

KEY WORDS:

Gotham, Street character, Legibility, Criminal spaces, Neighborhood, Morphology, Urban crime instigators

Gotham: Analysing Urban Crime Instigators in the Batman Films

Varssni Karthick

Tekton: Volume 10, Issue 2, December 2023, pp. 15-32

ABSTRACT

This paper deduces that crime which is omnipresent across time and cities, is perpetuated by the spatial configuration of the city, while crime changes its location based on the social climate and urban physical interventions developed by man. Gotham City is chosen as a vestibule due to its portrayal of an unsafe crime-thriving city, both cinematically and through the Batman comics. Its extensive database spans between 1940 and 2022, thus helping discern Gotham City's evolution in the Batman series. The study finds patterns across three Batman films from 1989, 2012, and 2022 concerning Gotham's urban characters and that helps in co-relating it with real-life urban theories, providing potential guidelines preventing crime-instigating urban spaces.



Varssni Karthick is an architect, who recently graduated from MEASI Academy of Architecture, Chennai (2023) treading the lines between the real and imagined worlds. Her academic field of interest spans the study of urbanism to the discourse around architecture and cinema. She believes writing and drawing are essential tools in an architect's arsenal and is an aspiring urban designer keen on bridging the chasm of inaccessibility, between users and the design of the collective realm.

varshkarthick2000@gmail.com

Introduction

The Batman comics were first published in 1939, and have since become a franchise that raised great revenue and boasts a huge fan base for its dark protagonist and gritty cityscape. The comic series has endured numerous film adaptations over 9 decades featuring an array of criminal activity disrupted by the masked vigilante – Batman. The depiction of Gotham City in Batman series is an allegorical commentary on the urban design challenges that real cities face when combatting the spatial instigators of crime.

The objective of this paper is to explore Gotham City as a metaphor in order to recognize areas in the urban, public landscape that exhibit traits contributing to the rise of crime. It is argued that co-relating filmic portrayal of Gotham City with real-life urban theories will help scrutinize the defining themes of crime in vulnerable cities. The findings from this exercise of meta-referencing are decoded to arrive at a comprehensive list of spatial qualities that should be acknowledged in urban design as regressive and crime-inducing; thus, offering guidelines to mitigate these urban issues in real-life cities.

“Art is a tool by which society extends its perception”, said Arne Glimcher (Laster, 2010), an American art dealer. Meta-referencing or self-referencing is a manner of expressing reality through different forms of media to bring the recipient awareness of the real through medial artificialness. This is evident in the filmography of the Batman movies, which cinematically extends the perception of unsafe cities through a camera lens – with the city of Gotham.

Scope and Limitations

The discourse in this paper focuses on the study of Gotham City and its urban form across the decades by analysing its on-screen portrayal through three films -- Batman (1989) directed by Tim Burton, The Dark Knight Rises (2012) directed by Christopher Nolan, and The Batman (2022) directed by Matt Reaves. The study co-relates the same with real-life urban theories across the years. It scrutinizes the nature of cities by defining crime and the themes that create vulnerable cities. The study is limited to these films, although the Batman saga features in various media and graphic versions.

