grippa
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Design Brief Paper

Skunkwork

Brief for Grippa redesign and other bag holding object design

Time: 10.30 am, Monday, 26th March 2007
Venue: Meeting Room, Innovation Centre
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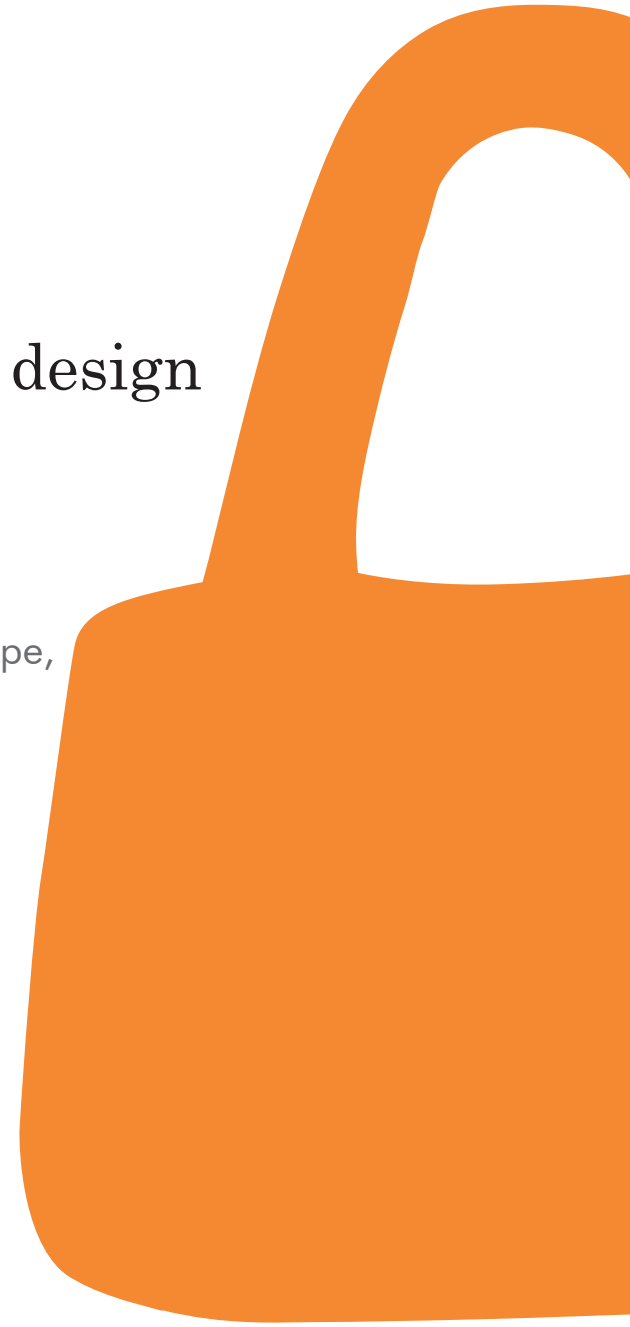
Prof. Paul Ekblom, Marcus Willcocks, Adam Thorpe,
Ansel Thompson,Jackie Piper, Chris Thomas.



DESIGN AGAINST CRIME Research Centre

JDI

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 and wider practical and research material on preventing bag theft at www.inthebag.org.uk

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Introduction

The brief is to redesign those objects currently called DAC "Grippas" catalysed by an original brief set by Lorraine Gamman in 2004, which recognised the Chelsea Clip did not work, and sought to inspire a new clip design aimed at designing out the crime of "lifting" of bags from cafes/ pubs/ restaurants (see www.designagainstcrime.com and also Lorraine Gamman's In the Bag CD-Rom, London Institute 2000). The original Grippa brief was tackled by designers Jackie Piper, Chris Thomas, Ansel Thompson and Marcus Willcocks and produced a range of "on table" designs in 2004, as well as a range of communication designs delivered by Sean O'Mara.
Many of the 3D table top designs were not taken forward, linked to expert review feedback and further development of an on-but under the table Grippa was requested by Gamman and delivered for Marcus Willcocks and Chris Thomas for All Bar One chain engineered by ISC Wales (first iterations). It was installed in All Bar One Regent Street, WC1 in 2005, exhibited at Index Awards, Copenhagen 2005. Despite winning prizes, and communication work being exhibited at the Museum of Modern Art in 2005/6, Gamman felt existing Grippas were still not fit for the purpose of facilitating a wide range of straps – particularly larger straps associated with backpack and other larger bags often carried by men. Gamman therefore in 2005 asked for the redesign of Willcocks and Thomas Grippa prototypes in larger size to accommodate larger bags (such as laptop bags) as well as the smaller women's bags, which JDI research indicated were more commonly stolen. The bigger clip designs were delivered by Chris Thomas in association with ISC Wales and funded by Wetherspoons, who paid the £70 per clip to install 60 clips (total) in the Shakespeare's Head, in Holborn (a non profit research augmentation project set up by Gamman/Thomas). These bigger clips were found to work more effectively at facilitating larger straps, and subsequently Wetherspoons have requested more. DAC have not responded to this request. This is because later observational work at Shakespeare's Head by DAC team found the expensive spring mechanism of the larger Grippa design collapses, with frequent use, and does not appear as significant to effectiveness as we had previously imagined. Hence Gamman initiated discussion for the creation of the Grippa 2 bid, which has produced funding for new design work to commence.

