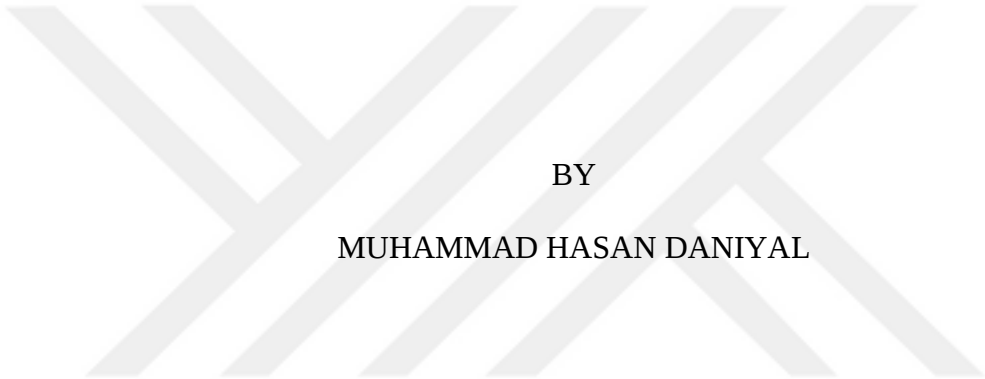


SOCIAL COHESION, VITALITY AND ACTIVITY:
AN INCLUSIVE URBAN DESIGN APPROACH FOR OPEN PUBLIC SPACES
AROUND ISLAMABAD'S STREAMS

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
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AROUND ISLAMABAD'S STREAMS

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ABSTRACT

SOCIAL COHESION, VITALITY AND ACTIVITY: AN INCLUSIVE URBAN DESIGN APPROACH FOR OPEN PUBLIC SPACES AROUND ISLAMABAD'S STREAMS

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The planned capital city of Islamabad faces a lack of social cohesion and urban vitality today. The issues that prevent vitality in the city range from the automobile centric scale of the city and the lack of a reliable public transport system to the divisive systems in the city, including zonal separation, segregation of income classes through the formal and informal settlements in the city. The research investigates the lack of social cohesion in Islamabad, focusing on the divisions between residents of the planned city and those living in informal settlements. These divisions are largely influenced by socioeconomic disparities and planning decisions made during the city's creation.

The study focuses on the ecological grid introduced by Constantinos Doxiadis in the planning of Islamabad, which envisioned streams and their adjacent areas as natural enclaves with open public spaces. However, these spaces have become defunct and indistinguishable from the natural forests, failing to serve their intended purpose. These areas around the streams, due to their proximity to both formal and informal settlements, have the potential to foster social interaction between different community groups. Several factors influencing social cohesion in public spaces are

identified, including urban vitality, activity generation, access, diversity, space management, ownership, and a sense of safety. Urban vitality and activity generation are particularly significant as they attract users to spaces, creating opportunities for social interaction. The research suggests that programming activities with considerations for social cohesion can create conditions conducive to cohesive interactions. The proposed framework centers on developing an approach for generating a network of public open spaces around the streams to promote social cohesion. This approach aims to enhance social interactions between users from different socioeconomic backgrounds, ultimately working towards a more cohesive urban environment. By addressing the historical planning decisions and leveraging the potential of the ecological grid, the research offers a pathway to improve social cohesion in Islamabad.

Keywords: Social Cohesion, Urban Vitality, Activity, Ecological Grid, Framework of Approach, Public Open Space

ÖZ

SOSYAL UYUM, CANLILIK VE AKTİVİTE: İSLAMABAD'IN AKARSULARI ÇEVRESİNDE AÇIK KAMUSAL ALANLAR İÇİN KAPSAYICI BİR KENTSEL TASARIM YAKLAŞIMI

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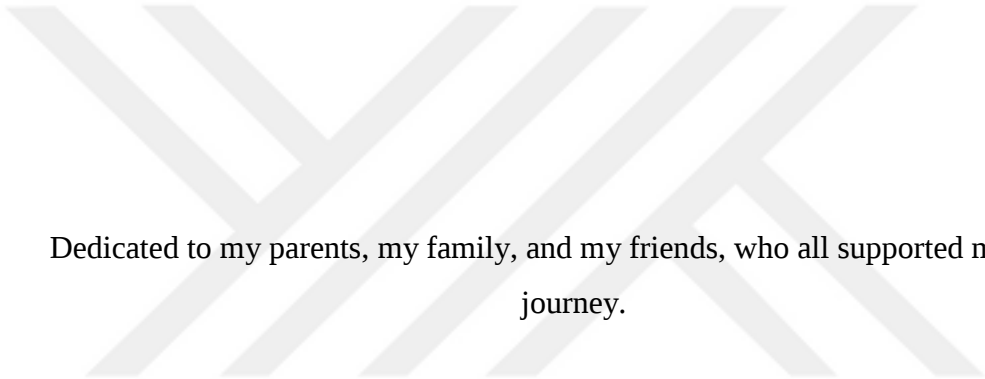
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Planlı başkent İslamabad bugün sosyal uyum ve kentsel canlılık eksikliği ile karşı karşıyadır. Kentteki canlılığı engelleyen sorunlar, kentin otomobil merkezli ölçeğinden güvenilir bir toplu taşıma sisteminin eksikliğine, bölgesel ayırım, kentteki resmi ve gayri resmi yerleşimler aracılığıyla gelir sınıflarının ayrıştırılması gibi kentteki bölücü sistemlere kadar uzanmaktadır. Araştırma, İslamabad'daki sosyal uyum eksikliğini, planlı şehir sakinleri ile enformel yerleşimlerde yaşayanlar arasındaki bölünmelere odaklanarak incelemektedir. Bu bölünmeler büyük ölçüde sosyoekonomik eşitsizliklerden ve şehrin kuruluşu sırasında alınan planlama kararlarından etkilenmektedir.

Çalışma, Constantinos Doxiadis tarafından İslamabad'ın planlanmasında kullanılan ve akarsular ile bitişik alanlarını açık kamusal alanlara sahip doğal yerleşim bölgeleri olarak öngören ekolojik ızgaraya odaklanmaktadır. Ancak bu alanlar, amaçlarına hizmet edemeyerek işlevsizleşmiş ve doğal ormanlardan ayırt edilemez hale gelmiştir. Akarsuların etrafındaki bu alanlar, hem resmi hem de gayri resmi yerleşimlere yakınlıkları nedeniyle, farklı toplum grupları arasında sosyal etkileşimi

teşvik etme potansiyeline sahiptir. Kamusal alanlarda sosyal uyumu etkileyen kentsel canlılık, etkinlik üretimi, erişim, çeşitlilik, alan yönetimi, sahiplenme ve güvenlik hissi gibi çeşitli faktörler tespit edilmiştir. Kentsel canlılık ve etkinlik yaratma, kullanıcıları mekanlara çekerek sosyal etkileşim için fırsatlar yarattığından özellikle önemlidir. Araştırma, faaliyetlerin sosyal uyumu dikkate alarak programlanmasının uyumlu etkileşimler için elverişli koşullar yaratabileceğini öne sürmektedir. Önerilen çerçeve, sosyal uyumu teşvik etmek için akarsuların etrafında bir kamusal açık alan ağı oluşturmaya yönelik bir yaklaşım geliştirmeye odaklanmaktadır. Bu yaklaşım, farklı sosyoekonomik geçmişlerden gelen kullanıcılar arasındaki sosyal etkileşimleri artırmayı ve nihayetinde daha uyumlu bir kentsel çevre için çalışmayı amaçlamaktadır. Araştırma, tarihsel planlama kararlarını ele alarak ve ekolojik şebekenin potansiyelinden yararlanarak İslamabad'da sosyal uyumu geliştirmek için bir yol sunmaktadır.

Anahtar Kelimeler: Sosyal Uyum, Kentsel Canlılık, Aktivite, Ekolojik İzgara, Yaklaşım Çerçevesi, Kamusal Açık Alan



Dedicated to my parents, my family, and my friends, who all supported me in this journey.

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CHAPTER 1

INTRODUCTION

Islamabad, the capital city of Pakistan which was established in the early 1960s is the most recent city built in the country. The construction of the city can be linked to a variety of reasons, the primary reason being the lack of a proper capital city in the country at the time with all the necessary infrastructure required to accommodate all the functionaries of government institutions. Located in the rain fed plateau of the Potohar region in the foothills of the lesser Himalayan Mountain range known as the Margalla Hills, the city occupies an area between the old traditional settlement of Rawalpindi and the Margalla hills. The city, since its inception has grown to match the size and population of its neighboring garrison city of Rawalpindi and continues to grow exponentially.



Figure 1.1 : Grid Layout of Islamabad

Source: Adapted image prepared by Author based on Map taken from Google Earth

Islamabad was designed on modern lines by Constantios A. Doxiadis, who based it on his theory of Ekistics, which emphasized the importance of human communities and the dynamic growth of cities. The city, thus, can be identified as the physical manifestation of Doxiadis' idea of a Dynamic Metropolis also called the Dynapolis, which is characterized by its ability to grow perpetually in a direction with replicating units of human communities. Hence, the city can be identified through its strict grid iron layout, the presence of human scaled communities existing in a hierarchy which forms the sector.

The city area was conceived to be of three equal parts, one of Islamabad the new city, another of Rawalpindi as the twin city of Islamabad, and the last as the National Park area to ensure the residents' connection to nature. The Margalla Hills to the north of the city, and the Shakarparian Hills along with the Rawal Lake to the East of the city were envisioned as part of the national park. The national park and Rawalpindi form the borders of the city to its, north, east and south, leaving the Dynapolis to expand in a westward direction.

The naming convention for these sectors is based in the position of the sectors on the grid. The placement on the North-South Axis is denoted by a letter, and the position on the East-West axis is denoted by a number character. The number series originates from the University Campus behind the presidency and Diplomatic enclave, and the letter series starts from the Margalla, however due to the Margalla going diagonally against the direction of the Grid, the sectors start from the F and G series with their first sectors being F-6 and G-6 respectively, with the First E sector being E-7 and the first D sector being D-12.

The sector forms the basic replicating unit of the city, existing within the formal grid which is based on the scale of the automobile. The presence of this formal grid is supplemented by the presence of an ecological grid of green enclaves, running diagonally to the formal grid following the natural waterways located in the landscape of the region, and a social grid of pedestrian networks connecting public

urban spaces on the community level. In this way we can look at Islamabad as a collection of multiple hierarchies defined by the three grid orders.

1.1 Problem Statement

Upon a closer look at Islamabad, the city, though troubled by a wide array of issues within its urban fabric due to its rapid growth and development as a major urban center of Pakistan, has been able to retain some of its original character of communities within its urban fabric. However, the city, in its current form is increasingly stratified in terms of social and economic factors which is exacerbated by the presence of its car-centric infrastructure and the lack of a reliable public transport system. The presence of slums in nearly every sector of Islamabad also calls into question the social fabric of the city as the economically weaker members of the society have to resort to living in sub-standard living conditions in order to inhabit the city, which also affects the opportunities afforded to them and their social mobility. Thus, it can be said, that there are two worlds that exist within Islamabad, the formal; consisting of the residents of the formally designed sectors of Islamabad, who are, if simply put, at an economically advantaged position, and the other, the informal; consisting of the residents of the informal settlements (katchi abadi (informal settlements) / slums) who belong to the lower economic classes. The general attitude between these two worlds has been mutual avoidance, which is surprising considering the general proximity of these communities to each other. In recent years the informal settlements have been perceived with more hostility by the residents of the formal sectors who, citing law and order issues, ask for their removal from the city. This has led to the residents of informal settlements becoming more socially isolated and developing their own closed societies within the confines of their settlements, which has led to more isolation from the rest of the city. This shift in attitudes is worrisome as the residents of the katchi abadi (informal settlements) form an integral part of the service sector of the city since its creation, and their removal would adversely affect the city. Considering the above mentioned situation,

it can be seen that there is severe lack of cohesion within the society of Islamabad and though cohesion could be found within the formal communities and the informal communities separately. The area of concern is the lack of social cohesion between the formal and informal communities, which is detrimental to the health of the social fabric of the city, this is especially important as Islamabad grows exponentially and becomes more diverse, as it has in the past decade.

Social cohesion refers to the extent of connectedness and solidarity among groups in society.¹ It identifies two main ideas as necessary to identify its presence; the sense of belonging of a community to its place and the relationships among its members within the community itself.² The connection of this concept to the urban fabric is the conversion of these abstract ideas regarding social cohesion into physical features of space, the question then, becomes, what features of the built environment could potentially lead to the development of a socially cohesive society? Jane Jacobs in her seminal work “The Life and Death of Great American cities” put forth the idea that more vibrant neighborhoods, that is, those with higher urban vitality, increase casual social interaction which may allow a sense of local community and social cohesion to form in that neighborhood.³ Thus, from the lens of vitality and social cohesion one can identify certain areas of contention which could be defined as structural issues within the plan of Islamabad as a city, and issues which could trace their origin to the unregulated growth of the city, representing subsequent policy failures or social changes over time.

In the case of Islamabad, one can identify several factors within the scope of issues mentioned above. These areas of concerns are existent in the city of Islamabad,

¹ Kawachi, Ichiro, and Lisa Berkman. “Social Cohesion, Social Capital, and Health.” *Social Epidemiology* 174, no. 7 (2000): 290-319.

² Mouratidis, Kostas, and Wouter Poortinga. “Built Environment, Urban Vitality and Social Cohesion: Do Vibrant Neighborhoods Foster Strong Communities?” *Landscape and Urban Planning* 204 (2020): 2.

³ Jacobs, Jane. *Dark Age Ahead: Author of the Death and Life of Great American Cities*. Vintage Canada, 2010.

which, based on the literature surrounding the subject of social cohesion and urban vitality could potentially be responsible for the current situation within the city and would necessitate further investigation to establish any causal link with the deficiencies seen in the city in regards to social cohesion.

The automobile centric scale of the city stands as the first area of concern to the presence of urban vitality in the city as it hinders pedestrian movement and in certain cases blocks it completely, especially where inter-sector movement is concerned. The Class V communities (sectors) were designed to be self-sustaining with pedestrian access to the central market functions and public amenities.⁴ According to Botka, “In the case of Islamabad the machine takes over and imposes its requirements on the transportation network in the form of straight transportation corridors intersecting at right angles.”⁵ The layout of the city, by design, favors vehicles for travel between sectors, the infrastructure required to facilitate this movement comes at the cost of hindering pedestrian movement, making the city unfavorable to traverse by foot. This issue is highlighted by the presence of high speed roads which divide the sectors, making inter sector pedestrian travel extremely difficult. This, in the absence of a reliable public transport network, as is the case in Islamabad, is detrimental to the ability of pedestrian populations to access areas of the city. This issue of hindered pedestrian movement was anticipated by Doxiadis, who suggested a separation of the two streams of movement on the sector level indicating the incompatibility of the two systems as implemented in Islamabad to coexist on the same plane. In Doxiadis’ own words, “There is no doubt that in the long run pedestrians should be able to move freely across the sector boundaries at a different level from the traffic”.⁶ Within this system of separated streams of movement an aspect of Doxiadis’ design of the city which has previously been

⁴ Frantzeskakis, John M. “Configuration, Hierarchy and Spacing of the Urban Road Network in Islamabad.” *Ekistics* (1995): 236-241

⁵ Botka, Dusan. “Islamabad after 33 Years.” *Ekistics* 62, nos. 373/374/375 (1995): 209-235.

⁶ Doxiadis, Constantinos A. “Ecumenopolis: Toward a Universal City.” *Ekistics* 13, no. 75 (1962): 3-18.

neglected, might offer an area of potential in terms of being a means of improved connectivity. The ecological grid of the city, proposed as a system of open public spaces as a means for the residents of the city to form a connection with nature lies inbetween the formal and informal settlements within Islamabad, these areas, along the natural stream, planned as open public spaces with a natural character are neglected to the point that they have become uncrossable feral forests which also face the issues of pollution through solid waste and sewage. Here, the revitalization of such spaces might provide more accessible open public spaces in the city.

The schema provided by Doxiadis set clear delimitations on the usage of areas within the city, there was no overlap of zones in order to prevent any hindrances to the efficiency of the systems of the city, however such limitations also negatively affected the social fabric of the city as it prevented any interaction between zones which could develop activities to generate urban vitality. Due to the high degree of separation of zones (commercial, residential and service), activity is limited predominantly to the commercial zones. As a result of this, attitudes regarding social activity have formed around interactions with the commercial zone (retail, dining as the main entertainment and social activities).

Additionally, the city evolved from its original purpose of being a city for bureaucrats serving the government center to a city for the general population owing to the increased urban migrations since the 1980s ⁷. A greater demand for a well-developed city center also arose with the rapid rise in population and due to the restrictive policy and zoning of the designed city center (Blue Area) hindered growth in that area and instead the centers of the community class V ended up taking on this role and transforming their role from a community center to becoming city centers, in the process displacing the programs necessary for the needs of the sector. The formation of these new patterns of development in Islamabad have understandably

⁷ Tariq, Ayub, and Abdul Waheed. "Urbanization and Urban Patterns: The Islamabad Experience." *Journal of Xi'an Shiyou University, Natural Science Edition* 19 (2023): 326-350.

reduced the presence of equitable public spaces within the city as well as caused other infrastructural problems due to a programmatic incompatibility with the existing infrastructure. This transition of roles brought about by the restrictive zoning of public commercial space was detrimental to the urban fabric of Islamabad as it drastically altered the location of activities within the public realm. Rigid zoning rules still do not allow for the displaced programs to be accommodated within the sectors in order for them to keep catering to the needs of the sector, since the zoning clearly defines zoned areas without any flexibility or allowances for the overlap of functions.⁸

Encroachment of the public realm is a regular occurrence within the city, with the justifications varying between security concerns, commercial viability, development of mosques and seminaries, with the encroaching entities ranging from the security institutions, private businesses ventures, the government and religious outfits. These encroachments mostly are centered on the undeveloped parcels of land surrounding the streams of Islamabad which form the ecological grid of the city and the national park area, both of which are parts of the open public space system of the city.

To summarize, Islamabad faces a lack of social cohesion, which is linked to urban vitality through the ability of vitality to develop casual social interactions, such interactions may allow a sense of local community and social cohesion to form in a public space. The issues that prevent vitality in the city, range from the automobile centric scale of the city and the lack of a reliable public transport system to the divisive systems in the city, these include zonal separation, segregation of income classes through the formal and informal settlements in the city. Additionally, the issues of encroachment of the public open spaces and the inequitable development of new city centers are also areas of concern which need to be addressed.

⁸ Botka, Dusan. "Islamabad after 33 Years." *Ekistics* (1995): 209-235.

1.2 Research Objectives

This research aims to address the issue of social cohesion and urban vitality and attempt to identify the various ideas regarding the urban realm which could potentially improve social cohesion within an urban environment in the context of Islamabad. The research intention would be to eventually develop a framework of approach centered on the Ecological grid (the system of open green public spaces around the natural streams of the city) and its adjacent areas, in order to develop a tailored approach for Islamabad's unique context. This would require an in depth analysis of Islamabad, its history, the formative principles behind the design of its communities, and the key development points within its history up to the present condition of the city to identify potential areas or ideas which would require special consideration in the development of a framework to establish cohesion to the city.

The study would also involve exploring the different ideas regarding the concept of urban vitality and social cohesion. This exploration would be necessary to develop a solution framework for the contemporary issues faced by Islamabad in terms of Urban Vitality and Social Cohesion. Thus, it is necessary to understand how ideas regarding urban vitality and social cohesion have developed, it is also important to look at how considerations of urban vitality and social cohesion is manifested in the built form. To that effect it would be prudent to look at potential examples to evaluate the effectiveness of the techniques previously proscribed on the subject, this would enable the development of a critical framework based on the effectiveness of the techniques proposed.

To contextualize the study, the idea of the public realm as a generator of urban design would be explored. As the public realm pertains to the network of urban spaces that form the setting for individuals and communities to live their lives and is shaped through buildings and landscape, which positively define the public space around

them.⁹ The built fabric of the areas around the ecological grid would be investigated to identify areas which could be generators for the expansion of a public space network. For this particular aspect, a section of the ecological grid would be selected as an area of study of the urban realm and its potential as a generator of a system of public open spaces. The ecological grid has been chosen for this study due to its position as an existing network of unbuilt green open spaces which do not follow the strict formal grid of the city passing through a variety of urban situations which allows us to understand the diverse nature of the public realm in the city and their connections to each other.

The observations from the urban situation of Islamabad would be necessary to link the resultant framework to the context of the city, where the activities generated in the public realm of the city which could influence urban design in the city would be explored with the necessary considerations stemming from the public realm of the city being added to the framework.

1.3 Expected Outcomes

The expected outcomes of this research would involve identifying the issues specific to Islamabad and their causes through the analysis of the city. It would also identify potential areas within the design and concept of Islamabad, which would respond to the approach of an interventional framework for urban vitality, thus, grounding the framework in Islamabad's context.

The explorative research on the various paradigms of urban design from the lens of urban vitality and social cohesion would yield an extract of best practices of intervention in the realm of urban vitality and social cohesion. Combined with the observations of the built form around a section of the ecological grid, would allow

⁹ Richards, Peter. "The Public Realm as a Generator of Urban Design." *The Journal of Public Space* 2 (2017): 153-156.

us to understand the nature of the spaces and lead to a synthesis of the ideas extracted through the studies of the paradigms of urban vitality and social cohesion, with the context of the region.

The synthesis would lead to the development of a framework of interventional practices based in the Islamabad for inducing urban vitality and social cohesion within the city. This framework would result in recommendations for the development of a network of open public spaces which would be based in the ideas of urban vitality and social cohesion, tailored to the context of Islamabad.

