ABSTRACTS AND SELECT PROCEEDINGS

ABSTRACTS AND PROCEEDINGS OF THE 1ST DESIGN + CRIME INTERNATIONAL CONFERENCE SYDNEY, 12-13TH DECEMBER, 2012

The select proceedings went through a review process by the editors and members of the team at designing out crime. This document is produced online and as such is a living document that can be added to by any conference presenters who would like to submit their papers for possible inclusion in the future.

EDITED BY:
Lindsay Asquith
Lucy Kaldor
## ABSTRACTS: KEYNOTE PRESENTERS

| DESIGN + CRIME: UP THE DOWN ESCALATOR | 8 |
| Professor Kees Dorst |
| HOW TO ANALYZE CRIME, THEN DESIGN AGAINST IT | 8 |
| Professor Marcus Felson |
| BEYOND CPTED: SOCIAL EQUITY AS A BASIS FOR SAFETY AND LIVEABILITY | 8 |
| Assistant Professor Heather MacDonald |

## ABSTRACTS: THEME PRESENTERS

| THE 5IS FRAMEWORK: DESIGNED TO SHARE KNOW-HOW AND IMPROVE PERFORMANCE IN CRIME PREVENTION | 9 |
| Professor Paul Ekblom |
| REVIEWING COMMON SHOPLIFTING PERPETRATOR TECHNIQUES: HOW ‘ECO’ BAGS AND SELF-SCANNING MACHINES INFORM THE GLOBAL CONTEXT OF SHOPLIFTING AND WHAT SUSTAINABLE STRATEGIES MIGHT BE USED TO DEFEND AGAINST THEM | 9 |
| Professor Lorraine Gamman |
| PUBLIC TRANSPORT’S ROLE IN SAFE CITIES FOR PEOPLE | 10 |
| Assistant Professor Garry Glazebrook |
| RETHINKING THE NIGHT-TIME CITY | 10 |
| Suzie Mathews |
| BIKEOFF: AN AWARD-WINNING PROJECT TO REDUCE CYCLE THEFT AND INCREASE CYCLE USE IN THE UK | 11 |
| Adam Thorpe |

## ABSTRACTS: SESSION PRESENTERS

| IT’S A WAR ZONE | 12 |
| Professor James Arvanitakis |
| DISCIPLINARY ARCHITECTURE: USING PRISON DESIGN TO OPTIMISE HEALTH AND SAFETY | 12 |
| Professor Niyi Awofeso |
| CAN DESIGN SUPPORT COMMUNITY DEVELOPMENT AND URBAN RENEWAL PROGRAMS IN AREAS OF SOCIO-ECONOMIC DISADVANTAGE? | 13 |
| Dr. Olga Camacho Duarte |
| DESIGNING FOR A SAFE AND ATTRACTIVE LIGHT RAIL EXPERIENCE IN SYDNEY’S INNER WEST | 13 |
| Nick Chapman |
| DESIGN STRATEGIES FOR MITIGATING THE IMPACT OF ANTI-SOCIAL BEHAVIOR UPON SUBURBAN RAIL TIMETABLES | 14 |
| Selby Coxon |
| Dr. Robbie Napper |
| Associate Professor Arthur De Bono. |
| INVESTIGATING ‘EYES ON THE STREET’, PERCEPTIONS OF CRIME AND THE USE OF SECURITY SHUTTERS: INSIGHTS FROM A RESIDENTIAL SUBURB IN PERTH (WA) | 14 |
| Dr. Paul Cozens |
| Tom Davies |
| PERCEPTIONS OF CRIME AND ENTRY STATEMENTS AT LICENSED PREMISES: A STUDY OF MICRO-LEVEL CRIME PRECIPITATORS IN PERTH (WA) | 15 |
| Dr. Paul Cozens |
| Shane Greive |
| CRIME AND ANTISOCIAL BEHAVIOUR ON PUBLIC TRANSPORT: A REVIEW OF EVIDENCE AND MITIGATION STRATEGIES | 15 |
| Professor Graham Currie |
| Alexa Delbosc |
| REDUCING FARE EVASION: LESSONS FROM INTERNATIONAL AND CROSS-DISCIPLINARY RESEARCH AND PRACTICE | 15 |
| Alexa Delbosc |
| Professor Graham Currie |
DESIGN IMPLICATIONS FOR ADDRESSING COMMUTERS’ EXPERIENCE OF CRIME AND FEAR OF CRIME
Amanda Fisher (Presenter)
Dr. Melissa Burgess

MOTIVATING PEOPLE TO ACT FAIRLY: INSIGHTS FROM GOAL SETTING AND AUTOMATICITY THEORIES
Dr. Deshani B. Ganegoda (Presenter)
Professor Gary P. Latham
Professor Robert Folger

CONTemporary PRISON Environments FOR ABORIGINAL PRISONERS
Dr. Elizabeth Grant

DESIGNING OUT CORRUPTION
Professor Adam Graycar

SHARPS MANAGEMENT IN SOCIAL HOUSING: A BREAKTHROUGH PILOT PROJECT
Dominic Grenot
Rebecca Martin

USING DESIGN TO REDUCE ARMED ROBBERY AT RETAIL BRANCHES OF A LEADING AUSTRALIAN BANK
Geoff Griffiths

INTERACTIVE ONLINE CRIME MAPPING TOOL DEMONSTRATION
Jessie Holmes

PROMOTING URBAN SAFETY IN SOUTH-EAST ASIA AND THE PACIFIC
Professor Peter Homel

THE SYDNEY ALLIANCE CAMPAIGN FOR SAFE PUBLIC TRANSPORT IN SYDNEY
Dr. Kurt Iveson et al

WHAT’S THE PROBLEM WITH GRAFFITI?
Dr. Kurt Iveson
Dr. Cameron McAuliffe

DIGNITY BY DESIGN: THE COFFS HARBOUR JUSTICE PRECINCT
Diane Jones

SHOPPING CENTRES AND CRIME
Michael Julian

ARCHITECTURAL DESIGN OF SUPER HIGH RISE BUILDINGS TO PROTECT FROM TERRORISM
Professor Kyung Hoon Lee

DESIGNING OUT CRIME IN THE URBAN BUS TRANSPORT SECTOR
Assistant Professor Robyn Lincoln
Yolande Huntingdon

ASSESSING DESIGN IN THE CONTEXT OF CRIME AND COMMUNITY SAFETY: INTEGRATING CRIME PREVENTION AND THE DESIGN PROCESS IN LOCAL GOVERNMENT
Rebecca Martin

HARNESSING THE POWER OF SOCIAL MEDIA IN CRIME PREVENTION: LOCAL SOLUTIONS FOR LOCAL PROBLEMS
Chief Inspector Josh Maxwell

“IF ONLY YOUR BRICKS COULD TALK”: BALANCING GOOD DESIGN WITH GOOD NEIGHBOURHOODS
John Maynard
Dominic Grenot

ACTIVE LIVING – NSW DEPARTMENT OF PREMIER AND CABINET: SIMILARITIES BETWEEN HEALTH OBJECTIVES AND CRIME PREVENTION
Peter McCue

A PREFABRICATED SPACE FOR 21ST CENTURY LEARNING IN MAXIMUM SECURITY PRISONS
Fiona McGregor (CSNSW)
Kevin Bradley (DOC)
Tasman Munro (DOC)
Lucy Klippan (DOC)
Dr. Rohan Lulham (DOC)
Associate Professor Douglas Tomkin (DOC)

THE NSW RETAIL CRIME STRATEGIC PARTNERSHIP: THE DESIGN AND OPERATION OF A WORKING PARTNERSHIP BETWEEN GOVERNMENT AND THE PRIVATE SECTOR TO REDUCE RETAIL CRIME.
Hanna Mohamad

A MATTER OF COMPROMISE: AN EVALUATION OF PASSENGER-DRIVER CONTACT THROUGH THE DESIGN, DEPLOYMENT AND ANALYSIS OF ROUTE BUS DRIVER SECURITY SCREENS.
Dr. Robbie Napper

PRISON ARCHITECTURE AND HUMAN RIGHTS
Dr. John Paget

CHANGING CRIMINAL BEHAVIOUR THROUGH DESIGN: FACILITIES, FIT-OUTS, FUNCTION AND FAILURES – DESIGN ISSUES IN PROBATION AND PAROLE DISTRICT OFFICES
Dr. Malcolm Pearse
Tim Putnam
CONTENTS

RELIGIOSITY AS A CULTURAL MANIFESTATION IN THE URBAN SPACE: GAINING BACK PUBLIC SPACES APPROPRIATED BY CRIMINAL VIOLENCE
Dr. Gabriela Marian Quintana Vigiola

THE DIGNITY OF THE REMOTE COURT PARTICIPANT
Dr. Emma Rowden

‘WHAT ARE YOU DOING TO YOURSELF?’: A SOCIAL MARKETING CAMPAIGN TACKLING BINGE DRINKING IN KINGS CROSS.
Lisa Russell

CHECKPOINT ANTI-THEFT DEVICES
Ian Sharrem (presenting)
Nicole Smith

BEING SEEN AND HEARD: ACTIVELY INCLUDING TEENAGERS IN THE DESIGN OF OUR CITIES BY APPLYING YOUTH-INCLUSIVE URBAN DESIGN TO OUR CITY CENTRES, TRANSPORT NODES AND NEIGHBOURHOODS
Aaron Wallis

CRIME PREVENTION AND RESIDENTIAL DESIGN FEATURES: RESULTS FROM THE RESIDENTIAL BREAK AND ENTER OFFENDER STUDY
Andrew Webber
Emma Worthington

PREVENTING TELECOMMUNICATIONS FRAUD: RESPONSIBILISATION AND GUARDIANSHIP – EXPLORING THE LEVELS OF GUARDIANSHIP OFFERED BY DIFFERENT TYPES OF INTERNET SERVICE PROVIDERS
Dr. Julianne L Webster
Superintendent Brian Hay

SELECT PROCEEDINGS

‘IT’S A WAR ZONE’: NIGHT-TIME ECONOMY & KINGS CROSS
Professor James Arvanitakis

FEAR OF CRIME AROUND BLACKTOWN TRANSPORT INTERCHANGE
Melissa Burgessa

DESIGNING FOR A SAFE AND ATTRACTIVE LIGHT RAIL EXPERIENCE IN SYDNEY’S INNER WEST
Nick Chapman

DESIGN STRATEGIES FOR MITIGATING THE IMPACT OF ANTI-SOCIAL BEHAVIOUR UPON SUBURBAN RAIL TIMETABLES.
Selby Coxon
Dr. Robbie Napper
Associate Professor Arthur De Bono.

NIGHTCLUB ENTRANCES: EXPLORING ‘IMAGE’ AND MICRO-LEVEL CRIME PRECIPITATORS IN PERTH (WA).
Dr. Paul Cozens
Shane Greive

Dr. Paul Cozens
Tom Davies

UP THE DOWN ESCALATOR
Professor Kees Dorst

THE 5IS FRAMEWORK: DESIGNED TO SHARE KNOW-HOW AND IMPROVE PERFORMANCE IN CRIME PREVENTION
Paul Ekblom
CONTENTS

DESIGN OF SUPER HIGH RISE BUILDINGS FOR PROTECTION FROM TERRORISM
Professor Kyung-Hoon Lee

DRIVER AS FLASHPOINT: DESIGNING OUT CRIME IN THE AUSTRALIAN URBAN BUS TRANSPORT SECTOR
Assistant Professor Robyn Lincoln
Yolande Huntingdon

BEYOND CPTED: REFRAMING THE PROBLEM OF URBAN FORM
Associate Professor Heather MacDonald

A MATTER OF COMPROMISE: AN EVALUATION OF PASSENGER-DRIVER CONTACT THROUGH THE DESIGN, DEPLOYMENT AND ANALYSIS OF ROUTE BUS DRIVER SECURITY SCREENS.
Dr. Robbie Napper

PREVENTING TELECOMMUNICATIONS FRAUD: RESPONSIBILISATION AND GUARDIANSHIP
Dr. Julianne Webster
Superintendent Brian Hay

WORKSHOP OVERVIEWS

KINGS CROSS 102
CIRCULAR QUAY 104
BARANGAROO 106
INTRODUCTION

The first Design + Crime conference and exhibition aimed to showcase how the design and crime disciplines are coming together and adopting an innovation approach to complex problems. We heard from local and international experts how developing solutions to complex crime problems requires a collaborative process that is flexible and dynamic, and which is focussed on the desired outcomes; the kinds of environments we want, rather than the problems that confound them.

This approach of stepping back from the problem and broadening the context has been observed in design research, and it is evident that expert crime prevention practitioners also use this approach. This approach sets the conditions for the creation of a range of possible solutions that are unlikely to be generated though a problem focussed approach.

Design + Crime saw broad engagement from disciplines and professions not limited to; architecture, planning, urban design, housing, community services, criminology, social geography, environmental psychology, product design, urban tourism, visual communications, police, policy workers, crime prevention, and security practitioners. That such a broad contribution was made from so many disciplines is remarkable, and an indicator of the breadth of disciplines that can contribute to crime prevention.

One of the underlying themes of the conference was that design is not just an outcome. It is a process. A process that can generate more than just physical outcomes.

One of my favourite moments of the conference was in a group discussion with our keynotes. Professor Lorraine Gamman, director of Design Against Crime at Central Saint Martin’s College remarked that “design is not just about doing the colouring in”.

I look forward to seeing academic reflection on Design + Crime. We aimed to ‘change the way you think about crime prevention’, and certainly we learned much from the excellent and engaging contributions from the presenters. A selection of peer reviewed proceedings are published herein, with all of the abstracts from the conference.

I hope that this provides a document that can aid discussion, and we look forward to the next Design + Crime conference.

Thank you,
Kees Dorst
**Title:** Beyond CPTED: social equity as a basis for safety and liveability  
**Author:** Associate Professor Heather MacDonald  
**Affiliation:** School of the Built Environment, DAB, University of Technology Sydney

In this presentation, Heather MacDonald argues that urban design considerations need to be broadened beyond the physical if we are to develop liveable, safe, and socially sustainable environments. There is persuasive international evidence that the spatial marginalisation of disadvantaged residents in warehouse estates disconnected from the metropolitan economy undermines social sustainability, and constrains the life prospects of children who grow up in suburban ghettos.

While CPTED principles may reduce the likelihood of victimisation in specific places, a parallel concern with economic and social integration is needed to reduce overall rates of victimisation across our cities. I review the evidence for "neighbourhood effects" on life chances, and critically assess the extent of social segregation across the Sydney metropolitan area. The presentation concludes with a discussion of the potential for integrating social equity considerations into mainstream debates about crime prevention.

---

**Title:** Design + Crime: up the down escalator  
**Author:** Professor Kees Dorst  
**Affiliation:** Director, Designing out Crime Research Centre, University of Technology, Sydney

Abstract: The fields of criminology and crime prevention practice have looked at the design of buildings, products and the urban fabric in an effort to identify bad design characteristics that would precipitate or exacerbate crime. Both fields have theorised rules and frameworks to help prevent these bad designs from occurring again. But the broad field of design has much more to offer. Designers and their unique practices are now being recognised for their role in helping organisations deal with open, complex, dynamic and networked problems ("Design Thinking").

In the Designing Out Crime Research Centre, these design practices are used to approach the issues of safety and public spaces in a new, positive way. This keynote address will focus on one of these practices, Frame Creation, which has proven a fruitful design-based innovation method for governments, institutions and companies, helping them to approach hitherto intractable problems in novel ways. The presentation will provide an introduction to Frame Creation along with examples of how it has been used to approach complex problems of crime and safety in our modern day world.

---

**Title:** How to analyze crime, then design against it  
**Author:** Professor Marcus Felson, criminal justice department, Texas state university

Abstract: First, Marcus Felson discusses how NOT to think about crime, noting many of the common illusions. Then he explains some basic principles for analysing crime patterns. Following this, he gives examples of changes that have reduced crime or increased it, without prior planning. Finally, he considers how we can plan and design with crime reduction in mind.
**Title:** The 5Is framework: designed to share know-how and improve performance in crime prevention

**Author:** Paul Ekblom

**Affiliation:** Design Against Crime Research Centre, Central Saint Martins College of Arts and Design, University of Arts, London

**Abstract:**
In crime prevention, security and community safety, attempts to replicate individual ‘success-story’ projects often end in implementation failure. And efforts remain divided—between situational and offender-oriented interventions, between cause, risk factor and problem-oriented approaches, and between justice/law enforcement and ‘civil’ prevention. The field is in poor shape to control everyday crime problems, let alone the challenges of terrorism, organised crime and techno-crime where preventers must continually out-innovate offenders and face the upcoming disruptions from financial disarray and climate change.

Paul Ekblom has developed an approach which seeks to change that. He diagnoses under-performance in terms of how practice knowledge is captured and transferred, fostering cookbook copying and stifling innovation; in concepts and terminology, inadequate as tools for thinking, design and communication; and in the adoption of over-simple frameworks which, though useful for a quick start, soon constrain practitioners. Taking a design-based approach he describes a specification for a fit-for-purpose knowledge management framework, confronting complexities of real-life prevention and helping practitioners select prior practice, replicate and innovate. He then introduces 5Is (Intelligence, Intervention, Implementation, Involvement and Impact) designed to meet that specification and supply the foundations for a working practical system of knowledge management and process evaluation that complements and extends the progress made in impact evaluation. Additional materials are available in his 2011 book Crime Prevention, Security and Community Safety using the 5Is Framework and at http://5isframework.wordpress.com.

**Title:** Reviewing common shoplifting perpetrator techniques: how ‘eco’ bags and self-scanning machines inform the global context of shoplifting and what sustainable strategies might be used to defend against them

**Author:** Professor Lorraine Gamman

**Affiliation:** Central Saint Martins, College of Art and Design, London

**Abstract:**
This paper will review the most common perpetrator techniques linked to shoplifting, by introducing the global context of shoplifting and summarising how they have already been addressed by problem orientated policing approaches as well as crime prevention through environmental design (CPTED) strategies. It will go on to identify evidence about the misuse of (a) ‘eco’ bags and (b) self-scanners for shoplifting purposes, and will identify and discuss the perpetrator techniques being employed to shoplift in this way in the international context. Finally, the paper will analyse the mechanisms that criminals have drawn upon to get away with regular shoplifting and suggest how this growing problem might be addressed by design. In particular it will discuss one new possible design proposal, Bagbank, which reframes the context of shoplifting.

This design aims to deliver to supermarkets what society needs more of (reuse of plastic bags and less cost in providing them) as part of a sustainable business strategy that will also deliver what society needs less of (shoplifting). The design deters use of eco bags in stores for shoplifting by providing recycled bags at the till. This paper will discuss how and why learning from sustainability might have a role to play in crime prevention.
Title: Public transport’s role in safe cities for people

Author: Associate Professor Garry Glazebrook
Affiliation: Associate Professor, University of Technology, Sydney

Abstract: After fifty years of absolute and relative decline, public transport is making a comeback, while car use is peaking in many cities. Patronage on trains, buses and light rail is rising faster than population, people are returning to inner city areas, and as a consequence, more people are also walking and cycling. These are welcome trends from a sustainability perspective. But perceptions of personal safety both on public transport and in stations, interchanges, car parks and other public spaces associated with public transport remain an issue and a disincentive for many people.

This paper reviews some of the efforts being made to address this through improved design, and also links such efforts with wider strategies to enhance the urban realm and to improve public transport. It suggests that one way to address these challenges is to focus on ways where transport agencies can work more closely with the private sector, local governments, other agencies and the community to help create a genuine sense of ownership and pride in the shared spaces in our urban environments.

Title: Rethinking the night-time city

Author: Suzie Mathews
Affiliation: Manager, Late Night Economy, Safe City & Business Precincts

Abstract: Globally, cities are facing the challenge of rapid urbanisation and growth in alcohol-based night time economies. The night time economy undoubtedly brings a great economic contribution to communities across Australia, but at the same time alcohol generates costs for our communities.

To meet this challenge and strike the right balance between a vibrant night time economy and amenity and safety, future night time cities need to radically rethink the role of alcohol in their cities at night – how we work with this sector, manage impacts and find new ways of sustainable growth. This presentation explores how global cities are shaping their night time economies, and how Sydney can deliver a night time city that is beautifully designed, diverse, connected and creative.

This presentation offers a case study of OPEN Sydney – Future Directions for Sydney at Night. OPEN Sydney provides a clear vision and direction for the development of Sydney’s night time economy over the next 20 years.
Title: Bikeoff: an award-winning project to reduce cycle theft and increase cycle use in the UK

Author: Adam Thorpe
Affiliation: Design Against Crime Research Centre, Central St Martins College of Art and Design, University of the Arts London

Abstract:
This paper will provide a case study of a successful design-led crime prevention initiative implemented in the UK that drew extensively on design research methods to gain an in-depth understanding of the crime problem at hand, and then utilised design expertise to create an intervention to tackle it. An example of both design against crime process and implementation success, Bikeoff is cited as an exemplary project by the Arts and Humanities Research Council and the Mayor of London and was awarded the Transport for London Sustainable Transport Award in 2007 for Best Cycling Initiative and selected for a UK Research Impact Award in 2009, shortlisted in the Environmental Impact category. Bikeoff pioneered new ways of communicating and working with diverse stakeholders, dutyholders and designers bringing design theory, practice and research together in a process of ‘open’ and socially responsive research innovation. This presentation will outline the design processes that produced Bikeoff and will highlight the importance of open and collaborative design processes in achieving crime prevention outcomes.
**Abstracts: Session Presenters**

**Title:** Disciplinary architecture: using prison design to optimise health and safety  
**Author:** Professor Niyi Awofeso  
**Affiliation:** School of Population Health, University of Western Australia, M431

**Abstract**
Architectures of control are deliberately or implicitly part and parcel of most prison designs. Historically, disciplinary architecture has dominated the designs of prisons, in line with the emphasis of prisons on punishment and a narrowly defined version of rehabilitation focused on penitence. Recent trends in hospital design indicate the positive impact of health-promoting hospital architecture and art on patients’ health. Consequently, humanistic and health-promoting architecture increasingly underpin contemporary prison designs in Western nations. Although no formal evaluation of the impact of prison design on inmates yet is currently available, anecdotal evidence from Sweden, Denmark and Norway indicates that humanistic prison architecture has a positive impact on recidivism as well as the wellbeing of inmates and custodial officers. The author of this presentation posits that all new prison design policies globally should include health impact assessments on prisoners and the immediate environment, and that prisons which are designed or remodelled with inmates’ health improvement as one of its objectives are more likely to achieve prisons’ holistic rehabilitation and health promoting functions.

