City Centre Crime: Design thinking for safer city centres

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ABSTRACT (250 WORDS MAX)
This paper presents the findings of research investigating the relationship between the urban environment and the occurrence of crime, with the aim of devising and implementing practical design interventions to reduce crime and anti-social behaviour. The project, entitled *City Centre Crime*, was conducted by the Design Against Crime Solution Centre at the University of Salford, and initiated by the Manchester Crime & Disorder Reduction Partnership (CDRP).
An area of Manchester's city centre was identified by the CDRP as containing a significant number of crime 'hot spots'. A holistic approach was employed by the Solution Centre in order to understand more fully the motivations and behaviour—both legitimate and illegitimate—of users of the built environment. Data was gathered from a range of sources, including police recorded crime data, details of modus operandi, geographical information analyses, qualitative interviews with public and private stakeholders, and observational research. Problem Profile documents based on the structure of the Crime Lifecycle model (Wootton & Davey, 2003) were developed for each crime type, bringing together all statistical, causal and place-based contextual factors. This collation of data meant the Problem Profiles could be used as a form of design brief used to encourage creative thinking and facilitate design innovation and concept generation activities to 'design against crime'. Design interventions aimed at reducing the occurrence and impact of crime were generated for each crime type. This paper will outline the content of key Problem Profiles and discuss the design intervention concepts that were developed from them.

Keywords: design against crime, city centre crime, design thinking, interventions

1   INTRODUCTION

The City Centre Crime project was undertaken by the Design Against Crime Solution Centre at the University of Salford to investigate the relationship between the urban environment and crime. Jointly financed by the Manchester Crime and Disorder Reduction Partnership (CDRP) and the Higher Education Funding Council for England (HEFCE), the project aimed to research and develop practical design interventions to reduce crime and anti–social behaviour. An area of Manchester city centre was selected by the CDRP as containing a significant number of crime 'hotspots'. Over the twelve months of the project, the relationship between crime and anti-social behaviour and the design, use and misuse of the current urban environment was investigated.

2   DESIGN AGAINST CRIME AT SALFORD

The Design Against Crime Solution Centre at the University of Salford concentrates on design-led crime prevention—measures to prevent crime and fear of crime through the design of products, places, or systems. The word 'design', in this sense, refers to the creative process by which design outputs are realised. Much has been written on the process of design (e.g. Cooper, 1979; Lawson, 1983; Cooper & Kleinschmidt, 1991; Cooper, 1994), but it can be practically conceptualised as a number of iterative activities—sometimes termed 'stages' (Cooper, 1994). The exact processes employed by designers will vary to some extent between individuals and their design domains (Lawson, 1983).

3   CITY CENTRE CRIME APPROACH

Previous design against crime work has mainly concentrated on enabling designers and design decision-makers to address crime and fear of crime during the development of new designs—be they architectural, product or service oriented. In contrast, the City Centre Crime project aimed to intervene in a pre-existing

urban environment—in the management, maintenance and use phase of the design lifecycle, rather than at the design stage. The project therefore offered the opportunity to devise and test a methodology for developing design interventions for mature environments.

The City Centre Crime project was tasked with developing intervention concepts. The process adopted to achieve this is given in Figure 1, and essentially consists of three meta-stages: problem definition; analysis, synthesis and insight; and intervention definition.
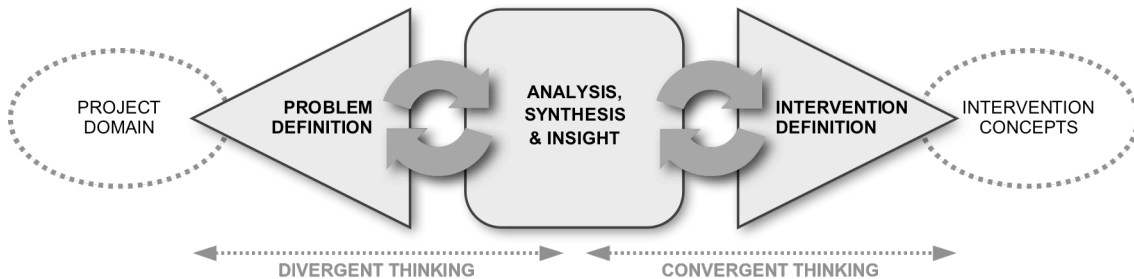

Figure 1. Outline of City Centre Crime project process

As the diagram attempts to illustrate, this was not a wholly linear model as there was a degree of iteration between stages. However, it essentially describes the sequence of activities that formed the basis for the project. As is indicated, the early stages of the project employed a divergent thinking approach, with data being collected from a wide range of sources. The later stages were much more about convergent thinking, and focused on narrowing down the knowledge and insights generated to actual intervention ideas. The next sections will briefly outline the activities undertaken during these three stages of the project, and briefly discuss the final intervention concepts to prevent crime in Manchester city centre.

