Newsletter

"To create safer environments and improve the quality of life through the use of CPTED principles and strategies."

Designing Safe Schools

by Randy Atlas Ph.D., AIA, CPP
Atlas Safety & Security Design Inc.
Miami, Florida

Randy Atlas has been a regular contributor and member of the ICA for a number of years. He has been a practicing CPTED architect for over a decade. He provided a keynote address at last years ICA conference. This is an excerpt of a presentation he will provide at this years ICA conference in Oakland.

Creating safe schools (Elementary through High schools) are the responsibility of the entire community in which a school or school system resides. Yet, the day to day operation is primarily the responsibility of the teachers, the school administrators, and school security or law enforcement officers. But, before the first student walks the halls, an architect draws on paper or computer the design of the school and what will be the subsequent relationships of people and their buildings. The success or failure of that school is predisposed to the quality of design and the limitations of budget.

A good administrator could run a great school in an "Old Red Barn", but it is sure going to take a lot more effort and supervision to do so, than in a well designed and functional academic space. The basic CPTED premise is that through the effective use and design of the built environment, there can be a reduction in the opportunity and fear of crime, and result in the improvement in the quality of life. If we (collectively) can create the next generation of schools to be built for the effective use of space with CPTED features, they will substantially reduce the opportunity and fear of crime in them.

Our schools have been becoming fortresses over the last two decades. In 1998, over 2000 kids were killed in school related incidents. Juveniles as a demographic, were involved in 12% of murder arrests, 35% of burglary, 27% of robberies, 24% of weapons arrests. 47% of schools (1996/97) had at least one serious crime. 10% had violent crime occur within the school property. Some of the most notorious events are the listed below:

12/1/97　3 students killed, 5 wounded at Paducah , Kentucky. high school
3/24/98 4 girls and teacher killed, 10 wounded in Jonesboro, Ar. middle school
5/21/98 2 teens killed, 20 injured in Springfield, Oregon. high school
4/20/99 15 teens killed in Columbine Colorado High school.

In a 1996/1997 Survey of public school by U.S. Dept. of Education found that:

? 96% required visitors to sign in before entering the school building
? 80% had a closed campus policy prohibiting students leaving for lunch
? 53% controlled access to buildings
? 24% controlled access to grounds
? 19% conducted drug sweeps
? 84% had police or security reps inside school during the school day
? 4% performed random metal detection checks on students
? 1% used metal detectors daily

Environment and Behavior: School Design and relationship to Crime. Examples of potential problems are:

? Campus borders are often poorly defined
? Informal gathering areas are out of sight
? Building layout produces isolated spots
? Bus loading areas often in conflict with cars
? Student parking lots often on outermost areas
? Periphery parking creates conflict with the neighborhood
? Parking areas often obscured by plantings
? Locker areas often create conflict & confusion and hiding of contraband
? The overuse of corridors creating blind spots
? Rest rooms located away from supervision

Safe School Design

Safe school design involves four key area that should include security layering/defensible space planning practices:

Site Design includes features of: Landscaping, Exterior Pedestrian Routes, Vehicular Routes and Parking, Recreational Areas.

Building design features: Building organization, Exterior covered corridors, Points of entry, Enclosed exterior spaces, Ancillary buildings, Walls, windows, doors, roofs, and Lighting.

Interior spaces include features of: Lobby and reception areas; Corridors; Toilets and bathrooms; Stairs and stairwells; Cafeterias, Auditoriums, Gyms; Libraries and media centers; Classrooms; Locker rooms; Labs, shops, music, computer rooms; and Administrative areas.

Systems and equipment will include features such as: Alarms and surveillance systems; Fire control; HVAC & mechanical equipment; Vending machines; Water fountains; Elevators; Telephone and info systems.

A school's relationship its immediate surroundings is communicated through the edge connections. Landscaping denotes school boundaries. Accessibility can be restricted through edge condition. Areas of clear defined use are established and naturally observed. Territoriality/ Boundaries include perimeter fencing. Landscaping Barriers include gates and fences which restrict unwanted entrance and access. The goal is to use gates and fences that permit observation to surrounding areas. Appropriate landscape trees and flowers can improve the aesthetics of these barriers. Be sure that solution does not turn into problem by providing hiding areas with barriers…

Summary

Many school buildings in the United States have been constructed to achieve an inviting and open campus style, with multiple buildings, multiple entrances and exits, big windows and many opportunities for privacy. These design configurations are not conducive to many current requirements that need to encompass security needs. To deter the broken windows, burglary and vandalism school architecture went through a period of fortressing that resulted in schools with almost no windows and produces fortress like enclaves. Students and faculty were able to reach the academic freedom that these symbolic bunkers portrayed.