---

**Title:** It's a war zone  
**Author:** Professor James Arvanitakis  
**Affiliation:** Institute of Culture and Society, University of Western Sydney

**Abstract**
Following a number of violent incidents in the Kings Cross region, many residents, local businesses, police representatives and politicians responded by demanding ‘tough’ action. Compared to a ‘war zone’ by a local resident at a public meeting, the response has been, unsurprisingly, focussed on security-based solutions: that is, increasing police activities, taking a ‘zero-tolerance’ approach, placing a freeze on issuing licenses on new venues and introduction of further security measures at existing venues. While some have argued that these measures do not go far enough, it is the assertion of this paper that such an approach fundamentally misunderstands the socio-cultural reasons for both such incidences and the attraction of Kings Cross as an after dark hub. Factors here include Australia’s complex relationship with alcohol, the romanticism of the inner city venue and broader socio-cultural factors associated with changing masculinity norms. As such, this paper argues that a radical re-thinking and physical re-design is required that does not approach Kings Cross as a ‘war zone’, but as a space of identity formation that will continue to attract young people no matter what security measures are introduced.
Title: Designing for a safe and attractive light rail experience in Sydney’s Inner West

Author: Nick Chapman
Affiliation: Design, Architecture and Building, University of Technology, Sydney

Abstract
This paper describes a multi-disciplinary design approach to the problem of achieving safe and comfortable pedestrian access to new light rail stops in Sydney’s Inner West. In 2014 the NSW Government will open a 5.4km extension to the Inner West Light Rail which currently runs from Sydney’s Central Station to Lilyfield. The service will extend along a disused goods rail line to Dulwich Hill, where it will connect to an existing heavy rail line to the CBD. Eight new light rail stops will be built, two of which are to be located in the middle of a neglected industrial and parkland setting which is threatening and unsafe for pedestrians and light rail users.

This paper describes a co-design approach to the problem developed by students and staff in 2011 as part of Winter School organised by UTS’ Designing Out Crime Centre (DOC). The project clients were Transport for NSW (TfNSW), Marrickville Council and the GreenWay Project.

The project used the frame creation and co-design approach to crime prevention developed by DOC’s Winter Design School (Duarte, Lulham and Kaldor 2011). Working collaboratively with their clients, the students redefined the problem and developed multi-purpose solutions combining public domain and pedestrian access works, branding and a variety of design interventions to activate the approaches to the “problem” light rail stops and make them “people friendly”.

The project leveraged from the GreenWay project, which has been championed by local residents and four local councils over the past 15 years. The GreenWay is a proposed active transport, cultural and urban bush corridor which runs alongside the disused goods rail line (Ashfield Council 2010). Funding constraints identified by the incoming State Government resulted in the GreenWay being deferred in July 2011.

Completion of both the light rail extension and the GreenWay would significantly enhance active transport and light rail use, particularly among the 23 schools located in the GreenWay catchment. The paper concludes with a discussion about how the Winter Design School and related work is preparing the ground for a NSW demonstration model for the Child Friendly Cities movement (Chapman 2012).
Title: Investigating ‘eyes on the street’, perceptions of crime and the use of security shutters: insights from a residential suburb in Perth (WA)

Authors: Dr. Paul Cozens and Tom Davies
Affiliation: Curtin University, Perth, WA

Abstract:
The use of crime prevention technology continues to expand within the urban environments of post-industrial cities (Crawford, 1998; Loader, 1997). Target-hardening technologies such as alarms, shutters, bars, gates, walls, lighting and CCTV are increasingly being used to protect retail, industrial and residential properties (Loader 1999; Nelson, 1998). The use of security shutters in residential settings in WA is increasing, despite a lack of evidence to support their effectiveness in reducing crime.

This paper investigates crime and security shutters in a residential setting and reports on the perceptions of 353 respondents (residents in a Perth suburb). The survey explores perceptions of crime and ‘eyes on the street’ (Jacobs, 1961) and contrasts perceptions of crime associated with shuttered and non-shuttered properties. Respondents were shown photographs of properties as environmental stimuli to elicit insights into their perceptions of burglary risk, levels of surveillance of the street, levels of social interaction and levels of safety. The paper explores these findings and discusses implications for the concepts of guardianship (Reynald, 2009) and ‘eyes on the street’ (Jacobs, 1961).
Title: Crime and antisocial behaviour on public transport: a review of evidence and mitigation strategies

Authors: Professor Graham Currie and Alexa Delbosc
Affiliation: Public Transport Research Group, Institute of Transport Studies, Monash University

Abstract:
A range of international research shows that personal safety concerns on public transport act to limit ridership and reduce the quality of travel for a wide range of groups of passengers (Brantingham et al., 1991, Crime Concern, 2002, Booz Allen Hamilton, 2007). In Australia recent media attention concerning attacks on overseas students using public transport (e.g. Millar, 2009) has focussed much national and indeed international attention on crime on public transport and its influence on national image.

This paper reviews previous research examining the issue and considers current design solutions to address these concerns. It focuses on Australian and international research and practice.

The research shows that there is a wide gulf between the image of public transport, antisocial behavior, perceptions of crime and actual crime. A major factor driving mitigation approaches is cost effectiveness with a strong user preference for increased staffing clashing with resistance from operators based on the costs of achieving this.

Suggestions for future policy, practice and research are proposed.

Title: Perceptions of crime and entry statements at licensed premises: a study of micro-level crime precipitators in Perth (WA)

Authors: Dr. Paul Cozens and Shane Greive
Affiliation: Curtin University, Perth, WA

Abstract:
This paper explores the perceptions / 'image' of crime associated with a sample of nightclubs in the night-time economy of Northbridge, Perth (WA). It has been suggested that poor governance can inadvertently create crime precipitators at the meso, macro and micro level of the night-time economy (Cozens and Greive, 2011; 2012). Following Wortley’s (2008) concept of crime precipitators, this study explores the micro level of the NTE and asks what entry statements 'say' about their licensed premises. How are they perceived and how might they precipitate crime?

The study presents ARIF data (alcohol related incident forms) and explores the relationship between crime and the 'image' of nightclubs. A sample of users were surveyed / interviewed in order to gauge their perceptions of crime and their 'image' of different clubs, particularly as it might relate to entry statements. The authors explore the notion that certain venues may act as crime precipitators and that this is perceived to some extent, through the 'image' of the venue and the nature and character of the entry statement.
Title: Design implications for addressing commuters’ experience of crime and fear of crime

Authors: Amanda Fisher (Presenter) and Dr. Melissa Burgess
Affiliation: NSW Department of Attorney General and Justice

Abstract:
An intercept survey was conducted in Blacktown to provide information on commuter experiences of crime and fear of crime. Respondents (454) were randomly interviewed using Computer Assisted Personal Interviewing and fear mapping techniques. Interviewers asked respondents about their planned activities in Blacktown, transport journey, and experiences of crime and fear of crime on different transport modes and at different locations. Respondents were also asked about the effect of various social (e.g. drugs, alcohol, gangs) and physical (e.g. lighting, help points, vandalism, cameras) environmental cues on their fear of crime.

Forty percent of the respondents felt afraid of being robbed or assaulted when travelling to or from Blacktown. Walking (28%) and train travel (18%) evoked the highest levels of fear. Less than 10% of respondents felt afraid of crime when travelling by bus, taxi or car. Twenty-three and fifty-eight percent of respondents avoided parts of Blacktown because they felt afraid of crime when walking during the day and night respectively. Fear was highest in the public space between Blacktown Transport Interchange and Shopping Centre. Loitering and intoxicated persons were the primary triggers for fear of crime. Such social factors had a higher effect on avoidance than physical factors. These finding has implications for addressing crime and fear of crime through design.

Title: Reducing fare evasion: lessons from international and cross-disciplinary research and practice

Authors: Alexa Delbosc and Professor Graham Currie
Affiliation: Public Transport Research Group, Institute of Transport Studies, Monash University, Melbourne

Abstract:
Fare evasion in Melbourne is a serious issue that costs 14% of annual revenue, over $80M in revenue per annum. At any given moment between 9% and 20% of travellers are fare evading. It has become so prevalent that Melbournians have become accepting of the practice, with 41% of those surveyed saying they understand why others fare evade. This is high on international standards; in comparison a survey in the Netherlands found that only 25% of people though fare evasion could be justified.

This paper will review international strategies used to reduce fare evasion. Design strategies such as restricting access to the transport system through ticket barriers reduce fare evasion but are very expensive and not practical to implement in some modes (such as light rail). Ticket inspection rates and fines can also reduce fare evasion, although the additional staffing costs do not always offset lost revenues.

A new perspective on fare evasion is described by reframing fare evasion as a form of “consumer misbehaviour” similar to other forms of petty theft such as seeing a movie without a ticket or minor shoplifting. Recent research into shoplifting suggests that attitudes toward fare evasion, social acceptance of fare evasion and perceived risk of being caught are all important influences on intention to fare evade. Furthermore, people who commit minor crimes employ a range of rationalisation strategies to justify their behaviour; understanding and countering the rationalisations is likely to reduce fare evasion.

This review will provide practical policy recommendations for transport systems
Title: Contemporary prison environments for aboriginal prisoners

Author: Dr. Elizabeth Grant

Affiliation: Aboriginal and Torres Strait Islander Education: Wilt Yerlo and Centre for Housing and Regional and Urban Planning, University of Adelaide

Abstract: The issues of incarcerating Aboriginal peoples have been a matter of contention for prison administrations since colonisation. This presentation presents an overview of the types of places in which Aboriginal people have been imprisoned and how inquiries and people-environments research such as evidence based research and user consultation has influenced the design of contemporary prison environments. The paper will present current trends and examples of prison environments designed for Aboriginal people.

Title: Designing out corruption

Author: Professor Adam Graycar

Affiliation: Australian National University

Abstract: While good planning and design can aim to reduce crime and make places less conducive to criminal activity, this paper focuses not on local street crime but on corruption. The bulk of corruption complaints lodged with authorities relate to local government. There is corruption in zoning, land use planning, approval for construction, approval of design and inspection. This paper will explore the nature of corruption and its effects using example from the United States and Australia, and outline ways in which crime prevention techniques can be applied to corruption prevention in the planning context.

Title: Motivating people to act fairly: insights from goal setting and automaticity theories

Authors: Dr. Deshani B. Ganegoda (Presenter); Professor Gary P. Latham; Professor Robert Folger

Affiliation: Australian National University; University of Toronto; University of Central Florida

Abstract: Numerous studies have shown that employees steal from organizations as a response to workplace unfairness. Therefore, a way in which retail theft can be reduced in organizations is by increasing the extent to which individuals experience fairness in the workplace. In the present research, we examined whether individuals can be motivated to behave fairly towards others by changing subtle situational cues. Based on goal setting theory and automaticity theory, we conducted two experiments to examine whether people can be motivated to engage in fair behavior during negotiation—an activity that often appeals primarily to self-interest.

In the first experiment (n = 163), we manipulated both a subconscious and a conscious goal for fairness. We used mission statements of actual organizations to prime a subconscious goal for participants to behave fairly on a subsequent, seemingly unrelated, negotiation task. Our results revealed that a conscious specific goal of fairness increased fair behavior of participants, as did a primed goal of fairness. In the second experiment (n = 166), we used a word-search matrix to prime a subconscious goal of fairness, and corroborated the results of the first experiment. Our results revealed that the effect of the fairness prime on negotiation behavior was mediated by the accessibility of “fairness cognitions”.

The present findings are important for scientists and practitioners. They make clear that setting a specific conscious goal and priming a goal for fairness leads people to behaving fairly when negotiating with others. Both goals should be set as their effect on behaving fairly is additive. From a theoretical standpoint, these findings highlight the importance of taking into account implicit motivation, specifically primed goals, when studying human behavior.
Title: Sharps management in social housing: a breakthrough pilot project

Authors: Dominic Grenot and Rebecca Martin
Affiliation: City of Sydney

Abstract: A community sharps management system was designed and implemented in an inner city social housing community in Sydney in 2011. This marks the first approved installation of community sharps bin infrastructure on Housing NSW land.

This collaborative venture between different levels of Government, service providers and the local community has resulted in enhanced community safety, reduced risk of needle stick injury and improved local amenity. Opportunities for the safe management of clinical waste as a dedicated domestic waste stream has led to greater understanding of the management of clinical waste at home and the diversity of the population required to utilise community sharps. This increased understanding has challenged perceptions of fear and crime in the local area.

The project has also resulted in an increased sense of ownership of common spaces and a growing dialogue about health, safety and education between residents and service providers.

Title: Using design to reduce armed robbery at retail branches of a leading Australian bank

Author: Geoff Griffiths
Affiliation: Educational Consultant, Criminology & Armed Robbery

Abstract: In the 1990s, the Australia and New Zealand Bank (ANZ) commenced a major 4-year strategic risk program to reduce the incidence of armed robbery. The program was a notable success, resulting in 60% fewer attempted robberies at ANZ branches. Components of the strategic plan were eventually implemented by the Australian Bankers Association for use in all Australian banks. The program was designed by Geoff Griffiths, then Manager of Armed Robbery Reduction at ANZ. The program was based on Geoff’s extensive research of 820 national robberies and the newly-theorised Situational Crime Prevention approach and Crime Prevention Through Environmental Design (CPTED). The strategy was unique in applying situational crime prevention (SCP) techniques to reduce the vulnerability of bank branches to robbery and is still seen as the most extensive and effective strategic reduction strategy.

In this presentation Geoff Griffiths will describe the research undertaken, the development and implementation of the program and will provide an example of the redesign of a bank branch.
Title: Interactive online crime mapping tool demonstration

Author: Jessie Holmes, Senior Project Officer – Information
Affiliation: NSW Bureau of Crime Statistics and Research

Abstract:
This presentation will demonstrate an innovative web tool developed by the NSW Bureau of Crime Statistics and Research for communicating current and accurate crime information. The application produces maps, data tables and graphs at suburb, postcode and Local Government Area levels for over 50 offence types based on user specifications and will be available to any web user. The outputs include hotspot maps, rate maps, incident/victim/offender counts and rates per 100,000 population, and trends from between two and 16 years. The tool provides police recorded crime data with the option to filter by alcohol involvement, domestic violence involvement, premises type, age and gender of offender, age and gender of victim or by whether the incident occurred on weekend/weekday or day/night. New data is incorporated every three months.

The tool will make freely available information which previously could only be accessed by private request. We expect that this will transform the output of policy officers, crime prevention officers, local government and researchers who will now have ready access to evidence with which to guide their work. This presentation will show the general functionality of the tool and, through examples and demonstrate how it can be used to identify and characterise specific crime problems.

Title: Promoting urban safety in South-East Asia and the Pacific

Author: Professor Peter Homel
Affiliation: Asia Pacific Centre for the Prevention of Crime, Griffith University

Abstract:
The Asian and Pacific represents approximately one third of the world’s total population. SE Asia alone contains 20% of the global population and it continues to have one of the fastest growing populations in the world. By 2030, 50% of all people in SE Asia will live in cities. Even predominantly rural Pacific Island nations have some of the highest urbanisation rates in the world.

The Asia-Pacific region also has the world’s fastest growing economies with GDP growth far outstripping current rates in the developed world. However, despite having continuing high rates of poverty and income inequality, the majority of Asian and Pacific cities have, to date, not faced problems of crime on a scale familiar to western developed countries. Furthermore, perceptions of safety have generally been higher than elsewhere in the developing world.

While recorded crime rates may not be high, community experience of social and institutional violence is and in almost all urban areas there are worsening perceptions of safety and more emphasis and investment being given to personal and household security. However, unlike other regions experiencing similarly rapid urbanisation and economic development and change such as in Africa and South America, most nations in the region have given little attention to the development and implementation of comprehensive strategies and approaches to the prevention of urban crime. One major reason for this appears to be a widely held belief that ‘development’, or more often high economic growth, will result in the eradication of poverty and therefore crime.

This presentation takes this challenge as a starting point for examining prospects for the development of sustainable and effective crime prevention and urban safety measures for the emerging mega-cities of SE Asia and the urbanising Pacific. Particular attention is paid to considering the sort of approaches that are needed for adapting what we already know about how to undertake effective crime work in our own contexts to very different and diverse cultural and economic environments.
Title: The Sydney Alliance campaign for safe public transport in Sydney

Author: Dr. Kurt Iveson et al
Affiliation: University of Sydney

Abstract:
The Sydney Alliance brings together 45 diverse community organisations, unions and religious organisations to advance the common good and achieve a fair, just and sustainable Sydney. In 2011, the Alliance chose accessible public transport as a major campaign focus for the coming years, and a Transport Research Action Team was formed.

Safety emerged from our research as one of seven key impediments to accessible public transport in Sydney. It has been the focus of our efforts in 2012. In this paper, we will present our research on how safety impacts on the accessibility of public transport in Sydney, and report on the actions that we are taking informed by that research. More broadly, the paper will reflect on the possibilities and challenges of taking a ‘community organising’ approach to creating safe public transport in Sydney. This approach to fostering effective citizen action on transport and safety has had a longer history and some success in the United States and United Kingdom, but it represents a new experiment in citizen action in Sydney. As such, our embrace of community organising through the Sydney Alliance has required us to negotiate the particular political and urban geographies of Sydney. We will discuss how the challenge of building an effective metropolitan-wide movement for change that connects the interests and aspirations of diverse partner organisations and localities has led us to a particular framing of the safety problem and its associated solutions.

Title: What's the problem with graffiti?

Authors: Dr. Kurt Iveson and Dr. Cameron McAuliffe
Affiliations: University of Sydney, University of Western Sydney

Abstract:
In introducing the Graffiti Control Amendment Bill 2009 to the NSW Parliament, Attorney General John Hatzistergos argued that “Graffiti is not a victimless crime and is not simply a costly eyesore; it makes people feel unsafe and the community has had enough.” This claim about the community’s perception of graffiti underpins current efforts to prevent and remove graffiti in NSW and echoes policy in other states around Australia - efforts that now cost several hundred million dollars annually across the country. As such, the accuracy of this claim about the problems caused by graffiti is a matter of considerable importance.

The question “What’s the problem with graffiti?” is usually answered with reference to the ‘incivilities thesis’. According to this approach, “disorder in the community, rather than crime itself, leads to increased fear of crime through an emotional response of perceived vulnerability” (Roberts and Indemaur 2009). These perceptions of vulnerability are thought to be particularly damaging for communities because they can result in a vicious cycle of decline which may lead to an increase in crime itself. On the basis of this construction of the graffiti problem, design is mobilized as one weapon in the wars on graffiti.

But is this construction of the ‘graffiti problem’ accurate? Do all forms of graffiti in all places really have this impact on the community? In this paper, we will report on our recent research which suggests that some forms of graffiti and street art (both legal and illegal) can actually help to enliven and activate public spaces rather than contribute to their decline. We then discuss some of the implications of our research for graffiti management. We argue that a different understanding of the graffiti problem suggests different graffiti solutions.
Title: Dignity by design: the Coffs Harbour Justice Precinct

Author: Diane Jones
Affiliations: Adjunct Professor, UNSW Built Environment and Director PTW Architects

Abstract:
The proposed Coffs Harbour Justice Precinct will provide a new court house, police station, shared custody wing and public forecourt for the Coffs Harbour region. This paper examines how the design works to integrate the findings of the recent ARC Linkage projects coordinated by the Justice Research Group. Further, the spatial and architectural qualities can actively give those using the court house a sense of dignity in the face of demands for security and standardization.

Title: Shopping centres and crime

Author: Michael Julian
Affiliation: General Manager, Westfield Security

Abstract:
Every day thieves and other offenders visit shopping centres looking for victims. Eighty percent of shopping centre patrons are women, the most common targets of purse thieves and pickpockets. Professional shoplifters steal millions of dollars in stock or buy goods using fraudulent credit cards. E-Bay is the new receiver of stolen goods. Burglars try to break into shops or kiosks after trading hours. Drug addicts search for valuables and break into cars in the car parks. Occasionally a pedophile or pervert roams a shopping centre looking for children or women to photograph. Fights break out over minor arguments between customers or large brawls erupt when hundreds of young people gather during late night trade. International crime syndicates send teams of thieves to travel around Australia installing skimming devices on ATMs and fleecing customers in a wide array of distraction thefts or confidence games.

Using expertise and experience gained from many years as a chief of police in New York City, Michael Julian designed and implemented a new plan to reduce crime at shopping centres. This plan focuses on repeat offenders and increasing communication with shopkeepers. This presentation will detail the design of the plan.
Title: Architectural design of super high rise buildings to protect from terrorism

Author: Professor Kyung Hoon Lee
Affiliation: Department of Architecture, Korea University

Abstract: The purpose of this study is to focus on the concept of ‘layers of defence’ to deduce architectural design guidelines of super high-rise buildings to protect from terrorism and mitigate damage; to suggest a model to assess vulnerability and identify the most vulnerable building elements; and for cost-efficient application of these guidelines. For this objective, four layers of defence and 27 architectural design elements were deduced and the design elements categorized into several groups based on the similarity of their purpose and function. Then, applicable design guidelines for each element were developed and graded on the basis of their level of protection. In suggesting a vulnerability assessment model that reflects the relative importance of each layer and design element, weights of each element were extracted through the AHP survey of anti-terrorism specialists. To reflect mutual supplementary effects among design elements in the same group of similarity, an evaluation level integration methodology was included. This paper will describe this study in more detail.

Title: Designing out crime in the urban bus transport sector

Authors: Assistant Professor Robyn Lincoln and Yolande Huntingdon
Affiliation: Department of Criminology, Bond University

Abstract: Urban bus drivers deal daily with antisocial behaviours, property damage and the potential for violent assaults. One British study reported that the majority (73%) of all public transport-related violence is linked to buses (Burrell, 2007) and there are suggestions that serious incidents are increasing (Moore, 2010; Smith & Cornish, 2006). In general public transport workers experience assault more than many other occupations (Violence at Work, 2003) and are found to have among the highest rates of mortality, morbidity and absenteeism (Chen & Cunradi, 2008; Evans & Johansson, 1998).

While there is some international literature on which to draw and some attention has been paid to crime prevention techniques related to trains and taxis (Mayhew, 2000), the Australian situation with respect to bus drivers is woefully under-researched (Biggs et. al., 2009; Easteal & Wilson, 1991). The present paper reports recent collaborations with representatives from transport, government and transport unions in Southeast Queensland. The project is in its preliminary stages but endeavours to address this absence of data, outline a program of research intended to inform key crime prevention options and devise an implementation and evaluation strategy (Smith & Cornish, 2006).
Title: Assessing design in the context of crime and community safety: integrating crime prevention and the design process in local government

Author: Rebecca Martin
Affiliation: City of Sydney

The City of Sydney came across a design challenge when consulting the local community about plans for an expanded childcare facility for the inner City. The proposed design was to join an existing childcare play area with a newly purchased building which required the closure of a pedestrian access lane which ran between the two properties. The laneway attracted injecting drug use, due to the dark alcoves on both sides of the stairs. To manage this issue, childcare staff at the existing centre were completing checks for discarded needles prior to allowing children to access their play space.

During the consultation process, community members expressed their opposition to the closure of the pedestrian access. The City chose to assess design options in the context of crime prevention and community safety in order to find a design solution that offered the safest environment for the children using the facility, the residents and the pedestrians accessing the laneway.

