

Could the architectural environment within UK cities influence Anti-Social Behaviour; and how effective have physical alterations to the area typology and aesthetics been within public spaces, in the efforts to address these issues?

> Lacey-Clarke, C (2021) Arts University of Bournemouth Interior Architecture and Design - Ref. IAD 662

Due to rising issues with Anti-Social Behaviour (ASB) in the currently unstable social, political and economic climate of the UK as a whole, this dissertation (henceforth refered to as 'this study') seeks to prove that architecture of an environment could be altered to positively combat ASB in UK Cities.

The purpose of this study is to use these findings to inform future building and environmental designs in public spaces which are aiming to reduce ASB cases, as they have continued to rise in parts of the country, particularly in coastal towns.

Case studies including Poole Town Centre (Dorset) and Enfield (London) will be used in a current physical context - drawing evidence from published crime rates and actions from Police and Local Authorities for quantative analysis.

Once established, the findings will be used to assess the 'effectiveness' of the trialled solutions in an attempt to address ongoing ASB issues through environmental changes.

Using these case studies, this study will reflect on all discussed architectural and aesthetic alterations made to urban environments to reduce ASB, comparing their 'effectiveness' based on longevity and level of reduction in crime, before drawing to the final conclusive statements regarding the impact of architectural alterations on human behaviour.

The outcome of this study will influence all ongoing works I produce in determining behavioural alteration through environmental manipulation.

Words: 5,134

ABSTRACT

CONTEN

Page No.

| 1.0 Introduct | ion | |
|----------------|---|---|
| 1.1 | Why Address ASB: The Victimisation of Society | 4 |
| 1.2 | Approaching ASB from a Designer's Perspective | 4 |
| 1.3 | Designing Around ASB in the UK | 4 |
| 1.4 | Discussion and Analysis | 5 |
| 1.5 | Overview and Conclusions | 5 |
| 2.0 Literature | e Review | |
| 2.1 | Andrew Millie's 'Anti-Social Behaviour' (2009) | 6 |
| 2.2 | Oscar Newman's 'Creating Defensible Space' (1996) | 6 |
| 2.3 | Barry Poyner's 'Design Against Crime: Beyond Defensible Space' (1983) | 7 |
| 2.4 | UK Home Office's 'Designing Out Crime: A Designers Guide' (2011) | 7 |
| 3.0 Topic Dis | cussion | |
| 3.1 | Effect of Colour on Aggression Levels | 8 |
| 3.2 | Increased Crime in Red Brick Estates | 9 |

Abstract

| 3.3 | Case Study: New Southgate Estate, Enfield | 10 |
|-----|---|----|
| 3.4 | Tranquilling Effects of Green Spaces | 11 |
| 3.5 | Reducing Crime Through Lighting | 12 |
| 3.6 | Architectural Maintenance and Deliquent Behaviour | 13 |
| 3.7 | Case Study: Poole, Dorset | 14 |
| 3.8 | Promoting Mischief through Access | 16 |
| | | |

| 4.0 Conclusion | | |
|------------------|----|--|
| | 17 | |
| 5.0 Bibliography | 18 | |
| 6.0 Appendix | 20 | |
| | 20 | |

1.1 WHY ADDRESS ASB: THE VICTIMISATION OF SOCIETY

In 2018, the 'Crime Survey for England and Wales' (CSEW) estimated that 36% of adult respondents experienced or witnessed ASB in their local area. This is the highest occurring rate since data began its collection in 2011 by the ONS.

The current emergency services' approach to these ASB complaints does not address the victim's needs after being "persistently targeted by their perpetrators" (Ford, 2019), according to the findings produced by Baroness Helen Newlove, now former England and Wales' 'Victims Commissioner', regarding victim safety from ASB Crime in 2019.

This has been exacerbated by the 60% decrease in council funding for the sector in 2019, limiting the ability most councils have to address ASB issues.

Based on national research conducted by Millie, ongoing ASB and criminal activity leads to a shared sense of 'powerlessness' (Millie, 2009) within communities, the degeneration of areas due to exodus of occupants with the means to leave, and the suffering of those without.

However, Newman's observations over the 20th Century in the US have also shown that alteration of the surrounding environment can be used to affect change in unwanted behaviours (Newman, 1996).

