

# (1) The Art of Crime Prevention (2) The Art of Crime

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**Edit 8.00 Conference, Geilo, Norway October 2007**

Design Against Crime Research Centre  
Khio University



Arts & Humanities  
Research Council

The Grippa research programme, mainly funded by AHRC, is a collaboration between the Design Against Crime Research Centre, Central Saint Martins College of Art & Design, University of the Arts London, and the UCL Jill Dando Institute of Security and Crime Science. Papers and other materials from the programme are at [www.grippaclip.com](http://www.grippaclip.com) and wider practical and research material on preventing bag theft at [www.inthebag.org.uk](http://www.inthebag.org.uk)



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  - (C) Bikeoff
- (iv) Reviewing the art of crime - strategies that crime prevention could draw upon (Case studies by Maz)
- (v) Future

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# Criminal design? Previous crime prevention messages from Britain



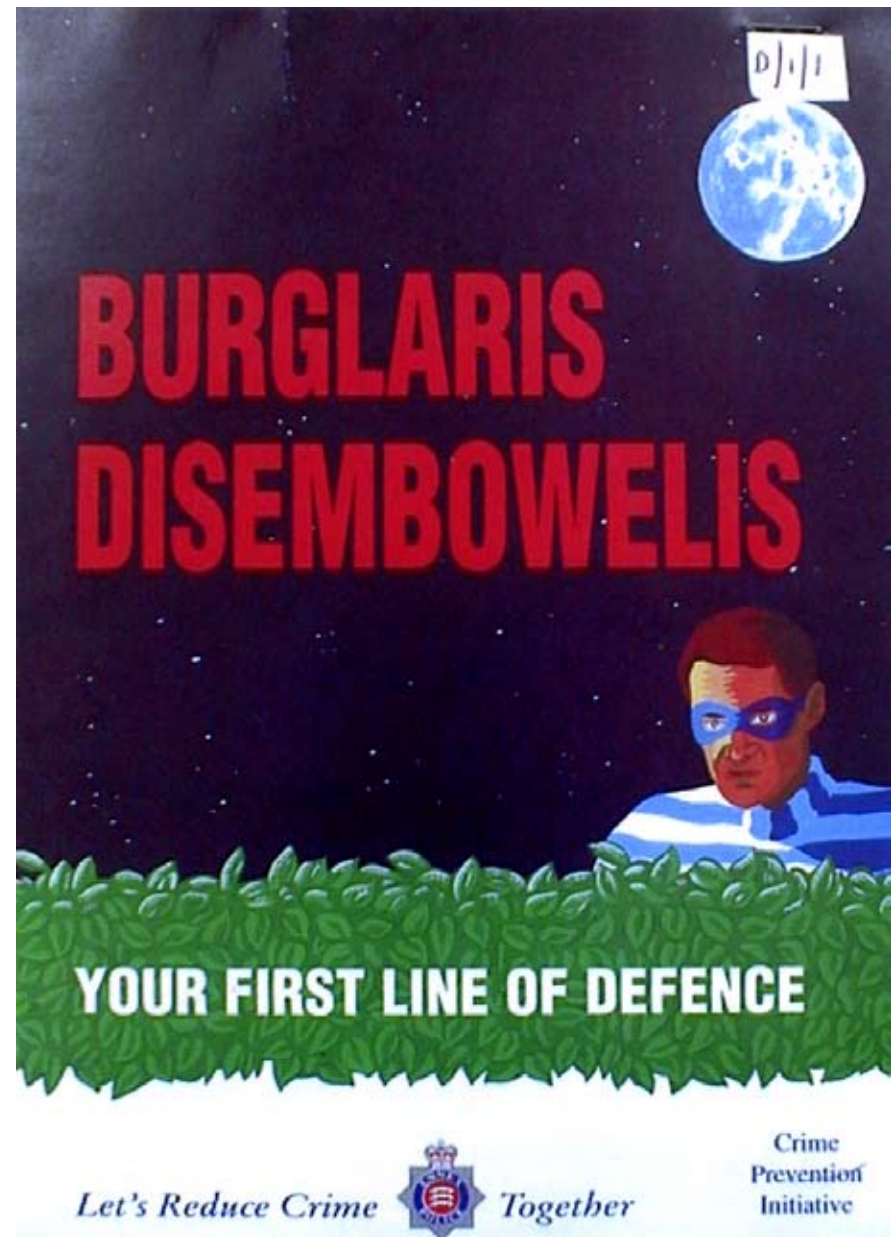
# RAT ON A RAT

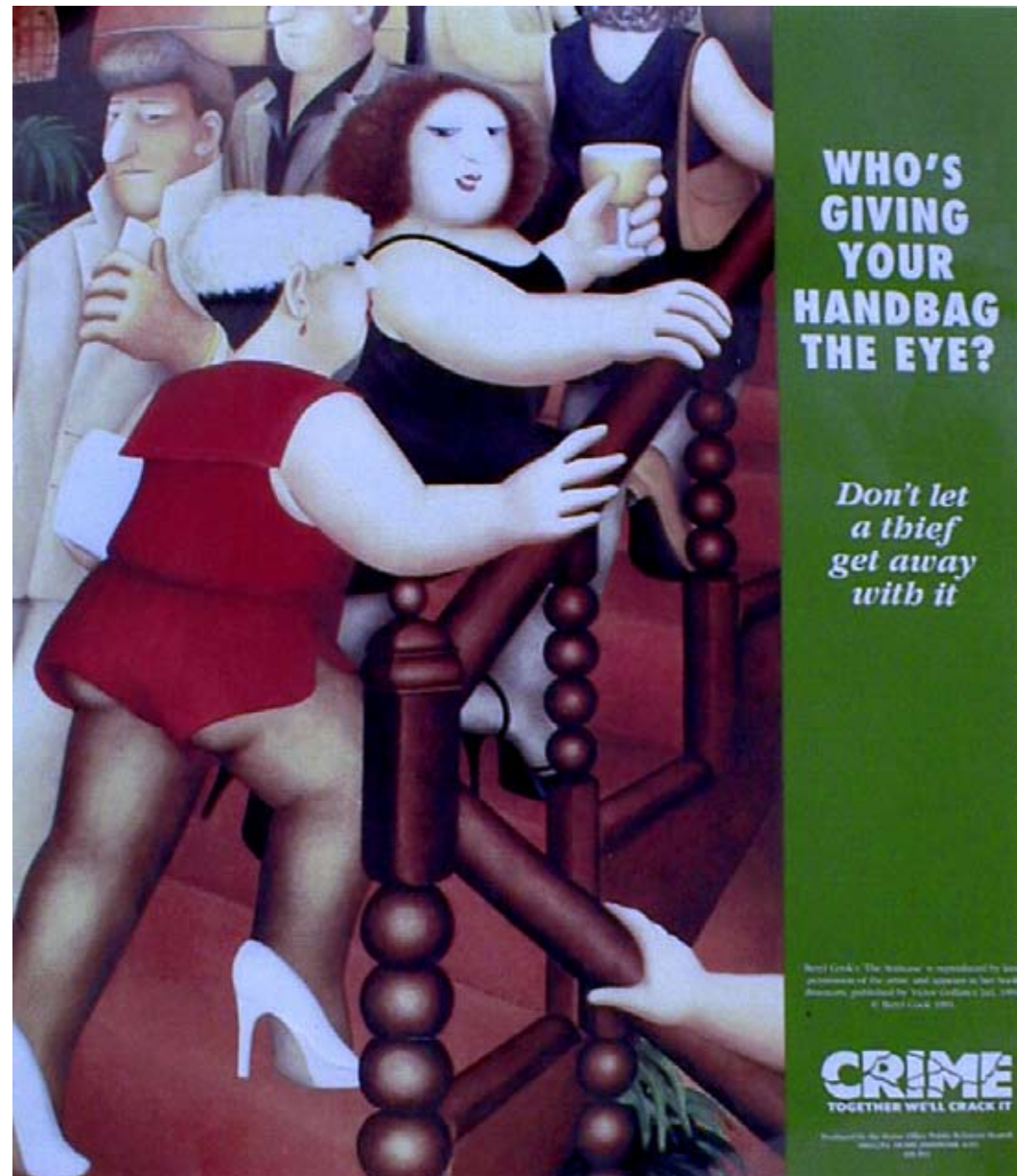
**Crime STOPPERS**

**DRUG DEALERS RUIN LIVES**

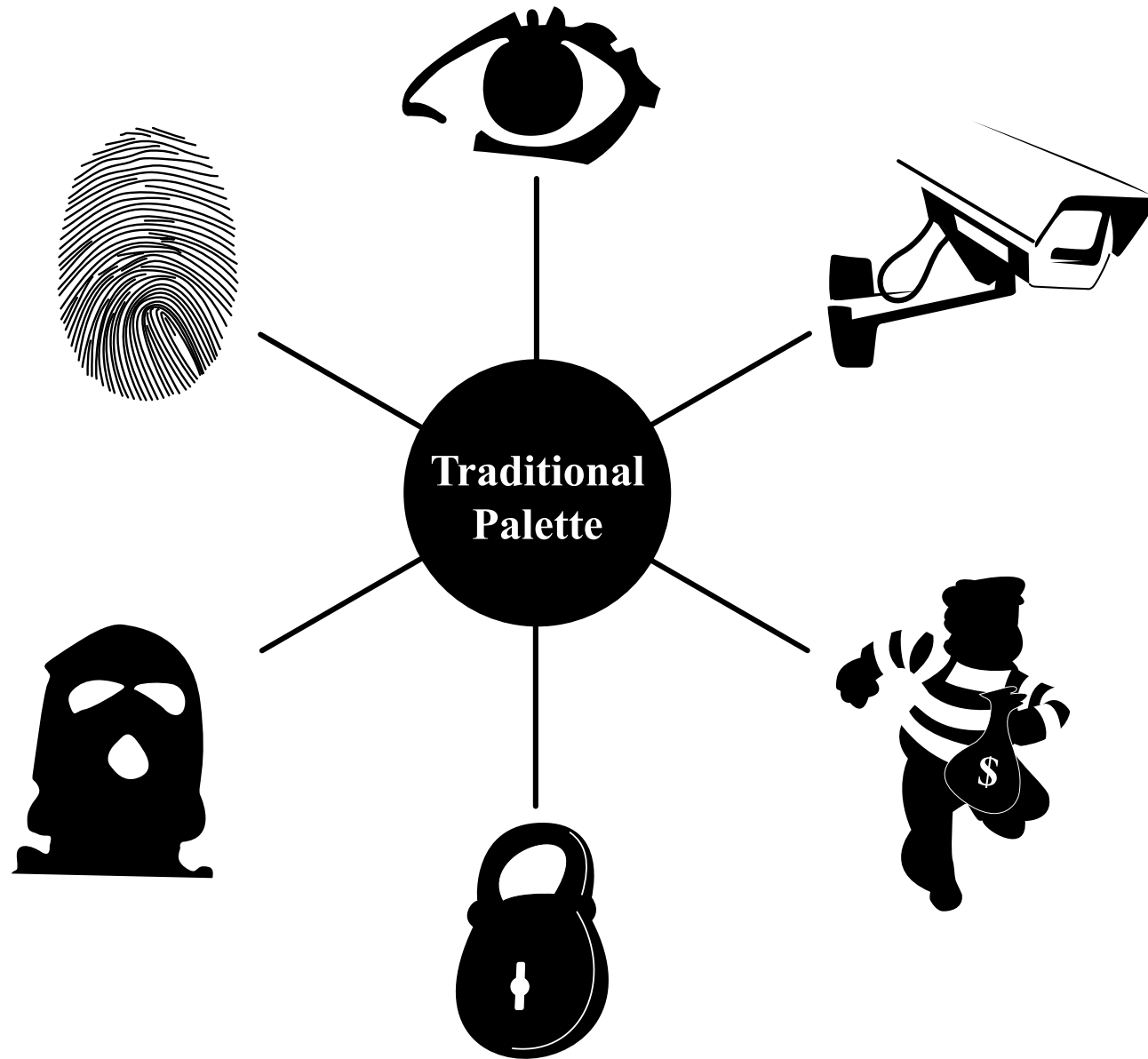
Call anonymously

**CRACK  
DOWN**  