1.4 Methodology of the Thesis

This research attempts to examine the aforementioned issues through a qualitative analysis which involves a comprehensive literature review that delves into the historical evolution of Islamabad, the principles that shaped its formation, application of the theory of Ekistics, and the contemporary challenges the city faces. An integral part of this literature review will involve an in-depth exploration of various scholarly works pertaining to the concepts of urban vitality and social cohesion, and related urban theories that have emerged since Islamabad's inception. The sources of these scholarly works include theses on the subject of vitality, seminal writings by prolific theoreticians of the subject and journal articles. The aim is to construct a solid theoretical foundation that will guide the development of an intervention framework.

The qualitative analysis extends beyond literature and incorporates observations of the city's urban situation, particularly focusing around a segment of the ecological grid, in order to identify potential ideas that may be beneficial to inform the development of a system of public open spaces. This would utilize online resources, and archival data in the form of historical maps from the Capital Development Authority (CDA) in order to accurately understand the urban fabric around the selected area of study. It involves an evaluation of the urban situations located in

proximity of the ecological grid, in reference to the theoretical insights gleaned from the literature review.

The culmination of this thesis is the proposal of a comprehensive framework designed to enhance urban vitality and social cohesion in Islamabad. The framework would propose a holistic model of interventional strategies in the realms of urban design, architecture, landscape design and urban policy, which would be designed to foster social cohesion and elevate the quality of life for Islamabad's residents.

1.5 Structure of the Thesis

The body of this research is divided into five chapters:

Chapter 1 is the **Introduction** which starts with a brief introduction into the city of Islamabad followed by a description of the issues being addressed through this thesis. The aims of the study are explained along with a brief description of the expected outcomes of the research and the methodologies used in the research to develop the framework of Intervention.

Chapter 2 is titled '**Islamabad: A history of the formation of the city**' contains the information regarding the circumstances surrounding Islamabad's creation, the principles that defined its design, the design of the city, and the present condition of the city and its issues. The chapter is organized chronologically in sections explaining the reasons to establish the city, the selection of Doxiadis as the designer for Islamabad, his theory of Ekistics and his ideas regarding an ideal city, the morphology of the city as designed by Doxiadis, the inherent issues of the plan and lastly, the current situation of Islamabad and the issues it faces.

The third chapter titled '**The Nature of Urban Vitality and Social Cohesion**' explores the various ideas on the subject of Urban Vitality and Social Cohesion. The chapter is divided into two thematic parts, the first part pertains to an in depth exploration of the study area, its lack of vitality and cohesion and the situation of the ecological grid, the second part looks at vitality and social cohesion as a subject and

the various ideas that influence it, these ideas are then connected to the existing context through the observation of these phenomena in the urban space of Islamabad. This is followed by a summary of the findings of the research which would be carried forward in the development of the Framework of Intervention.

Chapter 4, titled '**The Framework of Approach**' explains the idea of looking at the urban situations adjacent to the ecological grid and their significance as generators of design within the ecological grid, as well as a synthesis of the findings from chapter 2 & 3 into the development of an approach for the ecological grid which resultantly would develop the framework of intervention for urban vitality and social cohesion. The constituent parts of the new localized framework of urban vitality and social cohesion would be discussed, which would be informed through the ideas gleaned through the research conducted and the existing situation of the city.

The final chapter, '**Conclusion**' discusses the validity of the research in the context of the Urban Vitality and Social Cohesion problem of Islamabad, and lays out the future projections of the intervention framework to be implemented in phases over the whole city, leading to a city which would allow social cohesion and elevate the quality of life for its residents.

CHAPTER 2

ISLAMABAD, A HISTORY OF THE FORMATION OF THE CITY

The creation of Islamabad as the capital of Pakistan represented a desire by the nation in developing a new identity for itself, therefore, the circumstances leading up to its creation and the ideas that define it offer valuable insight into the current situation of the city vis-à-vis its issues regarding urban vitality and social cohesion.

2.1 Reasons leading up to the Formation of the city

Islamabad was conceived in the early 1960's through a national effort with the assistance of international architects and designers. The design of the city was put forth by a Greek architect named Constantinos Apostolou Doxiadis (C.A Doxiadis) who worked alongside the landscape architects Derek Lovejoy and Associates as well as a team of local engineers and designers.¹⁰ The reasons for the formation of the new city can be attributed to multiple factors, with the seminal points being elaborated as follows;

- a) **Lack of a Capital:** The partition of the territory of British India which led to the formation of Pakistan as a state also led to the territory of Pakistan having no Capital, since the historic metropolis' which had the necessary infrastructure to be capitals, ended up in India. Consequently the state of Pakistan was left without a capital which could effectively be the center of all government activities. The post-partition ^a capital of Karachi was fast

¹⁰ Lovejoy, Derek. "The Design of Islamabad – New Capital City of Pakistan." *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.

becoming overcrowded having become the only port city in the western wing of the country and as such was ill equipped to handle the dual function of being the nation's capital as well as its business center.¹¹

- b) **Financial Viability:** The cost of adding proper capital functionality to the city proved to be financially unfeasible to the government of Pakistan. Where the cost to potentially upgrade the infrastructure and acquire land for construction formed a major chunk of the costs involved.¹² Indeed the presentations of Doxiadis to the government officials focused greatly on this aspect, wherein he explained that the cost of building a new capital city would be financially more feasible than retrofitting the city of Karachi with the necessary infrastructure to support the capital functions.¹³
- c) **Political and Security Considerations:** Political and security considerations were also important in determining the question of whether a new capital should exist or not. Karachi was not considered strategically safe by the then military dictatorship government and was considered to be especially vulnerable to naval assault.¹⁴

2.1.1 Selection of Islamabad's location

Based off of the reasons stated above, it was quite clear that a new city had to be built, the location of which had to be decided later. The decision for the selection of the location, though defended by Doxiadis and explained by him through the use of the term "center of gravity" and the use of his theory of Ekistics had very little to do with him and was instead, mostly the prerogative of the martial law administration of the time. The selection for the location of the city location was done by the then

¹¹ Doxiadis, Constantinos A. "Islamabad the Capital of Pakistan." Doxiadis Associates, 1964.

¹² *ibid.*

¹³ Daechsel, Markus. "Misplaced Ekistics: Islamabad and the Politics of Urban Development in Pakistan." *South Asian History and Culture* 4, no. 1 (2013): 87-106

¹⁴ Doxiadis, Constantinos A. "Islamabad the Capital of Pakistan." Doxiadis Associates, 1964.

military dictator Field Marshall Ayub Khan and his protégé General Yahya Khan who headed the commission for the development of the new capital. The primary reasons for the selection of the location of Islamabad was its proximity to the military headquarters at Rawalpindi.¹⁵ Beyond that, other considerations such as climate, strategic location in proximity to Kashmir, as well as being in the most “developed” province of Punjab were also major causes for the selection of the location of the city.



Figure 2.1: The landscape before the construction of Islamabad
Source: Walmsley, Anthony. “ISLAMABAD: Planning the Landscape of Pakistan’s Capital.” *Landscape Architecture* 56, no. 1 (1965): 18–22.

These reasons were tied closely to the narrative of the military government of the time which presented itself as the protectors of the legacy of the nation’s founder Muhammad Ali Jinnah. Such rhetoric was needed to keep the legitimacy of the dictatorship as a relevant form of government for the country, and it is important to understand that the process for the development of the nation’s new capital was not a democratic one and had little to do with the stakeholders, the people who would be living in the city.¹⁶ It is equally important to understand this within the context of the country and its people and to be able to distinguish Islamabad as one of the mega projects which are the vision of a select few individuals rather than a nation. This

¹⁵ Daechsel, Markus. “Misplaced Ekistics: Islamabad and the Politics of Urban Development in Pakistan.” *South Asian History and Culture* 4, no. 1 (2013): 87-106

¹⁶ *ibid*

perspective would allow us to view Islamabad as a city which had formed in a newly independent modern country in need of a new identity, the brainchild of a development professional influenced deeply by a military dictatorship and the bureaucracy of the country, and developed on modern lines.

2.1.2 Selection of Doxiadis as the designer of the new city

Pakistan's shortage of qualified architects and development professionals meant that the government had to seek external aid in order to materialize its own developmental goals. The alignment of the country with the United States during the cold war allowed the government to seek technical assistance from the US Agency for International Development (USAID) and the Ford Foundation. Through these partnerships Pakistan secured consultancy services from leading European and American architects.¹⁷ One of the architects associated with the Ford foundation was C.A Doxiadis who had been a leading figure of the post-World War II reconstruction efforts in his homeland of Greece and who was already developing his theory on the nature of Human Settlements. Doxiadis' involvement with these international development bodies allowed him to gain a foothold with the bureaucrats and administrators of Pakistan who were keen to project a modern image of Pakistan to the world through large scale investment of the nation's resources in infrastructure and development.

2.1.3 Past work of Doxiadis in Pakistan

Doxiadis' engagement with the Pakistani government began in 1958 with the Korangi Project in Karachi. The intention of the project was redevelop a slum which had formed after the influx of refugees at the time of Pakistan's formation as a state.

¹⁷ Karim, Farhan. "Between Self and Citizenship: Doxiadis Associates in Postcolonial Pakistan, 1958–1968." *International Journal of Islamic Architecture* 5 (2016).

The project was previously being headed by Michel Ecochard, however due to disagreements between the government, bureaucracy and the consultant, the project had devolved to the level of a paper exercise with no actual implementation. Doxiadis' involvement supported by the then military dictator Ayub Khan, USAID and the Ford Foundation allowed the government to deliver the project within a year of Doxiadis' involvement in the project.¹⁸ This allowed C.A Doxiadis to gain a foothold and secure further projects in the country. Additionally the Korangi Project offers the first insight into the still developing brand of urbanism advocated by Doxiadis, Ekistics.

The design of the community relied heavily on Doxiadis' understanding of what was referred by him as "Islamic culture" based off of his experiences in Baghdad where he had worked previously on similar projects, and his own context as a Greek development professional. These influences were especially reflected in his ideas of community and the social connections within a public space. Farhan Karim highlights an instance of this in Doxiadis' design of a public gathering area as part of the Korangi development, which was centered on a tea stall as the focal point of a social space. This was based on his assumption that the consumption of tea being a primary social activity within "Islamic" countries, informed no doubt through his experiences in the Middle East and Greece, however this was not true of Pakistan, and the activity was not conducive to the context of the country, the idea was subsequently challenged by the local military officers and bureaucrats, who themselves, were also not completely in touch with the sensibilities of the general public, however, they were still able to provide some context to Doxiadis, suggesting the tea stall to become a *naan* shop (traditional bakery).¹⁹ However his ideas regarding the character of the social space were not challenged, and were based in a similar, generalized understanding of all Islamic origin countries having a similar

¹⁸ *ibid.*

¹⁹ *ibid.*

culture, a point that has been disproven through later scholarship on the subject.²⁰ The purpose of mentioning this is not to criticize Doxiadis' understanding of culture, but rather to highlight the potential consequences of generalizing diverse cultures by inferring a common identity onto them. It is also necessary to understand that this was not something Doxiadis alone did, and such beliefs and ideas could have formed in a world where information regarding different cultures was not readily available. However, this distorted idea of social behavior in the public sphere would prove to be detrimental in Doxiadis' later works on the urban scale, as the workings of urban social spaces in the Pakistani context were never fully explored by him. The result of the Korangi project was a settlement with fragmented, self-contained sectors with narrow alleyways and small scale domestic gathering spaces. These elements cumulatively hindered social grouping at any scale.²¹

The elements mentioned above were packaged as having responded to the need of developing a human scale in accordance with the doctrine of Ekistics, however, functioned instead to prevent the development of necessary social connections required by a community. It also serves as an example of the schism between the ideal situation of the concepts of Ekistics and the reality of the challenges posed by the local context.

²⁰ *ibid.*

²¹ *ibid.*

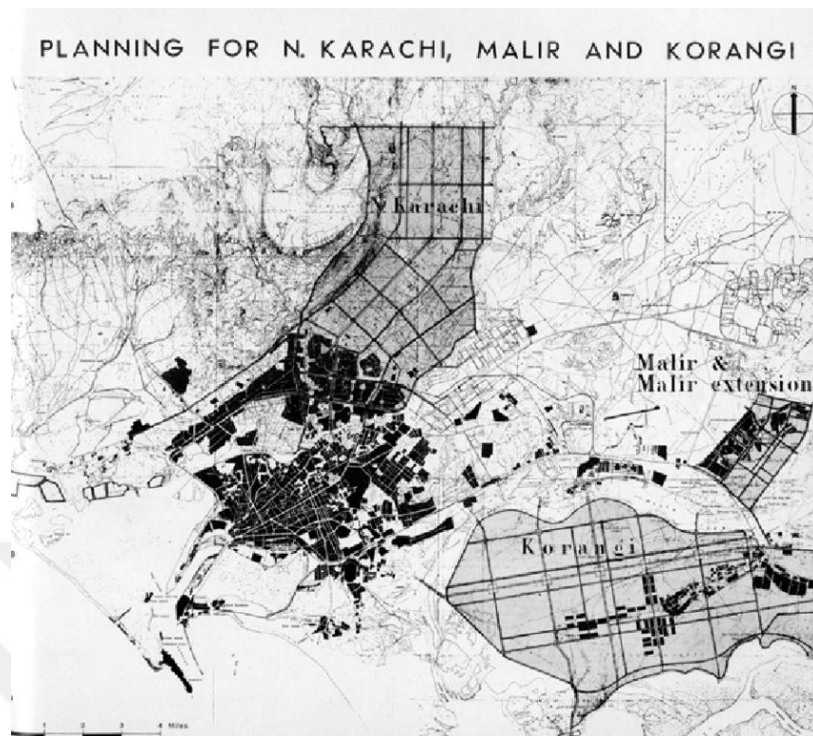


Figure 2.2: Image of Korangi and New Karachi in the context of Old Karachi by Doxiadis Associates

Source: Karim, Farhan. "Between Self and Citizenship: Doxiadis Associates in Postcolonial Pakistan, 1958–1968." *International Journal of Islamic Architecture* 5 (2016).

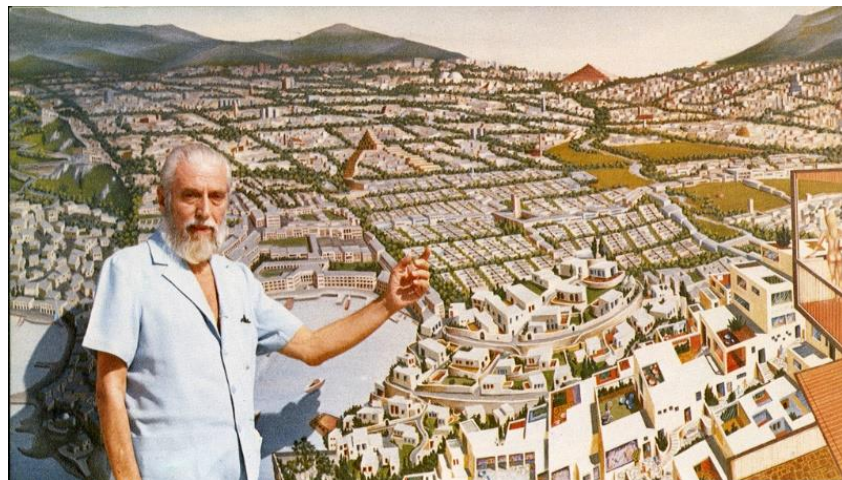


Figure 2.3: Image of Doxiadis with a conceptual rendering of the Entopia.

Source: Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

2.2 Principles of Doxiadis' Plan

Doxiadis based the plan of Islamabad on his idea of Ekistics, however, as an idea, Ekistics is a vast field with a multitude of different ideas which represented Doxiadis' approach towards the world at his time. This necessitates, in order to understand Islamabad, one must inquire into his ideas regarding human settlements and his approach regarding the subject.

2.2.1 Entopia

Doxiadis introduced the concept of “entopia” as part of his broader vision for human settlements. The term “entopia” comes from the Greek words *έν* (in) and *τόπος* (place), and it represents his belief in creating realistic, achievable cities. Unlike “utopia,” which is an idealized concept of a perfect society that is often conceptualized and inhabits the realm of ideas, “entopia” refers to a practical vision of a city that can actually be built and occupied. Doxiadis' work on “entopia” was part of his larger effort to address the challenges of urbanization and the growth of mega-cities. His ideas on entopia were meant to guide the development of cities that could grow and evolve without losing their human scale or becoming impersonal and unlivable, allowing communities to coexist with each other and in complete harmony with nature. This uncomplicated version of pluralism and harmony assumed that social tension would be resolved and even though each community would have “its own special character”, all would be “integrated” as a harmonious whole. “Entopia” thus represented his optimism regarding the future of cities and communities.²²

Through the ideas of integration and harmony as prescribed in “Entopia”, Doxiadis presented the solution to the problems experienced by cities at the time by

²² Pyla, Panayiota. “Cities of the Future, Heroes of the Past: Doxiadis' Vision of Post-WWII Modernism.” *Ekistics* 74, nos. 442/447 (2007): 252-256.

eradicating the excesses of high modernism, namely the high densities, the tall structures as prescribed by the champions of modernism at the time, instead proposing that the physical qualities of past settlements be reclaimed. These qualities, in his view had achieved a balance between nature and society.²³

Though “entopia” was presented as a pragmatic approach, a form of a compromise between the condition of reality and the ideas of utopia, an achievable form of a utopian society which responded to the constraints of the time. The solutions presented by entopia in the form of eradicating the symbols of high modernism e.g. the tall structures and high densities, to achieve a harmonious settlement with nature seemed like desirable conclusions to draw for the future of cities, considering the context of urban design theory at the time which was being proliferated by the simplistic application of CIAM’s (Congrès Internationaux d’Architecture Moderne) principles.²⁴

However, the manifestation of these ideas can be found lacking currently due to the fact that they did not take into consideration certain factors of urban development and subsequently could not anticipate their effect on the city that was envisioned as “entopia”. Indeed, the issues of technological availability and cost were barriers to the implementation of the idea onto site, additionally the impact of local economic forces and traditional development sensibilities on the concept of “entopia” was understated, the effect of which can be seen in the case of Islamabad. This can lead us to conclude that there existed a stark gap between the conceptualization of the idea and its implementation in the form of Islamabad. And later between the implementation and the future growth. Of course, in hindsight we can comment on the deficiencies of the concept, but it must be emphasized that at the time of its introduction it represented an important break from the status quo of development

²³ Ibid, pp. 255

²⁴ Mahsud, Ahmad Zaib K. “Rethinking Doxiadis’ Ekistical Urbanism.” *Positions* 1 (2010): 6-39.

theory of the time and it wasn't a concept that represented the optimistic character of a utopia, but rather it was a nuanced and pragmatic approach which considered the limitations of the world at the time, this pragmatism was an integral factor of the theory of Ekistics which would codify the idea of "entopia" into a practical framework of implementation.

2.2.2 Ekistics

Ekistics is the science of human settlements, the term, coined by Doxiadis is derived from the Greek term "οἰκιστικός" *oikistikós* which means "concerning the foundation of a house, a habitation, a city or colony; contributing to the settling"²⁵ The theory of Ekistics aims to create the cities of the future by systematically developing a science of human settlements. This theory pertains to the principles humans take into account when building their settlements, as well as the evolution of human settlements through history in terms of size and quality. The theory proposed in 1942 by Doxiadis, forms the basic method through which studies into different scales of the human settlement could be made including regional, city, community planning and dwelling design. It involves the descriptive study of all kinds of human settlements and the formulation of general conclusions aimed at achieving harmony between the inhabitants of a settlement and their physical and sociocultural environments.²⁶

²⁵ Doxiadis, Constantinos A. "Ekistics, the Science of Human Settlements." *Science* 170, no. 3956 (1970): 393-404.

