Do Crime Prevention Through Environmental Design Strategies Deter Taggers? Voices from the Street

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\begin{abstract}
Crime Prevention Through Environmental Design (CPTED) postulates that jurisdictions can deter crime and antisocial behavior via effective use and proper design of the physical environment. When a jurisdiction implements a CPTED strategy, it makes involvement in criminal behavior more difficult, thereby increasing the chance of being caught. Using interviews with 35 active juvenile street taggers from a large metropolitan area in Texas, this research explores whether implementing CPTED strategies deter offenders from engaging in criminal activity. Results suggest physical barriers, natural surveillance, access, and signage serve as deterrents during the target selection process.
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For many law enforcement agencies, graffiti is not a top priority; however, in many neighborhoods, graffiti is among community members’ highest quality of life concerns (Kramer, 2010). According to Wilson and Kelling’s (1982) broken window theory, if graffiti is continuously left unchecked, there is a risk that property values would decline, citizen safety could be at risk, and neighborhoods could slowly decay. Further, if the area fails to ‘fix’ or remove graffiti, then it could send a message to potential offenders that the community has no guardian(s) and serves as an invitation to other taggers to come and tag the same area.

At the national level, graffiti costs the United States an estimated $12 billion yearly in clean-up efforts, the decline in property values, and lost revenue in public transportation due to reduced use stemming from public fear of gang crime perceived to be associated with graffiti (Weisel, 2004). Graffiti is prevalent in most large cities with populations over 100,000, and thus there is much research examining the individuals who participate in
this type of crime (see Castleman, 1986; DeShay et al., 2020; Ferrell, 1995; 1996; Halsey & Young 2006; Lachmann, 1988; Mitman, 2018; Monto et al., 2012; Stewart, 1994; Taylor, 2012; Taylor et al., 2012; Vasquez & Vieraitis, 2016; Waldner & Dobratz, 2013). However, researchers know less about how Crime Prevention Through Environmental Design (CPTED) strategies affect target selection amongst active street taggers.

Preventing crime is a complex matter and the strategies of CPTED have shown they can reduce the possibility of crime, such as in appointment robbery (This is a new type of criminal opportunity that has evolved in the 21st Century and involves buying and selling items online. See Vasquez et al., 2020), robbery (Casteel & Peek-Asa, 2000), and residential burglary (Marzbali et al., 2016). Jurisdictions can reduce crime with planning and modifications to the physical environment by making criminal involvement challenging to complete or by making the individual visible, thereby increasing the risk of being caught (Armitage, 2013; Poyner & Webb, 1991; Sakip & Abdullah, 2010). Prior research has found that the design of the physical environment can reduce crime in the early stages of planning (Nasar & Fisher, 1993) and design (Crowe, 2000). According to CPTED, the physical elements and the layout of an environmental structure are directly responsible for creating opportunities conducive to criminal activity (Rostami & Madanipour, 2006). Therefore, under CPTED, the contributing factor that increases the potential of illegal activity is an ineffective or poorly designed physical environment (Anastasia & Eck, 2007).

The underlying goal of CPTED is to deter crime, similar to the tenets of deterrence theory. The difference is that deterrence theory posits that crime results from expected gains outweighing the perceived sanction risk if caught. In contrast, CPTED can improve the social and physical conditions of the environment and, as a result, create a safer environment (Cozens & Love, 2015). Deterrence theory further argues that people are rational and pursue their interests by attempting to maximize their pleasure and minimize their pain (Bernard et al., 2010). Therefore, deterrence occurs when an individual does not commit a crime because they fear the certainty, swiftness, and/or severity of formal legal punishments.

On the other hand, CPTED uses behavioral and environmental psychology to focus on cues and associations between the environment and individuals to influence how individuals react to the environment (Cozens & Love, 2015). These cues help make legitimate users of the area feel safe by promoting prosocial activities and increasing visibility by using the built environment and natural strategies in the design (Cozens & Love, 2015). The connection is that CPTED seeks to increase the visibility and the psychological risks of getting caught, thereby reducing the decision to commit a crime (Cozens & Love, 2015).
Extant literature has examined how environmental changes based on CPTED strategies can psychologically affect the offender by heightening their perception of risk (Cozens & Love, 2015; Jacobs, 1961; Jeffery, 1971). However, it is unclear whether these environmental modifications deter active property crime offenders. Therefore, the current study asks whether changes in the physical environment alter the perception of risk among a sample of street taggers and whether this influences their decision to engage in criminal activity.

Theoretical Background

Prior Research on Graffiti

Prior research has predominantly used qualitative methods to examine why street taggers engage in tagging (Ferrell, 1995, 1997; Halsey & Young, 2006; Taylor, 2012). Qualitative research provides opportunities to examine street taggers' perceptions of deterrence, the target selection process, interactions, social processes, and how they make sense of their particular setting in everyday life. Personal interviews and observations permit researchers to identify the offenders' rationalizations for committing a crime and target selection (Decker & Winkle, 1996; Ferrell, 1995; Taylor, 2012; Vasquez & Vieraitis, 2016). A significant benefit in exploring active offenders in the field is that the researcher is with the offender as they consider participating in, or recently finished participating in, graffiti vandalism (Vasquez & Vieraitis, 2016). Additionally, qualitative approaches allows the researcher to experience first-hand the offender's decision-making skills and target selection. First-hand decision-making is problematic to detect using quantitative methods or with individuals already identified by law enforcement. It also allows the participants to articulate their behaviors and experiences to gain a better understanding of the criminal activity in the context of their environment (Decker & Winkle, 1996).

