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***Security  
Concerns &  
Crime  
Prevention  
Responses  
Impacting  
Design in  
Nairobi***

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Master of  
Architecture  
THESIS

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**SECURITY CONCERNS**  
**&**  
**CRIME PREVENTION**  
**RESPONSES IMPACTING**  
**DESIGN IN NAIROBI**

**BY**

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# Chapter 1: Introduction

*"To scare burglars, keep the bathroom light on all night. The bathroom is the one place where somebody could be, for any length of time, at any time of the night, and he would be likely to hear the slightest strange sound."* – **Malcolm X**

## 1.0 Introduction

### Chapter Outline:

1. *Crime and the City*
2. *Background of Security Concerns in Nairobi*
3. *Economic Costs of Crime*

## 1.1 Crime and the City

Cities have from time immemorial been viewed as the epitome of an advancing civilization. City traffic with its fast cars often trapped in unending jams, busy faces heading to most urgent but mundane affairs and neon lights embody excitement: to live in an urban environment has always been the aspiration of many folks who have often believed this to be the panacea of the monotony and ills bedeviling the countryside, hence the widely acclaimed phenomenon of rural-urban migration, a constant headache to planners. But as more people choose to live in town and cities, the quality of the urban environment becomes increasingly important. People do not have that recreational and psychological ambience of so many choices to select the space that gives physical and mental release in everyday lives. More recently,

however, some cities have begun attracting the unenviable tag of being unsafe, violent or crime-prone zones. Crime sometimes tend to be localised to certain areas such as dark spots at night, muggings tend to occur in city alleys or isolated parks. Some streets are generally said to be risky to walk along and the sensible citizen will do well to avoid them. The British Crime survey (2008) observes that “the causes of crime and vandalism are complex but it is widely accepted that environmental factors can play a part. Desolate, sterile and featureless surroundings can engender feelings of hostility, anonymity and alienation.”<sup>1</sup>

### **1.1.1 Hypothesis**

The inordinate emphasis on target hardening as a means of security provision is the outcome of the failure of urban planners to incorporate security engineering in their basic designs. As such, poor urban planning is responsible for insecurity in parts of Nairobi City.

### **1.1.2 Problem Statement**

**Insecurity in Nairobi is difficult to manage because it is largely regarded as a problem to be dealt with socially by law enforcement officers and so most proposals are not law-enforcement reviewed during the design development and approval stage.**

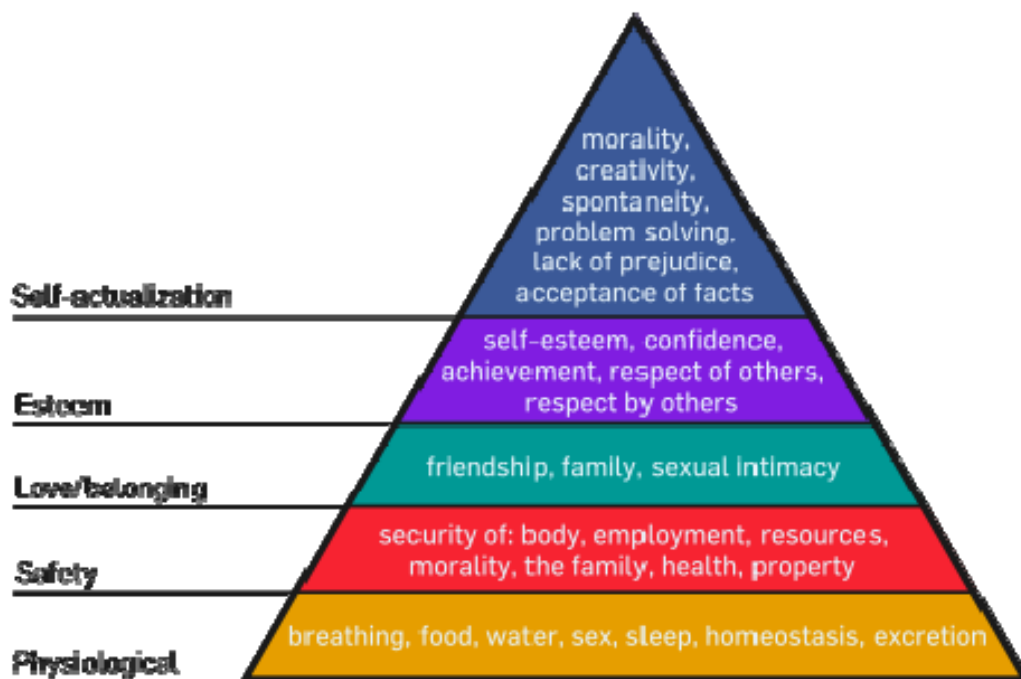
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<sup>1</sup> *Safety, Crime, Vulnerability and Design - A Proposed Agenda of Study, Electronic Working Paper No 20, University of Newcastle upon Tyne*

Physical security is not a modern phenomenon. Physical security exists in order to deter persons from entering a physical facility. Historical examples of physical security include city walls, moats, high gates, etc.

The primacy of security cannot be gainsaid. In his 1943 paper *A Theory of*

*Maslow's Hierarchy of Needs*



*Figure 1:* Source: [http://en.wikipedia.org/wiki/Maslow's\\_hierarchy\\_of\\_needs](http://en.wikipedia.org/wiki/Maslow's_hierarchy_of_needs)

*Human Motivation*, the human psychologist Abraham Maslow cited safety, a subset of security, as the most important after physiological needs in his 'Hierarchy of Needs' illustration, see Figure 1. What is upsetting however is that Nairobi has, especially of late, seen an unhealthy emphasis on physical security which often presents as user-driven design retrofits both in residential and commercial areas put in a place as a corrective or enhancing response to



the architect's apparent non-response to the security needs of the particular building he or she has designed.

Largely presenting as security grills, military/razor wire, the sealing off permanently of main accesses and closing of side entries to public courts, gangways and service lanes in the Central Business District (CBD), these late interventions by users are a worrying commentary of the high priority now being placed on security as a design parameter hitherto sacrificed by designers on the altar of functionality and aesthetics. This is being done to the exclusion of the needs of the City user.

### **1.1.3 Objectives of this Research**

In my investigation, I will seek to identify what areas of the central business district are perceived to be perennially insecure, classify them and propose what both the designer and community should consider to improve on the security needs. I will also perform security audits in 3 urban elements to see what the users feel are concerns that need addressing. Finally, I will propose interventions that can make these areas more amenable to use without the tag of being insecure.

## **1.2 Background of Security Concerns in Nairobi**

Escalating crime and insecurity in the city of Nairobi are hindering social and economic development in the city and severely eroding the city's reputation

internationally. A 2002 city-wide victim survey commissioned by Safer Cities Nairobi Initiative (Phase I) found that 37% of Nairobi residents had been a victim of robbery and 22% a victim of theft at least once the previous year.

Crime and insecurity in Nairobi and in the country as a whole has been reported to be on the increase over the years. Indeed the upsurge in crime rate has been reported in the Economic survey 2004. Furthermore, concerns about crime and insecurity have been widely broadcasted in media and have been a subject for discussion in various fora including parliament. At this juncture, it is worth noting that not all acts of muggings and assault are reporting as crime. A hardened society that is at home with impunity may expand its latitude to accommodate offences which may be considered as legal threats in more informed communities.

In 1990s, Nairobi was rated by the UN as one of the most dangerous capital cities and was downgraded from class B to C in the UN classification of security. The perceived insecurity status associated with infiltration of terrorist cells into the country has also created a negative image of the country within the international community.

Though no country in the world boasts of a crime free society, it is the duty of the State to provide a reasonable threshold for its citizens going about their business to feel secure and live without the psychological oppression of fearing for their safety. According to figures provided by Mr Caxton Munyoki, chairman of the Kenya Security Industry Association (KSIA) in a radio interview on KBC radio on April 30

2007, out of a countrywide force of 45,057 police officers<sup>2</sup>, Nairobi has 2000 police officers on the beat against a figure of 50,000 private security officers in Nairobi only and 430,000 guards nationwide.<sup>3</sup> This translates to a police officer to civilian ratio of about 1:1000 which fares dismally when pitted against the United Nations recommended ratio of 1:450. These figures attest that, especially in Nairobi and contrary to common perception, proper security is really in the hands of the private security practitioners and civilians, the right guaranteed by the State organs notwithstanding.

All this security consciousness by private citizens to create a Ksh6 billion-a year industry is a growing development we cannot wish away. But is there a link between ‘dangerous design’ and crime occurrence? Otherwise put, can a supposedly innocent thought conceived by an urban planner or designer on how building envelopes are to twist and turn end up producing a mysteriously woven urban fabric which actually provokes idle minds into criminogenic tendencies? Can we identify places where vital psycho-social principles of safe design have been innocently violated and produced an unsafe neighbourhood? Is there a relationship between such ‘dangerous design’ and the knee-jerk but resolute reactions by property owners to cage these runaway spaces and create a labyrinth in movement within the City of Nairobi? Finally, if dangerous spaces have developed over time, what recommendations can be proffered to reclaim

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<sup>2</sup> *Economic Survey 2009*, [www.knbs.or.ke/publications/ES2009MinisterPresentation.pdf](http://www.knbs.or.ke/publications/ES2009MinisterPresentation.pdf), pg 18

<sup>3</sup> *Guards set for strike, industry in ferment, 2010 Sunday Nation, Online Edition, Sunday April 11, 2010*

the freedom of movement to the City user while addressing the security concerns of property owners and business people alike?

Before indulging in these queries, I shall closely examine the grim effects of the perception of poor security.

### 1.3 Economic Costs of Crime<sup>4</sup>

**A positive link is indicated between the expenditure on crime, adequacy in provision of security services and perceived level of safety which would imply that provision of adequate security services requires adequate expenditure.**

In a research carried out by the Kenya Institute of Public Policy and Research Institute, KIPPRA, results show that the high income class that spends slightly higher (17% of total spending) on security service provision feels safer as compared to the low income group which is spending less (9%). This means that when delivery of service is effective, high expenditure translate to more security. Business firms however, do not reflect this pattern. The commercial sector which seem to be spending a significant amount of their sales (9.5%) has a higher rate of firms feeling unsafe (63%) as compared to the manufacturing firms which spend a lesser proportion (2.3%) and reports a lower rate unsafe (54%). Thus, we observe that more factors explaining the link between the provision of security services and the feel of safety. This latter phenomenon the “feel of safety” is referred to elsewhere by its antithesis as the “fear of crime” and it is discussed more extensively later in this research thesis.

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<sup>4</sup>Statistics drawn from KIPPRA: *Security Risk & Private Sector Growth, an Executive Summary, June 2004*

**Consumers of security services are spending exorbitantly on provision of security services.** With the perceived inefficiency in provision of public security services, both the households and business firms have taken to provide security services on their own. This is costing the housing about 9% of their recurrent budget or Kshs 2,700 per month. This translates to about 1.5% of the GDP or 60% of the government budget on public order and safety. The business firms are spending 7% of their total sales or 11% of their total costs on both infrastructure and personnel. In addition, business firms spend 4% of their total sales on insuring their property and 2% on neighbourhood initiatives.

**A firm is constrained from operating at optimal level of production.** Because of insecurity, it means that you cannot operate the maximum number of shifts as a firm that would make you utilize the full capacity. On average firms lose 0.2 times in terms of shift which translates to an average of 1.63 hours lost and with an average of 83,000 sales lose.

**A firm's market scope shrinks with high level of insecurity.** It is reported that firms lose 9% of their market share to insecurity. This means that on average the firms were losing Kshs 10 million due to the reduced market scope.

**High insecurity results in higher prices which translate to higher cost of production and squeezed budget for the consumers.** It is indicated that in general prices go up by about 8.3% for the consumers of the various products.

**Insecurity results in loss of investment constraining growth of private sector and the economy in general.** In the last five years firms reported that their investment rate grew by 10% and they were expecting this to double if security risk is reduced. They also reported that there lags in investment which means that investors are not able to take advantage of a situation due to insecurity. Further, it was reported that Kenya is losing on average 44% of foreign investment due to insecurity.

The theory of crime prevention through environmental design has been based on one simple idea: that crime results partly from the opportunities presented by physical environment. The notion is that this being the case, it should be possible to alter the physical environment so that crime is less likely to occur.

Simple, almost obvious as this may be, the idea that crime is partly caused by physical environment has been a controversial one among criminologists. Researchers now argue that there is a large body of evidence showing that the physical environment plays an important part in crime. I intend to investigate these claims.

#### **1.4 Effects of Security Risks on business**

These are diverse but can be comprehended under the following broad categories:

- (a) **Short working Hours:** Security risk affects performance of firms through various channels. Some firms lose sales or face low turnover due to reduced demand/market scope which is partly attributed to limited hours of doing business.

- (b) Reduced market penetration:** Firms also lose sales due to inability to distribute the products. It is this feeling that has translated into user initiated transformations that are now manifesting as physical security.
- (c) Higher Operation Overheads:** The competitiveness of firms is also lost due to either high prices of products in an effort to cover the costs of providing individual security or the disincentive to invest in technology that would see the products attain a competitive quality.
- (d) Disincentive to Investors:** Security risk also affects firm investment decision. For example, firms may refuse to undertake heavy and new investments especially if they are irreversible. Firms may also take the option to wait pushing investment to the unknown future.
- (e) Increased Cost of Capital:** Insecurity also increases the cost of capital by raising the risk-premium tagged on financial capital. Old firms find access to financial capital now dearer with shorter repayment schedules because of the insecurity. New entrants into the market may also be discouraged. Thus, to private firms, insecurity means no business growth and for economy, no employment creation and poverty reduction.
- (f) High Insurance Premium:** Lately, the cost of insuring businesses has escalated because of the high risks associated with insecurity in some areas. The scope has been complicated further with Security firms themselves working with felons to carry out criminal activities. A case in point is the

recent heists involving cash in transit in which workers of the G4Securicor firm were highly implicated.

The objective of this study is to assess the various ways this response to insecurity, whether real or perceived, presents itself, its impact on original design intent, the business environment in the country especially in terms of private sector business operations and investment and ways in which a designer who is conscious of these concerns from the onset of the design development stage would address them differently.

### **1.5 The Perception of Vulnerability to Crime and its Effects on both Nairobi Residents and Potential Investors**

*(Statistics drawn from KIPPRA Report, 2004)<sup>5</sup>*

**Security begins to define location of both business and residence.** General security of the residence is rated as important factor when settling in a new house. It is indicated that 59% of the households make security arrangements before settling in a new house while 68% view security infrastructure as important factor in choice of residence. Results show that both households and businesses have changed their locality in response to insecurity

Business firms prefer localities that ensure safety of their property and life. Although 54% of the firms were indifferent on the issue of security, 32% felt unsafe.

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<sup>5</sup>KIPPRA: *Security Risk & Private Sector Growth, an Executive Summary, June 2004*



Considering the type of firms, 37% of commercial firms felt unsafe in their current localities compared to 20% of the manufacturing and 30% for the services. In terms of firm size, 16% of firms with 5-10 employees felt unsafe, while 25% of the large firms (those with over 50 employees) felt unsafe.

**Security influences the shopping behaviour in terms of time, place, goods and services.** Security has affected the shopping pattern with most people preferring to shop at the corner shops in the estates because they are near and convenient. They also prefer supermarkets to open markets because they are safer. Open markets are considered not safe due to overcrowding and congestion. The most preferred period of shopping is during the day rather than late in the evening or at night as these are considered to be very risky hours. Shopping is also characterized by small units/quantities since they are easy to carry and do not attract attention. Shoppers also seek company of others for security reasons.

**Crime has conditioned our daily routines in terms of when activities are carried out.** It is indicated that 31% of the residents return home by 6.00 pm due to insecurity while 48% consider 5.00 am as most unsafe hour to leave the house due to general insecurity. Insecurity affects the number of hours businesses operate with most businesses being limited to operate for 8 hours between 8.00 am and 5.00 pm; a few of services and commercial business extend their opening hours to 8.00 pm. This makes the firms to incur opportunity cost in terms of forgone income they could have earned if they could be able to operate longer. Among the important factors influencing the opening of business are security of business and security of customers.

**Crime determines the production process adopted by the business firms.**

Insecurity affects the production process through acquisition of raw materials, acquisition of plant and machinery and workers operation. Insecurity affects the number of shifts operated by the firms hence the production hours. Most firms would ideally operate two shifts, but this is hampered by the insecurity.

**Crime influences investment rate and therefore growth of the firms.**

A high proportion (68%) of the business firms indicated that their investment decisions are influenced by security status. Insecurity increases uncertainty levels since firms cannot easily predict the future. For example, crime made firms to lag their investment by about two years, prefer renting their business premises instead of increasing their investment in building while some firm especially the small firms prefer second hand equipment which lags behind the adoption of new technology. Furthermore it is estimated that the country is losing 44% of investment due to insecurity.

**Crime inhibits firms from taking advantage of various opportunities that would**

**reduce their costs of operations.** Security considerations in decision making made firms to lose certain opportunities that would improve their performance. Considering the element of insecurity 64% of the firms missed reducing their operational costs especially because they could not take advantage of lower rent/ business concession or locate near the customers.

**Insecurity constrains the market scope for business firms.**

Insecurity impacts on accessibility to customers, changing tastes and preferences in coping with crime

which affects the level of customer demand and change in prices as insecurity risk premium is included in the prices. Level of customer demand is defined by the victimization. A huge market share (11%) is lost due to loss of customers and high operating costs related to insecurity. Services industries seem to be hardly hit by loss of customers as compared to commercial and manufacturing sector.

Insecurity affects accessibility through constrained distribution where 41% of the firms indicated that they have faced security problems in distributing goods/services. A majority of the firms (94%) lost goods in transit through theft/robbery, 90% lost through attacks on personnel in distribution while 80% lost due to delays due to security checks. Manufacturing firms and large firms are the most affected through this channel.

**Rising costs of goods and services as prices are adjusted for the insecurity risk premium.** It was established that average prices changed by 8.33% due to security problems. Firms indicating security risk premium is very important in access the impact of insecurity on firm had price change with a mean of 12.46 compared to the firms that thought it was not important with a mean of 8.15. Change in the price of commodities due to insecurity also increases the price of raw materials, thus increasing the cost of operations for the firm.

**Consumers of security services take measures to beef up security by making their own provision.** In coping with insecurity, consumers have taken to providing their own security services either in terms of infrastructure investment and employing security guards. Investment in security infrastructure includes target-hardening

measures like installing electric/special fences, putting in place grills, improving the alarm system and other measures that make illicit entry more difficult like putting windows and door grills. Consumers of security services have come together in neighbourhood initiatives to provide their own security by sharing the costs of security provisions.

**Consumers of security services take measures to reduce loss from criminal activities.** The measures taken include avoidance of risk, exercising caution, walking in company, concealing valuables and being observant. For example, 88% of the respondents indicated that they avoid risk so as to cope with the high levels of insecurity while 76% avoid travelling some hours. A lot of caution is exercised by 65% of the consumers while 63% walk in company of others.