The aim of the Grippa Skunk workshop that commences on Monday 22nd, 2007 is three fold:

(1)
*create a more effective and ubiquitous redesign of existing Grippa in metal to engineering drawing stage for testing in cafes and pubs in July 2007, as part of the Grippa 2 project, leading to the choice of one design for batch production in October 2007 and evaluation purposes in January 2008.
Marcus/Jackie/Chris/Lorraine
*to find cheaper ways of manufacturing this object in small batch runs than currently being facilitated by ISC Wales – linked to other manufacturing companies. Marcus/Jackie and Chris

(2)
*to create a new design for an under table plastic or metal bag holding table support –to engineering drawing stage for possible user testing in cafes and pubs in July 2007 as part of the Grippa 2 project, also with one design aimed at Starbucks chain, leading to the choice of one design for batch production in October 2007 and evaluation purposes in January 2008. Ansel/Adam/Lorraine
*to find inexpensive ways of manufacturing this object in small batch runs. Ansel/Adam/Lorraine

(3)
*to create a personal bag holding product for all cafes (brief will be developed by Gamman via lecture which features review work of personal products undertaken by Marcus Willcocks) and also for Starbucks chain including design and styling of object and packaging of object. Sarah/Jackie/Lorraine
*to find inexpensive ways of manufacturing this object in small batch runs. Sarah/Jackie/Lorraine

When redesigning the existing Grippa objects (and other bag holding objects specified above) designers need to take into account issues within the following materials:

*In the Bag CD-Rom and lectures and papers given by Gamman on the DAC iterative process – to be summarised by Gamman at Monday's Skunkwork workshop

*JDI first evaluation of the All Bar One Regents Street project

*Prof Ekblom's Crime Prevention Framework summarised after this brief

Designers need to ensure the products they create:

*are ubiquitous easy to use bag holding objects aimed at designing out bag theft particularly "lifting"

*styled so they can be effectively located in cafes, bars and restaurants without compromising their brand identity or association with "crime"

*new Grippa designs will need to be able to accommodate the widest range of bag strap sizes (width and length), be easy for the user who could use two hands to hook bag on, and to incommodate any abuser desire to "lift" or detach from clip with one hand or by other stealth means

*to be visible to customers via an "on" table presence and communicate fitness for purpose (speak what they are) via design style without looking so "engineered" (as at present)

*to understand ergonomics of use and be safe for customers to use and unlikely to cause injury to customers linked to size or edges of the design

*to be linked to fixings that are easy to install by non specialist staff causing minimum damage to furniture

*be linked to a customer spatial table setting blueprint or template – i.e. designers should seek to understand and specify how many per table can be used and how they should be spaced

*designs should be easy to represent in design communication aimed at customer direction i.e. posters toilets, walls, menus and other forms of communication (including on table communications)

*designers should be aware of weight holding potential of Grippas they design and what type of small table would be incommodated by bags held on Grippas or what size of tables would tip and cause safety problems linked to spilt drinks etc if too many Grippa were installed

*to accommodate easy maintenance and cleaning – in particular not to incommodate chairs being stacked upside down on tables so floor cleaning/ vacuuming can take place

*designs should try and generate the "x" factor quality i.e. possess a quality that would invite customers to use or play with them to ensure their successful uptake

Lorraine Gamman
22nd March 2007

Further Background Information

The Conjunction of Criminal Opportunity: the players, the props and the stage

The Conjunction of Criminal Opportunity (CCO) is designed to include and coherently integrate all the proximal causes of crime, on both offender and situational sides. As such, it can help designers both to 'know the enemy', to know the environment in which crime is committed/prevented, and to know the needs and actions of those behaving legitimately: to be user-friendly whilst abuser-unfriendly. CCO focuses analysis on an exhaustive map of 11 immediate, generic causes of criminal events which come together to create criminal motivation and opportunity, and onto which can be mapped corresponding principles of intervention. It is a kind of universal story of the criminal event, in which a predisposed, motivated and resourced offender encounters, or engineers, a crime situation involving an attractive, vulnerable or provocative target, in an environment that is conducive to crime. This is facilitated by an absence of people acting as crime preventers who are alerted, motivated and empowered to act and the presence of people acting as crime promoters – individuals such as careless householders or fences who make crime more likely to happen. CCO also aims to integrate enforcement-based approaches to intervention with 'civil' ones involving changes to the everyday world of institutions, buildings, schooling etc such that people strategically or tactically responsible for reducing crime have at their disposal, a map of all the alternative families of intervention from which to select and design intervention methods.