²⁶ *ibid*

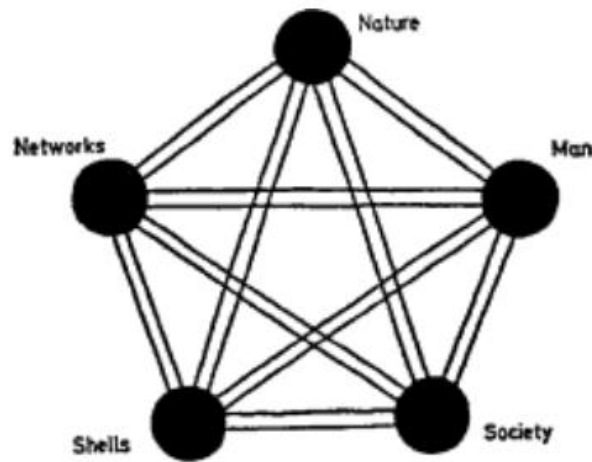


Figure 2.4: Diagram showing the interconnected nature of the Ekistic Elements
 Source: Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

As a scientific mode of study, Ekistics relies on statistics and description, organized in five ekistic elements or principles: nature, anthropos, society, shells, and networks. Design on the lines of these principles can facilitate the eventual realization of the Ecumenopolis. The implementation of these elements would develop the “entopia” as proscribed by Doxiadis as the pragmatic realization of utopia. The “entopia” would take the form of a Dynapolis (dynamic city) model and integrate a network of infrastructure for accessibility and mobility. The idea originates from the need for a human-oriented approach for future settlements of developing countries, new towns to be built, and existing settlements to be transformed in the direction of emerging needs.²⁷ Doxiadis mentions the five elements of Ekistics which are:

- a. **Nature:** This element emphasizes the importance of the natural environment in which the human settlements are established. Nature in the context of Ekistics encompasses the geographical, ecological, and climatic conditions

²⁷ Pak Karaoz, Melodi. “Ekistics as a Place Theory.” *Ekistics and The New Habitat* 82, no. 1 (2023): 95-104.

that not only shape the physical layout of settlements but also influence the social and cultural patterns of the inhabitants. Nature then, is not merely a backdrop for human activity; it is an active participant in the life of a settlement. The topography, natural resources, climate, flora, and fauna of a region dictate the possibilities and limitations of settlement design. For instance, the availability of water sources, the fertility of the land, the risk of natural disasters, and the local climate all play crucial roles in determining where and how people live.²⁸

It includes the geographical, ecological and climatic conditions that influence the design and development of settlements. Additionally it establishes the importance of a direct connection between the natural environment and the human inhabiting the settlement be established. To that effect it was important that the natural resources be preserved for usage for the future needs of the human society, with the ecosystem being actively maintained to minimize the adverse effects of development, namely despoliation of the natural environment and pollution. The principle encourages sustainable practices, such as the use of local materials, energy efficiency, and the integration of green spaces within urban areas. By adhering to this idea, Ekistics aims to create settlements that are not only functional and resilient but also places where the natural and built environments coexist in harmony, creating a global balance between natural and built environments allowing the connection of people with nature as prescribed in the concept of an “entopia”, which contributes to the overall quality of life for their residents.²⁹

- b. Anthropos:** This element emphasizes the human dimension of settlements. It recognizes that the success and sustainability of any community, centers on meeting the biological and psychological needs of its residents, as well as

²⁸ Doxiadis, Constantinos A. *Ekistics - An Introduction to the Science of Human Settlements*. London: Hutchinson & Co, 1968.

²⁹ Doxiadis, Constantinos. A. “Ekistics, the Science of Human Settlements”. *Science*, vol.170, no.3956, October 1970, pp. 393-404

fostering healthy social interactions. The element aims to create environments that not only meet physical needs but also nurture psychological well-being and enable the full expression of human potential. Within the umbrella of meeting these needs there are finer details that need to be considered. As part of the first aspect of biological needs, are the requirements which are fundamental for survival—air, water, food, and shelter. Settlements must provide these essentials in an accessible and sustainable manner. Next, where psychological needs are considered, necessities of humans that extend beyond survival are mentioned. Humans require spaces that nurture mental and emotional well-being. Privacy, security, community, and aesthetic beauty play crucial roles in the design of living spaces and are considered as integral to the satisfaction of the psychological needs of the inhabitants. Thirdly, the presence of social interactions are considered as vital to the wellbeing of the individuals in society. Encouraging socializing and community-building is necessary in the design of spaces, especially public areas where people can gather and participate in communal activities which fosters a sense of belonging. Moreover, within the settlements there should be cultural diversity which is connected to the ideas of social, psychological and personal development needs of individuals, as this exposes individuals to various ideas and opinions generating a dialogue between individuals. This cultural diversity in the context of design could be manifested in the form of cultural centers, theaters, and venues that allow various identities to flourish. Lastly, ideas of personal development which satisfy the various needs of the anthropos (the individual) are highlighted in the form of an overall education policy structure which could be manifested in the form of educational infrastructure such as schools, colleges, universities and trade schools.³⁰

³⁰ *ibid.*

c. **Society:** This element encompasses the social structures, institutions, and cultural aspects that shape the development and organization of a settlement. Within these social structures there are further sub divisions as the scale increases in size. The scalability of these social elements is one of the main ideas behind Ekistics. The tangible and non-tangible aspects of society are addressed in the form of a hybrid metric which encompasses a wide array of scales and social factors.

These aspects of the society element can be further elaborated with the first aspect of social structures. These include the organization of communities, family units, social classes, and other groupings that define the social hierarchy and interactions within a settlement. Inside this system of social structures a parallel system of institutions would also be applied. The institutions form the formal structures within the society, such as governmental bodies, educational systems, religious organizations, and economic entities, govern the functioning of the settlement. Additionally, within this formal structure of institutions came the ideas of implementation of law and administration which ensures order, security, and policy enforcement for the efficient management of a settlement.

Within the society, cultural patterns play a crucial role. Norms, traditions, values, and artistic expressions unique to a community or region define the society and influence the identity and cohesion of a settlement. This idea harkens back to the idea of the personal growth of the anthropos, the needs of the humans who come together in the form of a social group and develop their own values, traditions and aspirations as a society. Thus the scaling up of the features of the anthropos element and response to the aspects which contribute to the complexity of a society as an agglomeration of people with diversity and various different needs, is the basis of the society element of Ekistics. For that purpose, understanding population characteristics is essential. Demographic aspects, population density, age distribution, and migration patterns all affect planning and resource allocation. They also serve

as quantitative structures to predict the needs of a society. The incorporation of scientific methods within the theoretical framework is also one of the main ideas that distinguish Ekistics as a theory which addressed the various scales, levels of development in a society, and measured the wellbeing of a society through both quantitative methods and qualitative methods. The understanding of society and its population characteristics informs the implementation of education, health, and welfare systems. This would directly translate to the availability of quality educational and healthcare facilities, along with social welfare programs which reflect society's development and priorities. These social and formal systems coupled with the ideas of provision of economic opportunities and the formal opportunities created by it then become key factors for the development and sustainable growth of a society and its individuals.

In summary, the society element in Ekistics aims to achieve harmony between inhabitants and their physical and sociocultural environments. It involves descriptive study and formulation of conclusions to create balanced and functional communities.³¹

- d. Shells:** This element refers to the physical structures and built environment within human settlements. It includes all forms of construction that provide spaces for human activities, ranging from personal shelters to homes, and extending to larger structures like urban business districts and precincts. Shells serve as the envelope that house various settlement functions. They are purposefully designed to accommodate the diverse needs of inhabitants, which could include the various considerations for urban life, such as places of working, learning, and recreation to name a few.

Being the tangible representation of human settlements, embodying the architecture and infrastructure that house the functions and activities of a

³¹ "Ekistic Elements." *Ekistics* 41, no. 247 (1976): 346-55.

society, the design choices, technological innovations, and spatial arrangements within shells directly impact their functionality and amenities. This includes considerations of materials, construction methods, and spatial organization. While shells constitute the physical aspect of settlements, they must harmonize with the natural environment, meet human needs, reflect societal values, and integrate seamlessly with the settlement's infrastructure. It must be emphasized that shells are not static; they evolve over time to adapt to new technologies, cultural shifts, and changes in the way people live and work. This adaptability is crucial for the long-term sustainability of settlements.³²

- e. **Networks:** This element pertains to the network of infrastructural systems that facilitate movement and communication within and between settlements. Transportation networks form the backbone of the networks element, the LAWAIR (Land, Water and Air) system of transport encompasses various infrastructure modes of transport such as roads, railways, airways, and waterways. These systems enable the seamless movement of people and goods, connecting different parts of a settlement and linking it with the neighboring communities. In parallel, to the transportation network, Communication networks also play a pivotal role. They involve methods and infrastructure for information exchange, which historically ranged from traditional postal services to telecommunication networks, presently digital platforms can also be considered part of the infrastructure which connects individuals and institutions. Within these networks the utilities distribution systems are also integrated. These ensure essential services such as water supply, electricity, gas, and sewage. The proper functioning of these networks is vital for modern settlements and the well-being of their inhabitants.

³² *ibid.*

However these networks do not exist in isolation, as the connective infrastructure within communities, the design of these networks must harmonize with other ekistic elements of nature, anthropos, society, and shells. For example, transportation networks should consider natural topography while minimizing environmental impact. Simultaneously, utility networks should cater to population needs and support societal functions. Lastly, networks must exhibit adaptability and resilience. They should evolve alongside technological advancements, changing demographics, and shifting usage patterns and ensures their ability to withstand and recover from disruptions, be they natural disasters or other crises.^{33 34}

The elements of Ekistics as explained, set the conceptual basis of Doxiadis' work on cities and settlements. From a first look at the elements we can see that the system proposed by him was highly interdependent and made use of statistics, demographics, as well as other tools of analyses which were available to him at the time. The ideas of scale, interconnectivity, growth were important themes in Doxiadis' work which would continue to be seen in his work in Islamabad as well as his other projects. That being said, the idea of Ekistics was further extrapolated in light of the idea of Doxiadis' concept of an Ecumenopolis which is the vision of a global urban community. This led to the development of an exclusive scale for use in Ekistics which mapped the stages of growth of a settlement over time, this was then overlapped with the ekistic elements to develop strategies for the implementation of these elements at various scale levels.

³³ *ibid.*

³⁴ *ibid.*

2.2.3 Ekistics and Ecumenopolis

The aim of Ekistics was to achieve the fulfilment of Ecumenopolis, which can be translated as the global city. It was Doxiadis' belief that the technological advancements of the world post-world war II and the subsequent growth in population would lead to the development of large settlements the scale of which would be unprecedented in size. The growth of cities would reach a scale where they would agglomerate with other settlements forming one large urban continuum.³⁵ This agglomeration of settlements would eventually yield a global urban community which he referred to as the Ecumenopolis, and which he claimed would eventually be the new norm of future urban life.³⁶

It is to be understood that Ecumenopolis does not refer to a single city, rather an agglomeration of smaller settlements working in tandem with each other in the scope of Ekistic principles to develop an interconnected and interdependent community on a scale that had never been seen before in cities of the past. Doxiadis explained that the Ecumenopolis would certainly develop over time irrespective of the involvement of ekistic theory as the world developed more technologies which made communication, interconnectivity and collaboration between nations easier. However, due to the global scale of the Ecumenopolis, it would require systems and its elements to function seamlessly. According to Doxiadis since the Ecumenopolis was an agglomeration of multiple cities and urban areas, the traditional scales of the era could not hope to address the concerns of this future. A new scale was needed, which could flexibly be applied over different scales, would allow the designers and planners to easily analyze and address the problems posed within the Ecumenopolis.³⁷ This new scale was opportunely provided by the ekistic theory whose scale was

³⁵ Doxiadis, Constantinos A. "Ekistics, the Science of Human Settlements." *Science* 170, no. 3956 (1970): 393-404.

³⁶ *ibid.*

³⁷ "Ekistic Elements." *Ekistics* 41, no. 247 (1976): 346-55.

based on the anthropos, an individual, but was able to expand to the level of the Ecumenopolis. The theory of Ekistics depended on fusing scientific methods, analytical tools available at the time with preexisting notions of urban theory.

The scale was unique in terms of looking at the city in terms of the individuals residing in it. In this fashion, the house, the individual, the neighborhood all got connected as equal participants within the fabric of a city, however the scalar positions accorded to the different elements allowed for a clear hierarchy of scale to form when looking at the city from an interventional or analytical perspective. This was an attempt at simplifying the complex interconnections within an urban environment, and it would explain its appeal in the realm of urban theory at the time where discourse was aimed at understanding the complex interconnections within the fabric of a city.

Within the Ekistic units scale the Ecumenopolis represents the culmination of the ekistic scale, containing within itself the entire population of the world. The basic unit of the scale is the Anthropos, a single person with individuals being added in terms of social groupings at every level eventually reaching the level of a polis (city). The position of the city in the center of the scale allows the planner to view the city as a product of its smaller communities but also as one of the parts of a larger global system of interconnection.

As shown in the tables 2.1 and 2.2, the ekistic grid, combines the ekistic units which define the scale of a settlement with the elements of Ekistics in order to simplify the scaling of the elements in accordance to the size of a unit. This would form the basis of Doxiadis' Community Classes in the city of Islamabad, which made extensive use of this metric to develop communities in accordance to the principles of Ekistics.

Table 2. 1 Ekistic unit scale denoting the various settlement sizes in the scale.
Source: Doxiadis, Constantinos. A. "Ekistics, the Science of Human Settlements".
Science, vol.170, no.3956, October 1970, pp. 393-404

Unit Number	Ekistic Unit	Population
1	Man	1
2	Room	2
3	Dwelling	4
4	Dwelling group	40
5	Small neighbourhood	250
6	Neighbourhood	1,500T
7	Small town	9,000
8	Town	50,000
9	Large city	300,000
10	Metropolis	3,000,000
11	Conurbation	14,000,000
12	Megalopolis	100,000,000
13	Urban region	700,000,000
14	Urbanised continent	5,000,000,00
15	Ecumenopolis	30,000,000,000

Table 2. 2 The ekistic grid, the ekistic units are placed against the ekistic elements
Source: Doxiadis, Constantinos. A. "Ekistics, the Science of Human Settlements".
Science, vol.170, no.3956, October 1970, pp. 393-404

EKISTIC UNITS		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Man	Room	Dwelling	Dwelling group	Small neighbourhood	Neighbourhood	Small town	Town	Large city	Metropolis	Conurbation	Megalopolis	Urban Region	Urban continent	Ecumenopolis
ELEMENTS	Nature															
	Man															
	Society															
	Shells															
	Networks															

2.2.4 The Dynapolis as part of the Ecumenopolis

The concept of a Dynapolis is closely related to the concept of Ecumenopolis in that it provides the practical definition of how cities could adapt to the eventual development of the Ecumenopolis. In this theoretical framework and indeed in Doxiadis' own words, the development of the Ecumenopolis was "inevitable" whether by the intervention of Ekistics or without its involvement. From the lens of this inevitable fact of urban development, Ekistics sought to give a solution in the form of a dynamic city model which would be able to grow perpetually. The ability of the Dynapolis in terms of its adaptability to the future conditions of the world, prompted Doxiadis to refer to it as the "city of the future".³⁸

As seen in his approach of the Ecumenopolis where he was concerned with the scaling of the principles of Ekistics, to eventually respond to the requirements of the global urban settlement, Doxiadis, in the case of the Dynapolis focused on the development of an approach which would allow the unlimited growth of the city while on some level maintaining the humane scale of communities. This presented a unique problem in the context of the city regarding how to achieve a society based on the anthropometric scale while at the same time ensure that it grew dynamically and to ensure that it did not embody the issues of growth that the cities of the past endured. The traditional model of urban growth allowed cities to grow concentrically where the city center grew proportional to the city, but the issue with this concentric growth model would be that the city center would grow into adjacent areas which were never intended to receive central functions, which would lead to haphazard conversions, bottlenecks due to insufficient infrastructure, the city center thus would get inhibited in terms of serviceability. This would result into an

³⁸ Mahsud, Ahmad Zaib K. "Doxiadis' Legacy of Urban Design: Adjusting and Amending the Modern." *Ekistics* 73, nos. 436/441 (2006): 241-263.

inadequate functioning of the city center and by extension the whole urban area.³⁹ Hence it was clear to Doxiadis that to achieve the Dynapolis would require that the city would need to have an infrastructure which would allow the services to be provided to the city, unhindered by its growth. This formed the basis for the parabolic growth model proposed in the Dynapolis where the city projects outwards in a single direction with the city center growing with the city itself. (See Fig. Concept of Dynapolis). The parabolic growth model formed the basis of the layout of the infrastructure and the proscribed growth pattern of the city center in the Dynapolis but the question of maintaining the anthropometric scale in the living communities remained to be addressed.

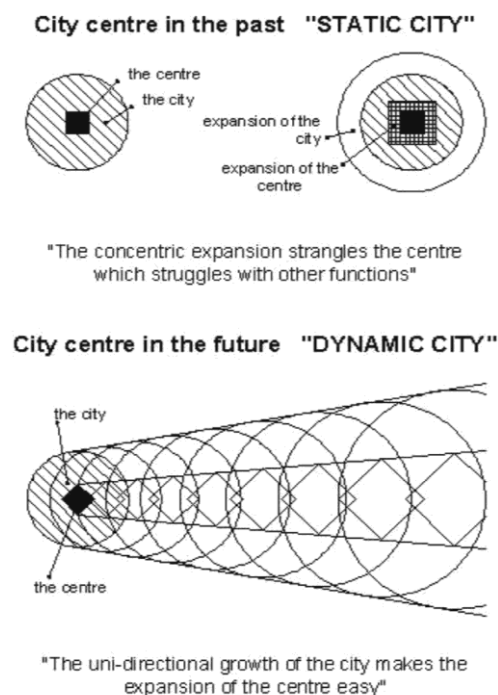


Figure 2.5: Image showing the concept of the Dynapolis through the difference between a static city and a dynamic city

Source: Doxiadis, Constantinos. A. "Islamabad," *Town Planning Review*, vol. 36, April 1965

³⁹ Botka, Dusan. "Islamabad after 33 Years." *Ekistics* 62, nos. 373/374/375 (1995): 209-235.

The solution that Doxiadis conceptualized was through the formalization of the ekistic scale into the Community Classes, a hierarchical model of a group of communities which would be formed through developing communities based on the ekistic elements; nature, anthropos, society, shells and networks where the scale would be based on the anthropos.⁴⁰ The limitation factor in the scale of these communities would be the ease of access of the individual within the community to access the necessities of their life in the city. This would essentially limit the dimensions of the settlement thereby restricting it into a finite boundary defined by the metric of ease of access. By this virtue the communities became the static elements of a Dynapolis due to their inability to grow beyond a certain size due to its adherence to the human scale.

The Dynapolis attempted a hierarchy of scale in the infrastructure which was done through establishing a class of scales which would be implemented as the city grew. This hierarchy of scales, based on the ekistic logarithmic scale, stated in order as; anthropos, automobile, airplane and eventually rocket, allowed for Doxiadis to implement the scale of the automobile as the driver of the dynamic growth of the Dynapolis, with the dynamic city center growing in tandem with the city while the anthropocentrically scaled sectors (Community Class V) were to be repeated in perpetuity as units along the route of this dynamic growth.

The community class V (sector), which represented the largest community class of the human scale was designed to support a population of fifty thousand. The scale of the sector, a square of the dimensions 2km x 2km was based in historic precedent, as shown by Doxiadis in his illustrations to contain the old cities of the past, represented the maximum extent of a community based on the human scale.⁴¹ The Sector was designed as a product of multiple orders of Community Classes

⁴⁰ Frantzeskakis, John M. "Islamabad, a Town Planning Example for a Sustainable City." *WIT Transactions on Ecology and the Environment* 120 (2009): 75-85.

⁴¹ Mahsud, Ahmad Zaib K. "Rethinking Doxiadis' Ekistical Urbanism." *Positions* 1 (2010): 6-39.

patterns of the 1950s and the 1960s where countries would find themselves in urgent need of settlements to accommodate their growing populations.