## Chapter 2: Literature Review

*Crime Prevention Through Environmental Design is a misnomer. Design alone cannot prevent (or cause) crime; but it can enhance or diminish opportunity potentials in the built environment, and thus influence the extent to which criminal acts are more or less likely to occur. In other words, the environment has an in-built potentiality, or is predisposed towards accommodating certain situations, but does not cause behaviour to occur.*

**Dr Robert Samuels, Director, Environmental Design Research, P/L. Senior Lecturer, School of Architecture, Faculty of the Built Environment, University of New South Wales, Sydney**

### 2.0 Literature Review

Chapter Outline:

1. *Approaches to Crime Prevention through Environmental Design*
2. *But does CPTED work?*
3. *Mobility and transport Security on the side-walk*
4. *CPTED Principles*
5. *The Clason Point Experiment by Oscar Newman*
6. *The Conscience Urbaine (Urban Conscience) Project, Montreal, Canada*
7. *Inferences informing my theoretical framework*

### 2.1 Approaches to Crime Prevention through Environmental Design

There are three distinct approaches or theories that come under the general heading of “*Crime Prevention through Environmental Design*”. The term was coined by the

criminologist from Florida State University, C. Ray Jeffery,<sup>6</sup> who published a book in 1971 arguing that sociologists had considerably overstated the social causes of crime, such as relative deprivation and sub-cultural influences, and had neglected both biological and environmental determinants of crime. He went on to make the general argument that prevention ought to be focused on factors related to the biology of crime, such as exposure to lead which he thought caused brain damage and delinquency in children, and to reducing the environmental opportunities for crime. Jeffery's work was based on the precepts of experimental psychology represented in modern learning theory. Jeffery's CPTED concept arose out of his experiences with a rehabilitative project in Washington, D.C. that attempted to control the school environment of juveniles in the area. Rooted deeply in the psychological learning theory of B.F. Skinner, Jeffery's CPTED approach emphasized the role of the physical environment in the development of pleasurable and painful experiences for the offender that would have the capacity to alter behavioural outcomes. His original CPTED model was a stimulus-response (S-R) model positing that the organism learned from punishments and reinforcements in the environment. Jeffery "*emphasised material rewards . . . and the use of the physical environment to control behaviour*"<sup>7</sup>. The major idea here was that by removing the reinforcements for crime, it would not occur.<sup>8</sup>

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<sup>6</sup> Jeffery and Zahm, 1993:329

<sup>7</sup> Ibid pg. 330

<sup>8</sup> Robinson, 1996

His book met with either indifference or considerable hostility from criminologists, who were particularly offended by the biological arguments. The book contained few prescriptions for reducing opportunities, but his followers, in particular, Tim Crowe<sup>9</sup> (1991), have now developed a comprehensive set of guidelines to reducing opportunities for crime in the built environment, intended to guide police, town planners and architects. These guidelines have been advanced in hundreds of training sessions given by Crowe and others throughout the United States, and the approach is well known by its acronym, **CPTED**.

The second approach falling under crime prevention through environmental design is **the “defensible space” theory** of Architect Oscar Newman (1972)<sup>10</sup>, who published his famous critique of American public housing at about the same time as C. Ray Jeffery’s book. Newman put much of the blame for the high crime rates of public housing “projects” on their lay-out and design. In particular, he criticized the huge, inhuman scale of the developments, their stark design that made it seem that no-one cared about them, their location in high crime neighbourhoods, and the large buildings that made it difficult for residents to know who the other residents were and who were intruders. These factors conspired to attract criminal predators who could commit their crimes with little fear of arrest. Newman, and some other enlightened architects such as Richard Gardiner, put forward a wide range of detailed design suggestions to

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<sup>9</sup> Timothy D Crowe, *Crime Prevention through Environmental Design*, 1991

<sup>10</sup> Oscar Newman: Newman, O., *Defensible Space*. New York: Macmillan. 1972.

change these conditions and make housing safer. The purpose of Newman's suggestions was to encourage natural territorial behaviour on the part of residents by enabling them to give surveillance to the public areas around their individual residences.

His thesis was harshly criticized by criminologists and other social scientists, who accused him of "environmental determinism" and of making simplistic extrapolations to human behaviour from the territorial behaviour of animals. Nevertheless, Newman has had an enormous impact on the design of public housing in many parts of the world. The wholesale abandonment of tower block buildings for public housing owes much to his arguments about their criminogenic potential.

The third environmental design approach is **situational crime prevention**, which was developed by the British government's criminological research department in the mid-1970s<sup>11</sup>. Unlike CPTED, and "defensible space", this approach is not concerned principally with architectural design and the built environment. Nor is it focused mainly upon predatory offences of robbery or burglary. Rather, it is a general approach to reducing the opportunities for any kind of crime, occurring in any kind of setting, including airline hijackings, welfare frauds, obscene phone calls, pub violence and domestic violence, as well as the conventional predatory offences.

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<sup>11</sup> *Mayhew et al., 1976; Clarke and Mayhew, 1980*



Dr Samuels describes ‘Afterdark Design’ as an important situational crime prevention strategy. In his paper, *CPTED: Community Participation and Afterdark Design*<sup>12</sup>, quoting Braithwaite & Biles (1980)<sup>13</sup>, he reckons that offences against people have a greater tendency to occur during the dark hours, when natural surveillability opportunities are lower, there is less chance of a victim being able to recognise an aggressor, escape is easier, other people are less likely to be around to act as potential deterrents or even interventionists, and so on. Both victimisation experiences and especially fear of crime and harassment are elevated at night (Samuels, 1995a)<sup>14</sup>. When people are afraid to go out at night, or women are afraid to use public transport at night (Aungles et al, 1994)<sup>15</sup> - termed ‘*avoidance behaviour*’ - the risk for those who do venture out is multiplied. With fewer potential witnesses or potential rescuers around, the isolation of night-time users is increased dramatically.

Avoidance behaviour influences the general ambience of a neighbourhood, or urban domain, or transportation facility, and sets a certain tone. If, however, large numbers of people felt confident to walk around at night, the situational opportunity for potential offenders would be totally different.

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<sup>12</sup> *Security in Government 96 Conference, Attorney General's Department Report, 1996*

<sup>13</sup> The First Australian National Crime Victim Survey indicated that offences against the person occurred predominantly *at night* - robbery with violence 83% of the time, assault 70% of the time, and rape/attempted rape 60% of the time.

<sup>14</sup> Almost  $\frac{3}{4}$  of the 84% of respondents, who felt unsafe in the DoH Warwick Farm study in the UK, experienced this sensation at night.

<sup>15</sup> The Illawarra train victimisation study in Sydney Australia indicated that women felt more insecure/vulnerable, and were much more likely than men to restrict their behaviour - 50% would not work late at night and then catch a train home, compared to only 5% of men.

Most of the research into the relationship between crime and environmental opportunities has been conducted under the rubric of situational crime prevention and most of the current “opportunity” theories that now underpin crime prevention through environmental design, and that have made this a respectable approach among a large and influential body of “environmental criminologists”, has been developed by researchers associated with situational crime prevention.

## **2.2 But does CPTED work?**

Dr Robert Samuels argues that design alone cannot prevent (or cause) crime; but can enhance or diminish opportunity potentials in the built environment, and thus influence the extent to which criminal acts are more or less likely to occur. In other words, the environment has an in-built potentiality, or is predisposed towards accommodating certain situations, but does not ‘*cause*’ behaviour to occur. Ultimately, this potential must be acted upon by motivated individuals. In the case of the criminal, someone motivated to act in anti-social ways; in the case of the community, legitimate users experiencing a sense of responsibility for a place, and being prepared to act upon those feelings in order to maintain, enhance or defend that place. He postulates that *risk:reward-ratios* in the criminally-intent mind are influenced by ‘*pre-disposing or antecedent socio-personal factors, environmental cues embedded in the built form, and the perceived sense of community responsibility prevalent in a place*’.

*A Re-Evaluation of Crime Prevention through Environmental Design Program in Portland, Oregon, USA*<sup>16</sup> is a report that presents a re-evaluation of the Portland, Oregon Crime Prevention through Environmental Design (CPTED) program during

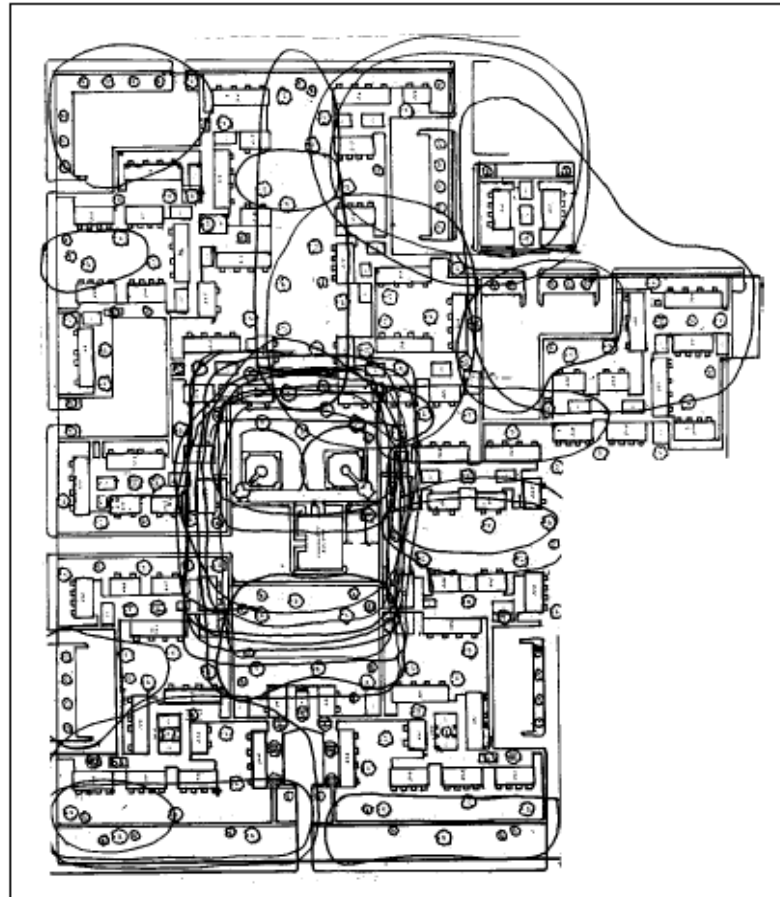


Figure 2: A Composite of fear maps produced by female residents in the Oregon program, Portland, USA

the period 1974-78. This second evaluation of CPTED was intended both as a follow-up to an earlier study performed in 1977 by the Westinghouse Electric Corporation (a

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<sup>16</sup> J Kushmuk & Whittemore, *A Re-Evaluation of Crime Prevention Through Environmental Design Program in Portland, Oregon 1981*

CPTED contractor) and as an independent assessment. The evaluation studied the impact of CPTED efforts on conditions in a commercial area of Portland known as the Union Avenue Corridor (UAC).

The most important finding of the re-evaluation was:

- a) A reduction in commercial burglaries which could be attributed to a combined security survey and street lighting program implemented as part of CPTED. Decreases in commercial burglaries following this intervention were sustained for a two-year follow-up period. Direct decreases in street crimes, commercial robbery, and residential burglary which could be attributed to CPTED activities were **not** found.
- b) Direct decreases in street crimes, commercial robbery, and residential burglary which could be attributed to CPTED activities were **not** found.
- c) **Fear of Crime:** The results for fear of crime indicated levels of fear somewhat higher than what would be expected based on actual crime conditions. This trend is consistent with other research, most notably the findings of the Northwestern University Reactions to Crime Project. It is apparent that signs of social disorganization also contribute to a community's fear of crime.
- d) Other conditions on the UAC (including quality of life, physical security, physical appearance, and social cohesion among the business community) showed a pattern of stabilization since the end of the CPTED demonstration two years prior to the re-evaluation.

- e) The most successful CPTED strategies were the Security Advisor services and the organization of the business community around crime prevention concerns.
- f) The massive architectural improvements planned for Union Avenue were the least successful. These were apparently more difficult to make happen during the relatively short demonstration period.
- g) The most important lesson learned from the Portland experience is that realistic goals must be set when selling a CPTED program to a community. An implementation period of five years will most likely be required during which time a strong facilitator (such as the role Westinghouse played in Portland) will be required

*In Imprisoning Communities*, Todd Clear<sup>17</sup> makes a strong case against reliance on the punitive aspect of criminal justice to reform the errant members of society. He notes that over the past four decades, we've seen substantial fluctuation in the rate of crime, especially of violent crime. Yet social policy, as well as policing and the criminal justice system, has produced a steady rise in the number of people incarcerated. Is this increased reliance on imprisonment making us a safer and more just society? As he declares early in the book, "*imprisonment has grown to the point that it now produces the very social problem on which it feeds. It is the perfect storm*". Incarceration does, in fact, have some impact on crime rates.

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<sup>17</sup> Todd R. Clear, *Imprisoning Communities: How Mass Incarceration Makes Disadvantaged Neighbourhoods Worse*. New York: Oxford University Press, 2007.

Why, according to Clear, do such high rates of incarceration worsen the crime problem? Low-income communities have been affected the most profoundly. As a consequence, in many of these communities young people observe a high percentage of the adult males—their older brothers, uncles, fathers, and grand fathers—spending parts of their lives in prison. The expectation that one will spend some time behind bars becomes routine, ordinary, and even reasonable. The end result is often a deepened questioning of the legitimacy of the criminal justice system. Many young men in these communities cannot be active parents if they have children, and many do. Even once they return from prison, the stigma of a criminal record severely reduces their employment prospects and further reduces their attractiveness as potential marriage partners for their children's mother.

The end result is that individuals, families, and communities are rendered systematically more vulnerable to future, deeper involvement in crime. By reducing parental capacity to parent children, by further weakening already challenged family structures and resources, and by making already disadvantaged families and communities even less economically viable, incarceration helps to reify a social dynamic that is likely to encourage further involvement in crime. According to Clear, those who argue for a tough, incarceration-centred anticrime policy must face the realities: there is good evidence that high rates of incarceration destabilize families, increase rates of delinquency, increase rates of teenage births, foster alienation of youth from pro-social norms, damage frail social networks, and weaken labor markets.

Gardner (1981)<sup>18</sup> argues that CPTED calls for the creation of a defensive environment through the consideration of both physical and psychological aspects prior to construction. Opportunities for crime are reduced by employing design features that discourage crime while encouraging the legitimate use of the environment. To provide maximum control, an environment is first divided into smaller, clearly defined areas or zones which become the focal points for the application of CPTED elements. These zones are designated as public, semiprivate, or private and an effort is made to design each zone so that persons that use it feel a strong sense of territoriality that will encourage them to take control and defend it. The principal weapon in the protection of a defensible space is surveillance, since criminals are least likely to act when there is a high risk of their actions being witnessed. Open designs that minimize visual obstacles and eliminate places of concealment while encouraging the use of the environment are utilized. Special monitoring equipment is installed in places that are isolated or seldom used. Furthermore, lighting is installed in ways that enhance surveillance and reduce fear. Landscaping is also designed with surveillance in mind: Bushes are kept to a maximum of 3 feet in height, and the lower branches of trees are at least 6 feet off the ground. Finally, physical security measures aim at delaying penetration and thus reducing the probability that crime will occur.

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<sup>18</sup> R A Gardner *Crime Prevention Through Environmental Design Management Volume:25 Issue:4 Dated:(April 1981) Pages:36-38, 40-42*

Wright and Thomas (1992)<sup>19</sup> used as a case study the site plan review process as initiated in Ann Arbor, Michigan, to illustrate through Crime Prevention Through Environmental Design (CPTED) model an approach to prevent certain specified crimes and the fear accompanying such crimes within a specifically defined environment by manipulating variables that relate closely to the environment itself.

### 2.3 Crime Prevention Strategies

Fleissner and Heinzelmann, (1996)<sup>20</sup> come up with the following findings to prevent crimes:

**(a) Security in parks:** Parks can be refurbished, lighting installed and opening and closing times scheduled to improve security. Adopt-a-park programs can be used to involve residents in cleaning up trash and litter and providing information to police about illegal activities being carried out in recreational areas. Recreational events can be scheduled to increase the community's informal social control of these places.

**(b) Building regulations:** Local governments can be encouraged to use building codes as well as inspection and enforcement powers to increase environmental security. The owners of deteriorated or abandoned buildings can be required to repair, secure, or demolish them. Provisions related to security can also be

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<sup>19</sup> *J L Wright ; R L Thomas Aslet Journal Volume:7 Issue:3 Dated:(July/August 1992) Pages:14-17*

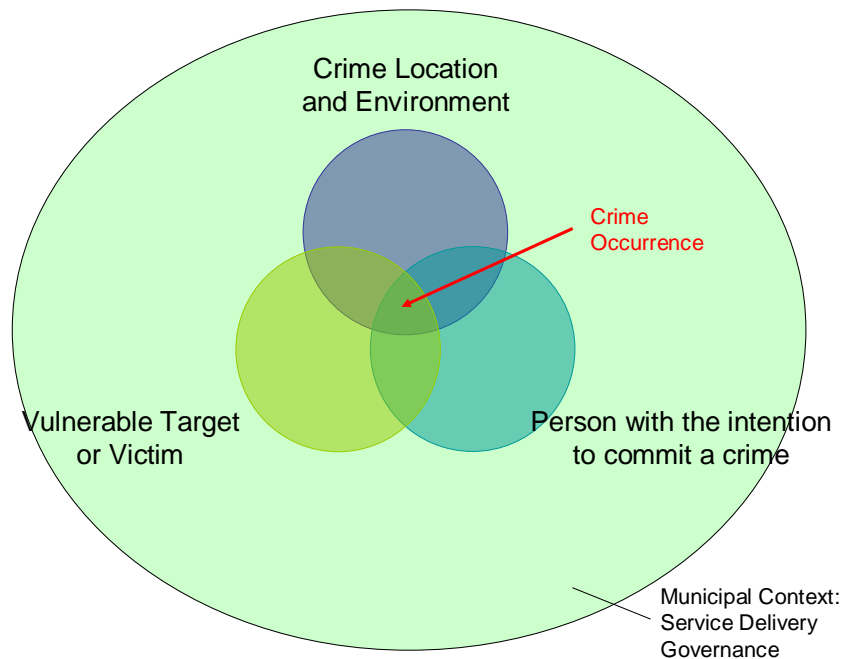
<sup>20</sup> *Dan Fleissner and Fred Heinzelmann, Crime Prevention Through Environmental Design and Community Policing , Ph.D. August 1996*



incorporated into the city building code. These provisions include target hardening tactics (e.g., locks, strengthening of doors, and lighting) as well as security standards for the design of the structure and site.

(c) **Civil remedies:** Civil actions can be used against building owners or tenants to control criminal activity or the inappropriate use of property. These actions may include the following:

**Problem Analysis Triangle**



**Figure 3: Problem Analysis Triangle** Source: *Making South Africa Safe*, CSIR, ISS, 2000

(i) Obtaining title to abandoned property by community improvement associations.

- (ii) Using nuisance abatement along with inspections by public works, building, fire, housing, or utility authorities to control criminal behaviour or drug use in specific buildings or settings.
- (iii) Enforcing liquor laws to control violence and disorderly behaviour around bars or liquor stores (especially at closing times).
- (iv) Using anti-trespassing laws to control unwanted loitering.

In the Nairobi City Council: Crime Prevention through Environmental Design (CPTED) Handbook, Draft 1, 2005 it is noted that Crime Prevention through Environmental Design (CPTED) recognises that there is a relationship between the design and management of the physical environment, and human behaviour. It aims to improve safety and prevent crime by designing a physical environment that positively influences human behaviour. CPTED is one tool in crime prevention and community safety and can be considered when designing a site or structure, when redeveloping a site, or when responding to actual crime incidents.

It is best incorporated at the planning and design stage of a site development.

#### **2.4 Mobility and transport Security on the side-walk**

Nairobi acts as the central point where journeys begin to destinations all round the country and is itself the country's primary destination. Transport in Nairobi can be divided into five categories: private vehicles, buses, matatus (minibuses), commuter trains and taxis. Sometimes ignored, but equally important are the non-motorized forms of transport, such as walking and cycling.

## 2.5 Non-motorised Transport

According to the NCC Environmental Outlook 2008, walking was particularly popularised by the establishment of the “landhies” (barrack-like accommodation initially built for the railway track maintenance staff during the colonial period) that were established close to key suburbs and the CBD, so that workers would not have to walk too far to work. Examples of these landhies are found in Mathare, Kangemi, Kibera and Kawangware. Even today most of the low-income segment of the population walks to work every day, covering distances of 7–15 km<sup>21</sup>. This is because of the inadequacy of public transport, the unavailability of alternative forms of transport such as bicycles, and the fact that they cannot afford the daily bus-fare. Research in Nairobi found that on average 47 per cent of trips by adults are made on foot<sup>22</sup>.

For specific destinations there are significant variations. For instance for trips from Eastlands to the CBD, walking represented 47 per cent of trips as a household average; to the industrial area it represented 65 per cent; and locally 70 per cent<sup>23</sup>. Figure 3.4 and table 3.6 show the modal share of transport in Nairobi.