Taylor (2012) concluded that individual motivations to engage in street tagging range from the need to alleviate boredom, delinquent peer associations, the desire to experience the adrenaline rush from tagging, and the desire to reaffirm their non-conformist identities. Furthermore, Halsey and Young (2006) found pride, pleasure, and recognition as feelings associated with street tagging. The 11- to 18-year-old participants in their study stated that street tagging was a sociable way to make friends as well as to alleviate boredom and rebel against authority. In addition, the decision to participate in tagging was precipitated by the need to avoid or find relief from stressors such as overcoming boredom and feelings of anxiety associated with family matters, as well as to obtain recognition or to “get up” as a genuine street tagger (Vasquez & Vieraitis, 2016). Ferrell (1995) collected data from four years of fieldwork to examine social control, political, and legal frameworks and asserted that street taggers' decisions to engage in
tagging could be seen as an opposition to control. The attempt to resist social control resulted in creating a new individual identity while simultaneously creating an alternative community of taggers based on their collectivist ideals (Ferrell, 1995). Within these newly developed communities, taggers could further develop their new identities outside of the control mechanisms of authority figures. The criminalization of street taggers was a direct result of the battle between mainstream cultural and social control and the new alternative cultural spaces (Ferrell, 1997). Under this ideology, society tries to control this form of resistance, street tagging, by criminalizing the act.

Furthermore, the decision to participate in street tagging was also made easy by the readily available justifications to neutralize any shame or guilt in offending (Vasquez & Vieraitis, 2016). Offenders often use neutralization techniques to justify and excuse their behaviors to remove any moral obstacles to engaging in criminal activity (Skyes & Matza, 1957). Street taggers often tend to downplay their illegal activity as less severe when compared to other crimes such as robbery (Vasquez & Vieraitis, 2016). Offenders often use the comparison to other crimes to reduce guilt and shame by excusing or justifying their criminal behavior (Cromwell & Thurman, 2003). Lastly, a lack of structured activities is a source of deciding to engage in illegal activities since the lack of structural factors inhibited their access to legitimate recreational activities (Vasquez & Vieraitis, 2016).

**Target Selection**

Graffiti writers are motivated for various reasons; therefore, each graffiti writer selects a specific location based on their motivation. The primary motivation for many graffiti writers is the increased reputation or fame through recognition (Castleman, 1984; Ferrell, 1986; Lachmann, 1988; Mitman, 2018; Synder, 2009). Since they strive for recognition they aim to write their name publicly and as frequently as possible in the 'best' location. The 'best' location is based on visibility and whether the location is an 'acceptable' location based on the local community of graffiti writers. Graffiti writers are also motivated by internal and individual reasons, such as the significance of friendship (Halsey & Young, 2006).

Additionally, they strive to gain notoriety by showing off their artisanship (Schacter, 2008); the target selection for this type of graffiti writer needs to be in an area where they have time to complete the piece. Prior research has also found that some graffiti writers want to be the first to claim the space (Ley & Cybriwsky, 1974); for these writers, they are willing to select a location that is harder to reach and riskier to complete. Lastly, some graffiti writers are 'rush junkies' who desire to have fun and feel the 'rush' that comes along with graffiti writing (Monte, Machalek, & Anderson, 2012); the target location for these individuals is based on visibility.
Graffiti writers are often inspired to continue their exploits due to the rebellious nature of their actions. Successful attempts to put up one's name in the most obscure and inaccessible locations adds to the graffiti writer's recognition and fame. Fame and recognition can be an effective vetting process that can develop, strengthen, and reinforce their position within the graffiti community as well as cultivate their subcultural capital. Some graffiti writers are motivated to earn fame by moving beyond tagging to doing a 'piece' or a decorative expression of their name that demands an advanced understanding of aerosol paint control and artistic skill. Not many graffiti writers move beyond tagging to producing elaborate pieces. The difference in target selection between a tagger and a piecer is very different. For the tagger, the target selection is any visible location that can be 'tagged' within a few seconds. However, the graffiti piecer needs a visible location but would need more time to complete. As such, the graffiti piecer would require a more secure location. However, recognition and fame are not easily obtained in the graffiti world. For graffiti writers to earn respect and prestige, they must participate in a symbolic capital structure to create an identity for themselves (Mitman, 2015). Graffiti writers can develop their symbolic capital by placing their work in locations that the graffiti community considers valuable and significant (2015). A graffiti writer’s symbolic capital can increase and decrease contingent upon the regularity it appears, the quality of their work, the location of their work, and if they were able to maintain it (Mitman, 2018).

Therefore, for graffiti writers, target selection matters. They will use the space to gain recognition, develop identity, create expression, develop symbolic capital, and show everyone their challenge to authority (Mitman, 2018). In the current study, the graffiti writers engaged in all mentioned location uses, mainly to gain recognition. While we understand some of the motivational and psychological factors associated with tagging, there is less known about the deterrent effect of the physical environment on the perception of risk resulting in the decision-making regarding illegal graffiti.

Crime Prevention through Environmental Design (CPTED)

Theories that highlight the role of the physical environment in safety and crime typically fall into six main categories, which include (1) ‘Eyes on the Street’ (Jacobs, 1961), (2) ‘Defensible Space’ (Newman, 1972), (3) ‘Social Disorganization’ (Shaw & McKay, 1972), (4) ‘Crime Prevention Through Environmental Design’ (Jeffery, 1971), (5) ‘Situational Crime Prevention’ (Clarke, 1980), and (6) ‘Broken Windows’ (Wilson & Kelling, 1982). Each of these theories has its distinctive assumptions; however, the theory that is considered an essential proactive theory of deterrence is CPTED. This is based on CPTED’s theoretical strategies that examine crime prevention from the initial stages of agenda setting, formation, legitimation, implementation, and evaluation (Easton, 1953;
Sakip & Abdullah, 2010). CPTED stresses strategies that could reduce crime by focusing on areas where crime frequently occurs (Taylor & Hale, 1986).

