

DESIGN AGAINST CRIME

RESEARCH BRIEFING 3

DESIGN AGAINST CRIME IN EDUCATION

Extract from a report to the Home Office and the Department of Trade and Industry

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Sheffield Hallam University

Design Education

1 Introduction

This research briefing examines the extent to which crime issues are addressed within design education and the potential for building further on current practice. Given the distinctive nature of teaching and learning strategies in design, and its disciplinary diversity, it is necessary to begin by briefly describing the background and nature of design education in Britain, and some relevant recent changes within it. Following this we report on the result of a postal survey conducted to establish the current state of educational practice with regard to teaching design against crime. While it is currently a marginal issue tackled on design courses, there are some notable examples of effective practice, three of which we detail in our section of case studies. Finally, the chapter discusses prospects for embedding crime into design education drawing upon the experience of other issues areas in design, such as design management and ecology. We conclude by summarising the key points of our discussion.

2 The nature of British design education

Design Education in the U.K has to a very large degree followed the needs of industry. Until the mid sixties and early seventies, most design skills were developed in colleges of art and design through a model of vocational training. Developing skills and being studio based, the learning derived through the atelier teaching method, i.e. a small group of students working on design tasks being tutored by a designer. This practice continued when colleges were subsumed into Polytechnics in the late sixties. During the eighties there was a growth in higher education numbers and in order to respond to this new situation a change in teaching and learning methods was required. This approach involved more emphasis on the theoretical and historical perspectives on design. Therefore, there has been an underlying trend to develop a contextual and theoretical body of knowledge for use by design education.

Graduates have never been accredited with the professional status that has been attributed to architects or engineers. This lack of professional status may be the result of the disparate manner in which the profession has represented itself. Designers have been characterised not only by their discipline specific skill, but also the sectors in which they operate. There are also a plethora of groups and associations, and although the Chartered Society of Designers offers Chartered Status to designers, it does not offer the level of professional

accreditation recognised by other bodies such as the RIBA (Royal Institute for British Architects).

The design courses offered today do have different orientations, there are studio based craft courses, where the emphasis is on designing and making, such as glass, ceramics, jewellery and silversmithing. There are courses whose predominant orientation is design from an industry and professional stance which focus on developing design skills and relating them to industry i.e. solving product or graphic design problems. The theoretical courses tend to consider the history and contextual aspects of design as well as an understanding of the subject itself.

There are clearly a great number of design disciplines and differing typologies to assist in categorising them. For the purposes of this research we have used the following categorisations. These are not wholly inclusive in terms of the full range of design disciplines, but they embrace those most relevant to crime issues, and were used in the postal survey described in the following section:

Design category	Description	Specific disciplines
Visual communications	Two dimensional design concerned with a range of communication needs and media.	Graphic design, typography, electronic multimedia, illustration, etc.
Architecture	Three dimensional disciplines concerned with the built environment	Architecture, urban design, environmental design
Fashion	Two and three dimensional design concerned with clothing and furnishings	Fashion design, textile design, surface pattern design, knitted textiles, carpet and rug design
Product and industrial	Three dimensional design ranging across industrial systems and products to design for batch and one-off production	Industrial design, product design, furniture, ceramics, jewellery, glass, etc.

Table 5.1 Typology of design disciplines

On examination of the topics or subjects offered in the UK there are a multitude of subjects covered in both breadth and depth. Some of which are very vocational and practically orientated some more theoretical. The design curriculum is influenced both by professional practice, market demands, environmental changes and changes in the educational system. A key question for this inquiry is the extent to which crime has found a place within the curriculum.

3 Teaching design against crime survey

In order to gain an overview of UK education practice with regard to teaching design against crime, a postal questionnaire survey was conducted in October 1999. The aim was to identify the extent to which crime-related issues are included in the current design curriculum.

The sample was chosen from 1999 entry prospectuses from all UK institutions offering design courses at undergraduate and postgraduate level. A total of 501 questionnaires were distributed to course leaders. This resulted in 79 completed questionnaire being returned from 36 different institutions – a response rate of 16%. Responses according to groups of design disciplines were as follows:

- **Visual Communications** - 15 completed questionnaires from visual communications, graphic design, typography, illustration and advertising related courses
- **Architecture** - 14 questionnaires from architecture and urban design courses
- **Fashion** - 12 from fashion and textile courses
- **Product/Industrial** - 11 from industrial, product and furniture design courses

Additional responses were gained from specialist or theoretical courses such as photography, design studies and museum design.

3.1 Crime reduction, prevention and awareness within design

41% of the respondents reported that crime reduction and prevention was not relevant to their design discipline, 34% said it was, while the remainder was undecided. 71% of architecture respondents thought that crime reduction and prevention was an aspect of their discipline, while product/industrial respondents were in general undecided, with a minority agreeing there was a role for them. The majority of fashion respondents did not perceive that there was a role in crime prevention for them.

Of those respondents who defined a role for their discipline in crime prevention, it was in terms of the following aspects:

The visual communications role

- as an information provider
- to promote awareness of crime prevention using communication techniques

- to increase visual awareness of crime and its effects on victims by raising public awareness
- to achieve this role through advertising campaigns, editorial and digital media

The architecture role

- combating vandalism
- designing features of buildings that allow supervision and natural surveillance of common areas and housing areas through the organisation of the spatial structure and layout of private/public spaces, and through an understanding of lighting, and the choice of materials
- through the use of plants at the location of entrances to and facilities within public open space
- construction and the user attitude to the equipment offered

The fashion role

- in anti-theft technology, the traceability of products, tracking devices
- personal security, through visibility and safety
- for many in the fashion group, it was difficult to see a role for their discipline in crime prevention and awareness, some indicated that they had not thought about it until completing the questionnaire

The product/industrial role

- creating awareness and respect for property and surroundings
- domestic security
- activities which engage people so they do not turn to petty crime
- the design of crime resistant products
- defining the 'user experience' through explicit contextualising of products

The designer's role in general

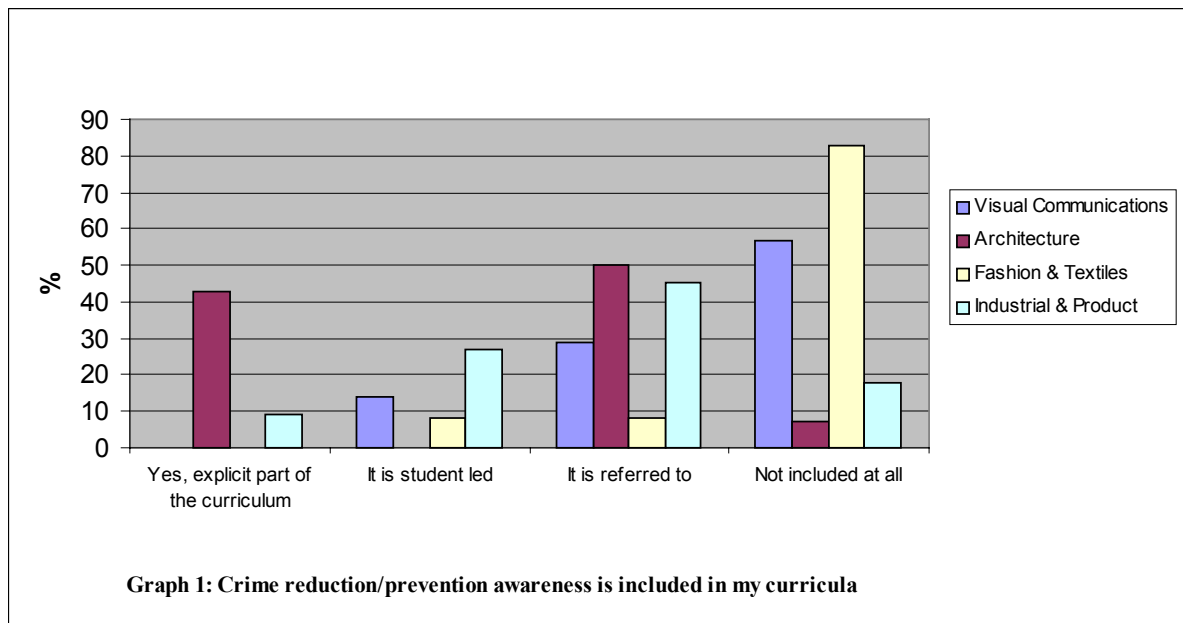
- security of premises: urban design with particular reference to inner city living and public realm works
- web/email security
- designing crime prevention into museum and commercial exhibits
- consideration of internal spatial arrangements in retailing, hotels and restaurants to minimise theft
- the selection of appropriate materials and technology to reduce the crime threat

