

## CHAPTER TWO: VANDALISM AND GRAFFITI

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*"The Vandals, an ancient Germanic people, are associated with senseless destruction as a result of their sack of Rome under King Genseric in 455. During the Enlightenment, Rome was idealized, while the Goths and Vandals were blamed for its destruction. The Vandals may not have been any more destructive than other invaders of ancient times, but they did inspire British poet John Dryden to write, Till Goths, and Vandals, a rude Northern race, Did all the matchless Monuments deface (1694)"(Merrils & Miles,2010).*

### 2.1 Introduction

This chapter presents the literature review on vandalism and graffiti as a social problem, its causes and prevention of such behaviours. It also addresses deviance, costs and consequences of vandalism and graffiti. This chapter explores the demographics and ecology of vandalism, theories of vandalism causes and intervention strategies to prevent it. The purpose of this chapter is to review the development of theories related to problem of vandalism and graffiti. This review will provide focus, background and will help to highlight the original contribution of this research.

### 2.2 Vandalism and Graffiti: The Overall Perspective

**Vandalism:** Vandalism is a term to describe several different types of damage to property (Cooper & Carolyn, 1997). "Vandalism is the behaviour attributed to the vandals by the Romans, in respect of culture: ruthless destruction or spoiling of anything beautiful or venerable" (Oxford English Dictionary, 2008), Such action includes criminal damage, defacement, graffiti and crass erection of an eyesore. Definition of vandalism varies by jurisdiction and depends on the social context of the act.

The same acts can be judged very differently in different societies but in general

Vandalism refers to:

*“Wilful or malicious destruction or defacement of any public or private property without the consent of the owner or persons having control” (Bessette, 1996, P.817)*

In criminal damage Act 1971, chapter 48 under English Law, vandalism is defined as:

*“Intentionally or recklessly destroying or damaging any property belonging to another without lawful excuse”*

Vandalism as one of the most visible form of delinquent behaviour (Hedge, 1979) and the most highly rated kind of disorder (Skogan, 1990) is an ongoing burden to cities that absorb time and energy of a large number of people. The cost of remedying such damage involves not only monetary costs but also social costs. The effects of vandalism damages can be discomfort as well as actual danger to the public directly or indirectly.

**Graffiti:** “The word graffiti means “little scratching” and it originates from the Italian word graffiare, which means to scratch” (Alonso, 1998). According to the American Heritage Dictionary, graffiti is defined as “an inscription or drawing hastily produced by hands on a wall” (American Heritage, 2000). The origins of graffiti go back to the beginnings of human, societal living (Stowers, 1997). For as long as people have been able to write, they have been writing on walls (Serkan & Gülsen, 2006).

Graffiti is a criminal act and it is described as defacement, property vandalism or street art in the form of “inscription, word, figure or word design that is marked, etched, scratched, drawn, sprayed, painted, pasted, applied or otherwise affixed to or on any surface of any assets and includes any remnants of same such as adhesives, glues, tape,

shadows or colour variations remaining after removal” (Graffiti Management Policy 2004 P.5, Pereira 2005 p.9, Anonymous 1986 as cited in Van D'Elden 1992).

Graffiti is also promoted as an acceptable form of urban street art in recent years (Weisel, 2004). Some artists, sociologists and writers calling it spray art and even rewarded graffiti as a sophisticated art form (Geason, 1989). Graffiti as urban street art is used by activists to communicate ideas and express political and social views when no other means of expression are available (Farmer, 2007). These scribbles have been said to provide a unique insight into society because these messages are often made without the social constraints that might otherwise limit free expression of political or controversial thoughts (Alonso, 1998).

Although graffiti is known by some as creative, artistic and expressive (Geason, 1989) but law considers graffiti in a negative way (UK: Anti-social Behaviour Act 2003, Canada: Graffiti by-Law No. 7343 (2003), Australia: Graffiti Control Act 2001).

Different styles of graffiti are categorised as follows: (Graffiti Hurts Australia, 2008, Callinan 2002):

*“1) Tags: A tag is like a signature, often written in one colour, it is done with curves, letter deformations or acronyms. Tags are not confined to spray paint; they may also be written in marker pens or etched on glass. Tag style is the most basic and quickest form of graffiti writing. It is usually a representation of the artists name and is used as a way to gain recognition by being seen in a lot of places and as a signature for larger pieces (Figure 2.1).*

*2) Throw-Ups: A throw-up is usually writing in a solid or bubble style lettering. It is similar to a tag that shows the vandals ‘signature’. This is often undertaken over a few days where the outline is done first and then left to see if it will be cleaned. If not, then the vandal/s will come back and ‘fill in’ (Figure 2.2).*

*3) Stencils: Stencils are planned vandalism, where the vandal cuts several cardboard pieces out to make their design. These are then used over and over again in as many places as possible (Figure 2.3).*

4) *Pieces* –*Pieces are large-scale lettering and designs that are multi-coloured and may include characters, backgrounds and letters. Pieces are intended to be complete colourful works and are most often done with spray paint. Pieces often include the persons tag within the piece (Figure 2.4).*

5) *Etching*: *There are two types of etching graffiti vandalism. The first, acid etching involves the use of materials containing acid or other chemicals that can eat into the surface leaving a mark on the surface when cleaned. The second is graffiti vandalism of this type involves the scratching to a surface with a sharpened tool or object; this is often referred to as ‘Dutch’ graffiti (Figure 2.5).*

6) *Bombing*: *Bombing is the term used to undertake as much of the types of vandalism above in the shortest amount of time and in as many locations as possible. Recently the use of paint rollers to cover and create large amounts of vandalism has started to emerge.*

7) *Stickers / Posting*: *This emerging trend by vandals is to mass produce their vandalism on large amounts of paper or stickers and post their work on buildings and infrastructure using the ‘bombing’ method (Figure 2.6).*

8) *Burning*: *Burning is a term used by those that use flammable paints and materials to tag property and infrastructure and then set it alight with a flame. The danger and damage is higher than those that use the types listed above and is an increasing concern around the world*

9) *Dripping / Running*: *This is when a vandal pours paint or chemicals at a level across the surface to allow that liquid to run down the surface to leave a mark in long streaks down the infrastructure (Figure 2.7).*

10) *Legal Walls*: *The last category that is not often considered graffiti vandalism by some, are ‘legal walls/ free walls or commissioned street art’. There is a growing trend by some government departments, local governments and businesses to try and legitimise this form of vandalism or believe that by sanctioning ‘street art’ to tackle graffiti hotspots that the issue will go away”*



Figure 2.1: Graffiti on the walls – tags  
(Source: [www.dwf](http://www.dwf), [www.dripsndrops.com](http://www.dripsndrops.com))



Figure 2.2: Graffiti on the walls – Throw-Ups  
(Source: [artgraffitilife.blogspot.com](http://artgraffitilife.blogspot.com) & [www.fatcap.com](http://www.fatcap.com))



Figure 2.3: Graffiti on the walls – Stencil  
(Source: [www.kitblog.com](http://www.kitblog.com) & [www.thestreetartblog.com](http://www.thestreetartblog.com))



Figure 2.4: Graffiti on the walls – Pieces  
(Source: [/www.graffiti.org](http://www.graffiti.org))





Figure 2.5: Graffiti on the walls – Etching  
(Source: /www. brandnoise.typepad.com & www. inhabitat.com)

