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Designing Crime Precipitators in Northbridge After Dark: Urban Governance in Slumber.

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Abstract

Entertainment districts play a significant role in the post-industrial place-making for the night-time economies of many Western cities, and they are significant contributors to these economies. However, many cities are experiencing increased levels of crime in their alcohol-oriented entertainment districts.

This paper explores crime in Northbridge entertainment district in Perth, Western Australia and highlights how the legacy of governance can operate counter-intuitively, to foster crime precipitators (Wortley, 2008), which can increase opportunities for crime. Crime Prevention Through Environmental Design (CPTED) and Situational Crime Prevention (SCP) are briefly discussed and the authors argued that SCP is a more appropriate strategy to use in the dynamic and complex environmental setting of Northbridge.

Based on several years of scientific observation, land-use surveys and pedestrian surveys, the authors provide a critical narrative of Northbridge and crime precipitators after dark. This narrative is expressed from the perspective of environmental criminology and SCP. This exploratory study concludes that Northbridge is in part, a legacy of previous single-issue governance, which has inadvertently created crime precipitators, which exacerbate the problems of crime in the entertainment district after dark. The need for further research is identified and the adoption of a more strategic, multi-issue and multi-agency approach is recommended. (202 words)

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Designing Crime Precipitators in Northbridge After Dark: Urban Governance in Slumber.

Introduction

The night-time economy is now an important component to the place-making of many post-industrial Western Cities and alcohol-oriented entertainment districts are significant contributors to these economies. Following social and economic restructuring over the last 40 years the role of the city centre and the role of nightlife has been transformed (Hall, 2000; Chatterton, 2002; Hobbs *et. al.* 2000). Western cities have shifted from an industrial base to knowledge and service-based economies (Castells, 2000). A new form of reflexive consumption has emerged (Crewe and Beaverstock, 1998) and economies now promote cultural industries such as entertainment, recreation fashion, music and art, connecting product image to place (Banks *et. al.* 2000). Many governments have used these cultural industries to develop locations of consumption and to enhance the place-making of former industrial centres (Page and Hardyman 1996).

Schneider and Kitchen (2002, p202) observe how many cities have adopted the idea of promoting the night-time economy and 'the 24 hour city', "as a means of revitalising the economies of their city centres". The promotion of activity as an effective means to deter crime has been the commonly accepted view associated with safety and the promotion of the night-time economy. However, a large body of criminological evidence challenges this assumption (see Brantingham and Brantingham, 1998; Schneider and Kitchen, 2007; Cozens, 2008a; Kinney *et al.*, 2008; Cozens, 2009). Indeed, Schneider and Kitchen (2002, p202) suggest that some "are becoming the victims of their own success ... in the sense that so much night-time activity has been promoted that the police cannot cope with the sheer volume of lawlessness that is now happening in such areas, often fuelled by over-indulgence in alcohol". Kinney *et al.*, (2008) suggest the built environment, the placement of mass transit lines and the distribution and clustering of land-uses significantly shapes 'the pulse of human activity', including, the 'pulse of crime'. The governance which underpins the night-time economy is therefore crucial. Indeed, Landry (2007) suggests Perth is one of the most regulated Western cities.

This paper provides a brief discussion of the night-time economy in Northbridge and outlines the concept of situational crime precipitators. As increasingly popular place-based strategies, Defensible Space and Crime Prevention Through Environmental Design (CPTED) are briefly discussed. However, the authors argue that these approaches have limited application to solving the complex and dynamic crime problems of the entertainment district. Instead, Environmental Criminology and Situational Crime Prevention (SCP) are examined in terms of their potential to both increase our understanding of crime and for potentially reducing opportunities and motivations for crime in Northbridge after dark. The paper adopts a user-focused approach to investigate the crime problems associated with Northbridge entertainment district. It uses a SCP framework to highlight how urban governance has effectively '*designed in*' precipitators for crime and therefore potentially increased opportunities for crime in Northbridge.

The Night-Time Economy, Place-making and Crime

New regeneration models based on the consumption of space were applied to city centres during the post-industrial and social restructuring of the 1990's. This was influenced by the economic recession and as response to the decentralization of office and retail activities (Thomas and Bromley, 2000; Roberts, 2004). The primacy of the city centre had been significantly reduced by increasing competition from suburban retail and office centres and decaying inner city warehouses and factories of the industrial eras (Thomas and Bromley, 2000).

As a response to the decline of the city centre (Roberts, 2004) the 24-hour city concept developed, which was based on the continental European model of a town centre (Heath and Stickland, 1997).

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The principal objective of the 24-hour city concept is to increase the activities and use of the city centre beyond the traditional 9.00am to 5.00pm office and retail functions (Heath and Strickland, 1997). Safety and social inclusion are also important to the cultural dimension of place and in fostering the reflexive consumption of the city centre. The night-time economy can therefore enhance the appeal of the city for inward investment (Crewe and Beaverstock, 1998; Heath and Strickland, 1997). Strategies such as streetscape enhancement, reintroducing residential land uses, upgrading security and encouraging night-time entertainment activities are all directed at facilitating the development of a 24-hour city (Roberts and Turner, 2005).

Graham and Homel (2008, p16) define the night-time economy as “a term used mainly in the UK (see for example, Hobbs *et al.*, 2003) to refer to all aspects of the leisure, retail and alcohol industries and related aspects of city economies. Entertainment areas comprise an important part of the night-time economy”. They reviewed the international literature on entertainment districts and highlight a range of common characteristics (Graham and Homel, 2008, p189-190);

1. Entertainment districts are extremely attractive, predominantly to young adults interested in alcohol-related leisure activities;
2. Entertainment districts are often shaped by powerful market forces, recently released from the restrictive practices of traditional regulatory controls such as fixed closing times, restricted forms of entertainment and limited licences;
3. Consumer experience in drinking establishments are becoming increasingly homogenized and dominated by large national chains (particularly in the UK);
4. Ecological labelling of entertainment districts can occur and discourage use by many groups such as families, older people and young people with different tastes. This is a result of a combination of the homogenised consumer experience, the spatial concentration of bars and clubs in places not designed for massive crowds; and the domination of use by one specific group – young adults;
5. A self-perpetuating cycle can occur involving the erosion of population diversity, the homogenisation of the types of establishment, the experiences they sell, the loss of general amenity and increasing levels of violence;
6. Conflict with local, non-alcohol-oriented, day-time entertainment businesses can occur, and;
7. In combination, these characteristics create place-space-time niches that are likely to be hotspots for crime and violence.

