soul: "see what is happening there..... stop those blokes from violating my environment"!

Territoriality reinforced by visibility



At this point Newman presents the famous distinction between public, semi public, semi private and private space which is still widely used. Newman tried to prove this theory in two ways. Firstly with an analysis of about 70.000 criminal incidents in 133 public housing complexes in New York. The figures showed that most crime-ridden spots are public in nature and yet hidden from public view (elevator, lobby, stairway, hallway). Secondly Newman compared two estates. One had good defensible space characteristics whereas the other estate had not. Surprisingly Newman's favoured estate was a paradise compared with the crime that plagued the estate which had bad Defensible Space characteristics.

Newman was fiercely criticised on methodological grounds and for failing to consider the social origins of informal control and the origins of crime. In spite of this criticism, the ideas of Newman became very popular in the States and UK. A whole generation of Defensible Space addicts was born. Several CPTED projects (Crime Prevention Through Environmental Design) were implemented and evaluated in the seventies. Discussion, criticism and new research (also by Newman himself) resulted in a reformulation of the Defensible Space theory. Newman's theory became less physically deterministic. In his new Defensible Space theory he stressed the importance of social agents. Newman placed his hopes on - as he called it - 'communities of interest'. Small clusters of residents sharing more or less the same life-style, age and family cycle. Urban planning comes in when Newman says that one should build houses or apartments for such communities of interest. Hence, urban planning can create social cohesion in this way.

The theories of Jacobs and Newman are both of great importance and they have brought the discussion to new frontiers. However, Jacobs and Newman built their theories on quicksand consisting of the magic concept of natural surveillance or informal control. Their theoretical construction stresses the importance of creating better physical possibilities for informal control.

But creating those possibilities does not actually result in effective control being exercised because;

- Residents have to make use of the given possibilities (which they often do not, or do not want to do).
- Offenders have to perceive control and they must not be able to 'escape' it (for example by hiding).

In short Jacobs and Newman forget that it takes two to tango. Not only community life, surveillance or control, but also offenders who are shifting from criminal to non-criminal behaviour.

The theories of Jacobs and Newman deal with the community angle and will be most useful if one wants to reduce fear of crime/feelings of insecurity. If one wants to prevent real crime, however, the most important piece of the puzzle is still missing: the offender.

Theories linking offenders and the physical environment they live and operate in have a long history starting with the work of the Chicago School. The Chicago school focused on offenders, but their main interest concentrated on the neighbourhood level.

The Spatial School

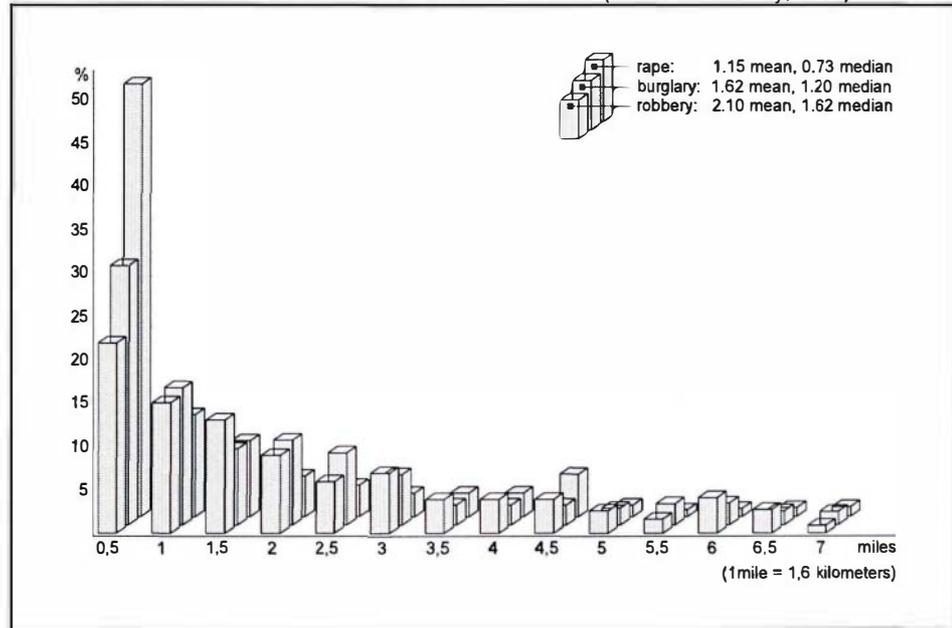
In the seventies offender-based research started to focus on the rational spatial and environmental choices made by individual offenders. Pioneering work was published by Paul and Patricia Brantingham.