CPTED, as coined by Jeffery in 1971, was inspired by Jane Jacobs’ (1961) work in the book The Death and Life of Great American Cities. Jacobs (1961) indicated that varied land use areas with higher individual activity were essential for community safety. Over the next few decades, studies verified how a built design might reduce crime in a location-based approach (Jacobs, 1961; Jeffery, 1971, Newman, 1973). Eventually, the strategies of CPTED were widely accepted as an integral multilayered approach to the reduction of crime (Armitage, 2013; Poyner & Webb, 1991) by utilizing aspects from architecture, environmental criminology, and urban design and also necessitates the commitment of various agencies such as residential developers, planners, and law enforcement (Cozens & Love 2015). Researchers have shown the importance and effectiveness of CPTED for reducing crime when applied by agencies to develop their crime reduction strategies, policies, and regulations (Armitage & Monchuk, 2011; Pascoe, 1999; Teedon et al., 2009; 2010).

The city of Philadelphia reported that CPTED strategies are a relatively inexpensive option to decrease firearm violence in and around a specific location (Branas et al., 2016). To reduce firearm violence in a particular location, the city decided to repair the facades of abandoned buildings and rehabilitate vacant lots. As a result, firearm violence significantly dropped by 39%, and non-firearm violence decreased by 13%, within as well as adjacent to the intervention areas (Branas et al., 2016). Two years later, a randomized follow-up study of 541 vacant lots found that where the CPTED interventions took place, there was a decrease in violent crime by 29% (Branas et al., 2018). They also found that when they asked residents about their perceptions of vandalism and crime, they found that 75% of the residents that live near the areas of the CPTED interventions self-reported they had increased use of these spaces for socializing and relaxing activities.

Prior research has also found that increasing street lighting could reduce crime by improving natural surveillance (Chalfin et al., 2019; Lawson et al., 2018). When New York randomly installed 397 temporary streetlight towers in public housing developments for six months, it resulted in a 36% decrease in outdoor nighttime index crimes, primarily robberies, property crimes, aggravated assaults, and murders (Chalfin et al., 2019). Since New York annually experiences 11% outdoor nighttime index crimes, it resulted in a 4% decrease in the total index crimes compared to the areas that did not have lights. When the radius of the data collection was expanded by two blocks to account for crime spillover and displacement, it was discovered that the lights decreased nighttime outdoor crimes by 60% (Chalfin et al., 2019).
In another example to reduce crime, between 2006 and 2010 the city of Los Angeles, California altered its zoning policies to introduce more residential neighborhoods. To examine the change in zoning effects, a quasi-experiment examined any potential changes in crime rates and discovered that the zoning change resulted in a 7% decrease in overall crime (Anderson et al., 2013). After several teenagers were hurt by a drive-by shooting in Hartford, Connecticut, the city decided to add a single street barrier to increase access control in the area. After the installation, a study compared levels of crime for the 15 months prior and 15 months after the barrier was added and found a 33% decrease in violent crime occurrences on the street with the intervention as well as a reduction of crime on adjacent streets by 50% (Zavoski et al., 1999).

Lastly, as a result of trying to reduce drive-by shootings in Los Angeles during the 1990s, the city installed permanent barriers to alter traffic flow on 14 streets between 1990 and 1991. The main goal was to decrease drive-by shootings amongst gangs in Los Angeles and to examine whether the barriers affected crime within the intervention area. Lasley (1996) found there was a 20% decrease in overall violent crime in the first year and a 14% decrease in the second year, as well as no displacement to surrounding neighborhoods. However, once the traffic barriers were removed, crime levels returned to the levels before the intervention.

The effect of place on crime has been well recognized. From the work of Burgess (1916) and Park et al. (1925) at the University of Chicago School of Sociology, through Brantingham and Brantingham’s (1981) study of Environmental Criminology, to the interdisciplinary approach of Crime Science by Smith and Tilley (2005), prior research has repeatedly validated that location plays a pivotal role in criminal risk predictions (Armitage, 2006). Property location can influence the risk of crime at the neighborhood level (meso) based on, for example, the distance from the offender’s residence (see Bernasco & Luykx, 2003; Bernasco & Nieuwbeerta, 2005; Rengert & Wasilchick, 1985; Wright & Decker, 1994), the distance from a public transport interchange (Groff & LaVigne, 2001), and the distance to/from a pedestrian (Armitage, 2006; 2013).

Property can also influence the individual level (micro) (Armitage, 2006). This is based on the idea that once a neighborhood has been selected by an offender, the offender only has to decide which property will be selected as a suitable target. The individual features of a property contribute to the offender’s target selection and can include the positioning of the property in relation to traffic or the street, the amount of the property that can be seen by neighboring properties, the access level, and visible physical security (Armitage, 2006; 2013; Brown & Altman, 1983; Brown & Bentley, 1993; Cromwell et al., 1991; Cromwell & Thurman, 2003; Tseloni et al., 2014). CPTED seeks to alter many of these aspects of the environment that influence decision-making and to deter the
individuals who potentially have a propensity to commit a crime, and in this case, graffiti (Cozens & Love, 2015). Whereas traditional crime prevention usually depends on reactive law enforcement practices, CPTED tries to decrease crime by using mechanical and natural preventive strategies along with individual activities and location design that could be applied proactively at the initial design stage (Cozens & Love, 2015). This study will investigate the data through the lens of four CPTED strategies: (1) territoriality, (2) natural surveillance, (3) legitimate activity support, and (4) access control.

**Territoriality**

Territoriality is a design strategy aimed at strengthening notions of a ‘sense of ownership’ within legitimate users of a specified space and, by doing so, decrease potential opportunities for crime by discouraging illegitimate users (Cozens & Love, 2015; Crowe, 2000; Cullen et al., 2013). The strategy of territoriality can encompass real barriers (e.g., physical walls and fences) and symbolic barriers (e.g., signs) (Cozens & Love, 2015). Both types aim to inform the illegitimate user of the area as being either public, semi-private, or private. At the core of CPTED, it promotes crime prevention strategies that utilize the opportunities within the environment “both to naturally and routinely facilitate access control and surveillance and to reinforce positive behavior in the use of the environment” (Crowe, 2000, p. 37). Territoriality is based on the premise that individuals will protect their own area and respect other individuals' territory. Once this is accomplished, identifying potential offenders and/or illegitimate users is more straightforward in these well-defined areas (Cozens & Love, 2015).