In Australia, the financial costs of crime to the community have been estimated to be approximately \$32billion per annum (Mayhew, 2003) and studies consistently reveal that significant sections of the community are fearful for their personal safety when using or visiting the city (Johnson, 2004). Urban sustainability can be significantly undermined by crime and the fear of crime, and crime prevention is increasingly being linked to sustainability and public health issues (Cozens, 2007; 2008b).

Northbridge – An Overview

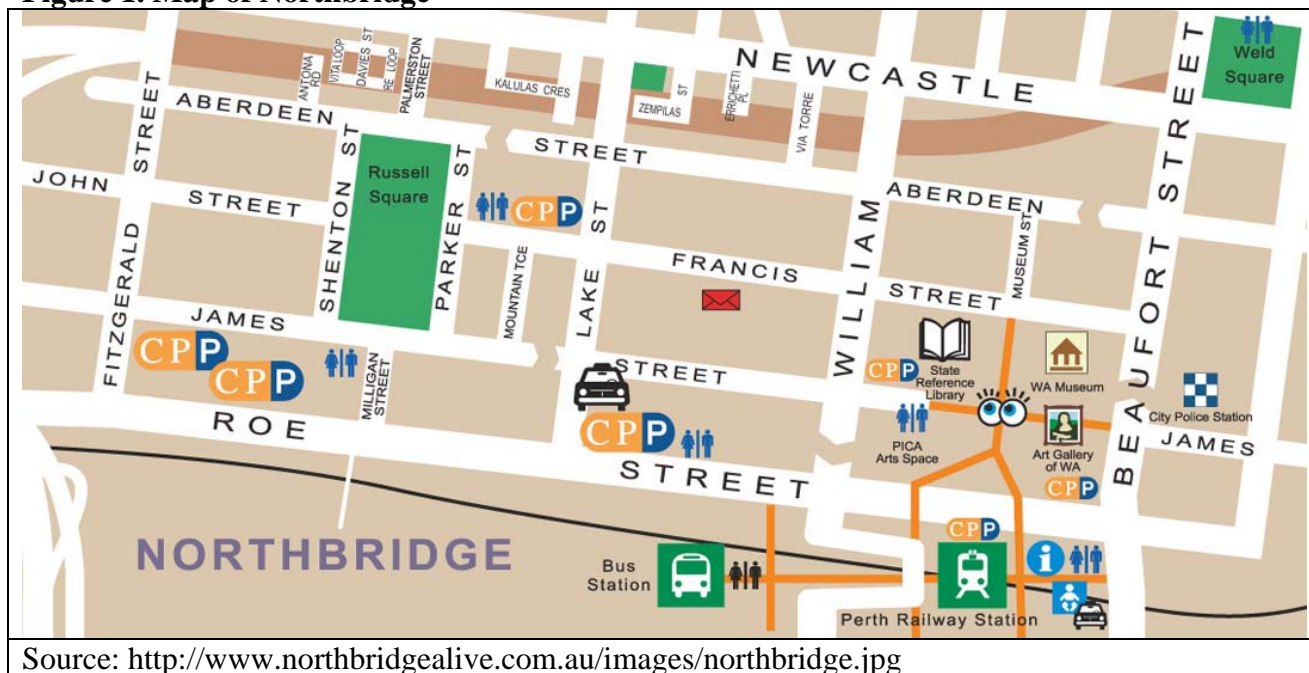
Northbridge is around 1km², and is officially, geographically defined as the area 1km immediately north of Perth Central Business District (CBD), bounded by William St, Roe Street, Newcastle Street and the Mitchell Freeway in Western Australia (see Figure 1). Northbridge (6003) currently has a residential population of 2,416 (ABS, 2006), but the ambient population can swell in excessive of 15,000 on a busy Friday or Saturday night.

Originally, a light industrial area, it was part of the CBD and was known as ‘North of the Bridge’ and ‘North of the Line’ (Gregory, 2003). Concerns over declining retail activity and fears of Perth becoming a ‘doughnut city’, dominated by regional and sub-regional centres, influenced retail

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owners in central Perth to lobby the City of Perth for change, throughout the 1980s and 1990s (Greive, Johnson and Islam, 2000; Gleeson, 2005).

Figure 1. Map of Northbridge



Source: <http://www.northbridgealive.com.au/images/northbridge.jpg>

The City of Perth embarked upon a series of marketing campaigns and projects throughout the 1980s and 1990s in an effort by to create a new image and bring people back to the city centre. Its official naming and declaration as a suburb in 1982 therefore gave Northbridge a new and separate identity from central Perth. Alfresco dining was legalised in Northbridge in 1986 and the implementation of a number of street beautification projects contributed towards the development of a sense of place for Northbridge, founded upon its multicultural history (Gleeson, 2005).

In terms of such international place-making, City of Perth Lord Mayor, Lisa Scaffidi recently enthused at a recent survey by the Economist Intelligence Unit, which placed Perth as the World's 5th most liveable city (City of Perth (2009). The City of Perth continues to promote the city where the night-time economy and nightlife are central components in their marketing campaign (City of Perth, 2006).

There are however, increasing concerns from across government departments, the police, the community and the media that Northbridge is a violent place to visit after dark (Busch, 2002; Spagnolo and Cox; 2007; ABC News, 2009). This may have consequences for its position as a vibrant well-functioning entertainment district distributing various forms of reflexive consumption.

Indeed, according to the Office of Crime Prevention (2009) "Northbridge has developed a reputation for unacceptable levels of violent, aggressive and anti-social behaviour". Significantly, the WA Premier, Colin Barnett, has also suggested 'if you walk around parts of Perth and parts of the state, and Northbridge is the example at the moment, people do not feel safe' (ABC News, 2009). The potent nature of the concern for crime issues in Northbridge were perhaps confirmed when the Premier personally visited the area in April 2009. However, the visit was at 9.00pm (Perth Now, 2009), and the 'pulse of human activity' (Kinney *et al.*, 2008) is very different at 2.00am.

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Many of the crime problems associated with Northbridge are mirrored in other cities. Indeed, Graham and Homel, (2008, p7) claim “the night-time economy, with chaotic and sometimes dangerous entertainment areas ...is a big business that has been emerging in many cities around the world”. Similarly, a relatively recent development is the increasingly widespread use of place-based crime prevention strategies (Schneider and Kitchen, 2002; 2007; Cozens *et al.*, 2005), which can potentially reduce opportunities for crime.