ON DRUGS









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# **Student Brief, 2001**

**You are asked to rethink the usual symbolic palette of crime prevention, to articulate your ideas and to take crime prevention imagery into the 21st century.**



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## **2. Making the case for Design Against Crime (DAC)...**

### **A Visual Precise**

# 2000 Design Museum Exhibition



# 2000 Research Funding: In the Bag

**Design  
Council**



# 2001 **Don't Tempt Me: Milan**



# 2001 **Don't Tempt Me: Barcelona**





# 2002 Stop Thief: RIBA and Designers Block



# 2003 Victoria: Karrysafe





# 2004 iWant: DAC Christmas Card



# 2005-06 Safe Exhibition



**MoMA** The Museum of Modern Art

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# 2007 **Tent London**

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# What DAC aims to do:

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DAC Innovation emerged at University of the Arts London between 2000-2007 (DAC previously championed by the Automobile Industry) and aims to:

1. To reduce the incidence and adverse consequences of crime through design of products, services, communications and environments that are **'fit for the purpose'** and contextually appropriate in all other respects;
2. To equip design practitioners with the cognitive and practical tools and resources to design out crime; and
3. To prove and promote the social and commercial benefits of designing out crime to manufacturing and service industries, as well as to local and national government, and society at large.



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We bring together designers, researchers, criminologists, manufacturers, the police and other stakeholders to design out opportunities for crime, and to commercialize DAC ideas.



**wetherspoon**



Transport  
for London



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**‘Things’ as well as people cause problems. DAC builds on the theory of Situational Crime Prevention (SCP) which considers ‘opportunities’ (linked to objects/ environments and sources as well as users and abusers) to be the ‘root causes’ of crime.**

**Design out criminal opportunities and you can design out crime.**

Felson & Clarke ‘Opportunity Theory’, 1998, Rutgers University, New Jersey



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**Anti crime features become a USP** rather than what defines the object, space, system or service. Accommodating users and deterring abusers needs to be addressed holistically.