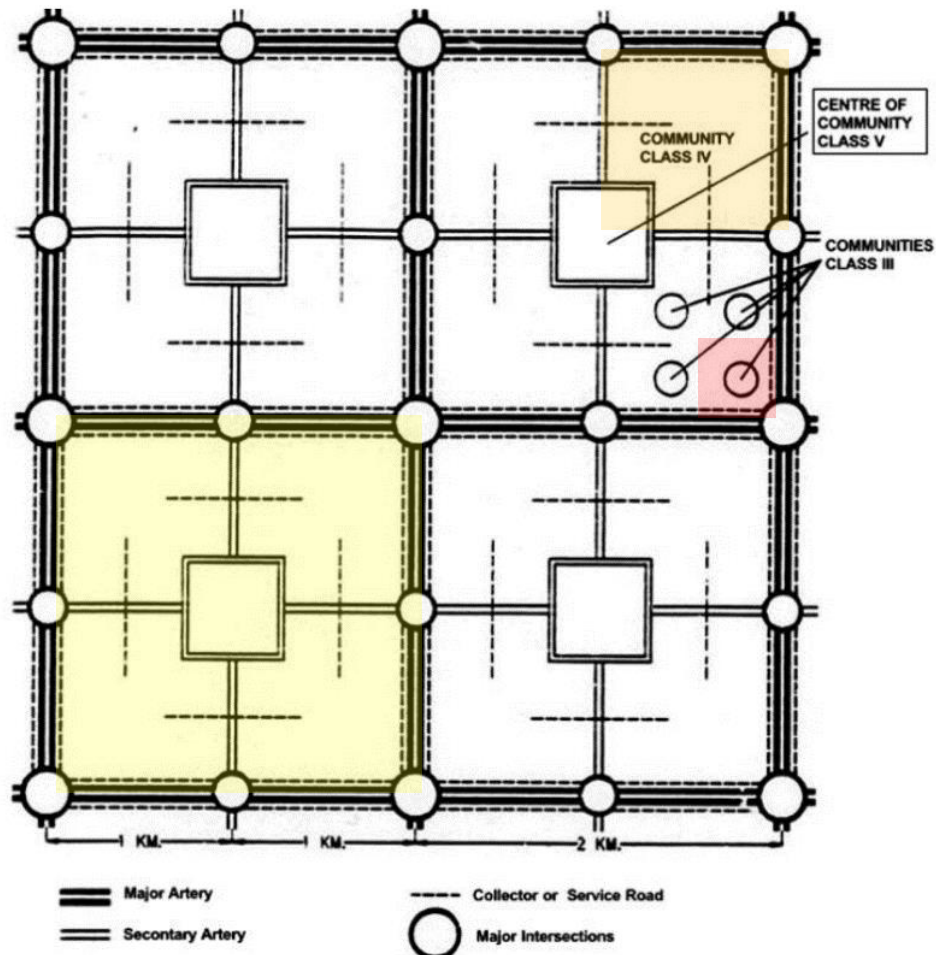


Figure 2.6: Image of four community class V grouped together, yellow denotes the Community Class V, Orange; Community Class IV, Red; Community Class III
Source: Adapted image prepared by Author based on Frantzeskakis, J. (2009)

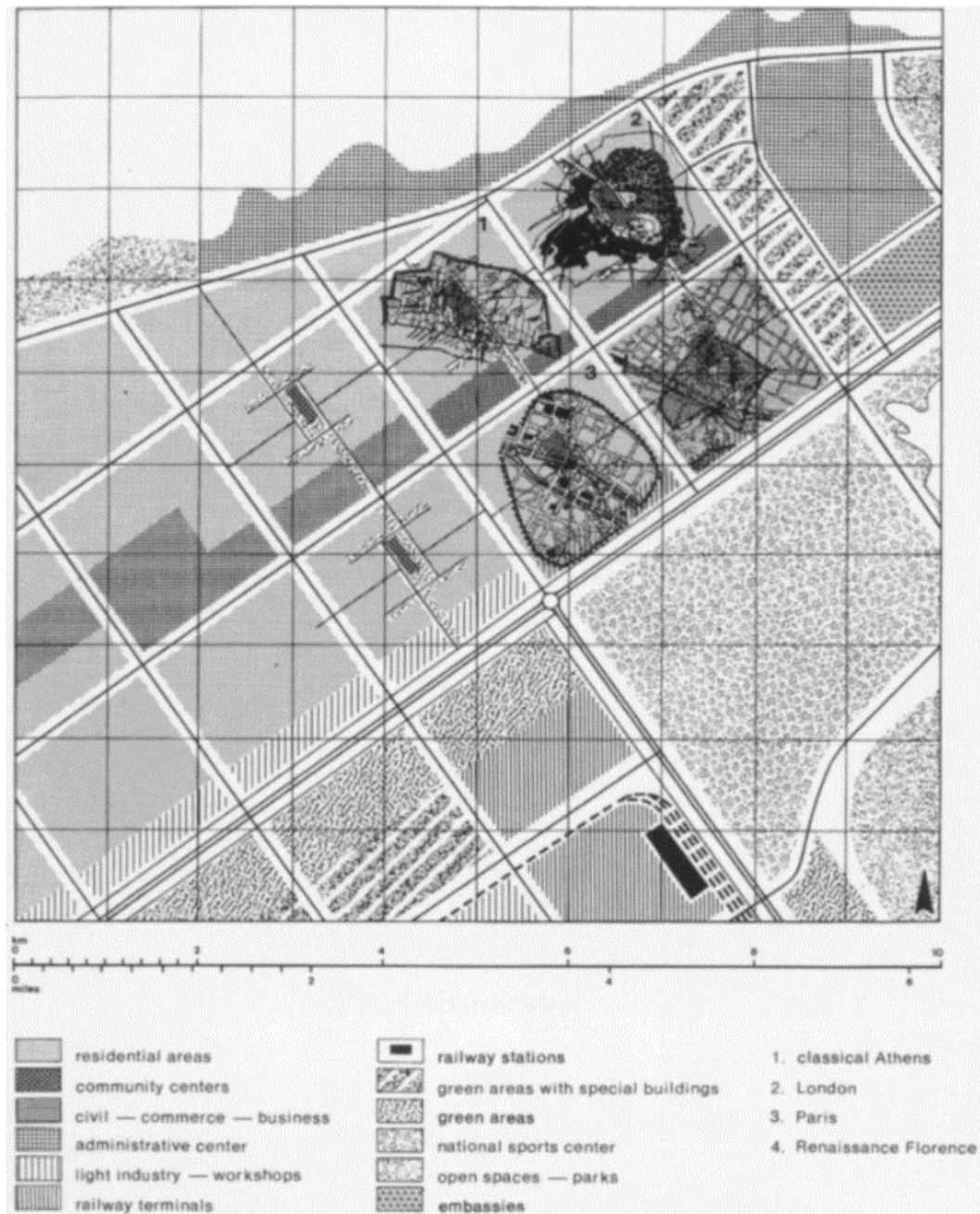


Figure 2.7: The sector containing the historical cities of the world
Source: Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

2.3 Islamabad as the Dynapolis

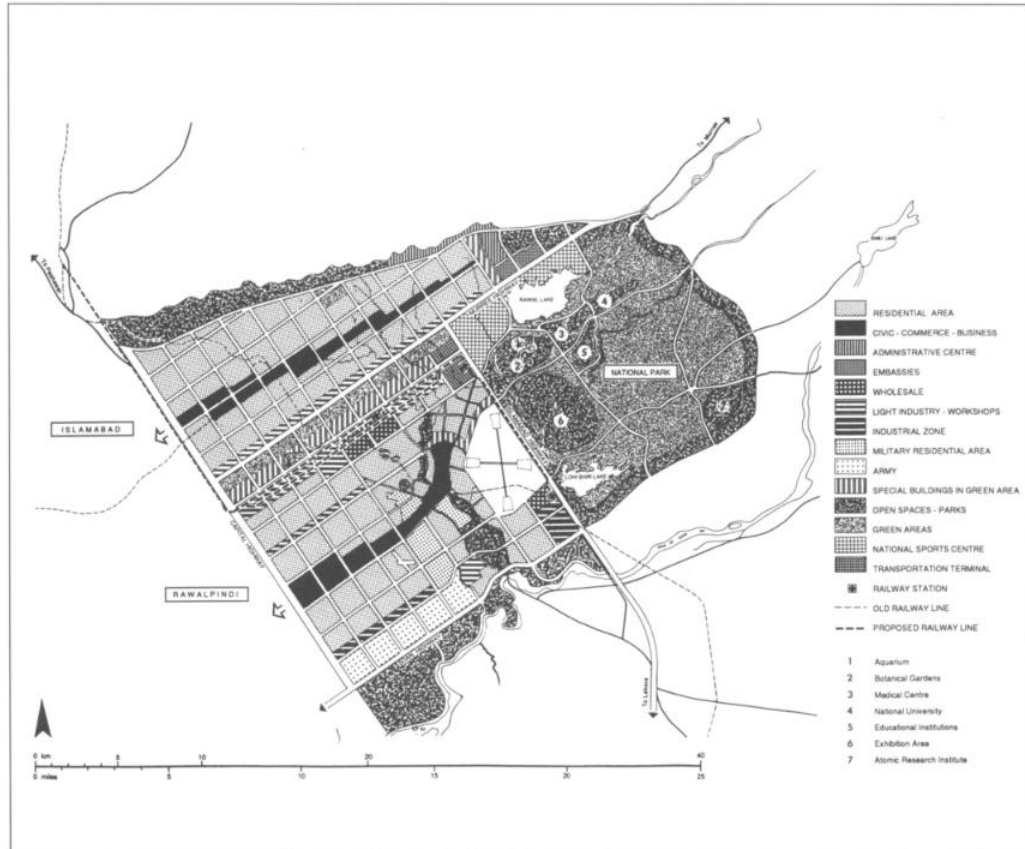


Figure 2.8: Master plan of Islamabad

Source: Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

The city of Islamabad occupies the space between the Margalla hills and Rawalpindi. The city characterized by its gridiron pattern presents the image of a green urban setting with nature being an integral part of the city. The overall area of the Islamabad City can be divided into three equal parts, the city proper of Islamabad, the city of Rawalpindi as the twin city, and the national park area on the south-western part of the city, extending up to the Rawal Lake which is a water reservoir built to attend the water needs of the city. The Capitol (Presidency, Prime Minister Residence, and Supreme Court) and the Diplomatic Enclave is built on the Eastern extent of the city proper of Islamabad. Thus, Islamabad by virtue of its layout

originates from the capitol and projects its growth westward, this is consistent with the idea of the Dynapolis which grows perpetually in one direction.⁴²

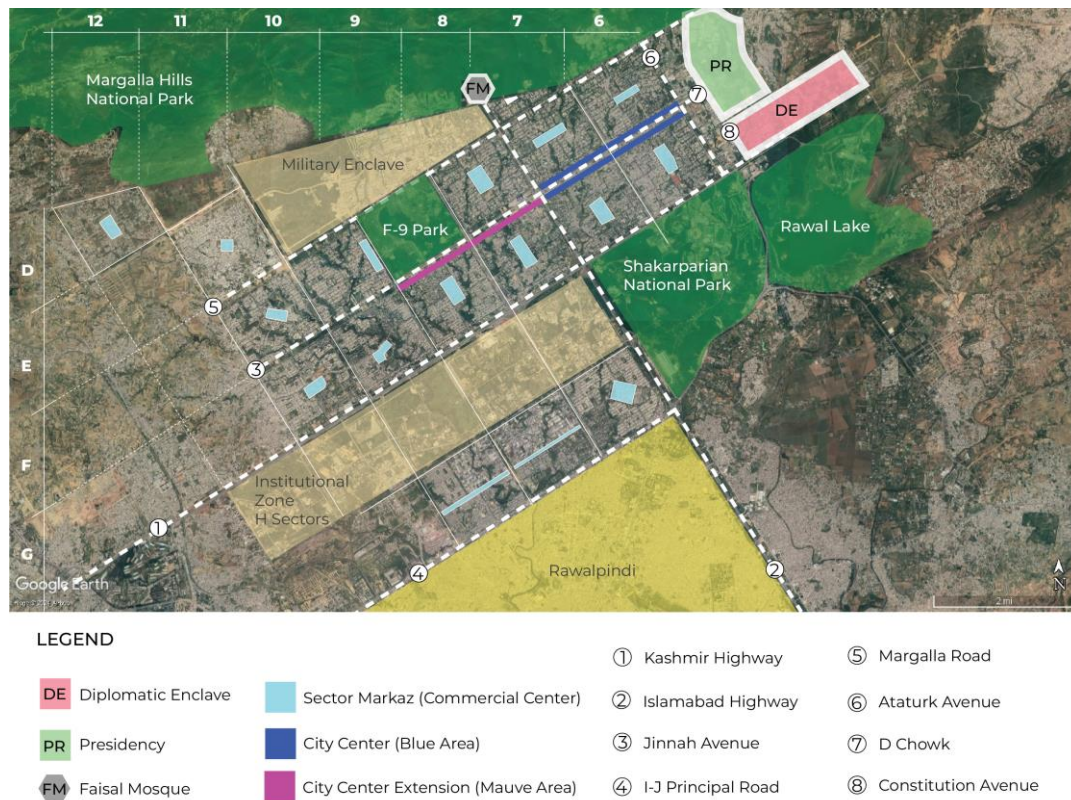


Figure 2.9: The key locations within Islamabad

Source: Adapted Image prepared by Author, based on map by Google Earth

The city is divided into sectors which correspond to the community class V of the ekistic scale, with the local commercial area (Markaz) occupying a central position within the sector. The sectors are connected by high speed roadways designed for the automobile which is the primary mode of transport for intercity travel. These sectors are further divided into the subsectors (Community Class IV) with smaller subsector commercial areas arranged within them to provide the daily necessities of life for the sub communities inside (Community Class II and Community Class III).

⁴² Lovejoy, Derek. "The Design of Islamabad – New Capital City of Pakistan." *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.

The naming convention for these sectors is based in the position of the sectors on the grid. The placement on the North-South Axis is denoted by a letter, and the position on the East-West axis is denoted by a number character.

The dynamic city center straddles the central highway (Jinnah Avenue) originating from the capitol and going westwards in the direction of the growth of the city. The city center would thus continue its westward trajectory growing dynamically and would remain at the center of the city as it grew. The city center is divided into areas corresponding to the order in which they are to be developed e.g Blue Area (Phase 1), Mauve Area (Phase 2) etc. The city center is designed to respond to the needs of the whole city, in that it performs the higher commercial functions which cannot be fulfilled in the Markaz. Due to the fact that the center provides functions on the city scale it is overall based on the scale of the automobile with parking lots dividing the multistory commercial buildings into walkable city blocks. These blocks, are designed for use by pedestrian traffic and follow the layout of the Markaz in the sectors highlighting an attempt to link the automobile and human scale in the city center.

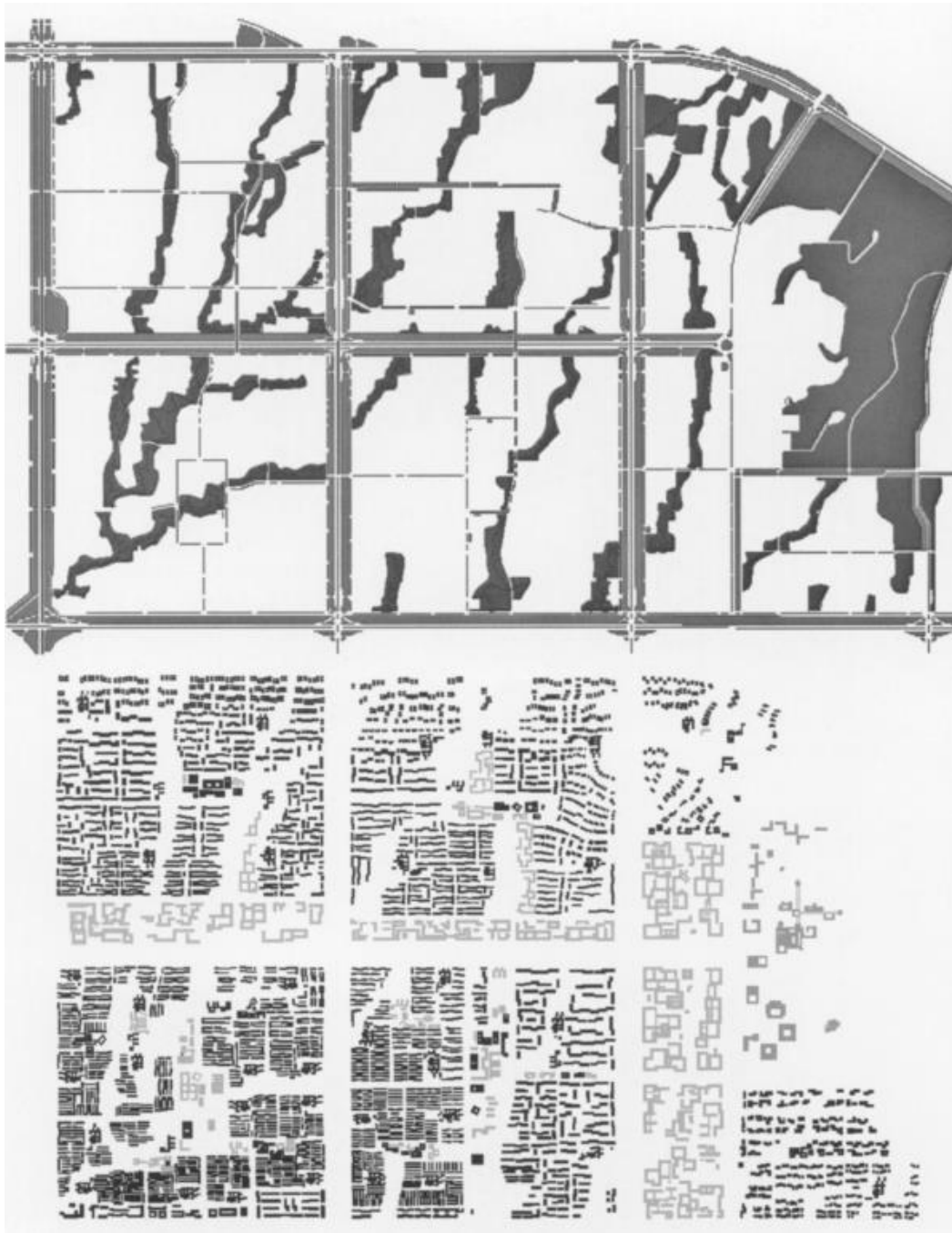


Figure 2.10: The existence of the 3 orders of grid (above), separately the shells of the sector are shown with the distribution of residential and commercial & administrative units shown in the first four sectors of Islamabad.

Source: Mahsud, Ahmad Zaib K. "Doxiadis' Legacy of Urban Design: Adjusting and Amending the Modern." *Ekistics* 73, nos. 436/441 (2006): 241-263.

2.4 Morphology of the City

The city utilizes three orders spatial design grids to organize the various functions required by the city as well as to vary the different scales of settlements within the city integrating them into overarching infrastructures which unify the settlements into a unified city. The morphology of the city is heavily influenced by the presence of these as they are the organizing metrics used for the arrangement and integration of overall communities, public functions and services into the fabric of the city. This integration is done through the three spatial design grids; Formal Grid (the 2000 meter grid as mobility, utility and green corridors), Ecological Grid (the preserved natural ravines forming the diagonal open space system), and Social Grid (the pedestrian network with integrated open spaces across the city).⁴³

2.4.1 The Formal Grid

The grid forms the basis of the repetition model of the Dynapolis and is one of the defining identifying features of Islamabad at the first glance. The idea of walkability and the adherence of human scale influences the design of the sector (Community Class V) which in terms of the Dynapolis model is the unit cell of the formal grid intended to repeat over time as the city grows. Thus the form of the formal grid was highly dependent on the dimensions of the sector (Community Class V).

Doxiadis argued that old traditional cities of the past were designed in a way that allowed users to reach the center in no more than ten minutes of walking⁴⁴, the distance from the edge to the center if seen from this modulus then becomes 1km which can be traversed in ten minutes. The distance of walkability when projected

⁴³ Mahsud, Ahmad Zaib K. "Rethinking Doxiadis' Ekistical Urbanism." *Positions* 1 (2010): 6-39. pp.33

⁴⁴ Doxiadis, Constantinos A. "Ekistics, the Science of Human Settlements." *Science* 170, no. 3956 (1970): 393-404.

from the center forms a radius of walkability, however the circular range of walkability, which itself is an approximation of the actual time it takes to move from one point to another, would be inefficient if the sector was designed on this metric alone. In the context of a larger infrastructural system based on the automobile, which was intended to connect the grid of sectors (Community class V) to form the city, efficiency was the main determinant. Based on these determining factors, the sizes of the sector were formalized into the dimensions of 2km x 2km, with the sector commercial area (Markaz) placed in the geographic center of the sector which places the residents of the sector within walkable distance from the Markaz. The road network which then connects these sectors is defined by the cell size of the sector, forming the square grid of the city.⁴⁵

2.4.2 The Ecological Grid

The topography of Islamabad with its undulating terrain and streams with the accompanying deep ravines required levelling and infilling to make the land conducive to the construction of the strictly geometric formal grid. The streams presented a challenge to the construction of the sectors where levelling out the streams and the ravines was unfeasible, hence it was decided by Doxiadis to incorporate these natural features of the landscape into the design of the city, where the streams would be used as a tool to create variation within the plan in its implementation, in that the regular geometric arrangement of the sector is broken by the flow of natural streams.⁴⁶ These streams, locally referred to as *nallahs* are accompanied by un-programmed green spaces which lend the city a natural element in fulfilment of the concept of Ekistics. The streams are also used as an organizing

⁴⁵ Doxiadis, Constantinos A. "Islamabad, the Creation of a New Capital." *Ekistics* 72, nos. 430/435 (2005): 113–130

⁴⁶ Lovejoy, Derek. "The Design of Islamabad – New Capital City of Pakistan." *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.

factor for the placement of social functions and institutes and forms the bulk of a larger ecological grid which also served as part of the public open-space system ⁴⁷ in the city which attempts to ensure the connection of the residents with nature as well as working to ensure variation in the repetitive layout of the sectors in the city. The term ecological grid in this context points to the significance of this system of open public spaces, the planted forests, streams, and the social programs associated with this system to the overall balance of the built elements of the city with the natural elements of the area in fulfillment of the criteria of increased human contact with nature as prescribed by Ekistics.⁴⁸ Indeed the presence of the streams, provides variations in the locations of common functions in the sector and they also served as the determining factor for the placement of social functions and extraordinary elements (central community buildings) in the residential areas of the sectors, in relation to the idea of Ekistics to maximize contact of the inhabitants with nature. Additionally the use of the ecological grid produced ventilation corridors and promoted the integration of “nature” into the built landscape, this system would connect to the larger national park areas located in the Margalla hills and the Shakarparian Hill creating a system of connected natural areas within the city making “nature” accessible in the whole city.

The result is that, though every sector is the same in terms of services, accessibility and function, no two sectors look the same when seen from the human scale. The ecological grid also function as the greater unifying factor for the city, developing common features between diverse areas of the city, grounding them in the local landscape. This intent is precisely why Islamabad presents the image of a green city when seen as a whole. However, despite the position of the streams as the unifying

⁴⁷ Mahsud, Ahmad Zaib K. “Rethinking Doxiadis’ Ekistical Urbanism.” *Positions* 1 (2010): 6-39.

⁴⁸ Mahsud, Ahmad Zaib K. “Doxiadis’ Legacy of Urban Design: Adjusting and Amending the Modern.” *Ekistics* 73, nos. 436/441 (2006): 241-263.

factor of the city, they are inaccessible to the public and lack any formal program, left as patches of wilderness.⁴⁹

2.4.3 The Social Grid

The design of the human community within the sectors was done keeping the pedestrian access at the forefront of the planning considerations. As can be seen in Fig 2.9 which represents the ideal human community according to the principles of Ekistics, the interference of the vehicle roads were kept at the peripheries. Where the vehicle roads had to be placed inside the community block, they were in the form of cul-de-sacs with the speed of movement conducive to the human community to minimize its impact on the residents.⁵⁰

Movement through the local communities (Community Class II and Community Class III) was mostly organized to facilitate the pedestrian traffic, with the vehicle roads and their associated pedestrian walkways arranged in the form of cul de sacs organized to link up to the pedestrian roads. The distribution of public open spaces in the community was provided by the variation of un-programmed open spaces (black lined hatch) and parks (green) within the urban fabric for the necessary interactions within the community, these spaces were linked to the pedestrian roads to ensure that the pedestrian network functioned as the social space network within the communities, linking to the pedestrian network of surrounding communities, eventually becoming the social grid of the city. The placement of parks as social spaces with a more formal application of “nature” as compared to the ecological grid which encompassed the natural enclaves within the city which were not bound by the rules of the formal and social grid. The parks, thus, in the way they were planned as pockets within the urban environment, their linkage to the urban open spaces

⁴⁹ *ibid.*

⁵⁰ *ibid.*

through the pedestrian network ensured that the parks would be a different kind of public open space acting as part of the social grid adhering to the geometric layout of the social and formal grid while maintaining the connection of the residents to “nature”.