Place-Based Crime Prevention

Oscar Newman, an American architect and planner, published *Defensible Space: People and Design in the Violent City* in 1973 (for a review see Cozens and Hillier, in press). Influenced by the work of Jacobs (1961) his research indicated that urban design could encourage or discourage crime, by promoting territoriality and passive surveillance and in maintaining a positive ‘image’ of the built form. Newman (1973, p2) states, “the physical form of the urban environment is possibly the most cogent ally the criminal has in his victimisation of society.”

Crime Prevention Through Environmental Design (CPTED) is based upon Defensible Space ideas but has undergone refinement beyond territoriality, surveillance and image to include the dimension of ‘activity support’ (for a review see Cozens, 2008). This refers to the use of urban design and signage to encourage intended patterns of usage of urban space (Crowe, 2000). CPTED argues that ‘the proper design and effective use of the built environment can lead to a reduction in the fear of crime and the incidence of crime, and to an improvement in the quality of life’ (Crowe, 2000, p1).

Both approaches would appear to have potential application for assessing and improving urban spaces in entertainment districts, particularly in promoting opportunities for surveillance. However, territoriality is central to CPTED and encourages residents to ‘take ownership’ of their local area. Crucially, the development of such territorial sentiments within a highly dynamic, transient, public space, dominated by alcohol establishments, is arguably less germane. In WA, a range of policy initiatives firmly support the use of CPTED (e.g. Bell Planning Associates, 2004; OCP, 2004; OCP, 2007; WAPC, 2006a; WAPC, 2006b). However, it is argued that such guidance is overly simplistic and is not sufficiently underpinned by the opportunity theories of environmental criminology (see Cozens, in press). Additionally, it is argued that most CPTED guidance focuses almost exclusively on reducing the crime risks *to* a new development, rather than on mitigating the crime impacts *of* a new development. Moreover, the problems of Northbridge are significantly more complex than just physical design issues and are associated with dimensions of management, policies, regulations and governance. Indeed, it is proposed that such an endeavour requires a more systematic and targeted approach, as represented by Situational Crime Prevention (SCP), a theory located within the field of environmental criminology.

Environmental criminology is 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). Research from environmental criminology indicates that certain types of land-uses are more associated with crime than others (Brantingham and Brantingham, 1998; Graham and Homel, 2008). Kinney *et al.*, (2008) have recently discussed land-use patterns and crime, identifying three categories, which are useful to this investigation, namely, crime attractors, crime generators and crime detractors.

Crime attractors refer to activity nodes, which attract large numbers of people and therefore potentially provide increased opportunities for crime (Brantingham and Brantingham, 1998). Crime generators are similar activity nodes, but provide well-known criminal opportunities to patrons with

potentially high motivations to offend. Finally, activity nodes, which lack attractive activities and push people away, are known as crime detractors. (Kinney *et al.*, 2008). Stockwell *et al.*, (1992) studied licensed premises in Perth and identified high-risk ‘licenses as nightclubs (strongly associated with assault), hotels and taverns. ‘Low-risk’ licences were predominantly restaurants and cafes The location and concentration of ‘high risk’ and ‘low risk’ licensed premises (Stockwell *et al.*, 1992) and crime attractors, generators and detractors (Kinney *et al.*, 2008) is therefore crucial to understanding crime within an entertainment district (Graham and Homel, 2008; Kinney *et al.*, 2008).

Although SCP utilises the physical dimensions to CPTED, it is different in that focuses on existing, specific crime problems, rather than on anticipating crime problems for new developments on the basis of past experiences with similar designs. SCP is also closely aligned with environmental criminology. SCP adopts the problem-solving methodology of problem-oriented policing (Goldstein, 1990). Action research is a central theme for both these approaches whereby the problem is studied, hypotheses about the key determinants are developed, a range of solutions are identified, selected measures are operationalised and results are evaluated (Clarke, 2008).

The concept of situational crime prevention (SCP) derives from the British Home Office’s crime prevention efforts in the 1960s and 1970s (Clarke and Mayhew, 1980; Clarke, 1992; 1997). It operates predominately at the micro-scale, is crime-specific and can be multi-tactical and is heavily influenced by opportunity theories, which underpin environmental criminology. Routine Activities Theory (RAT) (Cohen and Felson, 1979) asserts that like all citizens offenders have ‘awareness spaces’ where they conduct their routine activities such as going to school, work or places of entertainment, for example. In relation to crime attractors, generators and detractors, Kinney *et al.*, (2008, p69) suggest “crime is following the city’s activity pulse”.

Clarke (1997) extended early SCP ideas (e.g. Clarke and Mayhew, 1980) and developed sixteen elements to SCP. These were recently extended to twenty five (Cornish and Clarke, 2003), and clearly extend beyond traditional physical strategies such as CPTED (see Table 2). SCP utilises ideas from CPTED but also possesses a significant psychological dimension.

Table 2. Situational Crime Prevention and Traditional Uses of CPTED

Traditional CPTED / DOC approaches				
Reduces opportunities for crime			Reduces opportunities and motivations for crime	
Increase the effort	Increase the risk	Reduce the rewards	Reduce provocations	Remove excuses
Target Harden	Extend guardianship	Conceal target	Reduce frustration and stress	Set rules
Control access to facilities	Assist natural surveillance	Remove targets	Avoid disputes	Post instructions
Screen exits	Reduce anonymity	Identify property	Reduce emotional arousal	Alert conscience
Deflect offenders	Utilise place managers	Disrupt markets	Neutralise peer pressure	Assist compliance
Control tools / weapons	Strengthen formal surveillance	Deny benefits	Discourage imitation	Control drugs and alcohol

Source: Cornish and Clarke (2003).

SCP now extends beyond opportunity to include temptations, inducements and provocations. Recently, Wortley (2008) has developed the SCP categories of reducing provocations and removing excuses into a framework of sixteen Situational Precipitators (see Table 3). These precipitators of crime are broken down into four categories of Prompts, Pressures, Permissions and Provocations.

There are four ways that the immediate environment might potentially precipitate criminal behaviour. Environmental cues can *prompt* criminal behaviour, while social forces can exert *pressure* on individuals and encourage offending. Situational factors can weaken moral prohibitions and *permit* criminal behaviour and the immediate environment can also *provoke* criminal behaviour.