They studied the spatial patterning of burglary and formulated a 'spatial choice theory' - most useful for property crimes.

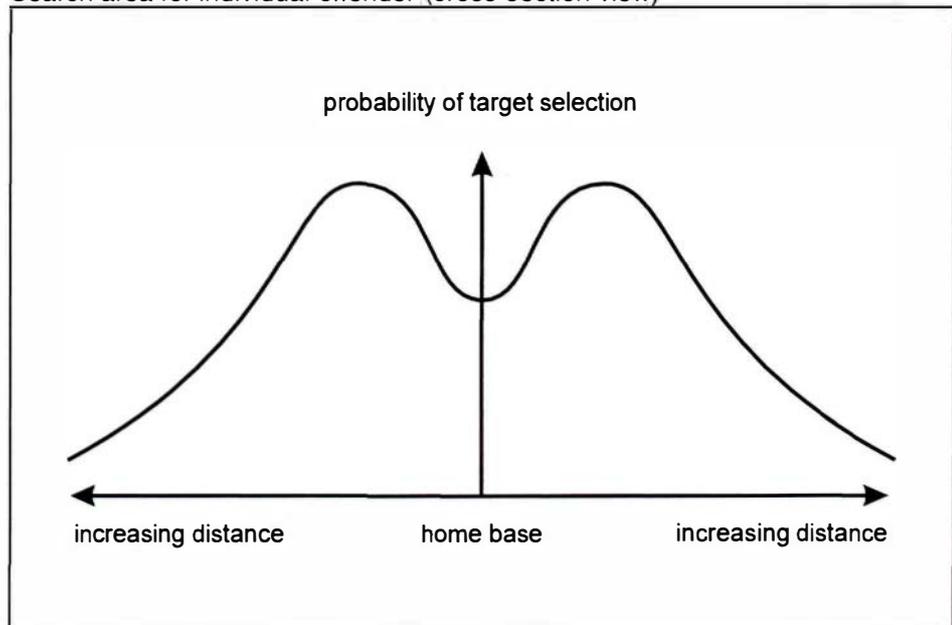
One of the striking things about criminals, they argued, is that most of them behave as ordinary people most of the time. And they like to operate near their home base as was shown by Rhodes and Conly.

But criminals do not like to work too close to their home base because they fear they will be recognized by neighbours.

Distributions of travel distances for three offenses (Rhodes and Conly, 1981)