1.2 APPROACHING ASB FROM A DESIGNER'S PERSPECTIVE

As we are the next generation of designers, it is part of our duty to ensure that our constructs are reactive to problems or issues we have as a society, and combat them through intrinsic design in order to better the lives and wellbeing of others (*Home Office 'Designing Out Crime', 2011*).

This process is called *'intelligent architecture'*, and has the ability to create a 'ripple effect' in society: saving local services' vital resources to be redirected where they are most needed, and improving the day-to-day lives of those living within our concepts.

From the limits of our occupation, this study aims to address ASB through altering the environment which, in a literal sense 'house' the behaviours; in doing so it acknowledges Newman's findings (1960-2000) that building typology plays a role in the type and extent of ASB – and offers design solutions to aid resolution. It will also observe the psychological effects and implications of environmental aesthetic alterations, considering how this may change ASB patterns.

1.3 **DESIGNING AROUND ASB IN THE UK**

This study will seek to address the issue of ASB within the context of UK cities which have suffered with high, ongoing rates of ASB committed by both adults and adolescents, observing differing measures councils and private bodies have taken to reduce ASB within their areas.

1.4 **DISCUSSION AND ANALYSIS**

ASB can be categorised as either illegal or legal activity. This academic study will observe Illegal ASB as it is quantifiable through the medium of reports and conviction information released by the UK Police. As reported incidents are published against approximate locations, it will enable the determination of architectural influences within areas where the most occurrences are found.

According to the findings of Millie (2009), ASB can be defined as "minor crimes and near-criminal behaviour that cause public annoyance, anxiety and disruption to daily life".

Based on Metropolitan police guidance, ASB can be broken down into 3 categories: Personal, Nuisance and Environmental. These are defined by how many people are affected by the individual or group's behaviour. Unfortunately, criminal data is not released at this detailed level, so this study will incorporate all three forms.

The architectural typology and approaches to environmental alteration to confront ASB will then be investigated through case studies based in Poole and New Southgate Estate, Enfield. This study will offer insight into planning of both coastal (Poole) and mainland (Enfield) urban areas with unusually high levels of ASB for their population density (based on national average figures, 2020), for the purpose of reviewing the effectiveness of alterations made by their respective local councils to combat criminal behaviour in the area.

The architectural and aesthetic influences may be difficult to define. To aid this exploration, the findings of Poyner's '*Design Against Crime*' and Newman's '*Creating Defensible Space*' will be acknowledged as they characterize the issues, typologies and potential solutions used to discern physical characterisation in UK cities.

These findings will then be incorporated within the case studies, comparing environmental alterations made to those considered successful in the UK and internationally. The purpose is to determine whether the measures and architectural alterations had positively altered the rising issue of ASB in urban areas.

1.5 **OVERVIEW AND CONCLUSIONS**

The above findings will then be concisely recapitulated, with the aim of acknowledging whether architectural aesthetics or typologies may influence ASB, to define measures that could be implemented successfully both in the UK and internationally to address the escalating issue of ASB in society.

2.0 LITERATURE REVIEW CONTEXT

The purpose of this review is to clearly demonstrate the content of key texts used to inform this study, analysing the relevance of their observations to ASB cases in the UK and architectural typology linked to it.

2.1 ANDREW MILLIE'S "ANTI-SOCIAL BEHAVIOUR" (2009)

This work is an academic study written in conjunction with the Joseph Rowntree Foundation with the input of multiple specialists whose foci include criminal action and legal procedure.

It is fundamental in this study for its exploration of the "conflict within communities" involving adults and young people who commit ASB in the UK, and linking the issues with areas of social and economic deprivation. It also highlights the need for balance between enforcement and prevention in the handling of ASB within the UK by councils and law enforcement to achieve the desired outcome of reduction in the number of reported cases.

As this text is over 10 years old, it could be argued that some of its findings are irrelevant – however, based on reflection of texts produced in the last 2 years by the UK government regarding ASB, the findings of this report remain pertinent to the definition of ASB alongside community and legal action.

Its findings have been observed in conjunction with Lisa Firth's 'Crime and Anti-Social Behaviour' (2007) which observes the relevance of ASB as a young person's crime and its legal processing within the UK – to create a well-rounded investigation into ASB.

2.2 OSCAR NEWMAN'S "CREATING DEFENSIBLE SPACE" (1996)

Although written nearly 25 years previously, Newman, who is an experienced consultant architect, analyses issues within modern architectural development and its relationship to increasing crime rates – promoting the concept of defensive architecture and the encouragement of cognitive spatial ownership in US building typology.