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# What is DAC's methodology?

- \* User centred**
- \* Abuser unfriendly**
- \* Practice led**

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# The 6 stages

**1. RESEARCH**

**2. OBSERVE**

**3. VISUALIZE**

**4. EVALUATE**

**5. IMPLEMENT**

**6. ASSESS**

**Where to look for inspiration?**  
DAC starts with crime problem.

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# The 6 stages

1. RESEARCH

2. OBSERVE

3. VISUALIZE

4. EVALUATE

5. IMPLEMENT

6. ASSESS

Where to look for inspiration?

DAC starts

**Where, how and to whom does crime happen?** DAC understands the whole context - which involves Holistic interdisciplinary research

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# The 6 stages

1. RESEARCH

2. OBSERVE

3. VISUALIZE

4. EVALUATE

5. IMPLEMENT

6. ASSESS

Where to look for inspiration?

DAC starts with the crime and the place?m does

Where, how  
crime happens

the whole context

Holistic intervention

**Visualization is linked to making a design intervention.**

Visualizing context occurs before specific design proposals are created.

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# The 6 stages

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Where to look for inspiration?

DAC starts with the crime problem?m does

Where, how and to whom does  
crime happen? DAC

the whole context - w

Holistic interdisciplinary

before sp

are dream

Visualizat

design in

visualizin

before sp

are dream

When design proposals start to  
form, **DAC brings in experts to  
review** and comment at iterative  
stages

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# The 6 stages

1. RESEARCH

2. OBSERVE

3. VISUALIZE

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6. ASSESS

Where to look for inspiration?

DAC starts with the criminal

Where, how and to  
crime happen? DAC

the whole context.

Holistic interdisciplinary

before

are dreamed up?

We may **implement “test”  
prototypes** to further ensure we  
have got it right



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# The 6 stages

1. RESEARCH

2. OBSERVE

3. VISUALIZE

4. EVALUATE

5. IMPLEMENT

6. ASSESS

Where to look for inspiration?

DAC starts with the crime problem

Where, how and to whom  
crime happens?

Visualize the whole context

Holistic interdisciplinary

before specific design proposals  
are dreamed up?

We try to make sure our designs are  
fit for purpose.

We do post implementation  
research.

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**DAC utilizes an iterative design process.** It is based on user centered interaction design and addresses mis-use and abuse, as well as use.

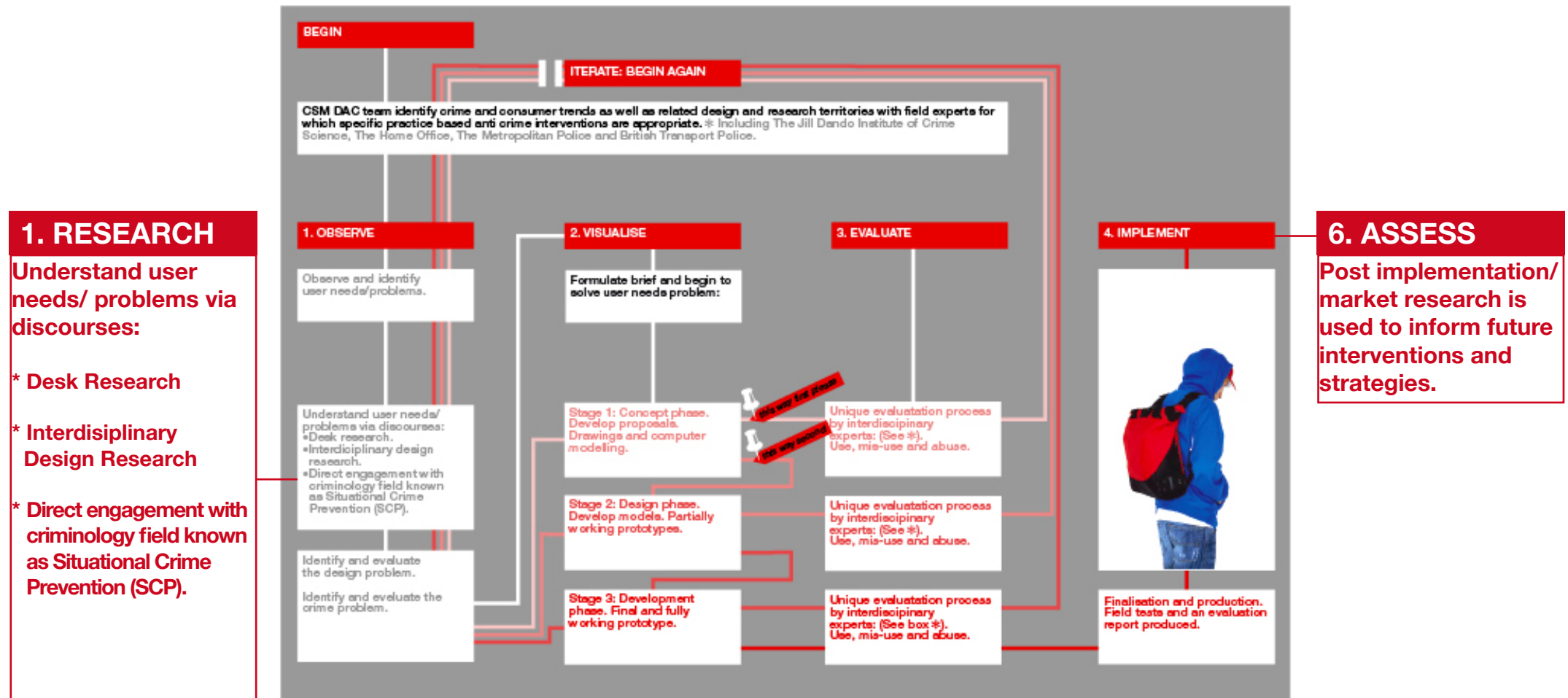
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# **Our model includes**

