

Graffiti and vandalism on and around public transport

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Outline of the Paper

This paper summarises research commissioned by the UK Department for Transport that explored the impact of graffiti and vandalism on public transport, why such offences are committed and drew on international case studies to identify good practice for preventing and tackling graffiti. The paper also draws on further contact within Europe to explore how graffiti is being tackled more widely and whether cultural differences and recent history impact on the prevalence of graffiti. The paper concludes with key lessons drawn from our research.

The impact of graffiti and vandalism on crime and fear of crime

Graffiti and vandalism strongly affect people's perceptions of crime and personal security. They give the impression that the area is unmanaged and out of control.

Some criminologists suggest that the presence of vandalism and graffiti not only impacts on fear of crime, but also on the level of crime itself. The 'broken windows' theory, developed in the United States, has identified possible links between disorder, fear of crime and more serious crime (Wilson and Kelling, 1982). This theory proposes that if a broken window is left and not repaired, the other windows will soon be broken in response to the message that 'no-one cares'. It is argued that this in turn creates a perception that crime in general is on the increase, and as a consequence people will be less inclined to use public places. With fewer people using public places, there is less deterrence to crime, which will rise. Hence, it is argued, the perception of rising crime becomes a reality.

An overview of the scale of the problem in the UK

In England and Wales, criminal damage represents a quarter of all recorded crime with more than a million reported incidents of vandalism or criminal damage in a year. However, the official statistics represent only a partial picture. An annual survey of crime conducted by the UK Home Office (British Crime Survey¹) has identified vandalism, even against private property, as one of those crimes least likely to be reported to the police, with less than a third finding their way into the official statistics. The main reasons for not reporting such incidents are that it is either not considered serious enough by the victim, or it is thought that the police will not be able to catch the perpetrator of the crime.

According to UK Home Office research in 2000, the total cost of incidents of criminal damage was estimated to be 6.5 billion Euros across England and Wales. Of this, the cost to the commercial and public sector was 4.15 billion Euros and the cost to individuals and households £2.35 billion Euros. This included costs incurred to prevent crime as well as costs that resulted from the crime. The latter includes expenditure on the criminal justice system and a financial estimate of the emotional and social impact of incidents. In the case of criminal damage in the commercial and public sectors, nearly half of the cost resulted from the property being damaged or

¹ The British Crime Survey measures the amount of crime in England and Wales by asking people about the crimes they have experienced in the last year. It includes crimes not reported to the police.

destroyed, the other half being the cost of security measures to prevent or deter criminal damage.

Graffiti and vandalism on public transport

Graffiti and vandalism impact on **public transport** through:

- the costs of cleaning, repair and replacement to freight as well as passenger infrastructure and rolling stock
- the costs through design and security measures to prevent and deter such activities, including the use of CCTV surveillance, security staff and security fencing
- the dangers caused to the travelling public and staff
- delays and cancellations to services, and loss of revenue when services have to be withdrawn
- reduced revenue because people will travel less because of their fear of crime
- the dangers to the perpetrators through track trespass or unsafe use of trains, buses or trams

i) On trains and track

Route crime covers trespass, vandalism and assaults on staff. Trespass and vandalism is the cause of most deaths to members of the public on Britain's railways. The UK Health and Safety Executive has calculated that there are over 8,500 reported trespass incidents over the year and more than 9,600 reported incidents of vandalism by people of all ages. The total cost of trespass and vandalism are estimated to cost the UK *rail industry* more than 415 million Euros every year.

In the UK, the dangers of trespass on the track resulted in:

- 275 people were killed and about 170 people suffered injuries as a result of trespass on the railways (2001/2)
- This includes three children who were killed trespassing on the track.

In England and Wales there were over 580 incidents of trains running into obstructions on the track and over 700 incidents of missile damage to windows (2001/2). Over half of all train incidents were caused by vandalism, including arson attacks on trains (British Transport Police, 2003).

In France reported incidents of graffiti and vandalism on the rail network in Paris have increased dramatically in recent years. In 2000 the number of incidents of graffiti was four times as high as in 1995, and the number of incidents of missile throwing was two and a half times as high as in 1996 (Caire, 2002). The *direct* costs of vandalism for the Paris network (RATP) in terms of repairs and preventive security amount to approximately 30.5 million Euros per year.

The Hungarian Railway Authority spent more than 400,000 Euros in 2003 removing spray paint from their coaches and between 500 and 700 of their 3000 rail carriages are marked with graffiti.

An increasingly common problem for public transport operators is glass etching that affects windows especially. In place of markers, sharp implements are being used to draw and write on the windows. The cost of replacing windows is often prohibitive.

