

## Techniques of theft prevention

**Situational Crime Prevention (SCP) intervenes in those causes which offenders encounter, or seek out, in the immediate circumstances of the criminal event.**

Situational Crime Prevention activities are extremely varied. However, they can be classified into just **25 techniques**, organised in terms of which of the above factors (risk, effort, reward, provocation, excuses) they primarily tackle. This schema is mainly the work of Professor Ron Clarke operating through the Center for Problem-Oriented Policing ([www.popcenter.org/25techniques.htm](http://www.popcenter.org/25techniques.htm)<sup>1</sup>).

The 25 generic SCP techniques provide **inventive principles** and ideas for designers and anyone else who wants to kick-start thinking about how to design out crime. The point to remember when looking at the examples we illustrate on this site, is *lateral* as well as *literal* – lateral thinking often helps problem solving and the generation of new anti-theft design solutions.

The **10 techniques below**, reinterpreted from Ron Clarke's original categories, aim to offer open-source information about situational crime prevention from a design point of view, that is relevant to bag theft from interior environments and public spaces. The remaining techniques are less relevant to DAC approaches, relating for example to purely human guardianship or focusing on the offender, such as diverting them away from the crime scene. They may nevertheless be worth a look (at [popcenter.org](http://popcenter.org)) as a general source of stimulation.

We are aware that some of the solutions we show to illustrate these techniques are far from ideal design benchmarks. For example, they may not conform to the idea that 'secure design should not look criminal' or satisfy our passionate requirement that crime resistant design should be smart, in-built and beautiful. Nevertheless they are included here because we feel going back to basics may provoke a new, 'designerly', response or at least encourage wonky thinking. We hope some of these techniques fire up and focus designers' creative processes when thinking about how to reduce crime or generate new product development for secure design.

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**TARGET HARDENING involves increasing the physical or electronic resistance of individual objects or spaces to the force of criminal attack.**

For example, a window strengthened by the fixture of a grille to reduce exterior vulnerability. This principle can be applied to hardening the outer shell of a bag to help reduce crimes like slashing and lifting. Designers should bear in mind that

resistance can also be achieved by target *softening* – as with the incorporation of swivelling handle fixings to deflect force or ‘fluffy’ surfaces to deflect blades. And giving something the *appearance* of resistance (whatever its ‘real’ resistance) may deter or discourage offenders (respectively make them believe theft is too risky or too much effort for too little reward) so they do not even attempt an attack. This has the additional advantage of avoiding trauma for the victim and damage to the bag from a failed attempt.



### Roly-Poly Backpack

2005

Eddie Lee from the Art Center College of Design

The *Personal Anti-theft Portable Locker* draws inspiration from roly-polys, armadillos and lobsters. It has a soft inner backpack and a hard articulated shell that can be separated from the lining. While the design of this thing is pretty great looking, it's a brilliant solution to the urban dilemma of "I need to ditch my bag for a few hours." All you do is wrap the shell around a secure structure like a sign post or lamp pole and lock it in place. Anti-terrorism considerations however may indicate discretion, or a different design.

### Zip Zip bag

2000

Georg Hansis

One Central Saint Martin's student has designed into a handbag the strategy of ‘confusing’ the potential thief by camouflaging the actual zip opening to the bag with many other, identical zips. The effort (and time, hence also risk) required to successfully steal the bag's contents is then perceived as far too great, so the offender abandons the attempt at an early stage.

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**ACCESS CONTROL aims to reduce or restrict access to spaces, places, buildings and containers to prevent offenders reaching your property.**

Usually these would involve anti-burglary measures such as door locks and more sophisticated door entry systems (using, for example, fobs, phones or codes... or even facial / iris / fingerprint recognition technology). Keys and swipe cards are obvious symbols of access control but the concept can be thought about more imaginatively linked to defensible space boundary markers – both symbolic and real.



## Stop Thief Chairs

2001

Design Against Crime Research Centre

The 'personal defensible space' of the Stop Thief chair could be used to deny thieves access to bags by creating an enclosure formed by the chair and the owner's legs. Being located at the genital region it would also boost the owner's scope and motivation for surveillance and increase perceived risk (and embarrassment) for the offender.

Stop Thief Chairs are designed to improve the safety and comfort of customers in restaurants by allowing them to secure their bags to the seat whilst also keeping the floor clear of obstruction. The prototype chairs are designed to look like iconic 'designer' chairs, chosen to blend in with the overall surroundings of restaurants in Covent Garden and Central London where they were originally tested.

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**NATURAL SURVEILLANCE aims to use environmental design to ensure that the presence and any suspicious behaviour of offenders will be visible and interpretable to others.**

Then they can take direct action in avoiding, fending off or challenging them, or summon professional assistance from police or security guards. The 'natural' aspect distinguishes this technique from those which use extensive technological interventions such as CCTV or security mirrors, and formal security staff.

