Violence and the Built Environment: Can urban design deter violent actions?

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The research discussed in this text will address the question of whether urban design and planning strategies impacts violent incidences of *rape, sexual assault,* and *hate crimes* within cities. Previous context suggests that violent assault attempts are higher when perpetrators believe they are less likely to be witnessed and less likely to fail, according to architect and city planner, Oscar Newman's, theory of *defensible space,* which is analyzed alongside other place-based violence prevention strategies.[1] The study intends to discern that if urban block, streetscape, and land use planning is performed—considering the capacity of violence, *space syntax,* and human behavioral effects of any specified zone—then it will deter or reduce the occurrences of *rape, sexual assault,* and *hate crimes* in urban environments.

Before getting into the majority of this analysis, it is first crucial to justify and explain the inclusion and exclusion of certain terms within the text. By the legal definition of violent crime, *a crime in which a victim is harmed or threatened by violence,* the terms, *sexual assault, rape,* and *hate crime* are officially constituted and seen to the general public as *violent crime*.[2] In terms of this paper, these actions will be observed as purely *violence*. This is due to the notion that the term *violent crime* comes from an institutional perspective, making it biased, and giving it the capacity to hold a negative connotation. To understand that an institutional perspective is inherently biased is to acknowledge the history of legal institutions in America. In the South, law enforcement was primarily created as a way to uphold a slave-based economy, sending officers to retrieve and return runaway slaves to their masters.[3] While the current legal institution

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[1] Edward H Ziegler, "American Cities, Urban Planning, and Place-Based Crime Prevention," *Urban Lawyer* 39, no. 4 (2007): 859-875.
[2] National Institute of Justice, "Violent Crime," NIJ, United States Government, Department of Justice, Accessed April 20, 2021, nij.ojp.gov.
[3] Olivia Waxman, "How the U.S. Got Its Police Force," Time, May 18, 2017, time.com.

of criminal prosecution is no longer used for this purpose, and slavery has since been abolished, it still remains disproportionately oppressive to people of color. For one to identify actions as crime is to place emphasis on punishment, and place blame on *a*, or *the* sole 'criminal(s)'. When crime is so improperly attributed to individuals of color, this punishment seeking behavior is intrinsically discriminatory, which overturns any attempt for justice. The intent of this paper is to approach analysis not from an institutional or legal perspective, but rather a spatial, social one.

One of the main criticisms of the *Crime Prevention Through Environmental Design* (CPTED) initiative is that it tends to stereotype and profile minority groups, placing the blame for criminal occurrences on generalized populations.[4] When the label of 'crime' is removed, one can see these actions in their raw identity, *violence*. This distinction of defining actions as *violence* rather than *violent crime* allows this analysis to avoid the wrongful accusation and generalization of certain groups of people, and moves the focus away from perpetrators, onto honest evaluation of prevention strategies. On such premise, in this paper, any use of the word crime shall be used purely for comprehensive or linguistic purposes, and shall be considered in terms of its action, rather than its legal label. The second note about using the word *violence* in lieu of *violent crime*, is that in the perspective of the law, hate crimes fall under the same category of either assault or murder, rather than being specified as they are. This is another pitfall of a criminal perspective, because while the outcome of both determinations is the same, the intent is wholly separate. Assaults and murders that are not acted upon on the basis of a hate crime exclude notions of *ontological elimination* and the power narrative, as they do not seek erasure of the victim purely due to their ingrained identity.

[4] Randall Atlas, "The Other Side of CPTED," *Security Management* 3, no. 35 (1991).

Addressing these differences in intention, three forms of violence—*sexual assault*, *rape*, and *hate crimes*, have specifically been selected for this analysis. All three of these forms of violence stem from a power narrative. In this analysis of criminal motivation, one may observe that there are three main foundations for crime or violent actions—*entitlement*, *gaining*, and *taking*.[5] Respectively speaking, *entitlement actions* can be constituted as any action based on the feeling of having the right to an object or act, including the sense of fundamental control or superiority over another being. *Gaining actions*, however, is based on the need or desire for a particular outcome that will be perceived by the offender as beneficial in some manner; the outcome gained could be monetary value (robbery), illusionary status (fraud), or an experience (drug use) for example. In contrast, *taking actions* is based on the desire to take something from another, whether it be their autonomy, reputation, or bodily safety. *Taking actions* can be spilt into two classifications, *ontological recalibration*, and *ontological erasure*. *Ontological recalibration*, observes the *taking action* serving as a fear tactic to force the victim into conforming with society, or changing their behavioral patterns to a differently presenting orientation. *Ontological erasure*, results in the victim being erased from their environment—to be physically removed from the aggressor's desired radius by forced relocation, often through the act of murder.

In this analysis, *hate crimes*, often based on race, sexual orientation, or gender, all fall under the *taking* category, as victims are attacked out of a fear or hate of their mere identity. *Sexual assault*, and *rape*, however, can fit into either the *entitlement* or *taking* categories, as the primary motivation, misogyny, stems from both concepts. While *gaining actions* are means to a desired outcome (crime), both *entitlement* and *taking actions* are ends in themselves, seeking to

[5] Joseph Ebert, (course discussion, Alfred State College, Spring 2021).

target a particular result by conditional means. For this reason and for the sake of this analysis, the three forms of violence—*sexual assault*, *rape*, and *hate crimes*—all fall under the *entitlement* and *taking* categories.