- awareness of security and of the attitudes and perception of the public to physical design and spaces
- to make students aware of how good design can reduce crime: providing information, a framework and an understanding within which design disciplines can approach crime reduction issues
- through television and film - short film segments which highlight crime, publicity through exhibitions on crime prevention

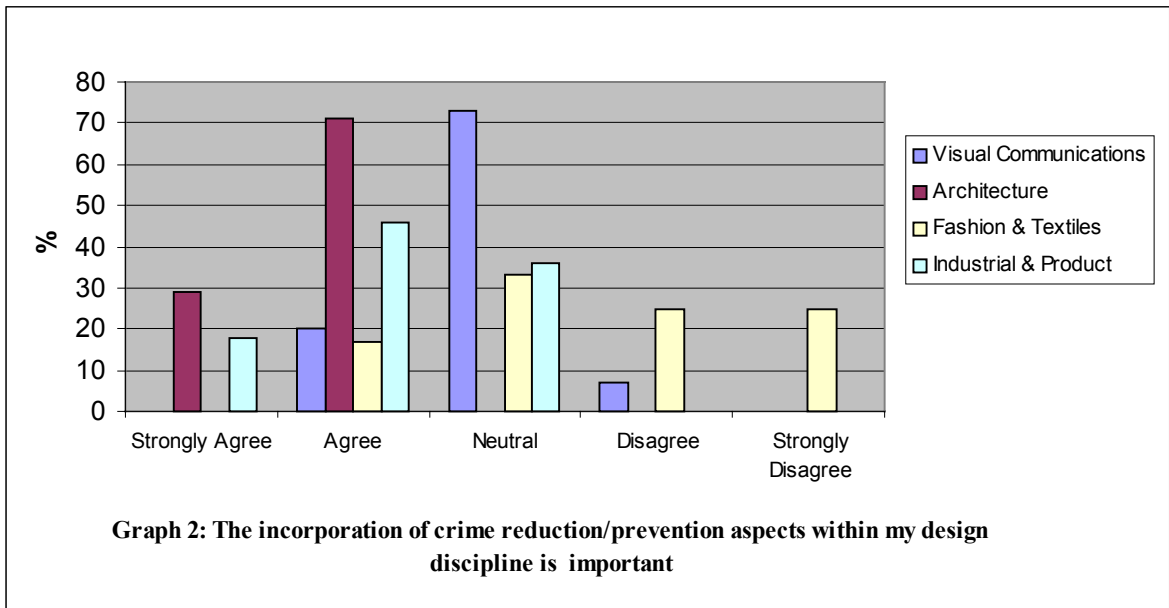
3.2 The inclusion of crime reduction, prevention and awareness within the curricula

For the majority of courses, crime reduction and prevention awareness was not included in the curricula at all. It was merely referred to in one third of courses.

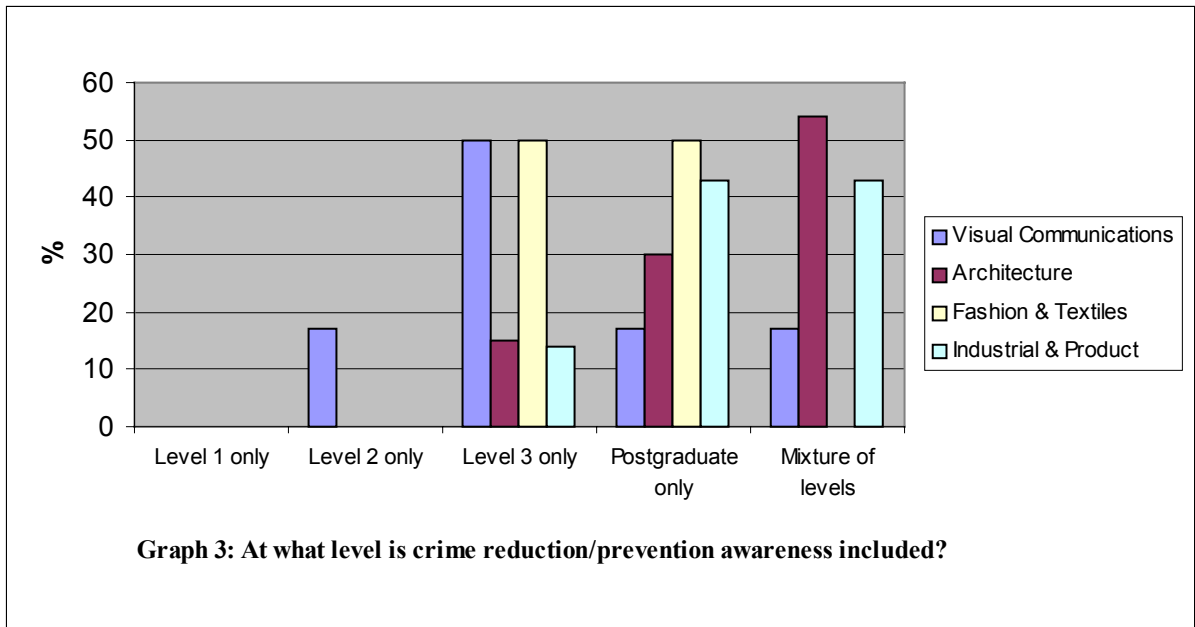
As Graph 1 illustrates, crime was most likely to be an explicit part of the curricula in Architecture courses. This is in contrast to Fashion in which most stated that it was not included in the curriculum at all. It was also likely to be not included in Visual Communications courses, and only referred to in Product/Industrial.



However, despite its general exclusion from the curricula, over half of respondents believed that the incorporation of crime reduction and prevention within their discipline was important, with only very few believing that it was not (Graph 2, on the next page). Visual communications were generally undecided on this, compared to half of fashion who believe it to be unimportant, whilst all of those from architecture consider that it is important. The product/industrial group believe it to be important or were undecided.



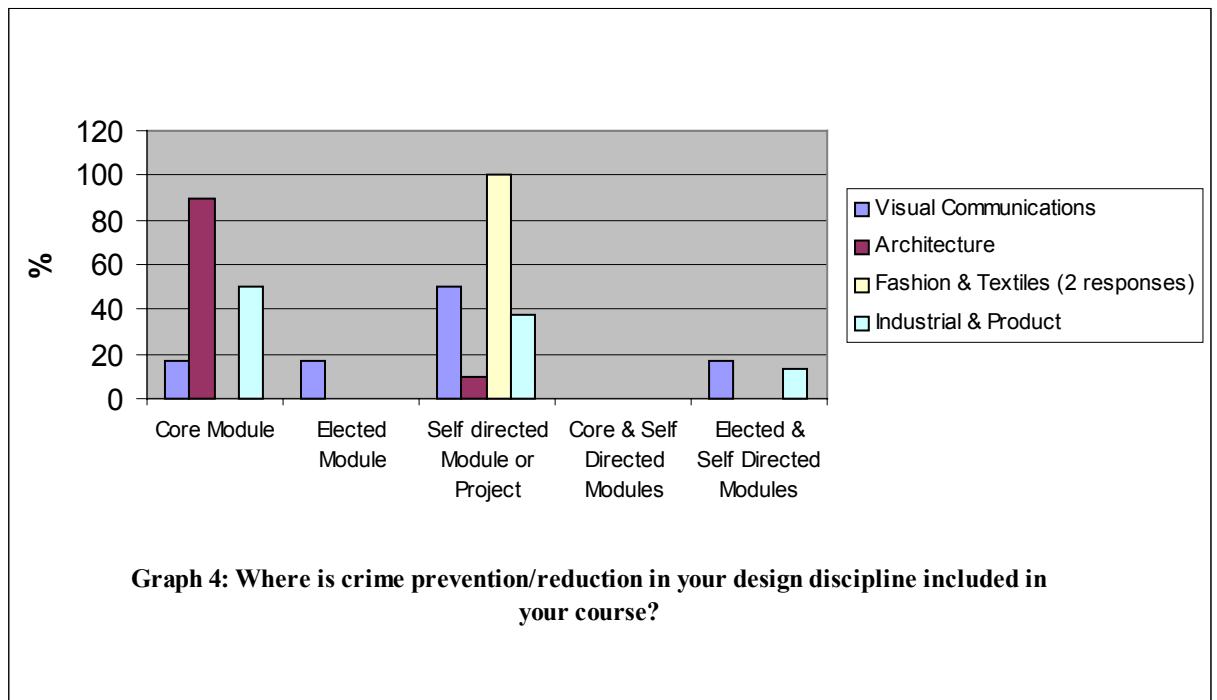
Graph 3 below illustrates the level at which crime was included in the curricula. For courses in which crime was a part of the curricula, it was most likely to be included at either *postgraduate level* or *level three* only. Only one course, in architecture, provided it at all levels (including foundation). It was most likely to be provided at level three only in Visual communications. Only two fashion courses included it at all, one at level three, one at postgraduate. Crime tended to be taught at postgraduate level only on product/industrial courses.