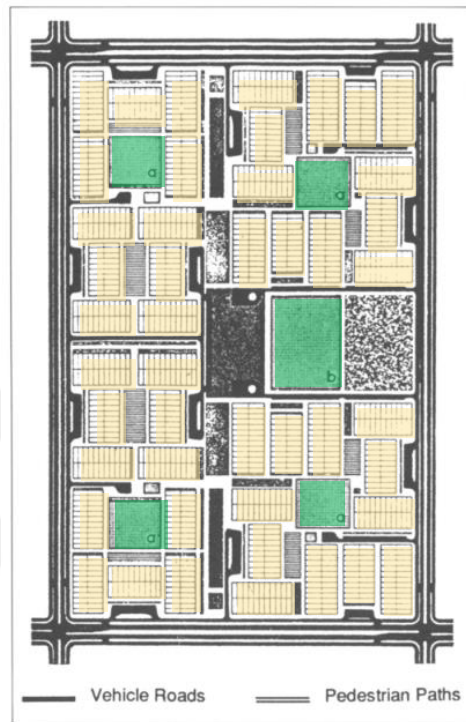


Figure 2.11: The Ideal Human community, housing units (yellow), parks (green) and open urban spaces (grey hatched) are connected through the pedestrian network (white).

Source: Adapted image prepared by Author, based on image by C.A. Doxiadis Associates. Color added for clarity by author based on the descriptions provided in the original text.

Based on the diagram it can be inferred that the smaller communities (Community Class I and Community Class II) would have the public spaces occupying their center to provide the necessary social functions of the community. Within the center of the community lay the local commercial center which would cater to the needs of the residents and would be within walking distance of the residents. The design of the human community allowed all the needs of the citizens to be met through local centers reducing automobile dependence in the communities, limiting it for travel to

other parts of the city. The implementation of this social grid onto the city of Islamabad necessitated other factors of delimitation which affected the way the social infrastructure functioned within the city. The major delimitation of income based dwelling decided the grain size, the social fabric, and the income based homogeneity of the society in Islamabad.

The size of the dwellings were planned based on the Basic pay scales designated by the government of Pakistan. The grain size of the sectors, thus, was determined by the economic status of the civil service employees, which in itself represented the higher income classes of the society.⁵¹ This is consistent with Doxiadis' intent for the city where he desired a fairly homogenous income group to inhabit the city to achieve the vision of an egalitarian society.⁵² The income group definition did not merely delimit the size of the plots of land available, rather the size of the plots also determined the infrastructure available to these areas as well as the nature of the social functions available to them. As the economic status of these inhabitants determined their ability to be able to afford a car. The communities with the lower Income groups would be planned more on the scale of the anthropos with the integration of the automobile being preferred in communities of the higher income groups.⁵³

Table 2. 4 : Population division and classification

Source: Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

Income Group	Scale (BPS) – Grade	House type / House Area
A,B	1-4	350-800 sq. ft.
C,D,E,F	7-18	800-2000 sq. ft.
G,H,I	20-22	2000-3200 sq. ft.

⁵¹ Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

⁵² Kreutzmann, Herman. "Islamabad." *Südasiens-Chronik/South Asia Chronicle* (2014): 135–160.

⁵³ Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

This delimitation according to the income groups of the government pay scale would be a prudent decision where government dwellings were concerned, which were to be built by the government and required standardized design. The units were intended to be occupied temporarily by government employees who would move to different units as they progressed through the bureaucratic hierarchy. However this delimitation was not just limited to the government built housing units, but rather was applied to the whole city, determining the plot sizes throughout the city. Resultantly, private development in the city would also be affected by this delimitation, effectively ensuring that income classes who did not possess the resources equivalent to the income groups specified would not have space to live in the city.⁵⁴

The design of the ideal communities with their various dwelling sizes and community formations, when implemented onto the site, were molded according to the presence of the *nallahs* (ravines characterized by streams flowing in them) the fabric of the sector is then formed in part by the presence of the *nallahs*. The sector then shows a patchwork of various communities based on the various income groups, in proximity with each other, connected through the social grid which forms the pedestrian pathways and the attached social spaces and parks, and the presence of the green enclaves provided by the *nallahs* (streams).

⁵⁴ *ibid*

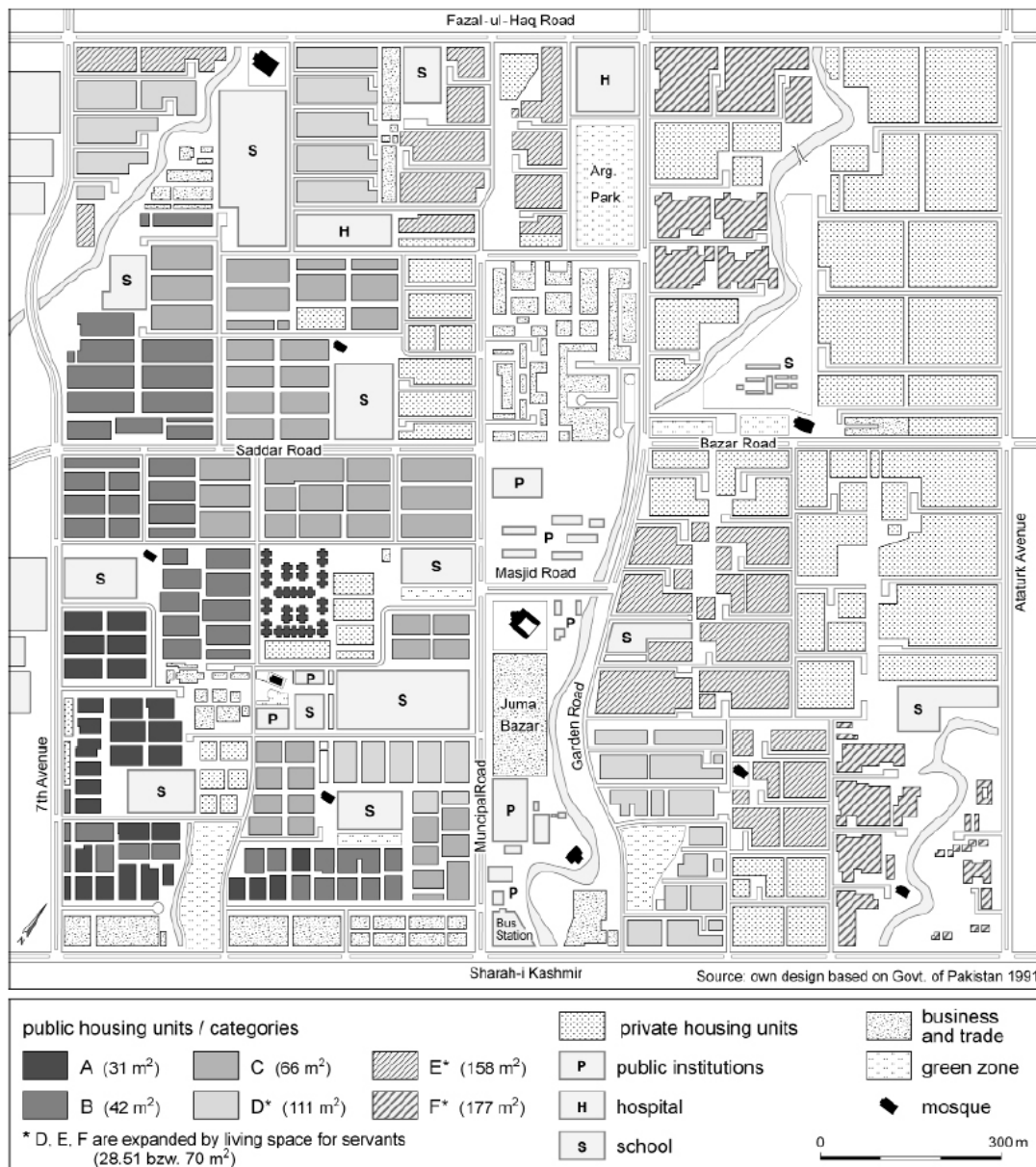


Figure 2.12: Distribution of Housing Units in Sector G-6
 Source: Kreutzmann, Herman. "Islamabad." *Südasiens-Chronik/South Asia Chronicle* (2014): 135–160.

2.5 Islamabad Summarized

To summarize, Islamabad was designed as the manifestation of the concepts of Dynapolis, Ekistics and “entopia” and thus represented the epitome of Doxiadis’ practical implementation of his theory. However from the initial planning we can see the compromises that he had to make in the realization of his concepts, though the original plan of the city showed great adherence to the ideas of Ekistics, in that it utilized the ekistic grid, the hierarchy of Community Classes, the infrastructure of highways with vast right of ways, and a connection to nature in the form of National parks and the ecological grid. The plan of the city, it seemed, did indeed represent the values of the “entopia” that Doxiadis advocated, however, the initial plan of the city as envisioned, presented a different picture when implemented on the complex social and geographical context of the site, where many (not all) of the problems that currently affect the city stemming from the circumstances surrounding the implementation of the plan or the planning decisions taken for the city.

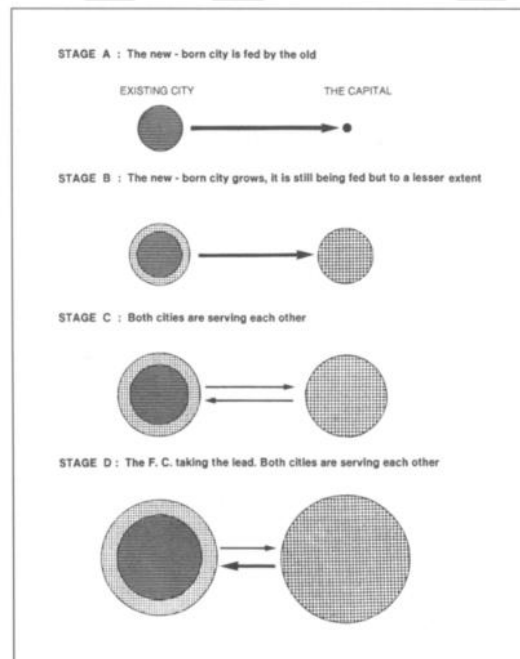


Figure 2.13: Complementary roles of Islamabad and Rawalpindi

Source: Botka, Dusan. “Islamabad after 33 Years.” *Ekistics* 62, nos. 373/374/375 (1995): 209-235.

2.6 The Rawalpindi Problem, Worker camps and the Katchi Abadi

The “problem” of the location Rawalpindi presented itself quite early in the planning process, as the site for the city of Islamabad was chosen in close proximity to the older city, though this problem was promptly resolved by Doxiadis through the idea of “Twin Cities”, this application of the framework of Ekistics proscribed that the old city be maintained as it is and new connections be formed with the new developments in Rawalpindi which would follow the rules of Ekistics. Thus Islamabad and Rawalpindi would both follow the grid laid out in the master plan with Rawalpindi following a growth pattern parallel to Islamabad, this pattern of growth similar to Islamabad in that it utilized the same gridiron configuration with human communities in the form of sectors with the same dimensions as Islamabad and the presence of the same highway and avenue networks as Islamabad would eventually lead to Rawalpindi being eventually incorporated into the urban fabric of Islamabad. This would unify the two cities into a collective whole community which was consistent with the ideas of Doxiadis regarding the formation of an Ecumenopolis. Thus, his approach towards Rawalpindi gives us a brief glimpse of his idea regarding the future of settlements and the eventual achievement of the Ecumenopolis through Ekistics.

It was Doxiadis’ assumption that the city of Rawalpindi would provide the labor for the construction and the eventual serviceability of Islamabad. Where Islamabad could then be constituted of the government civil servants arranged within the city according to the income classes defined (see Table 2.4 and Figure 2.12) which were expressed within the built environment of the city arranging people in similar income groups in proximity to each other allowing them to potentially develop a cohesive community which would then possibly lead to development of an egalitarian society that Doxiadis envisioned through the application of Ekistics. Rawalpindi, then, would be occupied by the labor that serviced the city. This can also be seen in the way that Doxiadis zoned income classes within the city (show diagram). Where the proximity to the capitol (Presidency, Prime Minister Residence, and Supreme Court)

and the Margalla hills would determine the overall economic classes who would inhabit the sectors, with the economic classes going lower with increasing distance from the capitol and the Margalla hills.^{55 56 57}

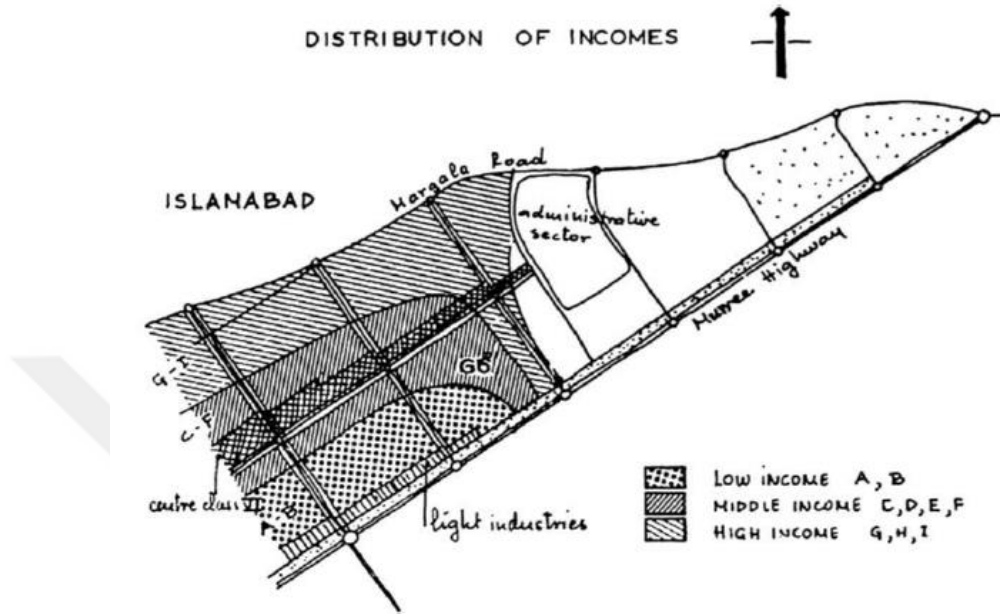


Figure 2.14: Distribution of incomes and area Allocation (1961)
Source: CDA Archives Islamabad, Document: DOX-PA 146; p.11

The development of the city of Islamabad also proved a challenge to Doxiadis who had hoped to extract the labor resources for constructing Islamabad from the neighboring Rawalpindi, but Rawalpindi, at that time did not have enough specialized labor required for the construction of Islamabad, its infrastructure and the buildings within it, this labor, then had to be sourced from throughout the country, which Doxiadis' patrons completely facilitated, but this was a paradigm shift that Doxiadis had not anticipated. The labor that was sourced from throughout

⁵⁵ Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

⁵⁶ Karim, Farhan. "Between Self and Citizenship: Doxiadis Associates in Postcolonial Pakistan, 1958–1968." *International Journal of Islamic Architecture* 5 (2016): 135-161.

⁵⁷ Mahsud, Ahmad Zaib K. "Doxiadis' Legacy of Urban Design: Adjusting and Amending the Modern." *Ekistics* 73, nos. 436/441 (2006): 241-263

the country was facilitated in worker camps in close proximity to the construction site (the city of Islamabad itself), owing to the long duration of the project, these worker communities grew organically to form informal settlements which was contrary to the ideas embodied by Islamabad.⁵⁸ After the completion of the Project it was expected that the labor would leave the city and return to their own homes, but the economic incentive given to them in order to attract them to the city, also led to them staying in Islamabad due to the improved economic prospects provided by staying in the city. Indeed, some of the worker camps built at the time eventually became the *katchi abadi* (informal settlements) (informal settlements) that dot Islamabad's landscape today. The presence of these settlements was reluctantly tolerated as Islamabad did need this labor in close proximity for the services (maintenance of city functions, sanitation, domestic help etc.) in the city, a shortage, which the labor present in Rawalpindi could not completely fill.^{59 60} Though Doxiadis was against the development of economic ghettos, his approach regarding Rawalpindi and the temporary status given to the service labor in Islamabad is not consistent with the concepts presented in Ekistics.

2.7 Islamabad now and its problems

The growth of the city over time has made some issues visible from the original plan which now affect the city and its inhabitants. Other issues are also present which are based in other factors. This part aims to reflect on these issues and the current form of the city.

⁵⁸ Daechsel, Markus. "Misplaced Ekistics: Islamabad and the Politics of Urban Development in Pakistan." *South Asian History and Culture* 4, no. 1 (2013): 87-106.

⁵⁹ *ibid.*

⁶⁰ Kreutzmann, Herman. "Islamabad." *Südasiens-Chronik/South Asia Chronicle* (2014): 135-160.

2.7.1 Presence of Informal Settlements and the Housing Issue

Temporary squatter settlements grew up when Islamabad was being built, occupied by construction workers and located close to various construction sites. According to Kreutzmann, in his own words; “Doxiadis’ social segregation had included only occasional ‘followers’ colonies (in G-6/2 and F-7/4 for example). Most domestic workers were to live in ‘servants’ quarters of wealthy residents.”⁶¹ This indicates that Doxiadis was indeed aware of the need of domestic workers and the presence of lower income class workers in the city, however the magnitude of this need was underestimated by him and the local teams assisting him on the project. The assumption that the majority of these workers would be accommodated within the “servant quarters” of the wealthier residents was a presupposition based in the superficial understanding of these workers’ impact on the functioning of the city itself. As was later found out, the need for service personnel to maintain parks, remove waste and clean public facilities as well as the need for domestic servants, launderers, cooks, drivers, gardeners, and security staff far exceeded expectations and the housing available to them in the city.⁶² It was Doxiadis’ assumption that this labor could be housed in Islamabad’s twin city of Rawalpindi, but the absence of quick and cheap public transport from Rawalpindi, with the alternative being private automobile transportation (which was improbable considering that this was the lowest income class) made this a logistically unfeasible idea as the workers and the nature of their jobs needed them to exist within the city of Islamabad.

Within Islamabad due to the planning of the communities and their income based exclusionary nature, there was a severe shortage of housing for these lower income group workers.⁶³ Resultantly, these workers, finding no formal housing in Islamabad and not being able to commute cheaply and quickly from Rawalpindi, thought it

⁶¹ *ibid.*

⁶² *ibid.*

⁶³ *ibid.*

prudent to occupy whichever piece of undeveloped land that was available close to their workplace building irregular communities in these patches of land, these communities are the *katchi abadi* (*informal settlements*) (informal settlements) we see in Islamabad today.

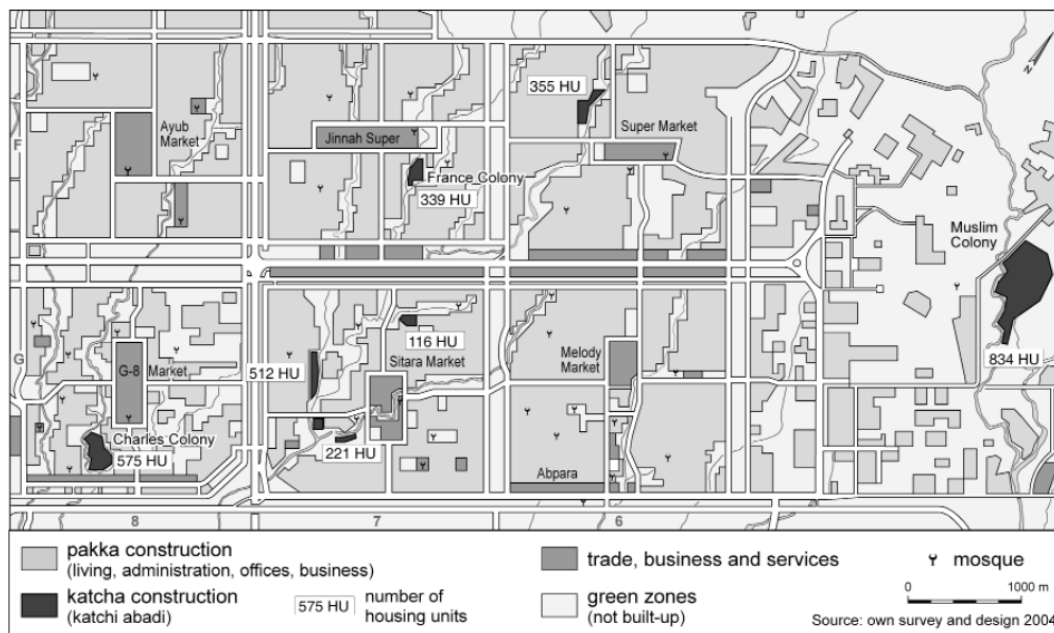


Figure 2.15: Localities of Katchi Abadi (informal settlement) in Islamabad
Source: Kreutzmann, H. (2014). Islamabad. *Südasiens-Chronik/South Asia Chronicle*, 135–160.

There was a logic to this pattern of development of *katchi abadi* (informal settlements) as we can see in the Figure 2.13. The placement of these settlements matches directly to the open green spaces provided by the ecological grid. The lack of any formal programmatic connotation on these open spaces as well as their proximity to the centers of the sectors could explain why these particular areas were chosen.