When violent actions occur, many jump to the pursuit of reactive measures, and take a criminological legal perspective, seeking to find and punish the perpetrator, thus bringing the perpetrator to justice. While reactive measures serve to bring closure to a situation, such measures do not prove effective in preventing said violence from occurring again, or even occurring in the first place. Current legal institutions in the United States rely heavily upon reactive *deterrence theory*.[6] Studies have shown that using punishment as a reactive approach to reducing repeat criminal offenses is only effective on certain individuals, and in terms of society, it is inconclusive whether punishment of the sort can prevent new offensive actions.[7] Sociologists and urban designers, however, believe in taking preventative measures to ameliorate said actions. Sociologists look to improve the social structure of urban communities to reduce the normalcy, occurrence, and desire for violence, while urban designers look at the actions in terms of how they relate to the built environment, and what physical elements can be altered to deter violence.[8] Before detailing the strategies of urban design in violence prevention, it is important to first understand the methodology. Analysis of the effect of the built environment on human behavior is studied through the lens of *space syntax theory*.

As an observational approach to spatial understanding:

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[6] A criminal theory claiming reactive punishment for an action will deter the offender from repeating said action, and discourage others from it, out of fear for the consequences.
[7] Kelli D Tomlinson, "An Examination of Deterrence Theory: Where Do We Stand?," (Tarrant County Adult Supervision and Corrections Department, 2016)
[8] Kristina Navickalite, Igna Stankevice, and Jolita Sinkiene, "Creating Safer Cities through Urban Planning and Development," Viesoji Politika Ir Administravimas 3, no. 11 (2012): 391-394.

> Space syntax is a method for describing and analysing[sic] the relationships between spaces of urban areas and buildings – 'the layout'. In space syntax, the spaces are understood as voids (streets, squares, rooms, fields, etc.) between walls, fences and other impediments or obstructions that restrain (pedestrian) traffic and/or the visual field… The theory sees the built environment as a system and states that it affords or carries movement from one space to another space within a system. Built environments that are most directly linked to other built environments will tend to attract higher densities of movement. Theory of space syntax also posits that accessibility of potential victims serves as an opportunity to motivate offenders.[9]

When violence is analyzed through the lens of *space syntax*, the city is viewed as a spatial system—and any points of failure cause it to become compromised. The role of urban designers is essentially to assess the system for weak points, and create environmental solutions that allow pedestrian movement to flow safely through once again. Identifying these points of failure is crucial, because when they exist, they allow victims of *sexual assault*, *rape*, and *hate crimes* to become easier targets. According to the theory of *defensible space*, coined by Oscar Newman, violent assault attempts are higher when perpetrators believe they are less likely to be witnessed and less likely to fail.[10] When the physical space around one fails to provide security and a sense of safety, violent offenders use this as an opportunity to strike, as their built environment is providing them with a better capability to do so. This is the key issue inspiring the concept of *Crime Prevention Through Environmental Design* (CPTED), an urban planning investigation movement originating in the 1960s that still persists today.[11] Sparked from the writings of Jane Jacobs, an avid urbanist and activist, renowned for her contests with Robert Moses, and her work, *The Life and Death of Great American Cities*,[12] CPTED seeks to alter physical

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[9] Ibid.
[10] Edward H Ziegler, "American Cities, Urban Planning, and Place-Based Crime Prevention," *Urban Lawyer* 39, no. 4 (2007): 859-875.
[11] ICA, The International Crime Prevention Through Environmental Design Association, Accessed April 26, 2021, cpted.net.
[12] Jane Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961)

environments to reduce violence on a global scale. With efforts now headed by The International CPTED Association (ICA), these place-based violence prevention strategies have been prescribed all over the world.

> CPTED literature reduces prevention efforts into three main categories:
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> (1) Raising public awareness of the relationship between crime prevention and the design and operation of the built environment; (2) promoting crime-prevention design as a regular and key component of good urban design in all public and private buildings and facilities; and (3) encouraging cities to adopt reasonable design standards and guidelines involving place-based crime prevention in the local government zoning and development review and building permit approval process.[13]

Some of the more common explicit interventions suggested by Ziegler's interpretation of CPTED may be further broken down into categories as follows:

1. Access: *Safe Movement and Connections*

- Movement safety is maximized between key destinations and entrapment spots eliminated.
- Multiple exit routes are provided from public spaces and along pedestrian routes.
- Routes do not provide offenders with ready and unnoticed access to pedestrians, especially at night.

2. Surveillance and Sightlines: *See and Be Seen*

- Good visibility, sightlines, and casual surveillance are provided.
- Surveillance from adjacent areas and buildings is maximized.
- Concealment and isolation opportunities are reduced.
- Fencing, landscaping, and streetscape features enhance visibility.
- Lighting opportunities are carefully considered.

3. Site Design: *Clear and Logical Orientation*

- Layout supports safe movement and clear orientation for way finding.
- Design appropriately considers and reduces potential crime risks at site.
- Ground level buildings provide active frontages and surveillance to street (e.g., windows, doors, displays).
- Public spaces are attractive, maintained, and support activity.
- Entrances and exits are clearly ascertained and accessible.
- Signage is clear and informative about surrounding area, routes, and public facilities.

4. Activity Mix: *Informal Surveillance is Supported*

[13] Ziegler, "American Cities," 859-875.

- Active use of public space is maximized.
- Potential conflicts of mixed use addressed.
- Strategies support residential uses and pedestrian traffic.
- Day and appropriate nighttime uses are supported.

5. Sense of Place and Ownership

- Spaces are clearly identified as public, communal, or private.
- Boundaries between spaces are readily perceived.