For example, for London Underground, the cost of replacing one window is around 320 Euros and, for a whole carriage, the cost of replacement windows can amount to nearly 10,000 Euros.

ii) On buses and trams

Vandalism to buses usually consists of broken or scratched windows, damaged seats and interior graffiti. In the UK, vandalism is usually greatest in parts where it is hardest for the driver to see, especially the upper deck and back seats. Not surprisingly, most problems are experienced on double deck buses, and least on single deck vehicles. Transport for London identifies interior graffiti as the most common form of vandalism on buses, especially on the upper deck with the etching of window glass now the most common form of graffiti.

A survey of large bus operators conducted for the Department for Transport revealed that each spent over 85,000 Euros in 2001 on repairs resulting from vandalism. Research with individual bus operators in the UK also suggests that the scale and cost of vandalism, especially in metropolitan areas, is rising. One major London bus company estimates that vandalism to their vehicles costs on average 11,000 Euros each week, but this does not include lost revenue through having vandalised vehicles off the road.

Adshel, a major private company that provides and maintains bus shelters, has identified increased levels of bus shelter vandalism and graffiti in recent years. In the UK, Adshel removed 66,000 pieces of graffiti and items from flyposting from its shelters (2002).

Who does it and why?

Universally across all countries and modes of transport, it is young people who are commonly associated with graffiti and vandalism. Our research and other studies suggest that young people have little understanding of the impact of graffiti on other passengers, and of the cost of cleaning it off or repairing damage.

In the UK, the peak time of year for graffiti and vandalism on the railways is the Easter and summer holidays. Again in the UK, this is said to be a relatively quieter period for bus operators, with the peak coming in September when schools start back and the evenings draw in. Most public transport operators identify a pattern during the course of the day, with the peak being at the end of the school day.

The British Transport Police estimate that young people are responsible for 90% of vandalism on the railways, the peak age being 17 years and the peak time for vandalism being between 16.00 and 19.00. A UK survey of 11 to 16 year olds revealed that a quarter admitted to at least one offence of vandalism. Those attending schools that are closest to the tracks are most likely to trespass and vandalise railway property.

There are different types of vandalism and graffiti with a range of motivations, and young people are not always responsible. In order to develop effective preventive measures, we need to understand in each case who is doing it and why.

Much of the graffiti by children and young people such as the scribbling of names or tags is often a response to *boredom* and a way of *marking out their territory*. Some, however, is intended to *intimidate*. This may be a means used by gangs of young people to stake out a claim to an area, or (in the case of racist, sexist or homophobic graffiti) specifically to keep out certain types of people.

Using graffiti as a *protest* against a regime or authority has a long history and is sometimes used today to justify all graffiti as an act of free expression. Rather than a crime, graffiti is seen as an expression of diversity and powerlessness in the face of authority and corporate business.

The fall of previous regimes in Eastern Europe has been associated in some countries with an increased prevalence in graffiti. For example, in Hungary, Poland and the Czech Republic graffiti is said to have only become established with the greater openness of the borders and the *exposure to different cultures*. Although informed by the cultures of other countries, those mainly responsible for the graffiti are known to be citizens and not visitors.

In the Czech Republic, the growth in graffiti in Prague in the 1990s is said to have somewhat levelled off and more stringent action is being taken to tackle the problem. Despite the considerable efforts of Budapest Public Transport and the City Council with enhanced cleaning and security, there are few signs of a reduction or levelling off of the problem as yet. There are also signs that where initiatives have been successful (for example on the metro system) that problems can be displaced to other transport modes or locations. The police and transport operators are seeking changes in the law to make graffiti a more serious offence, raise parental responsibility when the perpetrators are children or young people and reduce access to spray paints.

Graffiti can be seen as a *challenge against authority*, especially on public transport that holds the double attraction of having the potential to be seen by a large audience, and involves working in a dangerous environment, thus raising the status of the perpetrators among their peers. Budapest Transport referred to the need for caution in reporting new security measures to tackle or prevent graffiti as this can be seen as offering a 'new challenge' to the perpetrators.

Finally, there is the argument that graffiti as an *art form*. From its beginnings in the United States, a graffiti subculture has developed and is now a worldwide phenomenon. As with political graffiti, its perpetrators and supporters argue that those who oppose it are stifling free expression. And as with political graffiti, those who engage in tagging are likely to include adults as much as young people and perpetrators can be involved over many years. Recently, there has been growing awareness of the role of the media and of advertising in helping to promote graffiti.