Table 3. Situational Precipitators for Crime

Prompts	Pressures	Permissions	Provocations
Triggers	Conformity	Minimising the rule	Frustration
Signals	Obedience	Minimising responsibility	Crowding
Imitation	Compliance / defiance	Minimising consequences	Territoriality
Expectations	Anonymity	Minimising the victim	Environmental irritants

‘Prompts’ are elements of the immediate environment, which allows dormant thoughts, feelings and desire to come to the surface. Triggers and signals are environmental prompts, which can produce psychological responses and provide information relating to appropriate behaviours in a particular context. Imitation can be prompted by individuals observing others performing a type of behaviour, while expectations refer to ‘the tendency for individuals to respond to their preconceived ideas about a situation’ (Wortley, 2008, p53). Indeed, Graham and Homel (1996) indicate that the physical characteristics of establishments, their interior design and management practices influences whether they are perceived to be violent / non-violent and this can create an expectancy and a self-fulfilling prophecy.

‘Pressures’ on individuals to engage in inappropriate behaviour can be facilitated by certain situations. As social animals, people are profoundly influenced by the expectations of others around them. It involves elements of conformity, obedience and compliance and ‘the acquiescence to the direct request of others’ (Wortley, 2008, p54). If the compliance is viewed as being consistent, fair and legitimate, it is more likely to be followed. When attempts to control behaviour are ‘heavy-handed’ or unreasonable, compliance may not be achieved, but rather outright defiance can ensue (Sherman, 1993). Indeed, increased alcohol consumption was observed following high-threat, anti-alcohol messages (Bensley and Wu, 1991). Furthermore, the pressures of anonymity and crowding can facilitate criminal behaviour, which might not ordinarily take place. Individuals can feel de-identified within large groups and “become less concerned with the opinions and censure of others” (Wortley, 2008, p54).

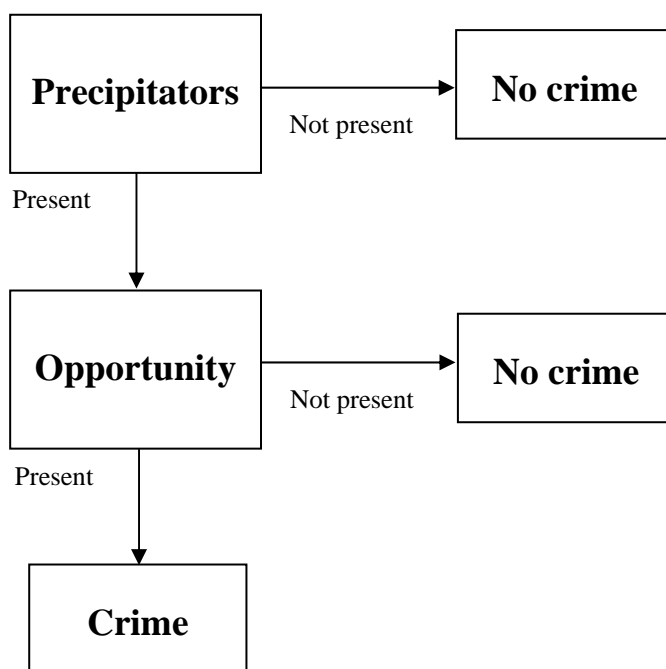
‘Permissions’ can be distorted by situational factors such that the moral reasoning process is affected and normally forbidden behaviour can result. Individuals often make excuses for their inappropriate behaviour and justify their actions (Wortley, 2008). Distorted feedback can assist offenders in making excuses and justifying their behaviour by minimising both the rules and their responsibility for such behaviour, which can be further supported by those around them. Ambiguity in rule-making is also often exploited by individuals to justify behaviour further. Minimising

consequences refers to individuals denying that harm has been caused while minimising the victim involves the use of stereotypes to justify victimisation of specific groups. When employees feel poorly treated by their employers, as an act of revenge, they may steal, become aggressive or engage in destructive behaviour (Greenberg, 1990).

‘Provocations’ refers to how “situations can create stress and provoke an anti-social response, particularly some form of aggression” (Wortley, 2008, p56). Criminal behaviour can be generated by environmental stressors, environmental frustrations and environmental irritants associated with the immediate situation. Frustration is produced when an individual is hindered in the pursuit of a particular goal (e.g. having a good night out). Indeed, nightclub violence has been linked to patron boredom, lack of seating, lack of food options and the provocative behaviour of security staff (Homel and Clarke, 1994). Crowding “is the psychological experience of high density conditions” (Wortley, 2008, p57) and is outside, it is associated with physical, psychological and behavioural problems, including crime (Gove *et al.*, 1977). High densities inside buildings have also been linked to increased levels of crime in nightclubs (Macintyre and Homel, 1997). Crowding can also exacerbate the effect of other environmental stressors. Territoriality ‘is the tendency to lay claim to an area and defend it against intruders’ (Wortley, 2008, p57). An important issue therefore, is who’s is defining territoriality? Finally, Environmental irritants can influence human behaviour (including crime) and include temperature, humidity, air quality and noise issues, as well as the availability of efficient public transport options, ease of service at the bar or the provision of public toilets.

Wortley 2008) observes how precipitators in the immediate environment “can also actively encourage or induce individuals to commit crimes that they may not have otherwise contemplated at that time” (Wortley, 2008, p48). This relationship is illustrated in Figure 2. Wortley (2008) argues that the probability of violent responses can be significantly increased by a variety of situational precipitators. The inclusion of precipitators into SCP therefore ‘provides for a more dynamic picture of criminal behaviour, one that more completely captures the complexity and subtlety of person-situation interaction’ (Wortley, 2008, p50).

Figure 2. The Relationship between precipitators and criminal opportunities



Source: Wortley (2008, p50).

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SCP is used to analyze specific crime problems in specific urban spaces at specific times. It is therefore appropriate to use as an exploratory framework for analysing violence and anti-social behaviour in Northbridge. A thorough investigation of the crime problems associated with Northbridge entertainment district is outside the scope of this paper, but certainly warrants consideration as a research priority.

Case Study Methodology

The authors utilize this framework, to highlight how a range of urban governance issues can work individually and in concert to create crime precipitators and therefore increased opportunities for crime. This paper demonstrates how situational crime precipitators have effectively created an environment where violence and anti-social behaviour has been ‘designed in’.

This research utilised a case study approach to examine Northbridge as an example of an entertainment district in the night-time economy of a western city. The authors adopt a user-oriented approach, which uses heuristic narrative expressed from the perspective of environmental criminology and SCP’s framework of crime precipitators (Wortley, 2008). It is argued this critical inspection enables the speculative formulation of a framework for understanding the complexity of crime in Northbridge. SCP adopts action research in its analysis, and the authors draw upon several years of action research and detailed empirical land-use and pedestrian surveys relating to Northbridge entertainment district (e.g. Greive *et al.*, 2004; Johnson and Islam, 2005; Gleeson, 2005; Holling *et al.*, 2006; Northbridge Land Use Surveys, 2002-2008; Taxi Rank Surveys 2007-9. This research is ongoing and is an outcome of an agreement between Curtin University’s department of Urban and Regional Planning and the City of Perth. In combination these reports, as well as the experience of actually collecting the data from the field, provide the foundation for this focus on crime precipitators.