6. Attractive and Well Maintained Environments

- Appropriate management and maintenance systems are in place.
- Local users and businesses are involved in management.
- Alliances between residents and businesses are supported.

7. Physical Protection and Barriers

- Barriers are well designed and integrated into landscaping and streetscape.
- Site design maximizes active pedestrian, private, and public policing.[14]

The intention of these interventions is to create a spatial order that not only allows pedestrians and residents to effectively watch out for their peers, but to improve the overall conditions of the community environment as a means to support health, safety, and wellness. As described by Michel De Certeau, urban design and the city system should allow walkers to both select and create multiple possibilities of moving through a space, allowing them various valid means of getting from Point A to Point B.[15] When a user can feel safe in all available pathways due to the CPTED strategies mentioned, it gives the power of the city back to street level pedestrians, and takes it away from the imposing promise of institutional protection that does not always prove successful. Oscar Newman's theory of *defensible space,* which is both based on and simultaneously takes the ideas of CPTED one step further into specifically the residential sector, addresses *public policing*,[16] giving community space back to inhabitants, and urban

[14] Ziegler, "American Cities," 859-875 (emphasis added).
[15] Michel de Certeau, "Walking in the City," in Practice of Everyday Life, trans. Steven Randall (Berkely, CA: University of California Press, 1988), 98.
[16] The notion that in public settings, humans will naturally and instinctively monitor the actions and behaviors of their peers, intervening when a socially unacceptable behavior occurs.

design focused on the distinction of active public and intimate private spaces.[17] Known as one of the biggest supporters of CPTED, Newman believed that his work could reduce violence through the creation of spaces that could be both actively and continuously passively guarded, or *defended* by the general public. Hence his definition of *defensible space*: "A surrogate term for a range of mechanisms, barriers, and other factors that combine to bring the environment under the control of its residents".[18] Newman separated his principals of environmental *defensible space* into four categories—the first is the *territorial definition*: the area of influence of the inhabitants that divides the residential environment into zones, where residents can easily adopt responsibility for the safety of the space as if it were their own. The second element is *natural surveillance*: the positioning of apartment windows to allow residents to survey the public areas of their living environment, reducing blind spots, and allowing supervision of open areas. The third element is *building form*: designing to avoid the stigma of peculiarity that allows others to perceive the vulnerability and isolation of a potential victim. The last element is *compatible building placement*: enhancing safety by locating residential developments in functionally coordinated use areas adjacent to active spaces. Placing compatible-use building types together is a key concept in zoning, building codes, and land use plans.[19] Noting that Newman focuses on residential interaction and intervention, these theories rely on both the willingness of the community to participate, as well as the passive structure of the built environment to provide safety without active effort on behalf of bystanders. All strategies of CPTED use this dual reliability as a method of accountability, allowing city architecture to act in a way that encourages pedestrians to maintain the safety of others. A community that feels empowered in its

[17] Atlas, "The Other Side of CPTED"
[18] Atlas,
[19] Ibid.

spatial order feels responsible for upholding it. When this community mentality is paired with design that caters to health and wellness of its inhabitants, significant results in the reduction of violence can be seen. As an example, studies have shown that introducing green spaces alone can notably reduce levels of violence in a given urban area.[20]

In theory, CPTED interventions and the notion of *defensible space* should help improve the general safety of pedestrians across urban areas. Upon examination, it seems so obvious—create a space that deters violence, and you will have less violence. Yet with these theories relying on willing participation of community members, their success fails when people fail to act. While one would think that the more people there are surrounding an act of violence, the more likely someone is to step in to help, this is simply not the case. Studies actually show that the more people that witness an act of violence, the less likely someone is to intervene. This phenomenon is called the *bystander effect*; "The bystander effect occurs when the presence of others discourages an individual from intervening in an emergency situation, against a bully, or during an assault or other crime. The greater the number of bystanders, the less likely it is for any one of them to provide help to a person in distress.

People are more likely to take action in a crisis when there are few or no other witnesses present".[21] According to this *bystander effect*, both *defensible space* and CPTED become ineffective at reducing violence, if not increasing occurrences of violence. *Defensible space* and CPTED encourage areas of high activity, which leads to the presence of more pedestrians in public spaces, hence reducing witnesses' probability of intervening upon violent actions.

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[20] Fournier, Christine et, al, "The Impact of Green Space on Violent Crime in urban Environments: An Evidence Synthesis," *International Journal of Environmental Research and Public Health* 24, no. 16 (2019).
[21] Psychology Today, "Bystander Effect," Psychology Today, Accessed April 20, 2021, psychologytoday.com.

Aside from this *bystander effect* application to the theories' efficacies in real life, Newman and CPTED advocates fail to account for two major things—the intentions of *defensible space* in a historical context, and *violence culture* in America. Oscar Newman founded the concept of *defensible space* with the following intention: "To enhance the physical safety of citizens and to protect public and private economic investment in new development projects, particularly large, urban, mixed-use residential-commercial-entertainment centers in new urban and suburban large housing developments".[22] Newman's intentions for *defensible space* strategies were focused on reducing *crime* in general, and were not tailored to reducing *violence* specifically. This notion carries through within the ICA. While the organization's mission statement is, "*To create safer environments and improve the quality of life through the use of CPTED principles and strategies*",[23] its missions have a large emphasis on economic stimulation and new development, as well as removing perceived nuisances from already established, well off communities. Much like *defensible space*, the ICA cares just as much about reducing the occurrence of vandalism and non-violent public drug use as it does about identifying motivated *hate crimes*, and as much about clearing the homeless and sex workers from certain streets as it does about *sexual assault* and *rape* on adjacent streets. Because the value is placed on reducing *all crime*, and not *ontological taking and entitlement violent actions*, these movements ignore many groups of people who do not serve the institution of the American power dynamic in the typical economic sense. This socioeconomic underpinning is a common theme in reasons why CPTED fails. The American economy is a capitalist based system, and in analysis of Henri Lefebvre's work, Stuart Elden observes, "One of the reasons why capitalism