This text has also provided several invaluable housing diagrams that deliver a visual narrative to Newman's observations – of which one has been used in this study to substantiate arguments made.

In particular, Newman's observations of 'private', 'semi-private', 'semi-public' and 'public' spatial types in US building typology have been used heavily to inform this study.

2.3 BARRY POYNER'S "DESIGN AGAINST CRIME: BEYOND DEFENSIBLE SPACE" (1983)

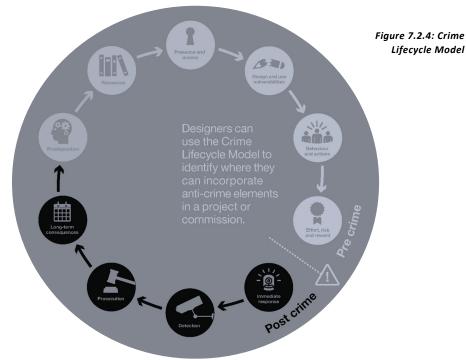
This text was instrumental in defining criminal patterns within the context of the UK for this study, and acknowledges 'situational' crime prevention mechanisms established in urban areas as a response to increased criminal activity in certain housing areas through altering the environment.

It has been used in conjunction with Newman's findings to create a well-informed idea of where crime occurs in cities of the 'Western world' – in order to establish the architectural typology of high crime areas commonly associated with ASB.

2.4: UK HOME OFFICE'S "DESIGNING OUT CRIME: A DESIGNERS GUIDE" (2011)

This short 56-page guide outlines the foundation processes a designer needs to follow in order to understand how crime can be approached: from factoring the impact of crime on local economy, acknowledging a designer's need to understand how crimes happen in order to create mechanisms to prevent it from occurring – (by observing both the actions of the users and the 'abusers' within an environment) and moving from the research to design phase with case studies.

A key work contained within this text is the 'Crime Lifecycle Model' (Figure 7.2.4) which is a framework developed by the 'Design Against Crime' solution centre, drawing from the works (1995-2011) of criminologist Paul Ekblom to determine occurrences and needs around which a crime takes place from a designer's perspective:



The information gained from 'Designing Out Crime' has been key to influencing the approach this study takes: acknowledging the effects of ASB activity, conducting research from a well-rounded base and solution finding through a designer's perspective.

3.0 TOPIC DISCUSSION CONTEXT

For this discussion we will move away from why it is important to address ASB in society and towards physical alterations pioneered by councils and private organisations to address criminal activity. Initially it will observe aesthetic changes before moving into structural typologies, with the aim of demonstrating whether or not environmental changes can affect ASB in public spaces.

3.1 EFFECT OF COLOUR ON AGGRESSION LEVELS

Within interior and urban design, chosen colours of materials or finishes have the power to influence the behavioural patterns of the user. Although media promotes this as a modern concept, it has been developing as an ideology since ancient Egyptian times – whereby even their word for colour 'iwn' translates directly as 'disposition or character' (*Hill, 2010*).

Inspired by the research of Schauss, prisons in the 1970s used 'Baker Miller Pink', also known as 'Drunk Tank Pink', in isolation rooms to pacify aggressive detainees, in efforts to reduce violence within state-run prisons. Initially this worked – but Schauss' further studies indicated that situational and caused an adverse effect in other prisons, making prisoners much more violent (Pellegrini et al, 1981).

Later works by Swiss colour psychologist Daniela Späth, 2011 defined that the shade and tone of the colour were influential in her patients' behavioural patterns, citing the negative effect of 'Baker Miller Pink' (see Figures 8.3.1).

She established through her research that the particular shade '*Cool Down Pink*' had the desired tranquilising effect, which has been used in Swiss prisons since to great effect, such as Pfäffikon ZH prison (Späth, 2011).

Figures 8.3.1: Shades of pink used in prisons to pacify inmates



Späth's research highlights the profound effect colour alone can imbue on the population, and the potential it has when utilised in public spaces to alter behavioural patterns.

If used in the context of reducing ASB, spaces where violent ASB occurs could be painted 'Cool Down Pink' to reduce occurrences.

