Introduction to Design+Crime

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Abstract This special issue of *Crime Prevention and Community Safety: An International Journal* comprises select papers presented at the First International *Design+Crime Conference and Exhibition* held at the University of Technology, Sydney, Australia in December 2012. Design+Crime provided a transdisciplinary forum for discussion on how the disciplines of design and criminology are becoming interlinked in crime prevention practice and academia. Academics and practitioners from design, urban planning, architecture, as well as criminology, law enforcement, social geography and policy development shared in this unique discussion and showcased a growing collection of innovative approaches to crime prevention.

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Design+Crime

This special issue is guest-edited by the organisers of the Design+Crime Conference who are based at the Designing Out Crime research centre (DOC) at the University of Technology, Sydney. This Centre strives to bring innovative and creative design to crime problems. The articles in this volume have been authored by a broad range of international experts with academic roots in the fields of design and crime; the articles cover topics from neighbourhood regeneration and community safety to perceptions of residential safety and the impact of anti-social behaviour on public transport.

In collating this issue, the editors ask the question: *Does the fusion of design and criminology create a new discipline area?* Criminology has

developed many frameworks, theories and tools for understanding crime, and provides for deep understanding of crime in environmental, social and political contexts. The design disciplines are in the business of understanding the creation process and distilling it into practice areas such as architecture, planning and industrial design. Certainly, there has been crossover between the disciplines historically, with theorists such as Newman (1972) coming from a design background and contributing heavily to criminological theory and practice. However, the body of *design research* has developed significantly in the last 50 years with a renewed focus on the problem-solving approaches used by designers, rather than the qualities of the things they make (for recent examples, see Matthews and Heinemann, 2012; Björklund, 2013; Ozkan and Dogan, 2013).

Although we are far from a definitive answer to the question of whether the Design+Crime equation provides a new discipline area, the articles in this issue certainly illustrate approaches that extend beyond the traditional boundaries of design and criminology, respectively. In discussing the articles, and those presented at the Design+Crime conference, the editors reflected that there may be three answers to this equation. They are outlined as follows:

Design + Crime = *Crime prevention design*

An existing crime problem is approached through a crime prevention framework such as problem-oriented policing (Scott and Kirby, 2012) to design a response to the problem. The problem is approached with a view to creating crime prevention values to counteract offending opportunity. Elements of the environment, object, policy, system and so on are changed to achieve the desired crime prevention outcomes (see, for example, Scott and Dedel, 2009).

Design + Crime = *Design with crime prevention*

An existing design process (to create an environment, object, policy, system and so on) is being undertaken. The design process is informed by criminological frameworks that provide desired values (such as Crime Prevention through Environmental Design, Situational Crime Prevention (SCP) or the Security Function Framework) that will either ‘target harden’ (Cornish and Clarke, 2003), build in ‘nudges’ (Thaler and Sunstein, 2008) or ‘affordances’ (Gibson, 1977, or Norman, 1988) to reduce/remove the vulnerability to crime (see, for example, Wooton and Davey in Ekblom 2012).

Design + Crime = *Design for crime prevention*

An existing crime problem is approached through a design process. A collaborative relationship between the problem owner and broader stakeholders is formed (Paton and Dorst, 2011) in the exploration of the problem. Thematic analysis provides a bridge between problem and solution (Dorst and Tomkin, 2011) with the creation of a new *frame* (Schön, 1984; Lawson and Dorst, 2009) through which to view the problem. This process of frame creation creates a

new context through which to generate solutions (see, for example, Lulham *et al* in Ekblom 2012 or Arvanitakis, 2013).

Contents of the Special Issue

The first paper by Paul Cozens and Tom Davies analyses the effectiveness of actual products developed for crime prevention – in this case security shutters in a residential setting. This article describes the effectiveness of an example of *crime prevention design*. The ideas behind Crime Prevention and Environmental Design (CPTED) are highlighted and questioned in relation to perceptions of safety as well as SCP techniques. This research is undertaken in a suburb in Western Australia and illustrates the conflict between the CPTED elements of target hardening/access control and natural surveillance (Nelson, 1999) where the benefits of a more secure building come at the expense of street surveillance, social interaction and personal safety at the community level. The authors argue that the clustering of shuttered properties could signal the emergence of a fortress suburb in response to an ‘anxiety market’ that has heightened the fear and perception of crime rather than an actual increase in residential burglaries.