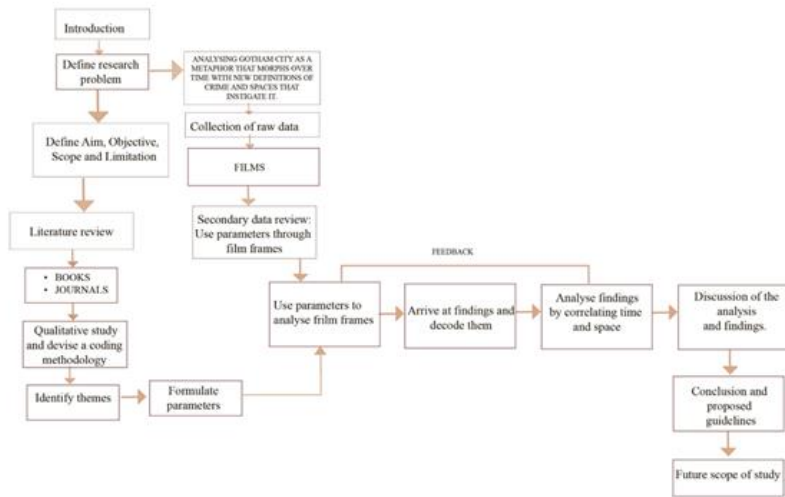


Figure 1: Methodology chart. Source: Author

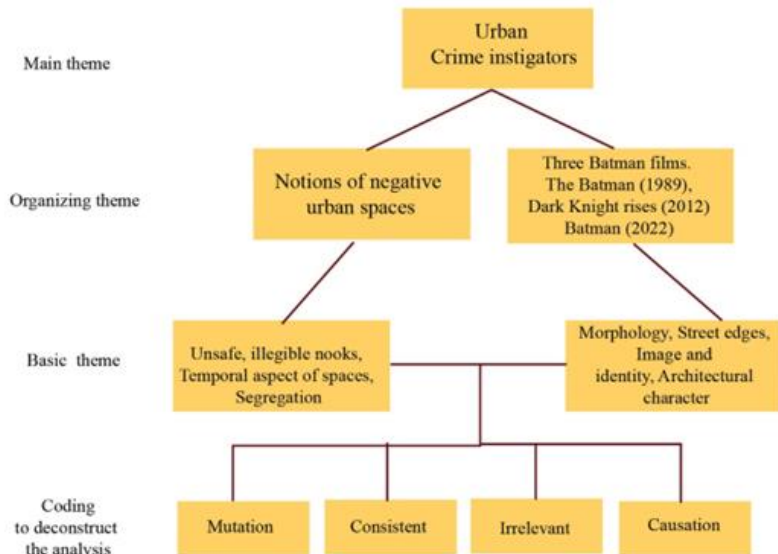


Figure 2: Coding for findings, Source: Author

Methodology of the Study

Gotham City is a fictional prototype of a crime-ridden city, it can present itself as a model for comparison with real-life urban situations. Reading theories on Gotham City's origin, ideology, and prominence in the different mediums it is represented in – are some tools reinforced to comprehend the character of Gotham over the decades. Concurrent urban ideologies at the time of each film act as theoretical frameworks for the research and constitute a part of the literature review.

"The key to understanding crime is to focus on the small number of individuals who choose crime despite the risk." (Levitt et al., 2013). This quote elucidates the importance of identifying the catalyst behind crime. Therefore, crime in an urban environment is a prevalent trope in this discourse. It can be defined as any criminal action that occurs in a city or metropolitan region. The cause behind every vulnerable city is crime and it is explored around the following themes: *poorly designed public places, the temporal aspect of spaces, segregation, the morphology of the city, edges, image, and architectural character.*

Co-relational research methodology is employed as seen in **figure 1** flowchart - to compare crime and spaces in films and reality using the *parameters* drawn from the literature review. *Analysis* of the three Batman films employ the parameters and all observations drawn from this discussion help create *findings* that concur on what elements or qualities of space have remained *consistent, mutated, or are absent* as the city evolved over thirty-three years in its fictional world.

A specific coding system has been devised for the purpose of analysing the findings as shown in **figure 2** and explained below.

1. **Mutation** – One entity morphs into another- working on the same phenomenon that unites the element.
2. **Consistency** – One entity remains consistent, physical property, field of influence, and imagery as the others.
3. **Not related/ Irrelevant** – The entities are completely different and aren't related to each other.
4. **Causation** – An event happening due to the presence or absence of another entity

The next section presents a summary of urban theories reviewed in this paper, in a tabular form.

Elements of the city	Movements or Urban theories	Design	Morphology	Impact on crime
Geography				
	1925- Concentric ring model	<p>The concentric ring model contends that cities expand in concentric rings, with the commercial core at the center and residential districts in the outer rings. The model has an outlying residential region, a zone of transition, and a center business sector.</p> <p>In the exterior part of CBD lies the transitional zone, consisting of deteriorated housing, factories, and abandoned buildings. It has dilapidated housing and infrastructure due to neglect by residents, municipalities, and landlords (Nickerson, 2023).</p> <p>Most criminal activity happens in the second innermost, transitional zone.</p>	Density and vertical development. Creating transitional zones of 'no definition'.	
	1970-1980- Oscar Newman	<p>The defensible space theory applies to any type of planned space (Newman, 1972). From low-density housing to high rises:</p> <ul style="list-style-type: none"> • Territoriality • Natural surveillance and legibility • Image and security • Milieu –proximity to a police substation or busy commercial area <p>Safe Adjoining Areas</p>	Surveillance and legibility. Public spaces that lead to dead ends and long corridors bring down the legibility of spaces	
Vehicular movement				
	19th-century Industrialization	In 1811, the street grid pattern of New York was developed which became a precedent for many American cities (Fainstein, 2022).	Non-hierarchical blocks, vertical development, and density.	Location of crime: streets
	1961- Gordon Cullen	<p>Gordon Cullen wrote about urban design and crime in "The Concise Townscape" in 1961. Some of his principles for crime prevention in urbanity are as follows:</p> <ul style="list-style-type: none"> • Visually engaging and well-lit environments make people feel safer. • Well-connected urban areas can make it more difficult for criminals to move around unnoticed like public transport • CPTED is an approach that designs urban environments to discourage crime and promote social interaction. <p>Cullen emphasized the importance of creating liveable, sustainable, and socially cohesive urban environments (Cullens, 1961).</p>	Streetscape-Safety, legibility of streets, casual surveillance.	Location of crime: public transport