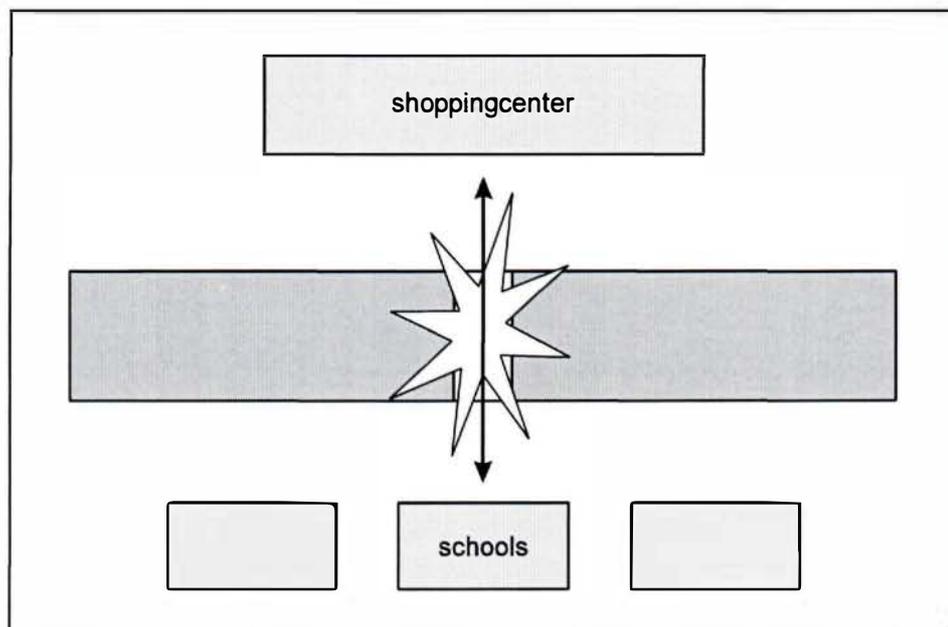
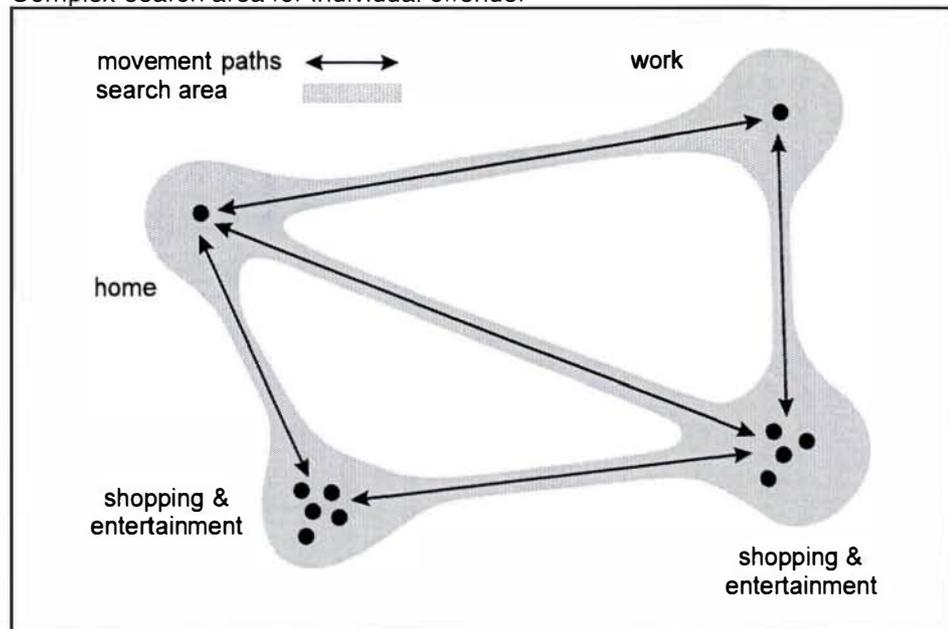
Search area for individual offender (cross-section view)



However, offenders are - again like most people - mobile. They travel to school, work, shops and entertainment and recreation locations. They develop an action space; a mental map or 'awareness space', the parts of the city they have knowledge about.

Researchers, urban planners and architects can play with this thought and develop models at the macro level (urban planning, transportation), and at micro level (site/building lay out architecture).

Complex search area for individual offender



One of the most promising things to be learned from the spatial school is the idea of offenders being quite rational people making decisions (choices) step by step: "Should I enter this neighbourhood, this street, how risky will it be entering this estate, will I be seen while burgling this house?"

Barbara Brown and Irwin Altman built a conceptual model on these ideas. The choice-making process of a burglar consists of a step by step judgement of environmental cues. The table shown summarizes these cues for four different levels (neighbourhood, street, site and house).