While walking may be a cheap alternative, pedestrians face a number of hazards. Many roads are only designed for motorized transport and sidewalks for pedestrians are almost non-existent. Waste, parked vehicles or informal businesses often obstruct

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<sup>21</sup> *Replogle 1990*

<sup>22</sup> *Howe and Bryceson 2000*

<sup>23</sup> *Ibid*

walking routes, making them generally unsafe and inconvenient<sup>24</sup>. During the rainy season pools of water also present a major problem. Women are especially concerned with the security aspect of walking and the risk of attack. As result some women are forced to incur the expense of public transport, even for short distances, or take long detours. For most women mobility is severely restricted by insecurity, especially in and around the informal settlements. This even extends to inhibiting their use of bicycles, because they fear that they would easily be stolen<sup>25</sup>.

For the majority of the population, the only practical alternative to walking or use of public transport is the bicycle. But usage is quite low, with most preferring to walk to

	Home	Work	School	Others	Total
Walking	1 060 324	347 110	273 457	586 388	2 267 280
Two-wheel mode	23 701	22 314	2 052	7 344	55 411
Private car/taxi truck	321 594	259 471	30 917	125 720	737 702
Matatu	662 547	473 796	106 656	153 406	1 396 405
Bus	87 232	60 085	14 066	17 684	179 068
School bus	72 094	29 241	43 545	5 415	150 296
KR/Railway	9 998	10 158	759	617	21 533
Others	3 202	2 750	209	1 600	7 762
<b>Total</b>	<b>2 240 692</b>	<b>1 204 026</b>	<b>471 665</b>	<b>898 174</b>	<b>4 815 457</b>

**Table 1: Modal transport share by trip purpose** *Source: JICA 2005b*

work because the roads are too dangerous for cyclists<sup>26</sup>. Only about 11 per cent of households own one or more bicycles.

<sup>24</sup> *Ibid*

<sup>25</sup> *Ibid*

<sup>26</sup> *Replogle 1990*

## 2.6 CPTED Principles

Five principles have been identified which are crucial to establishing how the physical environment either reduces or increases the opportunities for crime:

- a) *Surveillance and visibility*
- b) *Territoriality*
- c) *Access and escape routes*
- d) *Image and aesthetics*
- e) *Target hardening*

### **(a) Surveillance and visibility**

Passive surveillance is the casual observance of public and private areas by users or residents during the course of their normal activities. Active surveillance refers to surveillance by police or other agents whose express function is to 'police' an area.

Visibility is the degree to which an environment is made visible by elements such as lighting and uninterrupted lines of sight.

### **(b) Territoriality**

Territoriality is a sense of ownership of one's living or working environment. Territoriality and a sense of ownership are encouraged when residents identify with the spaces and where the space and its configuration are legible to them.

### **(c) Access and escape routes**

Certain types of criminal events and sites are often deliberately chosen for their ease of access to escape routes. Similarly, the availability of access and escape routes also adds to the safety of potential victims.

**(d) Image and aesthetics**

The image projected by a poorly maintained building or a public area has been clearly linked to levels of crime and particularly to the fear of crime. This link is often referred to as ‘crime and grime’.

**(e) Target hardening**

Target hardening reduces the attractiveness or vulnerability of potential targets by, for instance, the physical strengthening of building facades or boundary walls.

Employing these principles in combination can increase the possibility of reducing crime. Each principle should not be viewed in isolation and the context within which it is to be applied should be taken into account. When applying any one of the principles the implications it has for any of the others must always be considered.

It is important to understand who is responsible for urban safety and crime prevention. Some actors that have been identified as having responsibility of crime prevention/ security in Nairobi:

- Law enforcement

- Public Institutions
- Police
- Provincial Administration
- Government of Kenya
- Citizens/city Residents
- City Council of Nairobi (CCN)

## **2.7 The Clason Point Experiment by Oscar Newman**

Clason Point is a neighbourhood in the Bronx, New York, USA.

The housing authority had a small modernization budget available for improving the project. It was initially slated for adding a stucco surface to the cement block to reduce penetration of cold air, replacing the roofing and boilers, and adding a little play equipment. It is this money that Newman used for this CPTED project.

### **(a) Aims of the Project**

The physical modifications planned for Clason Point had these five goals:

- To increase the proprietary feelings of residents by subdividing and assigning much of the public grounds to the control of individual families and small groupings of families through the use of real and symbolic fencing.
- To reduce the number of pedestrian routes throughout the project so as to limit access and to intensify the use of the remaining walks. Only those walks that passed in front of the units would remain in use, and these would be widened

to allow them to be used for play and sitting areas. New lighting would be added to improve visibility and to extend the use of the walks into the evening.

- To intensify tenants' surveillance of the grounds by giving them a greater identification with the grounds.
- To improve the image of the project by resurfacing the exterior of the existing cement-block building and by further identifying individual units through the use of varying colors and resurfacing materials.
- To reduce intergenerational conflict among residents within the project by assigning specific areas for each group to use.

#### **(b) Interventions**

To improve the usefulness of pedestrian walks and to attract residents to them, he designed a combination planter-seating-lighting element that would be placed in the centre of the walk at intervals of about 40 feet. This new, decorative lighting served both to high-light the main public walk and to make the benches usable at night. The lighting also improved residents' surveillance potential and resulting feelings of security.

Using 6-foot-high fencing made out of hollow tubular steel, real barriers were created to define and secure the rear yard areas. The clusters ranged from as few as 12 dwellings per cluster to as many as 40.



**(c) Resurfacing of buildings**

As part of the effort to remove the public housing image of Clason Point, stucco look like brick and stonework was used. It was hoped that resident involvement in the process would increase their sense of individuality and proprietorship.

**(d) Redevelopment of the central area**

In the pre-modification interviews, tenants identified the central area as the most dangerous part of the project. As Clason Point was almost devoid of play and sitting areas, Newman decided to transform this no-man's land into an intensive community recreation area for all age groups by peopling it with young children, parents, teenagers, and the elderly in order to expunge the drug dealers. Because this central area was also located at the intersection of a few of the newly created walks, this was intended to turn it into a heavily travelled, well congregated, and inviting area by treating it with the same lighting, play equipment, and seating.

As the area was to serve three different age groups, three zones that would each have a different look and character were created. This reorganization of grounds would set up a dependent relationship between spatial organization and social expectations and eliminate the functionless no-man's land that no resident can control and so reduce crime and fear of crime. Tenants should feel they now had the right to impose social controls and pressures on strangers and neighbours.

**(e) Effectiveness of the modifications**

By providing people with the opportunity of taking control of the space and activities *outside* their dwellings, their identity with it is reinforced. By subdividing and assigning all the previously public grounds to individual families, security was enhanced by removing it from the gangs and drug dealers.

**(f) Learning from experience:**

Though these are observations in a residential area, a number of these findings can be extrapolated for use in the CBD. The following lessons are instructive:

- i. The smaller the number of families that share an area, the greater the felt responsibility for maintaining and securing it, and the easier it is for people to agree on mutually acceptable rules for using it.
- ii. The most successful play and recreation areas proved to be the small nodes provided to serve a small and distinct group of residents. The large central play area produced turf conflict between the residents living immediately adjacent to it and those coming from the other end of the project. This soon resulted in the vandalizing of equipment by the distant residents who, at times, felt excluded.

- iii. If one has the opportunity of placing 10 pieces of play equipment in a housing development, it is better to put 1 piece of equipment in each of 10 areas so that it is there for the specific use of a particular group of residents, than to group all 10 pieces in 1 central public area for the use of all residents.
- iv. Planners and urban designers have a growing awareness and experience of ‘*sustainable development*’ and are beginning to consider the capacity of the built environment to reduce both the fear of crime and the potential for offending (Offence location). This paper concludes that a synthesis of the two concepts can represent a meaningful contribution towards crafting an effective strand of ‘urban environmentalism’ that can be utilised to facilitate the design of safer, more liveable and sustainable urban communities.

## **2.8 The *Conscience Urbaine* (Urban Conscience) Project, Montreal, Canada**

**(a) Objectives:** This is a public-education-through-art project that creatively utilizes neighbourhood services and local groups to get out the message about women, planning and urban safety. Its aim is to stir up participatory planning by evoking reactions from the public using images.

The *Conscience urbaine* project sets out to highlight public spaces in Montreal that are unsafe for women. Its genesis was when Fanie St-Michel, a young activist photographer, wanted to use her black-and-white photos to prompt

women to point out these potentially dangerous places to city officials. Putting her art at the service of a social cause, this photographer came up with the concept of using black and white photos of nighttime cityscapes to draw attention to the problem of public places where women feel unsafe. A publicity campaign raises awareness of urban design elements that make for unsafe public spaces and encourage women to report such existing places to authorities.

As in any large-scale public-awareness campaign, the project comprises several stages and strategies to reach its intended audience. The first phase mainly involved the installation of photographic banners at the targeted sites so as to make passersby conscious of the surrounding urban environment. Each poster is a documentary witness of the site at night and resembles an advertisement, promoting not a product but a new, socially engaged, way of seeing and experiencing the urban environment.

**(b) Lesson:** Passers-by can learn from each installation what criteria are used to judge the safety of the site and to identify what element it lacks to be a truly safe place. “The criteria for safe planning address the social dimension of public awareness and prevention strategies and consist of promoting the participation of organizations, institutions and citizens in the decisions concerning public spaces.”

[*Pour un environnement urbain sécuritaire, urban planning guide* published by the City of Montreal’s *Femmes et ville (Women and the City)*]

## 2.9 Inferences from Literature Review

From Newman's work in St Louis, we can surmise the following:

There are four factors that make a defensible space:

- a) **Territoriality** – the idea that one's home is sacred
- b) **Natural surveillance** – the link between an area's physical characteristics and the residents' ability to see what is happening
- c) **Image** – the capacity of the physical design to impart a sense of security
- d) **Milieu** – other features that may affect security, such as proximity to a police substation or busy commercial area

The concept of defensible space is controversial. A United States Department of Justice experiment in Hartford, Connecticut closed streets and assigned police teams to the neighbourhood, and brought new public housing projects designed around ideas of limited access to the city, but Hartford did not show any dramatic drop in crime. Yet, the private places of St. Louis do have much lower crime than public streets. The reason appears to be that in St. Louis, people had the capacity and incentives to defend their defensible spaces. Residents had the right to ask an unwelcome individual (i.e. not a resident or guest) to leave their street because they jointly owned it. On public streets, one cannot legally act against someone until they have committed a crime. As such, the theory of defensible spaces is an extremely useful tool in the residential areas but remains challenged in application in the commercial district.

### **2.9.1 Lesson from Portland, Oregon, USA**

A reduction in commercial burglaries which can be effected by a comprehensive street lighting program implemented as part of CPTED.

### **2.9.2 Lessons from the Nairobi Safer Cities Initiative**

Following a request for technical assistance submitted in 1999, UN-HABITAT's Safer Cities Programme has established a Safer Nairobi Initiative, implemented by the Nairobi City Council, which focuses on the development and implementation of a local city-wide crime prevention strategy.

Coming from the Nairobi Victimization Survey carried out by Safer Cities Nairobi, situational Prevention Interventions at City Level through city-wide partnerships, including local government, the police, the private sector and civil society are vital.

*a) Social Prevention - actions aimed at Groups at Risk:*  
Crime affects different groups in different ways, both from the perspective of potential victims and of potential offenders. Insecurity and crime in the city particularly affect youth and women.

*(i) Youth:* Youth policies should be integrated at the city level in order to address the particular needs of youth, involving all relevant urban stakeholders.

*(ii) Women:* Safer Cities also contributes to the development of policies addressing violence against women. These activities

involve raising awareness on gender and violence issues among law enforcement actors and other stakeholders.

*(iii) Creation of Neighbourhood Watch Groups:* These are a form of crime prevention involving community members used in providing an increased formal control in their neighbourhood. Members collaborate with the police and local leaders in the surveillance of their specific neighbourhood. This concept can be taken further to involve businessmen on certain streets by the formation of business district associations.

*b) Institutional Prevention:* This involves the provision of supports to new forms of policing and justice. The Programme aims to bring the criminal justice system closer to the population and its needs with a view to introducing restorative justice. Community policing, informal and alternative mechanisms for conflict resolution and mediation by traditional community leaders are all examples of efficient safety improvement and citizenship development. The programme identifies and documents good practices of the criminal justice system, tests their replicability and provides and disseminates information on new forms of policing and justice.

The criteria for safe planning consist of promoting the participation of organizations, institutions and citizens in the decisions concerning public spaces.

## Chapter 3: Methodology

*"People act and behave differently in different settings; it suggests that people act appropriately to different settings. This implies that the built environment provides cues for behaviour and that the environment can, therefore, be seen as a form of non-verbal communication."*

*Rapoport (1977)*

### 3.0 Methodology

Chapter Outline:

1. *Research Method and Techniques*
2. *Research design*
3. *Qualitative Research*
4. *Sampling*
5. *Data Analysis*
6. *Principal Actors*
7. *Limitation of research tools*

### 3.1 Research Method and Techniques

- a) **Literature reviews:** This shall be done both from the library and **internet** of design schemes that have been of interest in the area of CPTED, either positively or negatively. In particular, past theses on this area shall be of great interest in understanding the body of knowledge available in this field. Ongoing research by members of the School of the Built Environment will



also be reviewed as well as the work under the auspices of the *Safer Cities Initiative* done by the Nairobi City Council authorities.

- b) **Data Collection:** I will carry out a survey of Nairobi and identify areas from available data that are described as crime prone, analyse what the design elements are, spatial or environmental, that predispose these areas to such behaviour and suggest ways in which this can be addressed in proactive design schemes. The area of interest is the Nairobi City **CBD** where urban planners have had to respond to security concerns by incorporating what they perceive as CPTED elements in the cityscape. The field work will entail asking a select number of respondents to fill questionnaires, (*see Appendix 1*). Due to time and other logistical constraints, the sample size has been limited to 100 respondents dispersed within the city's sampled urban elements of a busy street (Moi Avenue - University Way), a park (Jeevanjee Gardens) and a pedestrianised thoroughfare (Aga Khan Walk). This was done to assess the layman's view of what they think is design that lends the environment to crime. The data sources will include Literature Review, interviews involving personnel of the Kenya Police, the CCN, carrying out a Safety Audit within the City at designated areas and observations by the author.

- c)
- Interviews shall be done by engaging with established organs of security such as the police and urban planning departments detailed to collect and collate such data. Law enforcement Officers in Nairobi will be useful in pointing out

areas with the highest occurrence of crime and whether they feel there is any relationship between this and the built environment.

- d) My investigation will seek to analyse secondary data that has preceded this investigation. I will then review current approaches to changing the physical environment and the “opportunity” theories on which these rest. There has been criticism of environmental crime prevention that it does not reduce crime, but merely displaces it to some other time, place or target. I will seek to draw out the main lessons from the findings about successful ways to implement crime prevention through environmental design.

By the research method of triangulation, I will use my primary data to assess the recommendations arising from recent studies on CPTED in Nairobi.

### **3.2 Research design**

In general terms, scientific research consists of an investigation that:

- a) seeks answers to a question,
- b) systematically uses a predefined set of procedures to answer the question,
- c) collects evidence,
- d) produces findings that were not determined in advance,
- e) produces findings that are applicable beyond the immediate boundaries of the study.

### 3.3 Qualitative Research

Qualitative research is a type of scientific research. Additionally, it seeks to understand a given research problem or topic from the perspectives of the local population it involves. Qualitative research is especially effective in obtaining culturally specific information about the values, opinions, behaviours and social contexts of particular populations.

The purpose of qualitative research is to describe, explore, and explain phenomena being studied. Qualitative research questions often take the form of *what is this?* or *what is happening here?* and are more concerned with the process rather than the outcome.

#### 3.3.1 Why Qualitative?

*"Qualitative research involves broadly stated questions about human experiences and realities, studied through sustained contact with people in their natural environments, generating rich, descriptive data that helps us to understand their experiences and attitudes"* <sup>27</sup>

Rees (1997) asserts that rather than presenting the results in the form of statistics, qualitative research produces words in the form of comments and statements. Its aim is to find out people's feelings and experiences from their own point of view rather than from that of the researcher. Bates (1995) & Morse (1996) support in saying that qualitative research has a greater validity

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<sup>27</sup> Rees, 1996, P375 & Dingwall et al, 1998

since it is an holistic approach to research that does not reduce participants to functioning parts and it has become more acceptable in safety audits over the last 10 years.

The idea of qualitative research is not to collate numbers but able to understand how the space users feel and what they want achieved. One of the ways to achieve this is to use questionnaires. Security poses many questions requiring answers. These questions cover such a diverse range of subjects that there is no one-research approach that will suit them all (Rees, 1996). As such conclusions will then be arrived at using the Combination or Mixed Purposeful method. By triangulation, multiple interests and needs will be met.<sup>28</sup>

"Qualitative research involves broadly stated questions about human experiences and realities, studied through sustained contact with people in their natural environments, generating rich, descriptive data that helps us to understand their experiences and attitudes" (Rees, 1996, P375 & Dingwall et al, 1998).

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<sup>28</sup> Patton, (1990) Patton, M. Q. (1990), *Qualitative evaluation and research methods (2nd Ed.)*, Newbury Park, CA: Sage Publications

Rees (1997) asserts that rather than presenting the results in the form of statistics, qualitative research produces words in the form of comments and statements. Its aim is to find out people's feelings and experiences from their own point of view rather than from that of the researcher. Bates (1995) & Morse (1996) support in saying that qualitative research has a greater validity since it is an holistic approach to research that does not reduce participants to functioning parts and it has become more acceptable in nursing and midwifery over the last 10 years.

The comments made about qualitative research justify the reason it will be used in investigating if the street and park users are comfortable with the areas they visit.

The idea of qualitative research is not to collate numbers but able to understand how these users feel and what they want achieved. The only way to achieve this is to interview Nairobians using the qualitative method and the tool being semi- structured interviews (Bluff, 1997).

### **3.3.2 What can we learn from qualitative research?**

The strength of qualitative research is its ability to provide complex textual descriptions of how people experience a given research issue. It provides information about the "human" side of an issue – that is, the often contradictory behaviours, beliefs, opinions, emotions, and relationships of

individuals. Qualitative methods are also effective in identifying intangible factors, such as social norms, socioeconomic status, gender roles, ethnicity, and religion, whose role in the research issue may not be readily apparent. When used along with quantitative methods, qualitative research can help us to interpret and better understand the complex reality of a given situation and the implications of quantitative data.

Although findings from qualitative data can often be extended to people with characteristics similar to those in the study population, gaining a rich and complex understanding of a specific social context or phenomenon typically takes precedence over eliciting data that can be generalized to other geographical areas or populations. In this sense, qualitative research differs slightly from scientific research in general.

### **3.3.3 What are some qualitative research methods?**

The three most common qualitative methods, explained in detail in their respective modules, are participant observation, in-depth interviews, and focus groups. Each method is particularly suited for obtaining a specific type of data.

- i. Participant observation is appropriate for collecting data on naturally occurring behaviours in their usual contexts.
- ii. In-depth interviews are optimal for collecting data on individuals' personal histories, perspectives and experiences, particularly when sensitive topics are being explored.

- iii. Focus groups are effective in eliciting data on the cultural norms of a group and in generating
- iv. broad overviews of issues of concern to the cultural groups or subgroups represented.

### **3.3.4 What forms do qualitative data take?**

The types of data these three methods generate are field notes, audio (and sometimes video) recordings, and transcripts.

## **3.4 Sampling**

It is not good enough, though, to assume that findings for the sample will be replicated in the rest of the population, so therefore the sample in the first place needs to be carefully selected if there is to be any confidence that the findings from the sample are similar to those found among the rest of the category under investigation.

Social researchers have been using two types of sampling techniques. The first is known as probability sampling, the second as non-probability. Probability sampling, as the name suggests, is based on the idea that the people or events that are chosen as the sample because the researcher has some notion of the probability that these will be representative cross-section of the people or events in the whole population being studied. On the other hand non-probability sampling is conducted without such knowledge about whether those included in the sample are representative of the overall population.

Because the researcher will not have sufficient knowledge about the sample to undertake probability sampling and may not know how many people make up the population, under these circumstances, the researcher will turn to the forms of non-probability sampling as the basis for selecting the sample. The crucial and defining characteristics of non-probability sampling whatever form it takes, is that the choice of people or events to be included in the sample is definitely not a random selection. Streubert & Carpenter (1995) point out that there is no need to randomly select individuals because manipulation and control are not the purpose of the exercise. By using the non-probability sampling, this does not mean the researcher will know absolutely nothing about the women but not enough to use the probability sampling.