**Natural Surveillance**

Natural surveillance includes various methods of ensuring that the potential offender is visible. This is accomplished by the way the area is designed to increase the ability of informal (passers-by, residents, legitimate users) or formal (employees, security guards, law enforcement) users of the area to observe any potential suspicious criminal behavior (Armitage, 2018). Natural surveillance also includes the extent to which potential offenders perceive their likelihood of being seen, even when that perception could be inaccurate (Armitage, 2018). This can be achieved by ensuring that building entrances face the street, windows are clear of obstructions, and sightlines are clear of high fences, walls, and shrubbery. Potential offenders are less likely to commit crimes if they know they are visible to others.
Activity Support

Activity support can include any functions that enhance and promote interaction amongst the residents and other legitimate users in the neighborhood (Worrall, 2008). The idea behind activity support is to promote activities or events in public areas so that the intended legitimate users can gather together, thereby increasing the ‘eyes on the street’ and a sense of ownership which discourage the potential offender. This could also mean building a general-purpose community area within a neighborhood. These areas could then host functions to bring members of the neighborhood together. When there is frequent interaction amongst the residents, it results in the residents becoming familiar with one another and increases communal bonds or collective efficacy.

Access Control

Access control focuses on methods to control and limit access to identified users. It is a way to control access to an area by utilizing such items as walkways, landscaping, signage, and lighting. This strategy does not keep offenders out of an area, but it ensures that access and exit points are visible, and well illuminated, and uses physical barriers to restrict a quick get-away in the event of a crime. To accomplish this, it uses the actual physical design of the area by manipulating the interaction of how the entrance, exit, lighting, and landscape come together to create the appearance of order and thereby maintaining control of the entrances and exits of individuals to and from a specific area (Parnaby, 2007).

Current Study

The focus of CPTED is to maximize natural surveillance, limit throughway movement, reduce crime vulnerability, and ensure properties and adjacent areas are properly maintained and managed. The broader focus of CPTED is to highlight and encourage positive community ownership of a space and to support legitimate use of the space while deterring potential offenders and preventing criminal activity. Research has shown that techniques of CPTED are best used early in the design stages so that the physical appearance of the area can be built to reduce criminal activity (Armitage, 2018; Cozens & Love, 2015, Marzbali et al., 2016; Parnaby, 2007; Vasquez et al., 2019). Yet there remains a lack of clarity regarding which of CPTED’s fundamental components works from the offender’s perspective. As minimal research is available on understanding the relationship between target selection and street taggers, the current study seeks to determine whether specific features of environmental design serve as effective deterrents for this specific population of offenders.
The current study was exploratory and inductive, with the respondents asked to express their perceptions of CPTED regarding which feature would decrease their criminal behavior as street taggers. This study used in-depth interviews and participant observation with 35 active juvenile street taggers, aged 13-18, from a large metropolitan area in Texas to examine their rationale when selecting a target and whether or not they were deterred by environmental or physical structures. Prior research on street tagging has not used the words and experiences of active taggers to examine the target selection and the reasons why they decide 'not to' engage in street tagging as it relates to the use of Crime Prevention through Environmental Design strategies.

Semi-structured interviews were the primary source of data for this study. A discussion guide allowed a continuous but flexible structure during the data collection; however, the interviews differed in emphasis on specific topics. The discussion guide included broad topics that were based on the strategies of CPTED. Each topic included probing questions that allowed for an open format that promoted conversations driven by the research participant, which is consistent with the grounded theory method (Charmaz, 2004; Patton, 1987; Polsky, 1969; Wright et al., 1992). All interviews were recorded, transcribed, and securely stored. Next, following qualitative methodologies, a preliminary analysis was conducted to look for common themes in the transcripts and research notes (Glesne, 2006; Silverman, 2005). Once the common concepts and themes were identified, they were arranged in clusters and are presented in the results section.

**Sampling Approach**

Semi-structured interviews with 35 active street taggers from a large Texas metropolitan area were conducted to obtain the data. For this study, only active street taggers were interviewed to provide insight into active offenders. Active street taggers were characterized as individuals who had participated in two or more illegal acts of street tagging during the prior two months and who have also not been identified by law enforcement as street taggers (DeShay et al., 2020; Vasquez & Vieraitis, 2016). The participants in this study were all considered active by other active taggers, defined themselves as active street taggers, and admitted to committing illegal tagging within the prior 30 days.

Respondents for this study were recruited from the large Texas metropolitan streets using snowball sampling (Chambliss, 1975; DeShay et al., 2020; Polsky, 1969; Sudman, 1976; Vasquez & Vieraitis, 2016). The gatekeeper for this study was identified through the first author's prior work as a gang interventionist and whom the interviewer has known for five years. This gatekeeper was already involved in illegal street tagging and had built up a strong reputation throughout the tagging networks area as an active
street tagger. The gatekeeper helped the interviewer explain the study objectives to any potential participants and also verified the interviewer as a non-threatening individual that would not jeopardize their social or legal status (Biernacki & Waldorf, 1981; DeShay et al., 2020; Irwin, 1972; Vasquez & Vieraitis, 2016). Once the interview was completed, the respondent was asked to provide a referral to additional active street taggers.

The all-male sample consisted of 28 Latinos, five Caucasians, and two African Americans between the ages of 13 to 18 years old. They came from different family units stretching from multiple family, two-parent, and single-parent households. All were enrolled in public schools at the time of the study and were in grades ranging from seventh to twelfth. The respondents' public school system reports a yearly average of 114 gangs (Dovick, 2013). The area the respondents live in has been identified as having a high teen pregnancy rate of 27.3 per 1,000 (Children's Medical Center and the Coalition for North Texas Children, 2007), is known to have a high activity of gangs and drugs, and only a 46.6% high school graduation rate (Swanson, 2008). Two of the respondents came from middle- and upper-class backgrounds, while the other respondents were considered low-income, as indicated by the United States poverty guidelines (U.S. Department of Health & Human Services, 2017). The area in which they resided was classified as "high poverty," with 24.9% of the population under 18 years old living in poverty and an overall poverty rate of 18.3% (U.S. Census Bureau, 2013). Weekly, their neighborhoods reported an average rate of 60 new incidents of illegal non-gang-related graffiti and have been identified as graffiti abatement hotspots (Brown, 2012).