Some of the generic causes of criminal events listed under CCO will not in themselves be manipulable by design – for example, designers cannot in the short-term affect criminal predisposition, which may have been acquired in childhood. However, (as in my paper Making offenders richer), the know your enemy principle suggests that designers should be aware of the kinds of motivation they are dealing with in their criminal adversaries. Even though a criminal predisposition (for example involving disrespect for personal property) may have been acquired long before the criminal event/s in question, that predisposition is of interest as an immediate cause in the here and now.

CCO can be viewed theatrically – as players (offenders, preventers, promoters) who are 'caused agents' (but not theatrical agents), props (especially the target of crime, and resources for committing/ avoiding committing and preventing crime, which people variously bring with them or find and use in the crime situation), and stage (environment including enclosures and furniture).

CCO and scripts

CCO by itself provides a fairly static picture of causation. For designing against crime this needs to be extended to supply a dynamic 'movie' of the unfolding criminal event, and to do this whilst capturing the perspectives of the players. Following Cornish (1994) we can analyse the commission (and prevention) of crime using cognitive scripts which offenders use, with improvisation, to take them through the criminal event, and perhaps too through linked scenes of preparation and realisation of value etc. The current definition of scripts is:

'A sequence, or set of alternative sequences, of purposive actions by which a motivated offender can use available mental, social and physical resources in 'foraging', to achieve positive criminal goals whilst avoiding 'negative goals' – managing the risks of harm (such as arrest), failure and over-reaction (e.g. injuring victim). The script requires the offender to exploit (if not to create) the opportunities and cope with the risks of preparing for, executing and completing (= clearing up traces, realising value, laundering money etc) criminal and crime-related actions in a set of scenes, in each of which the causal elements of the relevant crime situation can be described by the CCO.'

Scripts are essentially cognitive competence for behaviour. Actual performance, involving perception, judgement, decision making, response and intake of/adjustment to feedback, may differ from the script, because depending on events the player will have to improvise to customise the action to circumstances, there may be conflicting requirements in particular situations, and the player may jump from one script to another – perhaps at the whim of casual encounters with opportunities or provocations for crime.

Scripts evolve through learning and cultural transmission. One major consideration in the evolution of a script is how

it takes account of the scripts of other players. It is possible to move to the wider perspective of co-evolution of the scripts of routinely-interacting players. In such cases we might expect scripts to become ever more elaborated e.g. in the case of bike theft, with the players' scripts evolving from simply parking the bike and leaving it… and going up to the bike and wheeling it off, to those involving preventers/offenders having respectively to operate or disable various security adaptations/ counter adaptations.

Scripts and modus operandi/perpetrator techniques

While scripts essentially emphasise a sequence of goals and subgoals that the offender (and other players) seek to achieve to meet their purposes, it may be helpful to distinguish this aspect from the more detailed technique by which the goals are achieved. The term Modus Operandi (aka perpetrator techniques) can perhaps be used to capture such techniques. Both MO and scripts together comprise part of the offender's suite of resources for committing crime.

Alongside scripts and the purposive behaviour which they envisage, the notion of the players as caused agents means we must simultaneously take account of their motivation and emotional states. For the offender, readiness to offend - in CCO terms. For the preventer/s, how they might be motivated (as well as alerted to the crime risk and empowered with resources to prevent it). For the promoter/s, how (as careless bag owners, or bar/café staff being indifferent to the crime risk to their customers) they might be converted to preventers (respectively guardians of their property or managers of places in Crime Triangle terms). Such readiness may pre-date the crime situation or may be kindled in situ by various provocations, temptations and challenges (including the sight of someone trying to make off with one's possession).

How to prevent theft: a positive theoretical principle

The legal definition of theft is fundamentally about legitimate versus illegitimate possession of (in this case) the product; and the illegal transfer event or process that brings the latter about.

Based on this, and our understanding of the interplay of the offender's and owner/ preventer's scripts and motivation for committing and avoiding crime, the critical task of reducing the probability of theft is one of creating or amplifying some asymmetry between the legitimate and illegitimate possessors, during seeking, seeing, selecting target bag and/or owner, taking, escaping and realising value for the latter, and retaining, using and enjoying for the former. The asymmetry exists in terms of differential risk of harm, effort, reward and provocation to one or both parties during foraging and/or retention.

