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| <p>Institution: UNIVERSITY OF THE ARTS LONDON</p> |
| <p>Unit of Assessment: 34</p> |
| <p>Title of case study: Design Against Crime Research Centre at the University of the Arts London</p> |
| <p>1. Summary of the impact</p> <p>The Design Against Crime Research Centre (DACRC) undertakes practice-led socially responsive design research, including visualisation of crime problems and innovative responses for design education, government and industry. Research outcomes deliver crime prevention by design, addressing bag theft, bike theft, ATM crime, shoplifting, graffiti and counter-terrorism. Outputs include products, resources, conferences, exhibitions, competitions and papers. Research has been applied by national/international bodies undertaking practice, policy, and guidance in design and crime prevention. The Centre's work has been recognised by the Sir Misha Black Award (2006), was described by an AHRC Impact case study (2008) as 'pioneering', and shortlisted in the Environmental Impact category of the UK Impact Awards (2009).</p> <p>2. Underpinning research</p> <p>Originating as a research initiative in 1999, the Centre received designation as a Research Centre at University of the Arts London in 2005. Projects have developed a strong visual language and an open and collaborative 'twin track' methodology integrating practice-based/led design research and knowledge exchange. Design exemplars developed by the Centre build operational capacity, including <i>Stop Thief Chairs</i> (2000), <i>Karrysafe Bags</i> (2002), <i>Grippa Clips</i> (2004 and 2010) and <i>caMden Bike Stands</i> (2006) and related communication designs. The centre's research has been widely exhibited including the <i>Stop Thief Chairs at Don't Tempt Me</i> a world's first Design Against Crime expo in Milan (2001), and at MOMA, NY (2005/6 and 2009). Resources such as <i>designagainstcrime.com</i> (2005), <i>inthebag.org.uk</i> (2001, 2009), <i>bikeoff.org</i> (2006), <i>grippaclip.com</i> (2010) and <i>graffitialogues.com</i> (2010) help build innovative capacity, aiding new ways of delivering crime prevention through design. The underpinning research was produced at UAL by Professors Lorraine Gamman and Paul Ekblom and Adam Thorpe (Reader) with projects such as <i>Grippa</i> (2004-2010) on bag theft and <i>Bikeoff</i> (2004-2008) on bike theft, delivering key insights as follows:</p> <p>Understanding user, misuser and abuser behaviours relative to systems of people, products, services and spaces (the contexts of crime events) and the complex relationship between crime opportunities and crime prevention. Research applies both ethnographic and quantitative design research methods and crime science frameworks within a context that understands people, products, services and spaces as complex networks of interaction that create and/or deny opportunities for crime besides legitimate use. These understandings inform design interventions adopted by local authorities and industry, facilitating legitimate use while reducing criminal opportunity.</p> <p>Understanding the role of design in combating crime and the context dependent nature of 'what works' in crime prevention. The Centre utilises processes involving stakeholders, users, misusers and abusers to share insights and create design briefs that are fit-for-purpose and context. Given the context dependence of crime, technological and social change and offender adaptation, this approach recognises the limits of a finite set of secure designs and gives designers the design resources needed to generate solutions in any given context.</p> <p>Understanding the role of visualisation in crime prevention. The Centre has pioneered a visual vocabulary as a tool to show, as well as tell, about crime and its prevention. In building innovative capacity, visualisation of perpetrator techniques (how crimes are committed in context) it helps diverse audiences and participants to see the problem collectively, facilitating generation of effective design interventions.</p> |

Prototyping design interventions that are tested and evaluated in real situations. Crime problems are complex and the understandings and methods developed by the Centre to tackle them have proved useful in addressing multiple drivers in non-crime contexts. Working collaboratively with multiple disciplines and stakeholders, the Centre iteratively applies research to practice. Utilising crime science methodology coupled with user-centred design processes, the rigorous evaluation of design prototypes' effectiveness are undertaken. Transference of understandings about multiple drivers to the area known as *design for social innovation and sustainability* (DESIS) has developed out of the Centre's work.

3. References to the research

Underpinning research emerged from Ekblom, Gamman, and Thorpe who collectively produced over £500,000 of contract research since 2001, plus AHRC/EPSRC awards totalling £750,000. Two of these major funding awards involved researchers from the Jill Dando Institute of Crime Science at University College London who contributed crime science analysis to the design research. Outputs indicative of the overall body of work are given below:

1. Ekblom, P. (2010) *Crime Prevention, Security and Community Safety using the 5Is Framework*. Basingstoke: Palgrave Macmillan [Book]. Listed in REF2.
2. Ekblom, P. ed. (2012) *Design Against Crime: Crime Proofing Everyday Objects*. Crime Prevention Studies, 27. Boulder: Lynne Rienner [Edited book of essays contributed by all DACRC team members]. Listed in REF2.
3. Gamman, L. (2001) Don't Tempt Me at I Saloni, Milan and Spring/ Primavera, Barcelona. [Exhibition of DAC benchmarks curated by Gamman]. UAL on request.
4. Gamman, L. and Thorpe, A. (2010) Criminality and Creativity: what's at stake in designing against crime? In: Clarke, A. ed. *Design Anthropology: Object Culture in the 21st Century* pp.52–67. New York/Vienna: Springer. [Book chapter]. Listed in REF2.
5. Thorpe, A. and Gamman, L. et al (2009) Bike Off 2 – catalysing anti theft bike, bike parking and information design for the 21st century: an open innovation research approach. In: Inns, T. ed. *Designing for the 21st century. Volume 2: Interdisciplinary methods and findings* pp. 238–258. Farnham: Gower [Book chapter]. Listed in REF2.
6. Thorpe, A. and Gamman, L. (2011) Design with society: why socially responsive design is good enough. In: *CoDesign International Journal of CoCreation in Design and the Arts. Special Issue on Socially Responsive Design*. Vol.7, Nos 3-4 [Journal article]. Listed in REF2.

Associated research council awards listed below:

- UAL, PI: Thorpe, A. *Bike Off 1–Design review & visual documentation of bicycle parking provision to catalyse future crime prevention design* (05/2004 – 04/2005), £5,000, AHRC.
- UAL/UCL, PI: Thorpe, A. *Bike Off 2 – Catalysing Anti Theft Bike, Bike Parking and Information Design for the 21st Century*, with Professor Lorraine Gamman (Co-I), Dr Shane Johnson (Co-I at UCL), (11/2006 –10/2008), £323,098. AHRC/EPSRC *Designing for the 21st Century*.
- UAL, PI: Gamman, L. *Grippa 1: Concept proofing and testing of anti-theft furniture accessories and design process documentation* (04/2004 –03/2005), £52,476. AHRC.
- UAL, PI: Ekblom, P, Co-I: Gamman, L. *Grippa 2: Turning the tables on crime: Boosting evidence of impact of Design Against Crime and the strategic capacity to deliver practical design solutions and assess the usability of the latest DAC bag hanging Grippa design prototypes; evaluation* (11/2006 –02/2010), £363,060. AHRC.

4. Details of the impact

The Centre's research has benefited the design community, public bodies and industry, and since 2008 work has been undertaken with clients including Centre for Protection of National Infrastructure (CPNI), National Counter Terrorism Security Office (NaCTSO), LINK, NCR, Royal Bank of Scotland, Transport for London and local councils on projects ranging from tackling ATM

Impact case study (REF3b)

crime to shoplifting. Work has been undertaken with six Metropolitan Police boroughs and five other police forces, plus the Association of Chief Police Officers (ACPO), and with partners including Broxap, Design Council, Designing Out Crime Association (DOCA) and Design and Technology Alliance Against Crime (Home Office).

Evidence of both reach and significance is given by the role played in developing international understanding and capacity building for 'design against crime' as both a concept and tool. The Designing Out Crime Research Centre (DOCRC) at the University of Technology Sydney (UTS) was established by the Attorney General of New South Wales (NSW) after his department identified the UAL Centre as a 'shining example' of best practice. Given governmental support in 2007, and becoming established during the REF impact period, DOCRC has worked closely with the UAL Centre who have helped to deliver some of DOCRC's first projects, given workshops, and collaborated on the first *Design + Crime International Conference and Exhibition* (2012); a meeting of professionals and academics exploring new ways of preventing crime. DOCRC have now delivered over 90 projects, including the invention, production and installation of the Counter Terrorism rubbish bins at stations in NSW. In 2010 the incoming Mayor of Seoul, Park Wok Soon, visited the UAL Centre and, inspired by its work, implemented two 'design against crime' projects when he was appointed. Positive results have engendered plans to operate similar programs at three more sites. In 2012 a Memorandum of Understanding was signed between DACRC (UAL), the Seoul Design Foundation and DOCRC.

The Centre's design benchmarks have attracted significant media coverage **bringing 'design against crime' into the public domain**, exploiting the Centre's strong visual language. Examples include: BBC Business News' coverage of DACRC's *ATM Crime Expo* (2011), BBC Scotland's programme on DACRC for *Designed World* (2009), and Design Week naming DACRC in its Hot 50 (2009). Designs have been shown by the Design Council/Home Office (2011), at University of Technology Sydney (2012) funded by the Attorney General's Office, and have featured in 12 additional exhibitions since 2008 **raising awareness of 'design against crime'**.

The Centre has worked to **gain support for 'design against crime' within business and professional communities**. There have been five ATM exhibitions with the 2011 *ATM crime exhibition* being funded by NCR Corp (the world's largest ATM manufacturer), LINK (the UK ATM network) and Royal Bank of Scotland. The Covent Garden ATM event (2012) was reported by the Metropolitan Police to have facilitated crime awareness training with 12,800 people. The significance of this work to business is evidenced by the RBS-funded evaluation of DACRC's ATM designs in 2013, and a significant investment by LINK to fund a research studentship at the Centre.