Edges				
	1961- Jane Jacobs	She explores the three primary uses of sidewalks: for security, connection, and assimilating children. Street safety is promoted by pavements marking a public/private separation (Jacobs, 1961). Widening sidewalks for street displays would narrow the vehicular roadbed and thereby automatically reduce car use, and traffic congestion.	Streetscape- Pedestrian, vehicular character, street edge. Mixed-use and surveillance-safe parameters are some ways to mitigate crime.	
	1971- Jan Gehl	He says that there is a spectrum of contact to be made within a realm; be it from simple, noncommittal contacts that stem from passive contacts and chance contacts to complex, involved contacts between people who know each other-creating optional, social activities as opposed to only necessary movements (Gehl, 1971).	The definition of unbuilt spaces. Mixed development is one way to mitigate crime.	
	2009- Leon Krier	His popular treatise on New Urbanism "The Architecture of Community", aims to build healthier, more vibrant, and more sustainable communities (Krier, 2009). The main tenets of New Urbanism as stated by Leon Krier are as follows: <ul style="list-style-type: none"> • Mixed-use development • Walkability and cycling • Well-designed public spaces • Traditional architectural styles • Prioritizing pedestrian character over vehicular movement • Social interaction and community engagement <p>Krier does not specifically address crime prevention in his writings on New Urbanism, but his emphasis on creating walkable, human-scale communities that promote social interaction and a sense of belonging can be seen as a way to create safer and more secure neighborhoods for residents.</p>	Streetscape and identity- pedestrian street character and designated lanes.	
Urban squares				
	1960- Kevin Lynch	In his book 'Image of the City', he outlined "mental maps," "imageability," and "legibility" as crucial elements in how humans see and comprehend urban environments (Lynch, 1960). His treatise implies that settings with poor legibility and unclear wayfinding are ripe for crime.	Paths, edges, districts, nodes, and landmarks	Location of crime: Public buildings. Contradictions in the idea of safe space: Public buildings

	<p>1890-1900s-- City Beautiful movement (Progressive era)</p>	<p>It was greatly inspired by the World Fair exposition in Columbia, where the sheer scale and proportion of buildings created a sense of monumentality and grandeur (Yalzadeh and Blumberg, 2019).</p> <p>Present-day buildings and urban planning still reflect traces of this movement. Thus, creating spaces that aren't used by the general public, contributing to the crime rate visible in the present scenario.</p>	<p>Public realm, Dense development, blocks.</p>	<p>Contradictions in the idea of safe space:</p> <p>Public buildings</p>
--	---	--	---	--

Table 1: A summary of urban theories from literature

Review of Urban Theories

The objective of the Batman comic series was “To explore the city as a living space and origin of modern myths” (Ahrens and Meteling, 2010, p. 5). Gotham became a symbolic main character that propelled plot elements. The relation of Comic to City is palpable said Jorn Mettling; Comic books reflect the real-life city through their memorable semiotics and icons infusing the stories with the “reality principle” or risks that are contained in real-life cities (Ahrens and Meteling, 2010, p. 11).

These risks are certain ideologies that promote circumstances for crime to thrive through the design of areas like narrow alleys, non-porous edges, dense vertical developments, etc. To combat such urban issues urban theorists like Jane Jacobs (1961), Oscar Newman (1970-1980), Jan Gehl (1971), and others call for mixed-use developments that promote social interaction.