The Case Studies: Preventing and reducing vandalism and graffiti

A framework for crime prevention can be useful in developing a comprehensive approach:

Law enforcement – measures that enforce the law against perpetrators through the criminal justice system.

Situational crime prevention – measures that are designed to reduce opportunities, reduce rewards, or increase the chances of catching perpetrators.

Criminality prevention – measures that are designed to reduce the risk of potential perpetrators from becoming involved in crime or anti-social behaviour.

The following case studies tend to focus on one aspect of this framework, but in each the key agencies work in partnership with others as part of a strategy that combines all three.

Case study 1: rapid removal on the New York City subway

Twenty years ago the stations and cars of the New York subway were covered with graffiti. Passengers recall not being able to see out of the windows, so complete was the coverage.

The anti graffiti initiative on the New York subway dates from 1984. Staff were assigned to the terminals and yards to start cleaning the rolling stock. Those cars that had a stainless steel exterior had to be completely cleaned, and those that were spray painted had to be painted over. Stations were cleaned, one at a time, and inspected every day to ensure that they stayed clean. Any new 'hit' was immediately cleaned off, or if this was not possible, painted over.

Staff were deployed at terminals to inspect and clean each car after its journey down the line. Immediate removal has been found to be easier than allowing time for the paint to 'migrate' into the surface. Cleaners keep a graffiti notebook so that hits can be reported to the police. There is a mobile wash unit that goes out to stations during the night to remove graffiti.

Police officers were deployed to patrol and monitor the terminals and yards, as a deterrent and to catch vandals. There is also a dedicated team who target known offenders. Large or significant pieces of graffiti are photographed to provide evidence if the vandal is caught and prosecuted. A record is made of the time taken to clean the graffiti and the cost of materials, and this information is submitted to the court.

Recognising that the task was enormous and that to achieve some early success it would be important to make a visible impact, the company embarked on a line by line approach to cleaning the system. During these early days, cars had to be taken out of service to remove extensive graffiti. The first graffiti-free line was the F Line in February 1985 and the whole network was finally said to be graffiti free in May 1989.

The theory that underpins the approach in New York is that the graffiti vandal (a term used in preference to 'artist') is motivated and rewarded by seeing their works displayed. In order to remove the reward and hence the motivation, it is vital to clean off or cover over any graffiti before it can have an audience. Even if complete removal is not possible immediately, putting a line through it is an effective short term measure.

The New York subway initiative was originally managed through monthly monitoring meetings, but these are now held on a quarterly basis. The media is seen as having been important in promoting the achievements of the initiative and attracting back passengers. Reporters were invited to see stations that had been cleaned up, and arrests of vandals are reported in the media.

Case study 2: targeted initiatives by the London Underground Graffiti Unit

The London Underground Graffiti Unit (UK) is staffed by three officers and is part of the British Transport Police, a national force with responsibility for policing the railways. The Unit was first set up in 1982 in response to major problems of graffiti and vandalism, but was temporarily disbanded in 1996 when it was felt that this had

been largely resolved. However, the Unit was re-established in 1997 when it became clear that the problem was increasing and that the phenomenon of glass etching was becoming established.

The Unit identifies most perpetrators as being between 14 and 30 years old and attracted to the high visibility that the underground network provides. There are some prominent walls in the overground lines that are favoured by those responsible for the graffiti because of their high visibility.

The approach of the Unit is based on the premise that good intelligence is the key to apprehending offenders. Using computer software, the Graffiti Unit registers all tags and pieces on their database. The data is analysed to identify persistent offenders and hotspots and police operations are targeted at locations and perpetrators.

The Unit collects and presents evidence to the Courts and this includes not only the offence for which he or she was arrested but the perpetrator's other offences as well. The law is used to carry out house searches, including computer records as often photographic evidence in the home of the perpetrator carrying out the acts of graffiti. If the cost of criminal damage is calculated at approximately more than 8,000 Euros, the case is referred to a higher Court where tougher sentences can be imposed. Providing evidence of all the perpetrator's offences can result in stronger sentence and may include a prison term.

Case study 3: public transport in a partnership approach in Stockholm

In 2000 the costs of removing graffiti and repairing incidents of vandalism on Stockholm Transport exceeded 100 million Swedish Kronor for the first time, an increase of 20% on 1999. These costs do not include preventive measures or delays to services.

There has been a significant growth in glass etching, especially on train carriage windows. The option of placing a film on the glass has been considered, but there are problems with fire regulations and the solution is also expensive. Graffiti is often accompanied by other acts of vandalism, which itself is becoming more aggressive. The interiors of many carriages have been destroyed, and there has been a trend away from so-called artistic expression to destruction and violent behaviour.