- \* research and create**
- \* create and consult**
- \* create and test**

**Its bases design thinking on  
observational analysis as well as  
other feedback and expert  
advice.**

# DAC Iterative Process in Diagrammatic Form



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# Case study A

## Bag Theft - Karrysafe

Every minute in the UK another person becomes a victim of bag theft.



Source: Home Office - British Crime Survey 2003/04. Table 2.01 in HO Stats Bulletin 10/04. Calculations worked out by DAC staff as incidents estimated 2003/04, comprising both snatch and stealth thefts yields one in every 0.85 minutes on average.

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# Bag theft - 'hot products'



Compiled from user data of what people regularly carry and use

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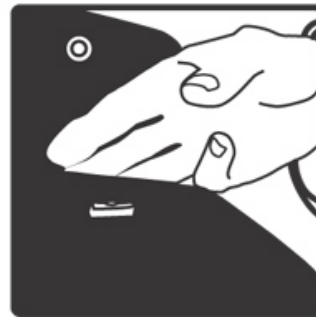
# **Understand the abuser**

## **i.e. perpetrator techniques**



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# **Dip:** Removal of articles from a bag without the owner's awareness.



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# **Lift** Removal of bag and contents without owner's awareness.



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**Slash:** Removal of articles from a bag, without the owner's awareness by cutting the fabric.



**Grab:** Removal of bag and contents by grabbing it away from the owner's grasp.



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**We make theory accessible to practice** – In the bag CD Rom – get smart quick about bag theft, pickpocketing and street crime'



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**Karrysafe** was funded by the **Design Council/ UAL**. The results were a series of smartly designed crime-resistant bags.



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# Designs evolved based on user/ misuser and abuser feedback.

For example, we added different locking features to bags dependent on context of use.



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# Karrysafe range understands that:

- \* 60% increase in street robbery indicates existing product not 'fit for purpose' – market opportunity exists.
- \* 80% of street crime is opportunistic.
- \* design interventions may be applied to block theft perpetrator techniques and reduce opportunity for theft.



# Karrysafe Screamer, 2001

Anti-Grab  
Anti-Lift  
Anti-Slash  
Anti-Dip





# Karrysafe 'Scroll Top' backpack, 2001

Anti-Lift  
Anti-Slash  
Anti-Dip



# Karrysafe Hoodsack, 2001

Anti-Lift  
Anti-Slash  
Anti-Dip



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# Karrysafe

## Phonesafe, 2001

Anti-Lift  
Anti-Dip



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# Case study B

## Bag Theft Grippa

Bag theft research and ‘wonky’  
design thinking also produced:

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# Theory into practice:

## Products for public space.

### Stop-thief anti-theft chairs.



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# Customization and user testing of market leading public furniture











# Communication Design



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## Other Strategies:

**(i) Film by Kieth Gray**

**need film screen shot**

**(ii) DAC Blog**

**[www.designagainstcrime.com](http://www.designagainstcrime.com)**

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# Case Study C

## Bikeoff Bike Parking Design for Holborn Gateway

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# Introducing the Holborn Gateway Project

July 2005 – March 2007



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# Project approach

- \* Research and Observation
- \* Analysis and brief construction
- \* Design and prototyping
- \* Implementation and testing