The **table 1** forms a summary of the main takeaways from the literature review under broad themes in ‘*Elements of the City*’. The design ideologies from each era or urban theorist are classified under the column ‘*Morphology*’; where the interventions are physical forms and structures of urban elements that contribute to the identity, character, and liveability of the city.

The elements discussed in the category "Interventions concerning Morphology" highlight elements of the city corresponding to their role as crime instigators, identified through the study of urban theories and movements.

Parameters Identified from the Review of Theories

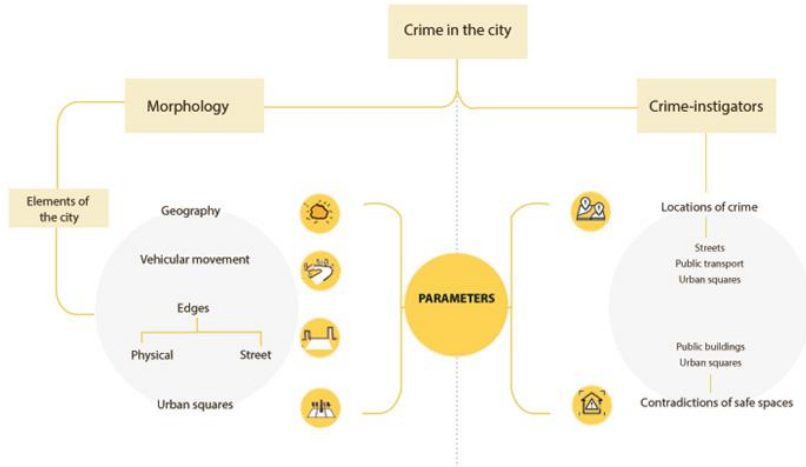


Figure 3: A summary of identified parameters

The parameters identified from the review of urban theories are broadly categorized under two themes, elements of the city and crime instigators. They are elaborated as follows.

- **Elements of the city**
 - **Planning and mobility**

Geography: Topography of the city as portrayed in the films.

Vehicular movement: The character and location of high-speed chases.
 - **Edges of the city**

Physical edges of the city: The character of the city’s boundaries.

Street edges of the city: The character of the built and sidewalks.
 - **Urban squares**
- **Crime Instigators**
 - **Locations of crime:** Predominant crime-prone areas in Gotham City.
 - **Contradictions of safe spaces:** The unsafeness of public buildings.

These parameters are employed in the analysis of the chosen three Batman films.

Comparative Analysis of Films

Batman (1989) directed by Tim Burton, Dark Knight Rises (2012) directed by Christopher Nolan, and The Batman (2022) directed by Matt Reaves are analyzed based on the aforementioned parameters and discussed with the real-life Urban ideologies reviewed. The films are hereinafter referred to as '*first film*', '*second film*', and '*third film*' respectively.

The analysis is supported with diagrams and sketches, in tandem with the screen grabs from across the three films. These representation methods translate the parameters visually. In this context, the concept of meta-referencing is paramount, and the act of interpreting it emphasizes the value of treating filmography as a medium for reading reality, especially concerning the portrayal of urban challenges within cities.

Elements of the City



Figure 4.1: Analysis of geography and vehicular movement. Source: self

- ❖ **Geography:** The geography of the city can be observed to be consistent across the three films, where the idea of retaining an island city is present. But the character of the city about its surrounding water counterpart changes from film to film.
- As seen in Figure 3.1, in the *first film*, the island is an elevated and secure landform that is isolated from the sea.

- Subsequently, in the *second film*, the island is above mean sea level but doesn't have defined boundaries.
- The *third film* from 2022 shows the island at a lower level than the sea and the city is a threat to itself. *Here the city's image and security that Oscar Newman speaks of in his 'defensible space theory' - is threatened due to the land it lies on. The isolated nature of the city allows crime to fester in its planning.*

- ❖ **Vehicular movement:** The vehicular movement within the city is further analyzed through the three films in Figure 3.1.
 - The locations of the high-velocity vehicular movement happen through streets between blocks, open to the sky, leading to medium legibility to the neighborhoods in the *first film*.
 - The *second film* sees a change in the location where the high-speed chase frames are observed on highways and thoroughfares, open to the sky and adjacent buildings.
 - The *third Batman film* showcases most roadways sheltered by monorail, not exposed to the sky or adjacent buildings. *Though the action is consistent, the space of the high-speed activity is constantly evolving in the films. It reflects the impact that the non-hierarchical grid pattern of streets during Industrialization had on the vehicular movement in the city. The 3 different locations in the films highlight how the lack of well-lit streets, surveillance, and general legibility that Newman and Cullen discussed - can affect the safety of people on the sidewalks along the streets.*