Many crimes are committed under cover of darkness so improving street lighting is often seen as a strategy to reduce crime – although the fine details of what kinds of lighting works in what contexts is not systematically known. It may also involve ensuring that lighting itself gives no advantage to offenders eg by creating zones of deep shadow or dazzle. Much has been done to improve light levels and sightlines in multi-storey car parks often by directional painting, rethinking layout using interior mirrors, cameras and side lights.

Communications designs are often commissioned to alert and inform potential victims of risky behaviour ('beware – pickpockets'), and to empower them to make the right responses. Unfortunately these can sometimes backfire, as with the example of the thieves who loitered beside a pickpocket poster and observed passers-by helpfully patting their wallets.



### Zone One and Two

2003

Hedi Raikamo (Photography by Andrew Watson)

Keeping your bag in-view keeps your valuables safer than they would be when out of sight at your side or on your back. This bag designed by Hedi Raikamo, a tutor at Cordwainers College, gives the user quick and easy access to items such as a wallet, a phone, or a bus pass. But makes it difficult for a thief to dip into the bag without being noticed.

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### REDUCING ANONYMITY will put unwanted attention upon the criminal.

Criminals are less likely to offend if they *believe* that they will be noticed, caught or identified later.



### Karrysafe Screamer Bag

2002

Adam Thorpe and Joe Hunter

Karrysafe is a dip-, grab-, lift- and slash-safe range of bags and accessories, designed to counter those four most common bag theft techniques. The designers behind Karrysafe are Adam Thorpe and Joe Hunter of Vexed Generation in collaboration with Prof. Lorraine Gamman (DAC Research Centre at CSM).

What makes their bags considerably safer than standard ones are built-in features like the Screamer. This anti attack alarm for laptop bags, starts screaming if the bag is taken by force. Another characteristic is the Scroll Top, a 'sound' security for the largest Karrysafe bags available. This consists of a Velcro seal you hear when it's being opened.

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**EXTENDING GUARDIANSHIP** Guardians are a familiar crime preventer role centred on looking after the target of crime (as opposed to ‘place managers’).

The role, which relates closely to surveillance, can be played by people protecting their own property, by employees keeping an eye open as part of their job, or by professionals such as security staff. Guardians can be increased in number such as taking on more security staff or encouraging more ‘legitimate’ people to use a particular place where the property is stored, sited or carried. Those who are already there can be empowered by technology, such as electronic fobs which protest when bags are removed from the proximity of the owner, or by simple mechanical aids like the Grippa clip.



**Grippa Clips**

2004

Design Against Crime

The Design Against Crime Research Centre created new bag-holding anti-theft table clips, with original pilot funding from AHRC, and fitted the latest design in the Shakespeare’s Head, Holborn (courtesy of J.D. Wetherspoon) in a pilot scheme. The aim is to discover, in working with customers, the most user-friendly and effective ways of securing customers’ property. The clips help protect the customers’ belongings by extending their personal space and keeping bags anchored and in view as opposed to being neglected on the floor. A formal trial and evaluation of improved designs is under way in conjunction with the UCL Jill Dando Institute of Crime Science.

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**UTILISING PLACE MANAGERS** is about extending, or creating, a role whereby someone takes responsibility for the security of a particular location.

What they then do could involve both taking direct action (for example in securing doors to improve access and exit control) or mobilising others – employees, customers or passers-through – to assume responsibilities in their turn and act against crime in that environment. The action thus mobilised could include general surveillance (watching out for suspicious behaviour) or specific guardianship of people’s own or others’ property.

Doing Mobilisation involves alerting people to a crime risk, informing them about it,

empowering them to do something to reduce the risk and perhaps directing them with objectives, rules or standards (see [Mobilisation under crime frameworks on DAC website](#)).

Empowerment could be through installing security aids such as the Grippa clips described under Guardianship above. Alerting, informing and motivating crime preventers could be achieved through simple verbal communication, such as when the staff whilst clearing glasses remind customers to hang bags on the clips, or to take care of their property more generally. However, Mobilisation is perhaps more commonly employed through visual awareness posters or leaflets: these are commissioned to alert and inform potential victims of risky behaviour ('beware – pickpockets'), and to empower them to make the right responses.



### **Grippa Communication Graphics**

2004

Design Against Crime

However good the functional and aesthetic design of Grippa clips, if they are not noticed or used by customers they will have no impact on crime. Clean and simple graphic communications were created in conjunction with the installation of the Grippa clips, to alert, inform, motivate and empower customers (with the incidental benefit of reminding staff, in a setting where there is rapid turnover).

Posters were hung in the venue's bathrooms to inform the customers that clips are supplied for their security. Table-top graphics inform customers of the techniques a thief will use in trying to steal their belongings. Bag-shaped hang tags are placed on the clips to advise customers to take care of their valuables.

Finally, the Grippa clips themselves were designed to advertise their own presence (by projecting slightly beyond the edge of the table) and to make their purpose and functioning self-evident, backed up by an embossed image of a bag.