The Centre's design resources have reached new audiences via exhibitions and competitions, **catalysing commercial and cultural innovation**. Resources have been used for national competitions authored by DACRC including for the RSA (2008/2009), Design Council (2010) and Nesta (2012). This builds innovative capacity and catalyses new product development such as bike parking furniture from UK design companies including Cycle Hoop, established in 2008, who state on their website: '*Our cycle parking products are designed to reduce the risk of bike theft and are based on the research and studies carried out by BikeOff.*' Engagement with the Centre and its resources by UAL students has resulted in success in national design competitions such as Audi Design Foundation's Sustain our Nation (2009) and D&AD Student Awards (2008).

Focusing on the visual to alert and empower has generated tested and evaluated communication products by the Centre (*Hang it Up* posters, *Anti-bike theft* stickers and leaflets and *Hang your bag* flyers). Clients since 2008 include Transport for London, Nottinghamshire Police, Brighton and Hove Council, and the Metropolitan Police. During the impact period 586,500 items were ordered. Examples of additional design outcomes include: CPNI-commissioned *toolkit for Controlling Hostile Reconnaissance*, co-researched with Huddersfield, designed/delivered by the Centre, and tested through CPNI, being made available to CPNI/NaCTSO members charged with protecting sites of UK critical infrastructure (power and chemicals stations, major transport hubs; major retail sites, and sporting and events venues); and *Bikeoff's M-stand* licensed to Broxap (UK's largest cycle parking manufacturer) which, since 2008, have sold to clients including the London

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Borough of Camden, Brighton and Hove City Council, Cambridge Cycling City and South Eastern Railways.

Examples of the significant impact of DACRC research on public bodies is evidenced by **inclusion in published guidance and information**. Examples include *Designing Out Crime: A Designer's Guide*, Design Council (2011) using examples of DACRC's work (*Grippa*, *Bikeoff* and *ATM Crime*), as well as including DACRC research processes and *Tactics and Strategies* for designers (Eklom). Case studies published on the Design Council website also showcase three of the Centre's projects. Contributions on secure cycle parking information are evident in the ACPO's *Secured by Design Schools Design Guide* (2010), and have fed into the Home Office's bike theft prevention communications. Thorpe and Gamman contributed to the US Centre for Problem-Oriented Policing practitioner guides *Bicycle Theft* (2008) and *Theft of customers' personal property from cafes and bars* (2010). There have been over 65,000 downloads of these two publications.

Research has **informed the understanding of policymakers, public bodies and professionals**. In May 2008 Boris Johnson said '*The Camden stand is a great example of the type of innovative solution to crime that can be made reality given the right support...I've asked Transport for London to do all they can to support such initiatives.*' Eklom, Gamman and Thorpe were expert witnesses for the State of Victoria, Australia Parliamentary Drugs and Crime Committee Inquiry into the application of safer design principles and crime prevention through environmental design (2012), and are quoted extensively in the final report (June 2013). Eklom was commissioned to review guidance literature on counter-terrorism designs for the Australian Government Attorney-General's Department (2011). Gamman was a member of Home Office's Design & Technology Alliance Against Crime (2007–2012), leading its business crime stream, and is a board member of the Designing Out Crime Association (DOCA). Thorpe has advised policy forums on cycle parking and security including as part of Transport for London's Anti-Bike Theft Partnership (2007-2008) and Brighton and Hove City Council Cycle Theft Steering Group (2006-2009). In 2011 Eklom and Gamman participated and presented at a Cabinet Office Behavioural Insights Team workshop on theft in retail and leisure environments and mobile phone theft. The Behavioural Insights Team, often called the 'Nudge Unit', applies insights from academic research to public policy and services. DACRC's initiation of the *Graffiti Dialogues Network* has led to advising on strategies for Southbank Centre.

5. Sources to corroborate the impact**Evidence of role in building international understanding and capacity**

1. Mayor of Seoul Park Won Soon's *Hope Journal*. UAL on request.
2. Supporting statement from the Attorney General's Office NSW. UAL on request.
3. Australia Parliamentary Drugs and Crime Committee Inquiry report:
http://www.parliament.vic.gov.au/images/stories/committees/dcpc/icptediv/Report/Final_Report.pdf

Evidence of raising awareness of 'design against crime'

4. <http://www.bbc.co.uk/programmes/p011m70g>
5. Supporting statement from Home Office. UAL on request.
6. <http://content.met.police.uk/News/Police-hold-ATM-fraud-awareness-day-in-Covent-Garden/1400010551139/1257246741786>

Evidence of the utilisation of research outcomes by public and other bodies

7. http://www.popcenter.org/problems/bicycle_theft/ and http://www.popcenter.org/problems/cafe_bar_theft/
8. *Designing Out Crime: A Designer's Guide*, Design Council (2011) and <http://www.designcouncil.org.uk/our-work/challenges/Security/Design-out-crime/Case-studies1/>
9. Supporting statement the Design Council. UAL on request.
10. Supporting statement from CPNI. UAL on request.
11. <http://www.cyclehoop.com/services/theft-reduction-campaign/>