When included within the curriculum, it was likely to take the form of a *core module* for over half responding courses. It was a self directed (student led)

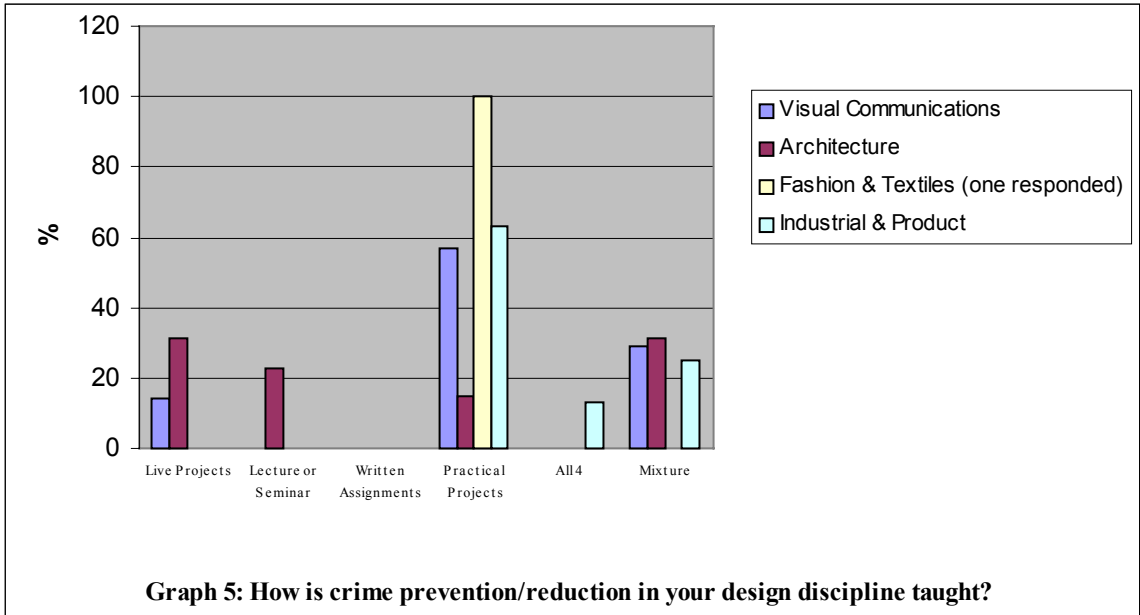
module or project for one third, and an elected module for only 5%. For a further few it was offered as both core and self directed modules, or as both elected and self directed modules.

For visual communications, it tended to be mainly offered as a self directed module or project, as shown in graph 4. For architecture courses, it was mainly a core module. For both of the fashion courses which included it, it was as a self directed module. Industrial/product respondents indicated that it was offered as either core or self directed modules.

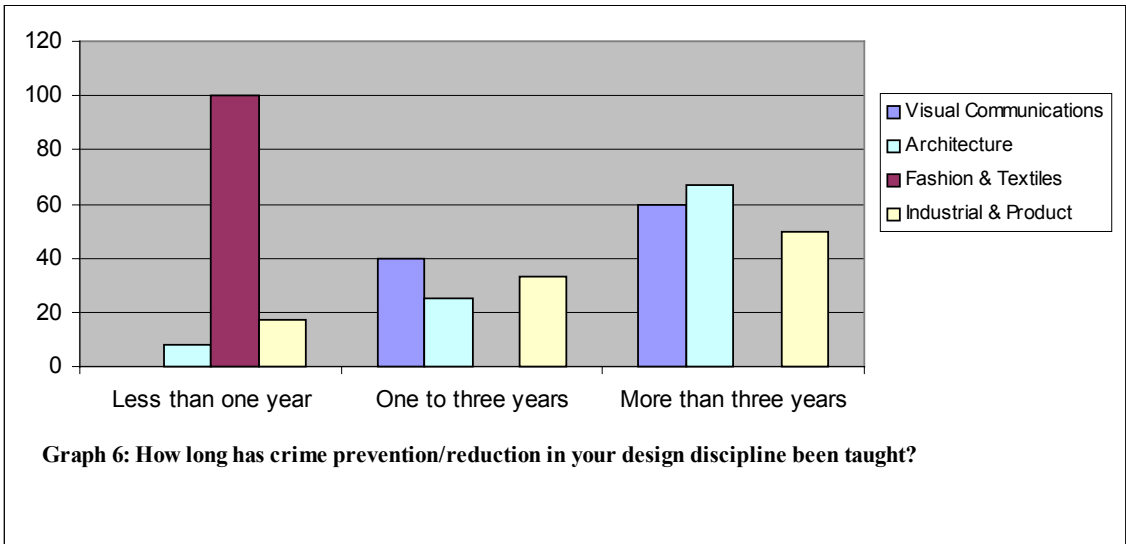


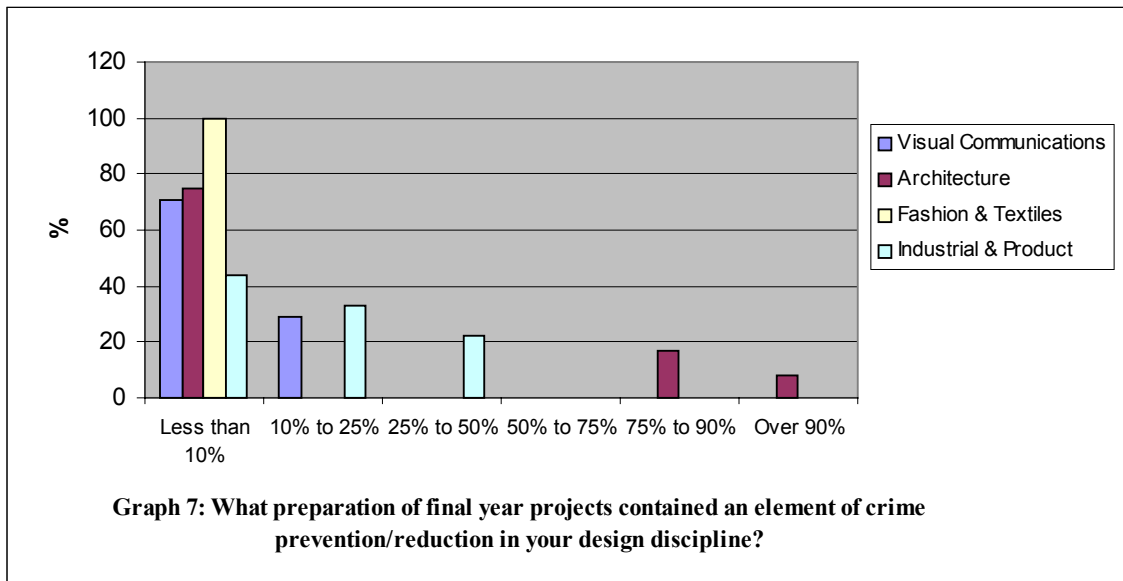
Crime prevention and reduction was taught mainly within *practical projects*. On over half of the courses which included crime prevention, it was taught only as a practical project, and only as either a live project or lecture/seminar in 19% and 7% of courses respectively. No course taught it solely as a written assignment, although a few did include it as written assignments in conjunction with lectures, or included it in all four forms.

As Graph 5 indicates, within visual communications, crime prevention was taught mainly as a practical project, or as a live project. In architecture, it was most likely a mixture of delivery. Only one from fashion group reported it being taught as a practical project. In the product/industrial group, it was a practical project for over half, for the remainder, it was a practical project combined with either lectures or live projects (see Graph 5 below).



Graph 6 illustrates the length of time for which crime reduction and prevention was taught. On over half of the courses that taught crime reduction and prevention, it had been taught for at least three years. For instance, it has been taught for over three years by three-quarters of those from Architecture. The one Fashion respondent who answered this question stated that it had been taught for less than one year.





3.3 Final year student projects

Graph 7 above shows that for over half of the courses surveyed, less than one in ten of final year student projects contained an element of crime prevention or reduction. For a further quarter, crime was included in between 10% and 25% of projects, and for one respondent, in architecture, it was included in over 90% of projects. Crime was included in fewer than one in ten of all fashion student projects, in less than one quarter of all visual communications projects, and in less than half of all industrial/product projects.