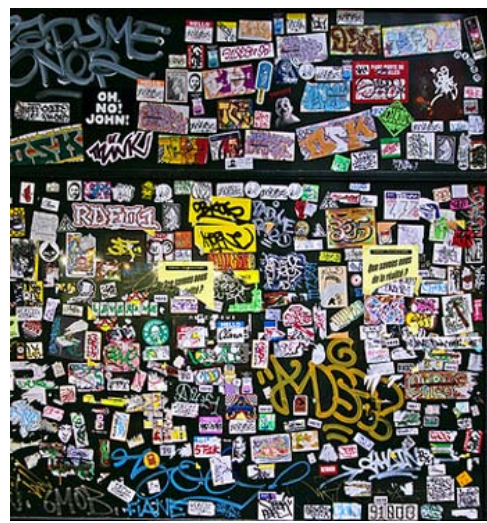


Figure 2.6: Graffiti on the walls – Stickers  
(Source: /www. wecancreate.org & www. img.weburbanist.com)



Figure 2.7: Graffiti on the walls – Dripping / Running  
(Source: /www. swick.co.uk & www. blog.hodomania.com)

According to Graffiti Hurts Australia (2008), there are six categories of graffiti:

1. *“ Hip Hop or Subway style – So named due to the style the vandal uses made popular by the Hip Hop culture during the 1980’s*
2. *Opportunistic – These vandals select the location out of impulse on the basis that it is low risk of being caught.*
3. *Gang – A group that use vandalism to mark territory, create notoriety, show off their defiance of the law and disrespect to society and a community and to pass messages to other gang members. This can often lead violence.*
4. *Political & Social – Politically motivated to degrade others political point of view. (Also see Racial & Hate below)*
5. *Commercial – Commercial vandalism occurs where a private organisation or company pays a vandal to spray advertising logos onto walkways, building and other infrastructure in order to promote their product. Commercial vandalism is an illegal form of advertising that tries to by-pass normal planning laws.*
6. *Racial & Hate – The worst form of vandalism where it aims to hurt, vilify or attack a person or group of people due to nationally, colour, beliefs or the group they are associated with”*

Graffiti artists commonly refer to themselves as ‘writers’ and the act of graffiti as ‘writing’. Although graffiti is known as crime and art but societies as a whole tend to hold the general opinion that graffiti leads to social unrest and ultimately breed crime in an area (Farmer, 2007). When it is racist or offensive, it causes fear and heartache (Campbell, 2008) (Figure 2.8).

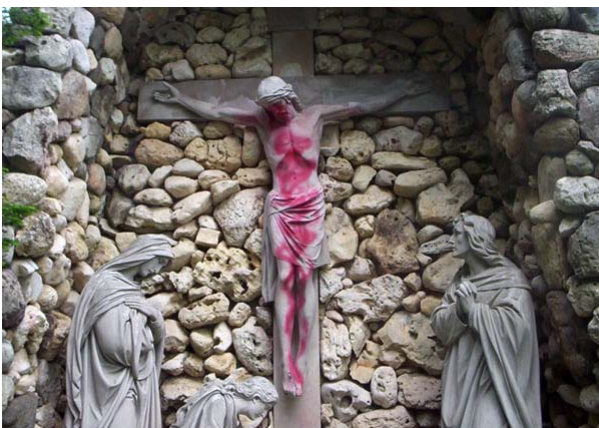


Figure 2.8: Racist motivation of vandalism can cause fear and heartache  
(Source: [www.dwf](http://www.dwf), [www.servproofmilwaukeeorth.com](http://www.servproofmilwaukeeorth.com))





Figure 2.9: Graffiti on the walls in Tehran

The issue of whether graffiti is art or crime is complex and is not the subject of this research. In this research, graffiti is known as a crime only if it is for aesthetic reasons by Tehran municipality (Figure 2.10) or if it is legal walls graffiti vandalism.

In line with the aim of the present study, the focus of this research will be on non political graffiti vandalism that is more likely to be affected by environmental and situational variables. Graffiti vandalism with political, social and commercial expressions is excluded in this research. Due to different nature of the motivations to these types of vandalism, other variables can contribute to choice of target.



Figure 2.10: Controlled Graffiti by Municipality for Aesthetic reasons in Tehran



### **2.2.1 Public perceptions on vandalism and graffiti**

The consequences of vandalism are felt throughout the societies in different ways. Vandalism is known as 'Quality- of-life crime' that refers to relatively minor, non-violent, illegal behaviour that collectively undermine people's sense of well-being and public safety in an area which can lead to an atmosphere that encourages serious crimes (Cleary, 1999). Demkin (2004) also pointed out that nuisance acts such as graffiti and vandalism account for most of crime.

The studies on the relationship between the community safety and built environment reveal that public perception of insecurity and fear of crime are strongly influenced by impressions of public spaces. Lavrakas (1982 as cited in Goldstein 1996, P.172) says "viewing the acts of vandalism may lead to the perception that the social order has broken down and may elicit fear of victimisation."

Hedge (1979), Stafford and Petterson (2004) reported on the evidence that vandalism can become mixed up in people's mind with more general worries and anxiety about hooliganism and breakdowns in public order that increase fear of victimisation. Allen and Greenberger (1980 as cited in Goldstein 1996) proposed that vandalism may lead to heightened feelings of control in individuals experiencing a state of lowered perceived control.

Lagrange, Ferraro and Supanic (1992 as cited in Goldstein, 1996) have demonstrated the stress-enhancing effects of vandalism. Lavrakas (1982 as cited in Van D'Elde, 1992) has shown that vandalism increases feelings of abundance and insecurity.

Similar conclusions have been drawn from the analysis of 2000 British Crime survey (Kershaw, Chivite, Thomas & Aust, 2001). It showed that those respondents who perceived higher levels of disorder (including vandalism) in their area, were found to be more concerned about crime and their own safety (Kershaw et al, 2001). In the attitude and awareness surveys conducted by the Tidy Britain Group (Stafford & Petterson, 2004), vandalism in public spaces was one of the issues identified by 96% of respondents as causing most concern for their quality of life.

Discomfort and actual danger to public indirectly, encouraging further neglect (Wilson & Kelling's 1982), giving criminals the impression that vandalised areas are easy targets for crime and to make owners angry because of being victimised for no reason are known as other consequences of vandalism.

Although the effects of vandalism on perception of safety has been proven by CPTED<sup>1</sup> theory in different studies (Goldstein 1996) but the assessment of the correlation between different types of vandalism (including graffiti) in particular and perception of safety considering the social and environmental characteristics of the community , has not been studied in Iran.

### **2.2.2 Vandalism and graffiti: Cost Implications**

The exact cost of vandalism and graffiti is difficult to determine because of direct costs such as expenses incurred in removing and repairing vandalism damages, prosecution of offenders or security measures and indirect costs such as decline in the value of real property in areas infested by vandalism or the effects of vandalism on threatening different investments and services in a neighbourhood (Barker & Bridgeman, 1994).

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<sup>1</sup> Crime Prevention Through Environmental Design

Crime statistics are based on those crimes reported to and consequently recorded by the police. Maguire (1977 as cited in Muncie & Mc Laughlin, 2001) noted that public reporting is the source of 80% of all recorded crime. Knowing that British Crime Survey (BCS) reported that vandalism, even against private property is one of those offences that are least likely to be reported to the police because of ignorance that a crime is committed shows that there is no reliable estimates of the true scale of vandalism and graffiti.

According to Muncie and Mc Laughlin (2001), the main reason given for not reporting vandalism to the police is because the offence may be considered trivial or it is thought that the police would not be able to do anything about the incident or apprehend the perpetrator. Buck et al. (2003) added that property rather than individuals is typically the target, so witnesses usually are limited.