The City engaged the Designing Out Crime Research Centre for an independent assessment, resulting in a clear recommendation for this development. Significantly, the process provided a new understanding of the application of safety and crime prevention for the City’s designers and has led to further collaboration on the integration of safety and crime prevention in the early stages of the design process which will inform the City’s future developments.

Title: Harnessing the power of social media in crime prevention: local solutions for local problems

Author: Chief Inspector Josh Maxwell
Affiliation: NSW Police Force

Abstract:
“Sir Robert Peel’s first principle of policing stated: ‘The basic mission for which the police exist is to prevent crime and disorder.’ This remains the case, but the challenges facing communities and the police have changed over time. Since the 1960s, new technologies have helped police to keep up with advances in the way that crime is committed. The increased mobility of criminals has been matched by the patrol car and radio communication; analysis of crime and ASB hot spots allows response teams to see where they should be targeted.

But while technology has enabled the police to keep up with new types of crime and criminal, the ongoing centralisation of the police has left the service disconnected from the communities they are there to serve.” (Policing in the 21st Century: Reconnecting police and the people – UK Home Office).

The world has evolved and continues to evolve at such a rapid pace that all organisations are required to plan strategically, review those plans and look forward to the future and what impact the future has for the organisation. Police and Law Enforcement agencies around the world are looking to the future and what impact it may have on the way in which, police and the retail community engage in crime prevention strategies in the retail environment.

The social network phenomenon continues to expand across the world. Yet the challenges facing law enforcement have seen most agencies dabble at the edges of the social networks rather than truly engage the same. The NSW Police Force uses Facebook, Twitter and YouTube to provide information about policing activities and general information. Such use of modern media technologies is replicated all over the world by police agencies. Yet research has shown that no police agency has yet to harness the power of the internet and social networking to truly engage our retail communities in crime prevention.

It is argued the NSW Police Force has developed a new strategic direction and platform for the delivery of information to the community of NSW. Utilising Facebook as the platform, NSWPF have created online retail communities, organised into precincts. In addition the NSWPF supplies information to retailers in real time, including local crime figures and issues affecting retail, keeping a look out for information via Local Area Command Facebook open pages. The aim of ‘eyewatch’ is to engage the retail community to participate in crime prevention and law enforcement at a level never seen before under specific governance.
Title: “If only your bricks could talk”: balancing good design with good neighbourhoods
Authors: John Maynard and Dominic Grenot
Affiliation: City of Sydney

Abstract:
There is a growing body of research which suggests that communities that comprise high concentrations of people in need are at greater risk of crime and anti-social behaviour than communities elsewhere. In the City of Sydney – a jurisdiction which encompasses the second highest density of social housing in Australia with almost 9,000 dwellings – there is some evidence that the spectre of allocations policy, unauthorised tenancies and the ongoing uncertainty around the lead agency responsible for coordinating action to address unmet needs, have all contributed to a range of crime and anti-social problems which have impacted negatively on these environments. While the design of some social housing settings in the region may well contribute to some of these complex issues, this presentation will emphasise the human impact on the built environment and provide some food for thought in terms of creating safer, more cohesive neighbourhoods into the future.

Title: Active Living – NSW Department of Premier and Cabinet: similarities between health objectives and crime prevention
Author: Peter McCue
Affiliation: Manager, Premier’s Council for Active Living

Abstract:
There is a rapidly growing body of evidence demonstrating that being active in everyday life not only has substantial positive impacts on our health, but also has potential environmental, social and economic benefits. Certain characteristics of urban environments have been demonstrated to increase physical activity, such as mixed land-use, higher density and access to shops, parks and public transport. More walkable neighbourhoods have also been demonstrated to be places where residents feel safer. The built environment has many features that promote health as well as creating safe, vibrant places to live. Certain characteristics such as neighbourhood permeability, however, promote active living but may also negatively impact upon crime prevention (for example, laneway access).

The NSW Premier’s Council for Active Living (PCAL) has been working with the NSW Police Safer by Design training to promote greater collaboration between NSW Health and crime prevention professionals. This paper reflects on the shared learning of PCAL and NSW Police highlighting areas of common interest and solutions to areas of potential conflict.
Title: A prefabricated space for 21st century learning in maximum security prisons

Authors: Fiona McGregor (CSNSW); Kevin Bradley (DOC), Tasman Munro (DOC) Lucy Klippan (DOC), Dr. Rohan Lulham (DOC), Associate Professor Douglas Tomkin (DOC)
Affiliations: Senior Project Officer, Education Development & Innovation, Corrective Services New South Wales; Designing Out Crime Research Centre, University of Technology, Sydney

Abstract:
In August 2012 the Designing Out Crime Research Centre was provided with a brief for the establishment of two new Intensive Learning Centres (ILC) in maximum security prisons in NSW. The brief provided a new frame for considering how an educational centre in a maximum security prison should look, feel and operate, and what it should deliver. Rather than describing a secure educational environment for remedial learning, the brief envisioned these Centres as twenty-first century learning environments with core values of citizenship, creativity, critical thinking, problem solving and other key qualities consistent with obtaining employment and maintaining a life outside the justice system.

The Centres will be built by NSW Corrective Service Industries (CSI) as prefabricated units and transported to the prison sites. To this end, DOC was engaged to bring together a design team to work with ILC and CSI staff to explore how the intentions for the learning centres could be materialized through their design. In this presentation the design team will reflect and present on the genesis of the ILC program brief, its articulation into design intentions through consultation with inmates, staff and the relevant literature, and the design concepts that are currently being specified for the start of construction in January 2013.

Title: The NSW Retail Crime Strategic Partnership: the design and operation of a working partnership between government and the private sector to reduce retail crime.

Author: Hanna Mohamad
Affiliation: Crime Prevention Division, NSW Department of Attorney General and Justice

Abstract:
The private sector is both a victim of crime and an equally significant stakeholder in capital investment for the prevention of crime. Within the retail environment, the Global Retail Theft Barometer reported that in 2011 global shrinkage reached an all-time high at $119b. At the same time, expenditure on loss prevention activity by retailers also rose to a significant $28.3b.

The Crime Prevention Division has sought to look beyond traditional approaches to address retail theft through the establishment of a unique partnership with the private sector. Following a design-thinking framework, the partnership has provided for a more strategic approach to dealing with the problem of retail theft. It has allowed for a more rigorous analysis of the problem, engagement of stakeholders at inception, the coordinated sharing of information and experience and investment in innovation. The Crime Prevention Division has been impressed by the commitment of its private sector partners in working together and sharing information across sectors, and even between competitors, for achieving common crime prevention aims.

This paper will consider the advantages of engaging private sector stakeholders at the inception/early development of strategies, and the benefits to both government and the private sector in establishing these partnerships.
A matter of compromise: an evaluation of passenger-driver contact through the design, deployment and analysis of route bus driver security screens.

Author: Dr. Robbie Napper
Affiliation: Department of Design, Faculty of Art, Design & Architecture, Monash University.

Abstract:
This research evaluates the design of driver security screens for Australian route buses. The design and deployment of a modular security screen design in over 1000 vehicles over the last three years is analysed to show the different levels of driver protection, and the consequent compromise to other operational considerations.

The analysis will look at the driver protection available and the subsequent effect this has on driver safety, operations such as ticket purchasing, and safety considerations such as sightlines. These compromises are further examined in the development and testing of a total-exclusion driver’s security screen. This screen was deployed for field-testing and evaluation by an operator-administered survey showing a polarisation of opinions.

Through analysis of the specification of security screens, the research brings into question the notion of prevention by social surveillance rather than physical exclusion. A noted property of bus transport is the presence of the driver as authority figure; a comparison of metropolitan bus specifications suggest that the openness of driver access to the passenger saloon may prevent incidents from occurring in the first place.

Driver protection is found to be in direct conflict with normal bus operations, and to be a very personal issue for drivers. Verbal and visual contact with passengers are significantly diminished with the deployment of security screens; exacerbated by the degree of protection afforded. The compromise necessary in the design and deployment of security screen devices, especially in the route bus environment, means that a standardised system will be difficult to implement satisfactorily.

Prison architecture and human rights

Author: Dr. John Paget
Affiliation: Charles Sturt University

Abstract:
This presentation explores the expression of human rights norms, and the standards derived from these, in the physical form of prisons and other custodial settings. The presentation notes provided will address:

- Sources of human rights
- Sources of prison design standards
- Inspiration for good prison design
- Approaches and assumptions

Examples of prison designs will be presented and discussed.
Title: Changing criminal behaviour through design: facilities, fit-outs, function and failures – design issues in Probation and Parole district offices

Author: Dr. Malcolm Pearse, Tim Putnam
Affiliation: President and Vice-President, Probation and Parole Officers’ Association of NSW

Abstract:
The Probation and Parole Service plays a key role in promoting community safety through the rehabilitation of offenders. Forming and maintaining relationships with offenders and other people who are significant in their lives through interviews is a crucial process of its operations; significant also, therefore, is the design of the many district offices in which these interviews are conducted.

This paper explores the broad relationship between psychology, the built environment and human behaviour by examining the current design priorities for Probation and Parole Service district offices. It outlines how assumptions and priorities shape facilities and fit-outs to influence, if not determine, human psychology in terms of experience and behaviour. It forms a perspective through drawing on diverse psychological and philosophical concepts from such writers as Jung, Heidegger, Sartre and Foucault.

Design of probation and parole offices has been dominated by a strong desire to separate staff from offenders and to regulate the space and interaction between the two. As a consequence, there has been a heavy emphasis on the security of staff with various systems incorporated to assist in managing critical incidents. The paper poses whether dominating security concerns create a form of ‘minimalism madness’, where sterile built environments disorientate and perturb offenders rather than induct them into a relationship with a probation and parole officer. As a consequence it explores to what extent current design hinders or helps the business achieve its principal aims of engaging and supporting offenders to complete their legal obligations.

While probation and parole office design conforms with other community-based government services and professional services more generally, certain elements denote enterprise-specific features. The paper details waiting room and interview room layout and posits various options such as posters, reading material and soft furnishings to convey important symbolic meaning that is better aligned with the purposes of the business.

Title: Religiosity as a cultural manifestation in the urban space: gaining back public spaces appropriated by criminal violence

Author: Dr. Gabriela Marian Quintana Vigola
Affiliation: University of Technology, Sydney

Abstract:
Caracas, Venezuela’s capital city is ranked among the top 10 most dangerous cities in the world, with one of the highest murder rates in the planet. Safety is an issue that Venezuelans have to deal with on an everyday basis, affecting all aspects of their urban living, including the cultural manifestations that occur in the urban environment. Among those cultural manifestations are the religious processions, with around 96% of its people self-identifying as Catholic.

In addition to the aforementioned, Caracas is a city where half its citizens live in self built houses. These houses make up areas, called “barrios”, that occupy almost 50% of the city’s territory. These barrios mainly house low-income sectors of the population, creating different social issues such as the development of gangs, which increases criminality rates and prevents an even access to inhabitants to different activities and the enjoyment of public spaces. However, through religious processions all throughout the year, especially at Easter, those public spaces in barrios are gained back by the community.

The research approach is framed within the social-constructionist paradigm, bringing together qualitative data collection methods, such as participant observation, interviews, photographs and videos.
Title: The dignity of the remote court participant

Author: Dr. Emma Rowden
Affiliation: Justice Research Group, University of Western Sydney

Abstract: Appearing as they often do from a room that looks more like a broom closet than a courtroom, can a person who is attending court by video link maintain a sense of the dignity of the event? This paper examines this question by reporting on the findings of a three year ARC Linkage study entitled Gateways to Justice: improving communication for justice participants. Through an analysis influenced by environmental behaviour studies, this paper argues that current designs of purpose-built remote witness facilities and the selection of remote court sites could benefit from an attitude of ‘designing for dignity’.

Title: ‘What are you doing to yourself?’: a social marketing campaign tackling binge drinking in Kings Cross.

Author: Lisa Russell
Affiliation: Manager, Information & Education, Mental Health Drug & Alcohol Office, NSW Ministry of Health

Abstract: In July 2012 the Department of Premier and Cabinet formed the Kings Cross Plan of Management Group. The Plan reflects the Government’s response to the issue of excessive alcohol consumption and related violence in the Kings Cross area.

The NSW Ministry of Health responsible drinking campaign - What are you doing to yourself? - is one of the strategies identified to achieve this goal. This paper will discuss in detail the design of the campaign and findings thus far.

Title: Checkpoint anti-theft devices

Author: Ian Sharrem (presenting) and Nicole Smith
Affiliation: Product Manager and Customer Relationship Manager, Checkpoint Systems

Abstract: Retailers are facing increased pressure on their profits from the high cost associated with shrink, which cost them $119.1 billion globally* in 2011 (2011 Global Retail Theft Barometer, Centre for Retail Research). Not only does shrink erode retailers’ profit margins by as much as nearly 40%, it also wreaks havoc on shelf availability and inventory accuracy. And as industry research has shown, if customers can’t find the product they’re seeking at one store, they often buy it at a competitor’s store or web site.

Checkpoint Systems was founded in 1969, initially with a focus on supplying the retail industry with radio-frequency (RF) antennas. Today, the company operates worldwide in shrink management, merchandise visibility and apparel labelling for retailers in the supermarket, hypermarket, pharmacy and mass merchandiser markets. Design solutions are broad ranging and include RF technology expertise, shrink management solutions, apparel labelling solutions, RFID applications, high-theft solutions and its Web-based Check-Net data management platform.

This presentation will give a history and analysis of Checkpoint’s approach to designing products and systems that reduce opportunities for retail theft and other factors contributing to shrinkage. It will analyse the way Checkpoint builds relationships with retailers to find solutions to shrink and improve shelf availability. It will also offer a detailed study of research and development in the area of RFID (Radio-frequency identification) solutions and the future direction of this technology.
Title: Crime prevention and residential design features: results from the Residential Break and Enter Offender Study

Presenting Authors: Andrew Webber and Emma Worthington
Non-presenting authors: Maria Kevin and Jennifer Galouzis
Affiliation: Crime Prevention Division, NSW Department of Attorney General and Justice; Corporate Research, Evaluation and Statistics, Corrective Services NSW

Abstract:
Advice on the residential design features or occupant behaviours that are most likely to be effective in reducing property crime is often reliant on anecdotal information or assumptions of offender behaviour. One way to better understand the target selection routines of offenders is to simply ask them what factors they find more or less attractive. This study reports the results of interviews involving over 200 offenders recently convicted of residential break and enter offences. Offenders were asked about how factors encompassing security and access control devices, wealth and occupancy cues, and environmental features might alter their decision to break into a home. The relative importance of these factors in terms of attracting offenders to or deterring offenders away from targets will be discussed. Differences in ratings between specific typologies of offenders will also be identified.

Title: Preventing telecommunications fraud: responsibilisation and guardianship – exploring the levels of guardianship offered by different types of Internet service providers

Authors: Dr. Julianne L Webster and Superintendent Brian Hay
Affiliations: Griffith University; Queensland Police Service

Abstract: Every day ordinary Australians are recipients of spam and scam attempts facilitated through a variety of modes. These attempts reach us through our letterboxes, telephones and emails. However the protection offered by the State or by others to limit consumer’s exposure to crimes of deception is highly variable. This paper explores the notion of responsibilisation and the role of the State to strengthen guardianship measures employed by telecommunications corporations to actively ‘filter out’ scam communications. Such measures are needed for the prevention of crime in virtual spaces and to reduce the vulnerability of consumers to fraud when targeted through their use of telecommunications products.

Title: Being seen and heard: actively including teenagers in the design of our cities by applying youth-inclusive urban design to our city centres, transport nodes and neighbourhoods

Author: Aaron Wallis
Affiliation: Director, Playce Pty Ltd

Abstract:
Teenage obesity rates are climbing and becoming a significant health issue. Depression and suicide in teens is also increasing. There is also a growing social disconnection across generations and communities that is impacting on the health and wellbeing of our youth that can often lead to concerns over public safety for both young people and the broader community. We have a responsibility and opportunity to take a lead role in instigating positive change.

Skate parks have and will continue to be great sporting facilities for young people who enjoy these pursuits. They are, however, not the only solution in teenage recreation provision. Very few girls skate, nor do many male teenagers. While they provide a great sporting function, therefore, they are not necessarily catering for a large range of young people in our neighbourhoods who still have recreational and social needs. This is ever more significant as our neighbourhoods are, in many instances, becoming more isolated and disconnected with the rapid growth of our cities, and lagging transport infrastructure. Therefore, we need to take stock and ask the question: what is youth-inclusive urban design? What is possible and how can we provide facilities, programs and spaces that can accommodate youth-inclusive appropriately?

This presentation will look at defining youth-inclusive urban design to establish a starting point for consideration of the issue in our industry. The presentation will then discuss both strategies and recent precedent projects undertaken by a number of councils around Australia that have endeavoured to look beyond skate parks as the only solution for teenage recreation in their communities and city centres.
ABSTRACT

Following a number of violent incidents in the Kings Cross region, many residents, local businesses, police representatives and politicians responded by demanding ‘tough’ action. Compared to a ‘war zone’ by a local resident at a public meeting, the response has been, unsurprisingly, focussed on security-based solutions: increasing police activities, taking a ‘zero-tolerance’ approach, placing a freeze on issuing licenses on new venues and introducing further security measures at existing venues. While some have argued that these measures do not go far enough, this paper asserts that such an approach fundamentally misunderstands the socio-cultural reasons for both such incidences and the attraction of Kings Cross as an after dark hub. Factors here include Australia’s complex relationship with alcohol, the romanticism of the inner city venue and broader socio-cultural factors associated with changing masculinity norms. As such, this paper argues for a radical re-thinking and physical re-design that does not approach Kings Cross as a ‘war zone’, but as a space of identity formation that will continue to attract young people no matter what security measures are introduced.

1. INTRODUCTION

Sydney’s Kings Cross is one of the city’s most famous landmarks known for its late night venues, sex work industry and long history of colourful characters. Defined by the Lonely Planet (2009: 115) as “stylish and sleazy, decadent and depraved”, it is described as sitting above the central business district under the shadow of an oversized Coca Cola sign that is as much of an “icon as LA’s Hollywood sign”. It has been the subject of many documentaries and television series, and has long fascinated the Australian public.

Recently, this broader fascination has become focused on the high levels of violence within the district after teenager Thomas Kelly was tragically killed in a random, violent and unprovoked attack in July 2012 (Olding et al 2012). The event
sparked outrage amongst the broader community, with local residents demanding immediate action by the NSW state government to ensure such incidents never happened again.

Pronounced a ‘war zone’ by one Kings Cross resident at a public meeting, much of the focus of the debate that followed was on the violence within the precinct of Kings Cross. With the NSW Police demanding extended powers, NSW Premier Barry O’Farrell announced a suite of solutions designed to control the way people behave in Kings Cross, including sniffer dogs and body scanners (Nicholls 2012).

This paper endeavours to address both the violence in Kings Cross and the subsequent response from the NSW State Government. In so doing, I aim to propose a series of solutions that look beyond the headline issues and respond to some underlying and systemic challenges. To do this, I draw on two distinct, but what I have found to be related, disciplines: cultural theory and design thinking. The focus of cultural theory is to understand the everyday and invisible behaviours of human society, including “the symbolic and learned, non-biological aspects... including language, custom and convention, by which human behaviour can be distinguished from other primates” (Abercrombie, Hill & Turner 1994: 98). Design thinking, as theorised by Lawson and Dorst (2009), provides a methodological approach for identifying creative solutions to complex problems through the reformulating and reframing of the challenges identified. Combined, these two disciplinary traditions offer an opportunity to ‘reframe’ the violence that occurs within Kings Cross as a cultural phenomenon related to rites of passage, the Australian public’s broader relationship to alcohol and the need to reflect on crowd management beyond simply offering increased security.

2. BEYOND THE HEADLINE ISSUE OF VIOLENCE IN ‘THE CROSS’

The issue of violence in Kings Cross must, I argue, be understood within four broad culture contexts of general Australian society, and Sydney in particular. The first of these is the emergence of Sydney as an ‘angry city’ (Arvanitakis 2008). The research identified issues such as high levels of debt, time pressures and lack of services leading to a rise of ‘crimes of anger’, such as road rage and alcohol related violence, while at the same time noting the decline of other crimes. In a recent interview, the Assistant Police Commissioner, Mark Murdoch, stated that street violence “was the worst he had seen in a 32-year career” (Murdoch and Murphy 2012), going on to say that those “who stay out after midnight are either going to become one of two things: they are going to be a victim or an offender.”

The second dimension that I will raise is Australia’s complex relationship with alcohol. Most celebrations in Australia involve heavy drinking and this is reflected in the data collected by the Australian Bureau of Statistics that draw on the National Health and Medical Research Council guidelines (ABS 2012). The ABS, drawing on 2007-08 figures, identified “5.9 million persons (37.7 percent of all persons aged 18 years or over) who consumed alcohol at risky or high risk levels in the short term” (ibid.). It was also found that 21.8 percent drank alcohol at such levels on an ongoing basis (ibid).

1 This quote was stated in a public meeting held at FBI Social at the Kings Cross Hotel in which I was a panel member – see http://www.au.timeout.com/sydney/aroundtown/features/11106/crossroads-where-to-next-for-sydneys-nightlife - accessed January 2013.
The third aspect relevant here is the emergence of young people ‘pre-loading’ or drinking heavily before going out to spend less money on expensive drinks. The Deakin University study found that some young people drank more than “11 standard drinks before reaching a venue, while some reported having as many as 25” (ABC 2012), with the study’s lead author, Peter Miller, noting that “if you have more than six drinks before you go out you are twice as likely to experience violence”.

The final dimension I will raise is the experiences of young people in Kings Cross, especially those from Western Sydney. In the public meeting in which this paper sources its title, it became very clear that the residents blamed outsiders – particularly people from non-English speaking backgrounds from Western Sydney – for violent incidents in Kings Cross. A study by the Foundation for Young Australians found that racism was a common experience for many young people including being refused entry to night-time venues and treated with suspicion (Mansouri et al 2009). The study described the response from those experiencing such racism as “negative” and including heavy drinking, drug abuse and even violence (ibid.: 78).

3. A MISMATCHED RESPONSE

While the four dimensions identified above are significant cultural aspects of contemporary Australian life, the response by the O’Farrell government has focussed on increasing ‘security’. In a press release titled ‘Cleaning Up The Cross: Police, Transport, ID Scanners And Drug Dogs’,2 the focus is very much on increasing police presence and numbers, as well as additional security measures including surveillance, CCTV, more security guards, body scanners, earlier closing times and continuing to place a freeze on new venues.

Such a response fails to consider the various cultural factors outlined above as well as the way young people interact with the night-time economy. A cross section of research, including that undertaken by Dick Hobbs (2003) and Peter Hopkins (2010), has identified the night-time economy as important places for young people in identity formation. In this way, sites such as Kings Cross act as almost a ‘rite of passage’ for young people where they seek markers of ‘transformations’ to adulthood.