[22] Ziegler, "American Cities," 859-875.
[23] ICA, cpted.net.

has survived into the twentieth century is because of its flexibility in constructing and reconstructing the relations of space and the global space economy. Just as everyday life has been colonized by capitalism, so too has its location - social space."[24] Because our society, and therefore social space, is based on the notion of capitalism, it will always serve economic growth and development first, leaving the interests of areas of a lower socioeconomic standing neglected.

Because space has been capitalized, it has also become inherently politicized. In the United States, the jurisdiction of public space is split into two main spheres—politically or governmentally owned and affiliated, and privately owned, often by large corporations. Public space under the jurisdiction of the government is then further split into national, state, and local levels. While this makes sense in many aspects for building codes, zoning codes, and respecting local context, it makes coordinating CPTED efforts and standards extremely difficult.[25] When privately owned public space is also taken into account, it is nearly impossible. This lack of regulated standards allows priority communities to thrive, while others struggle. Typically, this results in worsening conditions for the latter, as issues eradicated in adjacent zones simply end up relocating to their front. Often, this contributes to practices such as redlining lower income neighborhoods. As one exception of the push to reduce crime in priority areas only, CPTED, primarily Newman's *defensible space*, also focuses specifically on tackling large, low-income public housing projects.[26] A prime example of this is the rise and fall of *Pruitt-Igoe*.[27] When this

[24] Stewart Elden, "The Production of Space," in *Understanding Henri Lefebvre: Theory and the Possible* (London: Continuum Books, 2004), 181-183.
[25] Ziegler, "American Cities," 859-875.
[26] Ziegler, "American Cities," 859-875.
[27] An ambitious public housing project that failed largely due to financial aspects and wildly poor post-occupancy conditions for its inhabitants; it was labeled as the *Death of Modernism.*

project's results failed to meet its initial expectations as a public housing project that idolized the ideals of modern architecture, Newman blamed its demise on a surplus of *offensible space*[28] within the design, and even included it in his seminal work as an example of essentially, *what not to do*.[29]

In response to Newman's claims, sociologist Lee Rainwater, the conductor of a post-occupational study of Pruitt-Igoe in the sixties states:

> *Defensible Space* is a subtle form of blaming the victim. The idea of defensible space is based on the assumption that certain "populations" unavoidably bring with them behavioral problems that have to be designed against. This kind of argument does not question why public housing projects tend to be plagued by violent crime in the first place. It naturalizes the presence of crime among low-income populations rather than seeing it as a product of institutionalized economic and racial oppression.[30]

This sentiment illuminates the faulty CPTED value, *physical environment determines behavior*. Using CPTED is futile when it is not the streetscape at fault, but rather the socio-economic system itself. Independent scholar, Sara Ahmed furthers this explanation with the assertion, "What bodies 'tend to do' are effects of histories rather than being originary [to the built environment]".[31] This acknowledges the innate feelings groups of people experience when encountering certain physical elements, such as women avoiding empty streets at night, and black individuals being on edge in areas of elevated police presence. With a historical context of racial profiling and biased criminal assumption, the theories of CPTED lose some credibility in

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[28] Space that uses the same strategies of *defensible space*, but with the intent of controlling a territory under a militia like power against outsiders; often used by organized crime syndicates.
[29] Katharine Bristol, "The Pruitt Igoe Myth," *Journal of Architectural Education* 44, no. 3 (1991): 167-168.
[30] Bristol, 167-168.
[31] Adrienne Brown, "The Architecture of Racial Phenomena," *Winter/Spring 2018 Disorienting Phenomenology* log. 42 (2018): 28

the contemporary setting—*For how can defensible space allow people of color to defend themselves when the institution has preemptively labeled them as perpetrator rather than victim?*

In light of current events, *defensible space* is also hopeless when the power of policing is taken away from the hands of the public and placed in the hands of the institution. When the Myers, the first black family to move into Levittown, Pennsylvania, bought their home in the summer of 1957, they were met with immediate retaliation and violence by the existing all-white community. [32] These 'offensive actions' were described, "And they hung a Confederate flag on top and they started blasting, you know, African-American spirituals at all hours of the night. And, you know, banging the mailbox, harassing them in plain view of the police, who were supposedly, you know, keeping an eye on this as the riot was boiling on over the summer."[33] *Defensible space* relies upon peers defending each other from violent aggressors, but when a space relies upon the police force to maintain order, and the police disregards certain violent behaviors against others, as in the case of the Myers family, this principal collapses. If the institution, in this case the law enforcement, is even further the *perpetrator* of the *violence*, then *defensible space* holds zero power at all. In this same sense, *defensible space* can be turned into *offensible space* using the same methods, when placed in the control of violent organizations, such as human trafficking rings or gangs.[34] The police are trained to distinguish said *offensible space zones*, which are often stereotyped to ethnic minorities, and the black population[35].