Beyond the monetary costs of vandalism and graffiti damages, there are social costs as well. Vestermark and Blauvelt (1978 as cited in Goldstein 1996) argue these social and monetary costs as follows:

***Type 1:** Incidents having both a high monetary cost as well as high social cost such as destruction of school media centre*

***Type 2:** Incidents having a high monetary cost but a low social cost such as large number of broken windows*

***Type 3:** Incidents having a low monetary cost but a high social cost such as racial graffiti*

***Type 4:** Incidents having a low monetary cost as well as a low social cost such painting of names on bleachers*

### **2.3 Vandalism and graffiti: responsibilities and causes**

Surveys show that anyone can vandalise. Ward (1973 as cited in Goldstein 1996, P.172) describes vandalism as “working class male adolescent engaging in a wanton act (a senseless or motiveless destruction of properties)” but Taylor (1988, P.255) believes that “vandalism is a social problem that doesn’t respect class boundaries and all neighbourhoods are vulnerable”

Investigations show that vandalism tends to be a crime mainly committed by juveniles. Young males apparently vandalised more than females (Musick 1995, Skogan, 1990).

In 1997, law enforcement agencies made approximately 136,500 arrests of persons under age 18 for vandalism in US (Wilson, 2000). These juvenile arrests represent 44% of all vandalism arrests. Males accounted for the majority (88%) of the juvenile arrests. The 1997 vandalism arrest rate peaked at age 16 and then declined for each subsequent age.

In 2000, 107,586 Vandalism Offences and 4,314 Vandalism arrests were reported to the Michigan Uniform Crime Reporting Program. Out of that 1,298 committed by Juveniles and 3,016 by Adults and mostly by males 83% and Females 17%. (Uniform crime report, 2000).

**Due to lack of literature on the likely age of potential vandals in Iran and based on available literature on vandalism, juveniles (aged 10 to 18) were selected as potential vandals in urban areas of Tehran for present study.**



*Likely causes of vandalism and graffiti:* Among criminologists and psychologists there are conflicting and contrasting views on the causes of vandalism. Goldstein (1996) asserted that the causes of vandalism should be investigated in the specific aspect of physical or social environment or the motives of vandals. Wade and Cohen (1973 as cited in Alfano and Magill 1976, P.47) indicate that “Vandalism is almost always a group rather than individual offences”. Wade (1967 as cited in Alfano and Magill 1976, P.47) said “... In actuality much property destruction by juveniles is spontaneous outgrowth of group interactions having social, cultural and ecological determinants”. Wade added “... Although several persons may collectively involve in the act of vandalism, the behaviour that take place is more the result of an immediate interactional situation than a product of any subculture” (Quinney, 2001, P.253).

Although Ward (1973) defined vandalism as a senseless or motiveless destruction of properties, others asserted that vandalism is meaningful (Allen & Greenberger 1980, Baron & Fisher 1984, Fisher & Baron 1982, Zimbardo 1972 as cited in Goldstein 1996). It has meaning to both vandals and society at large (Baron & Fisher 1984, Cohen 1973, Fisher & Baron 1982as cited in Goldstein 1996)

Based on the assumption that vandalism is not a senseless crime, Equity theory of vandalism suggested by Fisher and Baron (1982 as cited in Taylor 1988, P.257) “...those getting less than their fair share will be motivated to seek redress...vandalism is chosen as a channel for redress of perceived inequity depends upon individual’s level of perceived control”. They explain that males vandalise more as they perceived lower level of equity and control (Goldstein, 1996).

The equity theory of vandalism formulated to explain possible motivation for vandalism stresses on the role of perceived control as a primary determinant of mode and intensity of vandalism and on the state of physical environment and availability of

various group level processes as second order moderators (Fisher & Baron, 1982 cited in Taylor 1988).

Design of the physical environment (when the design of the setting allows the inhabitants little control, vandalism becomes more common), poor maintenance (an environment with poor aesthetics or improper maintenance suggests that no one cares about the environment), low perceived control (environments that restrict student control may in fact elicit vandalism as a method of re establishing control) are some of environmental factors discussed by Fisher, Bell and Baum (1984) that could lead to vandalism.

“It is claimed that vandalism shows a mindless lack of respect for property and as such offends values upon which society is based.” (Barker & Bridgeman, 1994, P.4). Clinard and Quinney (1973 as cited in Goldstein 1996, P.172) pointed that “society’s refusal to recognised the basis of vandals’ problems may be the reason why vandalism is directed to public properties.”

Ley and Cybriwsky (1974 as cited in Taylor 1988) suggest that gang graffiti serves as group territorial marker to prove their presence. According to Goldstein (1996) vandalism constitutes a rather common form of aggression. Dr. Jeffery Chase, a licensed clinical psychologist and psychology professor at Radford university, says many times people, especially children and adolescents, will use vandalism to vent their anger (Walker, 2004). Vindictiveness, boredom, enjoyment, excitement, arousal, risk taking, disappointment, anger, hate, frustration, fear, and desperation are some of emotions, subjective feelings, experiences and behaviours known to be responsible for vandalism (Roos, 1992).

In a survey done by Home Office, UK, wherein they asked offenders why they had committed vandalism, 41% of offenders cited boredom and 13% buzz (Home office, 2007). Some theorists postulate environmental conditions as causes of vandalism. Allen and Greenberger (1978 as cited in Taylor 1988) have developed an aesthetic theory of vandalism that is basically concerns with vandals' choice of object to be broken. They proposed that more complex patterns of destruction are assumed to be more enjoyable. In this strictly environmental theory, an object's initial appearance and its expected appearance after being vandalised are held to serve as eliciting stimuli for destructive behaviour (Goldstein, 1996).

Newman (1972 as cited in Newman, 1996) explains that vandalism becomes more likely when the design of a setting doesn't allow occupants to exert territorial control. In addition, Mayhew and Clarke (1982 as cited in Barker & Bridgeman, 1994) present good evidence to suggest that a large proportion of damage is "un-wilful" in the sense that it is caused by children in the course of unsupervised play, or that bad design makes "Youth is disintegrating". Cohen (1973) makes the point that it is actually fun to break things, particularly things like windows that break so easily and make such a satisfying, dramatic noise.

To differentiate among different types and causes of vandalism, six categories identified by criminologists from Cohen's typology (1973) as a framework on the basis of their motives: (Goldstein 1996, Barker & Bridgeman 1994, Geason, 1989)

***Acquisitive vandalism:*** to acquire money or property such as breaking open telephone boxes

***Tactical vandalism:*** damage done to achieve another end such as breaking a window to get arrested and be accommodated overnight in a police cell

***Ideological vandalism:*** similar to tactical vandalism but carried out for an explicit cause or to deliver a protest message

***Vindictive vandalism:*** damage to obtain revenge

***Play vandalism:*** damage in the context of a game, for example who can break the most windows?

***Malicious vandalism:*** an expression of rage or frustration against a symbolic item of property for example vandalism to bus shelter when the perpetrator is angered at having missed the last bus or the length of the wait.

Young people may be associated with vandalism, whose motive is play, malicious or acquisitive but not always can be blamed for tactical or ideological vandalism (ECMT, 2003)

According to Weinmayr (1969 as cited in Goldstein 1996, P.32) “The real vandals are designers who provide opportunities for vandalism” and the roots of vandalism should be sought in the nature and quality of the buildings, public equipment. Accordingly, vandalism is categorised to the following groups:

***Vandalism of overuse:*** This type of vandalism can take various forms; how many times you can swing until the chain wear out or how many kids can sit on a bench...

***Conflict vandalism:*** A fence where there should be a gate, grass where kids want to walk can cause conflict vandalism; it is the results of what is logical and most natural and most appropriate for people not following the designer’s intent

***Leverage vandalism:*** It can prevail during different football or baseball seasons such as making a hole to pry or using loose bench boards or trash can for different purposes

***Curiosity vandalism:*** It is just to satisfy some people’s curiosity; for example what is behind a locked door or plugging a drain to see how high the water will squirt

***Irresistible temptation vandalism:*** It can be writing on a shiny wall or riding a bicycle in a mud puddle in the new lawn where the drainage is improper

***The no other way to do it vandalism:*** It can be throwing papers and bottles on the ground when there is no trash can or to lean up the bicycles against the trees when there is no rack

According to Goldstein (1996), there are other motivational typologies offered by Thaw (1976), Zeisel (1977) and Coffield (1991). They appear to have been derived by



informal and largely unsystematic means and informal observations but viewed them as substantial beginning of creative effort.