Vulnerability factors associated with neighbourhood, street, site and house (based on Brown and Altman, 1981)

Factor	Neighbourhood	Street	Site	House
Detectability	See: street	Design: winding vs narrow. Distance: street to house. Lighting: Windows, door positions relative to street.	Shrubs, trees, walls, fences blocking burglar. Burglar seeing into house (door and windows position). Auditory cues, dogs barking.	General visibility by neighbours or others. Windows positioned to see returning occupants once inside.
Actual barriers	River, canal, railway.	Locked gates, fences, guards.	Locked gates, fences, guards. Is opening large enough to carry away goods?	Locks, alarm system. Is opening large enough to carry away goods?
Symbolic barriers	Parks, shrubs, trees, roads (routing!).	Welcome signs. Neighbourhood watch signs. Distinctive cultivation for streets.	Distinctive personalizing items in yard - mail boxes, flower garden. Marking of entryway from the street.	Nameplate, signs on door (neighbourhood watch).
Traces	Signs of lack of control, e.g. litter, graffiti	Cars parked on street. Mail, newspapers in box or on street.	Equipment indicating interrupted activity: lawn mower, toys. Sprinklers (working). Appropriateness of lighting.	Hearing TVs, radios, voices, telephones. Lights. Cooking odours.
Social climate	See: street	Reactions by others - staring, questioning, ignoring, looking.	See: street	See: street.

As one can see, some cues are physical in nature and can be well or badly designed by architects and urban planners.

The perspective of criminal behaviour as the outcome of the offender's rational choices and decisions appears to provide the most immediate pay-off to crime control efforts aimed at reducing criminal opportunity.

This perspective was, as I mentioned earlier, developed in the Chicago School tradition and by the publications of Paul and Patricia Brantingham. However, this perspective was made really useful for crime control policy by writers on the subject of 'situational crime prevention'.

The 'situational approach' stresses the importance of developing *specific* crime prevention strategies. The container called crime has to be opened; one has to see that within are particular forms of crime one has to analyze and prevent: vandalism, burglary, violence, etc.

Hence, crime experts have to analyze one form of crime in a situational way.

They should study for example, burglars and burglary in one part of the city to learn which social and physical conditions prevent burglars from burgling. These conditions can then be implemented by urban planners, architects, social workers or municipal institutions.

Lessons

The ideas and theories reviewed in this introduction do not give a clear-cut answer as to how to prevent crime or fear of crime through environmental design.

Lesson 1: perspectives and indicators for risk evaluation

First of all, it is clear that different perspectives can be distinguished:

- The Jacobs/Newman theory is aimed at *residents*³ and the environmental influence on residents' fear of crime and residents' ability to exercise control. The most useful application is probably not crime itself, but social cohesion and fear of crime/feelings of insecurity.
- This perspective is complemented by *offender*-based theories suggesting that it is useful to analyze the decision-making process of criminals.
- Last but not least there is the security industry perspective: the *crime target* itself. This perspective stresses the importance of target hardening.

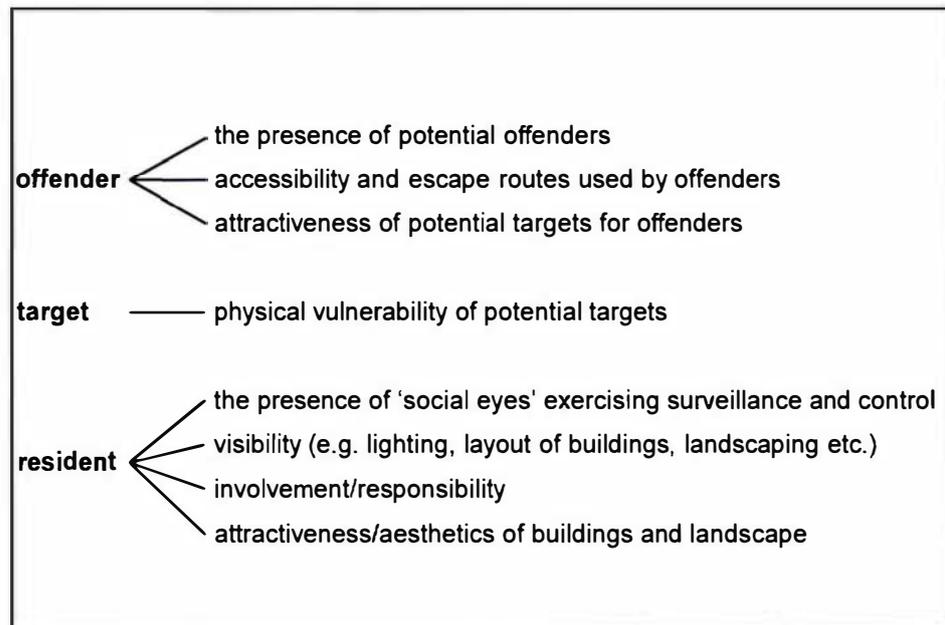
This distinction is essential when one wants to evaluate risks.