4. CONCLUDING: DESIGN THINKING AND SOLUTIONS

To briefly conclude I would like to return to the overlap between cultural studies and design thinking. The cultural dimensions identified cannot be confronted with headline solutions but rather require, as Lawson and Dorst (2009) argue, a reframing. Drawing on this work, I will outline three solutions. The first is to confront Australia’s relationship with alcohol: simply increasing security measures will not alter behaviour before and after attending venues.

The second solution is to employ design thinking to approach the management of the Kings Cross night time economy not as a security challenge, but reframe it as a ‘major event’. Research undertaken by the City of Sydney has identified

that on a Friday and Saturday night the Kings Cross precinct sees as many people passing through as would attend a major event, requiring significant planning and coordination between various agencies. Until an equivalent amount of planning takes place, the Kings Cross night-time economy will continue to be plagued by issues related to crowd management (or lack thereof) such as lack of transport, frustration and violence.

Extending this concept, the third solution is to change the mix of venues in the area. The current freeze on new licenses in the area is set to be in place until at least December 2015. This means existing licensees will be able to carry on as usual without any new competitors, which basically protects those that are managed badly. A more appropriate response would be to encourage greater diversity in venues including small bars, late night markets and music establishments.

All this does not indicate that there is no role for security or policing. However, these are important elements in a broader suite of solutions, rather than the answers.

References


Hopkins, P, Young people, place and identity, Routledge, New York, N.Y.


FEAR OF CRIME AROUND BLACKTOWN TRANSPORT INTERCHANGE

Melissa Burgess  
New South Wales Department of Attorney General & Justice

ABSTRACT

An intercept survey was conducted in Blacktown, New South Wales, to gain an understanding of commuter experiences of fear of crime. A large proportion of the survey respondents avoided catching a train and walking in Blacktown CBD because they felt afraid of being robbed or assaulted. Loitering and intoxicated persons were the primary triggers for fear of crime. These findings have implications for addressing crime and fear of crime through design.

1. FEAR OF CRIME AROUND BLACKTOWN TRANSPORT INTERCHANGE

Fear of crime and concerns over personal security have become a crucial factor for commuters in deciding whether to use public transport, what type of public transport to use, when and how often to use it (Cozens et al, 2004; Kruger & Landman, 2007; Piza, 2003; Smith, 2008). This study aimed to examine how fear of being robbed or assaulted can affect commuter use of public transport modes, nodes and paths.

The study was set in Blacktown, a commercial and transport hub of Western Sydney (Australia) attracting high numbers of visitors and having high levels of crime. In 2011, Blacktown Local Government Area (LGA) ranked in the top five of 154 LGAs across the State of New South Wales (NSW) for nine of the 12 the major offence categories reported on by State Government. Blacktown railway station is also considered a hotspot for transport crime, having the second highest number of personal offences at CityRail stations in 2010.

2. METHODOLOGY

An intercept survey was conducted to understand commuter experiences of fear of crime in Blacktown. Random street interviewing was conducted throughout the day (between 7am and 7pm) from Monday to Sunday (and until 9:30pm on Thursday) at key locations used by commuters. The questionnaire was based on surveys designed by Doran and Burgess (2012).

Respondents were firstly asked a number of questions about their journey to/from Blacktown, use of public transport and purpose for being in Blacktown. Respondents were then questioned about their fear of crime on different transport

---

According to frequency and rate of crime incidents reported to NSW Police, data provided by the NSW Bureau of Crime Statistics and Research.
modes, nodes and paths. In this section, respondents indicated on a map specific areas that they avoided during the day and night because they were afraid of being robbed or assaulted. For each area, they could indicate what social and physical characteristics of the environment triggered their fear of crime. A Geographic Information System was used to visualise and analyse this information, as developed by Doran and Burgess (2012).

3. DATA ANALYSIS

Forty percent of the 454 respondents felt afraid of being robbed or assaulted when travelling to or from Blacktown. Walking and train travel evoked the highest levels of fear and will be discussed further. Less than 10% of respondents felt afraid of crime when travelling by bus, taxi or car. Eighteen percent of respondent felt afraid of being robbed or assaulted while waiting for the train and 14% when they are on the train. Fifteen and thirteen percent of respondents indicated that they actually avoided waiting for a train and catching a train, respectively, because they felt afraid of being robbed or assaulted. When asked specifically about particular stations, 19% indicated fear of crime at Blacktown railway station.

Twenty-eight percent of the respondents indicated that they felt afraid of being robbed or assaulted when walking in Blacktown. Twenty-three percent of respondents actually avoided parts of Blacktown CBD because felt afraid of being robbed or assaulted during the day. Avoidance levels of areas in Blacktown CBD due to fear of being robbed or assaulted increased to 58% during the night. Analysis of the fear maps revealed a distinct fear (avoidance) hotspot in the public space between Blacktown Transport Interchange and the main shopping mall (See Figure 1 for avoidance levels during the night).

The presence of people loitering around was the primary trigger for fear of crime and avoidance in this area (See Table 1). Groups of loitering people were ranked first out of the 16 social and physical environmental factors, triggering fear of crime in 76% and 89% of those respondents who adopted avoidance behaviour in the day and night respectively. Individuals who were loitering around ranked second in triggering the most fear of crime, accounting for 47.9% and 50.9% of those respondents who adopted avoidance behaviour in the day and night respectively. Physical cues did not trigger high levels of fear of crime and avoidance in the respondents.
FIGURE 1. Areas of Blacktown CBD that people avoided due to fear of being robbed or assaulted during the night (after dark)

TABLE 1. Environmental cues that triggered fear of being robbed or assaulted during the day (daylight hours) and night (after dark), by percent of respondents that avoided an area of Blacktown CBD

<table>
<thead>
<tr>
<th>SOCIAL CUES</th>
<th>DAYLIGHT</th>
<th>NIGHT-TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Known gang hangout area</td>
<td>19.4</td>
<td>23.0</td>
</tr>
<tr>
<td>People who are doing/ have been doing graffiti</td>
<td>3.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Drug dealers</td>
<td>19.4</td>
<td>18.1</td>
</tr>
<tr>
<td>Drug users</td>
<td>45.6</td>
<td>47.9</td>
</tr>
<tr>
<td>People who are/ have been drinking</td>
<td>36.9</td>
<td>50.9</td>
</tr>
<tr>
<td>Groups who are loitering around</td>
<td>75.7</td>
<td>89.4</td>
</tr>
<tr>
<td>Individuals who are loitering around</td>
<td>47.6</td>
<td>50.6</td>
</tr>
<tr>
<td>Lack of other pedestrians around</td>
<td>4.9</td>
<td>13.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHYSICAL CUES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of alarms/ help points</td>
<td>11.7</td>
<td>16.2</td>
</tr>
<tr>
<td>Lack of natural security cameras</td>
<td>18.4</td>
<td>22.3</td>
</tr>
<tr>
<td>Lack of natural surveillance</td>
<td>10.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Blocked escape/ areas where escape is difficult</td>
<td>4.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Areas for people to hide</td>
<td>7.8</td>
<td>9.4</td>
</tr>
<tr>
<td>Vandalised property/ graffiti</td>
<td>5.8</td>
<td>7.2</td>
</tr>
<tr>
<td>Poor street light</td>
<td>4.9</td>
<td>18.1</td>
</tr>
</tbody>
</table>
4. CONCLUSION

The survey results suggest that a large number of people feel afraid of crime and avoid travelling on trains or walking in Blacktown because of fear of being robbed or assaulted. Crime Prevention Through Environmental Design (CPTED) approaches could be worthwhile in preventing crime and fear of crime on trains, at Blacktown railway station and in the public space between the railway station and shopping mall. While CPTED approaches commonly focus on physical characteristics of the environment that improve natural surveillance (for example lighting and sightlines) the results suggest that fear of crime could better be prevent with CPTED that addresses loitering. For example, further assessments of whether there are features in the area that enable or attract loitering (such as chairs or other facilities) would be useful for the development of appropriate intervention strategies addressing loitering. Likewise CPTED opportunities to discourage loitering, for example by making the space uncomfortable for loitering people, could also be investigated.

REFERENCES

DESIGNING FOR A SAFE AND ATTRACTIVE LIGHT RAIL EXPERIENCE IN SYDNEY’S INNER WEST

Nick Chapman,
School of the Built Environment, Design, Architecture and Building Faculty, University of Technology Sydney

INTRODUCTION

This Paper is a case study analysis of a Winter School project about pedestrian safety challenges along a 4.5km light rail extension through Sydney’s Inner West. It was presented by the author in his capacity as a tutor for the Designing Out Crime (DOC) 2011 Winter School.

The Paper describes the problem presented by the clients to the students, outlines our collective approach to solving the problem using DOC’s Winter School co-design methodology and summarises the design outcomes achieved. It concludes with a brief description of the implementation of the project outcomes and the lessons learnt by the students, clients and tutors during an intensive three week process.

1. DOC WINTER SCHOOL

DOC was established by UTS’s Design Architecture and Building Faculty and the NSW Department of Justice and Attorney-General in 2007. At DOC, organisational relationships, learning processes and design practise are placed at the disposal of multi-disciplinary teams of design professionals, students and external “clients” to jointly develop new conceptualisations and solutions to “real world” crime problems [Duarte et al 2011]. The Winter School is a key part of this process. Every year a cohort of up to 70 mostly 3rd and 4th year undergraduate students team up with a multi-disciplinary group of tutors and external clients to work intensively for 3 weeks on multi-faceted crime problems. Re-framing is a key element of the process [Schon 1983; Lawson & Dorst 2009; Dorst & Tomkin 2011]. Re-framing arises from “the intimate engagement of the designer with the ‘themes’ of key stakeholders” [Dorst & Tomkin 2011 p1].

Since its inception, DOC has been applying and refining the co-design process in collaboration with external public and private sector stakeholders. The Winter School provides a unique opportunity for students to learn and apply co-design and re-framing skills in a multi-disciplinary team. The students are drawn from range of disciplines, including interior, spatial and industrial design, architecture, fashion and visual communications.
2. PROJECT CLIENTS

The clients for the project were the light rail operator, Transport for New South Wales (TfNSW), Marrickville Council and the GreenWay, a community-driven urban sustainability and active transport project funded by four councils and the NSW Department of Environment and Heritage.

The Inner West Light Rail is a 5.2km extension to the existing light rail which runs from Sydney’s Central Rail Station to Leichhardt. The extension makes use of the redundant Rozelle Goods Rail Line (constructed in 1923) which winds its way from Glebe Island dock to Dulwich Hill rail interchange, where it connects to a dedicated freight rail line from Sydney’s Western suburbs to Port Botany. Inner city gentrification since the 1980’s has resulted in the industries along the goods rail line giving way to higher order land uses such as townhouses, community facilities and high value employment and services, particularly in the knowledge-based and creative industries sector eg the Canal Road Film Centre, adjacent to the new Leichhardt North light rail stop.

3. GREENWAY

The GreenWay is a multi-purpose cycling, recreational and urban bush corridor which follows the route of the goods rail line. This community-driven project has evolved over the last 15 years through a series of volunteer programs and project activities funded by local and state government. Activities range from cycling and public art to urban bush regeneration and primary school education using the Greenway as an outdoor classroom. The light rail extension is a valuable opportunity to enhance the GreenWay as a model of sustainable urban transport and to construct additional sections of cycle path following the route of the light rail.

4. TWO “HIGH RISK” LIGHT RAIL STOPS

Nine new stops are to be built as part of the light rail extension. The clients proposed that the Winter School focus on two of the new stops which are the most challenging from a design and pedestrian safety perspective.

The Lewisham West stop is located at the end of a short cul-de-sac connecting to Old Canterbury Rd, one of the busiest arterial roads in the Inner West. The site has a desolate, un-kept, industrial look characterised by shuttered doorways, graffitied blank walls, crumbling footpaths and poor lighting. These factors generate an unpleasant pedestrian environment, particularly at night. The site will be partially redeveloped in the next 3 to 5 years and the design process therefore needs to propose temporary, low cost treatments which can easily be replaced.

The Dulwich Hill Interchange stop is accessed via a park operated by Marrickville Council called Jack Shanahan Reserve. The triangular shaped park is surrounded on all sides by rail corridors, which gives it an isolated feel. It is a popular place for youth and contains a skate bowl, a battered looking tennis court and a poorly maintained, graffitied toilet block and change room. This “lonely” park is quite degraded and has a reputation locally as a place for drug taking and underage drinking. It is a threatening pedestrian environment, particularly at night.
5. WINTER SCHOOL APPROACH

The tutors and clients provided a written and verbal briefing for the students and all participants took part in a site visit. The reframing process began in earnest, with the students separating into two multi-disciplinary teams, dismantling ‘the problem’ and re-assembling it as a series of integrated design challenges and opportunities. Preliminary concepts were developed for discussion with peers and tutors. Formal client feedback was provided half way through the process and co-design concepts were subsequently extended, refined or abandoned.

Four overarching design themes emerged from the re-framing process:

i. activate light rail stops and cycle paths leading to them by any means possible;
ii. establish quality, durable public domain and pedestrian access to the stops;
iii. significantly improve lighting and way finding;
iv. integrate light rail stop precinct designs with GreenWay themes and adjacent open space (Jack Shanahan Reserve) and redevelopment sites (Lewisham West)

The students’ co-design proposals are illustrated below:

FIGURE 1. Entire length of GreenWay and light rail - Branding and Marketing strategy for “Food + Drink” trail to maximise patronage, activation and passive surveillance, particularly at night.
FIGURE 2. **Lewisham West stop** – Temporary scaffold walkway with activation elements eg bike racks, points of sale for community produce, biophilic “living green walls”, interactive signage, lighting, street furniture and community murals etc

![Image of Lewisham West stop](image1.jpg)

FIGURE 3. **Jack Shanahan Reserve stop** – Multi-faceted activation strategy to appeal to as many sections of the community as possible at different times of the day/week eg pop up market stalls, street art murals, sustainability education, bush care, lighting, signage and street furniture upgrades etc

![Image of Jack Shanahan Reserve stop](image2.jpg)
6. IMPLEMENTATION OF STUDENTS’ WORK
In the 18 months since the conclusion of the Winter School in July 2011, the clients have used the project outcomes in a number of ways:

**TfNSW** - Winter School posters and project report used for internal display at TfNSW Head Office. Project design outcomes presented to the successful tenderers responsible for light rail stop, public domain and pedestrian access design and construction. Project outcomes submitted to TfNSW Project Design and Sustainability Committee and Customer Experience Division (Project Innovation).

**Marrickville Council** - Winter School posters and project report used for internal meetings re: Jack Shanahan Reserve. Student designs submitted for consideration by Council during the call for public submissions re: the rehabilitation and extension of Jack Shanahan Reserve.


7. CONCLUSIONS AND LESSONS LEARNT
From a student perspective, the Winter School achieved its core learning objectives. The students learnt about and applied re-framing and co-design approaches to a multi-faceted “real world” problem. They worked with clients and refined their ideas in response to feedback received at various stages during the life of the project. They worked to tight deadlines and experienced the challenge of adopting a multi-disciplinary, co-design approach to a complex problem.

Feedback from the clients demonstrated high level satisfaction with many aspects of the Winter School project. They were impressed by the students’ capability and commitment to the work and welcomed the opportunity to join them in “thinking outside the box”. They found the students’ ideas to be both creative and neutral. The Winter School provided a rare opportunity to work across silos within their own agency and engage with outside organisations to address a common problem in an innovative, cross-disciplinary way, at no cost to their agencies.

In conclusion, the Inner West Light Rail Winter School project demonstrated to both students and clients the value of the five key activities “at the core of the DOC’s practise - research, initiation, framing, design exploration and handover” (Dorst K, Tomkin D., 2011 p3). Project outcomes have informed design concepts and approaches now being implemented along the Greenway and Inner West Light Rail. The result should be enhanced pedestrian safety and comfort for passengers when the first trams start to roll in mid 2014. The project has been the catalyst for subsequent “transport and safety” Winter School projects, including Wynyard/Wynyard Walk (2012), Ashfield Laneways (2012) and the North West Rail Link (proposed for 2013).
REFERENCES

Dorst K, Tomkin D (2011) Themes as Bridges between Problem and Solution - Proceedings of IASDR2011, 4th World Conference on Design Research, Delft, the Netherlands


www.marrickville.nsw.gov.au – various eg plans of management for Jack Shanahan Reserve, Parks and Open Space Unit
DESIGN STRATEGIES FOR MITIGATING THE IMPACT OF ANTI-SOCIAL BEHAVIOUR UPON SUBURBAN RAIL TIMETABLES.

Selby Coxon
Department of Design, Faculty of Art, Design & Architecture, Monash University.

Dr. Robbie Napper
Department of Design, Faculty of Art, Design & Architecture, Monash University.

Associate Professor Arthur De Bono.
Department of Design, Faculty of Art, Design & Architecture, Monash University.

ABSTRACT

Train schedules are particularly important during service peak periods and short headways. Miscreant passenger behaviour such as the inappropriate or malevolent use of the emergency communication alarm, or the deliberate holding open of doors, has a detrimental effect upon maintaining the service timetable.

There is a general absence of literature in the transportation field examining this problem or offering potential solutions. Manipulating the design of the environment to provoke desired behaviours in people is a technique widely used in various disciplines from large architectural projects to more subtle uses of applied psychology.

This paper discusses a collaborative research project carried out between Monash University’s Department of Design and the French National Railway (SNCF). Two research projects are discussed as they relate particularly to SNCF’s network in the Ile-de-France. However, the design solutions may have pertinence for other networks similarly afflicted around the world.

1. INTRODUCTION.

Everyday acts of incivility disrupt the operation of the rail network in Paris and the surrounding conurbation known as the Ile-de-France. Amongst these acts, the inappropriate use of the emergency communication alarm and the deliberate holding of doors are the most onerous to the smooth running of the network in terms of delays, disruption and cost. This paper discusses two design projects to ameliorate this behaviour. The Authors applied the techniques of situational crime prevention to direct design elements – three dimensional, graphical and systemic – to influence positive passenger behaviours. For work on door holding behaviour the authors leveraged additional research derived from the study of door gestures.
2. SITUATIONAL CRIME PREVENTION.

There is a wide body of research addressing the psychological motivations of general miscreant behaviour (Cornish and Clarke, 2003, Colquhoun, 2004 et al). These studies suggest that in any given situation the pre-requisites to an act of anti-social behaviour are:

- Motivation.
- Potential target opportunity or victim.
- Low risk, e.g. scarcity of witnesses.

To better respond strategically to acts of anti-social or criminal behaviour in general, researchers in the field of criminology (Cornish and Clarke, 2003) have developed a table of twenty-five situational responses shown in figure 1. These responses are categorized under five key strategies:

- Increase effort;
- Increase risk;
- Reduce the reward;
- Reduce provocations; and
- Remove excuses.

They are then followed by a series of more specific strategies. These strategies are identified in the design process as setting a direction in which the physical form and interface might take.

3. THE DESIGN OUTCOME FOR MISUSE OF THE COMMUNICATION ALARM.

The conceptual design response to the strategies laid down in the situational crime prevention matrix (figure 1) sought to create a simple interface. To this end each of the conceptual designs attempt to solicit compliance through the following design features:

- A physical cover to the alarm therefore requiring its removal to access the handle or button. [Target hardening].

- Moving the cover cannot be done without seeing a warning about misuse. [Remove excuses]

- Moving the cover first alerts the driver/guard that the alarm is about to be activated. [Increase risk – strengthening surveillance]

- Upon moving the cover, a voice alert is activated to re-enforce the visual warning. [Remove excuses].

- This warning explicitly describes punitive measures such as a heavy fine. [Reduce reward].

- Technology is built into the alarm apparatus that backs up the warning claim by indicating the high probability of being caught. [Reduce reward].

- The design and arrangement of the alarm also clearly indicates its location within the train. [Increase risk of being caught].

These strategies are made tangible by the use of color and form that are read and interpreted with the intent to communicate the gravity of operating the communication alarm. None of these strategies will deter a determined abuser or indeed should they prove so onerous as to deter the legitimate use for which the alarm is intended. (Figure 2.)
FIGURE 2. Design concept based around crime prevention strategies

The central strategy contained in this design is that the ‘abuser’ will risk a heavy fine and have a high likelihood of being caught.

It is argued that such penalties imposed through the criminal justice system are not immediate (Colquhoun 2004). Offenders pay more attention to the risks closely attached to the immediate action or opportunity, rather than to risks that might take months to become apparent (Cornish and Clarke 2003). Offenders usually live in the ‘here and now’ rather than in the ‘there and then’.
4. DOOR DESIGN OUTCOMES.

Examination of the key literature in human behaviour and motivation in relation to acts of anti-social behaviour has revealed strategies that might when applied underpin the design of a train door. Some strategies such as legislating for penalties or the general reduction of stress could be seen to be too vague. Therefore the research focused upon the doors themselves and examined the nature of their movement in terms of gestures and particularly how passengers might interpret this.

4.1 DOOR GESTURES.

Research undertaken at University of Berkeley California (Ju and Takayama 2009) sought to investigate the capacity of doors in public spaces to create what humans would interpret as ‘gestures’. The research determined that the interface of the door has three components:

- Functional. The door opens and closes.
- Explicit. Graphical devices and symbols applied to the door to imply meaning, e.g. no entry, automatic or a brand etc.
- Implicit. This is where most of the gesture is created within the dynamic action of the door, such as whether it slides or swings out, etc. Importantly, the gesture of the door movement also embodies a trajectory and speed.

Omitted from the Berkeley study were the implications of touch. Since in holding the train doors passengers clearly ‘feel’ a physical contact with the material, the authors would consider the addition of tactility to any door interface. By examining the notion of the door interface as inherently gestural and combining this idea with those behavioural interventions outlined by Cornish and Clarke (2003) the authors entered the final phase of the research in the creation of new door designs.

The door concept that emerged from the research (figure 3) is essentially a plug door with an internal sliding edge to close off the last 40cms. The initial action of the door is to move away from the vestibule threshold and in a second movement glide along the wall of the train. Upon closing the door moves quickly back across the threshold slowing at the last centimetres to allow internal sliding doors, marked with yellow and black diagonals, to close the gap before the remainder of the door plugs into place.

The dual action attempts to convey a sense of cognition that the door is pushing people gently in or out of the train. The black and yellow diagonal markings are reminiscent of an industrial equipment guard in a factory. At the edge of the doors is a red illuminated vertical chain of arrows that flash as the door is closing emphasizing the need to clear the reducing gap. Upon opening, the doors show a horizontal line of green arrows pulsing in the direction of the opening action to warn platform patrons to stand clear as the doors begin to part.