# Site observations

8500 observations of 'locking' events

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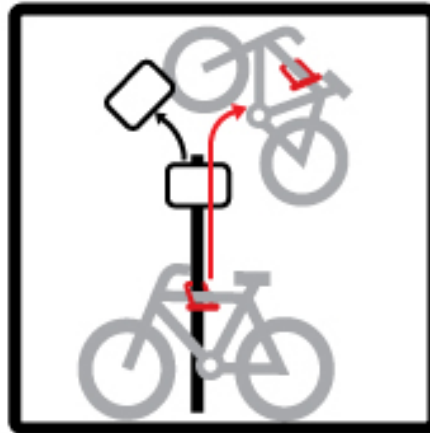
**Bike Leaflet : 2007**

**Adam/Spike london front cover  
needed**

# Bike theft perpetrator techniques

## lifting

Thieves lift the bike and lock over the top of the post to which the bike is secured. If it is a signpost then the thieves may remove the sign to lift the bicycle clear. They may replace the sign afterwards. Sometimes the post itself is not anchored securely and can be lifted clear of the bike and the lock.



Always lock your bicycle to a 'closed structure' that is well secured to the ground. If you must lock to an 'unclosed structure' then make sure it is more than 5 metres high and well secured to the ground (thieves will stand on shoulders to pass your bike clear if the structure is low enough).

## levering

Thieves will use the gap between the stand and the bike left by a loosely fitted lock to insert tools such as jacks or bars to lever the lock apart. Thieves will even use the bike frame itself as a lever by rotating it against the stand or other stationary object it is locked to. Either the bike or the lock will break – the thief doesn't mind which – after all, it's not their bike!



Always fit your lock so that as much of the aperture within the lock is filled by the stand and bike (and maybe helmet!). This will make it harder to insert tools between the lock and the stand. **Never lock your bike by the 'top tube' (AKA 'crossbar') alone** as this will allow for the bike frame to be rotated against the lock.



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# Bike theft perpetrator techniques:

## striking

Given the opportunity thieves may use a hammer and cold chisel to split a securing chain or lock.



Always ensure your lock is fitted so that it cannot rest upon the ground or other immovable surface. This will allow the lock or chain to move if it is struck, diffusing the force of the strike and keeping your lock or chain in one piece.

## cutting

Thieves are known to use tinsnips, bolt cutters, hacksaws and angle grinders to cut their way through locks and chains to steal bicycles.



Don't make it easy for thieves. Some locks, such as coil or cable type, can easily be cut using readily available hand tools. More robust cutting equipment can be difficult to defend against. Expect to spend up to 20% of the value of your bike on your lock. Look at [www.soldsecure.com](http://www.soldsecure.com) and manufacturer guarantees and security ratings to buy the best lock you can. **It is best always to use two locks to enable you to secure both wheels and the frame of your bike to the stand.** If you buy two locks go for different types e.g. a strong D-lock and a sturdy chain lock. This means that if the thief has the tools to defeat one type they may not be equipped to deal with the other.

# Bike theft perpetrator techniques:

## unbolting

Thieves know how to undo bolts and quick release mechanisms. If you lock your bike by the wheel alone this is likely to be all that will remain when you return. If you lock only your frame then a thief may remove your wheel(s). If you leave your wheel-less bike to pick it up later then the thief will likely return before you do and remove the rest of the bike if circumstances allow.



Always lock both wheels and the frame of your bike to the stand and remove any quick release accessories such as saddle and wheels. If you only wish to carry one lock then secure skewers are a good idea. These are available from most good cycle shops and do not allow unauthorised removal of wheels, meaning you only need to secure your frame to the stand.

## picking

Thieves can insert tools into the lock mechanism itself and 'pick' it open.



Most good locks are designed to resist this technique. Check that yours is one of them. Also, make it harder for the would-be thief by securing your lock in such a way that the mechanism is hard to get at. Tightly secured to the bike and stand and facing into your bike. Whilst this makes things a little more difficult for you it will make it a lot more difficult for a lock picker.

www.illustrations by Michael Salmon

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# Interventions

Project aims to use research to inform solutions in the following areas:

**Information Environment:** methods of communicating security issues and user best practice to cyclists and other users of the space.

**Surveillance and Guardianship:** schemes that will help cyclists look after our own bikes and/or work with existing services to do so.