Data Collection

The interviewing style used was a non-formal format and semi-structured, which permitted the respondents to feel comfortable speaking freely (Patton, 1987; Polsky, 1969; Wright et al., 1992). The interviewing style allowed rapport of each interview (Patton, 1987; Polsky, 1969; Wright et al., 1992). Confidentiality was promised to each respondent to ensure comfort, and in turn, it resulted in an increase in cooperation. Confidentiality was obtained by allowing the respondents to self-assign a street nickname during the study. Furthermore, the authors changed their self-assigned nicknames to further ensure the confidentiality and identity protection of the respondents but made sure to retain the tagging style of their names.

Interviews of the sample were conducted over six years, beginning in September 2011 and ending in August 2017, and were approved by the appropriate Office of Research Compliance and the Institutional Review Board. All interviews were audio-recorded, transcribed, and typically lasted between 45 minutes to one hour. Sixty percent of the interviews occurred 'in the street' where the taggers usually gathered. The other 40
% of the interviews occurred in various locations such as cars, fast food restaurants, graffiti events, and homes. Once the respondent agreed to participate, they were asked to talk about their recent street tagging involvement. This format of recall interviewing allowed the respondent to discuss their most recent street tagging experiences as the interviewer asked descriptive, contrasting, and structural questions and further allowed the author to prompt questions about target selection and their perceptions of the risks and reward (Spradley, 1979). The interviewer also asked about their specific decisions before, during, and after committing the crime. Notes were taken during the interview to gain a better understanding of responses and to monitor any issues with inconsistent or vague responses. Most respondents did not open up until the interviewer was ‘vouched in’ by the gatekeeper and tested the interviewer’s knowledge of the illegal underground. Once the interviewer was ‘vouched in’ and ‘passed the test,’ the respondents felt more relaxed to openly discuss their criminal activity experiences.

**Coding Method**

Once the interviews were recorded, they were transcribed and manually analyzed using inductive and deductive coding (Strauss, 1987). Open coding was the first step in identifying common themes within the transcripts. Conceptualization was then used to pull apart and then re-organize to develop a deeper understanding of any potential themes uncovered (Stake, 1995). The objective of coding and conceptualization was to obtain a thorough account of the transcript and attempt to make sense of its importance. The inductive coding was done manually to look for patterns. All transcripts were organized and categorized by using coding frames, and any potential relationships were further examined to identify any possible latent themes. Deductive coding was next used to analyze the transcripts through the four Crime Prevention through Environmental Design strategies selected for this study (territoriality, natural surveillance, activity support, and access control). Each transcript was deductively coded on how each street tagger selected or did not select a target.

One of the main arguments for deterrence theory is that individuals will not commit crimes if they perceive the potential costs outweigh the rewards. To answer this, the authors made note of the specific reasons respondents provided for why they decided ‘to commit’ and ‘not to commit’ tagging based on CPTED strategies. Participants were explicitly asked to recall from previous experiences what, if anything, deterred them from tagging. Additionally, participants were asked what event, if anything, would deter them from tagging a specific target location.
Results

The value of CPTED interventions in the prevention of crime is important to investigate through the narratives of offenders. If research does not evaluate the CPTED strategies, then it would not be apparent if they are effective (Zahm, 2005). It is essential to state that the respondents selected a target location grounded in their primary motivation of recognition and fame. Therefore their target selection was based upon any readily available area. However, the graffiti writers within this study generally honored the local subcultural rules of not placing graffiti on residences, personal vehicles, and schools. While placing graffiti on is private property, public transportation properties, and government-funded property is acceptable, locally. During this research project, the researcher kept track of where the respondents placed their graffiti. For the most part, the respondents placed their graffiti on areas that were easily visible and therefore placed on locations facing walkways, streets, and freeways.

At the time of the study, the city did invest in CPTED strategies throughout the study area, as well as a graffiti abatement policy which included a task force of designated code enforcement officers and law enforcement officers. Since the city and metropolitan area were experiencing growth, there was an emphasis on utilizing CPTED strategies while focusing on community improvement, employment, and infrastructure. This section will show the results of the CPTED strategies of territoriality, natural surveillance, activity support, and access control through the voices of active street taggers.

Territoriality

The strategy of territorial surveillance is to promote a sense of ownership to discourage criminal opportunities. Territoriality includes using symbolic barriers such as signage, landscaping, and real barriers such as fences to show which areas are public, semi-private, and private spaces. Street taggers overwhelmingly recognized areas that promote ownership as WOOK stated, “It makes it too damn hard to get into those buildings whenever they put up those damn fences around em.” When asked to further explain about the fence barrier, WOOK stated that, “shit, I don’t go into places that are fenced off, I ain’t trying to get a felony breaking and entering charge, I’m just a tagger.” In this case, the fence was not only a physical barrier to the local business but also resulted in the perception of an increase in the risk of sanctions. The taggers frequently wanted to get into specific areas but were often blocked by physical barriers. Respondents also stated that if an area was too difficult to get to, they would opt for easily reached locations. EMOT expressed this by stating, “yeah I know it’s dangerous sometimes, but most of the
time I just hit some spots where they are just along the roadways, so I don’t have to climb something to get the spots.”