Risk evaluation should take *three* perspectives in consideration:

- offenders;
- target;
- control/surveillance/visibility/cohesion, in short: the residents' angle.

Research⁴ shows that these three perspectives can be refined to eight risk evaluation indicators.

- The presence of potential offenders.
- Accessibility and escape routes used by offenders.
- Attractiveness of potential targets for offenders.
- Physical vulnerability of potential targets.
- The presence of 'social eyes' exercising surveillance and control.
- Visibility (e.g. lighting, layout of buildings, landscaping etc.).
- Involvement/responsibility.
- Attractiveness/aesthetics of buildings and landscape.



Lesson 2: beware of 'container concepts'

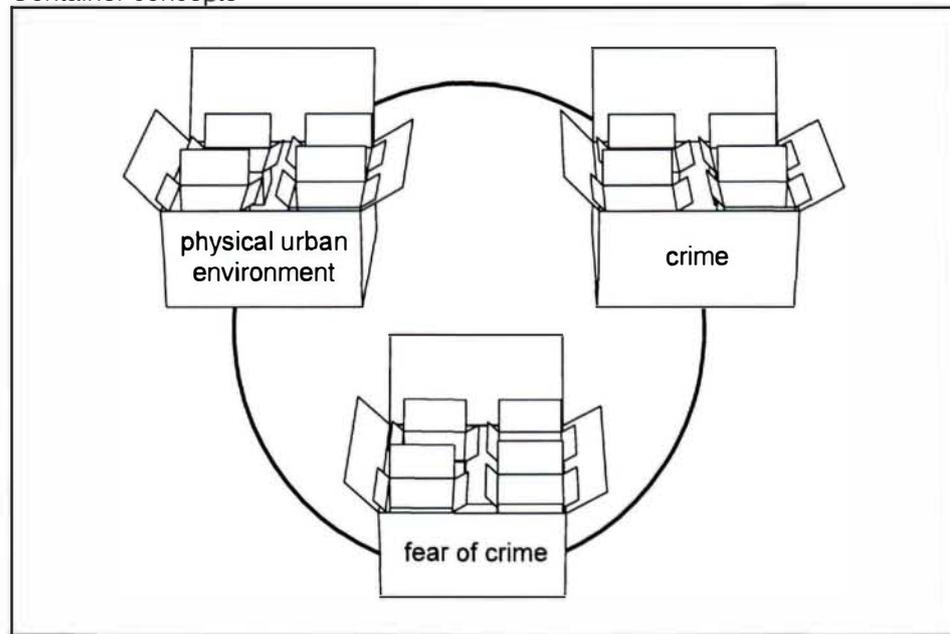
Secondly, it became clear that the main concepts discussed here are in fact

Note 3 Or more precisely: the people (that will be) living, working and using in an area (or future plan).

Note 4 See CEN/TC325/WG2; documents N2 and N3.

'container concepts'.