Edges of the City

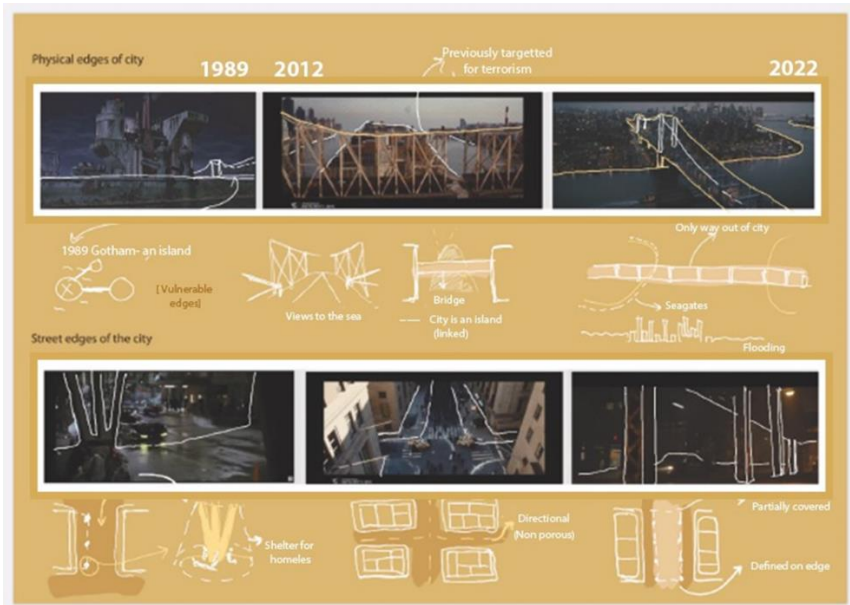


Figure 4.2- Analysis of physical and street edges. *Source: self*

- ❖ **Physical edges:** *The physical edge of the island* is connected to the mainland by bridges irrespective of the era of the three films, however, the character of the street edges takes different forms and nuances over the years.
- ❖ **Street edges:**
 - *The first film* shows streets enveloped by steel columns. In Figure 3.2, The columns project from the buildings that create a sheltered sidewalk, which perpetuates more shadows and less dispersion of light.
 - The buildings that line the street edge in the *second film* are opaque and the transparency to streets is low.
 - The *third film* portrays a partially covered edge, with the monorail track overhead offering no transparency to the roads and sidewalks.

In the case of street design, walkability, and pedestrian safety is at stake in the aforementioned cases. The sidewalks and building faces aren't designed with Jane Jacob's "eyes on the street" approach nor do they prioritize optional activities to take place to foster social interaction as Jan Gehl and Leon Krier discuss regarding the unbuilt spaces. The lack of transparency and legibility on the street edges perpetuates a spectrum of criminal activities to transpire without any surveillance.