Cool Down Pink

Outside of the pink spectrum, blue has also been trialled in public areas and proven to reduce aggressive behaviour through a 'relaxation' effect. Glasgow Council in 2000 installed blue-coloured lighting in several neighbourhoods with the intension of reducing aggressive behaviour. This intended change was based on trialled alterations in Japan, which had utilised this concept with the intent to reduce depression and suicide rates around railway stations (Matsubayashi, T. et Al, 2014).

Rather than simply reducing aggressive behaviour, Glasgow Council found there was a significant reduction of crime overall in the areas the lighting was altered to blue: a sample from Buchanan Street saw a 42% reduction in crime in the first year (2000), and continued to drop by 5%pa, halving crime in the area by the start of 2003 (Corporate Crime Database, 2010). This alteration would not have been costly as the pre-existing lightbulbs were simply changed to coloured variants.

These studies clearly demonstrate that environmental alteration through colour psychology can pacify human behaviour quickly and effectively, using *carefully* selected tones located on differing sides of the chromatic spectrum – and could be incorporated into mainstream UK urban design to combat ASB. However, the longevity of these changes is debatable due to limited available research over an extended period.

3.2 INCREASED CRIME IN RED BRICK ESTATES

Extending from the theories behind colour psychology into architectural materiality, there are strong links between the utility of red brick estates, overcrowding and increased criminal activity due to higher deprivation levels than in rural areas (Poyner, 1983).

To an extent, this is somewhat unsurprising as buildings constructed in the UK between 1700-1900 were commonly made from red brick; it was a cheaper construction material than timber due to the abundance of available clay, and provided greater longevity. This enabled large-scale housing projects to be constructed cheaply by benefactors or authorities; such as the Cadbury-built 'company town' Bournville (1879 onwards) outside of Birmingham.

Low-income housing estates in the UK known for high crime rates include those in Manchester, Liverpool and Birmingham, were mainly built during the industrial revolution and heavily incorporated red brick as a design feature. Much of these architectural typologies were situated in areas where deprivation perpetuated; which is a common association of areas suffering with high levels of crime and ASB (Millie, 2009).

The designs were often closely correlated with cramped living conditions, poor access to hygienic facilities, little insulation, reduced access to green space and lowquality building installation – leading to low-moral of occupants. Examples of this could be seen in the Birmingham housing known as 'Back-to-Backs', now demolished due to "socio-economic regeneration" (Kennedy, 2004); where a level of criminal behaviour was overlooked as a necessity to 'get by' for those living in these conditions between the 18th to early 20th century (National Trust, 2006).

The domineering 'redness' of this architecture may have psychological connotations of 'aggression and dominance' according to (Elliot, 2015); possibly subconsciously encouraging violent, aggressive or ASB in those surrounded by red bricks. Based on this psychological influence, it could be argued that utility of red bricks may have influenced the high-crime levels in these 'red brick estates'; a key example being the New Southgate Estate in Enfield.

3.3 CASE STUDY 1: NEW SOUTHGATE ESTATE, ENFIELD, UK

For many years the New Southgate Estate suffered with high crime rates, particularly ASB and Burglary.

In 2012, Enfield Council spent £150,000 lowering walls before replacing them with railings, repaving footpaths and blocking alleyways in the Estate dominated by redbrick housing built between 1935 -1939.

Although this initially reduced the levels of crime in the area, it wasn't until the greenspaces in the area were increased and the lighting improved later that year that ASB levels dropped significantly and the community reported a developed sense of safety and pride (Hardiman, 2012).

The aesthetic changes to this estate had a drastic effect on the colour palette and material perception of the area: particularly by those causing ASB. Surprisingly, the effects were only seen in ASB - which exhibited a slow decline until Covid-19 surfaced alongside increased economic deprivation in 05/2020, but violent crime in the area continued to increase despite these changes.

ASB is typically a male-dominated crime with men outnumbering women 3:1 (Firth, 2007). It is a common male trait (nearly 10% of men) to have deuteranopic vision, otherwise known as red-green colour 'blindness'. This means that if green spaces are increased against a smaller red brick backdrop, the 'colour-blind' eye will perceive more of the area as a 'calming' (Özgüner and Kendle, 2006) green, than an inflammatory red because it is the dominant surface material (*see figure 10.3.3*), thus altering their blood pressure, stress and impulsive inclinations of the viewer.

Figure 10.3.3: Example of deuteranopic vision for red and green dominance



Unimpaired Vision

Deuteranopic Vision

The higher prevalence of the colour green rather than red would also have the same calming effect on a person without colour-blindness, and would suggest that altering the perceived colour of red bricks can alter ASB in problem areas.