A small number of prolific offenders are thought to be responsible for about 80% of all incidents on the Stockholm network. Two perpetrators were apprehended aged 29 and 30 years, both having started when they were 14 and continued in their activities for fifteen years. When apprehended both were in regular employment and one had a young family.

Stockholm Transport is a major player in the City's anti graffiti partnership and takes part in information exchange and coordinated action. A booklet warning of the dangers and consequences of graffiti has been sent to all 38,000 households in Stockholm with children aged 11 to 13 years. The City has also contributed financially to an anti graffiti campaign on television that targeted young people. To prevent the recruitment of young people into graffiti, Stockholm Transport has school representatives who visit and talk to students, their teachers and parents.

Since 1993 Stockholm Transport has had an action plan and budget for 'Operation Safety', incorporating law enforcement and crime prevention on public transport in Stockholm. There is a policy of rapid removal, with over a hundred staff available for cleaning twenty four hours a day, seven days a week. Robust materials are used for

the interiors of train carriages to make them easier to clean and restore, and new rolling stock is designed with open carriages and clear sightlines.

A Subway Graffiti Unit was set up in 2000 to gather intelligence on all incidents and register them on a database. A private security company is employed to patrol in plain clothes and apprehend vandals. They meet regularly with the magistrates to raise awareness of the scale and seriousness of the problems on the transport network.

Lugna Gathan (Calm Streets) is an initiative that developed in 1995 and is funded by Stockholm Transport to use unemployed young people to patrol the public transport network. Their role is to assist passengers and enhance feelings of safety, but not to apprehend trouble makers. They also talk to young people who are hanging around on the system and attempt to engage them in constructive activities. Their approach is to work with the young people to find solutions. Those employed in the Calm Streets initiative come from a range of ethnic and religious backgrounds, but have a common identity in their distinctive shirt and jacket. The scheme was originally intended to give socially excluded young people an opportunity to act as positive role models to other young people.

Case study 4: involving the community and public art in the UK

Centro is the West Midlands Passenger Transport Executive in the UK. The use of public art on Centro's bus, rail and tram systems have two aims: to create a pleasant travelling environment and to deter acts of vandalism.

Centro has a budget for the use of public art, but has also engaged in successful partnerships with other agencies and private sector companies to secure additional resources. Artists working on these public art features research the local community to identify and develop an appropriate theme. Most importantly, local communities are an active partner in developing the designs. For example, for one tram station, artists spent a year at the local primary schools developing designs with pupils.

In the refurbishment of one train station, as well as consulting the local community over the theme and design, the transport planners also used the community's suggestions for improved lighting, the location for CCTV surveillance cameras, and improved fencing. Local people were involved in laying a mosaic floor, to foster a greater sense of ownership. Since the station's re-opening in 1998 there has been very little vandalism and a survey with passengers identified that the artwork had improved their feelings of safety at the station.

The additional cost of the public art features, over and above the standard costs for the refurbishment, is estimated at less than 5% of the total. It is acknowledged, though, that this percentage may be higher for small schemes.

Case study 5: using theatre to get the message across to young people

Network Rail is responsible for the track across the whole of the UK rail network. Network Rail's Midland Zone includes thirteen of the country's twenty five 'hotspots' for vandalism.

The production to young people of '*Crossing the Line*' was the result of a partnership between Network Rail and Catalyst, a 'theatre in education' company. Those writing the play found that young people involved in track trespass and vandalism often did so through boredom, and were looking for excitement. Hence, the drama and

subsequent discussion explores why we take risks and get involved in an activity that we know to be wrong and potentially dangerous.

The play and interactive discussion with the young people lasts about an hour and a half. There is an accompanying audio cassette which contains dramatic scenes for teachers to use with the young people, including a series of structured activities. This and a written resource pack were produced to support the drama and extend its influence.

As another initiative, Network Rail in the Midlands launched a public awareness campaign in the media, with the aim of educating parents, other adults and older young people about the dangers of track trespass. As a result, there was a 40% decrease in incidents compared with the same holiday period the previous year.

Case study 6: early intervention with young offenders in the Netherlands

The Netherlands' HALT Bureaux deal with young people of 12 to 18 years of age, providing an immediate response to those who are first time offenders. There are over sixty HALT Bureaux across the Netherlands and they deal with around 23,000 young people each year.

HALT Bureaux were set up in the context of an increase in vandalism, in the belief that a police warning was too 'soft' to deter offences or re-offending, but also that the criminal justice system was not always effective. HALT confronts the young person with the consequences of their behaviour and makes them responsible for it. The sanctions are felt directly and immediately by the young people, through their time and labour, and the cost of the incident. The young person does not acquire a criminal record, the principle objective being to change their behaviour and stop them offending in the future.