**Cycle parking furniture:** designing more secure user-friendly cycle parking furniture.

**Lighting and Site Improvement:** the design of more user-friendly, abuser unfriendly sites for cycle parking.

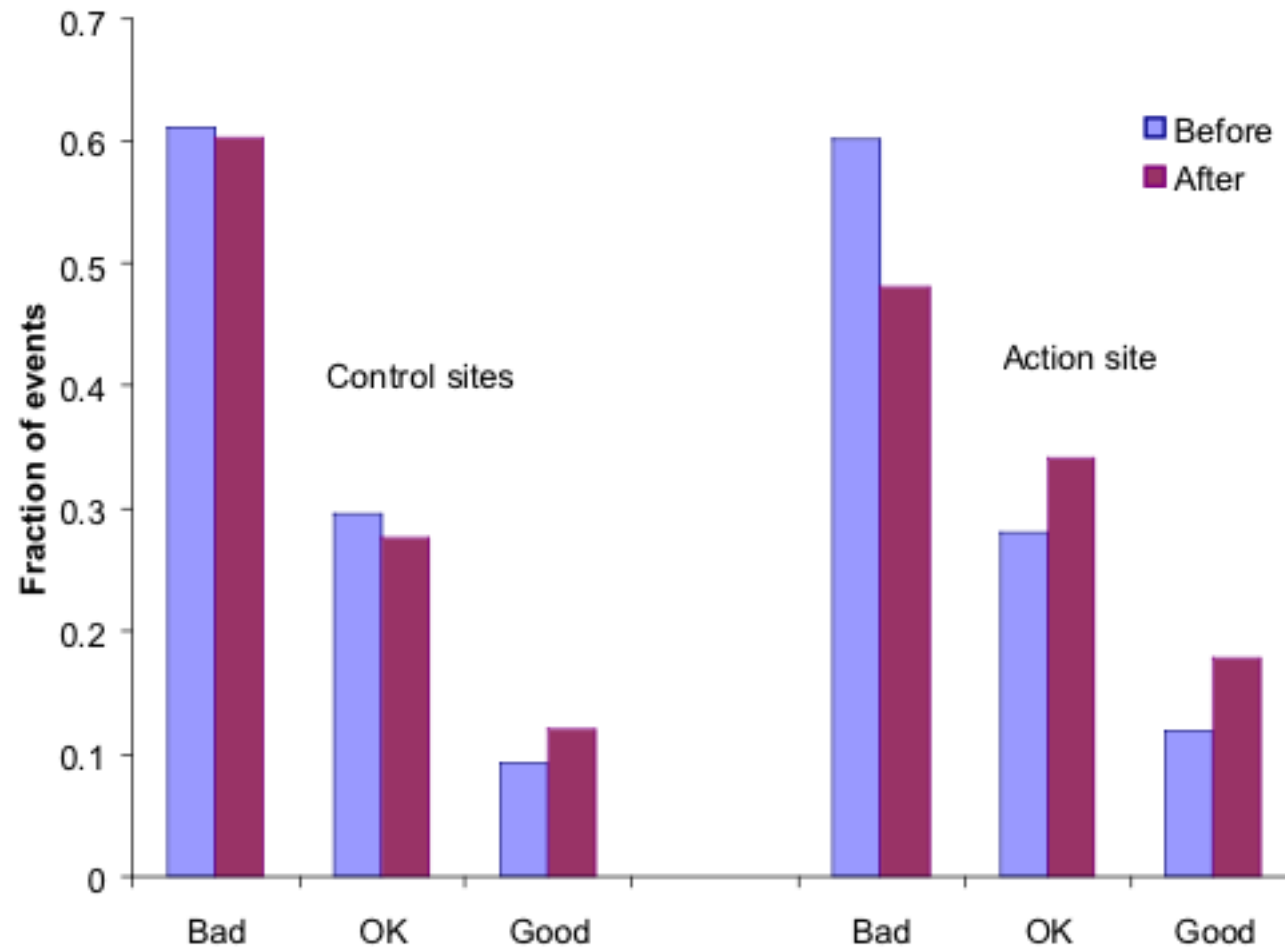
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# Interventions

**Information Environment:** methods of communicating security issues and user best practice to cyclists and other users of the space. (signage/messaging/ integrated?)



# Interventions - Result of Stickers



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# Interventions

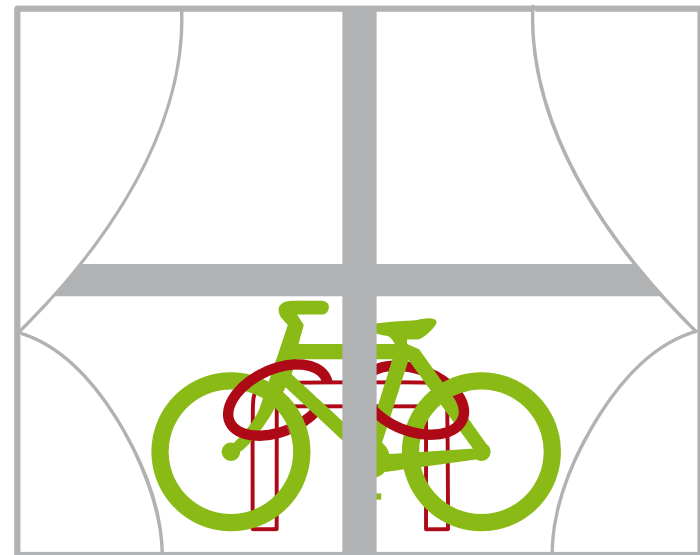
**BOSCH**

**Surveillance and Guardianship:** schemes that will help cyclists look after our own bikes and/or work with existing services to do so.