The respondents were asked to provide examples of final year student project work. These have been categorised into the discipline areas as follows:

Visual Communications projects

- editorial issue based illustration
- neighbourhood watch campaigns
- anti-drugs campaigns
- motoring: road awareness, young drivers, and speed reduction campaigns in conjunction the local police force; drink driving campaigns
- personal safety: campaigns relating to child abuse prevention, violence against women, sexual harassment and rape
- project with the local police force to improve awareness and dialogue between teenagers and the police

Architecture projects

- urban analysis and housing related assignments
- planning exercises in conjunction the local council
- park design
- urban renewal
- local estate issues and solutions, in conjunction with the local police force

Fashion projects

- tracking devices
- electro textiles
- the future importance of mobile phones

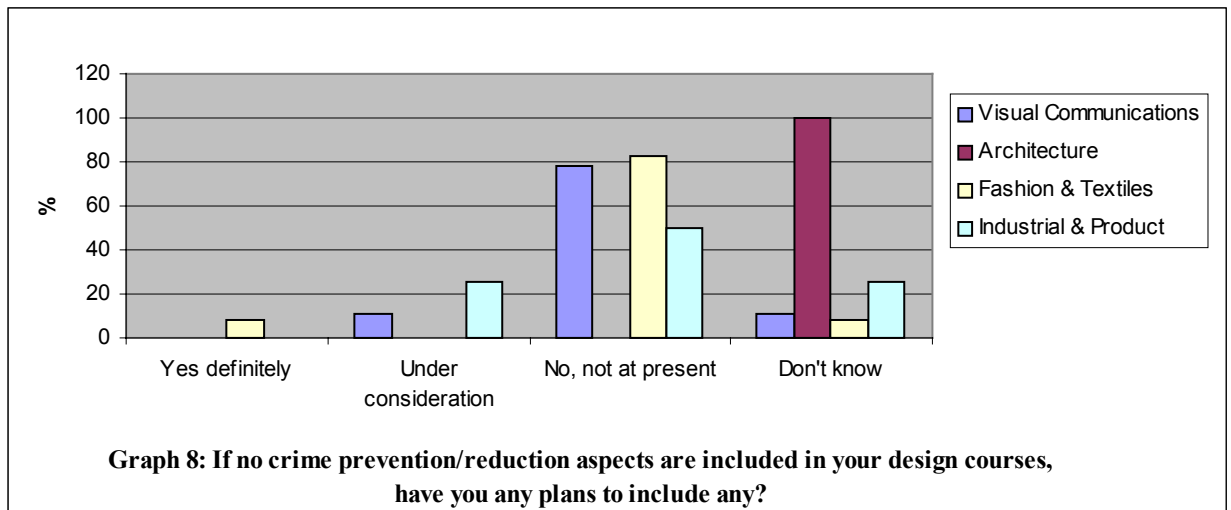
Product/Industrial projects

- bicycles: safety enclosures to cover cycles, cycle safety and tracking systems, cycle stands
- outdoor roadworks cones
- computer security systems
- bus information terminals
- personal safety; personal alarm devices; 'Techno Bra' that monitors heart rate and connects via GPS to security organisations when triggered; garments which include sensitive material which hardens when hit to protect from injuries
- car, boat and domestic door security
- shelters for homeless
- urban 'refuge'/communications post, in collaboration with the police
- security and vandalism in the provision of museum and gallery cloakroom facilities for visiting schools parties, in collaboration with local galleries and museums
- vandalism reduction in a children's play area
- load carrying for wheelchair users for the security of goods and shopping

Design projects in general

- the linking of GIS data to crime location for data analysis
- small scale hotel alarms for guests
- the weapon as fashion and jewellery
- home security through psychological manipulation eg 'the scary garden'
- simple password security on the web
- the sustainability and design of a new civic square

Graph 8 illustrates that for courses which included no aspects of crime prevention or reduction, most (nearly two thirds) had no plans to include it, whilst one in six did not know whether any plans existed, and a further one in six said that such plans were under consideration. Only two respondents indicated such plans to include crime were definite.

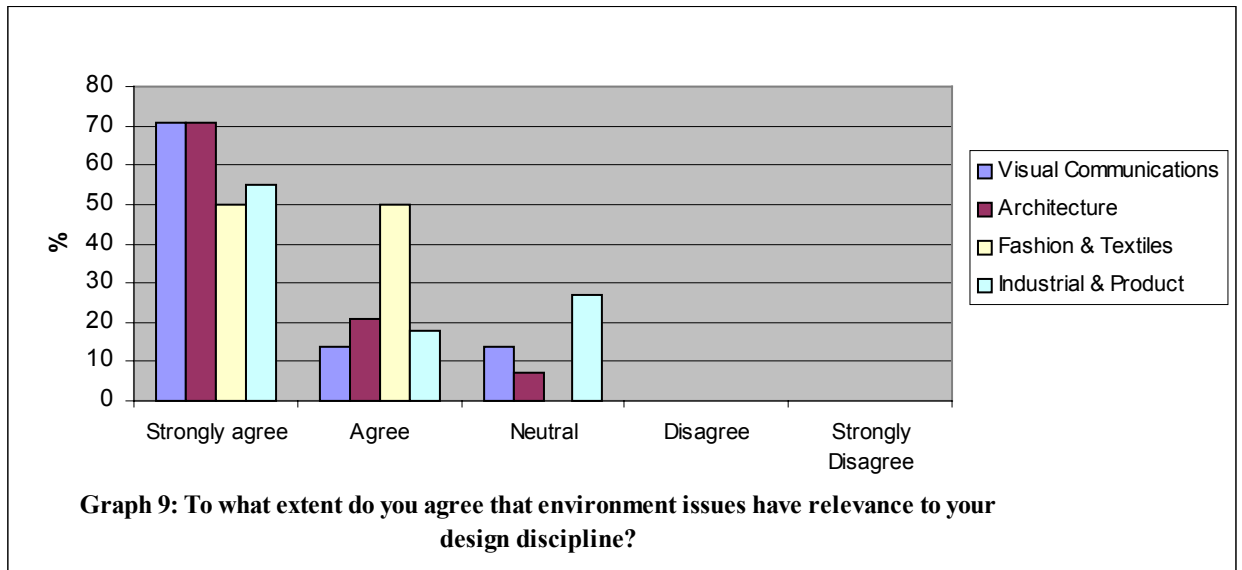


3.4 Issues within design disciplines

Respondents were asked to what extent they agreed that environmental issues, demographics, disability and crime had relevance to their discipline, and for how long they had been included in their curricula (if included at all).

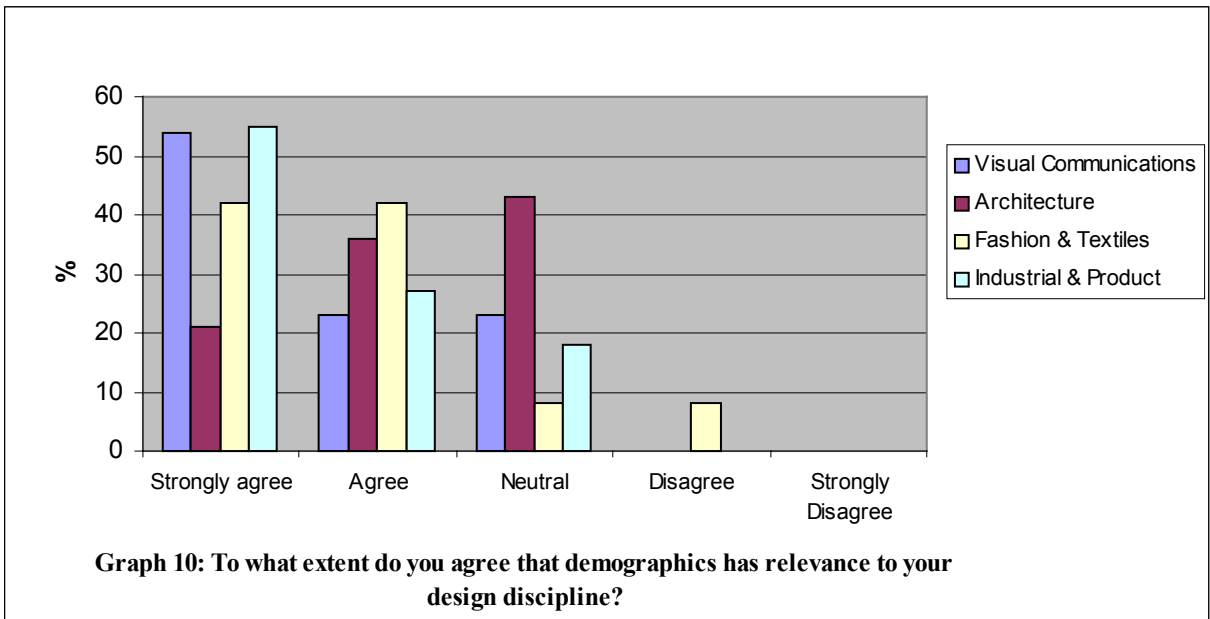
3.4.1 Environmental issues

All respondents who answered this question either agreed (two-thirds strongly agreed, one quarter agreed) that environmental issues had relevance to their discipline, or were undecided on its relevance (Graph 9). For courses in which environmental issues had already been introduced into the curriculum, it had on been introduced more than three years ago for almost half. Typically this was on architecture or industrial/product design courses.