Young people are referred to HALT by the police. A young person can only be referred twice to HALT, and the second referral must be more than a year following the first. If a third offence is committed (or a second within a year), the young person is referred back to the police for a different kind of intervention through the criminal justice system.

Upon referral the young person and their parents are invited to an interview to explain how the scheme operates. A second interview is then held with the young person alone, in order to gain a better understanding of their lifestyle and problems. The HALT Bureau offers the young person an opportunity to repair and/or pay for the damage. The arrangement involves a number of hours up to a maximum of twenty, to repair the damage or make other restitution for it. The work is as much as possible related to the nature of the damage, and is carried out in the young person's free time. Placements have to meet health and safety requirements and stringent employment regulations.

In addition to the work related to the offence, the young person is expected to attend educational sessions which address the causes of offending behaviour.

Although, there have been difficulties in evaluating the effectiveness of HALT (as a result of a problem in constructing a viable and robust control group), there is evidence that only between 11% and 20% of the young people engaged with HALT re-offend during the following eighteen months.

Case study 7: developing 'legal walls'

The Hall of Fame project was launched in Utrecht in the Netherlands, initially for a one-year trial period. Its aim was to reduce graffiti in the locality, promote a feeling of security amongst local people, and reduce criminal activity in the young people by providing them with an alternative. The wall is 500 square metres. In preparation, the surrounding area was cleaned of all graffiti. Those engaged in graffiti locally were involved in the planning process and through the course of the project.

The project was evaluated in April 2000. The surrounding area was largely free of graffiti, although, some pieces had spread beyond the site itself to non-permitted areas. The number of graffiti pieces painted in the inner city area overall had declined. In a small local survey, most people said they felt safe and did not feel threatened by the presence of graffiti.

As another example of attempting to work with those responsible for the graffiti, the Hungarian Railway Authority in 2003 offered to make available 50 to 100 wagons of their railway stock that carry goods and luggage to the perpetrators with the intention that the rest of the fleet would not be defaced. The agreement was signed by about 40 of those responsible for much of the graffiti. To-date, however, there is no evidence that such an agreement has worked and graffiti of the other stock has continued.

Key lessons learnt from the Case Studies

- Investment to prevent and reduce graffiti and vandalism has to be long-term, sustained and targeted. Short-term investment and temporary initiatives to tackle vandalism and graffiti will yield few results and poor value for money.
- Rapid removal of graffiti is still considered to be the most effective means of preventing its growth, both on transport systems and in the wider environment.
- A partnership approach that involves both the transport provider and those with responsibility for the wider environment is often crucial to tackle the problems of graffiti and avoid any displacement of the problem.
- Simply striking out graffiti and making public claims about cleaning-up areas may, particularly in the short term, provoke renewed attacks and be seen by the perpetrators as more of a challenge.
- The increased use of internet sites to display graffiti is no substitute for the fame that perpetrators seek from displaying on the wider canvas of the public transport environment. Internet displays may also mean that perpetrators of graffiti are less concerned by rapid removal of their work.
- Many of those engaged with young people do not accept that measures that only involve law enforcement and situational crime prevention are sufficient to tackle or prevent graffiti. They point to the need to channel young people's creativity more positively.
- Early intervention with children and young people is needed to make them aware that acts of vandalism and graffiti are unacceptable, costly, and criminal.

- Public art features, designed with active participation of local communities and especially their young people, can generate a sense of ownership which deters future vandalism and graffiti of public transport vehicles and infrastructure.
- There are sharply contrasting views on the effectiveness of 'legal' walls. Seen by some as a providing a channel for young people's creativity, others argue that they encourage graffiti and misuse elsewhere, and especially on the routes to and from the 'legal' site. If 'legal sites' are developed, there should be measures in place to ensure those using the site do not leave or arrive with spray paints.
- The law needs to be sufficiently robust for enforcement actions to be effective. The criminal justice system and magistrates in particular, need to be aware of the scale and impact of the problem and respond appropriately to deter the perpetrators.
- Measures, including use of the law, that deter the availability and carrying of spray paints can be effective in restricting their use, especially by young people.
- It is important not to send out mixed messages through publicity and advertising that some forms of graffiti are artistic and acceptable, while others are not.
- A good working relationship with the media can avoid the publicity that gives fame and recognition to perpetrators, and can also be harnessed to inform parents and others of the risks to those engaged in graffiti and vandalism on public transport.