With a non-probability sampling method the researcher feels that it is not feasible to include a sufficiently large number of examples in the study, this very much goes hand in hand with qualitative research. The aim of the study is to explore the quality of the data not the quantity.<sup>29</sup>

Dane (1990) points out the advantage of purposive sampling is that it allows the researcher to home in on people or events, which have good grounds in what they believe, will be critical for the research. Instead of going for the typical instances, a cross-section or a balanced choice, the researcher will be able to concentrate on instances which display wide variety – possible even focus on extreme cases to

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<sup>29</sup> *Nachmias, 1996*



illuminate the research question at hand. In this sense it might not only be economical but might also be informative in a way that conventional probability sampling cannot be.<sup>30</sup>

### 3.4.1 Sampling in Qualitative Research

Sampling refers to the process used to select a portion of the population for study. Qualitative research is generally based on non-probability and purposive sampling rather than probability or random approaches. Sampling decisions are made for the explicit purpose of obtaining the richest possible source of information to answer the research questions. Purposive sampling decisions influence not only the selection of participants but also settings, incidents, events, and activities for data collection. Some of the sampling strategies used in qualitative research are maximum variation sampling, stratified purposeful sampling, and snowball sampling. Qualitative research usually involves smaller sample sizes than quantitative research. Sampling in qualitative research is flexible and often continues until no new themes emerge from the data, a point called *data saturation*.

Many data collection techniques are used in qualitative research, but the most common are interviewing and participant observation. Unstructured interviews are used when the researcher knows little about the topic, whereas semi-structured interviews are used when the researcher has an idea of the questions to ask about a topic. Participant observation is used to observe research participants in as natural a

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<sup>30</sup> *Descombe, 1998*

setting as possible. The types of participant observation range from complete participation to complete observation. To learn more about the topic being studied, qualitative researchers may also use other data sources such as journals, newspapers, letters, books, photographs, and video tapes.

Qualitative data analysis, unlike quantitative data analysis, is not concerned with statistical analysis, but with analysis of codes, themes, and patterns in the data. Increasingly, qualitative researchers use computer software programs to assist with coding and analysis of data. The product of qualitative research varies with the approach used. Qualitative research may produce a rich, deep description of the phenomenon being studied or a theory about the phenomenon. Qualitative research reports often contain direct quotes from participants that provide rich illustrations of the study themes. Qualitative research, unlike its quantitative counterpart, does not lend itself to empirical inference to a population as a whole; rather it allows the researcher to generalise to a theoretical understanding of the phenomenon being examined.

Even if it were possible, it is not necessary to collect data from everyone in a community in order to get valid findings. In qualitative research, only a sample (that is, a subset) of a population is selected for any given study. The study's research objectives and the characteristics of the study population (such as size and diversity) determine which and how many people to select. In my study I chose to settle for purposive sampling methods used in qualitative research.

### **3.4.2 Why purposive sampling?**

Purposive sampling is a form of non-probability sampling (Polit & Hunglar, 1999, P284). Purposive sampling, one of the most common sampling strategies, groups participants according to preselected criteria relevant to a particular research question (for example, HIV-positive women in a Capital City). Sample sizes, which may or may not be fixed prior to data collection, depend on the resources and time available, as well as the study's objectives. Purposive sample sizes are often determined on the basis of theoretical saturation (the point in data collection when new data no longer bring additional insights to the research questions). Purposive sampling is therefore most successful when data review and analysis are done in conjunction with data collection.

The idea of qualitative research is not to collate numbers but able to understand how these users feel and what they want achieved. The only way to achieve this is to interview Nairobians using the qualitative method and the tool being semi- structured interviews (Bluff, 1997).

### **3.5 Data Analysis**

As the student discussed before, the qualitative data will take the form of semi-structured, narrative material, such as a verbatim dialogue between the researcher and respondent. However, once the interviews have ended the data needs to be analysed. Mills (1994) asserts that it is best to begin analysing the data as soon as the initial data has been collected, this will act as a guide to further data collection.

### 3.6 Principal Actors

It is important to understand who is responsible for urban safety and crime prevention. Some actors that have been identified as having responsibility of crime prevention/security in Nairobi:

- Law enforcement
- Public Institutions
- Police
- Provincial Administration
- Government of Kenya
- Citizens/city Residents
- The City Council of Nairobi (CCN)

These are the ones to be engaged in any survey regarding Security in Nairobi. In my research, because of time constraints allocated to this study, I limited my scope of inquiry to involve The Kenya Police who, as those with the primary mandate to enforce the law in the city, would have a hands-on account of the security situation. The City Council of Nairobi are the custodians of the urban space and are well versed with both its strengths and weaknesses.

The residents of the city, christened Nairobians, who are the consumers of the urban security package. In a widened scope, it would be instructive to see what interviews with the other players would reveal.

### 3.7 Limitation of research tools

- a) **Trustworthiness:** Trustworthiness is an essential component of qualitative research. Findings should reflect the reality of the experience. Providing participants with the opportunity to review the researcher's interpretation of the data<sup>31</sup> can identify this trustworthiness or credibility. No such test was done based on feedback.
- b) **Narrow view:** By presenting these users with a questionnaire that has set questions will restrict them from saying only what they are asked for thus limiting their views and opinions. Questionnaires used in the three sampling grounds were static yet the sample areas were altogether different. I chose a sample size of 100 respondents. It can be argued that this number of respondents was not large enough to warrant the generalisation of findings. A further survey would need to be done under stricter research methods in selecting the sample in order to triangulate the findings of this inquiry.

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<sup>31</sup> Koch, 1994 & Guba & Lincoln, 1989

# Chapter 4: Data Analysis

## 4.0 Data Analysis

*Chapter outline:*

*4.1 Introduction*

*4.2 Summary of Data Analysis findings*

*4.3 Globe Cinema – An Investigative Analysis*

### 4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research methodology. The results are presented on the security concerns and crime prevention responses impacting design in Nairobi. The data was gathered exclusively from questionnaire as the research instrument. The questionnaire was designed in line with the objectives of the study. To enhance data quality of data obtained, Likert<sup>32</sup> type questions were also included whereby respondents indicated the extent to which the variables were practised or challenges encountered in a point Likert scale.

**100** out of the **120** respondents targeted filled-in and returned the questionnaires making a response rate of **89%**. This commendable response rate was made a reality after the researcher carefully selected areas where the respondents would be relaxed to

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<sup>32</sup> A Likert scale is a psychometric scale, usually of approval or agreement, commonly used in questionnaires. The respondent is asked to say whether, for example, they 'Strongly agree', 'Agree', 'Neither agree nor disagree', 'Disagree', or 'Strongly disagree' with some statement. See also definitions in the '*definitions, abbreviations and acronyms*' section at the start of this thesis.

fill-in and return the questionnaires. The questionnaire had nine broad questions which sought to find out opinions of the users as far as the appropriateness, adequacy and maintenance of facilities provided by the CCN for its urban dwellers.

#### **4.2 Summary of Data Analysis findings**

The findings arising from this study were tabulated by the author in the matrix below though the aggregated data is available in both tabular and graphical form in Appendix 3 at the end of this study.

## 4.2 Summary of Data Analysis findings:

**Table 3: Matrix showing aggregated questionnaire responses Source: Author, 2010**

<b>A</b>		<b>Gender of Respondents</b>			From the study, 62% of the respondents were males while 38% of the respondents were females. This indicates that majority of the people found in the field where the study collected data are males.	
	Response	Male	Female	Total		
	Frequency	62	38	100		
	Percent	62.0	38.0	100		
<b>B</b>		<b>Age Bracket of Respondents in years</b>				This implies that majority of the respondents (93%) were aged below the age of 40 years. These are the people who are at a risk of facing safety problems when moving along the corridors in the city hence are conversant with the issues sought by the study and volunteered as respondents.
	Response	15-25	25-40	40-60	Total	
	Frequency	63	30	7	100	
	Percent	63.0	30.0	7.0	100.0	
<b>1(a)</b>	<b>Lighting</b>	<b>Is Lighting adequate?</b>			The majority of the places of concern are usually not lit at night which probably allows for spread of crimes.	
	Response	Yes	No	Total		
	Frequency	47	53	100		
	Percent	47.0	53.0	100.0		
<b>1(b)</b>	<b>Lighting</b>	<b>Do you know who to call if lights are in a state of disrepair?</b>			This implies that majority of the respondents are not aware of the possible authority which takes care of street lighting. The majority of the respondents also indicated that they did not know who to call because there were no contacts. In the event that lights are broken, the streets are likely to remain in dark longer than an informal surveillance and feedback system would provide. This would leave the spaces free for criminals to thrive.	
	Response	Yes	No	Total		
	Frequency	34	66	100		
	Percent	34.0	66.0	100.0		
<b>2</b>	<b>Signage</b>	<b>Do you know of information signs that direct where to get emergency assistance?</b>			88% of the respondents indicated that there were no signs to show where to get assistance if needed suggesting that in case of an emergency, the victim would be stranded and left to the devices of his assailants.	
	Response	Yes	No	Total		
	Frequency	12	88	100		
	Percent	12.0	88.0	100.0		



<b>3(a)</b>	<b>Visibility &amp; Isolation</b>	<b>Likelihood of people walking around</b>						There was likelihood of many people walking around the park/area during the day as indicated by a mean score of 3.69, many people are likely to be walking around the park in the evening as shown by a mean score of 3.41, many people are also likely to be walking around the park in the morning as shown by a mean score of 3.04, while majority indicated that it was likely that a few people are walking around the park late at night.	
	Response	<i>Early Morning</i>	<i>During the day</i>	<i>In the Evening</i>	<i>Late at night</i>				
	Mean	3.04	3.69	3.41	2.75				
	Standard Deviation	1.082	0.647	0.767	1.388				
<b>3(b)</b>	<b>surveillance</b>	<b>Do you know if there are security systems in place (such as CCTV)?</b>						Modern surveillance systems are uncommon to majority of the users of this space. CCTV has been identified by many present day security experts as a good deterrent tool that makes many would be offenders not act for the fear of being caught on tape.	
	Response	Yes	No	<b>Total</b>					
	Frequency	24	76	100					
	Percent	24.0	76.0	100.0					
<b>3(c)</b>	<b>surveillance</b>	<b>Do you if there are adequate patrols?</b>						This implies that majority of the areas are not patrolled.	
	Response	Yes	No	<b>Total</b>					
	Frequency	45	55	100					
	Percent	45.0	55.0	100.0					
<b>3(d)</b>	<b>Reporting</b>	<b>The distance of the nearest help/security</b>							37% of the respondents indicated that the security help was near and 20% of the respondents indicated that the security help was neither near nor far.
	Response	<i>Very Near</i>	<i>Near</i>	<i>Not near /Not Far</i>	<i>Far</i>	<i>Very Far</i>	<i>Not Clear</i>	<b>Total</b>	
	Frequency	15	37	20	12	04	12	100	
	Percent	15.0	37.0	20.0	12.0	4.0	12.0	100.0	

<b>4</b>	<b>Physical Security</b>	<b>Security Features that hinder:</b>					<b>36% of the respondents indicated that the unnecessary security features hinder movement, 31% said that the unnecessary features hinder relaxation, 20% of the respondents indicated that the unnecessary security features hinder sitting down, while 13% of the respondents said that the unnecessary security features hinder meeting of friends.</b>	
	Response	<i>Movement</i>	<i>Sitting Down</i>	<i>Relaxation</i>	<i>Meeting Friends</i>	<b>Total</b>		
	Frequency	36	20	31	13	100		
	Percent	36.0	20.0	31.0	13.0	100.0		
<b>5(a)</b>	<b>Maintenance</b>	<b>Opinion of Maintenance</b>					<b>From the study findings, 41% of the respondents said it was satisfactory; when asked to explain their responses, they indicated that there was not enough security, the security was in some areas, buildings were poorly painted and there were trimmed fences.</b>	
	Response	<i>Very Poor</i>	<i>Poor</i>	<i>Satisfactory</i>	<i>Good</i>	<i>Very Good</i>		<b>Total</b>
	Frequency	09	19	41	25	06		100
	Percent	9.0	19.0	41.0	25.0	6.0		100.0
<b>5(b)</b>	<b>Maintenance</b>	<b>Does the place feel cared for?</b>				<b>They indicated that the place felt not cared for because the streets were never washed but were only swept, no trimming of flowers, yet the street is not that long.</b>		
	Response	Yes	No	<b>Total</b>				
	Frequency	76	24	100				
	Percent	76.0	24.0	100.0				
<b>5(c)</b>	<b>Maintenance</b>	<b>Does Litter usually lie around?</b>				<b>61% of the respondents indicated that litter does not lie around the place while 39% of the respondents said that litter lie around the place.</b>		
	Response	Yes	No	<b>Total</b>				
	Frequency	39	61	100				
	Percent	39.0	61.0	100.0				
<b>5(d)</b>	<b>Maintenance</b>	<b>Do you know the authorities responsible for maintenance?</b>				<b>62% of the respondents indicated that they knew who is responsible for maintaining the area and how to contact them while the rest of the respondents (38%) said they did not know.</b>		
	Response	Yes	No	<b>Total</b>				
	Frequency	62	38	100				
	Percent	62.0	38.0	100.0				
<b>6(a)</b>	<b>Overall</b>	<b>What is your impression of overall design?</b>				<b>The majority of the respondents (43%) said that the overall</b>		

	<b>Design</b>							<b>design was satisfactory, 29% said it was good, 18% said that it was poor 8% said it was very good while a small proportion of the respondents (2%) indicated that the overall design was very poor.</b>
	Response	<i>Very Poor</i>	<i>Poor</i>	<i>Satisfactory</i>	<i>Good</i>	<i>Very Good</i>	<b>Total</b>	
	Frequency	02	18	43	29	08	100	
	Percent	02	18	43	29	08	100.0	
<b>6(e)</b>	<b>Overall Design</b>	<b>What presents opportunities for violence or harassment?</b>						<b>According to the findings 49% of the respondents said it was poor lighting, 27% of the respondents said it was the presence of idlers/group of youths/criminals, 10% of the respondents said it was lack of people around; these 3 are the greatest reason why muggings can occur in the areas surveyed.</b>
	Response	<i>Poor Lighting</i>	<i>Idlers</i>	<i>Deserted</i>	<i>Garbage heaps</i>	<i>Others</i>	<b>Total</b>	
	Frequency	49	27	10	06	08	100	
	Percent	49.0	27	10.0	6.0	8.0	100	
<b>7(a)</b>	<b>Fear of Crime</b>	<b>Do you feel safe walking around?</b>						<b>77% of the respondents said they safe walking around the place while 23% of the respondent indicated that they don't feel safe. This implies that most of the respondents felt that the place is safe.</b>
	Response	Yes	No				<b>Total</b>	
	Frequency	77	23				100	
	Percent	77.0	23.0				100.0	
<b>7(d)</b>	<b>Fear of Crime</b>	<b>What time do you feel least safe?</b>						<b>The majority of the respondents (64%) said that they felt least safe at night, 18% said that they felt least safe during the day, 11% of the respondent said they felt least safe early in the morning while 7% of the respondents said that they felt least safe in the evening.</b>
	Response	<i>Early Morning</i>	<i>During the day</i>	<i>In the Evening</i>	<i>Late at night</i>	<b>Total</b>		
	Frequency	11	18	64	07	100		
	Percent	11.0	18.0	64.0	7.0	100.0		

7(e)	Use of space						50% of the respondents said that they use it for recreation, 25% said they use it as a walk way, 13% said they use it for trading; the majority of the respondents said that addition of lighting, addition of shopping malls to encourage more people walking around, police post, contacts provided, regulate time of closing the entertainment clubs and often cutting of the grass would make the place feel better and safer.
	Response	<i>As a walkway</i>	<i>Recreation Space</i>	<i>Trading</i>	<i>Others</i>	Total	
	Frequency	25	50	13	12	100	
	Percent	25.0	50.0	13.0	12.0	100.0	

The above findings especially around the Jeevanje area, when triangulated, agree with previous safety audits carried out around the in Nairobi at the start of the millennium under the auspices of the Safer Cities Initiative.

## **4.3 Globe Cinema – An Investigative Analysis**

### **4.3.1 Introduction**

In creating a research filter to establish the most pressing security concern to be reviewed against the findings from interviews with the various stakeholders, the trouble spots were looked at in terms of the available statistics that are associated with crime. It turned out that Globe Cinema is a raw nerve in this aspect because it presents not only the challenge of common crime but frequent skirmishes between the Police and unruly hawkers which often spiral to a level of paralysing the hub in terms of both trade and transport. As such, I settled on analysing its peculiar parameters.

As a circulation node, it is ever a bottleneck that is responsible for traffic jams involving vehicles entering and exiting town via the Murang'a and Limuru Roads. A lot of vehicular crisscrossing happens here. The fact that the centre of the roundabout is a matatu terminus does not help matters either.

Spatially, the Globe Cinema is known to be the biggest roundabout in East Africa. It handles the most amount of traffic in the city and is the best link to city centre. The three tunnels that access it were designed to link the pedestrians through the various routes surrounding it. This means that in the

past this was an actively used area. Its name Globe Cinema Roundabout is derived from the Cinema Hall-now-turned-church that has an imposing view at the end of Kijabe Street as a landmark.

#### **4.3.2 Design Challenge Creating Insecurity**

Globe Cinema Roundabout as a design challenge stems from the obsession by Nairobi city planners with always directing pedestrian traffic either underground or to an overhead foot bridge wherever there is an intersection between a pedestrian walkway and a vehicular spine. This is aspect of not allowing those on foot to not remain on ground whenever there is a conflict with traversing vehicles is the genesis of permanent insecurity on paths. Now, it would make more sense to give roads a gentle gradient and make cars ascend onto an overpass and let those walking remain where nature would have them be. However, evidently the lack of user participation at the design development stage together with cost concerns overrides other considerations in the construction of such roads. With the passage of time, the use of the place changes leading to the pedestrians abandoning their designated paths and congest the very roads whose circulation remains unresolved because of both ease of walking and security concerns. In the long run, because of this unsuitability and their not being disabled-compliant, the tunnels and bridges are hardly used on a fulltime basis and they eventually fall into a state of dereliction, creating opportunity for miscreants to waylay unwary passers-by and make them easy prey. This scenario repeats itself in all areas in the City

(Landhies Road, for example which is a security hotspot for apparently the same reason) wherever tunnels or footbridges are proffered by urban planners over vehicular overpasses. Snarl-ups caused by unresolved pedestrian/vehicular traffic conflicts generate the security threats.

#### 4.3.3 Activity Analysis

With time, the use of the Globe Cinema area has evolved into some of the following:

- a) A place where security firms train their people during the day.
- b) A resting place for parking boys.
- c) A trading area due to the new stalls and many hawkers.
- d) A matatu terminus in the both day and night.
- e) A home for street families in the night.

Among the neighbouring activities are the following:

- a) Kijabe Street frontage

Along Kijabe Street is a line of businesses ranging from agro-businesses, stationery shops and hardware shops among others.

- b) Kijabe Street backyard businesses

The businesses here are among others waste paper recycling, car garages and washing. However, lately, the Ministry of Environment and Natural Resources

has reclaimed the riparian area along Nairobi River riding it of idlers. Afforestation is now the main activity. The beauty about this endeavour is that it employs youth through the *Kazi Kwa Vijana* (youth economic empowerment) programme thus putting idlers into gainful employment.

- c) Just at the beginning of Kijabe Street is the globe cinema turned church. It cannot be immediately established what may have put the cinema hall out of business.
- d) Adjacent to the cinema hall is a plot that on Tuesday from as early as 6.00am to as late as past 8.00pm used to attract a lot of informal businesses through the famed Masai Market. It would employ hundreds; from mkokoteni carriers, porters, curio sellers among others. Right now, there are major civil works with a superhighway under construction as part of the Nairobi-Thika Highway Project.
- e) Next is a primary school, where by an ambient social environment would be beneficial to the children's development. Adjacent also is a rehabilitated public eco-toilet.
- f) There is also the Meridian Hotel, which could really be boosted by good secure environment. Along the slip road next to Meridian are office buildings with businesses.
- g) At the road island adjacent to the roundabout and along Tom Mboya. Currently, there is a daily security presence of the Kenya Police with officers in trucks ready to quell any fracas occasioned by hawkers. It



doubles up as a home for street families at night. Between Tom Mboya Street and Kirinyaga Street is a string of businesses which good pedestrian circulation and good security could boost a lot.