However, it would be cheaper to repaint red brick buildings rather than relandscape entire areas with grass and trees, which require more regular and costly maintenance, based on a visual impairment attributed to approximately 10% of the UK's male population. Instead, it would be more feasible to resurface redbrick estates in exterior chalk paint or limewash to mute the colour cheaply, and create small green spaces and planting areas which can be easily maintained in ASB hot spots – which could also beneficially affect the violent crime within the estate.

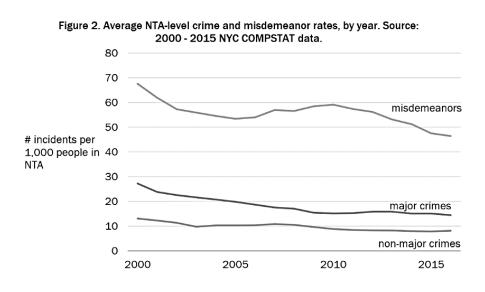
Ultimately, as summarised by Elliot (2015); colour is "a highly complex perceptual experience that is an integrative product of numerous characteristics of the physical stimulus, the observer and the environmental surround".

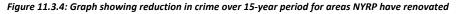
3.4 TRANQUILLISING EFFECTS OF GREEN SPACES

The incorporation of green spaces can be a useful tool to reduce crime in an area. This phenomenon of increasing green spaces in a deprivation area and the link with reduced crime was established in the findings of Kuo and Sullivan in 'The conversation' (2019) based on their studies in the US.

However, park maintenance, design, and attendance by locals as "eyes on the streets", were also noted as key features of spaces which encourage a reduction in crime (Shepley, M. et al, 2019) alongside the colour psychology of green spaces. Maintained green spaces reduce criminal activity as they encourage the development of social infrastructure by becoming community hubs (Klinenberg, 2019).

Work conducted by the New York Restoration Program (NYRP) embodies this theory: as a company, they renovate poorly maintained areas and convert them into public greenspaces. Their work is impressively detailed and can be seen in Sherman Creek Park in Upper Manhattan and Essex Street Community Garden in Brooklyn: both of which saw a reduction in National Treatment Agency (NTA) crimes (drug misuse) and misdemeanours after the installation of maintained greenspaces.





Pre-and post-installation, the NYRP conducted investigations into the effectiveness of their work; in addition to improved community image the addition of greenspaces has been shown to reduce criminal activity in an area by an average of 32% over 15 years, with immediate results in the first year (as shown in Figure 11.3.4 – Casciano, 2018).

This data would therefore indicate that additional greenspaces are correlational with reduced ASB of an area, and should therefore be included in areas known to suffer with high-crime rates – with the additional guidance of a defensive design specialist to avoid it becoming a criminal target area.

3.5 REDUCING CRIME THROUGH LIGHTING

In the 1990's ASB became a key topical issue, mainly due to the agenda of Tony Blair's labour party policies and the implementation of increased council autonomy for dealing with ASB alongside ASBOs. It was during this period that alternative methods outside of criminalisation were investigated to discourage ASB in a cost-effective way.

It was due to this focus that academic researchers Painter and Farringdon began investigating whether improved street lighting in public areas would reduce crime.

Their studies in 1999 proved this to be true in the UK, not only effecting the streets where the lighting was improved but also spanning across nearby streets too; thereby reducing crime in the larger area rather than simply displacing it.

Key observations between 1997-1999 were made in Edmonton, Hammersmith, Dudley and Tower Hamlets in London: each area reported an increased pedestrian count on the streets after dark and a reduced level of crime after street lighting was increased. This is important as 70% of criminal activity including ASB occurs after dark (Poyner, 1983).

However, an interesting aspect to other studies conducted by Tien et al (1979) showed that improved street lighting had little to no effect in the US (approx. 3% decrease). This may possibly be due to the poor recording techniques of Tien et Al's study, the quality of available resources or could be correlated with the levels of public observation being dramatically different in the United States to the United Kingdom.

Urban environments in the US offer high-observational access due to the gridlike town layouts (Newman, 1996); whereas urban environments in the UK could be described as more 'organic' considering the less linear formation, caused by listed-protected buildings and historic sites of UK cities, which create reduced observational opportunities.