Territoriality attempts to inform the public that the built environment is well maintained and cared for to promote and transmit a positive image. The positive image has a potential effect on the fear of crime and crime itself (see Kraut, 1999; Newman, 1973; Perlgut, 1983; Ross & Jang, 2000; Ross & Mirowsky, 1999; Wilson & Kelling, 1982). Respondents often did not select areas that looked well-maintained, frequently stating that it would be a waste of paint because they knew their tag would be covered up quickly. In turn, respondents often selected areas that appeared to be in disorder or abandoned, repeatedly comparing these to their neighborhoods:

I’m just saying that the city treats different hoods differently. Like in the nicer areas, they take down graffiti fast, but in the hoods, they don’t care to take it down. My hood is full of trash and graffiti. People in my hood don’t care if there is graffiti up everywhere. Shit, the city don’t care about my hood. Hell when I walk bout my hood, I see all da graffiti and I just wanna hit it up too. It’s like the walls in my hood are telling me to tag. I hear them calling my name errday [everyday] when I walk home. (ABOT)

When ASKO was asked to expound on his perspective of what he considers a nice area, ASKO said,

If I feel in the mood to paint, I know that I ain’t gonna hit up an area that looks too clean with a bunch of fancy shit everywhere cos I know that dem assholes will buff my shit out real quick. Dat be a waste of paint. Hells, that’s if I can even fit in their hood, cos it be too nice and shit with flowers everywhere.

The strategy of territoriality states that a poorly kept and maintained space could deter citizens' legitimate use and attract crime. When areas looked uncared for, it increased the chances that the respondents would select that area to tag. When asked if they felt more comfortable in a well-maintained area or a non-maintained area such as an abandoned building, most respondents such as ETSI said: “Yeah, of course I’d feel more comfortable at the abandoned building cuz they ain’t gonna tell you nothing for tagging it up cuz no one cares if you tag it up. It’s just abandoned, so it’s cool to tag it up.”

Territoriality may encourage residents to care and even want to defend their environment (Newman, 1972). Many respondents indicated they had encountered residents who wanted to defend their neighborhood. ORAS and ETSI described instances when they faced defending residents:
ORAS: They just yelled at me saying shit like 'I'm gonna call the cops on you', but most of the time they just act like they gonna call the cops, but they really don’t call the cops. They just try to scare me so I’ll stop taggin up that wall.

ETSI: One time I was tagging up this spot off the road in this neighborhood and a bunch of cars saw me and they were honking their horn and shit and I guess one of em fuckers called the cops cuz I saw a cop turn the corners and I was like fuck it. I took off quick. I jumped a wall and dropped my bag in some bushes.

When asked how often a resident attempted to intervene while tagging an area facing a street, some said it happened very often. ETSI stated, “Oh hellz yeah. It’s like every other week some old dude is yelling or honking his horn at me while I beez taggin.” Thus, we find physical features did play a role in the target selection process. Most respondents did not want to spend the effort or risk receiving a higher possible sanction to get around, over, or through physical barriers. When weighing the possible target options to tag, it is clear that the ability of the built environment to construct a perceived area of ownership aided in the location not being selected. Additionally, when residents want to defend their environment, they will take an active role in defending it.

**Natural Surveillance**

Natural surveillance is a crime prevention strategy that can be established by increasing opportunities for citizens to observe the street and any potential suspicious behavior. Natural surveillance refers to the level that a potential offender thinks the likelihood of being visible, even if their perception may be wrong. This strategy utilizes proper lighting, windows, and landscape to increase the chance of seeing suspicious activity within a specific area. Respondents often selected a location that was not as visible to the public. EMOT described how he selected a spot to tag, “I would check it out from at least two views, by walking by there to see if you can see down there if you were driving by.”

When respondents thought about the decision to tag or not at a specific location, all of the respondents debated the choice to tag by deciding whether they would be seen while committing their crime. To decrease the possibility of being visible during their crime, respondents frequently tried to ensure that they selected target locations that had fewer ‘eyes on the street’. Respondent MAXO stated, “When I go tag, I always make sure that it’s at a spot where there’s not a lot of nosey people that can see me.” When MAXO was probed to describe what kind of location he would tag, he said, “I usually pick spots off of the freeway, like behind some buildings and shit. Ain’t no one gonna be looking behind some closed buildings late at night. All theyz gonna see from the street is a closed building, but shit, I’ll be dropping a fat piece in the back, so it can be seen by the freeway.”
Natural surveillance can be viewed as capable guardianship since it may decrease crime as potential offenders perceive they are being observed. Some respondents did state they would not tag in areas where they ‘felt’ they were being watched, even if it was by a person (natural surveillance) or a camera (mechanical surveillance). When asked to explain, respondent OAKS stated, “Man if there are some lights where I want to throw up a tag, then I know that there is probably some camera nearby.” Surveillance includes various other types, such as electronic/mechanical strategies (e.g., closed-circuit television and street lighting) and formal strategies (e.g., law enforcement patrols). When taggers saw a camera at the desired location, they all responded similarly as WOOK, “Shit, if I see a camera at a spot I want to tag, I ain’t tagging. It ain’t worth the risk if someone is watching or not.” Even though they did not know whether the camera worked, they all decided not to tag at that location, and in this case, WOOK decided not to tag the side of a business that had closed for the night.

Other respondents discussed how law enforcement patrols (formally organized surveillance) altered their decision-making process. When asked if law enforcement patrols had any effect on when they decided to commit the crime, ETSI responded:

Yeah, I don’t like to go taggin on the weekends cuz the law be out in full effect. The cops are out a lot cruising the streets on the weekend, that’s why I don’t go taggin on the weekend. Hell yeah, on the weekends, cops are always out in full force trying to catch a niggah slipping. That’s why I don’t go taggin on the weekends; I prefer to go tagging during the week like on a Tuesday, Wednesday, or Thursday when the cops aren’t really out in full force. During the week, it ain’t nothing for kids to be walking around with back packs, so I just blend in. But can you imagine a Mexican like me walking the streets with a backpack at one in the morning, shit you best believe da cops will stop me. I ain’t stupid, that’s why I chill on the weekends and tag during the week. I don’t wanna get caught for looking suspicious.