3.1 Problem definition

The Problem Definition stage was the biggest stage of the project. The research area as a whole was considered too large to enable the in-depth investigation of the relationships between the physical environment, its use and offender activity. In order to develop targeted interventions, specific focus areas within the overall research area would need to be identified. This meant the problem definition phases occurred in two phases, with a case study approach being adopted in both.

In Phase One, the entire Manchester city centre study area selected by the CDRP was investigated. Data was collected to learn as much as possible about this area of the city centre in its entirety. Semi-structured, qualitative interviews were conducted with nineteen interviewees drawn from four stakeholder groups:

1. Those who make decisions regarding the form of the physical environment – City planners
2. Those who monitor/patrol, maintain, and secure the physical environment – Fire & Rescue Service, Homeless and Begging Unit, parking attendants, street cleansing operatives, and street wardens.
3. Those who use and are regularly present in the physical environment either for social or commercial reasons – City centre residents, users and businesses
4. Those who have the latest information on crime and anti-social behaviour in the physical environment – Greater Manchester Police, the CDRP and GMAC.

Thematic analysis of the transcripts was undertaken and led to the identification of four separate and distinct neighbourhoods: Piccadilly Gardens and bus station area, the Gay Village, the Northern Quarter and the Rochdale Canal towpath. Police recorded crime and incident data for one full year from August 2006 to July 2007 was used to validate stakeholders' perceptions. Crime mapping analysis was conducted. Hotspot maps for each crime type (as determined by Home Office classification) were created using MapInfo Professional® software. Comparison of the hotspot maps identified specific regions

within the sample area with a high occurrence of various crime types. Two consistent crime hotspots in the sample area were the Piccadilly and the Gay Village neighbourhoods.

Synthesis between stakeholders' identified neighbourhoods and the crime mapping analysis led to the identification of three specific focus areas within the entire Manchester city centre study area. The three focus areas are (see Figure 2):
• Focus Area 1: Piccadilly
• Focus Area 2: The Village
• Focus Area 3: The Northern Quarter

To ensure the focus areas would have a significant impact on crime in the entire study area, frequency analyses of crime occurrence was conducted. A map was produced to determine the distribution of crime throughout the study area. The three focus areas together account for 53% of all recorded crime in the entire study area.
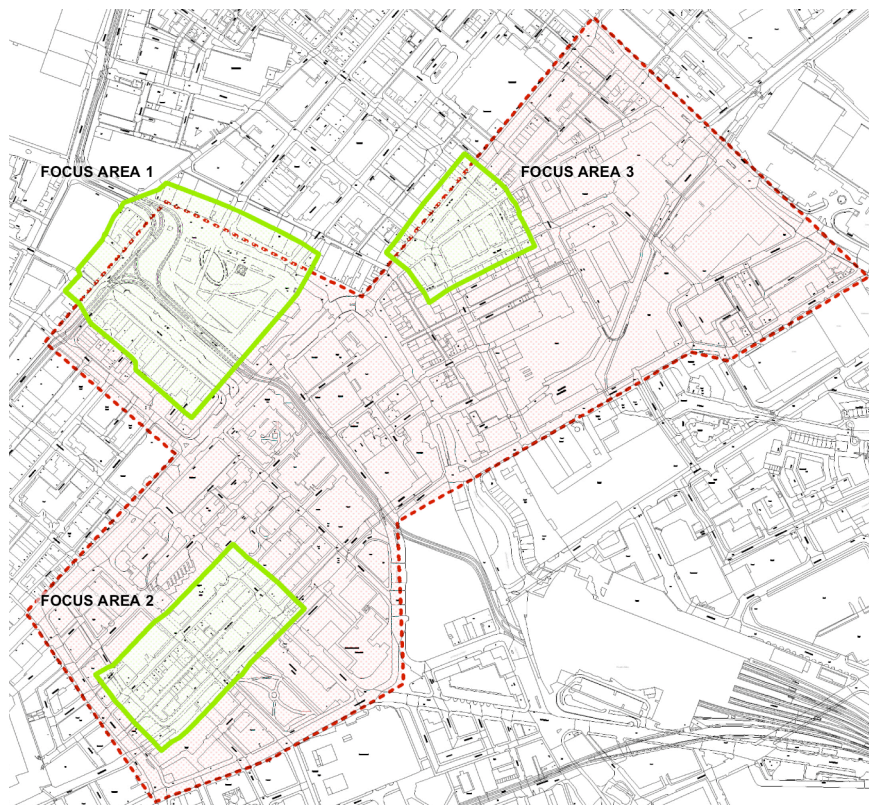

Figure 2. City Centre Crime focus areas (in green) within the entire research study area (in red)

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3.2 Analysis, Synthesis, & Insight

In Phase Two, the case study approach was used on these three focus areas. Investigated crimes in each focus area were a combination of stakeholders' priority crime issues and crimes with a high frequency of occurance. A total of 17 crime types were investigated (see figure 3). Multiple methods were used to explore contextual factors relating crime and the environment, resulting in several layers of data for each focus area. The city systems operating in each focus area were investigated, including traffic wardens, cleansing services, police patrols, street wardens, CCTV, and environmental management. Crime analysis discerned the peak times, days, and locations for each crime. In addition, user behaviour at peak crime periods was observed using CCTV footage.