Ever since they have been inhabited, these settlements have been tolerated by the city managers as a necessary but undesirable part of the city. This has also informed their attitude towards these settlements which have a tense relationship with the residents of the planned city, where the residents of the *katchi abadi* are prevented

from integrating into the social fabric of the communities in the city. Kept under the constant threat of eviction, denied basic services and regulation of their built environment, all this is done to ensure that the residents remain passive and do not challenge the status quo of their living condition. Resultantly, this social isolation has caused the *katchi abadi* (informal settlements) to become closed communities forming their own social linkages within their own society with the rest of the city having little to no influence in the happenings within the enclaves. The social community within the *katchi abadi* thus can be compared in some ways to the social community within a traditional walled city of Pakistan, which develops its own internal social linkages, infrastructural system and hierarchies which are not influenced by the world around it. In other words, it shows the prevalence of a natural order based on the sensibilities of the community which is highly participatory.⁶⁴ However, in terms of the community, due to lack of participation from the city managers (CDA – Capital Development Authority) or any other government instruments for planning and development, in addition to the income constraint of the residents, the built environment of the *katchi abadi* (informal settlement) paints a sorry picture.⁶⁵ Houses exist as grey structures with only a few attaining completion with the rest being basic shelters made of un-plastered brick and concrete and fitted with temporary water tanks to store water attained from water bores or from lines withdrawn illegally through the main supply lines passing by these communities.⁶⁶

The absence of sanitation and utility services within these settlements has led them to develop their own network of open drains which direct all sewerage to the adjacent *nallah* (stream). The solid waste is also disposed in these *nallahs* which pollutes

⁶⁴ Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024)

⁶⁵ *ibid.*

⁶⁶ Waheed, Arslan. "“I Will Obey Whatever Orders Will Be Given to Me ...”: A Critical Discourse Analysis of an Affidavit from a Slum Upgradation and Rehabilitation Project in Islamabad, Pakistan." *Social Sciences* 10, no. 6 (2021): 187.

these natural water channels. It is important to note that the city managers blame the problem of the pollution and encroachment of the streams on the residents of these communities, however these communities are not the only contributors of waste, with other, much more socially advantaged members of the city, institutions and even the CDA being equally culpable in the pollution of these streams.

2.7.2 Imbalance in the Hierarchy of Commercial Areas

During Islamabad's construction, Doxiadis left the construction of the city center for later stages of development due to reasons of financial prudence, instead preferring to build the sectors first, leaving the city center to be built in later stages of development of the city.⁶⁷ The slow development in the city center area (Blue Area and Mauve Area) saw more commercial investments of the private sector to be observed in Community Class V centers (Markaz) like those of sector F-7 and F-6, causing them to take on functions of the city center, in the process displacing community level functions. For example, a health center in F-7 was demolished to build a shopping mall in its place, and a local library in F-6 was shut down with its building now being used by a chain restaurant. These displaced community functions mostly were not replaced, and in other cases were relocated to the subsector (community class IV) centers, in the process either displacing previous functions existing in those areas, or were developed on social spaces and park land, effectively reducing their land area.⁶⁸

⁶⁷ Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

⁶⁸ Tariq, Ayub, and Abdul Waheed. "Urbanization and Urban Patterns: the Islamabad Experience." *Journal of Xi'an Shiyu University, Natural Science Edition* 19 (2023): 326-350.

2.7.3 The state of Public Transport and an Automobile dependant city

The city from its inception was planned for vehicles with the formal grid, designed on the scale of the automobile, connecting the human communities. Though Doxiadis proposed that the formal grid be accompanied by a robust public transit network based in the grid network that was never realized due to a variety of reasons. In the initial years of Islamabad the absence of this network was not especially felt by the city as the efficiency of the formal grid in the use of private vehicles of the citizens proved to be sufficient. Over the years as the city expanded, instead of investing in the public transport network as intended in the original idea of Islamabad, the city managers preferred to widen the existing freeways of the formal grid to accommodate the influx of cars within the city which was brought about by its expansion. This was also consistent with the fact that as Pakistan improved economically, the car, seen as a symbol of prosperity in terms of social perception, became affordable to the urban population much earlier than anticipated by Doxiadis and his team.⁶⁹ In addition to this, the ability of the road networks to accommodate the larger number of cars and other smaller automobiles, coupled with the inefficiency of the public transport system led to the development of a culture in Islamabad to favor private transportation over public transportation.

The efficiency of the formal grid in terms of its ability to accommodate large volumes of vehicles coupled with the planning mismanagement of the city center (the city center could not develop as quickly as the city) has allowed certain community centers (Markaz) prompted by economic impetus to take up the function of a city center due to the fact that the Markaz were developed before the city center. The grid with its system of freeways enables movement to these parts with ease, albeit with a vehicle. The absence of any reliable public transport in this grid led to the city users having to resort to private modes of transportation, which has caused

⁶⁹ Lovejoy, Derek. "The Design of Islamabad – New Capital City of Pakistan." *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.

Islamabad to become a car centric city. Thus, an inability to afford private transportation directly affects the freedom of movement of individuals in the city, which, understandably reduces the opportunities available to them.⁷⁰ This is unacceptable as opportunity within a city should not be tied to the financial capability of an individual. Consequently, the city's formal grid and especially the private vehicle centric mode of transport espoused by it enables and even catalyzes the process of its stratification.^{71 72}

It is only recently that a reliable public transport system was introduced into the city in the form of a Bus Rapid Transit (BRT) which was built in 2015 connects the cities of Rawalpindi and Islamabad, however, its effectiveness can be debated upon as the necessary allied networks of public transport required with this metro line are absent, requiring commuters to traverse vast distances to access this public transport which in itself has a severely limited range.⁷³ It is clear that multiple new routes and modes of public transport need to be introduced in the city in order to democratize access of social and economic functions within the city.

2.7.4 Unregulated Growth and the Containment of the Dynapolis

The pressures of housing for the lower economic classes in the city sparked development in the national park area of Islamabad. Over time these developments were regularized but the erosion of the natural landscape as proposed in the original design of the city has been permanent. The Zone IV and Zone V area located

⁷⁰ Adeel, Muhammad, Anthony GO Yeh, and F. Zhang. "Towards an inclusive public transport system in Pakistan." *Transport and Communications Bulletin for Asia and the Pacific* (2016).

⁷¹ Hyder, Syed L., Lu Feng, and Zile Huma. "Conservation of Ekistics-Based Urban Form: Controlling Amalgamation of Twin City Growth Pattern." *Engineering Heritage Journal* 5 (2021): 12-21.

⁷² Karim, Farhan. "Between Self and Citizenship: Doxiadis Associates in Postcolonial Pakistan, 1958–1968." *International Journal of Islamic Architecture* 5 (2016): 135-161

⁷³ Hyder, Syed L., Lu Feng, and Zile Huma. "Conservation of Ekistics-Based Urban Form: Controlling Amalgamation of Twin City Growth Pattern." *Engineering Heritage Journal* 5 (2021): 12-21.

eastwards of the Islamabad- Rawalpindi highway which is the North-South axis of the city, consists of the National Park and the Agricultural Zone designated for use by the city. This area has rapidly given way to sprawling urbanization based on the impetus provided by the housing shortage within the city of Islamabad. This development informed by market forces is organic in nature and does not follow the pattern of Islamabad's development, and were unauthorized developments, eventually being given recognized by the CDA (Capital Development Authority).⁷⁴ The Current situation of the city as it is shows that the development which has taken place organically in the areas West of the city in the settlements of Shah Allah Ditta (D-13, C-13) Golra (E-11, E-12) Mehrabadi (G-12) and Fatehjang (Location of the New Airport of Islamabad, which already has more than six residential communities being built around the Airport) has placed limits on the westwards expansion of the city. As it stands, organic settlements surround the city on its East, South (Rawalpindi) and West, with the Margalla Hills blocking future growth in the North. Thus, Islamabad is fast becoming an island surrounded by organic growth with the Idea of the Dynapolis fast becoming irrelevant to the current city, giving way to unregulated urban sprawl and the problems associated with it.

⁷⁴ Tariq, Ayub, and Abdul Waheed. "Urbanization and Urban Patterns: the Islamabad Experience." *Journal of Xi'an Shiyou University, Natural Science Edition* 19 (2023): 326-350.

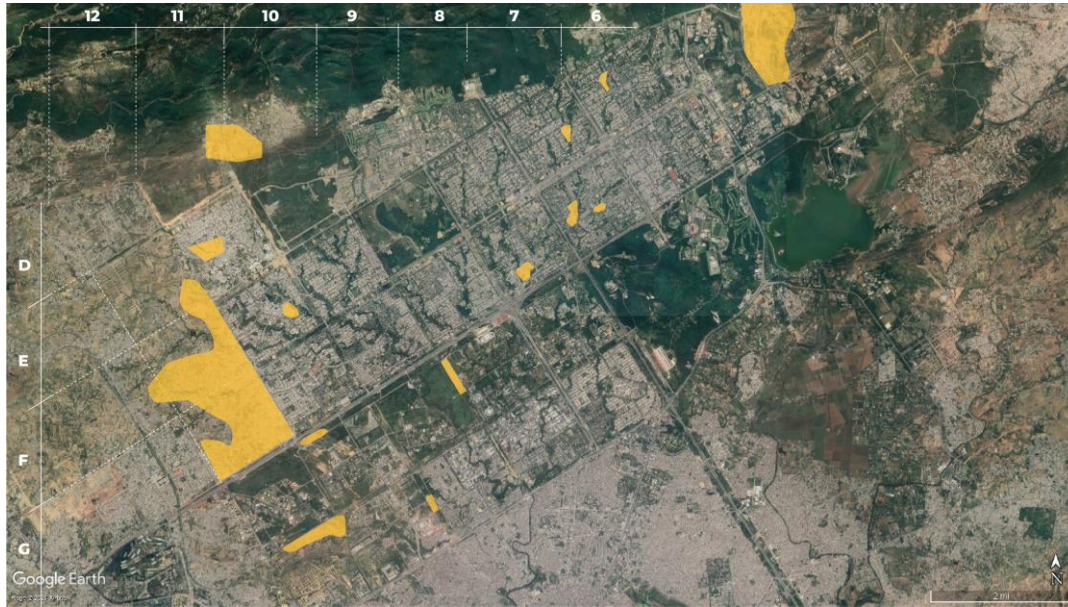


Figure 2.16: Map of Islamabad highlighting the informal settlements in the area.
Source: Adapted image prepared by Author, based on map by Google Earth.

2.7.5 Encroachment and Pollution of the Ecological Grid

The current situation of the ecological grid presents the picture of apathy by the CDA which did not implement the original intent of the master plan, in that it was supposed to be a natural enclave which would be accessed by the public in order to increase their connection to nature. In addition to not implementing the original plan, the forests that were cultivated along the streams and the green open spaces of the ecological grid were not maintained.

The current condition of the grid is that of an unkempt patchwork of forest and green space accompanying the nallahs, in some areas the forest was cleared to accommodate the katchi abadi (informal settlements), which the CDA passes the blame on for the current condition of the ecological grid. However, the nature of encroachment around the ecological grid is not just by the squatter settlements, private residences of the planned communities regularly encroach upon the land of the ecological grid to increase their share of land, additionally where the nallahs passes through the commercial centers the businesses attempt to cover the nallahs to

increase their buildable area. This leads to increased cases of urban flooding as the streams are part of the necessary drainage system of the region, and are instrumental especially in the rainy monsoon season, in directing water from the city towards the larger Leh stream which eventually joins the Soan River which is a tributary of the Indus River. Narrowing or blockage of the river flow can cause flooding in the adjacent areas.⁷⁵

The apathy shown to the ecological grid is also reflected through the fact that the forest land in the ecological grid is cleared to make room for informal private mosques. Raw untreated sewage and solid waste from the katchi abadi, and several institutes placed along the banks of these streams have severely polluted the streams. In some areas even the city managers connected the sewage lines to the rainwater culverts draining into the nallahs as an ad-hoc solution which eventually became the standard by the city body.⁷⁶

Another issue that has manifested itself is the issue of the introduced species of the Paper mulberry trees used to quickly develop the ecological grid. This type of tree is not native to the context of Islamabad and the development authority (CDA) deliberately chose the paper mulberry for its scenic value and rapid growth. However the decision led to unintended consequences in the form of allergies and the replacement of local flora. In response the CDA currently plans to cut these trees within the city, intending to replace them with local species of plants.⁷⁷

⁷⁵ *ibid.*

⁷⁶ *ibid.*

⁷⁷ "Plans to Cut Pollen Producing Trees in the Capital." *The Express Tribune*, October 18, 2018. Accessed June 3, 2024., <https://tribune.com.pk/story/1828299/plans-cut-pollen-producing-trees-capital>

2.8 Reflections on Islamabad

As can be seen from the above mentioned facts regarding Islamabad, the city itself presents a complex picture in the nature of its issues and also in the circumstances of its creation. Despite its issues the city still inhabits an important place in the Pakistani imagination as that of a utopia, and paints a picture of a developed city, something that the country should aspire towards, this was Doxiadis' intent for the city, in which, we can say he was successful. However, for the sake of posterity it is quite important to be able to look at this city from a more pragmatic position and be able to identify the root causes of the issues faced by the city and be able to propose solutions which would lead to an improvement into the lives of all its citizens both in the planned city and the unplanned city.

CHAPTER 3

THE NATURE OF URBAN VITALITY AND SOCIAL COHESION

The previous chapter works to establish the context of the ecological grid in the larger schema of Islamabad and its ideation as a modern city. However, one must be able to look at the issues that present themselves in Islamabad from a closer lens. Additionally, the relationship between the natural enclaves developed as part of the ecological grid concept and the formal and informal settlements within the city necessitates exploration. For this particular purpose, a section of the city has been chosen which offers a range of diverse situations along the natural enclaves that form the ecological grid of the city. The elaboration of the context would open the avenue for inquiry into the area of social cohesion and urban vitality where vitality becomes the vehicle through which social cohesion can be achieved. This would help develop a conceptual understanding of the link between the two ideas and would aid, subsequently, towards developing a framework of intervention in pursuit of these effects in open public spaces.

3.1 The Study Area

The area chosen for this particular study is the Sector (Community Class V) F-7 which, combined with the sectors F-6, G-6 and G-7 form the first sectors of the city which were implemented under Doxiadis' supervision. The status of these sectors, as the oldest sectors is important, as that would infer that these sectors best represent the original intent of Doxiadis in regards to their planning.



Figure 3.1: Plan of Islamabad showing sector F-7 in the rest of the city.
Source: Adapted image prepared by author, based on Google Earth Image.

There are a few key features within this sector that necessitate mention, firstly, the presence of an informal settlement (France Colony) on the banks of the streams which pass through the sector and act as the basis for the ecological grid, secondly, the status of the sector *Markaz* as a city center, and thirdly, the placement of schools and recreation functions along the natural enclaves which form the ecological grid which indicate the initial intent of Doxiadis' plan to incorporate the areas of the natural space as urban open spaces for the city.⁷⁸ This idea is also supported through the mass tree plantation campaign at the time of Islamabad's construction to develop new urban forests along the preexisting streams which follow the drainage pattern of the landscape and are characterized by deep ravines through which the streams flow.

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⁷⁸ Lovejoy, Derek. "The Design of Islamabad – New Capital City of Pakistan." *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.

⁷⁹ *ibid.* p.7

In terms of socioeconomic condition, this sector, along with sectors E-7 and F-6 are the most affluent areas in the city, this creates a peculiar situation then, in regards to the social condition of the sector, where one of the oldest informal settlements of the city, which developed from a temporary workers camp built at the time of the construction of the city, and has existed, in direct contrast to this affluence since the construction of Islamabad.⁸⁰ It is within this particular area, amongst others, that we see the issue of lack of cohesion and urban vitality expressed.

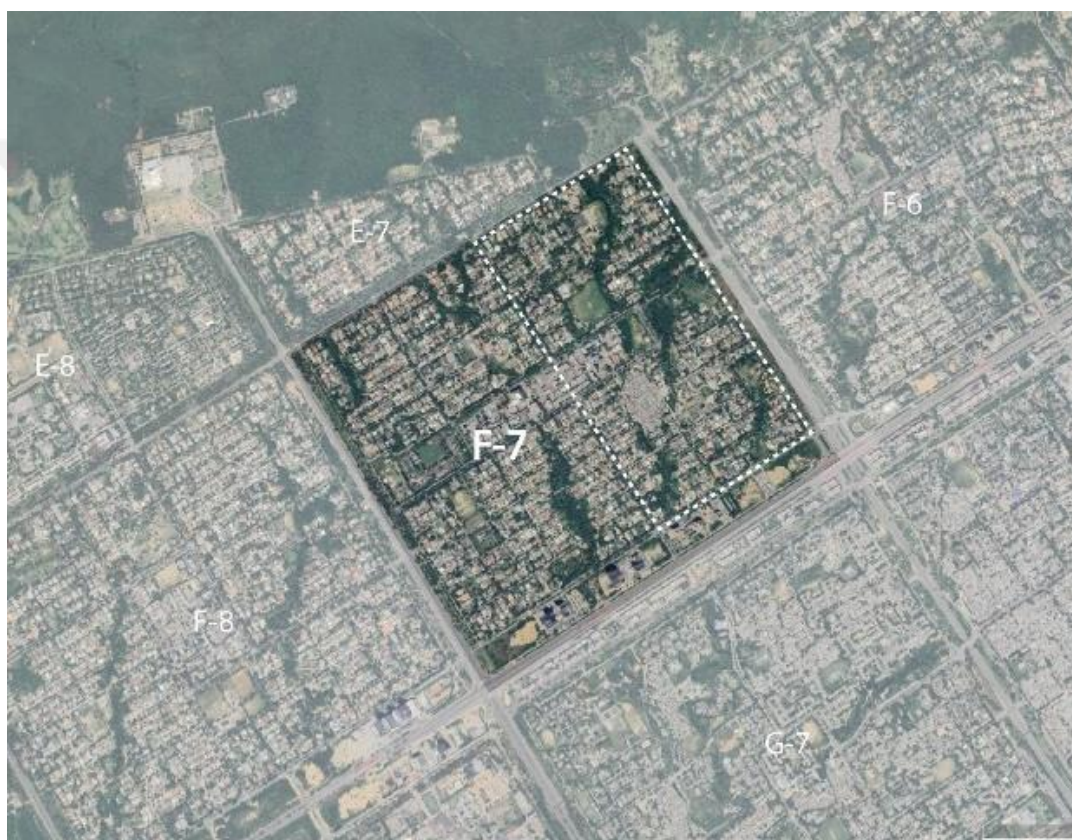


Figure 3.2: The Location of Sector F-7 in relation to Islamabad
Source: Adapted image prepared by author based on map from Google Earth

⁸⁰ Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024)



Figure 3.3: Selected Area of study in the context of Islamabad

Source: Adapted image prepared by author based on map from Google Earth

The distribution of functions within the selected area, which forms two subsectors (Community Class IV) of Islamabad's Sector F-7, is done according to the principles of Ekistics. The residential parcels of land are arranged in a strict geometric layout with a small commercial area in the center of a subsector. Within the center of the sector is the central commercial area (Markaz) which offers diverse commercial opportunities to the sector. The parks, schools and service functions are located in proximity to the ecological grid, which was the intent of the Master Plan. The planned city has strict functional zoning with the commercial uses limited to the subsector commercial centers and the central Markaz. The residential areas have variation in lot sizes following Doxiadis' idea of having three income groups mixed within each sector of the city, the larger residential plots (1858sqm to 1486sqm) are situated along the major collector roads with the plot sizes getting smaller with

proximity to the Markaz with the smaller plot sizes varying between 929 to 557 square meters.

3.1.1 Lack of Vitality in the Sectors

It needs to be emphasized that the issue within this area in Islamabad is not that there is a lack of vitality within its public realm, indeed the city, by virtue of its population and the status of the selected area as a city center can generate enough usage of its commercial areas that could satisfy the idea of vitality as argued by Jane Jacobs⁸¹ and others after her. The issue lies in the fact that due to strict zonal separation of areas this vitality is concentrated in the commercial centers and limited to certain social groups within the area and the city. There are clear delineations ingrained within space where activities are concerned, setting semantic boundaries within the public realm where the affluent do not venture into the areas designated for the poor, and the lower economic classes do not venture into the spaces of the affluent. It is understandable for certain social groups to have their own exclusive zones and indeed this is the case within Islamabad. However when it comes to vitality in the overall public realm within Islamabad this is usually at the expense of one group or the other. This can be seen in the peripheries of France colony, which is the local name of the informal settlement in sector F-7, where the streets adjacent are animated through the presence of the residents of the colony, however, this leads to the residents of the formal sector feeling insecure within the public space adjacent to their own dwellings. This mistrust of communities based on religious differences⁸² and socio-economic disparity between residents of the same physical space represents a lack of cohesion within the formal sectors of the city, where the residents

⁸¹ Jacobs, Jane. *The Death and Life of Great American Cities*. New York: Vintage Books, 1961.

⁸² Most of the residents of France Colony are low-income Christians who are employed as municipal sweepers, rubbish collectors, sewer cleaners and domestic servants, and who routinely experience discrimination and humiliation because of their undesirable work. Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024). p.06

are divided into the groups of dwellers of the formal city and dwellers of the informal city.⁸³

In this particular aspect the area of F-7 Markaz and its adjacencies offer a differing experience, though there is still a division of use within the Markaz, one can see the shared use of the same physical space of the Markaz in certain areas. These shared uses of space could be attributed to the status of the F-7 Markaz as a city center with activities catering to different user groups. However, vitality in this case does not equate into a cohesive urban space as separation of different income areas sets clear delimitations within the space. Hence, a duality of experience is seen, separated on the basis of economics, religion, and social status within the urban public realm and it is apparent that efforts need to be made towards orienting public space towards cohesive programming. Especially in the case of Islamabad, due to the vast income disparities between the formal and informal settlements and the social stigmas and isolation/segregation that comes with it.