- h) Along the river valley on the Grogan Road side, there are shanties with all sorts of businesses (this is the most insecure side of Globe Cinema). There is also a swamp along this area where there are tree nurseries. Adjacent to this is the Kenya International Hotel.
- i) Opposite it is the Paramount Plaza which appears to have a low occupancy (maybe because of the poor security). Its best known for housing colleges such as Visions College.
- j) Along the slip road to Westlands is a string of businesses in terms of food kiosks to garages (they have been a source of pollution to the Nairobi River).

Recommendations touching this area that give a possible way forward will be discussed under section 5.5 of the next chapter.

# CHAPTER 5: Summary of Findings, Conclusions & Recommendations

## 5.0 Summary of Findings, Conclusions & Recommendations

Chapter Outline:

*5.1 Introduction*

*5.2 Summary of Findings & Recommendations from the City Council of Nairobi, Urban Design and Planning Control Department*

*5.3 Summary of Findings & Recommendations from the Safety Audit*

*5.4 Findings & Recommendations from the Kenya Police*

*5.5 Findings & Recommendations Regarding the Globe Cinema Roundabout Principal Actors*

### 5.1 Introduction

This chapter provides a summary of the findings drawn from chapter four, and also it gives the conclusions and recommendations of the study based on the objectives of the study. From literature review, we learn that by selectively placing entrances and exits, fencing, lighting and landscape to control the flow of or limit access, natural access control occurs. By using buildings, fences, pavement, signs, lighting and landscape to express ownership and define public, semi-public and private space, natural territorial reinforcement occurs.

#### 5.1.1 Why the emphasis on “Natural?”

Historically, the emphasis has been on the target hardening approach to crime prevention. Relying on mechanical (locks, security systems, alarms, monitoring

equipment, etc.) and organized (security patrols, law enforcement, etc.) crime prevention strategies to make the target harder to get into and can create a fortress effect and “feel” unsafe. This traditional approach tends to overlook the opportunity for natural access control and surveillance. By natural, reference is made to the crime prevention by-product that comes from normal and routine use of an environment.

The CPTED theory advocates that all possibilities for natural crime prevention be exhausted, prior to the involvement of the mechanical and organized strategies. The CPTED approach is much more user friendly and customer service oriented than the traditional target hardening approach.

Example:

*A multiple story office building is designed with a large lobby with elevators, a directory and is expected to be “self serve.” Over time, crimes occur in the lobby area; purse snatches, an assault or two, criminal damage, etc. The owner of the building installs CCTV to monitor the situation. Eventually guards are employed to monitor the CCTV, and further down the road, to watch people come and go. By now, people do not feel comfortable coming here.*

*They feel that it is unsafe, they are being watched on video cameras, and NOW things are so bad that they have to have a security guard in the lobby all the time. A better approach, the CPTED approach, would have been to design in the opportunity for Natural Surveillance from the beginning; possibly a receptionist, or a coffee stand. Put some type of activity into the unassigned space in order to create natural crime*

*prevention. In addition, the CPTED approach is much more customer service oriented. It serves the same purpose as the guard, but does not look as harrowing. In fact, it is much more inviting.*

### **5.1.2 The Three D's**

CPTED involves the design of the physical space in the context of the bona fide user of the space, the normal and expected use of that space, and the predictable behaviour of the bona fide users and offenders. CPTED emphasizes the connection between the functional objective of space utilization and behaviour management. We must differentiate between designation of the purpose of space, its definition in terms of management and identity, and its design as it relates to function and behaviour management. By using the “Three D’s” as a guide, space may be evaluated by asking the following types of questions:

- Designation:

What is the designated purpose of this space?

For what purpose was it originally intended?

How well does the space support its current use or its intended use?

Is there conflict?

- Definition

How is space defined?

Is it clear who owns it?

Where are its borders?

Are there social or cultural definitions that affect how space is used?

Are the legal or administrative rules clearly set out and reinforced in policy?

Are there signs?

Is there conflict or confusion between purpose and definition?

- Design:

How well does the physical design support the intended function?

How well does the physical design support the desired or accepted behaviours?

Does the physical design conflict with or impede the productive use of the space or the proper functioning of the intended human activity?

Is there confusion or conflict in the manner in which physical design is intended to control behaviour?

Once these questions have been asked, the information received may be used as a means of guiding decisions about the use of human space. The proper functions have to be matched with space that can support them. The design has to assure that the intended activity can function well and it has to directly support the control of behaviour.

### **5.1.3 Strategies in Action**

Following are a few examples of CPTED strategies in action. In each there is a mixture of the three CPTED concept keys that is appropriate to the setting and to the security or crime problems. Some of the examples were created in the direct application of CPTED. Others were borrowed from real life situations that were

observed to be working. The most basic, common thread is the primary emphasis on naturalness--simply doing things that you already have to do a little better.

- Provide clear border definition of controlled space
- Provide clearly marked transitional zones that indicate movement from public to semipublic to private space
- Relocate gathering areas to locations with natural surveillance and access control or to locations away from the view of would-be offenders
- Place safe activities in unsafe locations to promote natural surveillance of these activities to increase the perception of safety for normal users and risk for offenders
- Re-designate the use of space to provide natural barriers to conflicting activities
- Improve the scheduling of space to allow for effective use, appropriate “critical intensity” and temporal definition of accepted behaviours
- Redesign or revamp space to increase the perception or reality of natural surveillance
- Overcome distance and isolation through improved communication and design efficiencies.

#### 5.1.4 CPTED Goal

By including CPTED principles in new construction, from the design stage, we can make the built environment safer from the start, rather than waiting for crime problems to develop and depending on law enforcement to handle them after the fact. By reviewing existing problem areas and applying the CPTED principles, those problems can be turned around.

The goal of using the CPTED philosophy is to design and build safer, more productive and user-friendly environments, reducing costs and liability and ultimately, the improvement in the quality of life. There are no hard and fast rules in CPTED. *This* is not good and *that* bad. **CPTED is about sharing ideas and asking questions.**

## 5.2 Summary of Findings & Recommendations from the City Council of Nairobi, Urban Design and Planning Control Department

Officers from the Urban Design and Planning Control Department explained their response to the fortressing of the city in response to the perception and fear of crime by an innovative strategy christened Wave 5 under the Rapid Results Initiative.

In this strategy, a thoroughfare that once existed will be re-opened by the City Council of Nairobi with the participation of stakeholders. The challenge here is consensus building with all stakeholders affected in order to buy into the idea, given

that several of them like the Attorney General Chambers and the High Court of Nairobi consider themselves as high risk areas that would not like the intrusion of public into what they consider their spaces. The image on the next page shows the path that is to be re-opened: it links the entrance of the Parliament Buildings, through the Kenyatta International Conference Centre (KICC) and the Law Courts to Aga Khan Walk and terminates on Moi Avenue, the North-Westerly fringe of the CBD. The challenge associated with this is the political overtones this caucusing can take given that some senior government officers can refuse to give up what they consider privacy intrusion. Herein lies the difficulty in urban politics; one must use both skill and tact including use of contacts in high offices that in order to push such an agenda forward.



## CCN: WAVE 5 – RAPID RESULTS INITIATIVE



The objective of this Wave is to create links along buildings that once had porosity along their shared boundaries but which were sealed because of security concerns. The first phase of this initiative is to address security concerns and build consensus among the building managers and other stakeholders so that the barriers between the various lots can be removed. In cases where this is not feasible, alternative paths can be devised.

The red line shows the link to be created during Wave 5 of the Rapid Results Initiative.

## **5.3 Summary of Findings & Recommendations from the Safety**

### **Audit**

Park: Jeevanjee Gardens, Nairobi

#### Recommendations

Generally speaking, there are behavioural considerations that affect park & public square use. Some of the observations made here would well apply to open spaces in the city, as well as a pedestrian street such as Aga Walk. Important queries that need to be addressed include the time the public can access it, i.e. it is open for 8 hrs, 12 hrs or 24 hrs? Is it safe for children?

Lack of safety for any length of time converts what was to be an urban asset into a liability. Eliminating potential for criminal activity:

Include a child play area to benefit from this passive security. The more it is used by all segments of the local population, children & adults, the more the aspects of community policing are activated to defend it. Unless Nairobians have a strong feeling of ownership about the park and develops political pressure to keep it safe, it is difficult to ensure it is a safe place.

Concentrate activities in a limited number of areas. Concentration of activities results in concentration of people. Programme to concentrate people, thereby include passive surveillance and thus increase safety.

Increase foot traffic through the Gardens. But people will not pass through for the sake of passing; the Gardens path must be made more interesting than any other alternative paths. This is done by creating a food service, event centre, information centres, water displays, circuses, floral displays and play grounds.

If there is a place to stand outside the flow of traffic or even better, a comfortable place to sit down, a social centre is born. This is the occurrence in University of Nairobi Main Campus near the Fountain of Knowledge; outside the Jomo Kenyatta Memorial library and the traffic node between City Hall Annex and Fedha Towers.

In order to increase friendly contact, make activity areas visible from the perimeter of the park. This makes the Gardens attractions visible to passers-by.

In order to activate the Gardens, provide attractive short-cuts through the Gardens. This generates traffic, increasing more social contacts that make park use dynamic. Central Park in Nairobi has such short-cuts, but lacks in interesting stopover points with activity within the park other than as a pedestrian spine.

Provide performance areas along the walk or in the centre of the walk. If the Gardens sponsor acrobats, bands, a dance or drama troupe to use designated areas, interests areas are created that attracts passersby.





Entrance to Jeevanjee Gardens. Gate not a prominent iconic feature as would be expected of a park of this calibre.



Garbage Cans in a state of disrepair



Eco-toilets very well maintained & are an effective way of activating the park by bringing in passers-by.



Street furniture useful in creating zones of passive surveillance along the Moi Avenue



Uncollected garbage is a harbinger of insecurity. Notice the anonymous figure behind the dumpster



Monuments are very useful enlivening and creating a human presence even when the park is empty



Wonderful concept in sprucing up the park seats but maintenance is key in areas that are to invite passers-by



Appropriate signage near park but this has not dissuaded insecurity along this sidewalk





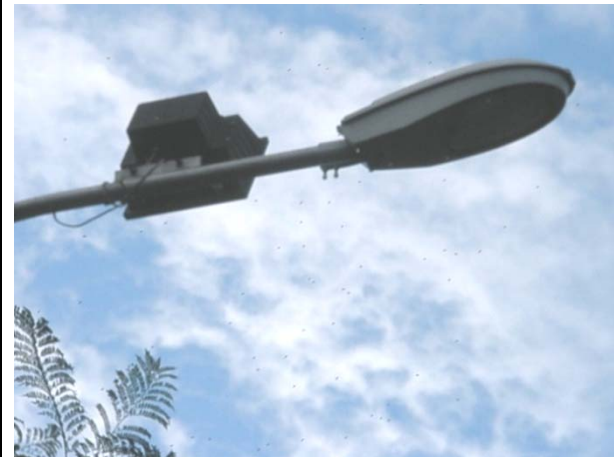
High level security lighting is good for this park



Some street lamps are in a state of disrepair



Tower security lamps, a close-up



Street lamps coupled with security lamps for multi-directional coverage

a) A street: University Way-Moi Avenue, Nairobi



Street furniture along University Way



Knee wall coping can be used as a temporary bench



Coping forms a temporary place to pose with a contact met on the street



A good way to set the seats on a busy highway giving both visibility & privacy within a public turf





However, coping at the Posta Sacco Plaza/KEMU Towers is spiked for security reasons. This is not to prevent trampling upon of the flowers but to keep 'idlers' at bay. The question is whether everyone who stops briefly to meet a social contact can be labeled a security risk.





Alleys off Moi Avenue also are gloomy and not visually appealing. Lighting is poor and there are hardly any activities that enliven these areas as recommended by Jane Jacobs in her book “The Death and Life of Great American Cities”. This state of neglect and the *‘colourful-front and neglected-backstreets mentality’* of Nairobi is one of the reasons unsafe pockets can easily be found within the CBD

b) A pedestrian node: Aga Khan Walk, Nairobi

The most certain way to generate foot traffic, however, is to provide a shortcut to an important destination such as a bus top, a shopping district or a school.

Maintain good visibility into the park. Use the principle of vistas to improve surveillance yet supply privacy. A secure park provides both physical and visual links from the boundary streets and walls into the interiors of the plaza. As such, if Aga Khan Walk is to receive any appreciable amount of evening activities, there must be lighting in the activity centres and along the walkways.

Provide a protection area for small children. Play area for children should be fenced off. Their best protection, however, comes from providing comfortable and convenient seating for their parents, relatives and minders.



Muggings are possible in areas that are isolated. The absence of street furniture here rules out informal surveillance need in CPTED



Though signage is important, it must be balanced with politeness. This sign, in size, location and phrasing, is intimidating



Uncollected garbage is a sign of dereliction that suggests to miscreants the breakdown of law & order



Aga Khan Walk, though in a prominent area of the CBD has lights in a state of disrepair





This car-park is normally filled to capacity during weekdays concealing the transformations that occur over the weekend.



Public amenities such as this eco-toilet are useful in making a public area utilizable. Soon, the area which is frequently visited by pedestrians forms a social centre.

Strengthen the activities by locating them at a point where important circulation paths intersect.

As traffic is drawn to such centres, the chance of meetings between friends and acquaintances increases.



Green spaces are potential gathering areas. Cordoning them off with barbed wire as in this picture serves to isolate the city from its users



When public spaces are owned by the city users, a myriad of activities are generated spontaneously that do not allow for isolation

This reactivation of the city on weekends and holidays is essential in denying miscreants the isolation parameter vital for mischief



Clear signage is essential in design of open spaces





These pictures were taken on a Sunday and children who would normally stay away from them CBD for lack of a play area are now active in the City Square



Walk becomes deserted when centre of activity are not created. Public seat is active



The coping on the knee wall is effective as a bench



Where open spaces exist in public areas, expect activities to happen. Spectators will always need a sitting area

It was noted that after-dark design, discussed earlier on in this report, is a key area whose parameters are to be understood should the fight against crime be won. Lighting design is one of the considerations in this area.

From the study finding on whether the lighting of the place was adequate at night, the study established that majority of the places of concern are usually not lit at night which probably allows for spread of crimes because the street/security lights were not enough. The study also established that the majority of the respondents are not aware of the authority responsible for street lighting because there is no information to this effect and so should lights be broken the streets are likely to remain dark creating an environment for criminals to thrive in. In the areas studied, there were neither informational nor directional signs to show where to get assistance regarding this one item.

On visibility and isolation, the study found that there was a likelihood of many people walking around the park/area during the day, in the evening and in the morning whereas fewer people are likely to be walking around the park late at night. The study also found that majority of the respondents did not know where the surveillance systems could be found and majority of the areas are not patrolled. On the proximity to the nearest point of help, the study found that assistance was near but there was also a felt need for more security personnel to be deployed in the environs of these areas.

On physical security, the study established that there was need for more police posts/kiosks and patrols. It was also clear from the study that target hardening sometimes manifests as unnecessary security features which hinder movement, relaxation and sitting down.

The maintenance of the areas was generally satisfactory as there were trimmed fences that allowed informal surveillance. It was also established that the places did not appear cared for because except of occasional sweeping and trimming of flowers. It was also clear from the study that litter

does not lie around the place. Majority of the respondents knew that the City Council of Nairobi was responsible for maintaining the area and how to contact them.

On overall design, the study established that the overall design was satisfactory. At Moi Avenue, the place looks appealing, is open, has good spacing and is a non-congested area with good vegetation. At the Jeevanjee Gardens, the architectural setting is good, allows easy movement and is less congested. The park was beautiful with vegetation, shade and with flowers as well as seats and grass well set for resting and privacy. Aga Khan Walk is well spaced, accessible, clean, conducive environment, generally good with make shift seating on knee-wall coping and shades near the car park. The University Way was reported to be accessible and not congested, while the City Square was found to be good and satisfactory. The respondents disliked the fact that the sitting in the area was too close to one another and there were few places for recreation. On the other hand, the respondents liked the fact that the place is not so congested and that proximity to the supermarket is good. These results show that the area would not be shunned by users because of lack of ambiance but would be under-utilised due to environmental reasons such as poor security. Poor lighting, presence of idlers/group of youths/criminals and the lack of people around were cited as aspects of the place that may serve to present opportunities for violence or harassment.

On the study findings on the feelings of safety, the study established that the respondents felt safe walking around the place. However, the respondents felt unsafe about the sitting in the areas at certain times due to lax security, idle youths and the fact that the place is open. The places that made the respondents feel most unsafe are the streets that do not have many people and police patrol. The respondents felt least safe at night. In terms of use, the respondents use these areas for recreation, as a walk way and for trading which are normal activities one would expect in an urban



area. On what should be changed to make the place feel better and safer, the study established that addition of lighting, addition of shopping malls to encourage more people walking around, police post, guidance on the expected response should one feel threatened, activate areas that become isolate at certain times of the day/week and frequent cutting of the grass would make the place feel better and safer.

#### **5.4 Findings & Recommendations from the Kenya Police**

Some crime hotspots in the CBD area were identified in recent media articles. I used these as a hypothesis to find out whether such locations existed. In the interviews carried out, the Kenya Police, though cautious about the public going along with information carried by the Press as an official release, went ahead and corroborated the existence of crime hotspots in the CBD. The full text of the interviews is contained in the Appendix 2 at the end of this thesis.

Key trouble spots in the city are:

- a) Nyayo Stadium Roundabout
- b) Haile Selassie Roundabout
- c) Landhies Road Roundabout
- d) Globe Cinema Roundabout
- e) Museum Hill Roundabout

What is the common denominator about these areas? They are all circulation nodes. According to new Criminal Intelligence Unit at the Kenya Police HQs that is currently doing a crime mapping of the city of Nairobi, the above hotspots are all major circulation nodes where traffic slows down.

This also happens to dovetail with the choice method by car-jackers of accosting a person whose residence is highly fortified who while driving in, slows down at his gate.

“Slowing down = Vulnerability”

Could this be a response of the intense target hardening of businesses in the city referring to crime displacement? According to new Criminal Intelligence Unit at the Kenya Police HQs that is currently doing a crime mapping of the city of Nairobi, the above hotspots are all major circulation nodes where traffic slows down. These hotspots are merely epicentres with high concentrations of miscreants waiting for opportunity.

Following known patterns in criminal psychology, if these miscreants fail to get their quarry for the day in their choice spots, crime displacement may occur meaning that the people around them are the next best target; not ‘break-ins’ into shops but unwary passers -by.

This hypothesis is a strong case for the role that traffic jams play in the promulgation of criminal activities, i.e., is a recurrent traffic jam in any part of the city a formidable *security concern*? Is there any relation to the open spaces nearby? This could be the focus of another study.

According to the officers interviewed from the Kenya Police, a sole reliance on available statistics to make inferences on the crime situation in the city may be misleading. This is because:

- a) Available data relates only to crimes considered ‘major’ by both the public and officers manning police desks at the stations but this is not necessarily a reliable measure of insecurity.
- b) One must appreciate the difference between crime occurrence, crime reporting & crime detection.
- c) An awareness campaign to sensitise on the role that the public plays in the fight against crime would be a more effective approach. A predictive research would be needed to establish whether enhanced public awareness on the need to increase crime reporting *whether or not police action follows*, would result in the deployment of officers on patrol in the crime prone areas and thus stem crime occurrence in the city.

## 5.5 Findings & Recommendations Regarding the Globe Cinema Roundabout

From the spatial and activity analysis carried out in the previous chapter, it is evident that resolving the security enigma will require the involvement of all stakeholders. The solution does not wholly rely on police presence in the area but in involving all the people around and taking cognisance of every existing phenomenon. By letting the people own the place, by itself renders the place secure.

Due to insecurity, many people take matatus from Ngara to the city centre hub, dubbed ‘Commercial’. If these people were confident of going on foot after the provision of good security and lighting this would not only make the place lively but revitalise businesses along the route.

By following the example of the backyard lanes where hawkers were relocated and crime minimised, it could be the pilot project of the Nairobi Metropolitan Ministry to make the city a 24 hour metropolis.