The data on the ebb and flow of pedestrian movements in Northbridge, as with the rest of central Perth, was recorded by counting the number of pedestrians and the direction they walked, at each intersection in the city. This was conducted for a 10 minute period for every hour, between 7am and 4am on a Wednesday, Friday and Saturday at the 50 strategic survey points within the Northbridge area. The surveyors also completed a safety audit, with a comparative score recorded for each site that reflected a range of physical and social indicators. This SAFE Assessment measures how Safe, Attractive, Friendly and Efficient any specific location might be and evaluates the interface between movement, urban amenity and perceptions of personal safety. With this data, it was possible to highlight such sites as Perth’s Cultural Centre (the Northbridge entrance to the train station), as among the least safe locations within the city after dark.

The land use survey included every business that was open in Northbridge (after 5pm, 9pm, 11pm, 1am and 4am), and estimates the level of patronage, the typology of the customers and the diversity of the commercial activities provided within the entertainment precinct throughout the night. It was also possible to consider the relationship between the closing times of businesses, particularly the larger nightclubs, and how this impacted on the volumes of pedestrians on the street, as well as the number of people waiting in the taxi ranks. The survey of the two taxi ranks in Northbridge indicated the numbers of people who were waiting, the length of waiting times (up to 150 minutes) and the final destinations of the people in the queues waiting for taxis.

Governance and Crime Precipitators in Northbridge

Northbridge entertainment district is located to the north of the railway line and is somewhat isolated from the retail and CBD districts of Perth and the bus interchange. It is important to note that prior to the drink-driving legislation in 1987, citizens commonly and routinely drove into Northbridge and subsequently drove home inebriated. The drink-driving legislation was often targeted at the entertainment district (Prately, 1995) and resulted in many people losing their driving

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licenses. It has certainly challenged previous cultural ideas on the topic and the governance of Northbridge since.

In 1994, the first response was the introduction of the Metrobus late night bus service (later renamed the NightRider), and Gleeson (2005) reports that 41% of passengers used the service to avoid drink-driving. However, this service was subsequently abolished in 1996. Late trains were introduced later in 1996 (Reardon, 1996), but only operate until 2.00am. Around this time, following the Claremont murders (1995/6), and the initial suspicion of cab-driver involvement, the use of designated taxi ranks in Northbridge was enforced. Patterns of pedestrian movement and the 'pulse of human activity' were significantly altered following these developments.

Currently, there are approximately 127 premises, most (85) of which are restaurants, cafes and function centres, which are licensed to sell alcohol with food (Northbridge Land Use Surveys, 2002-2007). Stockwell *et al.*, (1992) identify these as 'low-risk licenses'. Furthermore, there are 16 hotels (potentially open until 2.00am) and 11 nightclubs (potentially open from 6.00pm until 6.00am). Stockwell *et al.*, (1992) refers to such locations as 'high-risk licenses'. The majority of these 'high-risk' venues are located on Aberdeen Street, Lake Street, James Street and William Street. There are also two liquor stores and two karaoke bars with alcohol licenses. The remaining premises offer activities that are non-alcohol-related, including three gambling venues (gaming and TAB), three internet-oriented land-uses, a mobile phone dealer, a snooker hall and a function centre. Between 10.00pm and 6.00am, alcohol-related activities dominate in Northbridge. The location, concentration and clustering of 'high risk' premises and their temporal dimensions (when they close) is therefore important to understanding the pulse of human activity (and crime).

Indeed, there has been increasing acceptance of the legacy created by liquor licensing practices of the past, which have facilitated the development of many large, anonymous venues. Landry (2007, p29) refers to these as 'drinking sheds'. The introduction of licenses for small bars in 2007 is a welcome development in this regard. However, licenses for small bars only operate until midnight on the weekend – and they therefore do little to add diversity to the night-time economy beyond this time. Furthermore, the license fee for a small bar is the same as for a nightclub (\$2,200), which does not provide much of an incentive, and is ultimately only a fraction of the usual legal costs involved.

In WA, cigarette smoking was banned in pubs, clubs and restaurants in 2006. Initially, this resulted in increased levels of crowding outside some venues. This crowding effectively causes a narrowing of the pavement and potentially creates conflict. Some venues create alfresco areas for their smoking clientele, but many do not have the capacity or space to do this.

The public transport system very effectively distributes thousands of patrons into Northbridge in search of entertainment and a 'good night out'. An effective day-time bus service and extensions to the Northern rail line (1992, 1993 and 2005) and the Mandurah rail line (2007) have enabled easy access to Perth for significantly more Western Australians than ever before. However, bus services curtail at around midnight and the rail service currently does not operate after 2.00am. This therefore potentially deprives thousands of patrons of a safe journey home. Furthermore, one of the key pedestrian routes from Northbridge to Perth railway station is via the Cultural Centre, which can itself represent a very isolated and intimidating space through which to walk. Pedestrian routes that link the bus terminal are via overpasses, and can at certain times feel threatening and dangerous. These important locations and routes have all been assessed as among the worst in the city for after dark pedestrian safety (Johnson *et al* 2005; Holling *et al.*, 2006).

If citizens miss the last train, they have the option of travelling home by taxi. There are two officially supervised taxi ranks in Northbridge, these are located at Milligan Street (alongside Rosie O'Grady's towards Roe Street) and William Street (between Francis and James Street).

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However, research indicates that the number of people waiting in the queue for a taxi can be as high as 320 people around 3.00am on a Saturday morning. The taxi ranks have been associated with anti-social behaviour and violence (Taxi Rank Surveys, 2005-8) and recently, extra marshals and security guards have been employed to 'police' them. However, Gleeson (2005) more broadly suggests that the taxi ranks are poorly designed, lack sufficient signage and information for customers, and the whole process tends to confuse visitors and tourists to the city.

Furthermore, clusters of large premises close simultaneously at 2.00am and others at 6.00am, regurgitating thousands of intoxicated young adults, (predominantly males) onto the streets in several 'pulses of human activity' (Kinney *et al.*, 2008) that are characteristic of Northbridge entertainment district after dark (Johnson *et al.*, 2004). A growing body of research indicates that high levels of assault and antisocial behaviour occurs when venues close and distribute large numbers people onto the streets who then have to compete for limited transport options (Bromley and Nelson, 2002).