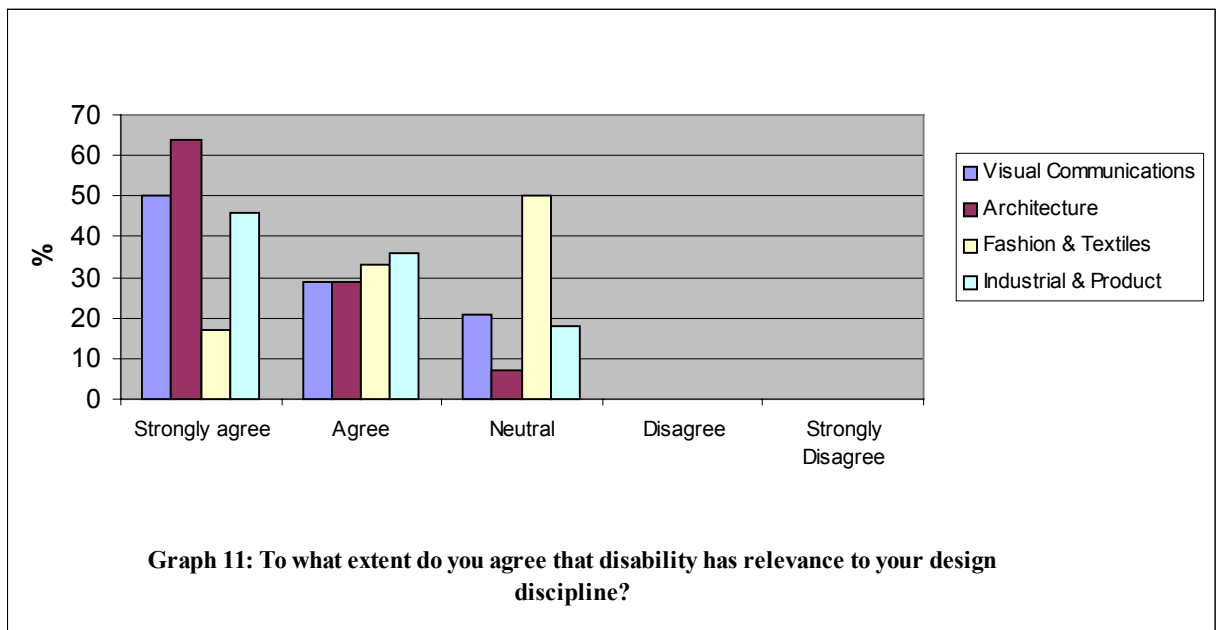
3.4.2 Demographics

As with environmental issues, most respondents agreed that demographics had relevance to their discipline. Only two respondents said that it did not (fashion and crafts). The level of perceived relevance was however less strong overall than it was for environmental issues (see Graph 10). Demographics was not included in the curriculum for one quarter of the courses surveyed. It was most likely to be excluded from architecture courses (half excluded it), least likely from product/ industrial courses.



3.4.3 Disability

Again, most respondents agreed that this area had relevance to their discipline, only one respondent disagreed (from a crafts course). Architecture was most in agreement as to the relevance of disability, followed by visual communications and then product/industrial (see Graph 11).



Overall, one quarter of courses did not include disability as part of their curriculum. Of those which did, most had included it for over three years, one quarter for one to three years. Most likely to exclude disability from their curriculum were fashion courses. Least likely to exclude it were product/industrial and architecture.

3.5 Key issues from the survey

- Crime reduction, prevention and awareness are generally not considered as aspects of design, although (with the exception of those from the fashion group) most believe that their discipline has a role to play in crime prevention/reduction.
- Crime is either not included or just referred to in most curricula, if not included, there are in most cases no plans to include it. Crime is most likely to be included and to be viewed as relevant by those in architecture, and has least inclusion and relevance in fashion. Despite its exclusion, most believed that its incorporation within their discipline is important.
- When crime is a part of the curriculum, it is most commonly included at either Level Three or at a Postgraduate level; it takes the form of a core module, is taught within practical projects, and has been taught for over three years.
- Crime is an aspect of less than 10% of final year student projects on most courses. It has its greatest inclusion in projects of Architecture students, lowest in fashion projects.
- Environmental, disability and demographics issues are perceived as of greater relevance to design than crime.
- Considering that most of those course leaders who responded to this survey believe that design does have a role to play in crime prevention, it is perhaps surprising that there should be such a lack of inclusion of the topic in the design curricula. Interestingly many of the respondents made requests for more information and literature, and made comments about not previously having thought about the matter. This leads us to consider that raising the awareness and disseminating information about crime reduction and prevention in relation to design would encourage more course leaders to include some aspects of crime into their curricula as they have with environmental and social issues.

4 Case studies

A major focus of the research was to investigate the level of inclusion of crime issues into design education at present, the methods employed and its significance to the overall educational culture of courses. Courses at three institutions were identified as having an active interest in design against crime, and course leaders were interviewed to ascertain how the topic was addressed, how it came to be part of the course, problems encountered in dealing with the subject, and examples of student and other research work which incorporated this.

4.1 Case study 1: Central Saint Martins College of Art and Design

4.1.1 The educational context

Central Saint Martins College of Art and Design, a part of the London Institute, has been working in the area design against crime for over two and a half years. Their interest in designing against crime started with an approach through Safer Cities. The Safer Cities Programme, established in 1988, had three primary aims: to reduce crime, to reduce the fear of crime, and to establish safer cities to allow improvements in economic enterprise and community life. This has focused on crime prevention schemes in selected cities, through adapting the built environment. Reports indicate the scheme has been successful in many areas.¹

Safer Cities wanted to include some design input into its work with police and crime reduction, and so undergraduate and postgraduate students from Product Design, Graphic Design and Communication Design courses completed a six-week project looking at handbag and luggage theft. These projects involved staff training, poster campaigns, and aspects of interior design, which could help prevent crime in the first instance or build up crime prevention awareness. Safer Cities was pleased with the outcome, both in terms of the breadth of ideas, and the number of ideas, many of which were implemented immediately as a two-week exhibition and a series of informal talks resulted, achieving funding from P&O.

4.1.2 The Capital Route project

In 1997 many of the participants in Safer Cities became involved with the Capital Route Partnership. The Capital Route Partnership objective was to look at crime in the linear route through Westminster from Piccadilly Circus, through Leicester Square to Covent Garden - dubbed the 'capital route'. Between Easter 1997 and Summer 1998, Central Saint Martins students became involved, collaborating with a number of the Capital Route Partnership's working parties which linked

¹ Tilley, N. (1993). The prevention of crime against small businesses: the safer cities experience. London, Home Office, Police Research Group; Travis, A. (1994). Crime Prevention: concern for the future. *The Guardian*: p29.

local authorities, transportation and policing, and included academics from Product, Communication and Industrial Design courses, later expanding to include their new multi-discipline course, BA Arts and Design. On this new course, there are three pathways - Spatial Design (which includes the Built Environment and Architecture), Media, and Artefact (which includes new technologies and making processes). Students on this course focus on an area after completing the first year. This course brings in psychologists, anthropologists, and arts in the environment - all of these different influences gradually feeding into the broad curriculum. Such a course was an ideal location for crime-related issues to be developed.

Central Saint Martins drew up plans for a three-year study looking at the evaluation of the 'capital route' in Westminster, and applying it to other major European cities. Despite being unable to get funding for the study, they did take an exhibition of student work to Malmo, Sweden, where they worked with the Mayor of Malmo, city architects, planners, and companies, and set up a five week exhibition there. They also held a one-week business seminar programme with the industries in the city about future re-developments of the city. Following this successful collaboration CSM has developed links with Utrecht and Barcelona.