Formal access control strategies (e.g., law enforcement) and mechanical strategies (e.g., closed-circuit cameras and lights) can also be used to deter potential offenders. Taggers knew where there was no strategy of natural surveillance and selected locations where they could take their time committing the crime. ORAS explained why he decided to tag abandoned buildings that are adjacent to the public train tracks:

Yeah, cuz you can go there to tag and you won’t be bothered and shit cuz no cars can go in there, you have to walk in there. The only people that can really see it are the people on the ‘PUBLIC TRAIN’. So, you can take your time when you are
tagging over there since the trains cut off at a certain time, then I can just walk
down the tracks to the spot and throw up my piece.

Respondents often talked about how the target location for graffiti had to be visible
to the general public, so if it was visually blocked, then they would not select that location.
Several respondents indicated this:

ORAS: Yeah, there are spots that I won’t waste my paint, like on some under
passes, where no one can see it, or behind some fucking bushes. Why would I tag
up a wall that no one can see? Shit, that is a waste of some good ass paint. Why
else would I be out there risking getting caught if no one is gonna sees my work. I
want my tags to be front and center and not behind some trees and shit.

ETSI: The only spot that I don’t like to tag on is where there is a lot of shit in front
of the wall. I mean, where there is a bunch of trees and bushes and shit. Cuz, why
tag a spot where there is gonna be a bunch of bushes in front of it and then no one
can see my tag.

EMOT: I wouldn’t waste my paint on some place that no one can see it. ... under
bridges are chill, cuz you can practice. I ain’t gonna waste my paint when you can’t
even see it from the street cuz off all that grass and trees and shit.

While the strategy of natural surveillance strives to reduce criminal activity, taggers
strive to position their graffiti in locations where it is visible by numerous people. Taggers
strive to select locations where their tag can be seen by their peers, so they end up risking
being visible to get recognized (or “get up”) by fellow taggers (Vasquez & Vieraitis, 2016).
SEMO explained the meaning of “getting up” as it relates to quality and quantity:

Yeah, getting up means who is tagging a lot. But it also has to be good work not
some fake stuff. ...When they [taggers] say that they are trying to “get up” that
means that they trying, like they want more people to know them, like BORO. Like
they trying to “get up” so that everyone knows ’em, just like RITE. A lot of people
is starting to know him. Like you know how the Krew ABC, everyone’s know ’em
like that you wanna get up like that.

Most taggers who want their tag to be seen will develop a plan to determine if there
is any surveillance at the desired target location, such as street tagger ABOT did when
deciding which business to tag: “I’ll try to scope out the place before I go tag. I usually
want a spot where I can drop a piece where everyone can see it from the road.” ABOT
goes on to state: “Anyone can tag up some hidden spot, but it takes a lot of balls to put
your tag in spots where you drive by and say to yourself 'damn, how’d that mutherfucker get up there.”

The most common areas street taggers preferred to tag were visible to others, more importantly, locations that would be seen by their peers. If the location was hard to reach, as well as more visible to the public, then it would earn them a higher status among their peers (Ferrell, 1885, 1996; Powers, 1996; Synder, 2009). DOME elaborated:

If I choose a spot it would be where I can take my time and do some nice pieces. Like if you ride the train a lot, you can see some of my work cuz it’s behind some buildings; back there I can take my time with them. Yeah, it all depends where you tag, cuz I don’t want to throw up a nice piece if no one’s gonna see it. I ain’t gonna waste my paint if no one’s gonna see it. But if it’s just some quick tags, then it don’t matter where I throw it up, a freeway, some business wall, or random walls.

Activity Support

The strategy of activity support promotes outside events, gatherings, and prosocial behavior through design, location, and planning to encourage the use of public spaces for safe activities. In some areas, the city has designated specific areas as “safe” by placing a sign indicating that the area promotes positive safe activities for legitimate users to engage in activities such as transactions involving money (e.g., selling items from classified advertisements). The safe locations are identified with signage stating that the area is a designated “Safe Place,” which informs the public that the location provides surveillance and high visibility levels (Cozens & Love, 2015). Although these “safe” signs are typically not located in areas where the respondents would choose to tag, a few did mention what the signs meant to them. MAXI discussed that he would not tag at business locations with the “safe” sign out front because he perceived it as a location with numerous cameras and a place where law enforcement visited frequently. He also stated that “those places that have those yellow safe signs are hot, cops are always coming and going from those places.”

Activity support also pertains to providing an area for open space, developing walkways, and promoting prosocial activities in community areas (Sohn, 2016). When neighborhoods are designed to increase public activity, it also raises the opportunities for natural surveillance (Crowe, 2000). Respondent ATOM stated that he would not tag an area, in this case, a park, if he saw people close by engaging in daily activities. When ATOM was asked to elaborate, he said,
Man, if I want to tag, and I go to spot that I think might be good, but then likes I see a bunch of people outside walking around and exercising and shit, I ain't gonna hit up that spot cus there beez too many people that could see me.

During the study, taggers also stated that they would not tag in areas that had “historic district” or “revitalization” signs placed above neighborhood street signs. When asked what the signs meant to them, HAZE said: “Whenever I seez those signs, I know that hood is going to be having a shit load of people outside, with their kids playing and shit, their old man cutting the grass or washing the cars.” When other respondents were asked to clarify what they thought the revitalization signs meant, DAZZ said:

Oh man, we can’t tag up in those neighborhoods, cuz those signs mean that they are all protected by the federal government. They gots some money to fix their houses so like they are now protected. And plus that area looks too clean to tag up, cuz you know that it is just gonna come down in a day, real quick. Then I might get a big charge cuz it is federal stuff.

Therefore, the perception of an official sign was enough to deter some taggers from a neighborhood. While taggers seemed to not fully understand the sign, they perceived it to be an official governmental sign, and that perception was enough to deter the offenders.