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**FORMAL SURVEILLANCE is supplied by police or private security patrols and by CCTV and the staff who monitor it.**

The *potential* for surveillance itself may deter offenders even if nobody is currently present (see [\[link to surveillance presentation in crime frameworks\]](#)). Formal surveillance is expensive to run, maintain and install (as appropriate) so preference

should be given to natural surveillance and other SCP techniques; where it *is* used, aids should be employed to get the most out of it.

As with natural surveillance, lighting and well-constructed sightlines are important aids. CCTV is claimed to prevent as well as detect crime but evidence of impact is mixed; there is a risk of it being installed indiscriminately and expensively as a kind of 'security fetish'. Impact on fear of crime may be positive (even if this may sometimes be a 'placebo' effect) but in some circumstances its installation can heighten concern.

CCTV seems most successful at preventing crime in car parks. For it to be effective, good lighting and unobscured views are crucial and only high quality images can be used to identify and especially to prosecute. Well-trained monitoring staff aided perhaps by movement detector software are also vital.



### **George Street LED Street Lighting**

2007

Advanced LEDs and Mo Gibson, Lighting Designer

Street lighting plays an important role in the safety and security of people and their valuables. With the world becoming ever more conscious of environmentally safe products, LED lighting is becoming a popular option .

What makes this example different from standard street lighting is that Hastings is believed to be one of the first towns in the country to use LED lighting instead of more traditional style street lamps.

LEDs have a far longer life and consume much less energy than other light sources; They are far more compact, so when the fitting does finally need to be changed – decades later – they take up little space in transportation and disposal. And the disposal is safer than other fittings because they contain no mercury.

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**TARGET CONCEALMENT** involves *hiding* an object in some kind of container or enclosure, or behind a barrier; or alternatively, *disguising* it to look like something less valuable than it really is.

For example replacing a jewellery box self-evidently worth taking or opening, with an ordinary tin which can be camouflaged alongside other containers in the cupboard; or disguising your lap top carrier as a pizza box. Fashion designs which limit or abolish

secure pocket space are arguably complicit in crime, forcing people to carry separate bags which are both visible and fairly easily removable / pickable without close contact.



### **PowerPizza**

2005

Human Beans

The PowerPizza is a foam-lined authentic Italian pizza box created by Human Beans specifically for transporting your precious laptop in. When secured, your laptop is prevented from movement and the box can be held at any angle. There's also room for power adapters and accessories.

Designing secure objects can be playful, and sometimes the answer is right under your nose. Disguising your laptop with a PowerPizza will reduce the risk of getting it nicked. However, if every laptop user buys one the thieves will soon cotton on, so realising the disguise principle via a range of alternative designs will be important.

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**TARGET REMOVAL** takes the target away from the crime situation, beyond the offender's sight or reach.

For example removing from view satellite navigation systems, mobile phones or money from cars; or leaving valuables in hotel safes when strolling around Las Ramblas in Barcelona, a well-known haunt of pickpockets and bag snatchers. Extending this concept leads to *abolition* of the target. This may inspire designers to create wearable storage in clothing to remove the opportunity for thieves to snatch bags.



### **Evolution Jacket**

Scottevest

A recent example is the Evolution Jacket, aka The Spy Jacket, designed for federal law enforcement agents: it has 40 pockets – most of them hidden – and hidden conduits in the lining which allow you to thread and organize wires to keep them from



tangling. So you can easily keep your mobile, your keys, your iPod (and anything else you want) safe and hidden from thieves because all your essentials are on your person. The problem of remembering which pocket you have put which item in however remains to be solved.

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**DENIAL OF BENEFITS from criminal activity involves making the targets of theft valueless so thieves, robbers and others such as fences or end-buyers of stolen property do not benefit from stealing.** For example, mobile phones and PDAs that stop working once their owners realise they have been stolen and report them to the service provider, or simply operate through passwords that make objects difficult for anyone else to use. (Property marking with UV pens on objects or shopping tags that spoil clothing by releasing ink if they are removed illegally are further examples of marking objects valueless on use or resale, already covered under Identification above.) What links all these approaches is the attempt to reduce rewards from crime in a direct way via the object of desire itself.



### **Biomega Puma Anti-Theft Folding Bike**

2004

Adam Thorpe and Joe Hunter with Jens Martin Skibsted of Biomega

The designers Adam Thorpe and Joe Hunter at Vexed Design (and London's Central Saint Martins College of Art and Design) and Jens Martin Skibsted of Biomega have put their collective creative minds together to outwit the most savvy of folding bike thieves.

This 'Urban Mobility bike' is one example of how designers are attempting to reduce bike theft. It's an uphill struggle, though. Figures from the British Crime Survey show that in 2005/06, a record 439,000 bicycles were stolen across England and Wales.

The Down Tube wire is a structural part of the frame – integrating the locking mechanism in the frame subsequently rendering the bicycle non functional through 'spoiling' if someone breaks the lock to steal the bicycle. An additional benefit is the reduced number of freestanding locks that the cyclist may have to carry.

DAC Team