Urban Squares

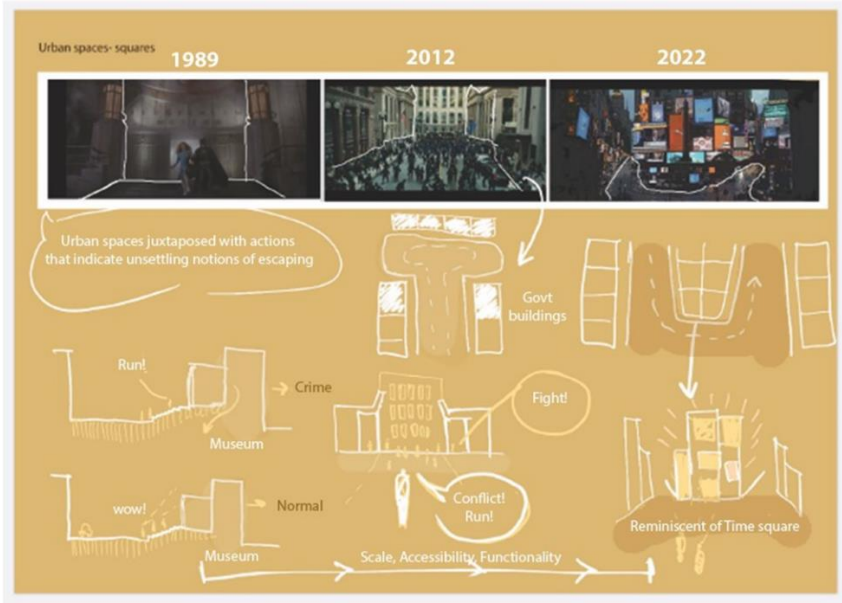


Figure 4.3- Analysis of urban squares. *Source: self*

- ❖ **Urban squares:** The temporal aspect and human interactions in spaces are scrutinized in this analysis of Urban squares portrayed in the three Batman films.
- *The first film* in Figure 3.3, shows a lack of activity at night which makes the public space unsuitable for human movement- thus enabling crime.
- *The second film* shows a square that terminates as an enclave enclosed with Government buildings. This evolves into a choking point of dense human activity which might eventually result in a stampede under dire circumstances.
- *The third film* displays a vehicular-based square that thrives all day, thus inevitably reducing pedestrian movement.

The 3 squares are as different from each other as are the anti-social activities they perpetuate. These spaces are more time vulnerable concerning crime. The disorientation and unclear wayfinding attributes of the first film’s museum square generate defensive nervousness in its beholders as opposed to being a welcome presence in the city. This was highlighted by Kevin Lynch in his ‘Image of the City’. The lack of clarity in the image portrayed by the public squares is a crucial issue in the case of the choking square in the second film. The vehicular square of the last film highlights the undefined transitional zone in Central Business Districts of the concentric ring model which are purely vehicular oriented.

Crime Instigators

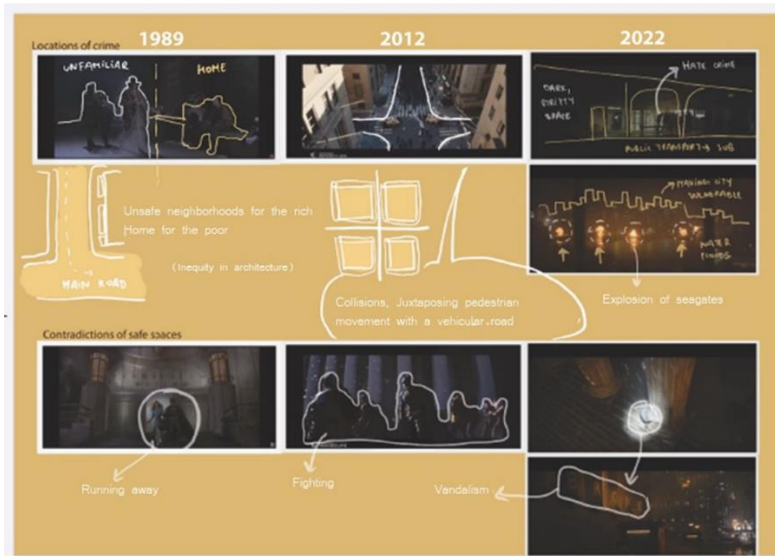


Figure 4.4- Analysis of locations of crime and contradictions of safe spaces. *Source: self*

Locations of crime and contradictions of safe spaces:

- ❖ The locations of crime in the city mutate across the three films and the temporal aspect drives the contradictions of “safe places” in a city as seen in Figure 3.4.
- *The first film* portrays alleys and represents social inequity for poor citizens. Alleys are shelters for the homeless and hostile to wealthy pedestrians signifying the larger social problem that is not dealt with appropriately. During the day, the main Museum becomes a hub of social interaction and cultural enrichment. However, at sundown, it is unsafe and isolated from adjacent buildings. The locations where these crimes occur are badly lit, illegible to passersby people, and form negative voids around the building. The life between the buildings is degenerative in this manner when related to Jan Gehl’s tenets on the public realm and Jane Jacob’s treatise on street-level design.
- *The second film* popularly represents roads as a platform for protesting against various social issues. It is only home to necessary movement or mass pedestrian activity that makes it unsafe. Stampedes can occur as the roads are flanked by opaque edges of government buildings. The buildings are cores of social interaction during the day while conversely acting as a canvas for public expression and protests.
- Lastly, *the third film* represents the danger faced by the common man every day due to racism, bigotry, mugging, and exploitation in public transportation hubs. These spaces are enclosed, illegible, and opaque to the outside with no casual surveillance. No account of social or optional interaction can take place at these public transportation

nodes. Government buildings in the third film are active nodes during the day and become a platform for the city’s expression of itself at night- thus perpetuating vandalism.