Alcohol misuse is seen to be both the consequence and cause of many different forms of anti-social behaviour (Watts, 2007). Vandalism is no exception and it is strongly linked with alcohol drinking (Home Office: UK). Abusing alcohol accounts for high percentage of vandalism (Gurney 1998, Epstein & Finn 1997, Home Office: UK). “Alcohol has been pinpointed as a central factor in many forms of group violence and vandalism” but she explained that alcohol is not directly responsible for an individuals’ aggressive behaviour (Krahe, 2001, P.70).

The causes of vandalism are multiple; to find out the causes of vandalism, the circumstances in which the vandalism occurs, such as social, political and environmental conditions should also be taken into account.

#### **2.4 Measures to Tackle Vandalism and Graffiti**

Vandalism<sup>2</sup> is a motivated behaviour (Goldstein, 1996). Studies about vandalism and graffiti are often based on two fundamental viewpoints: the first explanation, the situational, is based on the influence of opportunities and possibilities in the built environment to prevent vandalism and the second explanation, the motivational, means that vandalism grows out of inner motivation and by a need by perpetrators (Roos, 1992). In other words, both motivation and opportunity are needed for vandalism to occur.

According to Goldstein (1996), based on situational and motivational explanations, vandalism prevention programmes are *the person oriented strategies* that “seek to reduce potential or actual vandal’s motivation to perpetrate such behaviour” or

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<sup>2</sup> In research on graffiti and vandalism prevention, Graffiti is studied in the same category with vandalism

*environmental oriented strategies* - or crime prevention through environmental design strategies -that “seek to alter the physical setting, context or situation in which vandalism might occur”. The focus of present research will be more on environmental oriented strategies.

*Person oriented strategies:* According to Baker and Bridgeman (1994), Educational programmes, Social programmes and Criminal Justice programmes are known as three person oriented strategies to tackle vandalism.

*Educational programs:* An educational programme is one of the person oriented strategies attempt to prevent vandalistic behaviour by educating people about the nature and consequences of vandalism (what is it, what is the cost and who pays for it). It is assumed that once awareness of the consequences of vandalism increase, person choose to refrain from perpetrating vandalism (Cohen 1974, Koch 1975 as cited in Conoley & Goldstein 2004), (Baker & Bridgeman,1994), (Goldstein, 1996).

Baker and Bridgeman (1994) point that although these programmes can cover the whole of the child’s social learning and training from birth but these programs usually focus more on young people. According to Cohen (1973), Casserly et al, (1980) and Home Office (1980) (as cited in Barker & Bridgeman, 1994) these programmes have not been notably successful.

*Social Programs:* According to Baker and Bridgeman (1994, P.9) social programmes is another person oriented strategy that “tend to involve the wider community rather than target a subgroup of potential vandals by encouraging the public to tackle crime problems in a manner specifically tailored to that community so that existing informal controls and social norms are capitalised upon” but they said that lack of rigorous evaluations makes it difficult to quantify the long-term benefits on social

programmes because of the lack of rigorous evaluation though intuitively community policing should be beneficial.

Diversionary programs as part of social programmes based on the idea that vandalism is the results of children's boredom and try to give them something to do. It is believed that they will be diverted from delinquency because of having less free time and will success if the prevention of vandalism is the primary focus of these programs (Heal & Laycock 1987) and (Clarke & Mayhew 1980 as cited in Barker & Bridgeman 1994). According to Baker and Bridgeman (1994), diversionary programs may have long term effects by improving the relationship between public and police and increasing the sense of ownership and responsibility among residents.

As part of social programs, Goldstein (1996) pointed out to publicity comprises of indirect efforts to inform and persuade potential and actual vandals as well as general public of the costs and consequences of vandalism. He suggested increasing a sense of involvement and ownership of potential vandalism targets among potential vandals.

*Criminal Justice Programs:* Criminal justice strategies based on detection, arrest and sentencing vandals by increasing the perceived risk of capture and prosecution (Baker & Bridgeman, 1994). Deterrence and Retribution strategies by Cohen (1974), coercive control and legal regulation by Koch (1975 as cited in Conoley & Goldstein, 2004) rely on punishment, threat or forcing vandals to make restitution. Goldstein (1996) suggested making explicit statement of acceptable behaviour, unacceptable behaviour and penalties for non-compliance to combat vandalism.

According to Baker and Bridgeman (1994), criminal justice strategies are limited to prevent vandalism and require community participation to report offences to help offenders subsequently be cautioned or convicted and sentenced. Potential offenders

should be aware of these programs and consequence of their acts. Moreover, there are evidences to show that heavy reliance on punishment programme may often actually result in an increase and not to a decrease in the frequency of vandalism (Greenberg 1969, Scrimger & Elder 1981 as cited in Conoley & Goldstein 2004).

*Environmental oriented strategies:* According to Goldstein (1996), based on the discussion on naturalistic study of human behaviours called Ecological Psychology. Barker (1965, 1968, 1969), Wicker (1972, 1979) and Willems (1973, 1974, 1977) proposed an interaction between environmental conditions, people and behaviour. It is suggested that “environment provides cues to indicate appropriate behaviour by subtly altering an individual’s action to fit the setting” (P.246)

He explains that “these environmental cues called releasor cues, implying that they stimulate or encourage the release of otherwise inhibited behaviour (Zimbardo, 1973) ... releasor cues communicate to an individual the idea that acts such vandalism may be accepted in the present context” (P.246)

The premise that environmental factors can affect human behaviour lead to crime prevention through environmental design principles or CPTED that is to identify the conditions of social and physical environment that provide opportunities for or precipitate criminal acts and the alteration of those conditions so that no crime occurs (Adler & Laufer, 1999). This cannot explain and prevent total incidence of the acts (Goldstein, 1996).

CPTED is concerned with the relationship between people and environment. According to Wortley and Mazerolle (2008) the elements that make normal or legitimate users of a space feel safe may discourage abnormal or illegitimate users from



pursuing undesirable behaviours. CPTED is incorporation of natural strategies into human activities and space design that has evolved over the last quarter of a century.

According to Wortley and Mazerolle (2008), Elizabeth Wood (1961) is known as one of the advocates of the importance of physical design consideration in achieving social objects. Her approach suggested that design and surveillability needed to be considered simultaneously to improve security conditions of the environments and attempted to bring about design changes aimed at enhancing quality of life for residents and increase aesthetic qualities of the residential environment (Adler & Laufer, 1999).

According to Atlas (2008) and Adler and Laufer (1999), the idea of how both physical and social urban factors affect people and their interactions is suggested by Jacob (1961). She discussed on the urban decay and its relationship to crimes by developing “eyes on the street theory” and suggested “...residential crime could be reduced by orienting the buildings towards the streets, clearly distinguishing public and private domains and placing outdoor spaces in proximity to intensively used areas”(Atlas, 2008, P.53).

Angel (1968 as cited in Robinson, 1996) noted how citizens could take an active role in preventing crime. He refines some of Jacobs’ assertions and introduced the concept of crime as a function of land use intensity. He argues that low land use intensity resulted in low levels of crime since there are limited opportunities for the offenders. When land use increases, the number of potential victims increases sufficiently to attract offenders but there are insufficient eyes on the streets acting as guardians discourage to potential offenders (Wortley & Mazerolle, 2008).

Wortley and Mazerolle (2008) state that the term crime prevention through environmental design or CPTED originated by Ray Jeffrey (1969, 1971, 1999). He

asserted that the importance of both biological and environmental causes of crimes and explains that “the internal environment of brain is as important as external physical environment in determining criminality” (P, 155). Jeffery's CPTED (1969, 1971, 1999) approach emphasised the role of the physical environment in the development of pleasurable and painful experiences for the offender that would have the capacity to alter behavioural outcomes Jeffery "emphasized material rewards . . . and the use of the physical environment to control behaviour" (Robinson, 1996).