Surveys of people in the taxi ranks confirm that many come from relatively distant Perth suburbs, generating expensive taxi fares of up to \$100 or more (Taxi Rank Survey, 2006). Interviews also indicate that some patrons will choose to continue to revel in the later-operating nightclubs, in order to pass time, before boarding the first train home in the early hours of the morning, around 6.00am. Those who are refused entrance to nightclubs can also travel home by taxi (if they can endure the wait) or loiter around Northbridge until the morning train and buses depart.

Within certain venues, the presence of intimidating and at times aggressive security staff can intimate to patrons that trouble is likely and act as a precipitator for conflict and potentially facilitate crime. The rapid closure procedures at most venues act to restrict the use of toilets by patrons and can prompt street urination as the only viable option, which can result in an arrest and the potential for conflict. 'False queues' outside some venues, which are 'managed' to create the impression of exclusivity, can create unnecessary crowding and potential conflicts. Frustrated and inebriated young adults strolling aimlessly around Northbridge, are more likely to enter urban spaces which would not ordinarily be visited, increasing opportunities and motivations for graffiti, vandalism and anti-social behaviour.

Furthermore, the majority of land-use activities after 10.00pm are alcohol-related reinforcing the 'permission' to engage in this activity, to the exclusion of all others. Finally, the predominance of young males arguably creates a group dynamic which, in the absence of informal censure by other groups, can operate to justify and precipitate anti-social behaviour.

Gleeson (2005) observes how one government agency is responsible for regulating the spatial aspects of land uses (the planning department in the respective local government) and another (the Department of Racing, Gaming and Liquor) regulates the temporal dimension of operating hours. He argues, "this structure undermines the ability of government to manage the place dynamics of Northbridge (Gleeson, 2005, p49). In their policy document on security at licensed premises, the Department of Racing, Gaming & Liquor observe how crowd controllers can assist in "the orderly dissipation of patrons once they leave the premises" (2008, p1). However, the dissipation of patrons out of Northbridge after 2.00 a.m. is decidedly disorderly, and does not appear to be the concern of any particular agency. Indeed, it has been argued that government agencies have permitted these land uses without adequate transport provisions to service them" (Gleeson, 2005, p49). However, the authors suggest that additional single-issue regulatory controls within this chaotic environment are *not* the answer.

Conclusions

Clearly, Northbridge is a legacy of past urban governance, which has inadvertently created precipitators for crime, as outlined by Wortley (2008). The examples of prompts, pressures,

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permissions and provocations discussed in the narrative above, indicate that a night out in Northbridge is fraught with frustrations and potential precipitators for crime. Many of these are the result of governance and regulations which focus on single-issue. For Clarke (2008) the objective of situational crime prevention is to create unfavourable circumstances for crime. However, this narrative of Northbridge from the perspective of environmental criminology indicates that favourable conditions for crime may well have inadvertently been designed in. Indeed, they are examples of negative 'externalities' of governance and urban development (Roman and Farrell, 2002).

After midnight, the dominance, concentration and clustering of large 'drinking sheds' (Landry, 2007) and the liquor licensing regulations, effectively makes the area a crime attractor, generator and detractor. The lack of public transport options beyond 2.00am and the large queues associated with the taxi ranks also contributes to the frustrating experience of attempting to have a 'good night out'. Indeed, Curtis (2006, p3) enquires "why would anyone come to Northbridge when escaping at the end of the night was such a long-drawn, painful experience". Such frustrations potentially facilitate a range of crime precipitators, which can increase opportunities for crime. Some of these frustrated patrons aimlessly roam around the area until the early morning, in various surges of activity at different times and in different places in Northbridge.

The authors suggest systematic research in the field of environmental criminology is required to probe these issues more scientifically. Indeed, as Kinney *et al.*, 2008, p72) argue "analysis of land-use types and consideration of the facilities placed on them and their location within the local urban fabric should provide a better understanding of the relation between urban design and crime". This paper has raised some of these issues for inspection and engagement by planners, who are largely unaware of the criminogenic potential associated with different land uses. Indeed, it has been argued "most planning proceeds with little knowledge of crime patterns, crime attractors, crime generators, the importance of edges, paths and nodes or the site specific solutions that facilitate or even encourage crime" (Brantingham and Brantingham, 1998, p53).

Graham and Homel (2008, p188) have argued "greater analytical precision is required if we are to understand better the dynamics of violence in the night-time economy". Clearly, the insights from environmental criminology and SCP have highlighted some important issues. Yiftachel and Huxley (2000) have argued that there is a lack of critical research in planning and this is certainly the case with respect to crime and entertainment district of Northbridge, particularly after dark

Landry (2007, p33) has argued that governance and regulations in WA represent "rules [that] have not been designed with an urban outcome, such as creating a great neighbourhood or city". Rather, they operate from the perspective of single issues and are the concern of individual agencies. This research supports this claim and indicates that governance can also be counter-intuitive, and precipitate crime.

In funding the surveys discussed earlier, it is clear that the City of Perth is cognizant of many of the problems associated with Northbridge. However, many of the actions, policies and regulatory frameworks of key stakeholders such as the State government (e.g. transport and policing) and business interests are beyond their authority to control.

Crime is one of many issues associated with the night-time economy, but is it clearly significant. In order to engage with the crime issues associated with Northbridge, stakeholders need to look more critically and systematically at both the problem(s) and the governance which currently exists to manage it. Furthermore, stakeholders need to work more collaboratively, across disciplines and agencies in order to devise contextually appropriate solutions and to develop multi-issue governance for the explicit purpose of creating a safe, vibrant, efficient and sustainable entertainment district for Northbridge in the 21st Century.