The door opening actuators are located to the extremities of the door on each side. The advantage of this arrangement over existing doors is that platform passengers are manoeuvred by access to the door actuator to place themselves in the optimum position to allow people to leave the train. Upon closing the sweeping gesture of the door combined with the secondary action of the internal sliding edge makes holding a little more unpredictable. The actions
are reinforced by graphical elements such as illuminated arrows to determine closing and opening and the drama of the yellow and black diagonals as the door nears complete closure.

**FIGURE 3.** The key stages of door closing to dissuade holding behaviour. Authors images.
5. CONCLUSION.

The length of time a train is paused in a station is an important determinant of network performance. Some of the variables that make up the total dwell time are predictable. Passengers wilfully holding doors or misusing the communication alarm delay departure and endanger putting trains out of service. A collaborative research project between Monash University’s Department of Design and SNCF’s Directorate of Innovation and Research considered these anti-social behaviours as observed in the Ile-de-France, and developed design concepts based upon crime prevention research to stimulate design innovation.

Each project; misuse of the communication alarm and door holding behaviour were undertaken separately but both utilized key principles in their execution

- increasing, the effort required to carry out the behaviour
- increasing the risk of punitive measures for carrying out the behaviour
- reducing the perceived reward from the activity.

Equally the design projects sought to reduce any provocation to the behaviour and mitigated any excuses that that the perpetrator might make for their actions.

At the centre of this research is the intervention of design to create the physical equipment, graphic communication and associated systems to influence human behaviour. The outcomes of these research projects have attempted to leverage human perception of the meaning of shapes and graphical arrangements to encourage a compliance behaviour, and make non-compliance not without detrimental risks.

The work undertaken in this research project suggests that multiple strategies to mitigate anti-social behaviour needs to be employed and investigated. A design methodology analyzing and then conceptualizing the problem has enabled these disparate sites of knowledge to be brought together.
REFERENCES


De Turck, M & Goldhaber, G 1999 ‘Behaviour’ (Chapter 9), in Wolgalter, M, Dejoy, D & Laughery, K (eds), Warnings and Risk Communication, Taylor and Francis, London.


NIGHTCLUB ENTRANCES:
EXPLORING ‘IMAGE’ AND MICRO-LEVEL CRIME PRECIPITATORS IN PERTH (WA).

Dr. Paul Cozens
Curtin University, Perth, Western Australia

Shane Greive
Curtin University, Perth, Western Australia

ABSTRACT

This paper explores the perceptions/‘image’ of crime associated with nightclubs in Perth (WA). It has been suggested that poor governance can inadvertently create crime precipitators at the meso, macro and micro level of the night-time economy (Cozens and Greive, 2009; 2011; Cozens, 2011). Following Wortley’s (2008) concept of crime precipitators, this study explores the micro-level governance of the night-time economy (NTE) and asks the question ‘what does the entrance ‘say’, about the licensed premises?’ How are different venues perceived and how might this ‘image’ precipitate crime?

1. INTRODUCTION

Perth has numerous entertainment districts (e.g. Northbridge) which all share typical characteristics of the night-time economy (NTE), as discussed by Graham and Homel (2008). They attract young adults interested in alcohol-related activities and are avoided by families, older people and young people with different tastes. They lack diversity of population and land-use, and are largely a homogenized consumer experience. The NTE is shaped by the market and is now less restrictive on closing times, forms of entertainment and licences. Finally, the NTE is commonly in conflict with local, non-alcohol-oriented day-time entertainment businesses. For Graham and Homel (2008, p189-190) “these characteristics create place-space-time niches that are likely to be hotspots for crime and violence.” The entertainment districts in Perth are also plagued by alcohol-related violence and anti-social behaviour.

In this paper, the authors adopt an environmental criminology perspective and utilise situational crime prevention (SCP) theory to explore the immediate micro-level situation/location of the entrances to nightclubs. The paper considers what entrances ‘say’ about licensed premises, and how different venues might be perceived differently as a result of such entrance statements; and, finally, whether these precipitate crime.

2. ENVIRONMENTAL CRIMINOLOGY AND SITUATIONAL CRIME PREVENTION

Environmental criminology has been defined as: “the study of crime, criminality, and victimisation as they relate first, to particular places, and secondly, to the
way that individuals and organisations shape their activities by placed-based or spatial factors” (Bottoms and Wiles, 1997, p305). The immediate entrance to a nightclub is a crucial micro level ‘place’ where behaviour and activities can be shaped by spatial factors.

Madensen and Eck’s (2007) Premises Management Model (see Figure 1) is useful to conceptualise the broader elements to understanding/managing crime at licensed premises. The entrance to a nightclub is an important environmental setting, which essentially sets the scene and contributes towards the ‘image’ of the venue.

FIGURE 1. Premises Management Model (Madensen and Eck, 2007)

At entrances, nightclubs have concentrated on removing excuses – largely via the use of entry requirements and signage/instructions on codes of conduct, dress codes and unacceptable behaviour. However, the authors explore the hypothesis that some nightclub entrances (and requirements) are ‘over-fortified’, threatening and stressful and may act to precipitate crime. Table 1 sets out the 25 SCP techniques as highlighted by Cornish and Clarke (2003).
Crime Precipitators are “factors within the crime setting itself that may prompt, provoke, pressure, or permit an individual to offend” by providing or facilitating; they offer “situationally-generated motivation to the hitherto unmotivated” Wortley, (2008).

Failure to reduce provocations and remove excuses can create ‘crime precipitators’ which work at the micro and macro scales (Wortley, 2008). There are 4 types:

1. Environmental cues can prompt criminal behaviour
2. Social forces can exert pressure on individuals and encourage offending
3. Situational factors can weaken moral prohibitions and permit criminal behaviour
4. The immediate environment can also provoke criminal behaviour

Previous research by Cozens and Greive (2009; 2011; Cozens, 2011) has investigated the NTE through the lens of environmental criminology and highlighted crime precipitators at the meso, macro and micro levels. It was suggested that the NTE can precipitate crime in a variety of ways, including through poor governance (e.g. inadequate public transport and taxi ranks and insufficient provision of public toilets/water/food).

This research focuses specifically on the micro-level and uses SCP to explore the ‘image’ of nightclubs, as represented by their immediate entrances (especially their entry statements). In particular, we explore how venues act to reduce excuses for criminal and anti-social behaviour.

3. RESEARCH

The research reported in this paper derives from several years of ethnographic observational and fieldwork research on the NTE in Perth. The authors explore...
the environmental setting of the entrances to nightclubs from a sample of 12 nightclubs. Six venues were associated with most forms of anti-social behaviour according to data derived from the police’s Alcohol-Related Incidence Forms (ARIF data). Here, the location of the last place of drink was recorded along with the incident. A further six venues with low levels of anti-social behaviour were also selected for investigation.

Entrances were investigated with regard to the presence or absence of measures used to reduce excuses for criminal or anti-social behaviour. An Excuses-Reduction Matrix (see Table 2) was developed to score each venue on their use of these measures to set rules and control behaviour.

**TABLE 2. An Excuses-Reduction Matrix**

<table>
<thead>
<tr>
<th>EXCUSES - REDUCTION MEASURE</th>
<th>PRESENCE / EXTENT OF MEASURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photo ID requirements for entry?</td>
<td>None / 1 ID / 2 IDs</td>
</tr>
<tr>
<td>Do they scan photo IDs as part of entry?</td>
<td>No / Yes</td>
</tr>
<tr>
<td>What is the dress code?</td>
<td>None / minor / extreme</td>
</tr>
<tr>
<td>What is the code of conduct?</td>
<td>None / minor / excessive</td>
</tr>
<tr>
<td>What is the nature of the security staff?</td>
<td>Welcoming / indifferent / confronting</td>
</tr>
<tr>
<td>What is the extent of CCTV?</td>
<td>Present / extreme</td>
</tr>
<tr>
<td>Overall ‘image’ of the venue?</td>
<td>5 point range from ‘soft’ and ‘welcoming’ to confronting and aggressive</td>
</tr>
</tbody>
</table>

Using this framework for ‘scoring’ the presence and extent of excuses-reduction measures, each of the 12 venues could have a minimum score of 7 and a maximum of 20. Venues with high (hard/heavy) security and entrance requirements, dress codes, and codes of conduct will score higher on the Excuses-Reduction Matrix. Venues with low (soft/light) security and entrance requirements, dress codes, and codes of conduct will score lower on the Excuses-Reduction Matrix.

Intriguingly, there are two hypotheses, which could be proposed by SCP:

1. Venues with high [hard/heavy] security and entrance requirements, dress codes, and codes of conduct will be more safe since excuses for anti-social behaviour are being reduced.

2. Venues with high [hard/heavy] security and entrance requirements, dress codes, and codes of conduct will be less safe since over-excessive measures may act as provocations and precipitate anti-social behaviour.
Clearly, the six most crime-prone venues (highlighted and underlined) largely maintain entrances which have excessive security and were perceived as being more confronting. Most of the venues with lower incidents of crime (in yellow and not underlined) displayed entrances with a softer and more welcoming ‘image’. Nightclub 11 is somewhat of an anomaly in that it has a high excuses reduction index yet a low incidence of crime. Local knowledge suggests that this is partly explained by the fact that the venue has criminal/gang connections, which may act to reduce crime by intimidation.

Waiting in queues and gaining entry to venues was also part of the fieldwork. This frustrating (and often intimidating) exercise raised the question ‘can the removal of excuses provoke criminal behaviour?’ Table 3 lists a range of excuses-reduction signage used by nightclub venues in Perth.
TABLE 3. Excuses Reduction Signage/Entry Requirements for Nightclubs in Perth

<table>
<thead>
<tr>
<th>Photo ID scanning in operation (of passport, driving license, proof of age card)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof of identity (passport / driving license) required for all patrons</td>
</tr>
<tr>
<td>Proof of age identification (passport / driving license/ proof of age card)</td>
</tr>
<tr>
<td>required</td>
</tr>
<tr>
<td>Secondary forms of identification required (e.g. credit card or bank card)</td>
</tr>
<tr>
<td>You may be required to undergo a breathalyser test</td>
</tr>
</tbody>
</table>

Restrictive dress codes including:

- no shorts, thongs, sandals, work boots, steel toe-capped boots or skate shoes
- no shirt singlets, sleeveless shirts, sportswear, tracksuits, work-wear, beach/ surf wear
- no shirts showing soccer/ sports teams or rock bands
- no hoods, bandannas, hats or caps of any kind
- no torn or frayed denim
- no clothing or accessories indicating motorcycle gang membership
- no gang, alcohol or sports insignia

Other signage at entrances included:

- A range of Codes of Conduct/Duty of Care statements
- Warnings of fines for the use of forged, false or counterfeit IDs
- Warnings of barring notices for anti-social behaviour
- Warnings of fines for failing to vacate the premises
- Notification of Lockout times
- No smoking
- Notification that re-entry to the club is not permitted for smokers
- Notification that re-entry to the club is not permitted for all patrons
- Statements on female and gay-friendliness
- Violent, disorderly and argumentative behaviour is not

Just as governance of the NTE at the meso level can precipitate crime (Cozens and Greive, 2009; 2011, Cozens, 2009), the governance of each venue may also precipitate crime at the micro-level. They can prompt, pressure, permit and provoke anti-social behaviour by creating disputes, frustrations and stresses at entry points.

We might question if security at some venues has gone too far and is too ‘abuser’-focussed. It may represent over-fortressification. We might even suggest that it represents an extreme application of Crime Prevention Through Environmental Design (CPTED) – such that the acronym stands for Crime Prevention Through Exclusionary Design. Crucially, it is not known whether or to what extent venues with excessive security measures actually prevent crime within their establishments in Perth. This is an avenue for future research.

The Excuses-Reduction Matrix is currently exploratory. It is somewhat ‘crude’ and certainly requires refinement. However, data illustrated in Figure 2 suggests that some venues may facilitate situationally-generated motivation. For those already motivated, nightclub venues which require passport/driving licences for entry, provide specific criminal opportunities for those involved identity theft (e.g. organised crime).
In conclusion, we might reflect on Becker’s (1967) point “whose side are we on?” Rather than regulating against the behaviour we don’t want, perhaps we should plan and design to enable the behaviour we do want. Can we find a balance between removing excuses and provoking/precipitating crime?

REFERENCES


Dr. Paul Cozens
Curtin University, Perth, Western Australia

Tom Davies
Curtin University, Perth, Western Australia

ABSTRACT

The use of crime prevention technology continues to expand within the urban environments of post-industrial cities (Crawford, 1998; Loader, 1997). Target-hardening technologies such as alarms, shutters, bars, gates, walls, lighting and CCTV are increasingly being used to protect retail, industrial and residential properties (Loader 1999; Nelson, 1999). The use of security shutters in residential settings in WA is increasing, despite a lack of evidence to support their effectiveness in reducing crime. This paper investigates crime and security shutters in a residential setting and reports on the perceptions of 353 respondents (residents in a Perth suburb). The survey explores perceptions of crime and ‘eyes on the street’ (Jacobs, 1961) and contrasts perceptions of crime associated with shuttered and non-shuttered properties. Respondents were shown photographs of properties as environmental stimuli to elicit insights into their perceptions of burglary risk, levels of surveillance of the street, levels of social interaction and levels of safety.

1. INTRODUCTION

The use of crime prevention technology continues to expand within the urban environments of post-industrial cities (Crawford, 1998; Loader, 1997; Whattam, 2011). Target-hardening technologies such as alarms, shutters, bars, gates, walls, lighting and CCTV are increasingly being used to protect retail, industrial and residential properties (Loader, 1997; 1999; Nelson, 1996; 1999; Whattam, 2011). Paradoxically, security measures can increase fear of crime (Halliwell, 2010) and encourage the take up of spatial and temporal avoidance strategies (Nelson, 1999). Indeed, Halliwell has argued (2011, p12), “there is concern that situational approaches, especially in their ‘target hardening’ categories, breed a ‘fortress society’ leading people increasingly to retreat behind locked doors, gates and shutters, in ‘defensible spaces’” (Bottoms, 1990; Weiss, 1987). This paper investigates the target hardening mechanism of residential security shutters and perceptions of burglary risk, levels of surveillance, social interaction and personal safety.
2. CPTED AND PASSIVE SURVEILLANCE – A BRIEF OVERVIEW

Following Moffat (1983), there are seven elements to Crime Prevention Through Environmental Design (CPTED) (see Figure 1) which have been discussed in detail elsewhere (Cozens et al., 2001; 2005; Cozens, 2008). CPTED has been defined as “the proper design and effective use of the built environment [which] can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life” (Crowe, 2000, p. 46). This research is concerned largely with the elements of natural surveillance and target hardening/access control. Natural surveillance is the promotion of ‘eyes on the street’ (Jacobs, 1961) using spatial configuration and design (e.g. the orientation/placement of buildings/windows). It is theorized that if offenders perceive they can be observed (even if they are not), they may be less likely to offend. Natural access control focuses on reducing opportunities for crime using spatial definition to restrict access to potential targets and creating a heightened perception of risk in offenders. Target hardening is a micro-level form of access control directed at denying or limiting access to a crime target through the use of physical barriers such as fences, gates, locks, electronic alarms and security patrols.

FIGURE 1. Elements to CPTED (Cozens et al., 2001, adapted from Moffatt (1983) and Newman (1973)).

In a review of studies relating to residential burglary, Sorenson (2003) observes how burglars avoid targets that are readily overlooked by neighbours and/or passers-by. Properties with low levels of lighting at night, high walls/fences, or thick trees or shrubbery can provide concealment opportunities for burglars particularly when close to points of access such as windows and doors (Weisel, 2002). Properties with strong intervisibility of good numbers of entrances “are the safest spaces” (Hillier and Shu, 2000, p4).
It is useful to reflect on situational crime prevention (SCP) which aims to analyse the circumstances “giving rise to specific kinds of crime and introduces discrete managerial and environmental change to reduce the opportunity for those crimes to occur” (Clarke 1997, p.2). The 25 SCP techniques are set out in Table 1 below.

There are two hypotheses that could be adopted using SCP. Firstly, the use of security shutters could increase the risk and effort and reduce potential rewards of crime. This is achieved through target hardening, extending guardianship, concealing targets and controlling access. Alternatively, the use of shutters could decrease risk and effort and increase potential rewards of crime. This is achieved by reducing natural surveillance, reducing guardianship, highlighting potential targets, which require protection and weakening formal surveillance at street level.

**TABLE 1.** The 25 Situational Crime Prevention Techniques (Cornish and Clarke, 2003)

<table>
<thead>
<tr>
<th>INCREASE THE EFFORT</th>
<th>INCREASE THE RISK</th>
<th>REDUCE THE REWARDS</th>
<th>REDUCE PROVOCATIONS</th>
<th>REMOVE EXCUSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Harden</td>
<td>Extend guardianship</td>
<td>Conceal target</td>
<td>Reduce frustration and stress</td>
<td>Set rules</td>
</tr>
<tr>
<td>Control access to facilities</td>
<td>Assist natural surveillance</td>
<td>Remove targets</td>
<td>Avoid disputes</td>
<td>Post instructions</td>
</tr>
<tr>
<td>Screen exits</td>
<td>Reduce anonymity</td>
<td>Identify property</td>
<td>Reduce emotional arousal</td>
<td>Alert conscience</td>
</tr>
<tr>
<td>Deflect offenders</td>
<td>Utilise place managers</td>
<td>Disrupt markets</td>
<td>Neutralise peer pressure</td>
<td>Assist compliance</td>
</tr>
<tr>
<td>Control tools/ weapons</td>
<td>Strengthen formal surveillance</td>
<td>Deny benefits</td>
<td>Discourage imitation</td>
<td>Control drugs and alcohol</td>
</tr>
</tbody>
</table>

However, the relevance and effectiveness of natural surveillance, or ‘eyes on the street’ (Jacobs, 1961) has recently been questioned and there can exist situations where access control can undermine opportunities for natural surveillance (Cozens and Hillier, 2012). This can include the use of high/non-permeable walls (Da Costa, 2009). Figure 1 and 2 illustrate properties with non-permeable and permeable walls. The additional opportunities for surveillance of the street and the property are clearly visible in Figure 2. These opportunities are restricted by the non-permeable wall in Figure 1. Figure 3 illustrates a property with permeable wall, which optimises ‘eyes on the street’. However, the use of security shutters clearly negates this advantage. This study investigates the conflict between surveillance and access control, with regard to residential security shutters.
3. SECURITY SHUTTERS – LIMITED EVIDENCE

Advertisements for security shutters commonly inform the community of high levels of burglaries through unprotected windows. The advertisements espouse the merits of security shutters in preventing such crimes and they are portrayed as a real deterrent to potential offenders.

However, evidence on the effectiveness of security shutters is very limited. A study by Nelson (1999) examined the impact of commercial security shutters on perceptions of safety in the city centres of Cardiff, Gloucester and Worcester. Despite an extensive search, no other studies on security shutters and crime could be located. Nelson’s study (1999) surveyed 1,564 city centre users after dark and the findings revealed that the presence of security shutters contributed to increased fear of crime. They also discouraged use (such as window-shopping or walking in streets with many shutters present) and reduced the level of lighting onto the street. Furthermore, security shutters were perceived to increase crime risks.
Nelson’s (1999) survey indicated shutters can affect behaviour and use of the streets after dark – when the shutters are closed. It has been estimated that 33% of shops use them (Shopfront Security Group, 1994). This research, and visual observations of the increasing use of security shutters in the residential setting in Perth, prompted the need to develop some research that further investigates the issue. The authors asked how prevalent was the use of security shutters in the residential setting – and how are they perceived by other residents/users’. Crucially, in contrast to commercial security shutters, residential shutters are closed during the day.

4. THE RESEARCH

This paper investigates crime and security shutters in a residential setting and reports on the perceptions of 353 respondents (residents in a Perth suburb). 283 respondents did not have roller shutters; 70 respondents did have roller shutters. The survey explores perceptions of crime and ‘eyes on the street’ and contrasts perceptions of crime associated with shuttered and non-shuttered properties. Respondents were shown photographs of properties as environmental stimuli to elicit insights into their perceptions of burglary risk, levels of surveillance of the street, levels of social interaction and levels of safety.

Overall, 71% (n=250) of respondents believed roller shutters reduced burglary. However, 55% (n=194) indicated that roller shutters had a negative impact on a property’s visual appeal. Generally, most respondents indicated that shuttered properties provided significantly lower levels of surveillance of the street and were associated with lower levels of social interaction. Most respondents indicated that they also felt less safety walking past shuttered properties. Clearly, the perception of reduced burglary in shuttered properties comes at a cost – to surveillance opportunities, levels social interaction and feelings of personal safety/security. When we compare the responses of those with security shutters with those without, there are some interesting differences. Table 2 [below] compares the responses to a range of questions.
TABLE 2. Findings: Comparing Shuttered Versus Non-Shuttered Respondents

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>% AGREEMENT SHUTTERED RESPONDENTS (70)</th>
<th>% AGREEMENT NON-SHUTTERED RESPONDENTS (283)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you been burgled in the last 5 years?</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>How many of your neighbours do you know (all or most of them)</td>
<td>30</td>
<td>39</td>
</tr>
<tr>
<td>Do you think that your neighbours act to reduce burglary in your area?</td>
<td>57</td>
<td>47</td>
</tr>
<tr>
<td>Do shutters provide a negative visual change?</td>
<td>26</td>
<td>62</td>
</tr>
<tr>
<td>Should roller shutters be subject to planning regulation to control their use?</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Do you think that roller shutters reduce burglary?</td>
<td>79</td>
<td>69</td>
</tr>
</tbody>
</table>

Interestingly, marginally more respondents living in shuttered properties reported being the victim of burglary in the past 5 years (33% vs. 30%), though fewer knew their neighbours (30% vs. 39%). More of the respondents living in shuttered properties believed that neighbours acted to reduce burglary (57% vs. 47%) and that roller shutters reduced burglary (79% vs. 69%). Finally, respondents living in shuttered properties viewed them as more positive in terms of visual amenity. Significantly, far more respondents in non-shuttered properties (62% vs. 26%) suggested shutters have a negative impact on visual amenity.

Detailed analysis of the data is outside the scope of this paper, but generally speaking, more non-shuttered respondents than shuttered respondents felt that the shuttered property exhibited lower levels of surveillance, social interaction and personal safety than the non-shuttered property.

5. CONCLUSION

The findings from this research largely support the work of Nelson’s (1999) in the retail/commercial setting. Shuttered properties were perceived to reduce burglary, but were also associated with lower levels of surveillance, social interaction and personal safety. The findings also suggest that residential security shutters represent an example of conflict between the CPTED elements of target hardening/access control and natural surveillance. As an example of SCP, the benefits of a hardened target at the individual building level come at the expense of street surveillance, social interaction and personal safety at the community level. Wortley (1996, p128) has argued that “at some point … situational crime prevention runs the danger of becoming counter-productive”. This research suggests that the use of security shutters in residential settings is one case in point.
REFERENCES


Da Costa, C 2008, Exploring the relationship between fencing within the streetscape setback area and its implications on crime, passive surveillance and social interaction within the Perth metropolitan area, Undergraduate Thesis, Department of Urban and Regional Planning, Curtin University, Perth (Western Australia).