The concept of defensible space theory formulated by Newman (1973 as cited in Lang 2005, Wortley & Mazerolle 2008) is fundamental to crime prevention through environmental design. Adler and Laufer (1999) explain that defensible space concept is used to describe a residential environment designed in order to allow and even encourage residents themselves to supervise and be seen by outsiders as responsible for their neighbourhoods.

Stollard (1991, P.16) explains that defensible space theory suggests that “crime is less likely when potential anti-social acts are framed in a physical space that is under surveillance ... the theory suggests that potential criminals are more reluctant to commit crime in areas which are perceived to be under the technical influences of a surrounding community”. Defensible space promotes the use of design to enhance territoriality and promotes a sense of ownership by delineating between public and private space using real or symbolic barriers (Wortley & Mazerolle, 2008). According to Bell, Greene, Fisher and Baum (2001), defensible spaces lead potential offenders assume that residents actively respond to intruders and explain that “as Newman (1973) suggested “defensible space may cause the formation of local ties among residents” (P.356) because people feel safe and use the space more that increases contact with neighbours and ultimately develop more common ties.

According to Colquhoun (2004) and Stollard, (1991), Newman's (1973) design concept has four elements that contribute both individually and together in the concept of defensible space.

*“ .... **Territoriality:** with the use of real or symbolic barriers residential environments can be subdivided into zones that are manageable for the residents...**Surveillances:** residents must be able to survey what is happening in and around public spaces inside and outside of the building... **Building image:** proper use of materials and good architectural design can prevent residents from feeling stigmatized which can lead to feeling of isolation... **environment:** Juxtaposition of public housing with safe zones in adjacent area...”*

According to Newburn (2007), defensible spaces theory criticised heavily because it ignored the importance of stigma and explains “the reputation that particular areas develop over time is an important element in explaining levels of offending in high crime areas” (P.291). Housing policies that is argued to be significant in determining local rates of crime (Mayhew 1979 as cited in Newburn, 2007) and the impact of different policing tactics (formal social control) both in reducing and exacerbating recorded crime rates (Crawford 1998 as cited in Newburn, 2007) are generally absent from Newman’s work. More over defensible space gives impression that “the space is to be defended from others rather than offenders being those just as likely to occupy the spaces as the respectable non- offender” (P.291). Atlas (1991) says that defensible spaces strategies have not been successfully implemented in most low-income urban public housing environments.

Defensible space theory has been followed further with design related ideas which became known as CPTED as follows:

“Crime pattern theory” developed by Barntingham and Brantingham (1975 as cited in Wortley& Mazerolle, 2008), simultaneously with Newman’ defensible space theory, considers how people and objects associated with crime move about in space and time.

The theory addresses the question why offenders select some targets and avoid others (Robinson, 1996).

“Designing out Crime theory” (Felson & Clarke, 1997) covers several categories of crime prevention. It comprises designing “people, place and things”. Designing people means designing business management systems. Designing place means crime prevention through environmental design and designing things explains that products can be designed to be difficult to steal or to self destructed if removed illegally.

‘Undefended spaces’ by Merry (1981b) explains the social processes which induce residents to intervene to stop crimes and disorderly behaviour around them. She demonstrated that both the present and the attitude of the users of urban residential space is important issue to prevent crime and emphasise on the short comings related to under active residents and noted that over-active citizenship can also be problematic.

According to Cozens, Hillier and Prescott (2002) undefended space theory shows that “ the call for a change in the social behaviour of individuals in the urban space, inherent with the notion of active citizenship, is not always safely achievable and may in some instance jeopardise personal and community safety” (P.7).

‘Offensible space’ by Atlas (1991) explains about spaces which becomes defended and exploited by those who would seek to use it for their own illegal purposes (Cozens, 2005). Atlas (1991) pointed out that spaces may be defensible but not defended if the social organisation for effective defence is lacking. According to Atlas (1991) offensive space is the result of community’s disorganisation and lack of residents consensus and explains that “the solution to offensive spaces is to identify the sites, notify the owner of criminal activity and confiscate or tear down the property using nuisance and

abatement ordinances as the legal vehicle and another solution is to gain more control over the vulnerable areas in the city” (Atlas, 2008, P.111)

‘Indefensible space’ by Cozens et al. (2002) is about spaces that are incapable of being defended. According to Saville and Cleveland (2003), CPTED traditionally emphasised on physical design but the new model of CPTED known as second generation has expanded to compass effective psychological, sociological dimensions to environmental design.

According to Wortley and Mazerolle, (2008, P.162-3) CPTED has six strategies as follows:

*“... 1)Territorial reinforcement that is a design concept directed at promoting notions of proprietary concern and a sense of ownership in legitimate user of space and reducing opportunities for offending by discouraging illegitimate users.... 2)Natural surveillance that is to provide opportunities for residents to self surveillance by physical design...3)Natural access control that focuses on reducing opportunities for crime using spatial definition to deny access to potential targets and crating a heightened perception of risk in offenders... 4)Activity support that involves the use of design and signage to encourage intended patterns of usage of public space...5)Image/Space management is to ensure that the physical environment continues to function effectively and transmits positive signals to all users...6)Target hardening is to increase the efforts that offenders must expend in commission of a crime..”*

‘Situational prevention approach’ by Clark (1997) suggests altering situational determinants of crime so as to make crime less likely to happen. Situational theory roots in routine activity theory<sup>3</sup>, the rational choice perspective<sup>4</sup>, crime pattern theory and it made use of social and environmental psychological theory (Wortley & Mazerolle , 2008).

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<sup>3</sup> “The Routine activity theory has been both micro and macro level of how crime rates emerge; on a micro level, the theory states that ordinary crime emerges when a likely offender converges with a suitable crime target in the absence of a capable guardian against crime; on a macro level the theory states that certain features of larger society and larger community can make such converges much more likely” (Wortley & Mazerolle , 2008)

<sup>4</sup> “The Rational choice perspective assumes that individuals make decision according to what they believe is (even if it is not) in their self interest and consists of three components: 1) a reasoning criminal element that assumes offender commit crime to their benefit of themselves and getting benefits requires rational decision making even though the decisions are affected by some irrationally and pathology ; 2) a crime specific element that assumes decision making is different for each crime; 3) separate analysis of criminal involvement and criminal events that divides criminal involvement and criminal events”(Joel, 2006)

According to Clark (as cited in Wortley & Mazerolle, 2008), Situational prevention theory says “crime results from the interaction of motivation and situation and emphasises that situations provide more than just opportunity for crime. They also provide temptation, inducements and provocations” (P.178). The interaction between motivation and situation that result crime is mediated through decision made by individual offenders. People avoid committing crime if the circumstances are unfavourable and it is the objective of situational crime prevention to create unfavourable circumstances for offenders.

According to situational crime prevention, opportunity plays an important role in crime. Clark (as cited in Wortley & Mazerolle, 2008) pointed out that:

*“... 1) opportunity plays a part in every form of crime even very carefully planned crime such as bank robbery...2)opportunity is an important cause of crime...3)criminally disposed individuals will commit a greater numbers of they encounter more criminal opportunities..4) regularly encountering such opportunities could lead these individuals to seek even more opportunities...5) individuals without pre-existing dispositions can be drawn into criminal behaviour by a proliferation of criminal opportunities...6) generally low abiding individuals can be drawn into committing specific forms of crime if they regularly encounter easy opportunities for these crimes...7) the more opportunities for crime that exist, the more crime will be...8) reducing opportunities for specific forms of crime will reduce the overall amount of crime”(P.179)*

According to Clark (1993, P.3) situational prevention comprises opportunity reducing measures that “ (1) are directed at highly specific forms of crime, (2) involve the management, design or manipulation of the immediate environment in as systematic and permanent way as possible, (3) make crime more difficult and risky, or less rewarding and excusable as judged by a wide range of offenders”.