The Globe Cinema has a lot of potential in terms of:

- a) Influencing the economic growth in Nairobi CBD and Ngara area.
- b) Being a point from which the Nairobi River Valley may be restored in terms of pollution reduction.
- c) Enhancing the use of pedestrian transport and thus decongesting the city.
- d) As an open area in the city, it is a good advertising zone.
- e) With a good security network in this area, the surrounding entertainment centres like Meridian Hotel, Kenya International Hotel and the former Globe Cinema can be re-activated with new clubs and food joints coming up.
- f) The area can also act as a park where tired pedestrians using the transport exchange could stop over rest and buy refreshment from the hawkers around.
- g) With the success of this area it may act as a case study for revitalisation of other areas.

## **5.6 Conclusion**

From the study findings, the study concludes that majority of the places of concern are usually not lit at night because the street/security lights were not enough which probably allows for spread of crimes. After-dark design in these areas is inadequate.

The study also concludes that there are likely to be many people walking around the park/area during the day, in the evening and in the morning and fewest people late at night. Most of the people are ignorant of where surveillance systems can be found. The study further concludes that though security/help was near, there is need for many assistants in the form of police officers near their recreational areas. The areas also need more police posts, bumps and police patrols. Unnecessary security features hinder movement and relaxation.

The study also concludes that maintenance of the areas was satisfactory and there were trimmed fences that allowed casual surveillance. The places did not feel cared for because the streets were never washed but were only swept. Garbage collection was also satisfactory. Most people know that CCN is responsible for maintaining the area and how to contact them.

The study also concludes that the overall design of the areas was satisfactory. At Moi Avenue, looks pleasing, is open, has good spacing and is non-congested with good vegetation. Jeevanjee has a good spatial setting which allows easy movement and is less congested spiced with enriching architectural elements like monuments and park toilets. The park is beautiful with vegetation, shade and with flowers as well as seats and grass, well set for resting and privacy. However, a state of disrepair is beginning to set in with the laxity evident in repairing weather-worn seats and rubbish bins.

Aga Khan Walk is well spaced, accessible, clean, conducive environment, generally good with seats and shades. The university way is accessible and not congested, while the City Square is good and satisfactory. Most people dislike sitting too close to one another. It was clear from the present study that poor lighting, presence of idlers/group of youths/criminals and lack of people around present opportunities for violence or harassment.

The study finally concludes that most people feel safe walking around the place and feel least safe at night. The areas are used for recreation, as a walk way and for trading. Further, addition of shopping malls to encourage more people walking around, police post, provision of security contacts and frequent cutting of the grass would make the place feel better and safer.

### **5.6.1 Recommendation 1: IMPROVED URBAN DESIGN AND ENVIRONMENT**

CPTED principles are site specific. It is imperative to be aware of the need to consider the type of use, the area, the demographics, etc. when applying CPTED principles. Generally then, business premises in the CBD can be improved in design development by applying the following rule of thumb interventions:

- Locate checkout counters near the front of the shop, clearly visible from outside;
- Window signs should cover no more than 15 percent of the windows to provide clear visibility into and out of the shop;
- Use shelving and displays no higher than 4' to help see who is in the shop
- Avoid creating outdoor spaces that encourage loitering;
- Ensure lighting is consistent throughout the parking lot and into the shop.

The formulation of appropriate legislation to tackle the street menace problem would come in handy. A good example of a law adopted elsewhere to be domesticated is the Safe Streets Act in Canada which divides offences into two categories:

- (i) Aggressive Solicitation
- (ii) Captive Audience Solicitation

Examples of Aggressive Solicitation would lead a person to fear for their safety and include:

- a) Aggressively following people while asking them for money.

- b) Blocking a person's passage while demanding money when the person is trying to walk down the street.
- c) Making rude comments or lewd gestures if someone refuses to give you money, if those actions would cause a reasonable person to fear for their safety.
- d) Any other action that would make a reasonable person fear for their safety.

Examples of Captive Audience Solicitation include approaching a person while they are in a captive audience situation.

A captive audience situation includes being at a bus stop, an ATM (bank machine), or while a person is sitting in a car at a stop light.

This law is unique and encourages compliance because of the social nature of its penalties. After a person is arrested under the Safe Streets Act and Trespass Act<sup>33</sup>, Police have the option to educate, issue a violation ticket or issue a provincial appearance notice requiring a person to appear in court. For situations where a person continues the offence or repeats it, Police have the authority to arrest. All fine payment options including mail-in options are listed on the back of the violation tickets. A person who is issued a violation ticket has 30 days to pay it, or take steps to dispute the ticket. If the person does not pay or dispute the ticket, they are deemed guilty and the fine amount becomes payable to the Crown. The person would then be subject to collection activity. Other interventions include, but are not limited to, the following:

1. Conducting a Situational Analysis of existing urban development plans and designs for CBD;
2. Assessment/investigation of unrealized (security-related) urban development plans and schemes;

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<sup>33</sup> [http://www.ag.gov.bc.ca/safe-streets/and Greater Vancouver Cold/Wet Weather Strategy.](http://www.ag.gov.bc.ca/safe-streets/and%20Greater%20Vancouver%20Cold/Wet%20Weather%20Strategy.)  
[www.shelternetbc.ca/cwws.htm](http://www.shelternetbc.ca/cwws.htm)

3. Creation of public awareness on Nairobi's urban development visions/plans/designs etc;
4. Naming of streets and physical address system;
5. Execution of Hawkers Booths student design competition;
6. Sensitisation of public on planning tools (safety audits);
7. Conducting of safety audit in 2 pilot locations;
8. Sensitization and training on security-conscious urban design;
9. Develop conducive pedestrian walkway and cycling way in 3 pilot locations;
10. Upgrading of existing recreational spaces and facilities in residential areas;
11. Upgrading of technical capacity via GIS mapping of crime in Nairobi.

#### **5.6.2 Recommendation 2: PROVIDING SUPPORT TO GROUPS AT RISK- WOMEN**

1. Increase budgetary allocations for Gender Sensitive Action Plans
2. Lobby for maintenance of roads in unsafe areas
3. Gender dialogues with policy makers, public, CCN departments and relevant stakeholders;
4. Implement gender sensitive policies are urban design and safety.
5. Raise awareness in the community of women safety.
6. Allocate specific resources to enhance women safety at community level including community policing that is sensitive to women concerns and aspects of crime



7. Develop and streamline gender sensitive police stations in the city with a view to replicating the pilots to other parts of the country.

### **5.6.3 Recommendation 3: PROVING SUPPORT TO GROUPS AT RISK CHILDREN AND YOUTH**

Enhance Youth participation in local governance

1. Form a children and youth committee within CCN and subsequently a department;
2. Develop and adopt an integrated city wide youth policy at the local level;
3. Set up a children and Junior Council;
4. Facilitating youth participation in the planning and prioritization stages of Local Authority Service Delivery Plans (LASDAP);
5. Youth participation in constituency consultation meetings;
6. In order to provide alternatives and better livelihoods to street youth and children we need to subsidize group licences for youth involved in income generating activities and reserve a quota of market stalls for youth;
7. Increase recreational and sporting facilities for youth and children;
8. Provide alternatives and better livelihoods to street youth and children;
9. Establishment of reception centres as alternatives to holding street children and youth in cells;
10. Use of music, arts and culture to provide better livelihoods for street youth and youth at risk.

A further research that seeks to study Nairobi's urban fabric and pick out elements in design that carry an implied "secure building" notion needs to be carried out. These can either be features

proposed by architects or mere retrofits by users. Their impact on design intent, building usability and aesthetics can then be scrutinised. Proposals can then be made of how security features can be addressed in design without brutalising the aesthetics and other basic design intentions such as access and route of free movement.

# Appendix 1

## SAFETY AUDIT

### What is a Safety Audit?

This is a participatory tool used to examine specific locations to assess how safe it feels for users of certain urban spaces and involve them in the solution of making problem locations/situations safer.

### Aim and objectives

The aim of a safety audit is to reduce the opportunity for criminality such as muggings, assaults and harassment. Women are normally used as the benchmark for assessing the fear of crime and vulnerability factors. A place that discourages harassment or rather caters for women's safety will indeed hinder other crimes.

The goal is to make the community/city safe 24 hrs a day for women and other vulnerable groups. A safety audit is supposed to influence urban planners to create an urban space which offers fewer opportunities for urban violence/crime to take place.

### Safety Audit Process

Safety audits usually involve:

- Community consultation to understand safety concerns and identify particular areas in the community where safety is a concern.
- A walkabout to assess the physical, social and institutional factors that affect women's safety and sense of safety.

- An exploration of solutions both during and after the audit
- Recording of observations and recommendations by project staff during each audit (on paper, but could also be on film and / or video)
- Presentation of the results, through reports or events.
- Working with those responsible for implementation.

Recommendations for change are most likely to include:

- Making changes to physical environments;
- Making changes to social environments through supportive programming, education and awareness;
- Planning over the long term, through incorporating women's safety into community planning, and other policies.

Inter-agency networking and community collaboration are key to achieving results.

## QUESTIONNAIRE

UNIVERSITY of NAIROBI

SCHOOL OF THE BUILT ENVIRONMENT

### SAFETY AUDIT

Carried out along UNIVERSITY WAY-MOI AVENUE, at JEVANJEE GARDENS and AGA KHAN WALK, NAIROBI

24 – 27 May 2010

Date \_\_\_\_\_

Time \_\_\_\_\_

Location \_\_\_\_\_

#### Introduction

Good morning Sir/Madam. Can I ask you a few questions?

We are carrying out a research on behalf of the School of the Built Environment, University of Nairobi, to understand user perception of the safety of public spaces in the city. I will ask you a few questions to find out what users / passers-by of this area think and feel.

**Note:** *The identity of the participant is NOT needed so that the anonymity of information shared is assured.*

**Respondent's gender:**

male

female

**Respondent's age bracket:**

Below 15

15 - 25

25 - 40

40 - 60

above 60

**1. Lighting**

Do you think the lighting of this place is adequate during the night?

Yes

No

Why?

.....  
.....  
.....  
.....

Do you know whom to call or inform if the lights are broken?

Yes

No

Comments

.....  
.....  
.....  
.....

## 2. Signage

a. Are there signs which show you where to get emergency assistance if needed?

Yes

No

b. Opinion on overall signage

.....

.....

## 3. Visibility & Isolation

a. Are many people likely to be walking around / using the park/area?

Early in the morning?  none  a few  several  many  don't know

During the day?  none  a few  several  many  don't know

In the evening?  none  a few  several  many  don't know

Late at night?  none  a few  several  many  don't know

b. Do you know if there is a surveillance system?  Yes  no

c. Do you know if the area patrolled?  Yes  no

d. How far, in your opinion, is the nearest form of assistance/help (security personnel, police post, telephone, etc.)?

e.  Very near  near  not near/not far  far

f.  Too far  not clear

g. Comments:

.....  
.....  
.....  
.....

**4. Physical Security:**

a. In your opinion, what physical security features are lacking in this area and should be added?

.....  
.....

b. What security features in area do you consider unnecessary?

.....  
.....

c. Are there security features in this area that hinder:

- Movement       Sitting down       relaxation       meeting friends?

[Please tick the appropriate box(es)]

**5. Maintenance**

a. General opinion of maintenance:

- Very poor       poor       satisfactory       good       very good



Explain:

.....  
.....

b. Does the place feel cared for?

Yes

No

Explain:

.....  
.....

c. Does litter usually lie around?

Yes

No

d. Do you know who is responsible for maintaining the area and how to contact them?

Yes

No

Comment:

.....  
.....

.....  
.....

**6. Overall Design**

a. Impression of overall design of this area:

b.  Very poor  poor  satisfactory  good  Very good

Explain:

.....  
.....  
.....  
.....

c. What elements don't you like about the area?

.....  
.....  
.....  
.....  
.....

d. What elements do you like about the place?



.....  
.....

c. Which places here make you feel most unsafe? Why?

.....  
.....  
.....

d. At what time do you feel least safe?

- in the early morning       during the day       at night
- in the evening       all the time.

e. How do you use this place?

- As a walkway       recreational       trading       preaching
- Other:

.....

**8. Improvements**

What should be changed to make this place (feel) better and safer?.....

.....

.....

.....

9. What is your view of the presence of hawkers in this area?

- Activate the area
- Dangerous, should not be allowed
- Helpful, to be encouraged
- No view

*Thank you so much for your time in taking part in this safety audit!*

# **Appendix 2**

## **DATA ANALYSIS**

### **A) Introduction**

This appendix presents analysis and findings of the study as set out in the research methodology. The results are presented on the security concerns and crime prevention responses impacting design in Nairobi. The data was gathered exclusively from questionnaire as the research instrument. The questionnaire was designed in line with the objectives of the study. To enhance data quality of data obtained, Likert type questions were also included whereby respondents indicated the extent to which the variables were practised or challenges encountered in a point Likert scale.

**100** out of the **120** respondents targeted filled-in and returned the questionnaires making a response rate of **89%**. This commendable response rate was made a reality after the researcher carefully selected areas where the respondents would be relaxed to fill-in and return the questionnaires.

## B) General Information

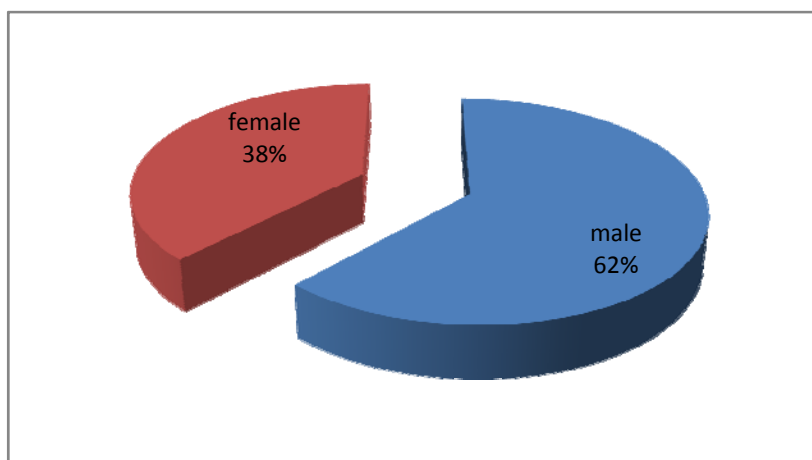
Gender	Frequency	Percent
Male	62	62.0
Female	38	38.0
Total	100	100.0

### Gender

**Table 3 - Source: Author, 2010**

The study sought to know the gender of the respondents. From the study, 62% of the respondents were males while 38% of the respondents were females. This indicates that majority of the people found in the field where the study collected data are males. A summary of the gender information is given below.

## C) Gender of the Respondents



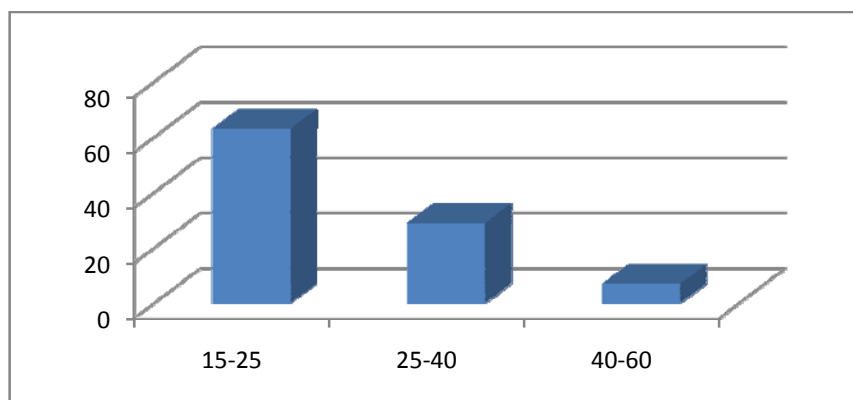
**Graph 1 - Source: Author, 2010****D) Age bracket**

Category	Frequency	Percent
15-25	63	63.0
25-40	30	29.0
40-60	7	7.0
Total	100	100.0

**Table 4 - Source: Author, 2010**

The study also investigated the age of the respondents. Majority of the respondents (63%) were aged between 15 and 25 years, 30% of the respondents were aged between 25 and 40 years while 7% of the respondents were aged between 40 and 60 years. This implies that majority of the respondents were aged below the age of 40 years. These, first of all, would be the principal users of the areas where the survey was carried for reasons such as relaxing with friends, waiting for either a contact or an appointment in the many offices within the area. These are the people who are at a risk of facing safety problems when moving along the corridors in the city hence are conversant with the issues sought by the study and volunteered as respondents.



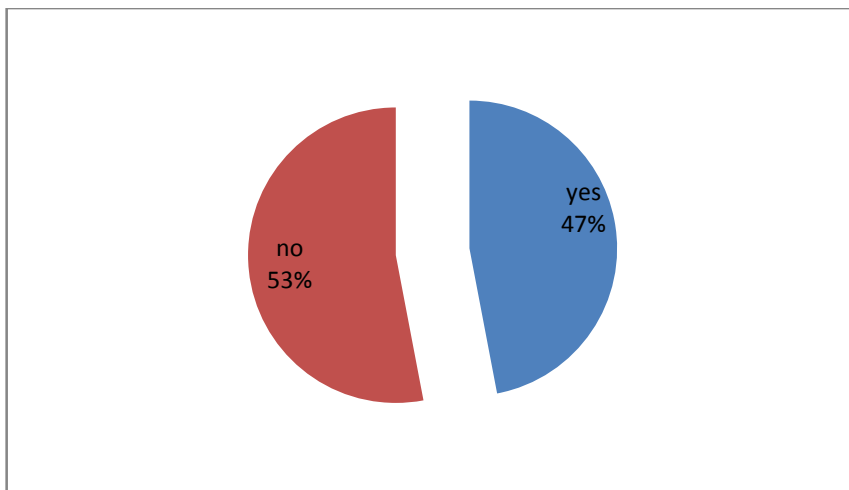
**Age of the Respondents****Graph 2 - Source: Author, 2010****E) Security Concerns and Crime Prevention Responses Impacting Design****Whether the lighting of the place was adequate at night**

Response	Frequency	Percent
yes	47	47.0
no	53	53.0
Total	100	100.0

**Table 5 - Source: Author, 2010**

The study required the respondents to indicate whether the lighting of the places of concern was adequate during the night. The study found that 53% of the respondents said that the places of concern were not well lit at night while 47% of the respondents indicated that the places of concern were well lit at night. This shows that majority of the places of concern are usually not lit at night which probably allows for spread of crimes. The figure below gives a summary of the

same information. The fact that both groups are almost tied in their responses may also suggest some amount of guesswork. The people interviewed may be diurnal users of the spaces unable to precisely comment on the nocturnal conditions.



**Graph 3 - Source: Author, 2010**

**F) Whether the respondents knew who to call if lights were broken**

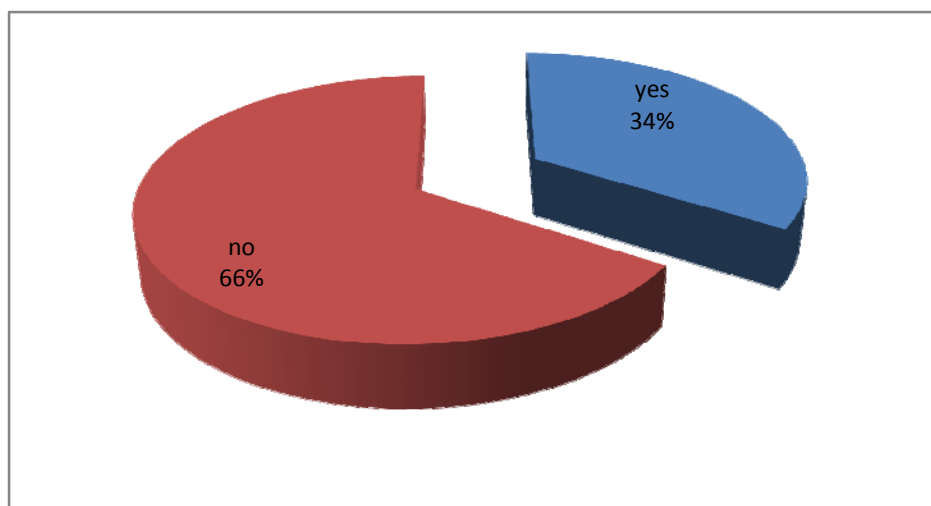
Response	Frequency	Percent
yes	34	34.0
no	66	66.0
Total	100	100.0

**Table 6 - Source: Author, 2010**

The study sought to investigate whether the respondents knew who to call if the lights were broken. 66% of the respondents indicated that they did not know who to call if the lights were

broken while 34% of the respondents knew who to call if the lights were broken. This implies that majority of the respondents are not aware of the possible authority which takes care of street lighting. In the event that lights are broken the streets are likely to remain in dark longer than an informal surveillance and feedback system would provide. This would leave the spaces free for criminals to thrive. This information is presented in the figure below.