Container concepts



- The container called crime is a box full of quite different types of offenses, each needing a partly different approach. In the letter (21st October 1996) from the convenors of WG2 and WG3 to the chairman of CEN/TC 325 the potential offenses are summarized as:

- burglary or breaking into buildings;
- breaking into cars;
- theft from public roads;
- street violence;
- sexual violence;
- vandalism;
- neighbourhood disturbance.

- Fear of crime is clearly a black box too, containing striking differences as to age, gender, life style groups, etc.
- The physical environment is a 'container concept' too; it contains a *social* environment (filled with thousands of residents, employees, police officers and offenders) and a *physical* environment consisting of houses, streets, public buildings, etc.

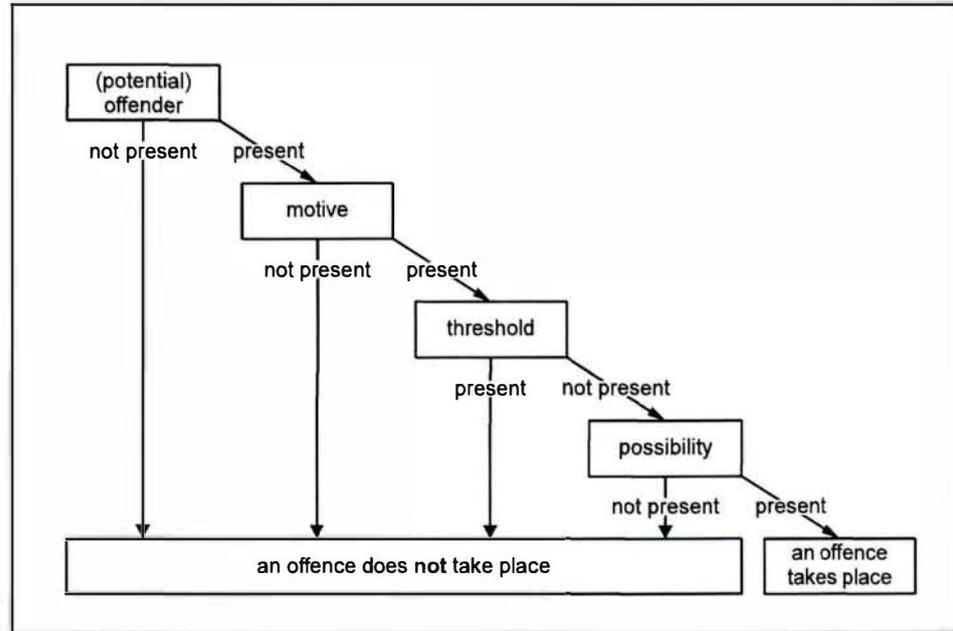
An important lesson is that standard solutions for reducing crime or fear of crime by changing the physical urban environment are unlikely to work.

What is needed first is an analysis of the crime problems in a specific environment and then an analysis of the responses to crime in that specific environment. Both analyses must be specific to the area and the type of crime. No sweeping theoretical generalizations, no multi-user blueprints on how to complete the job of environmental crime prevention - just grass root solutions for specific crime problems. Crime prevention must be viewed as a multi-agent process, and not a set of standard tricks.

The physical environment certainly influences both crime and fear of crime/feelings of insecurity. However, the influence may not necessarily be the same for each. In Jacobs' work we are confronted with this dilemma: pubs, restaurants and nightshops may promote community life and reduce feelings of insecurity, but all too often pubs, bars and nightrestaurants cause crime figures to rise in a neighbourhood. Buildings don't commit crime.

Crime is the work of man. An offense only takes place if there is a potential offender who is motivated (not predestined!) to commit an offense, and who is

not withheld by social thresholds or the physical impossibility to commit a crime.



It follows that a physical environment always plays a secondary role. The physical environment is at best a prerequisite for *informal control* (natural surveillance), or the physical environment can help to block (by physical or symbolic means) an offender from entering a neighbourhood, estate, building, corridor or apartment.