Overall, this is indicative that improved street lighting is a feasible option for reducing ASB cases in the UK - but based on US research the effects may only alter behaviour temporarily; until brighter street lighting where the resulting high-observation level becomes 'the norm', and perpetrators are familiar with it situationally.

3.6 ARCHITECTURAL MAINTENANCE AND DELINQUENT BEHAVIOUR

Although seemingly obvious, areas which are well maintained deter criminal activity and encourage respectful behavioural patterns. What is surprising is that poorly maintained public spaces known for a long-term history of criminal activity can be 'civilised' through revitalising architectural alterations and remain so.

The *Clason Point Experiment* (Newman, US 1996), which provided derelict public land areas adjacent to housing and divided it as green spaces among residents, concluded that the beautification and reassignment of spaces to individual families allowed ownership to be restored to citizens and "removed it from the gangs and drug dealers."

After the scheme was in-place, crime in the local area dropped by 54% (Newman, 1996) in the first year. In addition to this the associated council were able to save funding, as the residents also provided additional maintenance for the surrounding area by cleaning walkways and removing trash, enabling a reduction in the number of maintenance staff (Newman, 1996).

The caveat to this solution is inter-neighbour disputes on ownership rights can put off tenants attending to their designated areas. To mitigate this, landlords or councils must continue contact with the tenants, and ensure they are aware of their maintenance duties or rights over an extended period.

However, there are courses of action in architectural maintenance which must be employed to target specific behavioural patterns when standard improvements are not effective.

According to Wallace & Whitehead (1989), Graffiti in urban areas contributes "to an atmosphere of neglect, which often acts as a releaser stimulus for more costly acts of vandalism". To address the issue of graffiti on public property, councils often simply repaint the surface of the offending area – which unfortunately invites graffiti or 'tagging' artists to reoffend on the fresh blank canvas.

To combat this, the cheapest and most community-driven solution is to paint a peaceful mural with the help of residents and schools. This not only improves the image of the area on an aesthetic basis and allows a greater community connection, but also reduces further tagging through the graffiti artist's inclination to respect the artwork of others (Craw et al, 2006). Areas such as Jersey City (US), Bristol (UK) and areas of London have utilised this method with success.

Both the cases of reclaimed residential street-gardens and graffiti murals exemplify a homogenic characteristic of spaces with reduced observation transformed by the visual demonstration of ownership. This signification of ownership or territory by the local population acts as a preventative deterrent (Newman, 1996) of vandalism and criminal activity for the local vicinity.

However, this may not necessarily apply to the surrounding district, meaning that its utility beyond a local preventative measure of ASB is flawed.

3.7 CASE STUDY 2: POOLE TOWN CENTRE

Poole itself is a historic coastal town in the South West of England. There are numerous areas in Poole where ASB takes place. Their key 'issue' architectural features include high prevalence of brickwork, with increased access due to extensive alleyway connections, low lighting, and a poor ratio of private and public spaces with few semi-privately owned zones - which all attribute to higher crime rates according to the works of Newman (US) and Poyner (UK).

The area also suffers with a 'dying high street', deprivation and high-rise lowincome housing adjacent to affluent areas, which are also indicated to have negatively correlating influences over crime rates according to the work of these researchers.

In the long-term BCP council have created plans to reduce crime in the area by offering various improvements such as recladding the social housing blocks and aesthetically revamping the high street through a multi-million-pound scheme set to take place over the next decade.

Attempting to address these issues, Poole has improved lighting in unsavoury alleyways and increased available greenspaces in pedestrianised routes to encourage a sense of safety for residents.

The privately-owned shopping streets known as 'Fawkland Square' is an area notorious for youth ASB and shoplifting.

In an attempt to regenerate it, the adjacent shops along Kingland Crescent (indicated in yellow below) have been refurbished through funding from Legal and General in September 2020, and there has been an immediate impact of criminal activity in the area. However, rather than reducing cases of crime, they have instead been displaced to less maintained areas nearby, as shown in Fig.15.3.7 (Lacey-Clarke, C. 2020).

Figures 14.3.7: Crime Figures in Poole Town Centre, Kingland Crescent Aug-Oct 2020



CASE STUDY 2

This would indicate that architectural maintenance plays a key part in reducing crime in urban areas; but to maintain these low levels the improvements must be stretched across the wider environment – or crime will simply be temporarily displaced to nearby adjacent locations.