The second paper by Selby Coxon, Robbie Napper and Arthur De Bono gives an example of *design with crime prevention*. In this paper, which is the result of a collaborative research project carried out between Monash University’s Department of Design (Australia) and the French National Railway (SNCF), the authors outline strategies for mitigating the impact of anti-social behaviour on rail timetables. The research focuses on encouraging positive passenger behaviours rather than responding to negative criminal intent, and shows how manipulating the design of the environment can provoke desired changes in behaviour (Cornish and Clarke, 2003). The research also demonstrates the value in bringing design and crime together in a collaborative approach using a design methodology to provide inventive and relevant solutions to anti-social behaviour.

This special issue concludes with two articles that are perhaps good examples of *design for crime prevention*, giving case studies of design approaches to crime problems. The first, by Adam Thorpe and Lorraine Gamman, illustrates a case study of a crime prevention initiative delivered in a neighbourhood of Seoul in South Korea. The article puts forward the argument that there is an emerging generation of CPTED, which ‘reframes’ crime problems drawing upon ‘design thinking’ to deliver integrated solutions that recognise CPTED outcomes without being ‘CPTED-led’ (Nussbaum, 2007; Brown, 2008; Dorst, 2013). It illustrates how solutions to crime problems have been developed and implemented *with* and *by* communities rather than *for* them, using a social innovation approach with design at the forefront. This ‘participatory’ approach to crime prevention and community safety has parallels with participatory

design processes (Schuler and Namioka, 1993) and much in common with an 'open innovation approach' (Thorpe *et al*, 2010).

Olga Camacho-Duarte also advocates for a participatory approach to address crime prevention and community safety in her paper, which focuses on a case study of a project in a disadvantaged area of New South Wales in Australia. The emphasis, once again, is on design processes and how they can positively influence partnerships and community development by offering rich visualisations of future scenarios (Cross, 2011; Thorpe and Gamman, 2011). The activity of visualising scenarios, as demonstrated in the paper, is a common design tool that allows participants to envisage and debate a future that is safer and more liveable, in turn permitting the emergence of solutions that have a positive impact.

Conclusion

This volume contains examples of three possible answers to the question of how the disciplines of criminology and design are being integrated to create a new discipline area. The possibilities can be roughly summarised as:

1. *Crime prevention design* – Taking on a crime problem through a criminological framework and making changes to the characteristics of an environment/object/policy/system to counter offending behaviour;
2. *Design with crime prevention* – Influencing an existing design process through the application of criminology frameworks to positively influence behaviour;
3. *Design for crime prevention* – Using a design approach to broaden the problem and create new contextual outlooks through which to take on the crime problem.

In reflecting upon the Design+Crime conference, the editors feel that it is the third possibility which has been the least explored (and may therefore prove a fruitful avenue of investigation). Broadening the context beyond the original design brief can provide a new frame to resolve what otherwise appears to be an intractable problem. At Design+Crime, Dorst (2013) described the design of a weight-bearing police vest, which arose as a direct response to the problem of back and hip injury caused by the weight of the equipment carried by police on their belts. Although apparently effective in reducing injury, this design failed to acknowledge and address the underlying problem of police being required to carry outdated, unused and unnecessary equipment. As Dorst sought to illustrate, using design in a narrow, client-driven way is unlikely to result in innovative approaches to problems and might even create new ones (in this case, apparel that adds to the physical load carried by police). The practical challenge thus becomes: let us use design to broaden the problem and find new solutions, rather than defaulting to designing countermeasures.

In design research discourse, Dorst (2008) has argued that there has been too much emphasis on researching the outcomes of design processes and not enough focus on how expert designers actually go about their work. It is possible that criminology is guilty of this as well, with some notable exceptions (see, for example, Ekblom, 2011). The research challenge that DOC is setting itself at the University of Technology, Sydney is: let us re-engage with practitioners, move away from asking ‘what did you do and did it work?’ and start asking ‘how do you work, what role do you take in a project, how do you maintain relationships with stakeholders, what methods do you use at certain stages of a project, how do you create a new approach?’. This meta-process level approach is adding new knowledge to design research. We look forward to continuing this discussion with the academic and practice communities at the next Design+Crime conference.