He suggested opportunity reducing techniques and grouped those under five main categories as follows (Tilley 2005, Wortley & Mazerolle 2008):

*“To increase the effort, to increase risks, to reduce the rewards, reduce provocations and remove excuses for illegal behaviour by inducing shame and guilt” (Appendix B)*

*“ i. **Increase the effort:** target hardening, control access of facilities, screen entry and exist, deflect offenders and control tools and weapons*

*ii. **Increase the risks:** extend guardianship, assist natural surveillance, reduce anonymity, use place managers and strengthen formal surveillance*

*iii. **Reduce the rewards:** conceal targets, remove targets and identify property, disrupt markers and deny benefits*

*iv. **Reduce provocations:** reduce frustrations and stress, avoid disputes, reduce temptation and arousal, neutralize peer pressure and discourage imitation*

*v. **Remove excuses:** set roles, post instructions and alert conscience, assist compliance and control drugs and alcohols” (p.184-5)*

Clark (1992) indicated that prevention measures are more likely to succeed in preventing crime if they try to change the ‘near’ situational cause of crime to ‘distant dispositional’ causes (Wortley & Mazerolle, 2008). This results in immediate reduction in crimes. He also asserted that “not every causes of crime must be removed for prevention to succeed. It is often enough to remove one small but key ingredient of opportunity”. It is necessary to fully understand causes or motives of crime before it can be prevented but the roots of motivations can often be ignored. Clark (1992) explains that to understand how specific form of crime is done, it is important to adopt offenders’ perspective and if it cannot be done, “an alternative is to think through in details the decisions that he or she must take to complete the crime” (P.182)

Clark (1992, P.182) explains that “situational prevention seeks to eliminate existing problems whereas CPTED seek to eliminate anticipated problems in new designs on the basis of past experiences with similar designs”. Apart from that, another positive

outcome of situational prevention is diffusion of benefits. It explains that offenders may believe the measures are more widespread than they really are and it may result in increasing risk and effort which is beyond the immediate focus of measure introduced (Wortley & Mazerolle , 2008).

According to Geason and Wilson (1989), the most common criticism of situational prevention is merely displacement<sup>5</sup>; (Mayhew et al. 1976, Chalken et al. 1974, Allat 1984 as cited in Newburn, 2007) but according to Newburn (2007) cautions against the easy assumption that somehow displacement undermines the claims of situational prevention and according to Braga (2008), Hesseling (1994) who reviewed 55 studies on crime prevention measures that had examined evidences of displacement and suggested that “... in most studies, the displacement was very limited in scope ...and the cost associated with these types of displacement were lower than the cost associate with changes in offenses and tactics” (Hesseling, 1994, P.194)

Braga (2008) points out to the difficulty of detecting displacement because the potential manifestations of displacement are quite diverse and reported on the number of studies with no evidence of displacement and to some studies with unexpected beneficial effects of reducing crime in adjacent areas.

Geason and Wilson (1998) state that “where the offender is not strongly committed to a crime, and where the costs and risks of committing the crime are high, displacement is unlikely” (P.8)

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<sup>5</sup> “Displacement theory argues that removing opportunity for crime or seeking to prevent a crime by changing the situation in which it occurs; does not actually prevent crime but merely moves it around([www.crimereduction.homeoffice.gov.uk](http://www.crimereduction.homeoffice.gov.uk)); there are different forms of displacement: 1)Temporal: committing the intended crime at a different time..2) Spatial: committing the intended crime in a different place..3)Target: switching the crime focus from one target to another..3)Tactical: committing the intended crime using a different method...4)Functional: committing a different type of crime from the type initially intended” (Newburn, 2007).



Clark (Wortley & Mazerolle, 2008, P.187), explains that “crime is rarely a compulsion and crime displacement is overstated and it may be credible for some crimes but not for all”

Clark (1980, as cited in Tanner & Tiesdell, 1997) states that “situational prevention is seen by many as at best, representing an over simplified mechanistic view of human behaviour and at worst, a slur on human nature” (P.69) but Clarke counters this argument and asserts that “situational prevention is compatible with a view of criminal behaviour as predominantly rational and autonomous and capable of adjusting and responding to adverse consequences, anticipated or experienced” (Tanner & Tiesdell, 1997,P.69).

Considering vandalism as opportunistic and situational in nature, situational prevention theory has been adopted for a systematic study on different strategies to prevent vandalism and graffiti:

#### *Increasing the effort*

1) Target hardening interfering with vandals’ ability and involves the use of devices or materials designed to obstruct the vandals by physical barriers (Barker & Bridgeman, 1994, Goldstein, 1996). Goldstein (1996), Baker and Bridgeman (1994) and Sykes (1979) suggested using vandal proof materials and use of physical barriers such as fences, gates, locks to increase the efforts that offenders must expend in commission of vandalism.

According to Wortley and Mazerolle (2008), excessive use of target hardening tactics can create a fortress mentality. Some people regarded target hardening as ‘threatening sings of a fortress society’ (Barker & Bridgeman, 1994).

Although Mayhew and Clark (1982 as cited in Barker & Bridgeman, 1994, P.14) assert that “why a robust housing estate should not be attractively designed” but Lang (2005) pointed out that reducing motivations to criminals is not an architectural or urban design problem but physical design responses such as barbed or razor wire on walls roller shutters blanking out shop windows at night reduce the attractiveness of urban environment.

Tanner and Tiesdell (1997) comment that target hardening often leads to constraints on the use (function or proficiency of potential targets), access and enjoyment of the hardened environment. They explain that target hardening may simply lead to deflection to another target, unless all targets in the area are protected and also explain that “in areas of low risk, target hardening may unnecessarily exacerbate fear of crime” (P.60)

Target hardening may be seen by vandals simply as a challenge and may encourage vandalism (Barker & Bridgeman, 1994). In response to this problem, Wise (1982) emphasised a gentle deterrent to vandalism in his ‘de- opportunising’ strategy against vandalism. He explains that “the environment should be presented not as harsh but as user friendly” and suggested to use flower beds as a method of keeping vandals away from targets, designs that are easily maintained and repaired deter vandals and use materials that may be less attractive to vandals; de- opportunising strategy emphasis to use the measures that not only reduce the opportunity for vandalism but also add to the enjoyment that people obtain from their surroundings (Wilson, 2001).

2) Access control: According to Tanner and Tiesdell (1997), the intention of access control is to admit only those with legitimate purpose through the use of architectural features, mechanical or electronic devices.

Wilson (1980 as cited in Hollin, 1989) reports that vandalism mainly occurs on the ground floor, particularly in areas where children play, public areas such as entrances and underground garages are usually heavily vandalised. If entrances act as routes to other locations, vandalism will be high and if it is designed only for the use of residents, then the vandalism will be lower.

Based on defensible space theory, Newman (1996) explains that semi public areas include external and internal access and circulation routes. Lifts and stairways are impersonal areas where are prone to vandalism.

Although access to most private premises are controlled but controlling access to public space is a more controversial issue and it is usually used as a last resort because of two important issues of 'segregation and exclusion'. The first issue explains that public space belongs to everyone and it should permit unhindered access and be accessible to all, but access control may entail the effective privatisation of that public space. Secondly, access control implies the ability to exclude certain individuals and groups and some innocents may also be excluded (Tanner & Tiesdell, 1997).

3) Deflect offenders: deflecting offenders involves keeping offenders away from targets by channelling them to more legitimate areas by means of architectural, equipment and related alterations (Tanner & Tiesdell 1997, Goldstein 1974).