That being said, in some areas of Islamabad, certain parks and open spaces within commercial areas do provide a brief glimpse of the potential of diverse communities coming together in a space. However, the presence of social cohesion remains elusive, where some inklings of it might be seen in some individual interactions, but these may not be enough to conclude the presence of social cohesion in space, however, they do warrant an exploration of the conditions created by the space for such interactions. Such an example, of a park creating an environment of such interactions shall be discussed later within this study. (Kachnar Park as an example) Secondly, within the city of Islamabad, a now defunct system of walkable open spaces does exist which reflects the intents of the original city planners to use the landscape of the ecological grid as a cohesive whole. Whether this system ever came into operation before being abandoned is indeterminable, however, based on

⁸³ Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024). p.12

the literature surrounding the creation of Islamabad there did exist an intent by the city planners to develop such spaces through landscaping the area of the streams passing through the sectors.⁸⁴ Presently, one can only see glimpses of this intent and one has to venture deep into the feral woods that have developed in the area to see the few instances of this past intent, which are seen in the form of open spaces and forest trails. However, from the outside, the ecological grid appears as a natural forest that has been there since the beginning of the city. Thus the ecological grid represents a potential area of intervention where social cohesion could be generated through activity placement.



⁸⁴ Lovejoy, Derek. "The Design of Islamabad – New Capital City of Pakistan." *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.



Figure 3.4: The duality of experience in F-7 Markaz, where the upscale area (above) is devoid of impromptu activity rather the public space is occupied by the cafes and restaurants present, and the more common area (below) has various informal commercial activities catering to the diverse users.

Source: Khurram Mehmood,

<https://www.flickr.com/photos/khurrammehmood/1120178400/in/photostream/>

3.1.2 The Stream and its Environs

The streams that define the ecological grid of Islamabad are characterized by deep ravines which is in contrast to their original appearance before the construction of Islamabad. The current ravines have formed as a result of the flattening of the terrain that was done during the construction of the city where the uneven terrain had to be prepared for development.⁸⁵



Figure 3.5: Image of a stream passing through the landscape before the construction of Islamabad.

Source: Capital Development Authority (CDA) online resource, <https://www.cda.gov.pk/galleryImages>

Similarly, the presence of forests and vegetation in the proximity of the streams was a result of a plantation campaign conducted by the landscape architects who envisioned these areas as urban enclaves of nature. The planting of these forests was also done out of a need to stabilize the soil in proximity of the streams which regularly flood during the Monsoon season which occurs in the months of July and August. The current vegetation, in addition to the planted species selected by the landscape architects of the city, are a few fast growing local species such as the

⁸⁵ *ibid.*

cannabis plant which grows at the banks of the streams, followed by the invasive species of paper mulberry.⁸⁶ The pollution of the stream also means that only the more resilient species of plants and algae can survive next to the banks of the streams, where the toxicity of the soil and water, prevent the original native flora from flourishing.

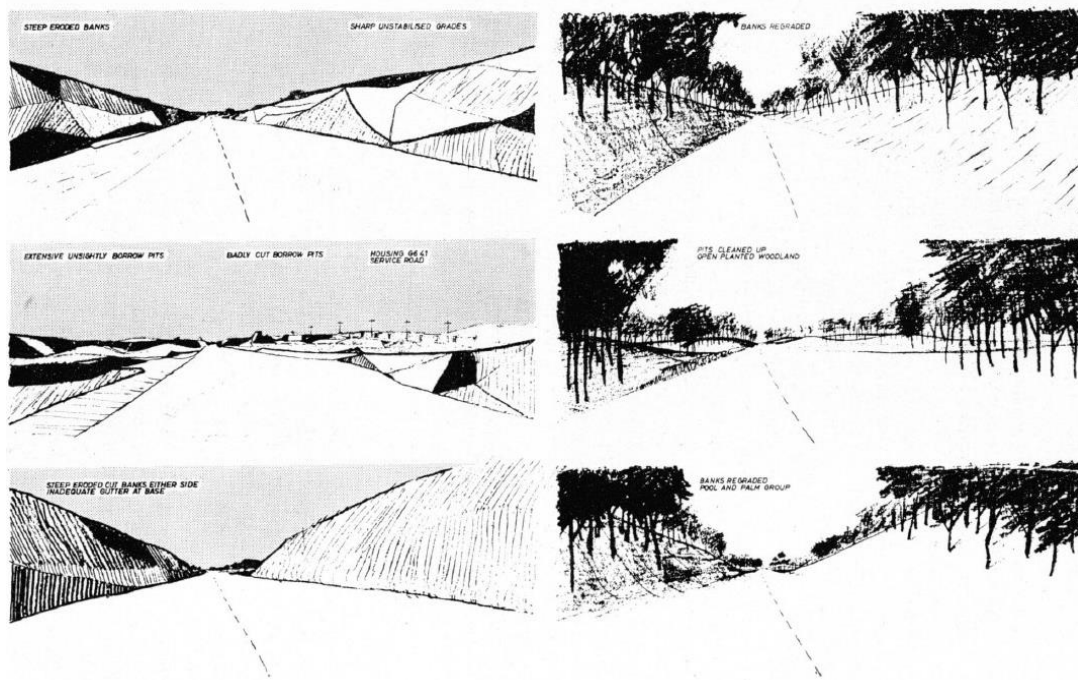


Figure 3.6: The strategy employed by the landscape architects, where left shows the roads and its adjacencies before the landscape treatment and right after landscape treatment.

Source: Lovejoy, Derek. “The Design of Islamabad – New Capital City of Pakistan.” *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.

⁸⁶ The paper mulberry (*Broussonetia papyrifera*) a species of tree native to China and South-East Asia, which is not to be confused with the black mulberry tree (*morus nigra*) which is naturally found in the region. The plant was introduced in Islamabad due to its ability to readily colonize available habitat, particularly disturbed areas. However, due to this, the species has now become an invasive species within the city, displacing native flora and causing health issues through the widespread dispersal of its pollen.

However, the forests do offer cover to some native species of animals which have survived the pressures of a loss of habitat due to urbanization. Based on the information available on these areas from the Islamabad Wildlife Management Board,⁸⁷ the wild boar is the largest mammal found in these areas who, due to the loss of their natural predator in the region the golden jackal,⁸⁸ amongst other reasons,⁸⁹ has been able to survive in these areas. Apart from this the forests are home to local bird species, rodents, and bats. Here the porcupine can be seen living in the shrubbery close to the streams and the trees are home to giant fruit bats.⁹⁰ Reptiles such as monitor lizards, and various species of snakes can also be found in proximity to the streams. The aquatic species present within the streams which was formerly home to certain species of freshwater fish has been eradicated due to the contamination of the water, now, one can only see some species of frogs which have been able to survive in the water with the proximity of the stream also being home to various insects. The attitude of the people regarding these areas has been one of apprehension where they fear venturing into these areas due to the presence of the wildlife present, even though there are no large predators present in the area, the presence of potentially dangerous animals alongside other factors has been enough to dissuade any involvement of the citizens with these areas.

⁸⁷ Islamabad Wildlife Management Board, "Species," IWMB, accessed August 20, 2024, <https://iwmb.gov.pk/species/>.

⁸⁸ The local species of jackal cannot be seen in the city due to the strict policy of the city against stray dogs. Jackals, which closely resemble dogs have also suffered as a consequence of this policy, however the Margalla Hills National Park and the grasslands on the outskirts of the boast a consider population of this animal.

⁸⁹ Nicolas Brulliard, "In Islamabad, It's Always the Year of the Pig," *The Washington Post*, December 27, 2011, https://www.washingtonpost.com/world/asia_pacific/in-islamabad-its-always-the-year-of-the-pig/2011/12/23/gIQAQgV9JP_story.html.

⁹⁰ *ibid.*

3.1.3 The Ecological Grid: Between Formality and Informality

The nature of the ecological grid as an aspect of Doxiadis' envisioned plan for Islamabad has been previously discussed, however, the potential of these natural enclaves and the streams that form part of this system as the interstice between the formal and informal parts of the city warrant discussion. However, before that discussion ensues, one must be aware of the issues currently affecting the natural enclaves which once represented Doxiadis' idea of greater connection to nature.



Figure 3.7: Efforts to clean the solid waste from the streams to prevent urban flooding in the monsoon season.

Source: <https://www.app.com.pk/photos-section/cda-workers-are-cleaning-sewerage-nallah-after-the-rain-in-the-city/>

The streams in their current condition are rife with the issues of pollution and encroachment. Pollution within this area is in the form of solid waste disposal and untreated sewage. The sewage disposal within the streams represents several levels of the mismanagement of the public sanitation department of the CDA (Capital Development Authority), where in some areas ageing sewage lines have been linked to the existing rainwater disposal lines which flow into the streams. In other areas, sewage lines directly flow into the streams and ageing sewage trunk lines crossing the streams are seldom repaired, these trunk lines were placed at the time of

Islamabad's construction.⁹¹ The presence of the informal settlements also exacerbates this issue where due to lack of proper sanitation facilities the residents of these areas have no other choice but to dispose of their waste into the streams which pass through their communities.⁹² The solid waste disposal for which the CDA (Capital Development Authority) itself is responsible as it has developed garbage dumping sites along the streams and regularly disposes of garbage in the streams.

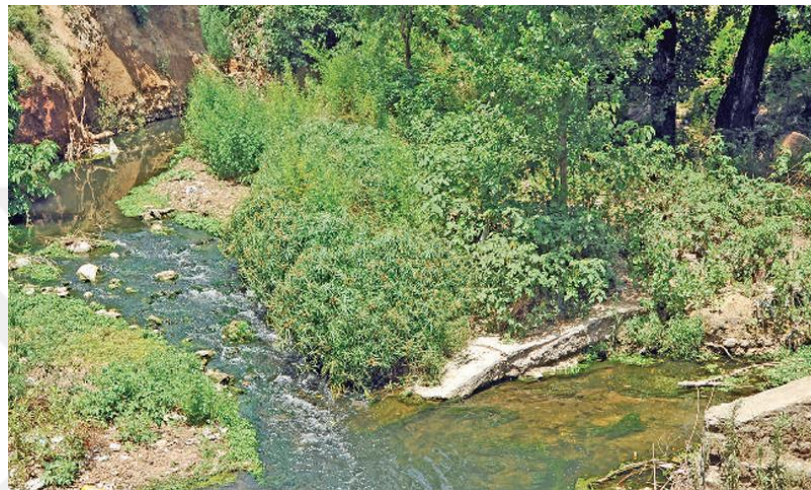


Figure 3.7: Contamination of the stream from solid waste and raw sewage.
Source: <https://www.dawn.com/news/1111509>

Encroachment of the natural enclave by state and non-state actors alike represents a major issue affecting the ecological grid, this connects to the larger issue of the city losing one third of its tree cover in the past ten years, where the ecological system consisting of the national park and the ecological grid have been subjected to the pressures of encroachment and a tree-cutting drive aimed at removing an invasive species of tree (Paper Mulberry) from the city. This species of tree was introduced at the time of the construction of Islamabad due to its fast growing property to rapidly forest the areas of the city despite the objections of the consultant landscape

⁹¹ Dawn Editorial. "Our Garbage, our streams", *Dawn*, June 9, 2014, <https://www.dawn.com/news/1111509>

⁹² *ibid.*

architects.⁹³ Resultantly, this invasive species is known to be the major contributor to the pollen allergy issue within Islamabad concentrated mostly within the areas of the ecological grid and the national park. Returning to the issue of encroachment, there are instances of government bodies such as the Islamabad Police in the Sector F-6, the CDA in Sector G-7, and large commercial interests such as the Safa Mall in F-7 Markaz, completely taking over the land of the streams and the natural enclaves, in some areas narrowing the flow area of the stream and in some areas forcing the streams to flow underneath whatever development these actors construct. Encroachment is also done by small scale interests, such as the informal settlements which, constrained by perimeter walls constructed by the CDA (Capital Development Authority) have no option but to encroach on the land of the stream passing through their communities.⁹⁴ Residents of the formal sectors are also responsible for encroaching upon the area of the stream where the encroachment initiates from the extra land provided to them by the CDA.⁹⁵ The encroachment process usually follows a phased process to avoid hefty fines by the regulatory body. These encroachers initially cut down trees and replace with a green private space, this is followed after a few months or a year by establishing a temporary shelter on it, developing porous pavements and repurposing the area as a car parking, followed after a few years by developing a temporary annex, eventually expanding the built area to take over the land completely.

⁹³ Robert Birsell, "Feature: Mulberry Trees Bring Misery to Pakistani City", *Reuters*, August 10, 2007, <https://www.reuters.com/article/economy/feature-mulberry-trees-bring-misery-to-pakistani-city-idUSISL122404/>

⁹⁴ Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024)

⁹⁵ It is common practice that plots adjacent to undeveloped land are provided supplementary land alongside their plot to develop as gardens.



Figure 3.8: The selected area of Study and the encroachments (yellow) along the streams passing through the sector.
Source: Adapted image prepared by Author based on map by Google Earth.

The area of the natural enclaves in the adjacencies of the streams, are considered as unsafe, due to the lack of upkeep in the space, presence of unfriendly fauna and use of the informal trails passing through the natural enclaves by users who do not inhabit the city rather venture into these areas foraging for firewood. This creates the impression of the space populated by “threats”. This impression of the space may or may not be accurate, however the impression of the space alone acts as a deterrent for users from the city to venture into these areas.



Figure 3.9: The Informal Settlement of France Colony, where, (a) and (c) show the polluted stream in relation to the dwellings of the settlement, and (b) shows the density of the settlement.

Source: <https://www.dawn.com/news/1111509>

<https://thefridaytimes.com/15-Jun-2018/a-france-we-must-visit>

The placement of the majority of the informal settlements on the banks of such streams do represent a deliberate decision by the municipal corporation of the city to accommodate these settlements within the city⁹⁶, however, the placement of these settlements also creates the potential for these natural enclaves to act as the interstices between the formal and informal parts of the city. The position of the ecological grid as diagonals cutting through the strict geometric grid of the city also creates opportunities for greater connectivity between the formal and informal areas through walkable means which do not reflect social differences In the manner an automobile centric mode of travel does. This could allow for the enclaves to be reclaimed in a manner that benefits the city through attempting to resolve the issue of social cohesion.

Recent ideas in urbanism, may provide a spectrum of approaches for these spaces to be perceived as areas where the differences between these diverse settlements can be negotiated by the landscape.⁹⁷ Where the discourse on the treatment of the landscape of such natural enclaves within an urban environment range from their repurposing as infrastructural landscapes which preserve the viability of natural systems⁹⁸, as objects for the transmission of ideas and exchanges⁹⁹, and as effective grounds for the exchange between natural and human processes to intermingle.¹⁰⁰ These ideas reflect the importance for the preservation and utilization of urban green spaces within the urban fabric. However, it would not suffice to adhere to one approach or another as it would not result in a viable framework of approach to resolve the issue of social cohesion within Islamabad. And this would also contradict the original

⁹⁶ Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024), p.12

⁹⁷ Meyer, Elizabeth K. "Uncertain parks: Disturbed sites, citizens, and risk society." *Large parks* (2007): 59-86.

⁹⁸ Mossop, Elizabeth. "Landscapes of infrastructure." *The landscape urbanism reader* (2006): 163-177. p.172

⁹⁹ Meyer, Elizabeth K. "Uncertain parks: Disturbed sites, citizens, and risk society." *Large parks* (2007): 59-86. p.64

¹⁰⁰ Jorgensen, Anna, and Marian Tylecote. "Ambivalent landscapes—wilderness in the urban interstices." *Landscape research* 32, no. 4 (2007): 443-462.

intent of Doxiadis for the natural enclaves to serve as urban open spaces for the residents of Islamabad. It is therefore, necessary to apply a critical and contextualized approach which investigates the virtues of developing vitality and cohesion in an open public space in order to produce a network of cohesive open public spaces for which the ecological grid presents itself as a vehicle for development within the city.

3.2 Vitality as a means to develop Social Cohesion

Since the development of social cohesion forms the basis of this investigation, the relationship between urban vitality, which has oft been championed as the chief indicator of the effectiveness of public spaces,¹⁰¹ and social cohesion must be investigated. The relationship between these two elements is established through the idea of increased interaction brought about by urban vitality, which is defined as the amount of people that pass through a space at any given time, and the degree to which a place can support the vital functions, biological requirements and capabilities of human beings.¹⁰² The interconnectivity of these two concepts has in recent years been the subject of much investigation with the conclusions, ranging from a “seemingly contradictory relationship” between cohesion and vitality,¹⁰³ to vitality and cohesion being interdependent in certain urban conditions.

However, what can be gleaned from these studies into the nature of the relationship between these two elements is that social cohesion depends on the nature of the interaction that takes place within an urban space, the reasons for these interactions could vary, however, it is also found that vitality is directly linked to activity within a public space, which is effective to draw people into public space.¹⁰⁴ Hence we can

¹⁰¹ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹⁰² Lynch, Kevin. *A Theory of Good City Form*. Cambridge, MA: MIT Press, 1981

¹⁰³ Gill Valentine, “Living with Difference: Reflections on Geographies of Encounter,” *Progress in Human Geography* 32, no. 3 (2008): 323-337

¹⁰⁴ Kostas Mouratidis, “Built Environment and Social Well-Being: How Does Urban Form Affect Social Life and Personal Relationships?” *Cities* 74 (2018): 7-20,

see vitality as a means to achieve the usage of an open public space, which could then, through its features and programming work to create the conditions needed for users to develop cohesive relationships in space which transcend socio-economic divisions.

It could be argued that public spaces on a popular route may attract a sufficient number of users if the density of the area is high enough, indeed there are studies which testify to that,¹⁰⁵ however, in the case of a public open space, the question arises, how can users be attracted from different socio economic backgrounds and what conditions can be created to initiate a dialogue within space? This particular idea leads us to the concept of diversity within vitality as a necessary constituent of the conditions needed to develop social cohesion within the space. As can be seen in the case of Islamabad, the intention of Doxiadis to create cohesive communities within the neighborhoods of the city, through creating income brackets where each sector was to have three successive income classes¹⁰⁶, was achieved in some ways, this can be seen in the strong social bonds that exist within the residents of the formal sector and the neighborhoods within, and also within the residents of France colony.¹⁰⁷ The idea of selective groupings, and homogenization of communities is highlighted, which would be counterintuitive to the idea of diversity and social cohesion, replacing actual diversity within a community with an “acceptable” (to the stakeholders and development bodies) range within the complete spectrum of diversity which is seemingly benign and secure. And indeed, discourses on vitality and cohesion from New Urbanism which utilize Jane Jacobs’ ideas on vitality¹⁰⁸ also focus on developing cohesive societies, however, in practice, developments

¹⁰⁵ Ye, Yu, Dong Li, and Xingjian Liu. "How block density and typology affect urban vitality: An exploratory analysis in Shenzhen, China." *Urban Geography* 39, no. 4 (2018): 631-652.

¹⁰⁶ Abbasi, Maheen. *Social Implications of the Modernist Urbanism: Islamabad Master Plan by Doxiadis*. Ankara: Middle East Technical University, 2019.

¹⁰⁷ Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024). p.15

¹⁰⁸ Talen, Emily. *New urbanism and American planning: The conflict of cultures*. Routledge, 2005.

focus on creating vitality through density and selective diversity.^{109 110} This is also true of gated communities, a concept that has gained much traction in recent years within the urban middle class of Pakistan who value the security provided by the exclusivity of such enclaves. This does not mean that these spaces and neighborhoods are not diverse in their programming and planning, however the diversity which is created through the selection of particular socio-economic classes results in spaces which are vital, but not cohesive for the overall society.¹¹¹ The purpose of these examples is not to critique the priorities of the society and people, indeed these behaviors have developed in response to circumstances that the society in Pakistan has endured since the early 2000s.¹¹² However, the intent is to highlight the functional fallacies of the concept of selective diversity within a public space and how it does not contribute to the overall cohesion in the society, rather, creates the stark differences which can be seen expressed in the urban fabric of Islamabad.

This then becomes the focus of the investigation into the subject, how can vitality with diversity be attracted to a space to develop cohesion? Jane Jacobs¹¹³ offered the concept of activity as a means to develop vitality in a public space, this perspective is supplemented by the works of authors such as Jan Gehl¹¹⁴, Vikas Mehta¹¹⁵ and Matthew Carmona¹¹⁶ who establish the concept of activity generation

¹⁰⁹ Atkinson, Rowland, and Hang Kei Ho. "Segregation and the urban rich: enclaves, networks and mobilities." In *Handbook of Urban Segregation*, pp. 289-305. Edward Elgar Publishing, 2020.

¹¹⁰ Dewi V. Veldhuizen and Sabine Meier, "Modern Castles and Country Houses: The Use of History in 'Gated Communities' in the Netherlands," *International Journal of Heritage Studies* 20 (2014).

¹¹¹ Einifar, A., R. Madani, B. Judd, and M. Jalili. "The physical factors affecting the social livability of gated communities: a case study of gated communities in Tehran." *Iran University of Science & Technology* 29, no. 2 (2019): 127-139.

¹¹² Tabassum, Humaira. "The Role of Planning and Planners in Developing Safer Cities in Pakistan: From Counter-Terrorism to Planning for Democracy, Equity and Diversity in Lahore and Islamabad." PhD diss., La Trobe, 2019.