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References

- ABC News (2009). Young need to curb aggressive behaviour: Barnett. Apr 8, 2009. Online at: <http://www.abc.net.au/news/stories/2009/04/08/2538216.htm>. Accessed 16th June 2009.
- Australian Bureau of Statistics (2006). 2006 Census QuickStats : 6003 (Postal Area). Online at: <http://www.abs.gov.au/>
- Banks, M., Lovatt, A., O'Connor, J., and Raffo, C. (2000). Risk and trust in the cultural industries. *Geoforum* 31: 453-464.
- Bell Planning Associates (2004). Safer Design Guidelines. City of Perth. Online at: <http://www.cityofperth.wa.gov.au/documentdb/33>. Accessed 16th June, 2009.
- Bensley, L. and Wu, R. (1991). The Role of Psychological Reactance in Drinking following Alcohol Preventative Messages, *Journal of Applied Social Psychology*, 21:1111-24.
- Benson M, Greive S., Coate J., and Hopkins D. (2007). *West Perth City Pedestrian Survey*, a report commissioned by the City of Perth in partnership with Curtin University.
- Bottoms, A. and Wiles, P. (1997). Environmental criminology, in M. Maguire, R. Morgan and R. Reiner (Eds.), *The Oxford Handbook of Criminology*, Clarendon Press, Oxford, pp305-359.
- Brantingham, P. & Brantingham, P. (1998). Environmental criminology: from theory to urban planning practice, *Studies on Crime and Crime Prevention*, 7(1), pp. 31–60.
- Bromley, R. and A. Nelson (2002). Alcohol-related crime and disorder across urban space and time: evidence from a British city. *Geoforum* 33: 239-254.
- Busch, J. (2002). *Northbridge: Shaping the Future*. Perth, WA: Department of Premier and Cabinet, Government of Western Australia.
- City of Perth (2009). Perth nudging top of world table for liveability. Online at: <http://www.perth.wa.gov.au/web/Media-Centre/?article=280>. Accessed 16th June 2009.
- City of Perth. (2006). *City Vitality: Business Compendium*, Perth, City of Perth. Winter Edition.
- Clarke, R. (2008). Situational Crime Prevention, in Wortley, R., (Eds.) *Environmental Criminology and Crime Analysis*. Chapter 10, pp178-194 (Devon, UK, Willan Publishing).
- Clarke, R.V. (Ed.) (1992). *Situational Crime Prevention: Successful Case Studies*, 1st ed., Harrow and Heston, New York, NY.
- Clarke, R.V. (Ed.) (1997). *Situational Crime Prevention: Successful Case Studies*, 2nd ed., Harrow and Heston, New York, NY.
- Clarke, R.V. and Mayhew, P. (Ed.) (1980). *Designing Out Crime*, London: HMSO.
- Cohen, L. and Felson, M. (1979). Social change and crime rate trends: a routine activity approach, *American Sociological Review*, 44, pp. 588–608.
- Cornish, D. and Clarke, R. (2003). Opportunities, precipitators and criminal decisions: A reply to Wortley's critique of situational crime prevention. *Crime Prevention Studies* 16: 41–96.
- Cox, N. (2009). Tougher security for pubs. *Perth Now*, May 23rd. Online at: <http://www.news.com.au/perthnow/story/0,,25527392-2761,00.html>
- Cozens, P. (2008a). New Urbanism, Crime and the Suburbs: A Review of the Evidence. *Urban Policy and Research*. Volume 26(3),pp1-16.

Originally published in the Proceedings of the Annual State of Australian Cities (SOAC) Conference: City Growth, Sustainability, Vitality and Vulnerability. University of Western Australia, Perth, November 24-27th. ISBN: 1863081569.

Cozens, P. (In press) Permeability, Planning Policy and Designing Out Crime in Western Australia: Conflicts, Contradictions and Confusion. In Alexander, I., Hedgcock, D. and Grieve, S. (Eds.) *Perspectives on Planning in Western Australia*. Fremantle Press, Fremantle.

Cozens, P. and Hillier, D. (In press). A Review of the History, Development and Application of Defensible Space into the 21st Century. *The International Encyclopedia of Housing and Home (MS No. 560 – Defensible Space)*. Oxford (UK): Elsevier

Cozens, P. M. (2009). *Environmental Criminology and Planning: Dialogue for a New Perspective on Safer Cities*. Paper presented at the 5th International Conference on Planning and Design hosted by the College of Planning and Design at National Cheng Kung University, Taiwan, 25-29th May.

Cozens, P., Saville, G. and Hillier, D. (2005). Crime prevention through environmental design (CPTED): a review and modern bibliography, *Journal of Property Management*, 23(5), pp. 328-356.

Cozens, P.M. (2007). Public Health and the Potential Benefits of Crime Prevention Through Environmental Design. *The NSW Public Health Bulletin*, Volume 18 (11-12), pp232-237. Online: <http://www.publish.csiro.au/nid/226/issue/4094.htm>.

Cozens, P.M. (2008b). Crime Prevention Through Environmental Design (CPTED); Origins, Concepts, Current Status and Future Directions in Wortley, R., (Eds.) *Environmental Criminology and Crime Analysis*. Chapter 9, pp153-177 (Devon, UK, Willan Publishing).

Crewe, L. and J. Beaverstock (1998). Fashioning the City: Cultures of Consumption in Contemporary Urban Spaces. *Geoforum* 29(3): 287-308.

Crowe, T. (2000). *Crime Prevention Through Environmental Design: Applications of Architectural Design and Space Management Concepts*, 2nd edition. Oxford: Butterworth-Heinemann.

Curtis, C. (2006). Night out ends in a long, cold wait. *The West Australian*. 11 October Perth: 3.

Department of Racing, Gaming & Liquor (2008). Policy: Security at licensed premises. Government of Western Australia, Perth. Online at: http://www.rgl.wa.gov.au/ResourceFiles/Policies/Security_At_Licensed_Premises.pdf

Gleeson, H. (2005). *Poor customer service and high levels of violence and disorder at the Milligan Street taxi rank in Northbridge is a result of poor place management*. Honours Dissertation for Bachelor of Arts, Department of Urban and Regional Planning, Bentley, Perth.

Goldstein, H. (1990). *Problem-oriented policing*. New York: McGraw-Hill.

Gove, W.R., Hughs, M. and Galle, O.R. (1977). Over-crowding in the home: an empirical investigation of its possible pathological consequences, *American Sociological Review* 44, p59-80.

Graham, K. and Homel, R. (2008). *Raising the Bar: Preventing Aggression in and around Bars, Pubs and Clubs*. Devon (UK): Willan Publishing

Greenberg, J. (1990). Employee Theft as a Reaction to Underpayment Inequity: The Hidden Cost of Pay Cuts, *Journal of Applied Psychology*, 75: 561-8.

Greive S., Johnson K., Islam Z. (2004). *The Evolving City: an Atlas of Land Use Change in Central Perth City 1991-2001*, published jointly by the City of Perth and the Department of Planning and Infrastructure.

Greive S., Johnson K., Islam Z., Inglis I., and List K., (2000) *Future Perth: Central City Indicators*, *Land Use Change in Central Perth*, published jointly by the City of Perth and the Ministry of Planning as part of the *Future Perth* series.