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[32] A planned community in Pennsylvania built by Bill Levit post World War II, known for discriminatory charters; when desegregation laws were passed, the Myers, the first black family to move into the development, attempted to make a home there, but instead were met with violent race riots and bigotry; during this time only one neighbor stood by their side, the Wechslers, a 'white', Jewish family with socialist values and visions of equality

[33] NPR, "Levittown: A Racial Battleground In The Suburbs," NPR, March 8, 2009, npr.org.

[34] Atlas, "The Other Side of CPTED"

[35] Olivia Waxman, "How the U.S. Got Its Police Force"

Within his literature, Newman describes how one can identify that have entered an *offensible space zone*, stating *racial and ethnic homogeneity* [referencing non-white races and ethnicities] and *dilapidated areas* as clear indication.[36] This is detrimental to the efficacy of CPTED strategies and the overall validity of the movement, as it serves to protect only those of majority conforming identities. In essence, *defensible space* and CPTED work, but only for *white bodies*. Described by Ahmed, *white bodies* are bodies that can feel at ease in a built environment designed with them in mind. In other words, bodies that have "the privilege to hide in plain sight".[37] A body could become *non-white*, or *other* due to any number of factors, be it race, ethnicity, gender, or even a racially white body with poor socio-economic standing or low education.[38] *Defensible space theory* and CPTED work for *white bodies* because these strategies are designed based on how to protect a spatial order that caters specifically to them.

The second primary criticism is that CPTED interventions often fail when *violence culture* persists. In Clyde Kluckhohn's definitions of culture, the perspective used to explain v*iolence culture* is culture as both a "set of standardized orientations to recurrent problems", and as a "learned behavior."[39] *Violence culture* in America is a culture that defaults to responding to social, political, and economic imbalances of minorities with *violence* when progressive change is asked for. America has a polarized state of orientation, and when the recurrent issues of inequality are brought up, each time the opposition becomes more opposed and responds with an even greater calibration towards violence. Simultaneously, *violence culture* in America is also a

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[36] Atlas.
[37] Dianne Harris, "The Ordinary Postwar House," in *Little White Houses: How the Postwar Home Constructed Race in America* (Minneapolis: University of Minnesota Press, 2013), 30.
[38] Sara Ahmed, "A Phenomenology of Whiteness," *Feminist Theory* 2, no. 8 (2007): 149-168.
[39] Clifford Geertz, "Thick Description: Toward and Interpretive Theory of Culture," in *The Interpretation of Cultures* (New York: Basic Books, Inc., Publishers, 1973), 4-5.

learned behavior perpetuated by the normalization of violence by the media. This acknowledgement of *violence culture* on the impacts of CPTED is crucial. While CPTED is correct in arguing that perpetrators are less likely to act violently when they are more likely to get caught, or the task of violence is too trying, it fails to acknowledge that the motive for *entitlement* and *taking actions* of violence precede logical reason, because they are culturally based.[40] In many cases of *sexual assault, rape,* and especially *hate crimes,* it is crucial to understand that alienating the victim is the end goal, and typically, the perpetrator will take whatever means necessary to ensure it. When hate or contempt is the motive for violence, the perpetrator will find a way for it to occur, often regardless of the consequences.

In order to place these theories in an experimental context, the city of Rochester, New York, will be used as a case study. *All data and findings are based on the 2019 census year, with the most updated crime data released by the FBI in September, 2020, tracking from January 2015, to December of 2019.*

Rochester, New York is a thirty-six square mile city with a population of approximately 206,000 inhabitants, located in Upstate New York, along the Genesee River.[41] It is widely known as a 'Rustbelt City', and has a crime index of 7 out of 100, meaning it is statistically less safe than *ninety-three percent* of cities in the United States.[42] In terms of *violent crime* in particular, Rochester has a *violent crime rate* that is *ninety-seven percent* higher than the national average.[43] Centered on observation and tracking from 2020, Rochester is also a host to three

[40] Atlas, "The Other Side of CPTED"
[41] Census Reporter, "Rochester city, Monroe County, NY," Census Reporter, 2019, censusreporter.org.
[42] Neighborhood Scout, "Rochester, NY Crime Rates," Neighborhood Scout, 2019, neighborhoodscout.com.
[43] Areavibes, "Rochester, Ny Crime," Areavibes, 2019, areavibes.com.

localized hate groups, two of general hate and one of *Neo-Völkisch* [44] basis, and has influence from nine statewide organized hate groups.[45] Based on the *NYS Division of Criminal Justice Services*, between the years of 2015 to 2019 in the city of Rochester, there were 16 documented counts of hate crime.[46] Additionally in this time frame there were 167 recorded counts of murder, 683 counts of rape, and 4,901 counts of unspecified assault.[47] This data does not include any incidents that were not documented, and also excludes instances of hate crimes and *ontological taking* and *entitlement actions* through events of police brutality. Recently, Rochester has made national headlines for the use of excessive force in arrest, particularly on minors, and mentally incapacitated individuals. Following the death of Daniel Prude[48] by the Rochester Police Department in 2020, the department has since been met, on Monday, April 5th, with a civil rights lawsuit on behalf of "Rochester officials allowing a culture of police brutality against racial minorities to fester."[49] The lawsuit calls for forced reform, and argues that the Rochester Police Department (RPD) has perpetrated racially based, *deliberate indifference* for over forty years.[50] This aspect of Rochester is crucial to the case study because as previously mentioned, the presence of institutional forces that ignore or perpetrate violence undermines the legitimacy of