Incorporating the principles and practices of CPTED in the design and remodeling of schools can contribute to the safety of the school while reducing the target hardening and fortressing effects of a bunker mentality. Technologies of security, such as cameras, sensors, weapons screening, etc., can contribute to the overall security of a school, but not in all situations. Schools must not undervalue the importance of good maintenance, good construction, good design, and a fair and equal management style of school operation.

For more info look at http://www.cpted-security.com

Can You Trust Your Local CPTED Practitioner?

Minimising subjectivity in crime risk assessment

Phil McCamley
Faculty of Architecture, University of Sydney

Phil McCamley is a Chief Inspector with the New South Wales Police Service in Australia and principal instructor/designer of the Safer by Design training program. He is completing a Master of Architecture at the University of Sydney. His graduate research involves a study of an innovative new CPTED risk assessment model. A small part of his on-going research study is printed here. A more complete version of the study will appear in subsequent ICA publications.

The issue

During the 1960's and 1970's, the design/crime connection was popularised in Australia as elsewhere, by the groundbreaking treatise' of Jacobs (1961), Newman (1971) and Jeffery (1971). Armed with newfound knowledge, checklists and a plethora of design tactics, architects, planners and criminologists set about lancing the boil of Australian crime, or so they thought. Some projects and studies enjoyed degrees of success; many others however were disappointing. Before a decade had passed, interest in *Defensible Space* and *CPTED* began to wain, projects slowed and a shrinking number of Australian practitioners pursued "the promise" of design and planning based crime prevention.

Commentators such as Merry (1981), Kaplan et al (1978) and Rubinstein, Motoyama and Hartjens (1980) were quick to criticize the theories and work of early researchers, especially Newman. While it is broadly accepted today that the process and outcomes of early CPTED studies were less than ideal, it is also the case that many practitioners were ill prepared and ill equipped to implement CPTED. In Australia for example, there are no records of formal, recognised CPTED training during this period, and there certainly weren't any tools to help practitioners examine risk in specific places, to objectively diagnose 'design and planning' problems, or to evaluate solutions.

During the past ten or so years, CPTED has re-grown in popularity amongst many criminologists, architects, planners and police (McCamley, 1999). For example, in Australia the New South Wales Police Service - and one hundred and seventy four (174) City and Shire Councils are currently training inter-agency teams of Town Planners, Strategic Planners and local Police Crime Prevention Officers in CPTED. Supportive reports to the New South Wales Government (IRC Report to the NSW Attorney General, 1997), the US Congress (Eck, 1997) and the UK Home Office (Herbert, 1997) underline this fact. An unfortunate legacy carried forward from the 1970's however, is that many people continue to consider design checklists and one-size-fits-all prescriptions as best practice (Saville, 1997, McCamley, 1999). Furthermore, many people "practising" crime prevention through environmental design today, have not been formally taught about CPTED, when or where to use it, how to determine if or when it is the right crime prevention tool to use, or how to implement CPTED when environmental context and situational risks change.

Crime prevention courses in the United States, Canada, Great Britain and Australia have exacerbated this problem by teaching design prescriptions and little about empirical diagnosis. In some respects, the process can be likened to a medical system that teaches doctors how to prescribe medication without

joint action has become essential to the survival of urban life
- Oscar Newman, 1972