Originally published in the Proceedings of the Annual State of Australian Cities (SOAC) Conference: City Growth, Sustainability, Vitality and Vulnerability. University of Western Australia, Perth, November 24-27th. ISBN: 1863081569.

Heath, T. and R. Strickland (1997). The Twenty-Four Hour Concept, in *Safer City Centres: Reviving the Public Realm*. T. Oc and S. Tiesdell. London, Paul Chapman Publishing: 170-184.

Hobbs, D., Lister, S., Hadfield, P., Winlow, S and S, Hall. (2000). Receiving shadows: governance and liminality in the night-time economy. *British Journal of Sociology* 51(4): 701-717.

Holling C., Greive S., Coate J., and Hopkins D. (2006). *Central City Pedestrian Survey, a report Commissioned by the City of Perth in partnership with Curtin University*.

Homel, R. and Clarke, R. (1994). The prediction and Prevention of Violence in Pubs and Clubs, in R. Clarke (ed.) *Crime Prevention Studies Volume 3*, Monsey, New York: Criminal Justice Press, pp1-46.

Jacobs, J. (1961). *The Death and Life of Great American Cities*, Vintage Books, New York, NY.

Johnson H. (2004). Crime Victimization in Australia: Key Results of the 2004 International Crime Victimization Survey. Research and Public Policy Series No. 64. Canberra: Australian Institute of Criminology. Online at: <http://www.aic.gov.au/publications/rpp/64/rpp64.pdf>. Accessed 22 June 2006.

Johnson K. Greive S, and Islam Z. (2005). *Northbridge Pedestrian Survey*, a report commissioned by the City of Perth in partnership with Curtin University.

Kinney, J.B., Brantingham, P.L., Wuschke, K., Kirk, M.G., and Brantingham, P.J. (2008). Crime attractors, generators and detractors: land use and urban crime opportunities. *Built Environment*, Volume: 34, Issue: 1, pp62-74

Landry, C. (2007). *The Creative City*. London, Earthscan.

Macintyre, S. and Homel, R. (1997). Danger on the dance floor: a study on interior design, crowding and aggression in nightclubs, in R.Homel (ed.) *Policing for prevention: reducing crime, public intoxication and injury*. *Crime prevention studies, Volume 7*. Criminal Justice Press, Monsey, New York, pp91-113.

Mayhew, P. (2003). *Counting the Costs of Crime in Australia*. Australian Institute of Criminology (AIC), Trends and Issues No. 247, AIC, Canberra.

Newman, O. (1973). *Defensible Space, People and Design in the Violent City*. London: Architectural Press.

Northbridge Land Use Surveys, (2002-2007) ????????????

Office of Crime Prevention (2009). Northbridge Policy. Online at: <http://www.crimeprevention.wa.gov.au/content.php?page=Northbridge%20Policy>. Accessed 16th June 2009.

Office of Crime Prevention. (2004). *Prevention Crime: State Community Safety and Crime Prevention Strategy*. Department of Premier and Cabinet, Perth, WA. Online at <http://www.crimeprevention.wa.gov.au>.

Office of Crime Prevention. (2007). *State Designing out Crime Strategy: A Journey From Common Sense to Common Practice*. Office of Crime Prevention, Perth, WA. Online at <http://www.crimeprevention.wa.gov.au>.

Perth Now (2009). Premier Colin Barnett spends a night in Northbridge. Apr 18, 2009. Online at: <http://www.news.com.au/perthnow/story/0,27574,25352311-2761,00.html>. Accessed 16th June 2009.

Pratley, J. (1995). RBT figures draw scorn. *The West Australian*. 21 December. Perth: 9.

Originally published in the Proceedings of the Annual State of Australian Cities (SOAC) Conference: City Growth, Sustainability, Vitality and Vulnerability. University of Western Australia, Perth, November 24-27th. ISBN: 1863081569.

- Reardon, D. (1996). Train trial costs \$5500. *The West Australian*. 12 January Perth: 10.
- Roberts, M. (2004). Good Practice in Managing the Evening and Late Night Economy: A Literature Review from an Environmental Perspective. London, Office of the Deputy Prime Minister.
- Roberts, M. and C. Turner (2005). Conflicts of Liveability in the 24-hour City: Learning from 48 Hours in the Life of London's Soho. *Journal of Urban Design* **10**(2): 171-193.
- Roman, J. and Farrell, G. (2002). Cost-benefit analysis for crime prevention: Opportunity costs, routine savings, and crime externalities', in N. Tilley (ed.) Evaluation for Crime Prevention, *Crime Prevention Studies*, 14, 53-92.
- Schneider, R. and Kitchen, T. (2002). *Planning For Crime Prevention: A Transatlantic Perspective*, Routledge, London.
- Schneider, R. and Kitchen, T. (2007). *Crime Prevention and the Built Environment* (London and New York, Routledge).
- Sherman, L. (1993). Defiance, Deterrence and Irrelevance: A Theory of the Criminal Sanction, *Journal of Research in Crime and Delinquency*, 30:445-73.
- Spagnolo, J. and Cox, N. (2007). Perth more violent than ever, study shows. Perth Now, Sunday Times Website. Online at: <http://www.news.com.au/perthnow/story/0,21598,22384594-948,00.html>
- Stockwell, T., Somerford, P. and Lang, E. (1992). The relationship between license type and alcohol-related problems attributed to licensed premises in Perth, Western Australia. *Journal of Studies on Alcohol*, 53(5), p495-498.
- Thomas, C. and R. Bromley (2000). City-centre Revitalisation: Problems of Fragmentation and Fear in the Evening and Night-time City. *Urban Studies* **37**(8): 1403-1429.
- Turkich K, Greive S, Coate J, and Hopkins D. (2008). East Perth City Pedestrian Survey, a report commissioned by the City of Perth in partnership with Curtin University.
- WAPC. (2004). *Network City: Community Planning Strategy for Perth and Peel*. Western Australian Planning Commission.
- WAPC. (2006a). *Designing Out Crime Guidelines*. Western Australian Planning Commission, Perth. www.wapc.wa.gov.au.
- WAPC. (2006b). *Designing Out Crime Planning Bulletin No.79*. Western Australian Planning Commission, Perth. www.wapc.wa.gov.au.
- Wortley, R. (2008) Situational Crime Precipitators, in Wortley, R., (Eds.) *Environmental Criminology and Crime Analysis*. Chapter 3, pp48-69 (Devon, UK, Willan Publishing).
- Yiftachel, O. and Huxley, M. (2000). Debating Dominance and Relevance: Notes on the Communicative Turn in Planning Theory. *International Journal of Urban and Regional Research* 24 (4), 907-913.