One of the reasons the Kingland Crescent refurbishment has been so effective in reducing crime in its immediate vicinity is within the behavioural psychology caused by the aesthetic alterations.

Firstly, its clashing pattern creates an aggressive visual focal point which discourages pedestrian loitering, taken from the movement known as 'Hostile Architecture' or 'Unpleasant Design' (Jeffery, 1977).



Figure 15.3.7: Kingsland Crescent Entrance (Bournemouth Echo, Aug 2020)

Figure 8.3.1



Cool Down Pink Späth, 2011 Beyond this, the paint colours selected hold two very differing purposes; dark grey paint used to frame the shopping units which disguises marks to create the illusion of maintenance and cleanliness. The additional colours carefully chosen to offset the darkness are a direct colour match (see figure 8.3.1) to those piloted by Späth (2011) to calm viewers and deter aggressive behaviour.

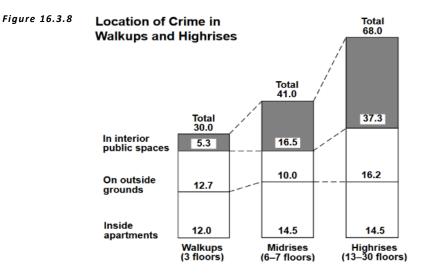
It can therefore be concluded that the aesthetics of Kingsland have been selected to deter crime, including ASB, and have been successful to date.

However, to maintain this success it may require additional alterations to the immediate surrounding area. CASE STUDY 2

3.8 PROMOTING MISCHIEF THROUGH ACCESS

The studies of architects Poyner (UK) and Newman (US) conducted between 1960-2000 both drew similar conclusions regarding the role of defensive architecture and its impact on crime through spatial designation and public access.

In the instances where spaces are separated into public, semi-public, semi-private and private categories – the most crimes occur in the semi-public and public areas. Examples of this can be seen in high-rise buildings in both countries, due to the increased ratio of these spaces compared to low-rise building typologies (see figure 16.3.8 – Newman, 1996).



As this study focuses on ASB in the UK, the works of Poyner are most appropriate in the exploration of successful solutions to reducing crime around high access areas through architectural design. Altering design can mitigate ongoing costs associated with increased security measures such as surveillance systems and additional security personnel.

Shrewd methods included: lockable gateways, granting only access to residents through keys or numeric keypads; removing visual obstacles to reduce 'blind spots' in the immediate site entrances (Newman, 1996); and encouraging residents to 'personalise' the environments to discourage the area's perception as 'public' space (Poyner, 1983). Alas, these mechanisms were not impervious to vandalism and did require maintenance.

However, some schemes which attempted to address criminal activity by changing access routes have failed - such as the deck access scheme in the Loughborough Estate of Lambeth, London (Poyner, 1983 – researched by Sheena Wilson). The council implemented an extensive series of multi-level walkways between the 1950s estate's multi-story buildings for fire safety purposes and the convenience of the residents, but inadvertently created a youth-based localised ghetto culture due to the increased public spaces and multiple access (or escape) points. By 1995 this was resolved through controlling the ratio of households in the area with children, ensuring that adult-only households were higher (Poyner, 1983).

These findings would conclude that the private control of public and semi-public spaces in residential areas are key factors in reducing ASB, but that they are most effective when used in conjunction with other population control methods.

4.0 CONCLUSIVE STATEMENTS

The findings of this study would conclude that the alteration of architectural aesthetics including colour, materials, greenspaces, lighting, ongoing maintenance, and access are effective in reducing ASB – but that none of them individually are able to remove it from an area entirely. The comparative effectiveness of each solution is demonstrated in the chart below:

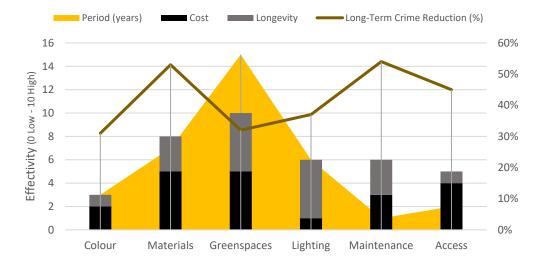


Figure 17.4.0: Architectural Alteration Effectiveness Against ASB (2020, UK)

Figure 17.4.0 Note: Lacey-Clarke, C. 2020. Figures noted are obtained from combining all research references within this study and have been translated diagrammatically for ease of understanding

No method of reducing ASB was without fault, with incurring ongoing costs over varied terms, providing mixed results and most with a limited longevity due to vulnerability to vandalism or environmental damage.