The Capital Route Partnership (now Capital Link Partnership), has remained a significant element in Central Saint Martins work. Despite the Product, Communications and Industrial Design courses recently loosening their formal ties with the Partnership the College is still being approached by companies involved in product security, CCTV, furniture, and lighting companies with requests for students and staff to undertake projects. Therefore students can now pursue these individually depending on their own area of interest, but this activity is not a core course activity. Interesting crime reduction and security issues have featured recently in a number of major final year design projects. Areas that have been covered in the projects include violence against the person, reducing vulnerability and fear of crime, bicycle security, vandalism, considerations of street furniture design, awareness of crime through graphic design and road rage. Whilst crime reduction is being considered in a number of projects, there still remains some difficulty in encouraging the majority of students to consider the issues within their work.

Unlike the other courses, BA Arts and Design continues to work with the Partnership. Together with Capital Link it has obtained further funding of £25,000 for a Cranbourne Street Pilot study, which looked at the Leicester Square tube station and the street opposite (Cranbourne Street). The pilot study was completed with the City of Westminster in March/April 1999, and was presented at the House of Commons as an exhibition/public consultation. This exhibition linked into some research on lighting and crime, which CSM was working on. These projects involved around twenty separate studies by students, and is culminating in a detailed planning application.

4.1.3 Methodology and recent developments

The design and research method which Central Saint Martins uses is to look at the environment of the city - the space between the buildings and what happens there. Their process is called the 'Hard City/Soft City'. The Hard City is the current situation where the city is seeking to control itself, policing itself and the traffic controls flow, and use CCTV surveillance. The Soft City version is understanding the mechanisms within the city, whilst it needs a degree of control and overseeing, perhaps the natural forces that flow through the city (pedestrian and traffic flow) could work with them rather than against them. They are looking

at street furniture, lighting, and the landscaping of spaces, and linking this to the buildings.

From September 1999, CSM established a new enterprise called Design Laboratory, which will utilise the design against crime research in a graduate student research and consultancy centre.

4.1.4 Issues arising from the case study

Through relationships with local groups, Central Saint Martins has been able to involve students in crime reduction/prevention programmes. However, continued involvement is sporadic and further involvement will require either funding or some other form of motivation for both students and course leaders. Alternatively the development of a specialist postgraduate research and consultancy such as the Design Laboratory will offer a more focused and formal introduction of crime related issues into the design education domain.

4.2 Case study 2: Nottingham Trent University

4.2.1 The educational context

The Design Department at Nottingham Trent University (NTU) runs a number of undergraduate and postgraduate courses covering a wide range of design disciplines. The Design Studies course, which attracts between 50 and 60 students each year, provides an overview of the design process across the spectrum of design disciplines, and aims to develop competence in design management. A compulsory part of the course is Communication in Context, taught by staff from the Social Science Department, which addresses the role of social science in design, and the social context within which design operates. This makes up one sixth of the course during the first two years of study.

The first year of the course explores a range of issues where social science and design cross over, seen as being relevant to the students own lives. Second year work is geared more towards design projects having a social science component. Teaching and learning methods in the first and second years include illustrated lectures, workshops, student led seminars, "show and tell" sessions and student presentations. In the third year students are mostly involved in self initiated projects, with self generated research, which could include aspects of the communications in context course, such as 'lifestyle and new technology', and 'lifestyle and social responsibility.' Further information is provided on design and crime on a web site which was set up, after students experienced difficulty in accessing relevant information.²

² <http://www.ntu.ac.uk/soc/psych/miller/crime.htm>

4.2.2 The design and crime taught component

Design and crime is taught as part of the course by Hugh Miller, a lecturer in the psychology division of Social Science, whose interest in design and crime stemmed from previous involvement in the Crime and Social Research Unit at NTU. Crime is mentioned in a number of areas throughout the course, with one week spent specifically on design and crime during the second semester in the first year. The course begins by looking at the criminology point of view, defining what is meant by crime, victims and criminals. Crime statistics and crime reporting are mentioned, and how this affects people perceptions of crime. Crime is introduced as something which affects all social backgrounds, and as a factor which keeps the economy going, from looking at the distribution chain of stolen goods, to fraud and white collar crime. Two main design strands are covered in the course, with a 50/50 split between the design of manufactured products and the architectural side.

For manufactured products, the idea is introduced that people in some situations are more vulnerable to crime, for example, students going to university may expect their property to be stolen, and moderate their behaviour to accommodate this. From this point of view, "crime becomes an aspect of consumer choice, and security becomes a design issue in itself". The importance of designing in security rather than having add-on features is discussed, and also what makes products vulnerable to crime, explaining that "the most theft resistant thing is something that can't be sold on." The problem for designers is designing something that is desirable to the consumer, but not to thieves. Benefits to insurance companies, manufacturers (providing replacement goods) and designers are also mentioned within the course.

The other area of design which is studied is building and estate design, which stems originally from working with the Crime Prevention Officer in Nottinghamshire Police involved in the Secured by Design initiative. Information and examples provided by the CPO are used in lectures to demonstrate how environmental design can affect the opportunity for crime. For example, designing in climbing aids to get over walls - one 8ft wall had the corner finished with bricks which were overlapping rather than flush, which looked attractive, but "made a nice little ladder". Time is spent discussing the small details which had been designed in with little thought to the consequences in terms of crime. Other aspects considered include louvered windows, lock and hinge positions on doors cul-de-sacs, providing easy access and escape routes, secluded paths, and ideas about defensible space. Increasing privacy also leads to an increase in vulnerability.

In addition to this, urbanism is covered by other staff members during the first 3-4 weeks of the second semester. Crime related issues make up about 10% of this course. This involves a neighbourhood study of different areas of Nottingham, to look at the design aspects in areas with different social mixes, and comparison of residential and commercial areas. The aim is to look at designed objects in the environment, and the effect design has on different neighbourhoods.

Areas studied include poorer areas where signs of crime are apparent, and wealthier areas, where "crime comes in round the edges" - there are more overt signs of crime prevention measures being taken by residents in those areas. The example was given of one area where the residents closed themselves in, with high fences marking property and people protecting their property with dogs and using communication devices. The students were free to wander round this area, were not approached by anyone questioning what they were doing in the vicinity. Other areas were much more open, with residents having a clear view of surrounding properties - in this situation residents were aware of the students

being there, and approached them to find out the purpose of their visit. Other issues that were brought to mind included how the students would feel about leaving their cars in a particular area, and what contributed to their thoughts about assessing the situation.

4.2.3 Student projects

Whilst the crime lectures generate some interest amongst the students there is very little follow up in terms of the students introducing crime issues into their own work. Over the lifetime of the course, few essays have been undertaken which had addressed the subject in the second year, and no third year projects have focused on crime and design. All the other areas studied in the Communications in Context module have been actively pursued by students in their third year work, but not crime, and no explanation could be offered as to why this was the case. Some of the research work carried out on design for the elderly has interacted with crime related aspects of design, such as retrofitting security devices for elderly people.

4.2.4 Issues arising from the case study

A number of issues arise from this case study, as outlined below:

- Whilst students show interest in the teaching of design against crime at NTU, this is not sustained in self initiated project work.
- Difficulty in accessing information about crime issues relevant to designers led to the development of a web site.
- The course offers the opportunity for crime reduction professionals to work directly in educating designers.

4.3 Case Study 3 : University of East London

4.3.1 The educational context

The University of East London's (UEL) Department of Industrial Design has been involved in a European Government Funded Study called MIMIC (Mobility and Intermodality and Interchange) which analysed the perceived barriers to people using public transport. This work focused specifically on the critical success factors which govern the demand for advanced public transport interchanges.

There were seven research groups in total: the University of East London, and others including Copenhagen, Rome, Bilbao, Tempura, Warsaw and a group in Germany. Focus was placed on 7 key issues:

- Logistical and Operational
- Psychological
- Institutional and Organisational
- Physical Design
- Local Planning and Land Use
- Economics and Social
- Information

4.3.2 The research project

UEL research focused on the interchange at Stratford in East London which, at the time of this study, was under redevelopment. The existing interchange provided an interesting case study due to the high level of crime, poor condition of existing facilities as well as the location itself. Stratford is a diverse community with multi-cultural, mixed-age groups, and a high level of unemployment, particularly amongst young males. The condition of the environment at the existing Stratford Interchange was causing users to purposely avoid using it and travel to surrounding stations. In effect it was not acting as a public transport interchange but as a disincentive to use public transport.

The research was managed by a steering group which included representation from the Local Authority, London Transport Planning, London Rail Transport Executive Committee and Docklands Forum, which represents the views of the local community and user groups.