Davies, T 2012, Residential roller shutters: the impact on passive surveillance and community perceptions of crime, Undergraduate Thesis, Department of Urban and Regional Planning, Curtin University, Perth (Western Australia).


UP THE DOWN ESCALATOR

Professor Kees Dorst
Designing Out Crime Research Centre, University of Technology, Sydney

ABSTRACT

With this brief paper I would like to sketch a broad perspective on the current status of Design and Crime, and draw lines to the future. Over the last five years, the NSW Designing Out Crime Research Centre here in Sydney has had the opportunity to develop new practices in the area between Design and Crime, and now it is time to step back and reflect on those developments, try to understand our experiences and the insights we have gained and offer them to you for inspiration and reflection.

1. SAFETY AND RISK IN CONTEMPORARY SOCIETY

With the title of this paper, "Up the down escalator", this perspective is set up as a sociological one. There is a general sense in society that things are not going well, that we are actually not well equipped to face the major challenges before us, and that looking forward we can only see a descent into chaos. There are no new ideologies or gurus that we can follow to build a more positive outlook. When Hans Boutellier, Professor of "Safety and Citizenship" at the Free University in Amsterdam, set out to estimate the importance of an issue like safety in our society, he chose the simplest format: he just multiplied the length of news items and measured the length of newspaper columns that he could see were clearly related to safety. He found the percentage to be easily exceeding 50%. That is huge – just think about it, this is the basic value of safety competing for space and attention with ALL the other values in society.

This calls for an explanation. In his book 'The Improvisation Society' (2011) he proposes that the cause of all this unease and angst may lie in the fact that we have transitioned away from just about all the cultural patterns that influenced the lives of our grandparents. Religion, the State (as a paternalistic, unquestioned body of authority), ideology and the stability of the cultural groups that you were born into (and thus would forever belong to) have fallen away. They have given way to a new order, which he names 'complexity without direction'. This new order can be characterized by an increased ambivalence that extends from the decreasing belief in authority to the individual challenge of creating an identity in a very fluid, uncertain and rapidly changing environment. The increasing complexity of our society and the perceived lack of structure lead to frustration, resentment, and a real need to feel safe amidst the turmoil. Hans Boutellier holds this to be the reason our society is crystallizing along the notion of safety. It is no longer a value among many others, it has become a major concern – an obsession, in fact.
Thus we have moved away from thinking about how we should be dealing with criminality as it happens, to the new goal of achieving absolute security at all times. The subjective feeling of risk has crowded out the facts that should be the basis for a reasoned and measured reaction to crimes and misdemeanors. People talk about the need for this risk not to be reduced, but ‘eliminated’ - a clear impossibility, but that is how the discussion goes. The only path to ‘eliminate’ risks seems to be through regulation, the abundance of which creates its own absurdities and problems. Of course the policeman on the beat, confronted with a complex problematic situation will have to improvise on the spot and make the best of it – but nowadays anything they do is filmed by bystanders with their smartphones, and the slightest slip or unfortunate event ends up on the internet. Invariably there is a public outcry, that invariably results in the creation of new rules to make sure that ‘this will never happen again’. Of course such a rule has never prevented anything, and the knowledge that there are extensive rule-books that try to cover any situation doesn’t help the poor policeman.

Behind the cry for an impossible degree of safety (life is dangerous – life-threatening, one might say) is not just a misconception of the nature of risk, but a deeply engrained fear that is unleashed by the confusing complexity of our everyday lives. It is hard to feel safe when you miss a feeling of understanding and control.

2. DESIGN WILL NOT FIX IT

It is important for the Design + Crime community to understand this broader context – some of the things we do could inadvertently be less than helpful, or even exacerbate the descent into a societal order based on fear. An example could be the design projects we see all around the world on creating ‘load bearing vests’ for police. The problem that these projects respond to is very real: police nowadays carry about 13 kilograms of kit, 7 of it around their waist, and this is causing back problems. The design solutions to this problem are commendable: strong and user-friendly vests that allow a better distribution of weight without compromising the reachability. All great – until you realize that the police actually do not use most of the burden they carry anyway. Apart from the absurdity of carrying several generations of communication technology plus spare batteries (where a policeman confided that he uses his private smartphone, not that old stuff), the belt that weighs the police down is full of tools that would have been useful in a certain situation. The mechanism is the same as above: an unfortunate event happens in which it would have made a difference if then had a this-or-that at hand. In the evaluation of the incident it is decided that this-or-that should from now on ALWAYS be carried to make sure that this unfortunate event can NEVER happen again. What is happening here is that an organization like the police, as it struggles to react to the fluidity of the world’s events, becomes stagnated by even more rules. These are opposite movements – the world is pretty fluid now and will become more so in the future. If organisations can only respond by stagnation, they will lose touch with reality and become maladapted bureaucratic monsters. This is where the field of design should solve not just the symptomatic problems by creating a proverbial load-bearing vest. On a much deeper level design could help organizations to re-invent their response to the fluidity of today’s existence, and assist them in moving up the down escalator.

But this is a huge challenge. The trend currently is downwards, towards overregulation and stagnation, and design currently only has a small voice in this arena. This for me establishes both the agenda for this Design + Crime conference and stresses its importance.
3. CREATING NEW APPROACHES TO OLD PROBLEMS

When we look around we can see that many organisations find themselves powerless in the face of the radically open, complex, dynamic and networked problems that characterise today’s society. Their conventional problem solving strategies do not suffice, and their processes and structures are just not made to deal with openness (no clear boundaries), complexity (lots of elements and relationships), dynamics (no time to stop and think) and the networked nature (crossing organisation boundaries) of problems – let alone to deal with problems that display all of these characteristics at the same time. In search for new problem solving strategies, organisations and business schools have recently turned to the design professions (‘Design Thinking’) for help. This interest in Design Thinking tends to be limited to focusing on design practices that are aimed at generating solutions. In the approach to Designing Out Crime as it has been developed here in Sydney, another core quality of design practice, expert designers’ ability to create new approaches to problems (‘Frame Creation’), is taken as the core of a new type of problem solving process. This can be understood when we realize that many of the crime prevention problems we face today have been with us for a very long time, and have proven impervious to conventional problem solving strategies. Design’s ability to create new approaches to problems is particularly relevant to these situations. They need new approaches. To quote Albert Einstein: “A problem can never be solved in the context in which it arose”.

Through a combination of empirical studies into expert designers’ practices, analysis and experimental practice a 9-step Frame Creation process model has been developed that is used in the Designing Out Crime projects. It reliably supports the creation of new frames for problems that in some cases have been around for a very long time. Let’s look at an example.

There have been continuous problems in King Cross, the entertainment quarter in the City of Sydney. This area, with its bars and clubs and its slightly grubby nightlife attracts about 30,000 young people every Friday and Saturday night. As it happens, all the activity is concentrated along a narrow 300 meter stretch of road where the big clubs and many bars are located. The problems that occur include drunkenness, fights, petty theft (pickpocketing) and minor drug dealing. Late at night, the situation often gets out of hand, there is sporadic violence and people do get hurt. This is a deceptively simple crime problem: the common solution would involve investing in extra measures to counter the excesses, and punish the perpetrators. Over the years, the government agencies have been trying to solve this problem by using these ‘strong arm tactics’, mainly through increasing the police presence and installing CCTV cameras. Clubs have been encouraged to hire their own security personnel. All this visible extra security has now made the entertainment district a slightly grim public environment, and while the number of arrests has increased, additional security measures don’t seem to enhance public safety.

Designers from the Designing Out Crime Research Centre took this project on. They quickly realized that the anti-criminal measure really could not work because the people concerned are overwhelmingly young people wanting to have a good time, not hardened criminals. The problems might arise from the fact that this is a crowd of 30,000 young people and that they are not very good at having ‘a good time’. The disorganization of the area and its attractions creates a whole host of truly complex problems for the many parties involved. Using a metaphor (a
‘frame’) to help us understand the issue, one could say this situation could be compared to a good-sized music festival (30,000 people on a festival terrain). To take this analogy further: how would one go about organizing a music festival? A well-run music festival would provide many facilities that were not available at all in the entertainment district, but that could easily be designed in.

For one thing, when organizing a music festival one would make sure that people would be able to get there, but also to leave again when they wanted. In this entertainment quarter, the peak time of young people coming into the area is about 1AM, and the last train leaves at 1.20AM. Getting a taxi later in the night takes about 2 hours, if the driver wants to take you at all (taxis tend to avoid this neighbourhood). So once you are in the entertainment quarter you are basically crammed into a single road until the trains start running again at 6 in the morning. That is ultimately very boring and frustrating. Apart from the obvious improvement of providing more trains, the designers also proposed as a fall back position a system of temporary signage on the pavement, to help party-goers reach a different train station (at 20 minutes walking distance) that has transport running throughout the night. In organizing a music festival, one would also create chill-out spaces and offer continuous attractions to make sure that people will move around, so their experience does not completely depend on what takes place on a single big stage. As it happens, this entertainment district has a few big clubs that are the main attractions. But there is very little else. As a result, young people who have visited a club and go back out on the street might find that the queue for the next one is several hours long. If they decide not to join the queue, they are out in the street again with nothing to do. The designers proposed that problematic pattern of behaviour can be minimized by providing a texting service or a smartphone app, so that people can find out how long the wait for the next club is before going out. In addition, some of the laneways around the central street could be prepared as rest areas, with water fountains and a relaxed “lounge” atmosphere away from the crowds. An obvious thing one would provide for a music festival is enough public toilets. This particular entertainment quarter has only three, one of which is underused because it is located in a rather forbidding looking Police station. Consequently, there is a real street urination problem (not surprising if you calculate the amount of beer being drunk on a good night). The designers proposed introducing a system of mobile toilet blocks.

Over the years, the clubs have hired more and more security personnel and bouncers as part of the conventional approach to solving the alcohol related crime and anti-social behaviour issues. The designers proposed a system of very visible young ‘guides’ in bright T-shirts, who help people find their way through the area and who are also approachable when help is needed. This makes perfect sense: research has shown that people do not approach officials for help unless these officials are approachable for other, low-threshold questions too. These bright and cheery people create a more caring social environment, a stark contrast to the usual security personnel commonly dressed in black. In fact, the introduction of these security personnel has been a major contribution to the grim atmosphere of the area.
These kind of projects (and I do hope to encounter many more during this conference) do give me the hope that yes, with the rich group of professionals we have here we can start using design in this deeper way – not just as a fix for problems but as a real force for creating new approaches to problematic situations that have always been impervious to solution. Design could provide us with some of the crucial tools we need to start moving up the down escalator.

ACKNOWLEDGEMENTS

The author gratefully acknowledges the support and research funding received for the Designing Out Crime Centre from the New South Wales Department of Attorney General and Justice, and from project partners.

Note: The title of this talk, “Up the down escalator” comes from a book by Charles Leadbeater, in which he sets out the case for approaching in novel ways the huge sustainability challenges we have.

REFERENCES

Boutellier, H, 2011, Improvisation society; On the social organization of a limitless world, Tree Lemma publishers, The Hague
THE 5Is FRAMEWORK: DESIGNED TO SHARE KNOW-HOW AND IMPROVE PERFORMANCE IN CRIME PREVENTION

Professor Paul Ekblom
Design Against Crime Research Centre, Central Saint Martins
College of Arts & Design, University of the Arts London

ABSTRACT

In this presentation I begin with the sad story of implementation failure in crime prevention programs, focusing on shortcomings in how we handle knowledge of practice. I then identify several kinds of knowledge of practice. How crime prevention practitioners use them in guiding their work through selection, replication and innovation, leads onto consideration of frameworks for organizing the knowledge. A critique of the most widespread ones is followed by exposition of my own framework, 5Is, expressly designed to be fit for purpose. Finally this is illustrated from various case studies.

1. IMPLEMENTATION FAILURE

Implementation failure pervades attempts to replicate crime prevention practice: one-off ‘success stories’ often fail when mainstreamed (Ekblom 2011). Likewise, the approach of Problem-Oriented Policing (POP) continues to be hard to implement to a high-enough standard (Bullock et al 2006) despite strenuous efforts.

Familiar explanations for implementation failure (e.g. Homel and Homel 2012) include:

- Deficient project management skills
- Limited analytic capacity of practitioners
- Short-term funding
- Over-centralised management
- Unsupportive organisational context

These hinder performance of crime prevention at Policy, Delivery and Practice levels. But I would add a new explanation: limitations of how knowledge is captured through impact and process evaluation, and how it is managed and shared. Associated with this perspective are several themes:

- Failure to handle the messy complexity of choice, delivery and action that creating and maintaining crime prevention requires
- Failure to clearly articulate practice
- Reliance on cookbook replication – it doesn’t work (Pawson and Tilley 1997)
2. KNOWLEDGE OF CRIME PREVENTION PRACTICE

What kinds of knowledge can research and evaluation supply?

- **Know about** crime problems
- **Know what** works to reduce crime/ increase safety
- **Know who** to involve
- **Know when** to act
- **Know where** to distribute resources
- **Know why** – symbolism, values, politics, ethics
- **Know how** to put into practice

Know-how draws all the rest together. Practitioners need it to help:

- **Define** the crime/ safety problem
- **Select** intervention methods which: are evidence-based; are suitable to tackle the targeted crime problems in context; and fit the priorities and available resources of the responsible organisation/s
- **Replicate** the methods intelligently
- **Innovate** where replication is not possible or sensible – eg lack of adequate evaluations, new contexts, new problems

Every replication involves some innovation, principally for customisation to context, and to meet stakeholder requirements. Such innovation requires further actions in monitoring implementation, obtaining feedback, and making appropriate adjustments.

Innovation in turn draws on:

- High-level **principles of intervention**, derived from tested theory, which can generate plausible new ideas where there is no specific evidence base
- Details of **practical methods** whose **elements** can be recombined in different ways to realise existing kinds of intervention in new contexts, or new kinds of intervention altogether

3. KNOWLEDGE FRAMEWORKS

Given the salience of innovation, the ‘design way of thinking and doing’ is important for all kinds of crime prevention practitioners, not just those designing products and places. But to help them draw on design while feeding in crime prevention knowledge, practitioners need frameworks both in their own heads and in shared storage and retrieval systems.

The most widely-used practice guidance frameworks for situational crime prevention are the process model, SARA (Scanning, Analysis, Response, Assessment); the Problem Analysis Triangle for understanding causation of criminal events and intervention in those causes (Victim/Target, Place and Offender, e.g. see www.popcenter.org/about/?p=triangle); and an ordered ‘bestiary’ of preventive methods, the 25 techniques of situational crime prevention (e.g. see www.popcenter.org/25techniques/).

These frameworks have limitations (Ekblom 2011). SARA and the Triangle are simple and easy to learn, but lack the detail to organise knowledge and guide thinking. The Triangle and the 25 techniques table moreover do not distinguish between Principles, Mechanisms and Methods, important aids to replication and
innovation. Practitioners are thus given a quick and easy start but rarely taken beyond the ‘kindergarten’ stage. These limitations restrict research too. Information captured by traditional evaluations also has serious shortcomings which constrain the utility of the evidence-based approach to policy, delivery and practice. Impact evaluation usually focuses heavily on cost-effectiveness, which is too narrow to help selection of interventions. Likewise, process evaluation tends to be done in a way that is too unsystematic for replication and innovation; and the results of both process and impact are poorly organised for storage and retrieval (Bullock and Ekblom 2010).

Elements of the new framework

The new framework I have designed comprises:

• Definitions-in-depth of key terms including crime prevention and community safety. Crime prevention is defined as: ethically acceptable and evidence-based advance action intended to reduce the risk of criminal events ...by intervention in their causes; or alternatively put: ...by frustrating criminal goals, through disrupting activities and organisations directed towards their pursuit. And risk, in turn, is specified in terms of possibility, probability and harm. Community safety is a broader, quality-of-life concept defined elsewhere (e.g. Ekblom 2011).

• A process model, 5Is, serving as both a language and a map for describing the tasks of the preventive process and thereby capturing, evaluating and sharing good practice knowledge: Intelligence, Intervention, Implementation, Involvement and Impact. 5Is is equivalent to SARA but goes into greater depth and detail about the theory and practicalities of preventive action – for example, the ‘R’ (for Response) of SARA is split into 3 aspects covering principles (Intervention), practical methods (Implementation) and Involvement (knowledge of how people and organisations can be mobilised or partnered to implement the interventions).

• A narrower framework, the Conjunction of Criminal Opportunity (CCO – Ekblom 2010), which provides an integrated view of 11 immediate causes of criminal events, covering both situational and offender-oriented aspects and drawing together diverse theories including Routine Activities Theory and Rational Choice Theory; and a counterpart map or menu of preventive intervention principles. These, being analytic and theory-based, can help generate innovative ideas and foster design freedom, acting as a complement to the ‘natural history’
4. ILLUSTRATIONS

The presentation gives several examples of 5Is in use, drawing on case studies of a project to tackle antisocial behaviour (Intelligence, Intervention, Implementation), the Grippa anti-theft table clip (Involvement failure and success), and a systematic knowledge-harvesting exercise in Irish youth centres (across the Is).
On Impact, the 'Choice magazine' approach to selecting interventions to replicate suggests these Multiple dimensions of performance:

- Cost-effectiveness
- Efficient targeting on causes of crime/safety problem
- Prioritisation on harm, needs of victim and wider society
- Coverage on the ground – how much of crime problem tackled?
- Scope – narrow range or broad range of crime types tackled?
- Adaptability – proofed vs. social/technological change and adaptive offenders
- Taking action over appropriate timescales
- Pursuing policies sustainable financially and in HR terms
- Avoiding undesirable side-effects of action and balancing tradeoffs with other policy values
- Maximising legitimacy/acceptability of actions
- Ensuring policies are deliverable in rollout of programs

The ‘zoom structure’ of 5Is is illustrated in the case of Involvement:

5. CONCLUSION

A range of further applications for 5Is and CCO are discussed. I also return to the question of simplicity. Crime prevention/community safety are messy and complex, so I argue that it is futile dumbing down frameworks to communicate with practitioners (who are actually far more capable in this respect than imagined in some circles), if what you communicate can’t deliver successful prevention. But the challenge is for designers to help make the framework usable, something I hope to pursue in producing an interactive tutorial and toolkit.

Information on 5Is and CCO is at http://5isframework.wordpress.com. Please send comments, suggest improvements or participate in development to p.ekblom@csm.arts.ac.uk
REFERENCES


DESIGN OF SUPER HIGH RISE BUILDINGS FOR PROTECTION FROM TERRORISM

Professor Kyung-Hoon Lee
Department of Architecture, Korea University, Seoul 136-713, Republic of Korea.

ABSTRACT

The purpose of this study is to focus on the concept of layers of defence, to deduce architectural design guidelines of super high rise buildings for protection from terrorism and mitigating damage. It is also to suggest a model for assessing vulnerability and deciding on the most vulnerable element, and for cost efficient application of the guidelines.

For these objectives, 4 layers of defence and 27 architectural design elements were deduced and the design elements were categorized into several groups based on the similarity of their purpose and function. Then applicable design guidelines for each element were developed and graded on the basis of level of protection.

In suggesting a vulnerability assessment model, to reflect relative importance of each layer and design element, weights of each element were extracted through the AHP survey of anti-terrorism specialists. To reflect mutual supplementary effects among design elements in the same group of similarity, an evaluation level integration methodology was included.

1. WHY SUPER HIGH RISE BUILDINGS?

Recently, the target of terrorism has been changed from public buildings to private buildings. Especially, as seen in the 9/11 attacks, damages caused by terrorism of super high rise buildings which are social, economic, and symbolic icons of the nation are greater than of other buildings in terms of casualty, economic loss, public fear, and loss of national prestige. So the super high rise buildings have become one of the major targets of terrorism.

The super high rise building industry has been growing continuously, but relatively less consideration has been given to the security issue in architectural design while more consideration given to allow maximum public accessibility.

In Korea, the government has already legislated several laws which state considerations and guidelines for architectural design for protection from terrorism. But in some cases, it could be difficult to meet the guidelines for reasons of circumstance of the site, location of the building, cost of construction and management of the building and so on.

So, it is necessary to develop a vulnerability assessment model in order to predict vulnerability and supplement weak points at the schematic design stage, to lighten the burden of building owners in preparing against terrorism, and to achieve a cost-efficient design.
The purpose of this study is to deduce architectural design elements of super high rise building and their relative importance, and to develop a vulnerability assessment model which can take into account the protection level and the supplementary effects of design elements for protection from terrorism and mitigating damage.

2. ELEMENTS OF DEFENCE

The concept of layers of defence refers to the set up of successive security measures for protecting major property and reinforcing vulnerable elements within triple layers of defence.

In this study, 4 layers of defence and 27 design elements were deduced based on analysis of anti-terrorism guidelines in Korea, US, and the UK. The design elements were categorized into 7 supplementary groups according to their function and purpose. For assessing vulnerability, design guidelines of each element were classified into 5 grades on the basis of protection or risk level. Table 1 shows the structure of layers of defence.

**TABLE 1. Structure of layers of defence**

<table>
<thead>
<tr>
<th>LAYERS OF DEFENCE</th>
<th>SUPPLEMENTARY GROUP</th>
<th>DESIGN ELEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surroundings</td>
<td></td>
<td>Occupancy use (0.467)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of occupants (0.129)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Building height (0.165)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Target density (0.238)</td>
</tr>
<tr>
<td>1st layer</td>
<td>Stand off (0.781)</td>
<td>Distance from the tower to a public road (0.740)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Separating vehicular access points (0.111)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjacent surface parking (0.150)</td>
</tr>
<tr>
<td></td>
<td>Preventing from vehicular penetration (0.219)</td>
<td>Location of perimeter barrier (0.610)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd layer</td>
<td>Access control (0.605)</td>
<td>Location of vehicle access control (0.799)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Circulation control (0.110)</td>
<td>Preventing from high speed approach (0.228)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Separating (0.286)</td>
<td>Distance from the tower to a roadway (0.325)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd layer (0.065)</td>
<td>Building envelop (0.675)</td>
<td>Building configuration (0.141)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Window support type (0.132)</td>
<td>Glass type (0.176)</td>
</tr>
<tr>
<td></td>
<td>Publicly accessible column (0.388)</td>
<td>Shedding inner air-blast load (0.163)</td>
</tr>
<tr>
<td>Space zoning (0.325)</td>
<td>Loading dock location (0.335)</td>
<td>Mail screening measures (0.243)</td>
</tr>
<tr>
<td></td>
<td>Access control by space zoning (0.244)</td>
<td>Separating public and secured area (0.178)</td>
</tr>
</tbody>
</table>

* Values in parenthesis refer to weights of each layer, supplementary group, and design element.