Tanner and Tiesdell, (1997, P.62) explain that deflecting offenders is a 'benign displacement' and aims to 'anticipate trouble and taking steps to moderate the effects or channel it in less harmful ways". According to Barker and Bridgeman (1994), Social programmes and diversionary programs are 'the person oriented strategies' to deflect offenders (Page 85). Cohen (1974 as cited in Conoley & Goldstein (Eds.), 2004) suggested deflection strategies that attempt to understand and redirect motivational

causes of vandalism into not damaging means of expression that include controlled destruction, providing substitute targets and alternative outlets for energetic activities.

Sarkissian (1984 as cited in Barker and Bridgeman, 1994) recommends providing adequate facilities for youth to give them something to do as major strategy to minimise vandalism in public housing and to avoid a high density of children in and use of vandal proof materials.

‘Street detour, graffiti boards and mural programs, schools and studios for graffiti writer exposure and recognition, interesting wallpaper, daily newspaper or chalk board in bathroom walls, litter bins, placing of wash fountains and towel dispensers in school halls, steering of pathway circulation, paving of shortest walk between connecting points, avoidance of sharp changes in directions, paving of natural shortcuts after demonstrated tools, installation or landscaping of traffic barriers, next step posters on broken equipments are some suggested solutions to deflect vandals (Goldstein, 1996).

4) Control facilitators: according to Wortley (2002) and Goldstein (1996), controlling facilitators involves denying access to objects that might assist in an illegal endeavour by making such means less available, less accessible and less injurious.

Sales control of spray paint and indelible markers, removal of debris from construction and demolition sites, removal of waste paper, rubbish and other combustibles, use of tamper proof screws, placement of permanent signs, building names and decorative hardware out of reach from ground, placement of school thermostats, fire alarms and light switches far from hang out areas, placement of bus stops, public telephones, picnic tables and other frequent target at non isolated are suggested by Goldstein (1996) to control facilitators to combat vandalism.

Tanner and Tiesdell, (1997) pointed out that it is undeniable that some of the techniques of this approach limit personal freedom; it may also increase the freedom of others by limiting the freedom of some and asserted that “ the debate should concern the extent to which restrictions are considered to be worthwhile paying” (P.70).

### *Increasing the risk*

1) Strengthen formal surveillance: formal surveillance is provided by police, security personnel and employees such as caretakers, doormen or shop assistants or may enhance by electronic hardware such as CCTV (Oc & Tiesdell 1997, Goldstein 1996, Lacey, Wells & Quick 2003) and there refer to activities that provide a threat of apprehension which is sufficient to deter potential offenders.

Strengthening very obvious formal surveillance can become oppressive and increase fear and asserted that it is significant that many of these paid staff have been replaced by technology and machines (Tanner & Tiesdell, 1997).

2) Improve natural surveillance: according to Lacey, Wells and Quick (2003), “natural surveillance offered by people going about their everyday affairs who can afford a source of free protection against crime” (P.427). This lead to intelligent design solutions associated most with Jane Jacobs (1961)<sup>6</sup> who argued that increase population densities and mixed land use would lead to stronger sense of community and higher level of street activities that could provide considerable informal surveillance.

Tanner and Tiesdell (1997) suggest creating natural surveillance through design and land use controls to keep places busy at all the times by attracting in a variety of people at a range of times for different purposes.

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<sup>6</sup> The Death and Life of Great American Cities (1961)

Newman (1996) emphasised on architectural solutions to increase natural surveillance and suggested to give residents a better view of vulnerable areas and to increase a sense of responsibility for the areas surrounding their homes.

Wood (1961 as cited in Wortley & Mazerolle, 2008), focused on public housing units and using physical improvements to enhance visibility. Wood's particular focus was teenagers and their lack of facilities and recommended the use of vandal proof materials and design for facilities. She encouraged the use of resident caretaker to liaise with housing management.

Design solutions such as increasing exterior and interior lighting and low trimming of shrubbery and plants was suggested by Goldstein (1996) to improve natural surveillance against vandalism.

#### *Reduce the rewards*

1) Target removal: target removal involves physical removal or enhanced inaccessibility of targets or certain and more vulnerable parts of targets from potential crime scene (Goldstein 1996, Tanner & Tiesdell 1997).

According to Goldstein (1996), 'use of graffiti dissuaders such as Teflon, plastic laminate, fibreglass or melamine covering and rock cement, slanted siding or deeply grooved surfaces, use of contrasting colours in patterned surfaces, fast growing wall vines or shrubbery or construction of wall barriers, removal of payphone from high loitering areas, removal of corner bus seats hidden from drivers view, removal of outside plant bulbs, windowless school or other buildings, omission of ground level windows, concealed school door closers, concealed pipe work, fittings moved out of reach, signs and fixtures made flush with wall or ceiling, key controlled light fixtures in

public areas, removal of easily damaged trees and bushes' suggested as target removal strategies to tackle vandalism.

2) Removing inducement: according to Lacey, Wells and Quick, (2003), another variation of target removal is to disguise opportunities for crime or make temptation less blatant. Reducing the inducement roots in 'broken windows theory'<sup>7</sup> by Wilson and Kelling (1982) and gentle deterrent to prevent crimes such as vandalism by Wise (1982)

Braga (2008), suggested that broken windows theory points to 'the link between disorder and serious crime'. He explained that "signs of deterioration in a community indicate that no one in the community cares and that rules no longer apply. Disorder signals potential or active criminals that offenses will be tolerated and thus serious crime rates increase" (Braga, 2008, P.9).

To explain broken windows theory, Newburn (2007, P.946), asserted that "successful crime prevention must involve a focus on relatively minor forms of disorder such as vandalism and graffiti as well as targeting more serious offences".

Wortley and Mazerolle (2008) point that a broken window in a building left unintended is a sign that nobody cares and invites more broken windows. Once a window is broken it is the sign that communal barriers are beginning to break down, moreover disorders and unintended disorder led to fear and more serious crimes.

Goldstein (1996) suggested the rapid repair of damaged properties and rapid repair of graffiti, use of small windowpanes, removal of gates and fences, repainting of

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<sup>7</sup> "Broken windows theory refers to a modern conceptualisation of the association between structural environment, delinquency and crime. It regards physical decline in the urban core to be a principal factor in high crime rates found in many neighbourhoods. Communities with poor physical environment are often characterised by indicators of neighbourhood blight such as broken windows, rundown building, trashed empty lots, graffiti and poor lighting. In theory these conditions cause residents to fear for their personal safety and residents essential give up on maintaining neighbourhood infrastructure or a sense of community. This precipitates a generalized social and cultural decline. With this decline crime and delinquency are more likely to increase" (Martin, 2005)

playground equipment in bright colours, beautification programs such as landscaping, painting and maintenance to tackle vandalism.

According to Smith (2003), there are two explanations on how rapid repair works to prevent vandalism. She pointed to 'frustration of purpose' and 'vandalism as a trigger' explanation. The first explanation means "rapid cleaning has been seen as a way of bringing this message to offenders that their efforts will be frustrated (Building Research Station 1971, Levy- Leboyer 1984, Coffield 1991)" (P.203) and the second explanation suggested that rapid repair will help to reduce temptation.

Barker and Bridgeman (1994) studied 'environmental improvements' to prevent vandalism and suggested to opening out hidden areas vulnerable to crime and vandalism by cutting down the fences or putting mirrors or CCTV.

3) Identify property: according to Goldstein (1996, P.305), it is "the physical identification marking of potential vandalism targets", but Tanner and Tiesdell (1997) state that this technique is limited in its applicability to the public realm.

Reduce provocations and remove excuses, focus more on 'person oriented strategies' education, criminal justice programs and social programs that are beyond the scope of this research.