The bikeoff weblog and site observations have shown that users do not put their trust in CCTV

Little Brother : Bosch

- Self surveillance
- System mgmt – registered users
- Triggers and alerts
- Response – physical/sensory?



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# Interventions



**Cycle parking furniture:** designing more secure user-friendly cycle parking furniture.

Short stay (0-2 hrs)

Medium stay (2-6 hrs)

Bikeoff research indicates a requirement for stand design to address:

- Reducing opportunity for insecure locking practice
- Support bike from falling and front wheel from falling to side
- Increase security of '1 lock' users



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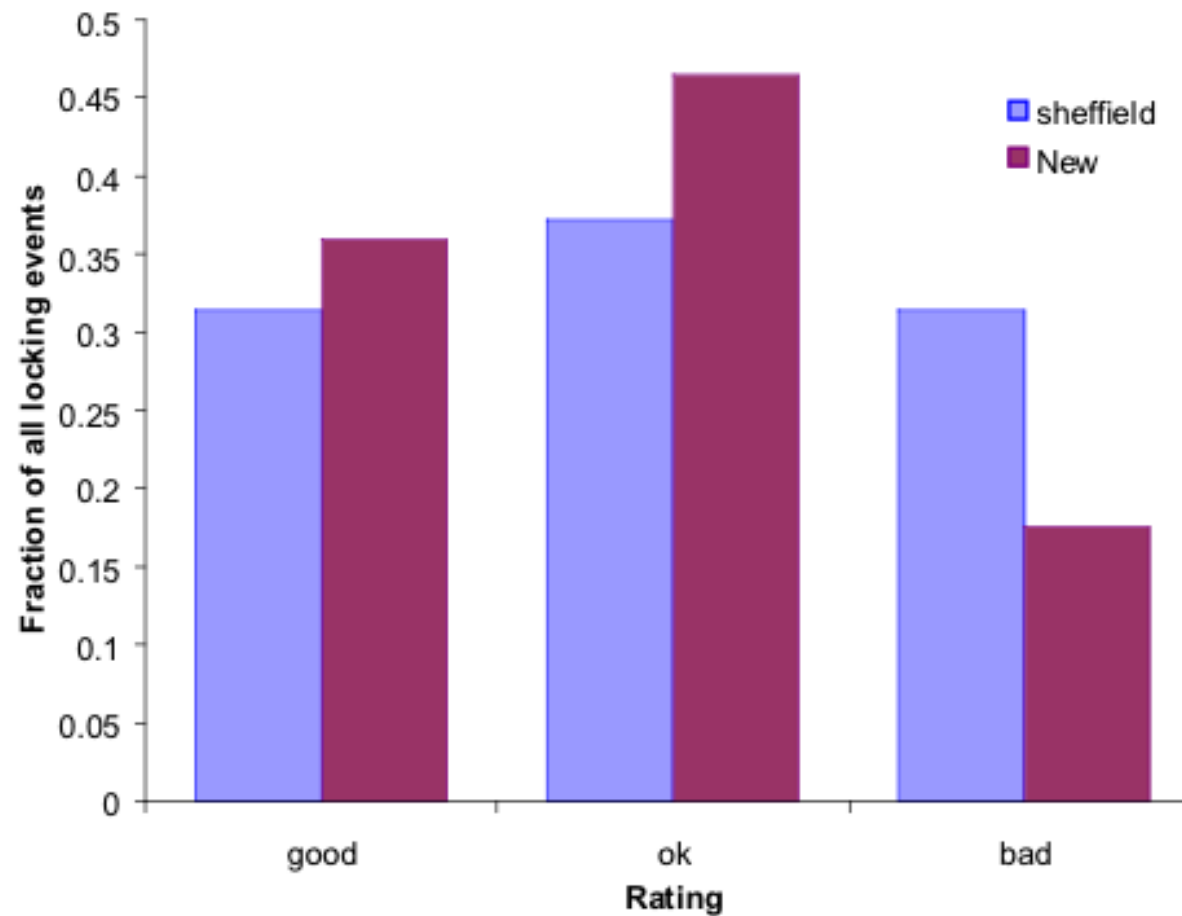
# Bikeoff design proposals are being tested on street prior to 'roll out'





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# Intervention - Stand Results



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# Case Study: Maz

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## 5. Conclusion

Benefits of using user centred  
practice led methodology

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## **\*Innovation**

Ask different questions – get different answers

## **\*Relevant to user and social needs**

## **\*Evolving**

Builds on precedent product solutions and adds crime resistance

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**\*But this work is very functional and we started from a structuralist???? base.**

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## 2. The Art of Crime