**Figure 4.1: Whether the respondents knew who to call if lights were broken**



**Graph 4 - Source: Author, 2010**

When asked to comment on whether they knew who to call if the lights were broken, the respondents indicated that they did not know because there were no contacts.

**G) Signage**

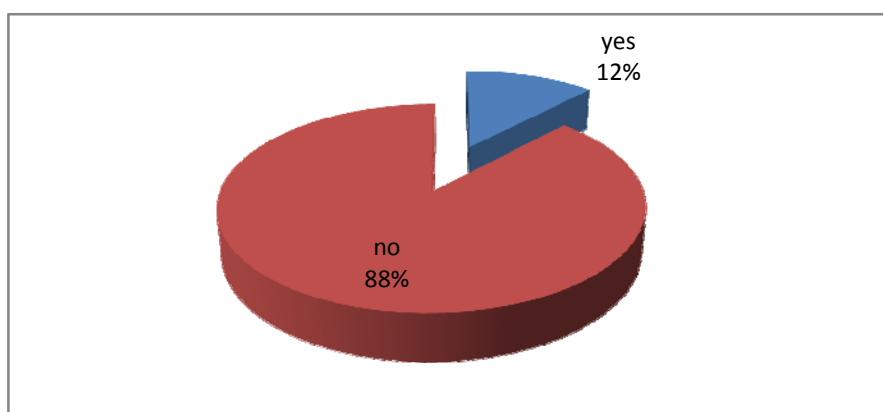
**Table 4.2: Presence of signs to show where to get emergency assistance**

Response	Frequency	Percent
yes	12	12.0
no	88	88.0
Total	100	100.0

**Table 7 - Source: Author, 2010**

The study sought to know whether the respondents knew of signs which show them where to get emergency assistance if needed. 88% of the respondents indicated that there were no signs to show where to get assistance if needed while 12% of the respondents indicated that there were signs to show where to get assistance if needed.

**Figure 4.1: Presence of signs to show where to get emergency assistance**



**Graph 5 - Source: Author, 2010**

Those who indicated that there were no signs to show where to get emergency assistance said this was because there were no contacts.

#### H) Visibility and Isolation

Response	Mean	Std. Deviation
people likely to be walking around, early in the morning	3.04	1.082
people likely to be walking around, during the day	3.69	.647
people likely to be walking around, in the evening	3.41	.767
people likely to be walking around, late at night	2.75	1.388

**Table 8 - Source: Author, 2010**

The study sought to know when there was the likelihood that many people would be walking around the park/area. Majority of the respondents indicated that there was likely to be many people walking around the park/area during the day as indicated by a mean score of 3.69, many people are likely to be walking around the park in the evening as shown by a mean score of 3.41, many people are also likely to be walking around the park in the morning as shown by a mean score of 3.04, while majority indicated that it was likely that a few people are walking around the park late at night.

#### Comments on visibility and isolation

The respondents were required to give comments on the visibility and isolation concerning the nearness of security help/personnel. The respondents indicated that there was need for many

assistants near their place. Jeevanjee was a special case where the respondents indicated that central police is across the road.

#### I) Whether the respondents know if there is a surveillance system

Response	Frequency	Percent
yes	24	24.0
no	76	76.0
Total	100	100.0

**Table 9- Source: Author, 2010**

The study sought to investigate whether the respondents knew if there was a surveillance system. 76% of the respondents indicated that they didn't know of the surveillance systems, while 24% of the respondents indicated that they knew of the surveillance systems. This implies that majority of the respondents did not know where the surveillance systems could be found.

#### J) Whether the respondents knew if the area was patrolled

Response	Frequency	Percent
yes	45	45.0
no	55	55.0
<b>Total</b>	<b>100</b>	<b>100.0</b>

**Table 10 - Source: Author, 2010**

The respondents were requested to indicate whether they knew if the area was patrolled. 55% of the respondents indicated that the area was not patrolled, while 45% of the respondents indicated that the area of concern was patrolled. This implies that majority of the areas are not patrolled.

#### **K) The distance of the nearest help/security**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
very near	15	15.0
near	37	37.0
not near/not far	20	20.0
far	12	12.0
Too far	4	4.0
not clear	12	12.0
<b>Total</b>	<b>100</b>	<b>100.0</b>

**Table 11 - Source: Author, 2010**

The study sought to know the distance of the nearest security/help. 37% of the respondents indicated that the security help was near and 20% of the respondents indicated that the security help was neither near nor far. Those who said that security help was far and those who said it was not clear were represented by 12% in each case.

#### **L) Physical Security**

The study sought the respondents' opinion about what security features that were lacking in the

area and should be added. The respondents indicated need for more security officers, police post, bumps and police patrols.

The study requested the respondents to indicate the security features in the area that they considered unnecessary. The respondents indicated features like big flower beds, short gates/rails with spikes, bushes.

### Security features that hinder

Response	Frequency	Percent
movement	36	36.0
sitting down	20	20.0
relaxation	31	31.0
meeting friends	13	13.0
Total	100	100.0

**Table 12- Source: Author, 2010**

On whether there are security features that hinder movement, sitting down, relaxation and meeting friends, 36% of the respondents indicated that the unnecessary security features features hinder movement, 31% said that the unnecessary features hinder relaxation, 20% of the respondents indicated that the unnecessary security features hinder sitting down, while 13% of the respondents said that the unnecessary security features hinder meeting of friends.

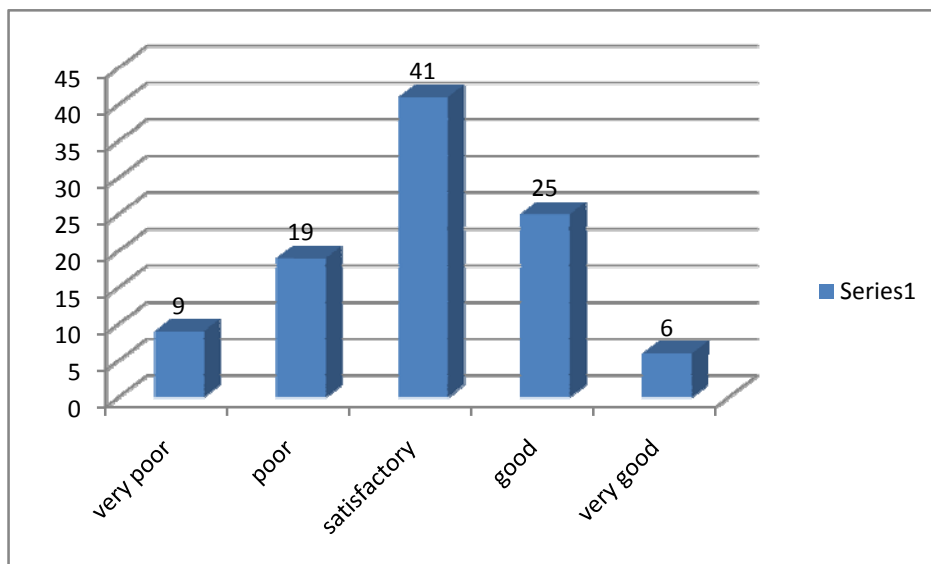


**M) General opinion of maintenance**

Response	Frequency	Percent
very poor	9	9.0
poor	19	19.0
satisfactory	41	41.0
good	25	25.0
very good	6	6.0
Total	100	100.0

**Table 13- Source: Author, 2010**

The respondents were requested to give their general opinion of maintenance. From the study findings, 41% of the respondents said it was satisfactory, 25% said it was good, 19% said it was poor, 9% said it was very poor while a small proportion of the respondents (6%) said it was very good.



**Graph 6 - Source: Author, 2010**

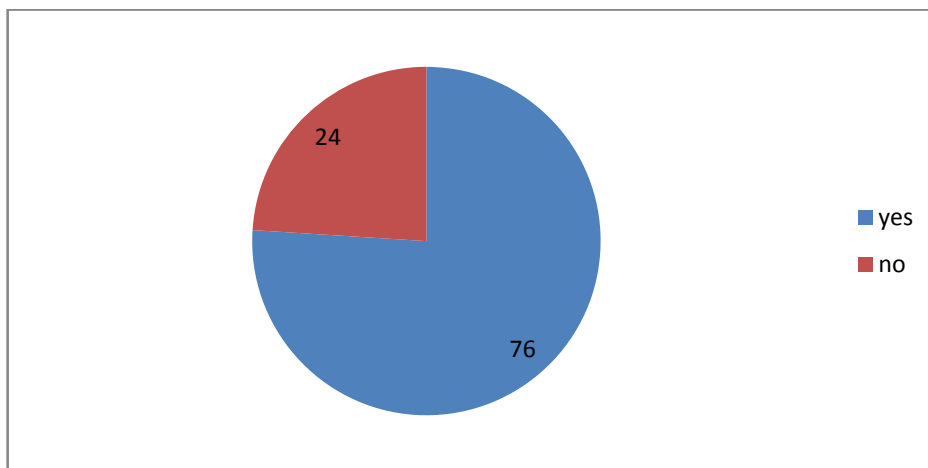
The respondents were asked to explain their response above. The respondents indicated that there was no enough security, the security was in some areas, buildings were poorly painted and there were trimmed fences.

**N) Place feel cared for**

Response	Frequency	Percent
yes	76	76.0
no	24	24.0
	100	100.0

**Table 14- Source: Author, 2010**

The study further sought the respondents’ opinion on whether the place feel cared for. From the study findings, 76% of the respondents said the place felt cared for while 24% said it does not.



**Graph 7 - Source: Author, 2010**

**Comment on whether the place feel cared for**

The respondents were required to indicate whether the place felt cared for. They indicated that the

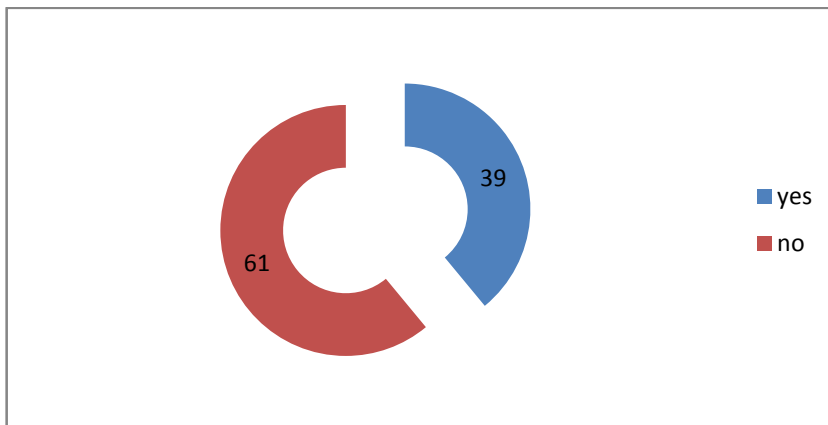
place felt not cared for because the streets were never washed but were only swept, trimming of flowers, the street is not that long.

**O) Litter usually lies around**

Response	Frequency	Percent
yes	39	39.0
no	61	61.0
Total	100	100.0

**Table 15- Source: Author, 2010**

On whether litter usually lies around the place, 61% of the respondents indicated that litter does not lie around the place while 39% of the respondents said that litter lie around the place.



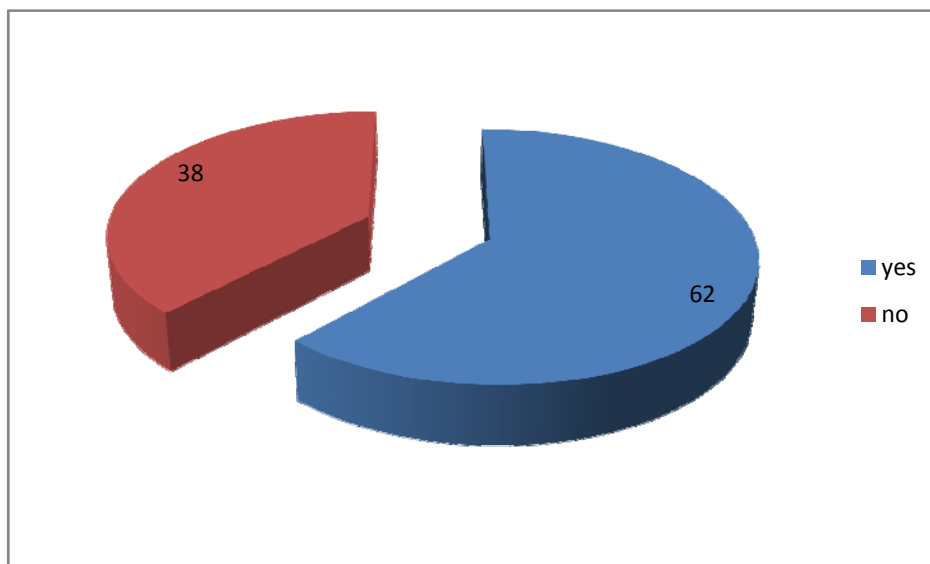
**Graph 8 - Source: Author, 2010**

**P) Whether the respondents know who is responsible for maintenance and how to contact them**

Response	Frequency	Percent
yes	62	62.0
no	38	38.0
Total	100	100.0

**Table 16- Source: Author, 2010**

The study further sought to establish whether the respondents knew who is responsible for maintaining the area and how to contact them. According to the study results, 62% of the respondents indicated that they knew who is responsible for maintaining the area and how to contact them while the rest of the respondents (38%) said they did not know. Those who said they knew who was responsible for maintaining the area indicated that the city council of Nairobi was responsible.



**Graph 9 - Source: Author, 2010**

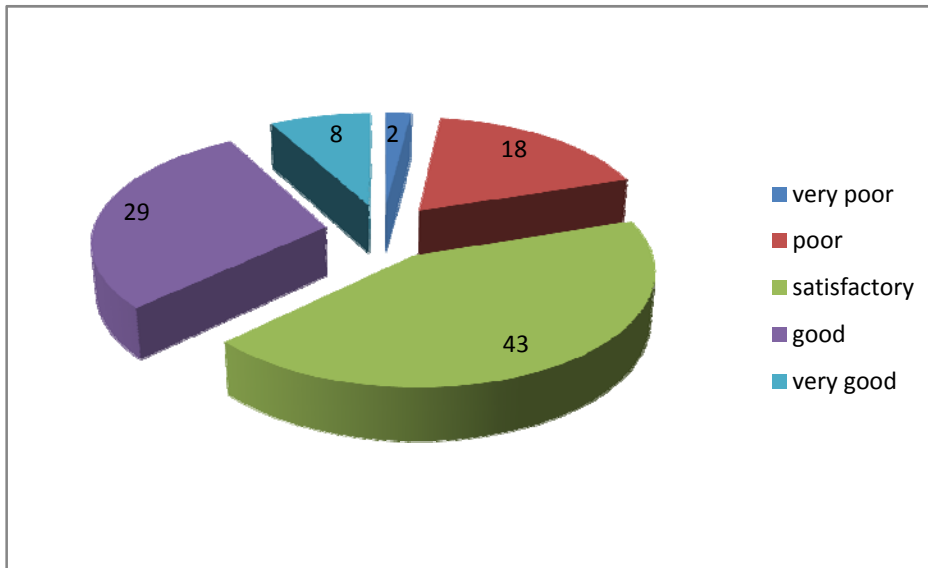
## Q) Overall Design

### Impression of overall design

Response	Frequency	Percent
very poor	2	2.0
poor	18	18.0
satisfactory	43	43.0
good	29	29.0
very good	8	8.0
Total	100	100.0

**Table 17- Source: Author, 2010**

The study sought to find out the respondents impression of overall design of this area. From the study findings, majority of the respondents (43%) said that the overall design was satisfactory, 29% said it was good, 18% said that it was poor 8% said it was very good while a small proportion of the respondents (2%) indicated that the overall design was very poor.



**Graph 10 - Source: Author, 2010**

The study requested the respondents to explain their response on impression of overall design of the area. The respondents contacted along Moi Avenue indicated that the roads are poorly maintained; others indicated that area looks fine, others indicated that the area is open, while others said that the area has good spacing and a non-congested area with good vegetation. There were special cases cited in Jeevanjee where the respondents indicated that the architectural setting is good, allows easy movement and is less congested. The respondents also indicated that the park was beautiful with vegetation, shade and with flowers as well as seats and grass well set for resting and privacy. The respondents contacted along Aga Khan Walk indicated that the walk was well spaced, accessible, clean, conducive environment, generally good with seats and shades. The university way was reported to be accessible and not congested, while the City Square was indicated to be good and satisfactory.

#### **R) What elements don't you like about the area?**

On the elements the respondents they disliked about the areas, respondents along Jeevanjee indicated that the sitting was too close to one another and few places for recreation.

### What elements do you like about the place?

On the elements the respondents liked about the area, the respondents indicated that the place is not so congested and that proximity to the supermarket is good.

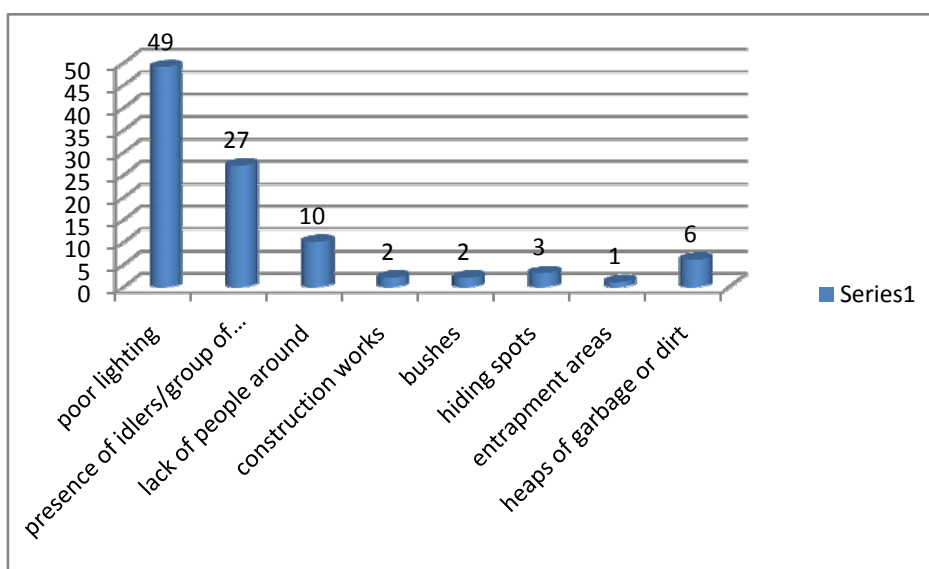
### S) Things that present opportunity for violence

Response	Frequency	Percent
poor lighting	49	49.0
presence of idlers/group of youths/criminals	27	27.0
lack of people around	10	10.0
construction works	2	2.0
bushes	2	2.0
hiding spots	3	3.0
entrapment areas	1	1.0
heaps of garbage or dirt	6	6.0
Total	100	100.0

**Table 18- Source: Author, 2010**

The respondents were further requested to identify things about the place that present opportunities for violence or harassment. According to the findings 49% of the respondents said it was poor lighting, 27% of the respondents said it was the presence of idlers/group of youths/criminals, 10% of the respondents said it was lack of people around, 6% of the respondents

said it was heaps of garbage or dirt, 3% of the respondents said it was hiding spots, those who indicated bushes and construction works were represented by a 2% while 1% of the respondents felt it was entrapment areas that present opportunities for violence or harassment.