### 3. VULNERABILITY ASSESSMENT MODEL

Weights of design elements were extracted through the AHP (Analytic Hierarchy Process) survey of anti-terrorism specialists for reflecting relative importance of each design elements (Table 1). And for reflecting mutual supplementary effects among design elements within same group, an evaluation level integration methodology using weighted geometric mean is included in the model.

Table 2 shows the effect of the weight of design element to vulnerability and the difference between weighted arithmetic mean and weighted geometric mean. Although other elements were assessed as most vulnerable (grade 5), the distance from the tower to a public road, the most heavily weighted design element was assessed as least vulnerable (grade 1). So the overall vulnerability of this supplementary group was not high. Also, as a result of supplementary effect among design elements, weighted geometric mean was lower than weighted arithmetic mean.

**FIGURE 1.** Weighted arithmetic mean and weighted geometric mean

\[
\bar{X} = \frac{w_1 x_1 + w_2 x_2 + \cdots + w_n x_n}{w_1 + w_2 + \cdots + w_n}
\]

\[
\bar{X} = \left( \prod_{i=1}^{n} x_i^{w_i} \right)^{1/\sum_{i=1}^{n} w_i}
\]

[a] Weighted arithmetic mean  
[b] Weighted geometric mean

As a vulnerability assessment model, a bottom-up formula was suggested using the hierarchy and weights of design elements (Figure 2). First, the vulnerability level of each applied design element is assessed by experts in anti-terrorism and architectural design. Subsequently, the vulnerability level of each supplementary group is extracted by calculating the weighted geometric mean of design elements within the same group. Then, the vulnerability level of each layer of defence is extracted by calculating weighted arithmetic mean of supplementary groups within the same layer. Finally, overall vulnerability of a building is extracted by calculating weighted arithmetic mean of layers of defence.
TABLE 2. Comparison between weighted arithmetic mean and weighted geometric mean

<table>
<thead>
<tr>
<th>DESIGN ELEMENT WITHIN SAME SUPPLEMENTARY GROUP OF STANDOFF</th>
<th>WEIGHTS</th>
<th>ASSESSED VULNERABILITY</th>
<th>WEIGHTED ARITHMETIC MEAN</th>
<th>WEIGHTED GEOMETRIC MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance from the tower to a public road</td>
<td>0.740</td>
<td>1</td>
<td>2.045</td>
<td>1.522</td>
</tr>
<tr>
<td>Separating vehicular access points</td>
<td>0.111</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjacent surface parking</td>
<td>0.150</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The model suggested in this study could be used for supplementing weak points in a design process, achieving a cost-efficient design, and listing or managing buildings with a high risk of terrorism.

REFERENCES

DoD 2002, DoD Minimum Antiterrorism Standards for Buildings
FEMA 2003b, FEMA 427. Primer for Design of Commercial Buildings to Mitigate Terrorist Attacks
Ministry of Land, Transport and Maritime Affairs of Korea, 2010, Design Guidelines of Multi-use Facilities for Protecting from Terrorism
NaCTSO, 2008, Counter Terrorism Protective Security Advice for Commercial Centres
DRIVER AS FLASHPOINT: DESIGNING OUT CRIME IN THE AUSTRALIAN URBAN BUS TRANSPORT SECTOR

Assistant Professor Robyn Lincoln
Bond University, Gold Coast AU

Yolande Huntingdon
Bond University, Gold Coast AU

ABSTRACT

This paper explores the prevalence, incidence and consequences of verbal and physical attacks against bus drivers as part of the initial descriptive phase of an ongoing research project. There appear to be no Australian studies investigating on-board violence against drivers and very few in the international literature. In addition there is a low level of reporting of incidents (10%) and so a key focus of the current project is to design an innovative data collection tool. The ultimate aim of the year-long study, however, is to explore design features (largely drawing on the field of situational crime prevention) that may impact on this apparently increasing phenomenon of antisocial behaviour and criminal offending on urban buses. Preliminary discussions with drivers and initial observation sessions have identified a number of “unsafe” features that highlight significant vulnerabilities for drivers, and these are presented here.

1. DRIVER AS FLASHPOINT

The potential for violence against bus drivers is exacerbated by a suite of factors relating to their isolation, low levels of guardianship, immediate proximity to passengers and the fact that they engage in cash handling procedures (Couto et al 2009; Essenberg 2003; Kompier & DiMartino 1995; Moore 2010; Morgan & Smith 2006). Studies indicate that the majority of public transport-related workplace violence (73%) is linked to buses ahead of other transit sectors such as trains and taxis (Burrell 2007; Merecz et al 2009) and that these offences are predominantly of a serious and violent nature (83%), such as robbery and wounding (Burrell 2007).

Over the last two decades consistent patterns of occupationally related illness have been reported in urban drivers such as cardiovascular disease, fatigue, high blood pressure, early death (Evans & Johansson 1998) and elevated levels of stress-related hormones such as adrenaline and cortisol (Kompier & Di Martino 1995). One study found that 13 percent of bus drivers suffered mental ill-health that was comparable with psycho-neurotic outpatients (Duffy & McGoldrick 1990) and another that 23 percent met criteria for chronic posttraumatic stress disorder, a rate similar to victims of natural disasters (Fisher & Jacoby 1992). Other research has reported on psychological outcomes for drivers that include high levels of pervasive and persistent feelings of hopelessness, clinical depression, anxiety and hypervigilance (Tse et al 2006).
2. LOW REPORTABILITY AND ABSENCE OF DATA

Although some Australian studies have considered occupational stress for bus drivers (Shapiro et al. 1983), crime prevention in the transport sector (Eastale & Wilson 1991), assaults on taxi drivers (Mayhew 2000) and more recently general workplace violence (Mayhew & Chappell 2007), research specifically involving violence against Australian bus drivers is non-existent. Furthermore, there are no central data collection agencies with the remit to gather and analyse the incidence of disorder and crime in our bus networks as is available in places like the UK (Morgan & Smith 2006).

In regard to the reliability of driver incident reports which are most often held by private providers of transport services it is suggested, from the international arena, that less than ten percent of attacks are reported by drivers in any official capacity (Bishop et al. 2009). Three main reasons have been posited for this underreporting (Bishop et al. 2009):

- Management inaction — that nothing would result from the reporting of incidents despite policies to the contrary
- Time constraints and paperwork — that the complex forms require additional time and commitment at the end of a busy shift
- Hypermasculine culture — that there is a perception that low-level incidents should be dealt with by the drivers and it was better not to cause a “fuss”.

3. DRIVERS’ PERSPECTIVES

Preliminary discussions with drivers and initial observation sessions yielded a number of common themes about environments and facilities identified as “unsafe”. The following seven images provide examples of problematic bus design, safety features and external environments. Images 1 to 4 demonstrate the heightened vulnerability of drivers related to aspects of the interior and exterior bus design and amenities. While screening drivers (Image 1) has been implemented in some jurisdictions in Australia, concerns have been expressed about the capacity of offenders to cause physical harm while simultaneously using the screen for their own protection. Similarly there have been attempts to address cash handling issues but here as is shown (Image 2) the cash is highly visible, unprotected and in close proximity to the driver. A further design feature is the emergency door release (Image 3) that is on the outside of the rear door and is not alarmed. When pressed, the back door can be opened without the authority (and sometimes without the knowledge) of the driver.

Another important consideration relates to the venues provided for drivers for meal and comfort breaks. Image 4, for instance, shows a designated meal location that includes a small public toilet block deep within a park where drivers state that they feel at risk of assault. Images 5 and 6 provide examples of problematic commercial and environmental design. In these locations missiles are commonly thrown at or dropped on buses from the top verandah of a popular inner-city hotel (Image 5) and a maze of shrubbery at a major bus interchange (Image 6) affords concealment for offenders throwing rocks and other objects. Image 7 demonstrates that antisocial behaviours may be addressed by changes in interior design or décor, even on “hot” routes and during “hot” times. This image of a “Santa” bus with its themed lights and garlands has been employed on busy routes at peak times and reportedly remains relatively “trouble-free”.
Our initial discussions with informants in this study have also yielded criticisms and considerations regarding some prevention techniques and the manner in which they have been implemented. It should be noted that many of these strategies are not currently operating in the study area of the Gold Coast, but some drivers have experience of them in other states/territories. Drivers complain that target hardening using screens makes it difficult for them to hear and interact with passengers and the design of the screens means that there remains ample potential for them to be physically attacked. Other reactive measures such as a spit kits to capture DNA or the use of CCTV, garners little support from drivers because they had little faith in the justice processes that would render these techniques effective.

With respect to the provision of additional measures such as the use of alarms to summon police, mobile security units or security staff at bus stops, there was a general pessimism about the efficacy of these interventions. Finally, in regard to the introduction of automated ticketing systems (eg the Go-Card in Queensland), drivers reported that there had been no discernible decrease in cash-handling as passengers were frequently asking for top-ups of small amounts such as five dollars when boarding.

**IMAGE 1.** Driver security screen  **IMAGE 2.** Unprotected cash handling

**IMAGE 3.** Exterior door release  **IMAGE 4.** Isolated driver stop
FIGURE 1: Drivers’ perspectives on a range of crime prevention measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screens</td>
<td>Can’t hear, still accessible, disrupts interaction with passengers</td>
</tr>
<tr>
<td>Spit Kits</td>
<td>Reactive only, lack of faith in justice processes, may be no match</td>
</tr>
<tr>
<td>CCTV</td>
<td>Reactive only, often not operational, rarely monitored</td>
</tr>
<tr>
<td>Signs</td>
<td>Mostly ignored, not attractive/hard to read, too many/cluttered</td>
</tr>
<tr>
<td>Alarms</td>
<td>Too few units to respond, only useful if quick response time</td>
</tr>
<tr>
<td>Security</td>
<td>Need to be on-board, often poor personnel choice</td>
</tr>
<tr>
<td>Fare Cards</td>
<td>Few machines, increased cash handling, frequent small top-ups</td>
</tr>
</tbody>
</table>

4. THE RESEARCH PROJECT

An earlier phase of our research program involved the production of a scoping paper, *Behind the Wheel and in the Line of Fire* (Huntingdon & Lincoln 2012) that summarised the international literature, isolated promising crime prevention techniques and included a media content analysis of the state-based daily newspaper over a five-year period. The findings of the media analysis revealed that service issues (43%) comprised the largest proportion of bus-related newspaper articles followed by crime/disorder incidents (29%) as the next largest category.
The scoping paper provided a platform for discussions with industry groups and to that end a presentation was made to representatives of the Transport Workers Union in August 2012, and in attendance was the Minister for Transport in Queensland, Mr Scott Emerson. This has now led to significant federal government funding from the Researchers in Business scheme where the criminology researchers from Bond University will collaborate with industry partners (namely, the Transport Workers Union, Surfside Buslines, the Queensland Bus Industry Council and TransLink). While the project is limited, at present, to southeast Queensland there are plans to embark on national research in the future.

The project will be funded for twelve months from January 2013 and comprise three stages. The first stage involves a series of focus groups with bus drivers to gather qualitative data on general workplace and service issues, crime and disorder problems, and their perspectives on potential prevention strategies. Another descriptive stage of the project involves ride-along observational sessions targeting a selection of the most problematic routes as well as in-depth interviews with key stakeholders (politicians, union leaders, commuter groups). A survey of drivers is to be distributed to yield broader quantitative data. The third stage comprises the design and installation of tablet devices on buses that will be programmed to capture details about incidents of violence and antisocial behaviour. The results of the analyses of these data will provide, for the first time in Australia, a comprehensive picture of the nature and level of disorder and crime on buses in an urban environment and potential crime prevention measures to deal with these issues.
REFERENCES


Huntingdon, Y & Lincoln, R 2012, Behind the wheel in the line of fire: a preliminary study of violence against bus drivers from a crime prevention perspective, Bond University, Gold Coast.


Beyond CPTED: Reframing the Problem of Urban Form

Associate Professor Heather MacDonald
School of the Built Environment, DAB, University of Technology, Sydney

Abstract

The purpose of this paper is to argue that urban design considerations need to be broadened beyond the physical if we are to develop liveable, safe, and socially sustainable environments. There is persuasive international evidence that the spatial marginalisation of disadvantaged residents in warehouse estates disconnected from the metropolitan economy undermines social sustainability, and constrains the life prospects of children who grow up in these suburban ghettos.

While CPTED principles may reduce the likelihood of victimisation in specific places, a parallel concern with economic and social integration is needed to reduce overall rates of victimisation across our cities. I review the evidence for “neighbourhood effects” on life chances, and critically assess the extent of social segregation across the Sydney metropolitan area. The presentation concludes with a discussion of the potential for integrating social equity considerations into mainstream debates about crime prevention.

1. Introduction

Do some places encourage crime? The architectural and urban design roots of CPTED frame the question “why does crime occur?” in two ways: as a question about the opportunities criminals find in the built environment, and as a question about perceived ownership and control. The first question is solved by increasing activity on the street, improving visibility and passive surveillance. The second is addressed with solutions framed around controlling access, demarcating the public from the private, and managing visible symbols of control [such as graffiti and, famously, “broken windows”]. None of these are necessarily bad things, and at worst provide a disarming sense of security.

In this paper I argue that framing the urban form problem as a lack of clear ownership and social control is flawed. I propose an alternative view, drawing from a different set of social research traditions that have had little to say about urban design at the scale of the street or precinct, but quite a lot to say about how the structure of cities reinforces social and economic exclusion.

2. Communities of Disadvantage

William Julius Wilson’s 1987 book “The Truly Disadvantaged” articulated the social theories underpinning what is known as the “neighbourhood effects” model: that concentrated poverty, intersecting with family structure, individual characteristics, and racially-based social exclusion created communities of disadvantage that made it more likely individuals would make bad choices.
Wilson’s book turned the debate about poverty and social decline around. It stimulated a series of social experiments around the relationship between where people live and how likely they are to be employed, remain healthy, or engage in crime.

But the findings of these experiments have been complicated. We have quite weak evidence that moving to wealthier neighbourhoods substantially affects crime rates. The effects that have been observed are also far from good policy guides: rich neighbourhoods may change life chances, but they may also just reflect more visible and better enforced levels of social control.

An alternative interpretation of Wilson’s work, drawing on that of urban economist John Kain (1968), argued that the spatial mismatch between low-skilled workers and low-skilled jobs was a significant cause of low employment and low labour force participation. Lacking private cars or decent public transit links, the residents of poor communities were likely to remain disconnected from economic opportunity. Networks that included fewer employed people also meant restricted information about possible jobs. The implication was that instead of moving people to different neighbourhoods, increasing accessibility to a wider range of labour markets would improve economic and thus social outcomes. For instance, in a study of Atlanta census tracts, Ihlandfeldt (2002) finds that differences in job accessibility between neighbourhoods account for 21% of the observed differences in property crime rates between black and white neighbourhoods (with smaller but nevertheless significant differences for violent crime and drug-related crime).

There is a long-standing recognition of the links between unemployment and crime, especially for young males (The Economist 2011; Fougère, Kramarz, and Pouget 2009; Carmichael and Ward 2000), although relatively few researchers have made the link to spatial structures of opportunity. In Australia, Chapman et al (2002) find a clear association between the duration of male youth unemployment and the likelihood of involvement in crime (controlling for the mediating effect of high school completion).

3. THE SYDNEY EXPERIENCE

The research summarised above is interesting, but does it apply to Sydney? Sydney’s metropolitan structure has evolved into almost the reverse of US cities. High priced inner suburbs may contain substantial proportions of poor residents, but disadvantage is concentrated in more distant suburbs. Disadvantage is no longer most closely correlated with high density inner city slums, but instead with very low density tracts of isolated housing estates.

Considering two of Sydney’s areas of concentrated disadvantage (Bidwill and Claymore) reveals some similarities in urban form and perhaps some parallels in economic and social processes. Both are public housing estates that were developed as single-use residential enclaves, with scarce local job opportunities. A brief analysis of the commuting options residents of these two neighbourhoods may have to the sorts of entry-level jobs that adolescents and young adults would typically take, reveals some striking mismatches.

For instance a resident of Bidwill employed in a hypothetical job in the Quaker’s Hill McDonalds, about 10km away, would have a fairly easy car trip of about 17 minutes. But the same home-work trip by bus would be far more daunting, particularly at the sorts of time a fast food employee might need to commute.
For someone ending a shift at 8pm, a bus trip of between 46 minutes and an hour and twenty minutes, involving two buses, would entail a total daily commute of between 1.5 hours and 2 hours. For someone working a part-time shift at relatively low wages, the opportunity costs of such a trip may be unappealing.

Similarly, a young resident of Claymore might get a job at Camden Golf Club, just over 13km away, and an easy 18 minute drive by car. Without a car, this same hypothetical golf club employee would face a burdensome trip of between three quarters of an hour and an hour each way, assuming work ended at 5pm. For a part-time worker, that would translate into nearly two hours a day.

Despite the fact that Sydney offers far more complete public transit options than the typical US city, there may be quite strong evidence for a spatial mismatch between communities of disadvantage and a wider labour market.

4. REFRAMING THE PROBLEM

The spatial mismatch between concentrations of low-skilled workers and low-skilled jobs is clearly not the only or primary reason influencing the life-choices of disadvantaged adolescents and young adults. But the spatial manifestations of social and economic exclusion are likely to be contributing factors, and they pose an alternative set of design challenges to those strategies emphasising the symbolism of social control.

Creating jobs in disadvantaged places is difficult and costly. But reframing the problem to think instead about how we could increase effective local demand for goods and services by redeveloping low density suburbs, in particular the “left over” swathes of dysfunctional public spaces that are resistant to CPTED solutions, may be a pragmatic alternative.

Designing public transit to maximise connections between widely-spaced heavy rail stations in low-density suburbs is costly. In the US, one cost-effective alternative was to provide subsidised cars to welfare-dependent people. That was feasible in a low-cost car ownership society. But there are car-share alternatives (including privately owned cars shared with others to reduce costs) that might work effectively in some of the most disconnected neighbourhoods.

Paying more attention to employers’ problems of accessing labour markets could also reframe the problem. Groups of employers might find it attractive to expand their labour pool by subsidising shuttle buses connecting car-dependent locations to train stations, timed to coincide with work shifts.

None of these strategies offer a magic bullet. But when we’re debating how to create socially resilient, safe communities, city planners need to think beyond CPTED principles and more CCTV. Reconsidering the role that transport, urban form, and economic development play in reproducing social disadvantage doesn’t only promise to reduce crime rates – fixing those failures will do much more for liveability, social sustainability, and, you could argue, our “happiness index.”
REFERENCES


A MATTER OF COMPROMISE: 
AN EVALUATION OF PASSENGER-DRIVER CONTACT THROUGH THE 
DESIGN, DEPLOYMENT AND ANALYSIS 
OF ROUTE BUS DRIVER SECURITY 
SCREENS.

Dr. Robbie Napper 
MADA, Monash University

ABSTRACT
This research evaluates the design of driver security screens for Australian route buses. The design and deployment of a modular security screen design in over 1000 vehicles over the last 3 years is analysed to show the different levels of driver protection, and the consequent compromise to other operational considerations.

1. INTRODUCTION
The modular system is analysed to show the different levels of driver protection available and the subsequent effect this has on driver safety, operations such as ticket purchasing, and safety considerations such as sightlines. These compromises are further examined in the development and testing of a total-exclusion driver’s security screen. This screen was deployed for field testing and evaluation by an operator-administered survey showing a polarisation of opinions.

Driver protection is found to be in direct conflict with normal bus operations, and to be a very personal issue for drivers. Verbal and visual contact with passengers are significantly diminished with the deployment of security screens; exacerbated by the degree of protection afforded. The compromise necessary in the design and deployment of security screen devices, especially in the route bus environment, means that a standardised system will be difficult to implement satisfactorily.

2. THE RESEARCH OUTLINE
A review of driver’s area designs across public transport modes was conducted, highlighting some key characteristics of a bus driver’s area as distinct from other modes. This review determined that the driver’s area must be considered as part of the ingress and egress strategy for the bus saloon, with particular reference to the impact of ticketing and other sundry tasks on the buses’ operation. The bus driver’s area must accommodate an array of switchgear; the configuration of which is dependent on chassis and operator requirements. Drivers’ areas from other modes exemplify the difference in operational
requirements, particularly between buses and rail modes, where driver protection is provided by complete segregation from passengers. The additional segregation provided in train and tram modes creates the design opportunity for enhancing the driver’s view of the outside environment. A significant difference in route bus drivers’ areas to those in other modes is that the bus driver is expected to maintain contact with passengers. This naturally leads to tension between driver-passenger contact and driver safety as explored later in the focus groups.

With a view to protecting their drivers, many bus operators specify some type of physical security screen to the driver’s area in the bus. The purpose of these screens is to reduce the incidence and severity of attacks on the bus driver. Prior to 2009, the security screen provided in Volgren vehicles was selected from a range of options, or in many cases a bespoke design was created to meet an operator’s stated need. Operator needs make the specification of such screens contentious, as the needs would appear to be different. Early research carried out in this area shows that while operator needs may ostensibly differ, the root causes of screen specifications remain largely similar – that is, to satisfy driver safety – with variations in such need expressing differences between operators in their geography, history and precedents set by earlier designs (Napper, 2010b, 2011).

3. THE METHODOLOGY

Focus group data were captured by audio recording and typed into transcripts by the author. The transcripts were then interpreted to gather the main points of contention in driver’s area design, summarised as:

- Driver safety from passengers.
- Driver access to passengers.
- Thermal and auditory comfort.
- Reaching tasks uncomfortable.
- Glare and reflections.
- Access to electrical centres.
- No storage for cleaning equipment such as broom.
- Difficulty of cleaning.
- Cluttered appearance.

The first two points in this list show that for a bus driver, there is a potential conflict in their tasks. On the one hand the driver is expected to provide information, guidance, wayfinding and fare information and transactions to passengers, while on the other hand needing to remain safe from verbal and physical attack. Bus drivers are well aware of the presence they provide on the vehicle, generally viewing passenger interaction as part of their job in line with other research in this area (Booz Allen & Hamilton, 2000), as the following focus group extracts illustrate:

“... I think people feel safe catching buses. We see a lot of young teenagers catching buses by themselves late at night, so there must be some form of security.” (Bus Driver, focus group one, Melbourne)
“I don’t think it takes a lot of time to answer a question. You’re always getting stacks of questions, but after you’ve been in the job for a while you can anticipate the question. Some passengers it takes a little bit longer, but on average I don’t think it takes long to give some advice, tell them which bus to catch.” (Bus Driver, focus group one, Melbourne)
"I think it’s important that the passengers have easy access to the drivers for information. Some of the security screens that are coming up these days are a bit restrictive, and it puts a barrier between the passenger and the driver. Your driver is an information centre for the passenger.” (Bus Driver, focus group one, Melbourne)

4. THE RE-DESIGN

The project went on to redesign the bus driver’s area implementing a mass customisation approach (Napper, 2010b) as part of a broader study (Napper, 2010a). The critical design interventions being that user needs are determined before the bus is designed; and development work is conducted by the manufacturer in reaction to these and other needs. The design research project demonstrated this with the design of the new modular security screen.