The key to realising the principle is either engendering some sort of fundamentally asymmetrical value of the product for the two parties that is sufficient to lose attraction to the offender; or creating some kind of discriminatory function which allows the owner significantly easier access to that value than the thief. Increasing the value of the product to the owner (or the cost of its loss) may serve to motivate the latter to take greater care of it – with obvious implications for policy on insurance, and perhaps too for cheap mass production.

This analysis of theft fits well with the rationale of design against crime which seeks to apply a dual perspective, making products both user-friendly and abuser unfriendly (Gamman and Pascoe, 2004; Ekblom, 2005a), in contrast to the single perspective of traditional user-centred design.

It also fits with the systematic approach to inventiveness known TRIZ. TRIZ has identified some 40 generic and abstract invention principles; also, some 39 contradiction principles such as 'strength v weight'. Those who use TRIZ suggest that design and invention is enhanced to the extent that these contradictions are clearly articulated. The theft prevention principle as stated above is fundamentally a case of contradiction.

A way to proceed on design which exploits this approach might be to seek to identify all the possible contradictions in the café/bar theft of bags situation are identified and clearly articulated. One example might be approaches which exaggerate the asymmetry of various aspects of the script for offenders versus customers/owners (and/or staff). So, for example, making the movements to release/ unclip the bag might be made more difficult (increased effort, demanding greater skill or specialist tools, more time hence greater risk) and/or more obvious to potential preventers (e.g. obvious hand/arm movements. The asymmetry would be to make things easier for the customer (e.g. bag can only easily be released from customer's seating/standing position).
It would also be necessary to articulate and design for contradictions or 'troublesome tradeoffs' with all other design requirements – after all, crime prevention is not the reason most people patronise bars and cafes.

Towards the design of preventive interventions

With the above understandings taken on board, how to proceed to design against bag theft in bars and cafes? In some respects this is entirely up to the designers to use their creativity and familiarity with the venues to come up with proposals that realise the broad principle of theft prevention as set out above, and to develop these by thinking of how the players unfold their scripts and modus operandi, and how the scripts themselves interact and perhaps co-evolve. However, we can take the guidance somewhat further, being systematic without stifling design freedom.

- It is of central importance that designers identify the various goals/scripts/MOs of offenders – through studying crime reports, talking to knowledgeable police and/or interviews with offenders (in all cases with appropriate methodological prudence).
- We can suggest that designers consider different scope (which crime problems to prevent in which contexts) and scales – from the micro-level of the detail of bag grips to the meso level of tables and chairs to the macro level of the whole layout of the premises (e.g. number of entrance doors).
- We can identify a range of functional dimensions of the bars/cafes, such as vision (light and sight lines), anchorage and enclosures/barriers to movement of players.
- In parallel we can consider the technical features of the bars/cafes, such as light fittings, furniture, screens etc, which realise the functions. (Presumably there is a fairly standard list of interior design headings to crib from.)
- Then we can look at the crime aspects – which of the dimensions and/or features are criminogenic (raising the risk of criminal events), which criminocclusive (decreasing the risk of criminal events), and which of the latter are deliberately designed/installed security adaptations (e.g. special lighting, alignment of tables, installation of mirrors or CCTV to aid surveillance).
- We can also consider how these features of the environment interact with one another (beneficially or detrimentally) and with features of the target (bags), and with the resources mobilised by the scripts of the various players (e.g. the offender's capacity to remove bags stealthily, or preventers' capacity and motivation to recognise and act on suspicious actions).
- We can also consider the range of causal mechanisms by which the various features and players in the crime situation have their criminogenic or criminocclusive effect – physical (e.g. insurmountable barriers), cognitive (perceptual, informational – including perceived effort/risk/reward, and communications that alert, motivate and empower preventers or deter and discourage offenders), interpersonal (anticipation of accusations/challenges etc), and cultural/social (e.g. motivating people to look out for one another's property – even strangers).
- Because criminals are adaptive and the resources available to them and to other players continually change it is important to think ahead. This may involve anticipation of countermoves by offenders, which could range from immediate tactical ones (e.g. varying the realisation of the theft script to cope with a new security mirror) to the strategic (e.g. developing a special device to stealthily unhook bags from table grips). Thinking ahead may also require anticipating and future proofing against refurbishment – so any material security fittings (or if not, principles) could be transferred to the next designs with minimal disruption and maximal learning (i.e. not requiring a complete return to the drawing board which would happen if the new interior was significantly naïve to crime).
- It is also necessary for designers to consider versatility of their security designs. The trade off is between something specialist which is fully adapted to the current situation (in terms of both crime problem, interior décor/style, company policy etc) and thus maximally effective and acceptable, versus a less-well adapted generalist alternative which is however good enough to fit within a wide range of premises and potential refurbishments.

Paul Ekblom
22nd March 2007