Graph 11 - Source: Author, 2010

T) Feelings of Safety

Feel safe walking around

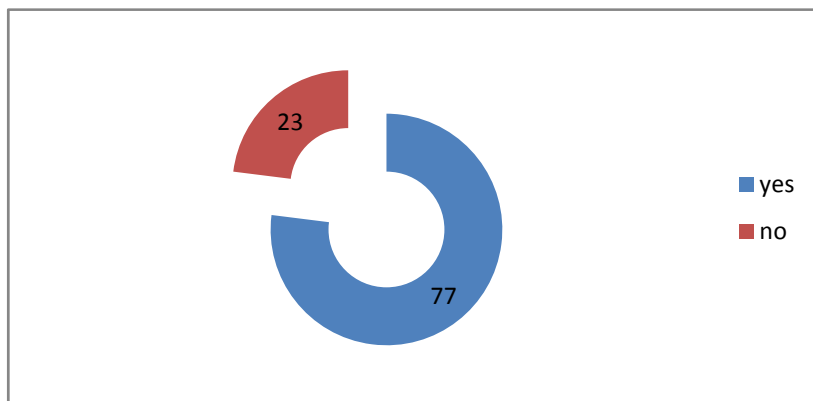
Response	Frequency	Percent
yes	77	77.0
no	23	23.0
Total	100	100.0

Table 19- Source: Author, 2010

The study also required the respondents to indicate whether they felt safe walking around the place. From the results, 77% of the respondents said they safe walking around the place while



23% of the respondent indicated that they don't feel safe. This implies that most of the respondents felt that the place is safe.



**Graph 12 - Source: Author, 2010**

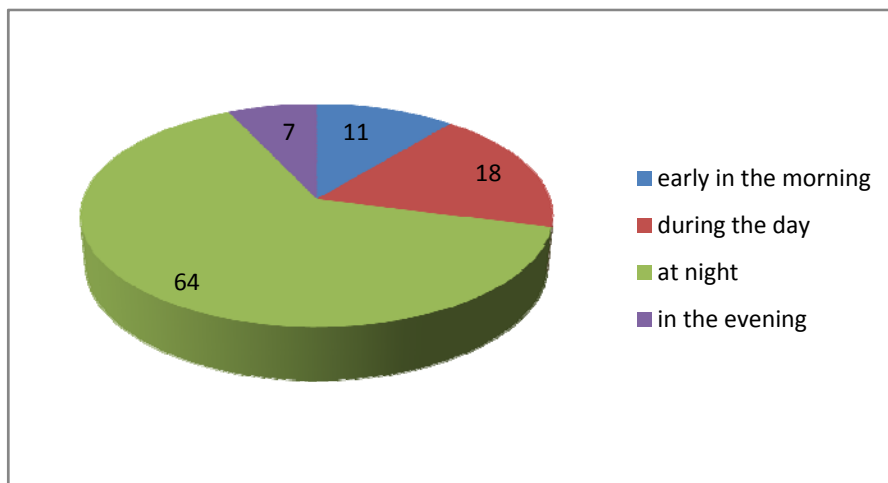
The study sought to establish what the respondents felt unsafe about the area. From the findings, the respondents felt unsafe about central police station, loose security, idle youths, the place is open. The respondents were requested to indicate the places that made them feel most unsafe. The respondents indicated that streets that don't have many people, police patrols.

**Time you feel least safe**

Response	Frequency	Percent
early in the morning	11	11.0
during the day	18	18.0
at night	64	64.0
in the evening	7	7.0
Total	100	100.0

**Table 20- Source: Author, 2010**

According to the study findings on the time that the respondents felt least safe, majority of the respondents (64%) said that they felt least safe at night, 18% said that they felt least safe during the day, 11% of the respondent said they felt least safe early in the morning while 7% of the respondents said that they felt least safe in the evening.



Graph 13 - Source: Author, 2010

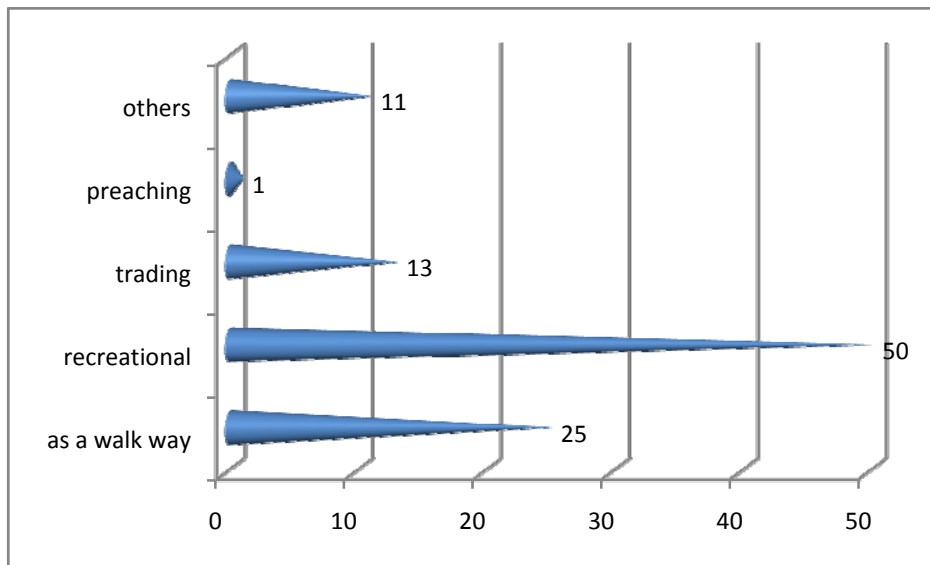
U) How the respondents use the space

Response	Frequency	Percent
as a walk way	25	25.0
recreational	50	50.0
trading	13	13.0
preaching	1	1.0
others	11	11.0
<b>Total</b>	<b>100</b>	<b>100.0</b>

Table 21- Source: Author, 2010

On how the respondents use the space, 50% of the respondents said that they use it for recreation,

25% said they use it as a walk way, 13% said they use it for trading, 11% said they use it for other purposes while a small proportion of the respondents as shown by 1% of the respondents said they use it for preaching.



**Graph 14 - Source: Author, 2010**

#### **V) Improvements**

On the question on what should be changed to make the place feel better and safer, majority of the respondents said that addition of lighting, addition of shopping malls to encourage more people walking around, police post, contacts provided, regulate time of closing the entertainment clubs and often cutting of the grass would make the place feel better and safer.

# Appendix 3

## A3.1 CRIME STATISTICS

(Source: Kenya Police website- [www.kenyapolice.gov.ke](http://www.kenyapolice.gov.ke))

In line with principles openness and public accountability, the Kenya Police Force publishes detailed figures for the number of crimes reported within its operational area.

### The Tables

Statistics are listed below in chronological order starting from January 2006 to December 2008. To scroll straight to the beginning you require the following links:

2006, 2007, 2008

2006-2007

2007-2008

## COMPARATIVE CRIME FIGURES FOR 2006, 2007 AND 2008 IN THE MONTHS OF JANUARY TO DECEMBER

MONTH	2006	2007	2008	TOTAL
JANUARY	6414	6197	4,410	17,021
FEBRUARY	5990	6303	4,782	17,075
MARCH	6541	5702	5,058	17,301
APRIL	4903	5026	4,957	14,886
MAY	6576	5214	6,216	18,006
JUNE	5190	4410	4,794	14,394
JULY	6588	5232	6,355	18,175
AUGUST	5690	5949	4,982	16,621
SEPTEMBER	6199	5489	5,448	17,136
OCTOBER	6259	5157	5,693	17,109
NOVEMBER	5785	4700	5,346	15,831
DECEMBER	6090	3649	5,435	15,174
<b>TOTAL</b>	<b>72225</b>	<b>63028</b>	<b>63476</b>	<b>198,729</b>

The

months of July, May, March, September and October had the highest number of crimes reported for the three years. Conversely the months of November, December and April and June had the least number of crimes reported.

### COMPARATIVE PROVINCIAL CRIME FIGURES FOR THE YEARS 2006, 2007 AND 2008

PROVINCE	2006	2007	2008	TOTAL
NAIROBI	11,302	6395	4667	22,364
R/VALLEY	14,730	12590	9945	37,265
CENTRAL	10,900	10187	12130	33,217
EASTERN	9,812	9615	9704	29,131
NYANZA	7,962	7756	8739	24,457
COAST	8,601	8182	9639	26,422
WESTERN	7,600	7088	7402	22,090
N/EASTERN	949	786	849	2584
RAILWAYS	204	148	122	474
KAPU	165	281	279	725
<b>TOTALS</b>	<b>72,225</b>	<b>63028</b>	<b>63476</b>	<b>198,729</b>

The table shows Rift Valley province, Central province and Coast Provinces had the highest number of crimes reported for the three years. Conversely, KAPU and Railways had the least number of crimes reported.

## COMPARATIVE CRIME FIGURES FOR THE YEARS 2006, 2007 AND 2008

S/NO	OFFENCES	2006	2007	2008	TOTAL	% OF THE TOTAL
1	<i>Homicide</i>	2090	1912	2037	6039	3
2	<i>Offences Against Morality</i>	3525	3673	3116	10314	5
3	<i>Other Offences Against Persons</i>	18723	17831	16496	53050	27
4	<i>Robbery</i>	5234	3492	3401	12127	6
5	<i>Breaking</i>	7420	6337	6626	20383	10
6	<i>Theft Of Stock</i>	2209	1568	2269	6046	3
7	<i>Stealing</i>	10874	10749	11435	33058	17
8	<i>Theft By Servant</i>	2700	2169	2387	7256	4
9	<i>Vehicle And Other Thefts</i>	1660	1221	1358	4239	2
10	<i>Dangerous Drugs</i>	5821	5401	4407	15629	8
11	<i>Traffic Offences</i>	62	46	120	228	0
12	<i>Criminal Damage</i>	3518	2770	3760	10048	5
13	<i>Economic Crimes</i>	1873	1908	1898	5679	3
14	<i>Corruption</i>	252	177	133	562	0
15	<i>Offences Involving Police Officers</i>	76	32	33	141	0
16	<i>Offences Involving Tourist</i>	84	10	6	100	0
17	<i>Other Penal Code Offences</i>	6104	3732	3994	13830	7
18	<b>TOTAL</b>	<b>72,225</b>	<b>63028</b>	<b>63476</b>	<b>198,729</b>	<b>100</b>

S/NO	CATEGORIES OF CRIMES		2006	2007	2008
1	HOMICIDE	a) Murder	1286	1261	1394
		b) Manslaughter	33	47	29
		c) Infanticide	48	20	29
		d) Procuring Abortion	58	38	23
		e) Concealing Birth	114	112	73
		f) Suicide	362	235	280
		g) Causing Death by Dangerous Driving	189	199	209
		sub-Total	2090	1912	2037
2	OFFENCES AGAINST MORALITY	a) Rape	1291	876	735
		b) Defilement	1445	1984	1849
		c) Incest	134	181	123
		Un-natural offences sodomy	170	198	163
		e) Bestiality	29	64	26
		f) Indecent assault	229	191	135
		g) Abduction	220	173	73
		h) Bigamy	7	6	12
sub-Total	3525	3673	3116		
3	OTHER OFFENCES AGAINST PERSONS	a) Assault	13186	12089	11479
		b) Creating Disturbance	5028	5361	4693
		c) Affray	509	381	324
		sub-Total	18723	17831	16496
4	ROBBERY	a) Robbery	1257	759	864
		b) Robbery with Violence	3594	2643	2401
		c) Carjacking	158	47	91
		d) Robbed of M/v	79	25	29



S/NO	CATEGORIES OF CRIMES		2006	2007	2008
		e) Cattle Rustling	146	18	16
		sub-Total	5234	3492	3401
5	BREAKINGS	a) House Breaking	3080	2304	2483
		b) Burglary	2069	1767	1737
		c) Other Breaking	2271	2266	2406
		sub-Total	7420	6337	6626
6	THEFT OF STOCK		2209	1568	2269
7	STEALING	a) Handling Stolen Property	619	345	423
		b) Stealing from Person	1591	1430	1202
		c) Stealing by Tenants/lodgers	141	164	199
		d) Stealing from a building	585	423	376
		e) General Stealing	7938	8387	9235
		sub-Total	10874	10749	11435
8	THEFT BY SERVANT	a) Stealing by Directors	33	62	121
		b) Stealing by Agents	286	233	294
		c) Stealing by employee/servant	2381	1874	1972
		sub-Total	2700	2169	2387
9	VEHICLE AND OTHER THEFTS	a) Theft of M/V	695	557	606
		b) Theft from M/V	313	217	219
		c) Theft of M/V parts	355	284	308
		c) Theft o f Motor cycle	297	163	225
10	DANGEROUS DRUGS	a) Possession	5012	4744	3969
		b) Handling	105	69	63
		c) Trafficking	298	233	177
		d) Cultivating	132	155	67

S/NO	CATEGORIES OF CRIMES		2006	2007	2008
		e) Usage	274	200	131
		<b>sub-Total</b>	5821	5401	4407
11	<b>TRAFFIC OFFENCES</b>	a) Taking Vehicle without Lawful authority	24	40	82
		b) D/ in of Alcohol	38	6	38
			62	46	120
12	<b>CRIMINAL DAMAGE</b>	a) Malicious Damage	2893	2235	2090
		b) Arson	529	455	1487
		c) Other Criminal Damage	58	55	129
		d) Negligent Acts	38	25	54
		<b>sub-Total</b>	3518	2770	3760
13	<b>ECONOMIC CRIMES</b>	a) Obtaining by False Pretence	1253	1402	1151
		b) Currency Forgery	297	195	398
		c) False Accounting	44	49	94
		d) Other Fraud/Forgery Offences	279	262	255
		<b>sub-Total</b>	1873	1908	1898
14	<b>CORRUPTION</b>	a) Soliciting for Bribe	75	47	87
		b) Accepting Bribe	19	9	8
		c) Accepting Free Gifts	9	3	0
		d) Demanding by false pretence	12	18	19
		e) Other Corruption Offences	137	100	19
		<b>sub-Total</b>	252	177	133
15	<b>OFFENCES INVOLVING POLICE OFFICERS</b>	a) Soliciting for Bribe	18	19	14
		b) Accepting Bribe	2	1	3

S/NO	CATEGORIES OF CRIMES		2006	2007	2008
		c) Accepting Free Gifts	0	0	1
		d) Demanding by false pretence	2	0	5
		e) Other Criminal Offences	54	12	10
		sub-Total	76	32	33
16	<b>OFFENCES INVOLVING TOURIST</b>	a) Bag Snatching	21	6	3
		b) Other offences Against tourists	3	1	2
		c) Other Offences Involving Tourists	60	3	1
		<b>sub-Total</b>	84	10	6
17	<b>OTHER PENAL CODE OFFENCES</b>	Other penal code offences	6104	3732	3994
18	<b>TOTAL</b>		<b>72225</b>	<b>63028</b>	<b>63476</b>

## **A3.2 Interviews**

**Interview Period:** Conducted on various days between 10-25<sup>th</sup> May 2010

Vital Statistics

**Organisation:** Kenya Police

**Venue:** Kenya Police Headquarters, Vigilance House on Harambee Avenue.

**Background:** Founded in 1887 in Mombasa

**Establishment:** Currently has an enrollment of about 45,000 officers.

This translates to a ratio slightly above 1:1000 way below the threshold mark set by the United Nations of recommended 1:450

Four interviews were conducted involving Kenya Police Officers:

(i) **Session 1:**

*Assistant Commissioner Owino, Deputy Kenya Police Spokesman at the Police Headquarters, Vigilance House*

(ii) **Session 2:**

*Assistant Commissioner Noor Gabow, in-charge of Staff in Operations Department at the Kenya Police Headquarters, Vigilance House*

(iii) **Session 3:**

*Assistant Commissioner Charles Mumanthi, Director, Training at the Police Headquarters, Vigilance House*

(iv) **Session4:**

*Deputy Provincial Police Officer Ombati, at the Provincial Police Headquarters, Nairobi*

Below are summaries of observations drawn from the first two interviews conducted at Police Headquarters, Vigilance House:

(v) **Session 1:**

*Assistant Commissioner Owino, Deputy Kenya Police Spokesman at the Police Headquarters, Vigilance House*

In citing the challenges associated with Nairobi city design, he pointed out the anonymity of locations both in the CBD and residential areas which complicate the aspect of traceability of suspects. A speed of response by the Police to a distress call involving a crime such as kidnapping is reduced when it is not clear which paths to use. This not only frustrates the law enforcers but other emergency service providers such as ambulances or the fire brigade. He cited some regions of the world where a registration to acquire a national identity card requires the submission of other vital data such as physical residence, driving licence number, registered cell-phone number and place of work. Centralisation of such information in a database accessible to the Police means that should anyone be required either by the Police or the Criminal Justice System, they would probably be just the click of a mouse away.

(vi) **Session 2:**

*Assistant Commissioner Noor Gabow, in-charge of Staff in Operations  
Department at the Kenya Police Headquarters, Vigilance House*

He cited the following as challenges associated with Nairobi city design that frustrate crime minimization:

- a. The illegibility of urban blocks whenever criminal incidents take place. Physical addresses lacking on business premises located on streets and alleys means that navigation within the city is always a route tracing puzzle. Legible signage and digitalisation of all premises on a city map could enhance the perception of a guaranteed rapid response from the Police by the business community.
- b. The great disparity between crime occurrence and crime reporting in Nairobi based on a misguided perception that a visit to the police station is not worth the trouble. At the very least, should there be police inaction after the report, there record of the incident would present more accurate statistical data on the trouble-spots in the city and allow a police deployment commensurate with the potential threat. Sometimes, police are on the beat elsewhere when they would be more useful should they be correctly directed.
- c. Trivialisation of crimes: This occurs for cases such as muggings, pick-pocketing and sexual harassment on the streets which many deem not worth reporting. When these incidents are not captured in the crime survey, data may mislead and indicate a street to be safe especially to

visitors in the city whereas in actual fact, it is the most unsafe, fraught with criminals who are off the crime radar, thanks to an apathetic citizenry.

### A3.3 Proposed General Security Guidelines for the Kenya Police to Avail to the Public

CIRCUMSTANCE	POSSIBLE CRIME
Going door to door in a residential area, especially if one or more persons goes to rear of residence	Possible burglary suspects or trespassers
Waiting or loitering in front of an unoccupied house or closed business	Possible burglary suspects
Forcing entrance or entering neighbours house when unoccupied	Possible burglary, theft, or trespassing
Person running, especially if something of value is being carried	Possible suspect fleeing the crime scene
Person carrying unwrapped property at an unusual hour	Possible suspect fleeing the scene of a burglary or robbery
Unusual amount of human traffic to and from a certain residence if it occurs on a regular basis	Possible drug or other criminal related operation
Person screaming	Possible rape or assault
Persons loitering around cars or peering into cars, especially in parking lots or on streets	Possible car theft or theft from vehicle
Persons loitering around schools, parks or secluded areas	Possible sex offenders or drug dealers
Persons selling items at a very low price	Possibly trying to sell stolen goods
Strangers loitering or driving through a neighbourhood several times	Possible burglary suspects or vandals
Slow moving vehicle, without head or rear lights, or following an aimless course in a residential neighbourhood, school zones or playgrounds	Possible burglar, drug user, or sex offender
Parked or occupied vehicle containing one or more persons, especially significant if observed at an unusual hour	Possible lookouts for drug dealers, burglaries or robberies
Vehicles being loaded with valuables if parked by a closed business or unoccupied residence	Possible burglary or theft in progress
Abandoned vehicle parked in your neighbourhood	Possible stolen car
Vehicle containing weapons	Owner or driver may engage in criminal activity
Someone being forced into a vehicle, especially females or juveniles	Possible kidnapping, assault, attempted rape, or molesting a child
Vehicle in which business transaction is being conducted, especially near schools or parks	Possibly selling stolen items or drugs
Forcibly entering, or attempting to enter, locked vehicle, especially in a parking lot	Possible theft of a car or its contents
Persons detaching mechanical parts or accessories from a vehicle	Possible theft or vandalism



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Objects thrown from a vehicle	Possible disposal of objects or evidence of a criminal act
An accumulation of large amounts of items or items in good condition but not in use stored in homes, garages, or storage units	Possible stolen property
Property in vehicles such as TV sets, weapons, auto parts, computers or stereo equipment, especially if observed at an unusual hour	Possible stolen property

*Source: Author, 2010*

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