School	Chicagoschool USA; 1920	Romantic school USA; 1961	Newman the Young USA; 1972	Newman the Purified USA; 1980	Situational approach UK; 1980	Spatial school USA; 1980	Rock hard school Worldwide since 10000 BC
Authors	Shaw and McKay	Jacobs, Wood	Newman	Newman	Clarke, Mayhew and others	Brantingham and Brantingham and others	
Key work	Juvenile Delinquency and Urban Areas	The Death and Life of Great American cities	Defensible space	Community of interest	Designing out crime	Environmental criminology	
Area of interest	Residence of juvenile offenders	Unsafe city streets. Crime site in relation to surrounding buildings.	Architectural design of unsafe estates. Physical possibilities for control.	The physical setting of social communities	Crime specific. Criminal acts resulting from offenders meeting or seeking opportunities. Physical and social environment.	Analysis of the location of crimes, to sort out patterns in the 'where, when and how' of crime	Physical strength of objects or parts of buildings
Main questions	Where do Juvenile offenders live? Why do they live there?	How to give city streets good crime prevention qualities?	Does a different housing design give residents possibilities for exercising informal control over their environment?	See: Newman 1972	How to reduce opportunities for offenders?	Where does crime occur? Why there?	How to prevent (by physical means) people from breaking or demolishing an object or a building
Answer/theory	Where: Zonal model of urban form (Burgess/Park). Highest number of delinquents living in the concentric zone adjacent to the central business district (zone of transition/slums). Rates declining with increasing distance outwards. Why there: Social disorganization. Youth learn criminal behaviour from peers.	1. A clear demarcation between public and private space 2. Eyes on the street (eyes of residents and eyes of people passing by). Buildings orientated to the street. 3. Streets must be busy and used continuously. Night shops, pubs, bars, etc. can create late hour activity.	Defensible space = natural surveillance coupled with residents feelings of territoriality	Informal control will flourish in a residential environment whose physical characteristics allow inhabitants to ensure their own security. Community of interest (grouping of life-styles)	Prevention strategies are different for each type or crime. In general: 1. Target hardening 2. Target removal 3. Removing the means to crime 4. Reducing the pay-off 5. Formal surveillance 6. Natural surveillance 7. Surveillance by employees 8. Environmental management	Without offenders no crime. Offenders make rational choices. Attention has to be paid to the decision making process of an offender which is time/ spatially constrained: offenders prefer to operate in areas they know. Crime risks highest along movement paths of offenders and on borderlines of districts where a lot of offenders reside	Target hardening and alarm systems. Strength of the target has to keep pace with: - the offenders profit when he succeeds after all (Fort Knox high profit --> this target must be quite hardened) - time needed to react (police, neighbours, employees, etc.)
Critique/remarks	Research in Europe showed totally different pattern of residence. Danger of ecological fallacy.	Research proved Jacobs 'safe streets' to be unsafe! More people = more trouble (especially pubs/ bars). Physical determinism. See also Newman critique	Changing the physical environment does not necessarily result in different response to crime. The offender is neglected: how does he perceive D.S.; there are always ways to avoid surveillance. Methodological errors in research.	Again: too much physical (or architectural) determinism. Offender still neglected. Strange: Newman 1980 causes little debate; is neglected or unknown in most European countries.	In the eighties the opportunity-focused Situational approach and the Spatial school become strongly intermingled. See e.g. Clarke and Cornish 1985: Criminal behaviour is seen as the outcome of the offender's broadly rational choices and decisions.	See: Situational approach	Displacement of crime. Creates Bunker environment. Target hardening can promote fear of crime.
Most useful application	Preventing youngsters from initial involvement in crime	Reduction of fear of crime by promoting community life	Creating better possibilities for natural surveillance and thus reduce feelings of insecurity. Effects on offenders seem to be at best moderate	See: Newman 1972	Preventing a specific form of crime in a very practical (manageable) way. Fear of crime is hardly incorporated in the theory.	Predicting which areas or routes are at risk; modelling offender's decisions by physical environmental changes makes rational crime policy (displacement policy) possible.	Preventing victimization in particular case.