As shown through the options in this modular system, there are compromises to be considered in the specification of such devices. The geometry of the screens above afford a driver some protection, however there is still the possibility of more extreme acts of physical violence being carried out. For example, it is still physically possible for a passenger to climb over the dashboard and confront the driver. The function of the modular security screens can then be considered as a deterrent, and while successful in many cases, it does not completely remove the possibility of attack. Although not for the first time, such attacks regrettably occurred in an Australian city in the second quarter of 2011; the severity and political timeliness of which led directly to the commissioning of a new design project to create a total-exclusion screen for route buses.

Development of the total-exclusion design and subsequent survey of bus drivers showed that the design polarised opinion. Although on a scale of 1-5 with 5 being excellent the screen averaged a score of 2.93, some survey responses indicated either bad or excellent extremes across all factors of evaluation.

Through analysis of the specification of security screens, the research brings into question the notion of prevention by social surveillance rather than physical exclusion. A noted property of bus transport is the presence of the driver as authority figure; a comparison of metropolitan bus specifications suggest that the openness of driver access to the passenger saloon may prevent incidents from occurring in the first place.

REFERENCES


Napper, R 2010a, Designing route buses: From bespoke to mass customisation, Doctor of Philosophy Thesis, Monash University, Melbourne.


PREVENTING TELECOMMUNICATIONS FRAUD: RESPONSIBILISATION AND GUARDIANSHIP

Dr. Julianne Webster
Griffith University

Superintendent Brian Hay
Queensland Police Service

ABSTRACT

The primary aim of this paper is to discuss how designing third-party policing responses to cyber-fraud – which is facilitated through telecommunications corporations – can better protect consumers and prevent crime. We discuss the prevalence and cost of frauds enabled by cyber environments, we briefly discuss comparative international third-party liability systems and we conclude by questioning the efficacy of the present Australia’s approach to prevent cybercrime.

1. INTRODUCTION

Cybercrime is a distinct type of crime which typically does not involve an offender and victim that share the same or similar geographical location (Schruers, 2002, ACC, 2011). For non-cybercrime, traditional law enforcement efforts generally focus investigative attention on the locality of the victim and offender at the time of the offence. However in the context of cybercrime a similar law enforcement focus is rarely possible, due to the predominant transnational nature of these offences. In the cyber environment, for the crime to be committed, multiple actors to enable the crime to occur (AustGovt, 2009). The transnational nature of cybercrime relies upon the engagement of additional actors who facilitate access between the offender and victim (ACC, 2011).

In this paper, we argue that the speed of the internet and the prevalence of cybercrime victimisation demand a new paradigm of thought which encompasses the consideration of these ‘other’ actors and the roles they play to facilitate cybercrime – and likewise the types of roles they could play to correspondingly prevent this crime. In doing this we question the adequacy of the present response in Australia to cyber-fraud problems with particular reference to third-party liability for responding to illegal content being transmitted through email. Our review of the issue includes consideration of present international legislative response and proposes that measures to strengthen guardianship are necessary to have a greater impact on preventing cybercrime, in particular - cyber-fraud.

5 The views expressed in this paper are the authors’ own.
For the purposes of this paper, we define cyber-fraud as the transmission of a range of email communications that seek to defraud. In this context, the cyber-fraud offender utilises the services of ISPs in the transmission and subsequent delivery of email communications to the victim’s computer. Therefore, the ISPs are the vital and necessary link between the fraudulent email communications and the recipient of these communications.

2. PREVALENCE OF CYBER FRAUD

Although the nature of the cyber fraud problem is difficult to ascertain with accuracy\(^6\), a number of surveys have estimated the prevalence of victimisation.

In 2012, a survey conducted by Norton of 13,000 people from across 24 countries showed that 72 per cent of respondents had been a victim of cybercrime. Crimes ranged from viruses; online credit fraud; unsolicited pornography; phishing and receiving excessive spam. The direct costs associated with these cybercrimes were estimated at US $110 billion for the preceding annual period. The results of the survey highlighted increases in ‘new’ forms of cybercrime compared to last year – such as those involving social media and mobile devices. In terms of the volume of malicious attacks, Symantec reported that its services blocked 5.5 billion malicious attacks in 2011 up from 3 billion in 2010 – an increase of 81% in one year.

An Australian Bureau of Statistics (ABS) survey published in 2008 estimated 806,000 people in Australia experienced personal fraud in the preceding 12 month period; with personal financial losses of almost $977 million. Victimisation was estimated to be five per cent of the population aged 15 years and over. Of this, identity fraud accounted for 3 per cent or an estimated half a million people (499,500) being victimised(ABS, 2008). In comparison, estimated victimisation jumped to 1.2 million Australians in 2010-2011. The latest estimates place national victimisation for personal fraud at 6.7 per cent of the population aged 15 years and over and the associated costs in Australia from these personal frauds was $1.4 billion in 2010-11 (ABS, 2012). However, one particular nuance of this environment that is not measured is the under-reporting of cybercrime. Perhaps this is best illustrated by the work undertaken by the Fraud and Corporate Crime Group, Queensland Police Service; with respect to Nigerian Advance Fee Fraud facilitated via the internet. In 2009, 200 people were interviewed about the circumstances involved in their sending money to Nigeria. Of these, at least 186 were victims of fraud and had collectively lost more than $21 Million. Perhaps the most alarming aspect of these losses is that no one had made a complaint to police.

Australian payments and clearing association (APCA) figures show that in 2011, losses on Australian issued credit cards through ‘card not present’ fraud was more than $197m, with a further $58 million lost through counterfeit card skimming and the use of counterfeit cards\(^7\).

Costs of fraud victimisation internationally show similar characteristics with the United States Internet Crime Complaint Center stating in their 2012 report that over 314,000 (314,246) complaints were received in 2011. Of these, nearly 116

---

\(^6\) Underreporting is very common for these crimes, due to the potential for financial corporations to suffer loss of consumer confidence.

000 (115 903) involved financial loss, with the total loss being over $485m ($485 253 871); with an average loss of $1544 per person (IC3, 2012).

In the United Kingdom a December 2011 nationally representative study by the National Fraud Indicator (NFA), conducted face-to-face interviews with 1,775 people aged 16 years and over. The study found that approximately 6 per cent of participants identified that they had been a victim of some type of cybercrime within the preceding two years. Figures reported by the NFA calculated the overall cost to the UK economy from cybercrime at 27 billion pounds in 2011 (UKGovt, 2011).

More specifically, in respect to email deliveries, organisations such as RSA report on monthly ‘phishing’ attacks perpetrated internationally (RSA, 2012). These data show that in the 12 months from November 2011 to November 2012 a total of 345,278 separate ‘phishing’ attacks were detected.

The extent of the cyber fraud problem is significant and the data suggests that current strategies need to be improved; as the number of victims and the amount of losses continues to increase annually.

3. CURRENT RESPONSE TO THE PROBLEM

In December 2010, Australian ISPs were able to support a national and voluntary scheme called the ICODE to help protect their customers and their networks (AustGovt, 2009). The ICODE provides a consistent approach to help ISPs inform, educate and protect their customers in relation to the cyber security issues. The ICODE is not a statutory obligation – it is a voluntary measure designed to encourage individuals and ISPs to promote a better cyber security culture.

Previously, Australian lawmakers have imposed duties to access providers to prevent the accessibility of objectionable content governed by the Broadcasting Services Act 1992. However, the Act does not relate directly to the issue of cyber fraud and provides only guidelines for family friendly filtering arrangements, which are also voluntary for ISPs to adopt (ACMA and AISI).

Internationally there has been extensive consideration of the liability of Internet Service Providers (ISPs) with regard to the content made available via their services (Carlye, 2000). However, much of the commentary has revolved predominately around defamatory material, pornographic images and little has been done to address the ISP’s liability for acting as a vehicle of fraud and cybercrime.

In the European Union, an ISP is liable if they are found to deliberately collaborate with one of the recipients of their service in order to undertake illegal acts (Kleinschmidt, 2010). Finland has a takedown notice relating to copyright and related rights infringements (Verbiest, 2007) and Hungary has implemented a notice and take down procedure with regards to infringement of intellectual property rights (Spindler, 2007). The United Kingdom’s E-commerce Directive is legislated and confers liability to service providers concerning content transmitted if they are aware of the information and fail to remove or disable access to the information. In addition, the United Kingdom has mandatory data breach disclosure legislation. In particular this protects consumers who have had their personal details compromised or stolen from a third-parties database. The implications of this legislation are that it makes the
third-party holding that information more accountable for that information, and
hence they take the security of that information seriously and acting accordingly.
However, the United Kingdom ISP will not be liable if they did not initiate the
transmission; did not select the receiver of the transmission; and did not
select or modify the information contained in the transmission [The Electronic
Commerce (EC Directive) Regulations UK 2002]. In Japan, an ISP is liable if it
was “technically possible to take measures” to disable or remove illegal content.
It appears the United Kingdom and Japan are the most proactive countries
when it comes to reducing customers’ vulnerability to being exposed to illegal
content via email transmissions.

We believe that in the context of a growing problem, it is timely and important
to ask “Does the ICODE work?” We believe Industry would definitely say “yes”
based upon the premise that the last desired action of government is regulation.
Nevertheless, it is important that after two years of operation, the ICODE could
benefit from being subject to a comprehensive evaluation.

4. INCREASING GUARDIANSHIP AND RESPONSIBILISATION TO
IMPROVE PREVENTION OUTCOMES

Australia as well as other countries have acknowledged the pivotal role of
ISP’s in cybercrime (Kleinschmidt, 2010, AustGovt, 2009). The crime triangle
originated by Marcus Felson describes how crime occurs when offenders, places
and victims converge in space and time, in the absence of capable guardians
(Felson, 1987). The routine activity approach typically depicted through the
crime triangle, illustrates that when capable guardians are mobilised that crime
opportunities can be reduced; and crime can be prevented. Often the application
of the crime triangle is in the context of a single crime prone place; for example,
an intervention targeted to a drug house (Green, 1995). However, with cybercrime
there are multiple access points. Figure one illustrates the number of access
points that offenders need to go through to reach their target in the context of
cyber fraud delivered via email. According to the routine activities approach, if
guardianship if mobilised at these access points there can be increased greater
likelihood that crime can be prevented (Felson, 1995).

FIGURE 1: Cyber-fraud access points

When we consider the types of responses to fraud and cybercrime occurring
internationally it raises questions as to whether there are response methods
capable of strengthening the Australian response. When the Routine activity
approach – involving the identification of guardians at access points – is coupled
with a third-party policing framework, to consistently mobilise these guardians –the enablers to cyber fraud can become the disablers of cyber fraud. By using a third-party policing model to mobilise a consistent response from third-parties, research shows a strengthened approach to prevention can be achieved (Webster, 2012, Ransley et al., 2012, Gilling, 2005, Hollis-Peel et al., 2011).

Some other examples of where third-party policing has shown to be a powerful crime prevention and law enforcement tool are financial reporting requirements (Deitz and Buttle, 2008), mandatory reporting of child abuse and neglect (Bird, 2011); and preventing the diversion of pseudoephedrine from pharmacies (Webster, 2012). In all of these examples, a third-party performs a specific role on behalf of the State to control and/or prevent crime.

Arguably, preventing cyber fraud also needs one or more third-party champions to extend the response and responsibility beyond voluntary and ad hoc measures geared toward the provision of education, awareness and security of internet users. The complexity of this technical environment and the pervasiveness of cyber fraud dictates that it is beyond the ability of the average citizen to achieve the highest levels of protection and prevention at an individual level. The response needs to be based upon a multi-actor approach –industry, Government, community and individuals.

The benefits of a third-party policing model is that it empowers the third-party to take specific action; it provides a model which coerces unwilling or less willing third-parties to comply; it improves the consistency of the approach; makes better information available about crime prevalence and it is enforceable through specific regulations (Webster, 2012).

Cyber fraud is a problematic crime issue and it presents an important opportunity to design a better preventative response.

See full paper for full discussion.
REFERENCES

Felson, M 1987, ‘Routine Activities and crime prevention in the developing metropolis’, Criminology, no. 25, pp. 11-932.
RSA 2012, Phishing and the social world, Hopkinton, MA 01748-9103, RSA Anti-Fraud Command Center, EMC corporation.
UKGOVT 2011, Fighting Fraud Together, National Fraud Authority, United Kingdom Home Office.
Webster, JL 2012, Innovative police responses to drug problems: Exploring a third-party policing partnership between police and community pharmacy, Doctor of Philosophy, Griffith University.

100
'Phishing' is broadly defined by the ABS (2012) as 'a fake notification or offer from a bank or other financial institution' and 'a fake notification or offer from an established business'. 'Advance fee fraud' is defined as 'an unsolicited request to transfer funds into a person’s bank account in return for a commission or fee'. The definition of 'phishing' was broadened in 2010-2011 from the 2007 definition: 'a fraudulent request, purporting to be from a business or bank, to confirm a person’s bank account or personal details'.

A single 'phishing' attack comprises typically many thousands of recipients of an email.


Source: EU Directive on Electronic Commerce 2000/31/EC is the general framework for issues considering ISP's liabilities. Section 4 Liability of Intermediary Services.

The Electronic Commerce (EC Directive) Regulations 2002

Act on the Limitation of Liability for Damages of Specified Telecommunications Service Providers and the Right to Demand Disclosure of Identification Information of the Senders (Act No.137 of 2001)
The NTE Kings Cross workshop was held at FBI Social above the Kings Cross Hotel. Around 50 participants attended, with a diverse mix of professional backgrounds represented among delegates, including practitioners and academics in planning, policy, crime prevention (including police), criminology, community development, design and architecture from Australia and around the world. The specific goal of the workshop was to investigate the occurrence and impact of alcohol related crime in Kings Cross, and to develop initial frames and concepts that responded to stakeholders’ needs and contributed to the resolution of alcohol related crime in Kings Cross. For the purposes of the workshop, the broad issue of alcohol-related crime in Kings Cross was segmented into three, more manageable problem areas:

1. Design and operation of entry points into licenced premises.
2. Young people and binge drinking
3. Public space and the night time economy

The session began with informal presentations from key stakeholders, on the Kings Cross night-time economy, crime and policing issues. These talks invited participants to begin to consider the archaeology of the problem, as did the graphic material around the room - photographs (including a full-length ‘streetscape’ of Darlinghurst Road), news headlines and infographics (such as hotspot maps). Closely supported by the workshop facilitator (Mark Armstrong from Blue Sky Design, in conjunction with Cathy Lockhart from DAB at UTS) and DOC staff, participants separated into design teams of 4 to 5 people, each focused on an aspect of the three problem areas above, and used a rapid ‘brain dump’-style method to think broadly and uninhibitedly about the problems, their stakeholders and any potential solutions that came to mind. In this exercise, the generation of ‘solutions’ was part of the process of deepening the archaeology and widening the context and field. Following this exercise, the groups disbanded and together the participants and facilitators analysed the merits of the solution ideas and their viability. Owing to time constraints, the workshop concluded after this exercise.

The value of the workshop from a DOC perspective was that it provided a new schema of the problem/solution space and reinvigorated a problem area in which DOC and City of Sydney have been working for many years; the multidisciplinary backgrounds of the participants was important in achieving this. As part of an iterative frame creation process, the workshop event - as well as the research and context exploration done in preparation for it - offered an opportunity to investigate and reinvestigate the Archaeology, Context and Field of the (seemingly intractable) problem of alcohol-related crime in Kings Cross.

In the weeks following the workshop, DOC staff collated the ideas generated in the workshop and met again with the workshop facilitators and the key stakeholder (City of Sydney). Using the ideas as cues for discussion, the Archaeology phase (what’s been tried, what hasn’t worked and what has potential) was revisited in greater depth, and Paradoxes, Themes, Frames and Scenarios were explored.
Using the proceedings of the workshop and further meetings with stakeholders and the workshop facilitators, DOC staff are continuing the frame creation process that began with the workshops, to create frames and project briefs for the 2013 Winter School program. It is anticipated that this year’s Winter School students will be well-placed to engage in productive design explorations and generate innovative and viable ideas for stakeholders in Kings Cross, bringing to fruition some of the ideas that emerged from the conference workshop.
CIRCULAR QUAY
WORKSHOP OVERVIEW

The Circular Quay workshop was held in the Sydney Opera House Board Room on the second day of the Design and Crime Conference. Around 30 participants attended this workshop which also involved a tour of the Circular Quay area from the Overseas Passenger Terminal around the foreshore past the MCA and the Ferry Terminal and Circular Quay Train Station to the Sydney Opera House. The attendees represented a diverse mix of professional backgrounds including transport professionals, crime prevention including police and counter-terrorism police, academics in planning, urban design and architecture as well as design professionals. The aim of the workshop was to investigate Circular Quay as an iconic Sydney destination and how its image could be enhanced at the same time as improving the safety and security of all those that visit the area daily, commuters and tourists alike.

The session began with presentations by Gordon Dojcincovic from counter-terrorism police and Anthony Honeyfield, Design Director at Design and Industry. The delegates were then given a tour of the area before the workshop began at the Sydney Opera House. The tour focussed the delegates’ minds on the problems of security at Circular Quay particularly the threat of a terrorist attack. The area is seen as a high risk transport hub that facilitates buses, trains and ferries. There is also a high concentration of iconic Sydney sites including the Rocks, the Harbour bridge, the Opera House and many other attractions such as the MCA and the Botanic Gardens.

The group split into 3 to workshop ideas around what Circular Quay really meant to those that passed through it every day and both international and domestic visitors. As it is today Circular Quay functions as a mixed use area for commuters and tourists, a bustling but uninspiring area that encourages a very temporary use of the area, only really functioning well as a united space during mass gatherings i.e. New Years Eve or the annual Vivid lighting experience. The groups profiled the different users of the spaces around Circular Quay and what emerged was that the flow of the tourist traffic amongst the commuters can often clash and cause chaos and this high density around peak times can create a very chaotic and vulnerable situation for visitors. Therefore paradoxically the space needs to be not only conducive to those wishing to experience the area at a leisurely pace but also to those commuters requiring order and efficiency and the ability to move quickly to their chosen destination. There was also a perceived lack of unity and ownership of the space resulting in a miss matched landscape and a certain feeling of vulnerability.

At the same time this high pedestrian density area with many Sydney icons has a high risk of terrorist attack so the groups had to consider how to unify the space but at the same time consider public security. The area needs to be accessible but ultimately defensible. A consistent approach by all stakeholders would add to the security of the area. The workshop highlighted the need for a unified branding and style guide so that the visual landscape remains cohesive around the quay, ensuring more structured access and security protocols in case of emergency or mass gathering events.

The workshop provided a new focus on the problem of security at Circular Quay.
by broadening it out to encompass what Circular Quay meant to not only tourists but Sydneysiders. This broadening of the problem context has allowed new frames to emerge and DOC staff are continuing the frame creation process to crate project briefs for the 2013 Winter School program where Circular Quay will be part of a more productive design exploration to generate original and viable design solutions for all stakeholders in Circular Quay
The Barangaroo workshop started with a visit to the Barangaroo construction site. The December summer sun shone on workshop participants as Sam Drake, project manager for the Barangaroo Development Authority described the Barangaroo development to be realised.

The place Barangaroo sits on the western edge of the Sydney CBD. It comprises 3 precincts of varying purposes - Barangaroo South will form a new high rise commercial centre, Headland Park in the north end recreates the original headland for an urban recreation context, and Barangaroo Central (the focus for the workshop session) is planned for civic and cultural uses.

This politically controversial waterfront landmark has ambitious aims for economic development, public amenity and environmental sustainability. Highlights include generous public waterfront walks that enable continuous foreshore access across most of the city, a combination of on and off-site renewable energy generated and recycling to achieve carbon neutral outcomes, and significant upgrade and extension of public transport infrastructure including rail, bus, and ferry.

What was described stood in stark contrast to the physical experience for workshop participants that afternoon. The group noted feeling exposed and dwarfed by the scale of their surrounds on the wide concrete expanse - large construction areas and a leisure cruise ship with its associated facilities dominated the location. Lunchtime joggers taking advantage of the waterfront views and wide path did not linger as they powered onward toward their fitness goals.

This setup felt awkward for enjoying the spectacular harbour setting even if it was only temporary. The Barangaroo Central precinct in particular, the subject of the workshop will remain a temporary storage area and interim public event space for a period of at least 3 years while surrounded by a mix of operational areas and ongoing construction.

Crime prevention in its most strategic and powerful form fosters strong place attachment for communities and empowers them as capable guardians of places. The Barangaroo workshop brief was therefore to explore activation options that could be utilised in Barangaroo Central's interim setup which fostered strong place attachment, ameliorated the jarring physical experience and capitalised on its temporary status.

Workshop attendees came from a range of backgrounds including local government and the police force who attended an intensive session following the site visit facilitated by staff from DOC and DAC (DOC’s sister U.K. based centre). This session included detailed presentations by Brian ten Brinke, development manager at the development authority, information on the latest in social innovation practice, and a series of collaboration activities with the objective of arriving at a conceptual framework with defined goals.
Participants in their workshop groups expressed existing or potential strengths to be reinforced (‘more of’) in the resulting framework:

- A narrative in the user experience that expressed the natural and historical soul of the place
- Diversity and inclusive programme of activity
- User comforts that encourage lingering and longer stays
- More effective engagement with the wider community not immediately associated with the development
- Conversely the aspects to be ameliorated (‘Less of’) included:
  - Hostility, exclusivity, polarisation
  - Harshness of space
  - Boredom and ambiguity

From this wish list, it became apparent that greater interest and attachment with the place by the wider community was needed; a democratising of the space which would at a communal level begin to build and refine an emerging precinct identity, while at the same time ameliorate some of the mistrust and apathy generated as a product of its controversial political history. This could be expressed as a sort of ‘Living Lab’ space where a wide program of activities may be trialled and evaluated. The public is critically engaged in determining which types of activities should be trialled and also called on to feedback on the success of such trials.

This ‘Living Lab’ concept became the potential solution space and groups brainstormed what such a scheme would broadly entail. Ideas expressed included:

- A schedule of activities spread through various times that cater for a range of demographics
- A platform to fostering the current DIY/popup culture around Sydney
- An open tender or expression of interest process whereby the public votes for which experiments they’d like to experience
- A combination of online presence and face to face contact to expand reach and humanising the program
- Physical division of the space that enables cross-purpose use
- Facilities that reinforce and expand current activity such as fitness

Practical aspects regarding obtaining meaning feedback and the need for a low cost but attractive look and feel were also discussed.

Overall the Barangaroo workshop provided a valuable opportunity to explore crime prevention at an early planning stage. Attendees appreciated the access to and openness of the development authority and from this were able to appreciate the practical complexities of translating strategic goals into implementable plans.