In a city, no one is a tight little island... survival is a collective enterprise
- Van der Ryn & Calthorpe, 1986

teaching them how to diagnose illness. We would find it difficult to imagine a doctor that consistently prescribed the same selection of pills to patients, for prevention and cure - no matter what the patient's age, condition or the cause of their complaint. Yet, CPTED-by-numbers remains common practice today.
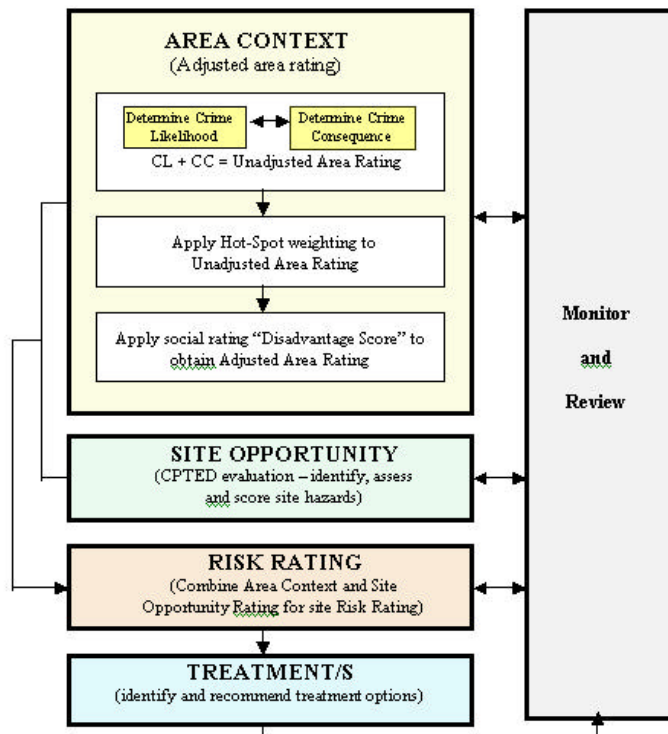
A cursory examination of web advertisements for CPTED consultants, government and private crime prevention programs and training courses highlights this point. This calls for the development of a crime risk assessment model that can be applied widely by CPTED practitioners. Until these bread and butter needs are satisfied, it is likely that CPTED will remain tethered to unimpressive aspects of its past.

The Project
CPTED Crime Risk Evaluation Kit

In 1999, a CPTED based crime risk evaluation kit was developed with the aim of helping practitioners to better identify, assess and minimise situational crime risk. Based upon an Australian and New Zealand Risk Management Standard, the evaluation employs qualitative and quantitative measures of the physical and social environment to create a contextually adjustable approach to the analysis and treatment of crime opportunity (see diagram 1)

The evaluation kit contains two documents. First it contains a research instrument called the *'CPTED Crime Risk Evaluation'* and then it includes the guidelines for the process, called *'A Companion to CPTED Crime Risk Evaluation'*. Section 1 of the instrument uses local crime data to assess the statistical likelihood and consequences of crime within the target area. It then applies a police intelligence 'hot-spot adjustment' that refocuses the analysis from the macro or meso to micro levels.

CPTED CRIME RISK EVALUATION

AREA CONTEXT (Adjusted area rating)

Determine Crime Likelihood ←→ Determine Crime Consequence

CL + CC = Unadjusted Area Rating

Apply Hot-Spot weighting to Unadjusted Area Rating

Apply social rating "Disadvantage Score" to obtain Adjusted Area Rating

SITE OPPORTUNITY (CPTED evaluation – identify, assess and score site hazards)

RISK RATING (Combine Area Context and Site Opportunity Rating for site Risk Rating)

TREATMENT/S (identify and recommend treatment options)

Monitor and Review

Section 2 of the instrument applies a socio-economic index rating scores from the Australian Bureau of Statistics. The rating scores are based on local education, occupation, unemployment, home ownership, income and other social conditions. The scores are available for areas with as few as 225 households. This data is then combined with the unadjusted area score to create an adjusted area score, or context rating (see diagram 1).

Section 4 is a multi-part assessment of design, space and activity management features (a CPTED site analysis). One hundred and thirty nine location features are assessed and scored in this section using a verbal-graph response scale which targets the appropriateness, quantity and quality (or effectiveness) of each feature.

Scores from section 4 are totalled and distilled to create a site opportunity rating. This rating is then combined with the context rating to determine location risk. In practice, the context rating re-weights the section 4 CPTED score depending upon the presence or absence of crime predictors such as social disadvantage and local crimi-

nal activity. High predictor levels push the CPTED rating upwards and low levels push it down. Section 6 explores treatment options and provides general guidance to ratters. The kit does not offer literal solutions to crime problems.