Lighting colour alteration was by far the most effective combination solution in terms of being the cheapest method for its resultant outcome, considering the ratio of cost against the longevity, installation, and effect (Buchanan Street, 2000-2003).

In terms of the sole alteration of architectural typology, most anti-social criminal acts occur in deprivation areas with high access and low observation, particularly within high-rise buildings and around over-developed housing estates (Newman,1996. Poyner, 1983): but that aesthetic changes can have a dramatic impact on reducing ASB activity.

Based on these findings, the closest solution to 'stamping out' ASB from an area in the UK would be to combine the New Southgate Estate's approach of tackling the environment from a multi-faceted observational approach, the New York Restoration Program's relandscaping of derelict urban sites into attended community greenspaces, and distribution of responsibility amongst individual residential households from Newman's research.

Ultimately, the most effective of the solutions discussed in this study were those which worked alongside local authorities to monitor the area, react to reports of ASB with physically protective solutions, and provide them with an environment they are 'proud' of, in order to develop the inclination to take an emotional responsibility and ownership of it. Baraniuk, C., 2019. *Can Blue Lights Prevent Suicide At Train Stations?*. [online] BBC.com. Available at: https://www.bbc.com/future/article/20190122-can-blue-lights-prevent-suicide-at-train-stations [Accessed 15 December 2020].

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Page | 20

Figure 7.2.4: "Crime Lifecycle Model"

Report Section: Literature Review - UK HOME OFFICE'S "DESIGNING OUT CRIME: A DESIGNERS GUIDE"

Image Source: Home Office, 2011. Designing Out Crime: A Designer's Guide. UK: Design Council.

Figure 8.3.1: "Shades of pink used in prisons to pacify inmates"

Report Section: EFFECT OF COLOUR ON AGGRESSION LEVELS

Image Source: Pantone, 2020. Baker Miller Pink – Sample 183C and Cool Down Pink – Sample 700C. Website: https://www.pantone.com/uk/en/color-finder

Figure 10.3.3: "Example of Deuteranopic vision for red and green dominance"

Report Section: CASE STUDY 1: NEW SOUTHGATE ESTATE, ENFIELD, UK

Image Source: Brisbane Eye Clinic, 2017. Through Their Eyes. Australia: Brisbane Eye Clinic. Website: https://brisbaneeyeclinic.com.au/through-their-eyes/ (Accessed 17/12/2020)

Figure 11.3.4: "Graph showing reduction in crime over 15-year period for areas NYRP have renovated"

Report Section: TRANQUILLISING EFFECTS OF GREEN SPACES.

Image Source: Casciano, R. 2018. A Greener New York Is A Safer New York. US: NYRP. Website: https://www.nyrp.org/uploads/media/nyrp-safer-Crime-Focused-Report.pdf00 (Accessed 18/12/2020)

Figure 14.3.7: "Crime Figures in Poole Town Centre, Kingland Crescent Aug-Oct 2020"

Report Section: CASE STUDY 2: POOLE TOWN CENTRE

Image Source: Lacey-Clarke, C. 2020. CGI. Custom image manufactured for this report. Information Sourced from UK Police, streetcheck.co.uk and Digimap 2020.

Figure 15.3.7: "Kingsland Crescent Entrance (Bournemouth Echo, Aug 2020)"

Report Section: CASE STUDY 2: POOLE TOWN CENTRE

Image Source: Durkin, J. 2020. *First Boutique Shops Open Poole's revamped Kingland*. Bournemouth Echo, UK. Website: https://www.bournemouthecho.co.uk/news/18885574.first-boutique-shops-open-pooles-revamped-kingland/ (Accessed 26/11/2020)

Figure 16.3.8: "Location of Crime in Walk-Ups and High-Risers"

Report Section: PROMOTING MISCHIEF THROUGH ACCESS

Image Source: Newman, O, 1996. Creating Defensible Spaces. US: Rutgers University

Figure 17.4.0: "Architectural Alteration Effectiveness Against ASB (2020, UK)"

Report Section: CONCLUSIVE STATEMENTS

Image Source: Lacey-Clarke, C. 2020. Diagrammatic Graph created through Excel. Graph has been custom designed and collated for this report: please see full reference list for information of all sources.