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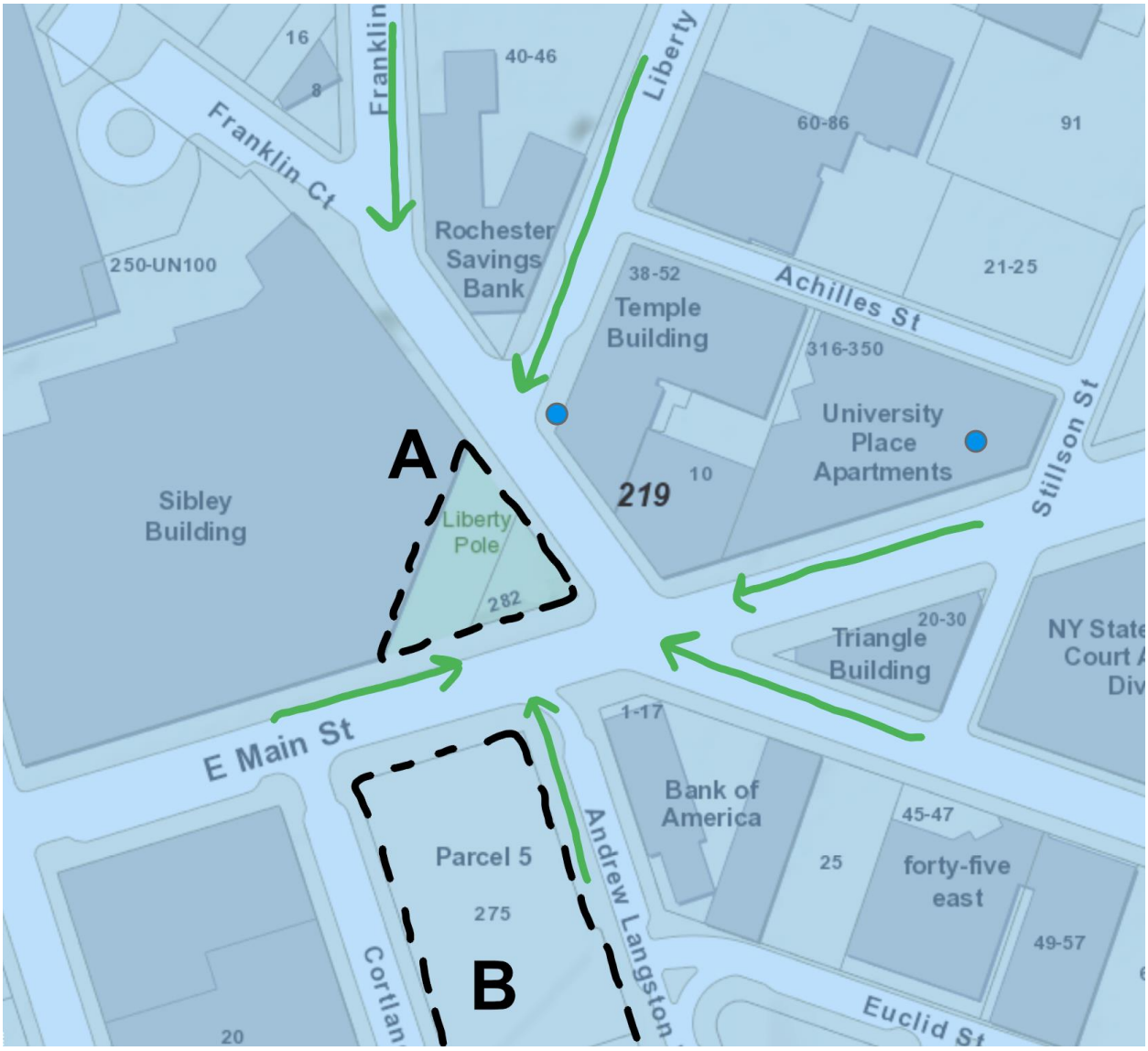
[44] A hate group with a defiance of modernity and rationalism; present-day Neo-Völkisch, groups are organized around ethnocentricity and extreme traditional notions of gender.
[45] Southern Poverty Law Center, "In 2020, 37 Hate Groups Were Tracked In New York," SPLC, Southern Poverty Law Center, Accessed April 20, 2021, splcenter.org.
[46] NYS Division of Criminal Justice Services, "Hate Crime Incidents in New York State by Reporting Agency" (DCJS, Uniform Crime Reporting system, 2020)
[47] NYS Division of Criminal Justice Services, "Index Crimes Reported to Police: 2015-2019" (DCJS, Uniform Crime Reporting system, 2020)
[48] Daniel Prude was a 41 year old black male individual who was killed by the police in March 2020; he was suffering from a mental-health crisis when he was restrained by the Rochester Police Department, who placed a spit hood over his head and held him face down on the road for 2 minutes and 15 seconds; he died from complications of asphyxia.
[49] The Associated Press, "Federal lawsuit alleges years of brutality by Rochester police," NBC News, Associated Press, April 6, 2021, nbcnews.com.
[50] The Associated Press, "Federal lawsuit"

CPTED and *defensible space*. It also perpetuates the idea that *violence culture* in Rochester is quite extreme. With this in mind, and with one of the highest ranks of violence in America, Rochester makes a compelling location for a case study of urban design effects on *sexual assault*, *rape*, and *hate crimes*. Important items to note about the data analyzed are that locations of rape are not included on the violent crime map due to privacy and confidentiality concerns for victims, and that the map was provided by the RPD, meaning it may lack information on violence by the police force itself. Aside from these two limitations, the data illustrates *violent occurrences* in three areas of Rochester—*The Liberty Pole Plaza*, *The Kodak Vicinity*, and *Lyell Ave.* The first location, *The Liberty Pole Plaza*, is located in the center of downtown.[51] The area is a mix of high rise and mid-to-low rise buildings, typically business, gallery, governmental, and mixed-use occupancies. In observation of this location, occurrences of violence are extremely low—there are only two documented assaults. Using the symbol legend, this location explicitly utilizes the CPTED strategies of the use of appropriate active public space, and clear viewsheds allowing passive public monitoring of the area.