## **2.5 Vandalism and graffiti in Tehran**

In Tehran like many other cities, the high volume of vandalism and graffiti in urban areas has been the focus of considerable concern over the last decade. Tehran is a young city that has almost one third of its population below 15 years of age. Such a high proportion of youth coupled with chaotic urbanisation, socio-economic condition cause Tehran to become an urban community with a high rate of vandalism. This can pose a threat to the face of city, areas' use, prosperity and reputation of the urban areas and consequently to stability and development of the city. There are other consequences such as discomfort and actual danger to the public. However, an investigation of the effectiveness of different initiatives to tackle vandalism in the city is a neglected research topic.

### **2.5.1 The scale and cost of vandalism and graffiti in Tehran**

The exact cost of vandalism and graffiti in Tehran is difficult to determine because of direct and indirect costs of vandalism to people and communities. Lack of reports on the incidence of vandalism and graffiti to the police on one hand and responsibilities and approaches of various departments and organisations against such type of vandals on the other hand is the major obstacles to submitting exact statistics and evaluation on this social abnormality and problem (Tehran Municipality report, 2008).

Generally, different types of vandalism and graffiti in Tehran include (Tehran Municipality report, 2008) (see Figure 2.11):

- Graffiti and any damaged to the buildings such as writing (graffiti) on the walls, breaking the windows, destruction of façade and surface of walls through the application of explosive materials

- Damages to vehicles such as scratching paintwork, indenting the cars, damaging wing mirrors and smashing windows
- Damages to public properties such as spilling garbage and other wastes in public places, breaking street furniture, causing fire and incineration of street furniture and graffiti on street furniture (bus stop, telephone booth, garbage can, etc.)
- Damages to landscape and green areas such as writing (graffiti) on trees, peeling , scratching and uprooting the trees

There are different theories to explain the causes of vandalism. They are based on the assumption that vandalism is not a senseless crime. A review on the existing literature on vandalism showed that the causes of vandalism should have been investigated in the specific aspect of the physical or social environment or the motives to vandals (Goldstein, 1996), but change of social quality of life and cultural habits amongst individuals will require a long time frame and such cultural changes may not be always possible. On the other side, SCP assumes that offending behaviour is opportunistic and therefore situational features can be more easily manipulated than the behaviour of offenders to inhibit crime. Consequently the focus is on the environmental setting in which crimes occur not the criminal act itself.

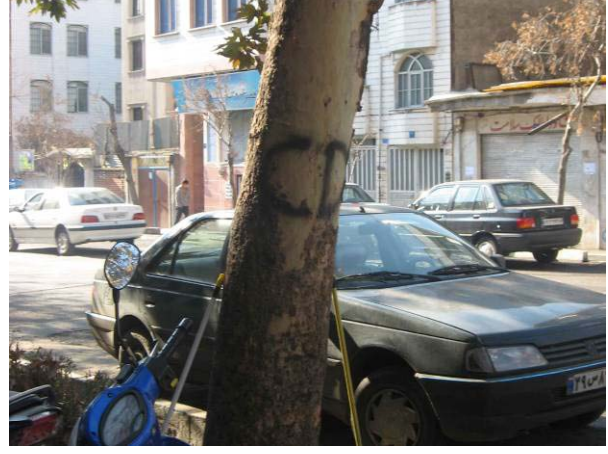


Figure 2.11: Vandalism in Tehran

## 2.5.2 Anti vandalism policies in Tehran

The Municipality of Tehran along with other organisations have started a wide spectrum of activities in reorganisation of the city environments such as reconstruction and renovation of pavements of the streets, rehabilitating the streets, development of green areas and parklands, designing facades of underpasses and highways, reorganisation of garbage system and bus stops, etc. It aims at boosting and promoting the quality of urban environment.

Based on the findings from literature survey, some of these initiatives are effective to prevent vandalism as well as to improve the quality of life and can be studied under the following categories:

### i. Environmental design initiatives

These initiatives are based on the notion that natural surveillance<sup>8</sup> in the form of improved lighting or high quality environment in public spaces is an effective crime deterrent. This can be enhanced through design and maintenance of public spaces (Newman, 1996).

The environmental design initiative by Tehran municipality consists of:

**Urban design initiative:** new paving in order to increase city's attractiveness and pedestrian flow, wider footpaths, new designed facades of the highways and some main streets, additional street trees, new street furniture such as new seats, garbage cans, new designed sign boards, telephone booths and new designed bus stations.

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<sup>8</sup> "Natural surveillance is a cornerstone in the achievement of community safety. Ensuring that spaces around buildings, footpath routes and open spaces are open to view from adjoining occupied properties and/ or well-trafficked routes can assist in discouraging criminal activity, by increasing the risk of detection, reducing opportunities for crime and making potential offenders feel more vulnerable. The greater the level of use of public spaces by responsible citizens, the greater will be the degree of natural surveillance. This is one of the key mechanisms by which attracting more people to use communal spaces through investing in a high quality environment pays dividends in a reduced incidence of crime" (RUDI, n.d.).

**Improved lighting initiatives:** improved lighting initiative is based on research showing that the level of lighting is an important design factor in enhancing the perceived safety of the streets and public spaces (Coumarelos, 2001). This can send positive messages of good management. The improved lighting initiative by Tehran municipality consists of improving lighting along the highways, main roads and public spaces such as parks and some open spaces. However, less attention has been paid to improve lighting in most of the residential areas and side streets.

**Maintenance initiatives:** public spaces that are clean and in good condition are associated with lower levels of fear of crime (Eve & Eve 1984, Hale, Pack & Salked 1994 as cited in Coumarelos, 2001). The maintenance initiative by Tehran municipality consists of graffiti removal in highways and main roads, repair of vandalised assets in parts of the city, cleaning the streets, sanitary and garbage system.

## **ii. Social Program Initiatives**

Tehran municipality has started wide range of activities to make residents aware of the consequences of vandalism in the city. Advertising programs, books, posters are part of the government social programs against vandalism.

## **iii. Criminal justice initiatives**

Detection, arrest and sentencing criminals in order to prevent vandalism especially those vandalising public properties during cultural and sports events are criminal justice programs conducted by the police in recent years.

Despite of all the above activities and programs, vandalism is still a major problem in Tehran.

## 2.6 Summary

This chapter presented a summary of review on vandalism and graffiti as a social problem, the causes and prevention of behaviour of the vandals. It also address deviance, costs and consequences of vandalism and graffiti as well as the demographics and ecology of vandalism, theories of vandalism causation and intervention strategies.

This chapter draw attention to the effective role of situational prevention initiatives to prevent vandalism and graffiti. The chapter pointed to the review on the existing literature on vandalism and graffiti saying that the causes of vandalism should have been investigated in the specific aspect of the physical or social environment or the motives to vandals. However, it explained that change of social quality of life and cultural habits amongst individuals will require a long time frame and such cultural changes may not be always possible. Consequently, SCP theory has been suggested as an effective solution to this problem focusing on designing the environment such as to control behaviours and abnormalities while the circumstances in which the crime occurs such as social, political and environmental conditions are also taken into account. From the chapter a series of SCP variables to tackle vandalism and graffiti identified from the literature.

These variables help to prevent vandalism and graffiti by:

- I. Increasing/decreasing the risk of committing crime (the level of formal and informal surveillance)*
- II. Removing/ providing inducement to vandals (The maintenance level of the property, presence of broken windows evidence, Rapid repair theory and design quality of properties)*
- III. Removing/ providing the availability of the target to vandals (size of the surface)*
- IV. Increasing/ decreasing the attraction of the target to vandals (lighting level, and colour of facades)*

The variables determined to be implemented in SCP assessment, are discuss in chapter four of the present research.

The chapters ends with a review on the issues of vandalism and graffiti in Tehran urban areas and reports on some of Tehran municipality programs with the aim of improving the quality of urban environment as well as preventing street crimes such as vandalism and graffiti.