Focus groups were undertaken to gauge public opinion as well as interviews of the key stakeholders involved in the organisation, operation, planning and sponsoring of public transport. The focus groups engaged both typical local users and local women's groups who were consulted to discuss their views on crime in relation to gender, which was an important factor.

The research aimed to break down both the perceived and physical barriers. Visual analysis of the interchange attempted to deconstruct the site to determine issues such as how easy it was for users to get from A to B and what problems were faced by users in the process.

One of the major findings was that it was not sufficient to just design the interchange and view security issues as a secondary set of concerns. The interchange has to be designed from a security perspective. The use of CCTV was considered by users to be an 'add on' feature and not a solution in itself. Use of 'safe areas' where the designated space is covered by a CCTV camera, were not felt to be preventive measures. Even though activities in that area are being filmed, recorded and may lead to prosecution, the person can still be attacked, and the victim still has to go through a traumatic ordeal. CCTV and its use of it was seen only as a deterrent and not a cure.

The general feeling was that it was not just the interchange that needed focus but it was the way in which the interchange interacted with the surrounding area. In Stratford, the feeder routes into areas such as the local shopping centre were found to be more threatening to users than the actual interchange itself. It was not enough to design the interchange as an 'oasis of safety' when the area

users had to go through to get to it was unsafe. A redesign of the whole surrounding area was needed, making the interchange and the local community seamless.

Another major issue highlighted by the research was that this type of work has to be undertaken from a collaborative perspective with the involvement of all the stakeholders and the local community. During this study there was a large amount of consultation with the London Transport Police (LTP). Research indicated that prior to the study and the design of the new interchange, the LTP did not actively liaise with Architects and Designers of rail environments. The LTP now actively works with Architects and Designers to ensure good Crime Prevention measures are planned prior to the brief of a project being written.

Whilst recognising the efforts made by the Architects in a difficult situation, one of the major criticisms of the Stratford re-development was the way in which the project was put up for tender. The tender was presented as a competition which resulted in the Architects having only two weeks to design and prepare costings for their proposals. This resulted in the designers driving plans that were fairly unsubstantiated in respect to knowledge of the local community and their needs. Once the design had been selected and a costing had been set, there was a reluctance to change aspects of the design due to the inherent added cost of change. This was found to be a common problem throughout the European Partners.

The research also indicated that operating companies often prefer to have 'off the peg' solutions in regard to crime. The solution for the past ten years has been CCTV. This research indicated that the public require more effective solutions. Issues like crime to be addressed from a holistic perspective. Users felt that they often felt isolated and that there was a need for a busy 'human' environment, with visible staffing and the inclusion of more social areas to encourage well populated areas which in turn would discourage crime. They felt that technology was not assisting the problem. The use of help points, Automated Ticket Machines, and CCTV were diverting the problem somewhere else and that their needs had to be addressed at a local level in a humanistic way.

4.3.3 Issues arising from the case study

This case study differs from the previous two in that it is primarily a research project rather than being primarily an educational vehicle. However, it does demonstrate the considerable potential of industrial design as a research discipline to address a range of issues that integrate environmental and industrial design issues, and explore relevant user research methods.

5 Embedding crime into design education

5.1 Introduction

This section of the report draws on a range of research to suggest how crime awareness and prevention could be embedded within design education. Interviews were conducted with educators who have succeeded in raising the profile of other 'social issues' within the design curriculum, namely demographic change and ecology. The involvement of two of the authors in activities such as the CNA/DTI Managing Design Initiative has also been drawn on. The aim here is to identify lessons that can be learned, and the scope that exists for mutual support in extending the design curriculum.

5.2 Design education: incentives for change

We should begin by noting that design disciplines, by their very nature, are in a constant state of change and renewal, perhaps more so than other academic disciplines. As a CNA/DTI inquiry into design education in 1992 observed: "evidence suggests constant revisions in course content from year to year in many institutions".³ This is to ensure the continued relevance of content and the employability of graduates.

Design education is perhaps more visible than other disciplines, providing major incentives to maintain contemporary relevance. In no other disciplines is the work of final year students made public through degree shows, culminating in the high profile 'New Designers' show at London's Business Design Centre. This is as much a showcase for design courses as it is for the graduates themselves. Furthermore, design is unique in the well supported and profiled national awards - including New Designers itself, the Royal Society of Arts bursary scheme, the Starpack student packaging design prizes and many others. Again, this highlights the quality of design thinking, knowledge and relevance that courses equip students with. All of this fosters a sense of competitiveness between courses, as much as between students, encouraging change and content enhancement.

Live projects are an established and common teaching method in design education, which further reinforces pressures towards content relevance and revision, with an employer providing a learning framework for students with the expectation that they bring awareness of contemporary issues, skills and knowledge in design to the project.

Public visibility, close links with industry and the need to maintain educational relevance in a fast changing context are the key forces which promote change in design education. Below we examine three cases of specific change in design education from which some lessons on the dynamics of change, particularly in terms of course content, can be drawn.

³ Council for National Academic Awards, Committee for Art and Design (1992) "Technological change and industrial design education", p.26

5.3 Design into business - business into design

In 1984, a joint CNA/DTI report was published setting out a proposed curriculum for introducing design awareness into postgraduate management courses.⁴ This initiative was launched following a number of studies which identified industry's failure to understand and management design as a critical factor in Britain's poor competitive position. A related strand of this initiative was support to extend the teaching of design management into undergraduate business studies programmes and, via business awareness programmes, into courses delivered at design schools. Research at the time suggested that business and management skills were poorly integrated into design courses and that there was significant scope for strengthening this part of the curriculum.

Following the report, six institutions were funded to develop pilot schemes and teaching materials for design management courses, in which the HE institution was paired with an employer. Two authors of this report were involved in the pilot project which paired Staffordshire Polytechnic with GKN Technology. The authors also adapted some of the teaching material for use on undergraduate design courses. This pilot scheme can be viewed in many ways as a defining moment for design management education in Britain, connecting design educators with the training needs of managers, and supporting the development of teaching material in design management which simply did not exist until then.

By 1990, some 3,500 students were estimated to have completed courses which had benefited from the CNA/DTI initiative. Its longer term impact has not been assessed, but should perhaps be viewed as catalytic in transforming design management education from a highly peripheral and small field of management training into an educational discipline with the following features:

- MBA programmes in Design Management offered at three UK Universities.
- MA programmes in Design Management offered at eight UK Universities.
- Large undergraduate programmes at Staffordshire and DeMontfort universities and West Surrey Institute of Art and Design.
- BT as main sponsor of the annual Design Management award at the New Designers exhibition in London, together with RSA Design Management bursaries.
- Business studies and design management now integrated within most undergraduate design courses, linked to entrepreneurial education.
- An increasing range of teaching materials and case studies provided by the US-based Design Management Institute.

A related development in the 1990s has been the emergence of Design Studies which draws on design management, design practice and cultural studies in design to develop broad based degree programmes. These are in evidence at Goldsmiths College together with the Universities of Salford, Nottingham Trent and London Guildhall.

Courses in design management and design studies themselves provide excellent opportunities for addressing issues of crime prevention and awareness, as one recent study has suggested: "The curriculum at design-

⁴ Council for National Academic Awards (1984). "Managing design: an initiative in management education" *the 'blue pinstripe' report*.

school level is beginning to explore a broader range of social, cultural and ethical issues in relation to design management and is less obsessed with the behaviour of the corporate organisation.”⁵

The example of design management education provides us with the following lessons:

- Design education’s ability to adapt and apply new disciplinary approaches within its core curriculum over a relatively short period.
- The significance of the CNA/DTI project as a catalyst for more widespread change.
- The new opportunities provided for *design against crime* teaching within design management and design studies.

5.4 Design and the environment

At the time the CNA/DTI pilot projects were seeking to test new methods of teaching design management, another issue was edging its way towards the design curriculum. Within a decade eco-design would be part of the core curriculum of most design courses, driven in part by legislation, such as the 1995 Environment Act.