Element "**A**" in this setting is *The Liberty Pole Plaza*, a small public plaza that allows direct street access into the Sibley Building, which hosts art gallery spaces, business suites, and local administrative offices. This element utilizes the strategy of appropriate active public space. It is designed with benches, aesthetic landscaping, and above all, the *Liberty Pole*, a tall, illuminated sculpture. Element "**B**" in this setting is *Parcel 5*, a large event space that is often populated with small exhibits of local organizations when it is not being used for concerts. Once again, this element utilizes appropriate active public space. Based on these observations, the

[51] Rochester Police Department, "Rochester Crime Mapping," City of Rochester, NY, Accessed April 26, 2021, cityofrochester.gov.

Liberty Pole location is an explicit example of urban design working in a way that *deters violence*.



Location 1: *The Liberty Pole Plaza*

Design Element
Public Viewshed
Assault Occurrence
Murder Occurrence

The second location, *The Kodak Vicinity*, is located on the outskirts of the city; the area comprises of the former industrial district and business park of the Kodak Company at its peak,

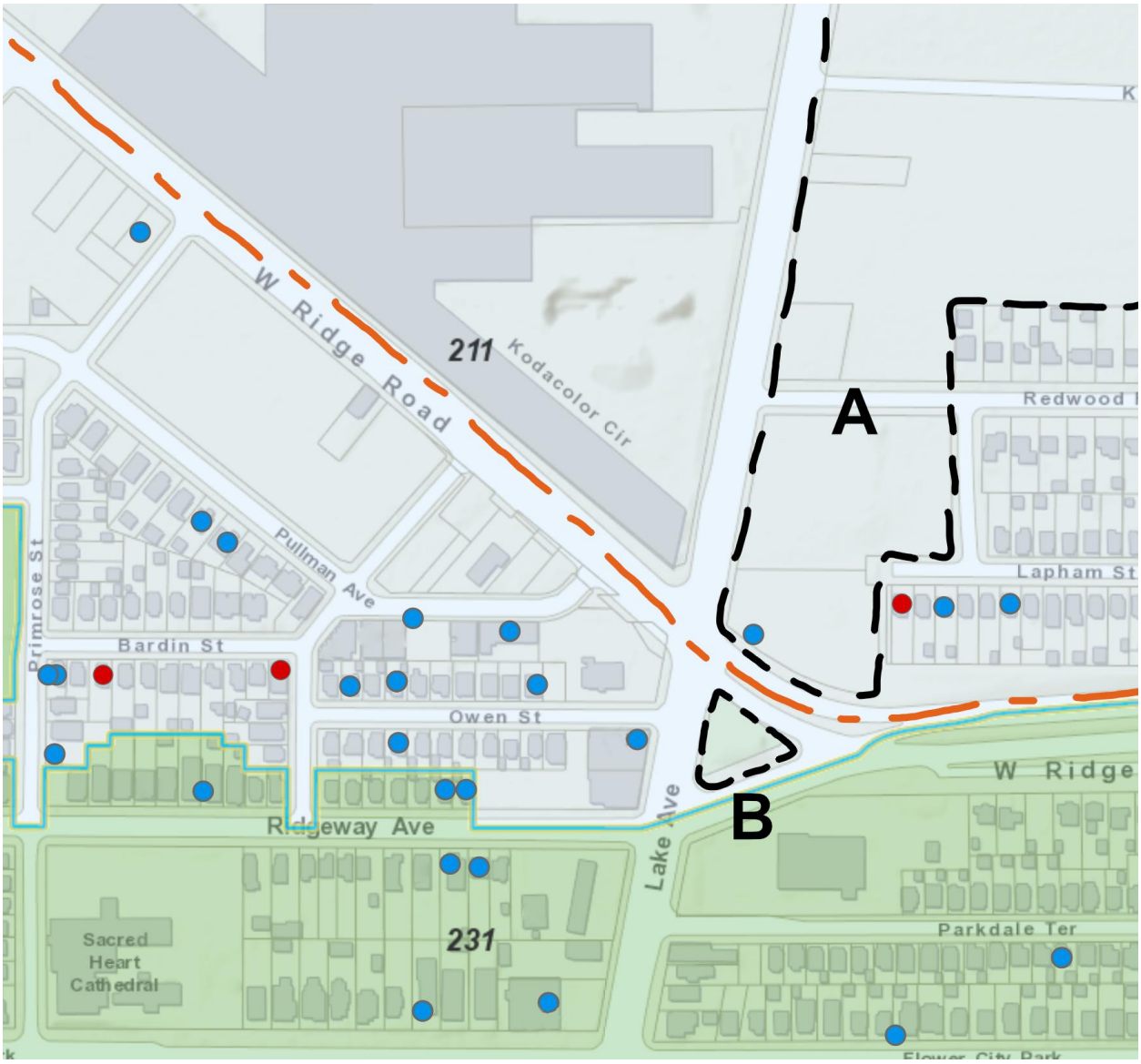
with roadways dividing it from single family residential areas. [52] At this location, occurrences of violence are quite high—but only along one side of the *benefit boundary*, a term used in this analysis to identify a boundary in which the area would transform from an economically beneficial zone for utilizing CPTED strategies, to an economically non-beneficial one. This is due to the effects of redlining aforesaid, and the prior discussion of the capitalist underpinning of CPTED motives. In this setting, it is drawn along the border of the Kodak business park, which used to be one of the main economic contributors of Rochester, making sense as to why that zone would be designed to reduce crime and violence, as it was a key piece in the financial viability of the area. The surrounding single-family residential zones, however, do not have any *defensible space* interventions, and therefore are deprived of the safety of the design elements above.