Decoding the Findings as per Nature of Each Parameter

The following coding was devised as already shown in the methodology section. It has been applied by assessing the nature of the parameters and the patterns they exhibit throughout the three films. This is shown in **table 2** and **figure 5**.

- **Mutation** – One entity morphs into another- working on the same phenomenon that unites the element.
- **Consistency**- One entity remains consistent, physical property, field of influence, and imagery as the others.
- **Not related/ Irrelevant** - The entities are completely different and aren’t related to each other.
- **Causation**- An event happening due to the presence or absence of another entity

Parameters	Coded for 3 films	Decoded for 3 films
Vehicular movement	Mutation	The prominent locations for high-speed vehicular movement transform from small inner roads to highways to roads between blocks and underneath another layer of transportation.
Physical edges	Consistent	The location of the crime is the same across all three films due to the same geographical characters.
Street edges	Mutation	The character transforms due to different urban fabrics as a result of differences in timelines, and social and cultural contexts.
Urban spaces	Not related and Causative	Each urban realm has distinct scales and characters- isolated square, choked square, and vehicular square- but all spaces propagate anti-social activities that deem them as unsafe spaces.
Major locations of crime	Mutation	Broadly speaking, the locations mutate from alleys to roads to public transportation across the films
Contradictions of safe spaces	Mutation	The use of public spaces transforms across the films.

Table 2: Decoding findings

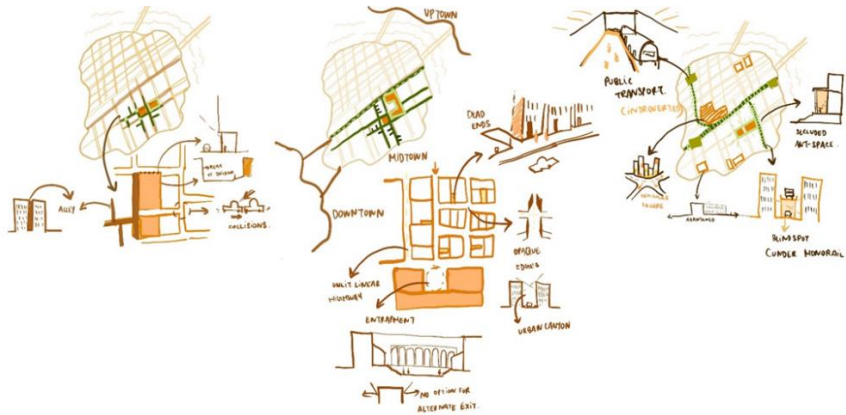


Figure 5: Maps of three Gotham cities featuring decoded crime-prone areas
Source: Author

Results from Analysing Gotham City as a Framework

- Urban fabric:** *Grid planning of cities and urban canyons* that reduce the visibility of streets. This is a conditional aspect that is guided by its context and characteristics like segregation, safety, and time. Grid planning in mixed-use communities would not be detrimental as it would cater to multiple daily activities, thus allowing casual surveillance to prevail.
- Urban squares:** *Isolated neighborhoods. Dimly lit, illegible, and non-porous* design of squares, (lacking connection to pedestrian paths and visibility to openings of neighborhood buildings.) The location of the square and the regional context dictate the safety of urban squares. Squares located in residential districts are constantly used by people as opposed to squares in business districts that might be desolate after sundown.
- Public buildings:** *Lack of casual surveillance and a sense of territoriality*, Lack of consideration to *time-based activity mapping* when designing public realms, Isolated buildings. This is a conditional aspect that is guided by its context and characteristics like segregation, safety, and time. Public buildings located in residential and mixed-use developments are naturally open to pedestrian mobility, thus preventing anti-social activities. However, this is not the case when public buildings are in isolated neighborhoods that don't function after the working hours of the day- becoming homing pods for vandalism and illegal activities.
- Public transportation:** *Lack of transparency and surveillance* in public transportation hubs- despite being used at different points in time throughout the day. Public transportation hubs like metro stations and subways that are located underground become devoid of connection to the upper public realm. This poses a safety issue when the hub isn't catering to multiple neighborhoods and districts and is isolated in

the grand master plan of the city. Reduced footfall creates monopolization of this covered space that threatens notions of segregation in its users.