Environmental issues find their way into design courses in a variety of ways. On a packaging design course, for example, the tightening legislative context is an issue that must inform the design process. Across packaging and industrial design courses, new methodologies such as lifecycle analysis are introduced to students as a means of design addressing all the requirements of the product lifecycle. In craft disciplines, the use of recycled and found materials has led to new creative and aesthetic directions and, according to the Financial Times at least, one of the most successful craft exhibitions of recent years.⁶

A critical challenge that faced educators in the early 1990s, as the environment became more important and captured the creative imaginations of students, was the paucity of teaching material, as one of the authors of this report has argued elsewhere.⁷ There is perhaps a misunderstanding that design education, as a predominantly project-based form of learning, can simply embrace any new issue or subject with ease. As one head of department has explained: “A project is a vehicle to apply and test knowledge, not a vehicle to acquire knowledge from scratch”.⁸

There was a need for texts, case studies, exhibitions, video material and research data that could be used for teaching. And, of course, there was an important need for staff development in the form of conferences, networks and publications so that tutors could make use of the increasing material. Perhaps

⁵ Morris, L. , Rabinowitz, J. and Myerson, J. (1998) “No more heroes: from controllers to collaborators.” *Design Management Journal* 9(2): 22-25

⁶ Crafts Council (1996). “Recycling: forms for the next century”, *exhibition at the Crafts Council Gallery*, London, Feb-April.

⁷ Press, M. (1996). “Research for eco-design: the challenges for design education.” conference paper, *Material World II: ecological textile design conference*, Textile Environmental Network, Birmingham Institute of Art & Design, 12 Nov

⁸ Council for National Academic Awards, Committee for Art and Design (1992). “Technological change and industrial design education.” p.39

one development that accelerated its integration into design courses has been the internet, and access to dedicated eco-design sites by tutors and students.

Despite considerable progress by courses and their staff, it is perhaps still the case that students have a higher awareness of eco-design issues than their tutors. This is the view of Emma Dewberry of Goldsmiths College, which runs one of the country's few dedicated degree courses in eco-design.⁹ The course has been running since 1996, with an average of 12-15 students on the course each year. Dewberry is part of a team promoting the integration of eco-design into the whole design curriculum rather than having it as a separate module or course.

According to Dewberry, award schemes operated by the RSA and D&AD have been useful in raising awareness of the issues, and providing incentives for eco-design to find a place in project work. Inviting key stakeholders and those already expressing an interest to forums to discuss the issues also plays a useful role in creating an educational network which supports and promotes the issue.

The experience of eco-design provides some instructive lessons for *design against crime*:

- The development of teaching materials and staff development support were crucial in shifting eco-design more centre stage in design courses.
- Inspiring exhibitions and content-rich websites have contributed to a rising awareness and involvement by students.
- Awards and competitions both raise awareness and provide an incentive for inclusion.
- Discussion forums and debates with stakeholders and interested educators can prove valuable in creating an educational community and network around the issue.
- The key long term challenge is integration within the core curriculum rather than marginalisation in add-on modules.

5.5 Design for ageing

In 1993, at the same time as eco-design was beginning to find a place on design courses, an exhibition and seminar took place at the Royal College of Art (RCA), entitled 'Designing for our future selves'. Its concern was the demographic shift which will, within ten years and for the first time in human history, see the over 50s become the largest age group in the populations of advanced industrial economies. This is set to have a profound impact on all areas of design. With support from the UK Government, the Royal Society of Arts, the Helen Hamlyn Foundation and various industrial sponsors, the exhibition and an accompanying publication provided a vivid and powerful message of the need to embrace this change on the part of professionals and educators.

Seven years later, the RCA-based Helen Hamlyn Research Centre spearheads research in this field, disseminating research and teaching materials to practitioners and educators through conferences and a comprehensive website.

⁹ Interview, 24 November 1999

A number of projects have been undertaken within the Centre which incorporate crime reduction features, as the elderly are often more vulnerable to crime, or perceived as being more vulnerable.

Jeremy Myerson, Director of the Centre, attributes its success to the continuing work with users, and suggested that this may be a good approach to take with the crime research.¹⁰ Through working with users, their behaviour can be observed, and design adapted to accommodate this.

Design for ageing has been included with increasing frequency in the design education curriculum over recent years, and appeals to the designer having a positive effect of society as a whole, in particular, an ageing population. In an interview for this research, Myerson commented that this enables "the designers to cope with their social conscience." He accepts that while crime has received very little attention in design, it is a topic which needs to be addressed, and has strong parallels with the design for ageing research, in terms of teaching social awareness to design students, and targeting similar consumers.

With a well visited website, high profile research featuring design project exemplars, and RSA awards that focus on the issue, the Helen Hamlyn Research Centre has succeeded in developing a vigorous community of educators around the country that have embedded ageing within design curricula and empowered their students to tackle the issues involved. Some of the specific lessons we can draw from this include:

- Ageing is a design issue with strong parallels and some similar concerns to *design against crime*, suggesting strong potential for collaboration and mutual support.
- The need for design exemplars, networking activities and on-line resources is further reinforced.
- An approach based on user research could be explored further.

5.6 Prospects for teaching design against crime

In the preceding sections we have examined how three 'new issues' have found places in design education. What is notable is that they emerged and were embraced in a relatively short, but similar period of time - superficially, then, an impressive achievement. But in assessing design education's openness to change and new directions, the following developments since 1985 should also be taken into account:

- The emergence and development of CAD systems and methodologies effectively reshaping all design disciplines, requiring radically new skills and knowledge, and now fully integrated into the mainstream of design education.
- The introduction of new specialist design courses in electronic multimedia.
- Rapid advances in material science and manufacturing systems which have been integrated within design courses.

¹⁰ Interview, 22 November 1999

- Shortened development cycles and the associated introduction of multidisciplinary team working in professional design, which has required a wholly new emphasis on team working and communication skills in education.
- Widespread introduction of entrepreneurial projects in design education to equip students with the skills needed for flexible patterns of employment and 'portfolio' working.
- A fundamental shift in teaching methods to deal with increased student numbers and to enable student centred learning.
- The introduction of a new research culture into design education and its adaptation to the requirements of a range of disparate disciplines.

There can be few other disciplines that have had to adapt to such a radically fast changing context, and which have done so quite so readily and effectively. We make this point simply because it demonstrates design education's ability to constantly adapt, renew, and meet new challenges. This suggests that initiatives to strengthen crime awareness in design education have strong prospects for adoption, to promote change and to further policy objectives.

6 Key issues and conclusions

- Design education provides diverse and relevant study and research opportunities that could offer great scope for addressing crime issues, thereby enhancing our research base in this field and providing essential awareness of issues and approaches for future designers.
- A survey undertaken for this research suggests that crime reduction, prevention and awareness are generally not considered as aspects of design, although most educators believe that their discipline has a role to play in crime reduction.
- Crime is either not included or just referred to in most curricula. Crime is most likely to be included and to be viewed as relevant by those in architecture, and has least inclusion and relevance in fashion design. Despite its exclusion, most believed that its incorporation within their discipline is important.
- When crime is a part of the curriculum, it is most commonly included at either Level Three or at a Postgraduate level; it takes the form of a core module, is taught within practical projects, and has been taught for over three years.
- Crime is an aspect of less than 10% of final year student projects on most courses. It has its greatest inclusion in projects of architecture students, and its lowest in fashion projects.
- Currently, environmental, disability and demographics issues are perceived as of greater relevance to design than crime.
- Responses to the survey suggest that raising awareness and disseminating information about crime reduction and prevention in relation to design would

encourage more course leaders to include some aspects of crime into their curricula, as they have with environmental and social issues.

- The case of Central Saint Martins College of Art and Design provides one model of how crime can become a part of the design curriculum, motivating and involving students. In this particular case, external funding and a live context for work was an essential feature. The development of a specialist postgraduate research and consultancy centre at the College will offer a more focused and formal introduction of crime related issues into the design education domain.
- At Nottingham Trent University there has been a more formalised introduction of crime into a design course. However, whilst students show interest in the teaching of design against crime at NTU, this is not sustained in self initiated project work. There is also difficulty in accessing information about crime issues relevant to designers.
- Recent years have demonstrated that design education has the ability to adapt and apply new disciplinary approaches within its core curriculum over a relatively short period. External interventions can be crucial in this, such as the CNA/DTI managing design project which acted as a catalyst for more widespread change.
- Considering the introduction of eco-design and design for an ageing population into the curriculum, the following observations can be made:
 - The development of teaching materials and staff development support were crucial in shifting eco-design more centre stage in design courses.
 - Inspiring exhibitions together with content-rich websites have contributed to a rising awareness and involvement by students.
 - Awards and competitions both raise awareness and provide an incentive for inclusion.
 - Discussion forums and debates with stakeholders and interested educators can prove valuable in creating an educational community and network around the issue.
 - The key long term challenge is integration within the core curriculum rather than marginalisation in add-on modules.
 - Ageing is a design issue with strong parallels and some similar concerns to *design against crime*, suggesting strong potential for collaboration and mutual support.
 - The need for design exemplars, networking activities and on-line resources is further reinforced.
 - An approach based on user research could be explored further.