	FOCUS AREA 1	FOCUS AREA 2	FOCUS AREA 3
CRIME TYPE	Piccadilly	The Village	Northern Quarter
Burglary		✓	✓
Criminal damage	✓		✓
Drug dealing	✓		
Miscellaneous thefts	✓	✓	
Robbery	✓	✓	
Theft from motor vehicle		✓	✓
Theft from person	✓	✓	
Theft of motor vehicle		✓	
Violence against the person	✓	✓	
Water incidents [2]		✓	

Figure 3. Recorded crime categories investigated in each focus area

Multiple card sorts on the *modus operandi* of all crimes were undertaken to understand how the offender exploited the design of the environment and victim behaviour to commit a crime.
Convergent analysis across the various data layers provided insight into the relationship between specific crimes and their locations, and the actions of offenders and victims prior to crime incidents.

3.3   Intervention definition

All data on the causal and place-based contextual factors for each crime type within all the focus areas were collated into briefing documents termed *Problem Profiles*. The structure of the Problem Profile is based on the Crime Lifecycle model (Wootton & Davey, 2003), which identifies all the pre-crime and post-crime factors that contribute to the occurrence of a crime. The Crime Lifecycle Model was developed as an aid for design professionals, helping them to address crime issues and generate ideas during concept design development. By comprehensively addressing any of the pre-crime issues, the crime event can effectively be prevented from occurring. The design-oriented form of the Crime Lifecycle model meant that it could be used as a framework for the Problem Profile document. The Problem Profiles could than be used as a briefing document—to encourage creative thinking and facilitate design innovation and concept generation activities to 'design against crime'.

4   INTERVENTIONS

The City Centre Crime project developed a range of design solution concepts to address problems identified as a priority from the research. All design interventions were developed for a specific crime type in a specific environmental context. Eighteen design intervention ideas have been developed. These ideas were validated and refined through workshops with key stakeholders. Figure 4 summarises the design interventions developed by the City Centre Crime project, along with the crime types and focus areas they seek to address. In addition to these design interventions, a number of other design recommendations emerged during the research process. These relate to the design of the processes and procedures employed by the police and GMAC to represent geo-located crime data on maps of the city.

5   CONCLUSION

The focus of the City Centre Crime project was to develop a number of interventions that address the particular crime and disorder issues that exist in the city centre. The secondary aim was to develop a methodology for undertaking such action research projects, thereby enabling similar projects to be delivered in other urban locations. The project was structured into two broad phases, focusing on first divergent thinking and then convergent thinking.

DESIGN INTERVENTION	CRIME TYPE(S) ADDRESSED	FOCUS AREA(S)
Increasing ownership and responsibility	All crimes and anti-social behaviour	All Areas
Material and management interventions	Arson & Criminal damage	Northern Quarter
Improving security of existing developments	Burglary	Northern Quarter
Prevention of commercial burglary	Burglary	The Village
Prevention of damage to bus shelters	Criminal damage	Piccadilly
Increase perceived risks for drug dealers	Drug dealing	Piccadilly
Theft reduction interventions	Miscellaneous thefts	Piccadilly & The Village
Diversionary activities for under 21s	Robbery	Piccadilly
Legitimate activity in Piccadilly Gardens at night	Robbery & Violence against the person	Piccadilly
Safe Routes Home	Robbery & Violence against the person	The Village
Tackling careless promoters	Theft from motor vehicle	Northern Quarter & The Village
Access control to multi-story car park	Theft from motor vehicle	The Village
Defensible space at bus queues	Theft from person	Piccadilly
Improving legibility access and movement	Theft from person	Piccadilly
Further pedestrianisation	Theft from person & Violence against the person	The Village
Place guardian to prevent vehicle theft	Theft of motor vehicle	The Village
Cooling tank for hot heads	Violence against the person	Piccadilly & The Village
Reduction of water incidents	Water incidents	The Village

Figure 4. Design interventions (showing crime addressed and focus area for implementation).

The divergent phase involved the collection of multiple types and layers of data. The convergent phase involved analysing the data to gain insights and identify priorities, as well as developing interventions to address the problems of crime and disorder. Stakeholders considered the project a success, with a number of interventions currently being implemented. Steps are now being taken to secure funding to further develop and implement the remaining interventions, and evaluate their impact and effectiveness.

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