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References

- Arvanitakis, J. (2013) It's a war zone. In: L. Asquith and L. Kaldor (eds.) *Design+Crime Conference*. Abstracts and Select Proceedings; 12–13 December, University of Technology Sydney, <http://www.designandcrime.com/resources/Abstracts&SelectProceedings2012.pdf>, accessed 13 May 2013.
- Björklund, T.A. (2013) Initial mental representations of design problems: Differences between experts and novices. *Design Studies* 34(2): 135–160.
- Brown, T. (2008) Design thinking. *Harvard Business Review* 86(6): 84–92.
- Cornish, D.B. and Clarke, R.V. (2003) Opportunities, precipitators and criminal decisions: A reply to Wortley's critique of situational crime prevention. *Crime Prevention Studies* 16: 41–96.
- Cross, N. (2011) *Design Thinking: Understanding How Designers Think and Work*. Oxford, UK: Berg Publishers.
- Dorst, K. (2008) Design research: A revolution-waiting-to-happen. *Design Studies* 29(1): 4–11.
- Dorst, K. (2013) Up the down escalator. In: L. Asquith and L. Kaldor (eds.) *Design+Crime Conference*. Abstracts and Select Proceedings; 12–13 December, University of Technology Sydney, <http://www.designandcrime.com/resources/Abstracts&SelectProceedings2012.pdf>, accessed 13 May 2013.
- Dorst, K. and Tomkin, D. (2011) Themes as bridges between problem and solution. In: N.F.M. Roozenburg, L.L. Chen and P.J. Stappers (eds.) *Proceedings of IASDR2011*,

- the 4th World Conference on Design Research; 31 October – 4 November, Delft, the Netherlands.
- Eklblom, P. (2011) *Crime Prevention, Security and Community Safety Using the 5Is Framework*. Basingstoke, UK: Palgrave MacMillan.
- Gibson, J.J. (1977) The theory of affordances. In: R. Shaw and J. Bransford (eds.) *Perceiving, Acting and Knowing: Toward an Ecological Psychology*. Hillsdale, NJ: Lawrence Erlbaum.
- Lawson, B. and Dorst, K. (2009) *Design Expertise*. Oxford, UK: Architectural Press (Elsevier).
- Lulham, R., Camacho-Duarte, O., Dorst, K. and Kaldor, L. (2012) Designing a counter-terrorism trash bin. In: P. Eklblom (ed.) *Design Against Crime: Crime Proofing Everyday Products*. Boulder and London: Lynne Rienner, pp. 131–146.
- Matthews, B. and Heinemann, T. (2012) Analysing conversation: Studying design as social action. *Design Studies* 33(6): 649–672.
- Nelson, A. (1999) Security shutters: A double-edged sword? *International Journal of Risk, Security and Crime Prevention* 3(1): 11–19.
- Newman, O. (1972) *Defensible Space: People and Design in the Violent City*. New York: Macmillan.
- Norman, D.A. (1988) *The Design of Everyday Things*. New York: Basic Books.
- Nussbaum, B. (2007) Design vs. design thinking. *Business Week* 9 October, http://www.businessweek.com/innovate/NussbaumOnDesign/archives/2007/10/design_vs_design1.html.
- Ozkan, O. and Dogan, F. (2013) Cognitive strategies of analogical reasoning in design: Differences between expert and novice designers. *Design Studies* 34(2): 161–192.
- Paton, B. and Dorst, K. (2011) Briefing and reframing: A situated practice. *Design Studies* 32(6): 573–587.
- Schön, D.A. (1984) Problems, frames and perspectives on designing. *Design Studies* 5(3): 132–136.
- Schuler, D. and Namioka, A. (1993) *Participatory Design: Principles and Practices*. Hillsdale, NJ: Erlbaum.
- Scott, M. and Kirby, S. (2012) Implementing POP: Leading, structuring, and managing a problem-oriented police agency. *Center for Problem-Oriented Policing*. http://eprints.lancs.ac.uk/60830/1/popmanualfinal_copy.pdf, accessed 24 May 2013.
- Scott, M. and Dedel, K. (2009) Assaults in and around bars. *US Department of Justice, Office of Community Oriented Policing Services*. http://www.iapsonline.com/sites/default/files/Assaults%20In%20and%20Around%20Bars,%202nd%20Edition_0.pdf, accessed 24 May 2012.
- Thaler, R. and Sunstein, C.R. (2008) *Nudge*. London: Penguin.
- Thorpe, A. and Gamman, L. (2011) Design with society: Why socially responsive design is good enough. *CoDesign* 7(3–4): 217–230.
- Thorpe, A., Gamman, L., Eklblom, P., Willcocks, M., Sidebottom, A. and Johnson, S.D. (2010) Bike Off 2 – Catalysing anti-theft bike, bike parking and information design for the 21st century: An open research approach. In: T. Inns (ed.) *Designing for the 21st Century. Volume 2: Interdisciplinary Methods and Findings*. Farnham, UK: Gower, pp. 238–258.
- Wooton, A.B. and Davey, C.L. (2012) Embedding crime prevention within design. In: P. Eklblom (ed.) *Design against Crime: Crime Proofing Everyday Products*. Boulder and London: Lynne Rienner.