Access Control

The strategy of access control is based on reducing criminal opportunities by raising the perception of risk in potential offenders. This strategy is based on a design which attempts to reduce crime opportunities by refusing access to possible targets while at the same time developing a higher awareness of risk for the potential offender (Cozens et al., 2005; Mair & Mair, 2003). This includes the design of the street, the location of exits and entrances, and placement of windows on buildings. Many respondents discussed how exits and entrances at a location played a part in their decision-making process. DOME stated:

If someone calls the cops on you, then like they gonna come down only one of two ways into the alley, and I can’t outrun a cop car. You can get caught faster in an alley. That is why I don’t tag up alleys; cuz there is no good escape route. You’ll be stuck, and I ain’t jumping no fence, cuz in the hood you never know if that person has a big ass dog.
Physical elements at the neighborhood level can include such policies as instituting parking restrictions, closing off vehicle traffic in specific areas, and other design features that could introduce a psychological barrier to the offender (Cozens, 2002). The strategy of access control is dependent upon the physical barriers to create a psychological barrier in the potential offender. Therefore, when the taggers even saw a small physical barrier, it created a psychological barrier by making them aware of the increased risk of tagging at that location. RAZE stated that whenever he saw a traffic sign indicating “one-way” he would not commit a crime because, “When it’s only one way in, then it makes too hard to get away when the cops come.”

The access control strategy is to limit or deny access to an opportunity of crime by using physical barriers (e.g., gates, locks, doors, fences). A common way to deal with graffiti is simply to use code enforcement or abatement policies. However, some locations can be protected from graffiti by placing a literal barrier preventing individuals from tagging the location. When asked about the difficulty in getting to a location on a freeway that had barriers, ETSI said, “cuz I ain't gonna waste my paint tagging up a spot that is covered by a bunch of bushes. Plus, they kind of hurt having to walk through to get to the wall.”

It was also discovered that if the area had an active graffiti removal program, it influenced the decision-making process to offend at a specific target selection. This was seen in the transcripts when respondents indicated they recognized the response rate of the jurisdiction with their graffiti abatement policy. When asked to talk about how he picked a location to tag, EMOT stated, "I'll wait to see how long my piece stays up to see if it is a good spot to tag up again. Like if they buff me out fast, then I might find another spot to tag." When asked what he would do if the tag stayed up for a long time, EMOT responded, “Then shit, I'll be back to tag up that area. I'll just go back and hit up that whole area in a night, just walking round dropping tags, fills, bombs and stickers all over that hood.”

Discussion

The focus of this current study was to evaluate whether the perceptions of active street taggers are influenced by four strategies of Crime Prevention through Environmental Design implemented by local municipalities. The strategies of CPTED are intended to modify aspects of the physical environment to emphasize defensible space to increase the perceived risk of offending. Since CPTED’s aim is to prevent crime, it is theoretically different from reactive strategies (Robinson, 1996). The focus of CPTED is to reduce opportunities for crime by adequately implementing the strategies to deter potential
offenders by increasing the likelihood of being observed in public, semi-private, and private environments.

Our study finds overwhelming support for the four key strategies of Crime Prevention through Environmental Design: (1) territoriality, (2) natural surveillance, (3) activity support, and (4) access control. Within CPTED, all four strategies were seen following deductive coding of the transcripts as physical and environmental deterrents reported by active street taggers. The role of territoriality, natural surveillance, activity support, and access control became significant factors as our street taggers were deciding when and how to select their target location. Our participants consistently reported physical barriers such as fences or bushes; natural surveillance such as the visibility of the space; access control, the ease of access/escape routes; and even the presence of “historic district” or “revitalization” signage, all served as deterrents when taggers were in the process of target selection. Additionally, when the street taggers perceived an area to be in disorder, it increased the chances the area would be targeted, resulting in an increase in the overall decay of the area.

The study was exploratory and inductive, with the respondents asked to express their perceptions of the CPTED concepts concerning decreasing their criminal behavior as street taggers. The findings confirm the significance of CPTED concepts in deterring potential crime. The study also concludes that municipalities should not only depend on law enforcement tactics to curtail graffiti but should implement proactive concepts of CPTED in their crime reduction policies to reduce illegal graffiti. These could include increased lighting in hot areas for graffiti, increased graffiti abatement programs, creating spaces for legitimate use, creating activities for residents to know each other, and planting bushes in front of locations frequently targeted for graffiti.

A criticism of CPTED is crime displacement (Kaplan, 1973). Crime displacement goes against the crime prevention benefits of using CPTED strategies; assessing displacement requires assessing any crime rate changes outside the designated CPTED location and is difficult to measure (Hollin, 1989; Barr & Pease, 1992). However, the ability or inability to measure and detect crime displacement does not indicate that displacement does not occur (Gabor, 1990). CPTED can also have noteworthy positive crime reduction effects beyond the areas of the implemented CPTED strategy. During the study, several respondents indicated that if they noticed a CPTED strategy, they would decide not to tag in that area and move to an area that did not have implemented CPTED strategies. Furthermore, several respondents indicated that if they noticed an area well-maintained or had revitalization signs, they generally thought the entire area was protected and decided not to participate in illegal graffiti. As a result, the closely adjacent area benefited from the well-maintained neighborhood.
Research on active street taggers target selection concerning why not to commit an offense is limited. The current study offered a different point of view by presenting a thorough in-depth inquiry into the role of target selection and its reciprocal relationship between Crime Prevention through Environmental Design. Previous research has missed out on engaging with active street taggers, and the current study aimed to correct this oversight by providing the street taggers' perspectives in their own words.

The intention is not to generalize street taggers at large. This research design allowed the researchers to tell the story of a select few street taggers who are engaged in illegal graffiti. While it is limited in scope, our sample of participants paints a picture of target selection as it relates to perceptions of risk and rewards that have been omitted in the prior research literature. The analysis of the data presented here offers an account of the struggles faced by municipalities as they attempt to deal with graffiti within their jurisdiction. Future research should examine any reduction in tagging and/or graffiti associated with increased implementation of CPTED strategies as well as public notification of the legal consequences of participating in illegal graffiti.

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