The Second document *'A Companion to CPTED Crime Risk Evaluation'* contains guidance on how to use and interpret the evaluation instrument. It also contains diagrams, tables and photographic examples of design features outlined in section 4.

The model has been applied and examined in research conducted by the writer across a broad range of factors. The results have shown that the approach offers great potential for CPTED practitioners in assessing risk in areas prior to implementing strategies.

Useability

A post-assessment survey revealed that 96% of respondents believed the evaluation kit will help planners, designers and crime prevention practitioners to better understand CPTED. 92% believed the evaluation kit will help planners, architects and crime prevention practitioners to identify and address crime opportunities within the built environment, and 97% believed that they will be more likely to use the kit if they are formally trained in CPTED.

One of the children play areas evaluated by the risk assessment instrument

An urban park area evaluated by the risk assessment instrument

Usefulness

Arguably, this study has demonstrated the importance of diagnostic tools in CPTED practice. Statistical results have shown however, that people see manifestations of crime risk in different ways. Moreover, variation in crime risk ratings is likely to be affected by gender, ethnicity and occupation in spite of the use of directive evaluation instruments.

It is reasonably clear that use of the evaluation alone will not reduce the respondents subjectivity to low levels. The evaluation kit, in its current form at least, is not recommended for use by unskilled persons. But this study highlighted the ability of CPTED training and experience to greatly reduce variation between respondents who use the evaluation kit.

Conclusions and implications

Experience in New South Wales, as in other parts of the world has shown that design checklists and cookbook approaches to CPTED cannot discriminate for the many different social, community and situational conditions that influence crime in our neighbourhoods. The nature, extent and methods of crime continuously change between locations and within locations over time. The activity of crime prevention practitioners therefore, like the activity of criminals, should be tailored to suit the conditions and needs of different places and communities. To do this however, practitioners need the right knowledge, practical skills and tools.

This study has attempted to develop and apply this risk assessment program in order to provide a useable and useful evaluation kit that will help to minimise subjectivity in CPTED crime risk assessment.

This model introduces a new way to more scientifically examine the risks of certain places prior to CPTED implementation. Those most likely to benefit from this process are experienced, trained, or certified CPTED practitioners. For beginners, the evaluation kit will be more useful, and assessment outcomes more valid if they are formally trained in CPTED.

Bibliography

Eck J.E, (1997) 'Preventing Crime at Places' in *Preventing Crime: What Works, What Doesn't, What's Promising: A Report to the United States Congress.* National Institute of Justice

Not life, but good life, is to be chiefly valued."

-Socrates

Do you have an interesting project or paper involving CPTED strategies and principles? Share you experience with your colleagues! Send a copy in electronic format by email the ica@cpted.net and we will post it in the members section.

Grabosky, P., (1995) 'Fear of Crime and fear reduction strategies' in *Trends and Issues, No 44*, Australian Institute of Criminology: Canberra

Jacobs, J., (1961), *The Life and Death of Great American Cities*. Random House, New York

Jeffery C.R., (1971) *Crime Prevention through Environmental Design*. Sage Publications: Beverley Hills

Herbert, D., (1997) 'Crime and the City: Environmental Approaches to Crime Prevention' in *What Works in Community Safety*. A Report to the UK Home Office: London

Hickie, M, & Leonard, R., (1994) *Ask Any Woman: A Report of a Phone-in on Women and Safety in Liverpool Local Government Area*. Liverpool Safe Women's Project.

Human Rights and Equal Opportunity Commission, (1991) *Report of National Inquiry into Racist Violence in Australia*, Sydney AGPS

Industrial Relations Commission (1997) *Report to the Minister – Matter 1880 of 1995: Inquiry into the Transport and Delivery of Cash and Valuables Industry*: Sydney.

McCamley, P.E., (1994) *Safer by Design*. NSW Police Service: Sydney

McCamley, P.E., (1999) *Crime, Design and Urban Planning*. A Report to the Department of Urban Affairs and Planning: Sydney.

Merry, S.E (1981) *Defensible Space undefended: Social factors in crime control through environmental design*. Urban Affairs Quarterly, 16, 397-422.