Element "**A**" is a series of empty parcels, and while perhaps once occupied with buildings, they are now stretches of decaying concrete. These large, unutilized zones create unsafe areas for pedestrian travel. Element "**B**," is a plaza hosting a large sculptural piece, similar to the plaza hosting the *Liberty Pole* in the first location. The key difference to note here is that *The Liberty Pole Plaza* was designed for pedestrian use, while this sculptural work and plaza were designed to act as a traffic roundabout. Because it was designed for cars, it prevents pedestrians from enjoying it effectively and sustainably. In light of these observations, it is clear that *The Kodak Vicinity* is an example of how CPTED can serve to *segregate violence* into certain areas, and prioritize others.

The third, and final location, *Lyell Ave*, further demonstrates just how drastic these differences between *benefit boundaries* can be; it is located just outside of the Central Business

[52] Rochester Police Department, "Rochester Crime Mapping"

District. [53] Once again, at this location, occurrences of violence are quite high along one side of the *benefit boundary*.



Location 2: *The Kodak Vicinity*

Benefit Boundary

Design Element

Public Viewshed

Assault Occurrence

Murder Occurrence

[53] Rochester Police Department, "Rochester Crime Mapping"

The boundary at this location is defined primarily by *Lyell Ave*, a road that separates a single family residential district from other land uses. On the other side of *Lyell Ave*, a school, several parks, and a sports stadium are present. This zone also borders another residential area, separated from it by *W Broad Street*.

Location 3: *Lyell Ave*

Benefit Boundary

Design Element

Public Viewshed

Assault Occurrence

Murder Occurrence

Element "**A**," the school and two parks, as well as Element "**B**," the sports stadium, serve as active public spaces that draw in visitors. There is a disparity in the amount of violence in this zone, as compared to the north side of *Lyell Ave*, which has a highly dense record of murder and assaults. While there are a few violent occurrences in the zone surrounded by the *benefit boundary*, they are minimal compared to the areas on the other side. Therefore, this location is also an example of how crime-prevention-based urban design can cause greater inequality between areas and communities.

In comparison of these three locations, the findings of whether urban design can help deter violence is clear—yet also quite revealing. In the areas in which CPTED strategies are used, such as the *Liberty Pole*, and the particular sides of the benefit boundaries in both the *Kodak* and *Lyell Ave* locations, there was significantly less violence than the areas in which the strategies were not used. This reveals that the strategies certainly can work in Rochester, however they are disproportionately and unequally distributed across the city population.

The findings of urban design strategies' ability to deter violence, in the methods of CPTED and *defensible space* in the lens of Rochester as a case study, show that yes, on an explicit basis, when CPTED is strongly desired and implemented with intent to benefit a certain area, it does manage and reduce violence (in said area). Implicit observations, however, show that this does not necessarily mean it is a positive action— *benefit boundaries* can actually serve to push the violence into surrounding, neglected areas, leaving them in even worse condition. This, alongside the *bystander effect*, the prejudiced historical origins and intent of Newman's *defensible space*, the socio-economic underpinning of CPTED motives, and the persistence of *violence culture* in America, make efforts to reduce violence on a societal scale highly complicated and larger than the scope of this analysis.

The ICA and current CPTED efforts are a far cry from Jane Jacob's original hopes for the movement, as she saw a vision of safety and equality for everyone, through utilizing these strategies synchronously with efforts to reduce the discriminatory practices that place many minority and ethnic groups in vulnerable positions to start with.[54] In a concluding analysis of these findings, CPTED and defensible space strategies can work, but they are often muddled by poor intentions, a lack of standards, and the lack of societal change. Urban design can help people feel more safe from *violence*, but it cannot stop the systematic inclination towards *violence* that perpetrators have—that is a cultural issue. This is not to say however, that these strategies will not prove more successful in other countries and parts of the world, because since the movement's start, it has reached a global scale interest. Perhaps other countries do not need CPTED or *defensible space*, simply because they have *less violence* to defend against. Urban design cannot mend *violence culture*, only the spaces it operates in. Designing to reduce violence is not a universal template, and should not be treated as such—for society and culture dictate what practices have a chance to work and what do not. In terms of the United States, cultural and political influences dictate that only *white bodies* may benefit from said practices. In the future, place-based urban design may be able to help deter *violence* for the safety and well-being of all—but for now, it has to wait until society is ready to make that change.

[54] Edwin Buitelaar and Stefano Cozzolino, "The (ir)relevance of Economic Segregation: Jane Jacobs and the Empirical and Moral Implications of an Unequal Distribution of Wealth," *Cities* 91 (2019): 23-28.

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