- **Alleys and dead ends:** *Poor treatment of alleys between blocks* as opposed to the roads leading to important civic centers and public squares or museums. *Lack of porosity of street edges.* These dead ends become negative voids when coupled with the height of the adjacent buildings. Negative, narrow volumes between high-rise buildings become dangerous when they are not lit well after sundown and lack any aspect of social activity. Dead ends that are large and visible to the neighborhood can be used as small plazas between buildings. The context, activity mapping across different times, density of the buildings and their relations to these unbuilt voids, and legibility to pedestrians affect the nature of alleys and dead ends.

Conclusion and Proposed Guidelines

Exploring the on-screen representation of a crime-infested city like Gotham offers a lens to understand the intricacies of real-life urban dilemmas. This exploration revealed repeating patterns and could act as the genesis of problem-solving and policy innovation. It would also engage the masses through its materials, foster analytical thinking, and ultimately enhance the general public's grasp of the impact of city design.

To conclude this analysis, we should acknowledge the design of these degenerative spaces in Gotham City from 1989, 2012, and 2022. Additionally, we should consider utilizing the findings to design our cities in a way that nurtures safety and encourages social activities.

As city dwellers, we could work with governments to propose policies that reflect the sentiments of the residents who will occupy the new townships and cities while ensuring safety.

"The relationships between activities and human, capital, and land resources produce in these ways changes in lifestyles, investments, and environments," said William Solesbury (Solesbury, 1974). This portrays the impact of policymaking in a system that caters to the public.

Therefore, policies that could enhance liveability, equity, and urban sustainability from the stage of planning could be as follows:

- Designing streets with elements like broad sidewalks, designated bike lanes, and well-marked crosswalks will *prioritize the safety of vehicles, cyclists, and pedestrians.*
- To promote constant use of regions, create *mixed-use development zones* that include public, commercial, and residential sectors.
- Make sure that everyone can access public areas like parks, plazas, and squares, *regardless of age, ability, or socioeconomic background.*

- *Encourage community involvement* and involvement in planning, including incorporating locals and stakeholders in the design of public areas and services.
- Ensure that all community members, including those with disabilities or restricted mobility, have *access to safe, effective public transit networks*.
- *Prohibit the use of gated communities or other exclusive developments* that limit access to public spaces and amenities.

Instead of trying to remedy a failing city through physical interventions like digital surveillance, renovation, and rebuilding specific structures after recognizing urban concerns, policymaking can bring about change from a "*tabula rasa*" approach.

Further Scope of Study

This paper could further go on to become a format for designers and architects, portraying how fictional cities can also be tools to identify vulnerable points in city design. Guidelines proposed here in the form of policies could be explored and visualized for further analysis of safety in cities and be employed to reduce crime rates in built environments. ■

References

Ahrens, J and Meteling, A. (2010) *Comics and the city urban space in print, picture, and sequence* (pp-5). New York: The Continuum.

Ahrens, J and Meteling, A. (2010) *Comics and the city urban space in print, picture, and sequence* (pp-11). New York: The Continuum.

Cullens, G (1961) *The Concise Townscape*, 1st edition, London: Routledge.

Fainstein, S. S. (2022, May 13). *urban planning*. *Encyclopedia Britannica*.
<https://www.britannica.com/topic/urban-planning>

Gehl, J (1971) *Life between buildings*, 6th edition, Washington DC: Island Press.

Jacobs, J (1961) *The Death and Life of Great American Cities*, New York: Random House.

Krier, L (2009) *The Architecture of Community*, 2nd edition, Washington DC: Island Press.

Laster, P. (2010, September 14) *Pace Gallery 50th anniversary: Arne Glimcher*.
<https://www.thedailybeast.com/pace-gallery-50th-anniversary-arne-glimcher>

Lynch, K (1960), *The Image of the City*, The MIT Press; Illustrated edition.

Newman, O (1972) *Defensible space; crime prevention through urban design*, New York: The Macmillan Company.

Nickerson, C. (2023). *Concentric Zone Model by Ernest Burgess*.
<https://simplysociology.com/burgess-concentric-zone-model.html>

Solesbury, W (1974) *Policy in Urban Planning, Structure plans, Programmes and Local plans*, 1st edition, Oxford: Pergamon Press.

Yalzadeh, I. and Blumberg, N. (2019, January 4). *City Beautiful movement*. *Encyclopedia Britannica*. <https://www.britannica.com/topic/City-Beautiful-movement>