Newman, O (1972) *Defensible Space: People and Design in the Violent City*. Macmillan: New York

Rubinstein, H, Motoyama, T, & Hartjens, P., (1980) Defensible Space: Crime Prevention through Urban Design and Architectural Design for Crime Prevention (A Methodological Review), in *Link Between Crime and the Built Environment: Volume 2*, National Institute of Justice: Washington DC.

Saville, G (1997) *Displacement: A Problem for CPTED Practitioners*. Paper presented at the 2nd annual International CPTED Association, Florida.

Saville, G (1998) *Safer Cities by Design: Perspectives on CPTED*. Presentation at the University of Sydney, September, 1998.

Standards Australia (1999) *ANZS4360: 1999 Risk Management*. Sydney

Valentine, G (1990) Women's Fear and the Design of Public Space, in *Built Environment*, Vol 16 No 4.
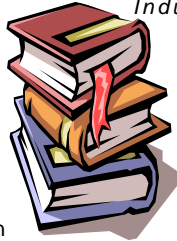
www.cpted.net

CPTED INFO TABLE

The ICA will be setting up a table again at the conference in Oakland. This year a new feature will be added. All ICA members who have published recent CPTED related articles and would like to share this work free to their fellow members, can drop them off at the ICA table. We will distribute this material for no charge to your colleagues. You are invited to bring your work to the conference and share it with you colleagues.

Drop it by the ICA desk during registration.

The 1996 Founding ICA Members

Upcoming ICA Publication

Articles are now being considered for an ICA publication that will be published after the annual conference. Some of the presentations from the conference will be included, and members who attend but are not presenting should also consider bringing articles for consideration. The publication is looking for practical case studies (with photos, site plan drawings, and a description of what was done and evidence about the results of the CPTED strategies). The publication is also looking for articles that describe new theories, new techniques and new methods to assess the risk in places. You should write no more than 10 pages, double spaced, and provide a disk with the document on MSWord.

Submit articles to the ICA office at ica@cpted.net

Crime

Prevention

Through

Environmental

Design

(pronounced

sep-ted) is

based on a

theory that the

proper design

and effective

use of the built

environment

can lead to a

reduction in the

incidence and

fear of crime

and an

improvement in

the quality of

life.

Notes from the Chair

by Greg Saville,

ICA International Chair

There is only a short time left to register for the 2000 ICA conference in Oakland, California. If you haven't done so, do so. The Oakland/San Fransisco Bay area is among the most beautiful and architecturally interesting areas in the U.S. The conference theme deals with youth and violence, something of great topical interest in recent years. CPTED has much to offer our prevention initiatives and this year's slate of speakers will each describe their own unique strategies to deal with it.

In the meantime, the ICA has been a busy place. This is the fourth newsletter published since last conference. We have a new web server and by time the conference rolls around will have a newly designed website. We've formalized our selection of the 2001 site of the ICA conference in Brisbane, Australia. We're also been working on developing CPTED accreditation standards for the past year with your help, and with the gracious input of a wide group of CPTED experts. Many of these people have given their expertise, time, and their commitment in providing Josh Brown, with input into his study on the topic. Josh will present his findings also at the Oakland conference and I believe this will mark the furthest ahead towards CPTED certification our movement has ever moved before. I wish to thank all these people, and especially Josh Brown, for the terrific work done on this exciting project.

In addition, our organization recently grew into a new region. In September the Japan Urban Safety Research Institute, the primary government center for urban safety research in Japan was included as the newest members of the ICA.

You'll note ads in this newsletter for applications to become a member of the ICA board. A number of our board members terms expire this year. Board membership provides direct benefits such as waived conference fees. But the indirect benefits are greater. As a board member you will have input into the policies of the ICA and the direction of CPTED. Membership requires participation in internet meetings and two contributions to the ICA activities throughout the year. You can apply for board membership by sending to ICA HQ your resume and a statement of what kinds of activities you would commit to spend time on throughout the year.

Finally, my term as ICA chair also expires this year and I can tell you the past few years has been exciting and rewarding. The organization continues to grow with the expansion of the CPTED movement. We are gradually working towards our original goals, to advance the theory and practice of CPTED and to professionalize the field. I want to thank all the current board members for their dedication and most especially Vice-Chair Sherry Carter and executive director Barry Davidson, for work beyond the call of duty. Thank you all and see you in Oakland.

Greg Saville
ICA Chair

www.cpted.net