¹¹³ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹¹⁴ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).p.11

¹¹⁵ Mehta, Vikas. "Evaluating public space." *Journal of Urban design* 19, no. 1 (2014): 53-88.

¹¹⁶ Carmona, Matthew. *Public places urban spaces: The dimensions of urban design*. Routledge, 2021.

as a necessary aspect of developing vitality within a public space. Based on the ideas previously mentioned, the activities within the space, should, thus, be able to attract people from various socio-economic contexts, within a space, creating vitality which has the necessary qualities to develop cohesive interactions between individuals and act as a cohesive agent for the society as a whole. However, as discussed previously, in the case of the F-7 Markaz, we do see activity attracting people to the space and vitality within the area however, if we look at the socio economic classes within the space, it is found that though both groups do frequent the same area, they inhabit different parts of the Markaz, developing invisible and informal segregation lines.

So it creates a problem, regarding the fact that even if diversity and vitality are provided in a space, how cohesive interactions would take place within it, and how the formation of invisible boundaries within space would be prevented. This requires an investigation into the nature of activities and their inherent accessibility to all social classes. The idea of accessibility would also pertain to the overall physical accessibility of the public space as well, structural issues that would prevent the access of certain social classes from entering the space would detrimentally affect the ability of space to act cohesively.¹¹⁷ This links to the idea of selective diversity within space, where public spaces respond to certain groups within the society and not to others. This is indeed true of the social spaces in the selected area of study in Islamabad, where the public spaces exhibit various degrees of exclusion on the basis of socio-economic class, gender, and age. This does not mean that the spaces, which were planned by Doxiadis to be accessible to the general public, create these exclusionary measures. It simply illustrates the idea that the usage and accessibility of the public space is influenced through various means such as the predominant ideas and biases within a society which can include the cultural ideas which, for example, may exclude a certain gender group; politics within the urban realm where

¹¹⁷ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022), p.45

access is limited to certain political groups, religious proclivities, such as minorities being made to feel insecure in space, gender and racial biases. Additionally, the design and planning of space may also influence accessibility which can include the proximity of space to residential and commercial areas, the provision of a sense of safety, protection against the elements of nature, aesthetic appeal of the space, attracting activities.^{118 119}

It has been the accepted norm in design professions that design should work to address social issues and constructs, this means that design has the responsibility to be inclusive and accessible to everyone within the society, this is true, however it is also quite well known that design does not, and cannot heal social issues. Social biases constructed over centuries and augmented by generational biases are seldom broken by a “beautiful urban space” rather they require difficult conversations to be had and a constant effort by individuals to work towards ideas of reconciliation and cohesion. In regards to developing spaces with high potential for social cohesion, however, design and planning can contribute to, attract people from different backgrounds¹²⁰, ensure the access of people to the space¹²¹, create the necessary conditions through activity generation which encourages the interaction of individuals and groups within it¹²² and have the necessary policy structure to ensure the negative effects of such interactions can be minimized.¹²³ These ideas would be

¹¹⁸ Carmona, Matthew. *Public places urban spaces: The dimensions of urban design*. Routledge, 2021.

¹¹⁹ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

¹²⁰ Mouratidis, Kostas, and Wouter Poortinga. "Built environment, urban vitality and social cohesion: Do vibrant neighborhoods foster strong communities?." *Landscape and Urban Planning* 204 (2020), p.2

¹²¹ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

¹²² Shampa Mazumdar, Vanessa Learnihan, Thomas Cochrane, and Rachel Davey, “The Built Environment and Social Capital: A Systematic Review,” *Environment and Behavior* 50, no. 2 (2018): 119-158

¹²³ Amin, Ash. “Collective Culture and Urban Public Space.” *City* 12, no. 1 (2008): 5–24.

further explored within this study to be able to inform the idea of what makes a vital and cohesive urban space.

3.3 Vitality through Activity Generation

Vitality in the simplest of terms can be defined as the amount of people that are passing through or within space at any given time, where the space would support the vital functions and capabilities of the user.¹²⁴ In other words it pertains to the presence of people within space. Such a presence could be created within space through various means, however, according to the literature on the subject, the most effective means to bring people into space is through the generation of activities which would attract users to it.^{125 126 127} The nature of these activities could vary from social, commercial or recreational.^{128 129} With the key intent for the placement of activities being how they attract users to a public space and later, once attracted, allow the users to be retained within the space.

In terms of activity, there exist a spectrum of activities based on what users do within space, however, in the scope of public space these activities could be broadly categorized into the types of, social, commercial and recreational activity. Where, social activity would pertain to an activity where people engage in to fulfil their social needs, commercial activity would pertain to the buying and selling of goods or services, and recreational activity would be activity which appeals to users in its ability to provide an escape from the daily routine of life. Based on the types of

¹²⁴ Lynch, Kevin. *A Theory of Good City Form*. Cambridge, MA: MIT Press, 1981

¹²⁵ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹²⁶ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.

¹²⁷ Mouratidis, Kostas, and Wouter Poortinga. "Built environment, urban vitality and social cohesion: Do vibrant neighborhoods foster strong communities?." *Landscape and Urban Planning* 204 (2020), p.2

¹²⁸ *ibid.* p.2

¹²⁹ Carmona, Matthew. "The Place-Shaping Continuum: A Theory of Urban Design Process," *Journal of Urban Design* 19, no. 1 (2014): 2-36,

activities, we can infer that they respond to specific human needs which constitute an integral part of the human experience in the public realm. People in space need to be able to interact with others, whether they choose to or not is their prerogative, however the possibility needs to exist¹³⁰, similarly, people also need the daily necessities of life, and in urban societies, these are sourced through commercial activity, and lastly, recreation is perhaps most important to maintain quality of life within a society. Where the stresses and fatigues of daily life need to be overcome through some form of an escape from the routine.¹³¹ Thus, we can say that activities originate as a response to human needs from the residents of a city and consequently form the cornerstone of urban life. It is to be noted there will be activities which embody multiple qualities within them, for example commercial recreational activities, social recreational activities, or social commercial activities, the complexity of activities can be determined by the complex needs and wants of the society, and activity, by virtue of its nature as responding to users may come to represent the diverse tastes and needs of the urban population. Based off of these ideas, activity, as a necessary part of urban life, becomes integral to vitality within a space since activity represents the impetus which would attract people to the space.

Returning to the core idea of this study, and seeing activity and vitality through the lens of social cohesion, the question arises, if vitality is indeed created in a space through activity, would it suffice for cohesive interactions to take place within the space? Looking at the case of Islamabad, and the F-7 Markaz in particular, where invisible spatial demarcations exist¹³², and separate areas exist for different socio economic groups, it can be said that to bring these different groups into a single space

¹³⁰ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022), p.64

¹³¹ Gulam, Aafid. "Recreation—need and importance in modern society." *International Journal of Physiology, Nutrition and Physical Education* 1, no. 2 (2016): 157-160. p.157

¹³² Li, Juan, Anrong Dang, and Yan Song. "Defining the ideal public space: A perspective from the publicness." *Journal of Urban Management* 11, no. 4 (2022): 479-487. p.483

would require activities that would cater to these varying interests.¹³³ Thus, the idea of activities, which act as people attractors in a space^{134 135}, would be required to combine with the concept of diversity to attract users from diverse backgrounds and social groups.¹³⁶

3.3.1 Accessibility and Activity

Since activity has been established as the attractor which drives people to enter the space, the dimensions which influence the effectiveness of the activities necessitate exploration, that is, what would allow an activity to be used by as many people as possible? In other words, its accessibility. There are multiple dimensions of approach towards the subject of activity, which connect to, the built form manifestation of access, the economic concept of access and the socio-psychological idea of access.

The physical aspect of access refers to the ideas which respond to the physical aspects of space, that is, how physically accessible is a space. Gehl approaches this idea where he talks of strategies which could improve physical accessibility to a space through the approach of implementing walkability, cycling tracks, and public transport for aiding pedestrian users to travel long distances and access areas which would be otherwise inaccessible to them with the means at their disposal.¹³⁷ These ideas are also supported through the works of authors such as Jane Jacobs¹³⁸, John

¹³³ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

¹³⁴ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹³⁵ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.

¹³⁶ Congress of New Urbanism. "Charter of the New Urbanism." *Bulletin of Science, Technology & Society* 20, no. 4 (2000): 339-341.

¹³⁷ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

¹³⁸ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

Montgomery¹³⁹ and Douglas Farr.¹⁴⁰ The premise of walkability, cycling and public transport as the means for physical access to a public space lies in the economic dimension of access. Where private means of transport such as an automobile might not be available to users due to their socioeconomic conditions. Therefore, we see that the dimensions of physical and economic access are interweaved in this particular aspect where physical access is closely linked to economic access.

Economic accessibility as a concept speaks to the idea of an individual's access based on their economic condition, that is, how rich or poor a person is, determines their access to an activity. This is perhaps most visible in commercial activities, which are economic in nature and require monetary transactions. One possible example that could be used to illustrate economic access is the process of gentrification, which is the slow erosion of a community's economic access to their own area through an increase in the costs of the services and activities within the neighborhood which eventually drives out the communities from their areas.¹⁴¹ In light of this example, economic access could also be called affordability, where more affordable activities allow for a larger spectrum of users to partake in it, since activities with a lower threshold of affordability (costing less money) can include both the affluent and those with less means.¹⁴² According to Mehta, effective public spaces are inclusive for a diverse set of users, from vastly different backgrounds,¹⁴³ this idea is also reflected on by Matthew Carmona, who mentions in context of analyzing the contemporary situation of cities, that accessible public spaces can be one of the few places for truly public activities due to the fact that users do not need

¹³⁹ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.

¹⁴⁰ Farr, Douglas. *Sustainable urbanism: Urban design with nature*. John Wiley & Sons, 2011.

¹⁴¹ Curci, Federico, and Hasin Yousaf. "Gentrification." In *Handbook of Labor, Human Resources and Population Economics*, edited by Klaus F. Zimmermann. Cham: Springer, 2023.

¹⁴² Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹⁴³ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022)

any economic qualification to exist within them.¹⁴⁴ However, making a space completely accessible to one economic class and not another does not result in the diverse vitality that is needed for cohesion to form. Indeed there are other dimensions which determine the behavior of people within space and dictate phenomena such as cohesive interaction. But for the sake of posterity, looking at a space from the scope of economic access to activities, allowing for activities which are more economically exclusive to the affluent, would naturally exclude the lower classes, however the opposite, that is making activities affordable to all may not achieve the expected result of diverse vitality, where the more affluent would not feel inclined towards engaging in these activities.¹⁴⁵¹⁴⁶ This can be attributed to multiple different factors such as different needs, perceived security, or different priorities to name a few. However, it has been thoroughly documented, by multiple authors, that increasing diversity within activities overall, allows for more diverse user groups to be attracted to the space where the activities are present, simply because there are more options available within the space to cater to different tastes.¹⁴⁷¹⁴⁸¹⁴⁹¹⁵⁰

Socio psychological access refers to the aspects of access influenced by social and psychological ideas,¹⁵¹ in these regards, Lynch's idea of images of places forming in the perception offer the most apt explanation of the phenomena, where the perception of the activity in the individual and the society determines whether it would be accessible to an individual.¹⁵² Aspects of an activity such as the reputation of an area,

¹⁴⁴ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173. p.168

¹⁴⁵ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹⁴⁶ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022)

¹⁴⁷ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.

¹⁴⁸ Congress of New Urbanism. "Charter of the New Urbanism." *Bulletin of Science, Technology & Society* 20, no. 4 (2000): 339-341

¹⁴⁹ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹⁵⁰ Farr, Douglas. *Sustainable urbanism: Urban design with nature*. John Wiley & Sons, 2011.

¹⁵¹ Curci, Federico, and Hasin Yousaf. "Gentrification." In *Handbook of Labor, Human Resources and Population Economics*, edited by Klaus F. Zimmermann. Cham: Springer, 2023.

¹⁵² Lynch, Kevin. *The Image of the City*. Cambridge, MA: MIT Press, 1960

the perceived security of the activity, or the perceived accessibility of an area can be determined by socio psychological ideas and affect the accessibility of an activity either positively or negatively. One does not have to look far to find examples of this phenomena. In the case of *Basant*, a cultural festival, characterized by flying kites, traditionally celebrated until the early 2000's when the government banned the activity¹⁵³ continues to be celebrated by the people despite the ban.¹⁵⁴ This can be seen as an example of how social ideas can allow an activity to flourish, despite absolute hurdles to it and ensure access to it. Similarly, in the case of the F-7 Markaz, which is associated commonly with high prices, one is told not to expect affordable goods, however, there are such places within the Markaz, where the location, the facades of the shop, and the general social idea of the place all point to unaffordability of the commercial activity, but one could still find affordable goods, in those areas.

3.3.2 Activity Generation and its Unintended Consequences

The discussion in the previous sections establishes activity generation as an effective tool for drawing people into space. However, activity generation also could have potential unintended consequences when combined with other aspects that affect human behavior in public space. Within this scope the idea of management of public space as defined by Carmona, needs reflection where a public space which is managed would have the presence of rules and the presence of an authority which

¹⁵³ A major component of the kite flying in Basant is the activity of kite battles where two opposing kites are made to "fight" with the intention of cutting the other's kite string. This would motivate local groups of children known as "kite runners" to run after the fallen kite to get it for themselves. The competitiveness of the kite battle led to the development of several types of reinforced types of string. Out of these, the glass powder coated string was quite effective for use in a kite battle due to its sharpness and ability to cut, however, these strings when cut from the kite would get tangled in trees and electricity poles in streets where they would pose a threat to the safety of the motorcycle traffic and caused loss of lives. The government, in response to these incidents, banned the event of Basant entirely rather than choose to regulate the sale of reinforced kite flying string.

¹⁵⁴ News Desk "Basant Dates Unveiled for Twin Cities Amid Ban." *The Express Tribune*. July 28, 2024. <https://tribune.com.pk/story/2455707/basant-dates-unveiled-for-twin-cities-amid-ban>.

would implement these rules. It is important to note, that the management of public space does not require a policing body, rather, there can be spaces which are managed by the stakeholders that exist within the urban space.¹⁵⁵ It seems prudent now, to mention an example from the case of Islamabad to illustrate how social impulses may determine how a space behaves when an activity is introduced to it. There is the case of F-9 Park in Islamabad where the municipal body, in order to generate vitality within public areas, introduced commercial functions in the form of an international fast food chain outlet within an area of the park. The introduced activity, generally affordable to the affluent, subsequently introduced their own control mechanisms on the public area of the park. Though the building that the activity occupied formed a small part of the total land area in control of the outlet, the management of the restaurant eventually cordoned off the area from the rest of the park establishing buffers and fixed entrances with security. Granted that they did develop a portion of this buffer as a public park with the rest being developed as a parking lot to cater to the increased clientele, however, the area became essentially inaccessible to the general public due to the exclusive nature of the space.¹⁵⁶ The exclusivity measures could be considered to be intentional or unintentional, however, the inaccessibility of the space for the general public was ensured through several factors that were determined by the activity which was introduced within the public space. This incident serves as a typical example of, what Carmona calls an over-managed space, where the public space is eventually led to being viewed primarily as a space for consumption and susceptible to forms of private control.¹⁵⁷ The social aspects at play in this particular situation were, the concepts of security, territoriality which were expressed through the attitudes of the activity within the

¹⁵⁵ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173. p.157

¹⁵⁶ "SC Takes Up Case Against Fast Food Outlet in F-9 Park," *Dawn*, November 18, 2009, <https://www.dawn.com/news/892034/sc-takes-up-case-against-fast-food-outlet-in-f-9-park>.

¹⁵⁷ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173. p.157

space, where the activity sought to bring the public space under its own controlling mechanisms.

Another instance within Islamabad for the reintroduction of activity within the Markaz of sector G-6 saw a public space become a “food park” which initially enjoyed great popularity with the public as it offered its culinary services to a diverse range of users, however over time, the introduced activity functions began increasing their territory and encroaching on the public land where they existed to make room for additional customers, this led to the space developing a single use identity where there was no other reason left for anyone to exist in that particular space except for what that space offered.¹⁵⁸ New developments in other areas, as well as the single use identity of the area meant that once public interest in this attracting activity receded, the public space lost the vitality it had once created, eventually falling into disrepair as capital flowed to other areas. The changes this particular space experienced can be explained by Carmona’s idea of an under managed space, where spaces were susceptible to greater segregation measures, creating exclusionary spaces and leading to overall neglect of space.¹⁵⁹ Once more, we see in this case the expression of territoriality within space exerted by the activity itself, however, the eventual decline in the usage of the space could be attributed to the lack of diversity within the introduced activity, as when the initial interest in the introduced activity receded, the space became susceptible to neglect due to reduced vitality and usage.

Thus, from the abovementioned examples, we can infer three different dimensions of behavior in public space, these are; territoriality, which speaks to how space is perceived by the individuals within space and their exertion of ownership of the public space; security, which pertains to how safe a space feels and can be in the forms of objective and perceived security; and lastly, diversity, which is the

¹⁵⁸ Kashif Abbasi, “Melody Food Park Paints a Sorry Picture,” *Dawn*, January 29, 2017, <https://www.dawn.com/news/1311343>.

¹⁵⁹ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173. p.157

availability of different people, opportunities, options, or places. Though these ideas are seemingly dissimilar from the subject matter of activity generation, they are essential elements within social behavior which form an overlap with planning and design perspectives of public space and necessitate discussion within the umbrella of activity generation.

3.4 Necessary Conditions to ensure Social Cohesion in a Vital Urban Space

At this stage, from the investigation done in the previous sections, the connection between the concepts of vitality, activity generation, accessibility and diversity with social cohesion in urban space have now been established. One could ask, what are the conditions that need to be satisfied in order to develop cohesive interactions within space? Ali Madanipour establishes the co-presence of people in public space and face-to-face encounters as the most effective forms of social interaction¹⁶⁰, it is through this interaction that deeper social bonds also have the ability to form, however, as can be understood, interaction alone cannot ensure that cohesion develops, hence, the considerations within space that need to be catered to in order to ensure cohesion or interaction within a public space necessitate exploration.

Gill Valentine argues that having people in the same space in close proximity to each other does not mean that meaningful social interactions would begin taking place, and there is a requirement within cities that the issues of inequality and diversity are addressed through urban politics.¹⁶¹ However, Ash Amin maintains that the deeper social inequities may be overcome temporarily, long enough to develop rudimentary social connections within space through the presence of a management structure within space which lends security within these interactions.¹⁶² This concept is

¹⁶⁰ Madanipour, Ali. "Urban design and public space." *International Encyclopedia of Social & Behavioral Sciences* (2015). p.791

¹⁶¹ Gill Valentine, "Living with Difference: Reflections on Geographies of Encounter," *Progress in Human Geography* 32, no. 3 (2008): 323-337.

¹⁶² Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5-24. p.09

elaborated by him where he talks of public spaces where familiarity between people takes time to build and comes from repetition.¹⁶³ Jan Gehl maintains this position, and mentions that interaction within public space is represented primarily by low intensity contacts, such as, daily interactions, recognizing familiar faces, repeated social interactions based in activity, which may appear insignificant, yet are valuable as the basis for deeper and more complex social connections.¹⁶⁴ Such connections offer an opportunity to be with others in a relaxed and undemanding way, in that, the transient and spontaneous nature of such interactions do not impose an obligation between users. This act of being with others, seeing and hearing them, imply positive experiences within people being part of a larger public as an alternative to being alone.¹⁶⁵

From the ideas on interaction and cohesive relationships forming within space, we can see various qualifying prerequisites to the formation of cohesive relationships within space, utilizing Gehl's idea of intensity within contact, cohesive relationships can be said to form through the act of meeting and co-presence within space, as such, this meeting would not immediately result in deeper social connection, but would be required to develop over time through repetition and exposure.¹⁶⁶ These interactions would naturally be subject to the individual's preferences and all may not qualify beyond the level of acquaintanceship subject to the user's personal preferences, however, even in such a scenario, a mutual respect of the individual as a cohabitant of the space would form.¹⁶⁷ This would have to suffice, as people cannot be forced to form deeper social bonds with individuals they do not share values with, and neither would it be realistic to expect them to do so.

¹⁶³ *ibid.* p.10

¹⁶⁴ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).p.15

¹⁶⁵ *ibid.* p.17

¹⁶⁶ *ibid.* p.15

¹⁶⁷ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24. p.11

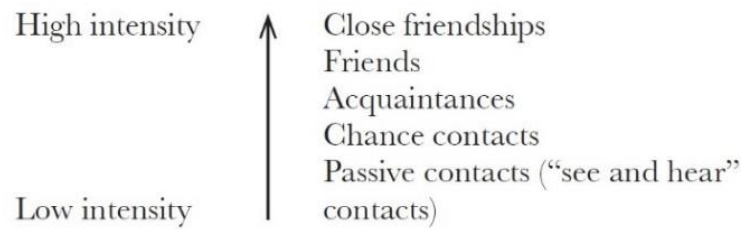


Figure 3.10: Scale of Human Relationships in public Space.

Source: Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011). p.15

However, from this, we see the importance of meeting and co-presence within space as the necessary factors for the development of social relationships within space. This raises the concern of whether people within the public space would feel comfortable enough to engage in such interaction, their personal ideas aside, what factors would allow them to engage in this process of social interaction. This could be determined through looking at the dimensions of social behavior within public space, where the ideas of territoriality, ownership, security influence the behavior of people within space and the idea of the management of public space, where the space itself meters out the more negative manifestations of social behavior to create grounds where people have the ability to engage in the process of social interaction.

3.4.1 Management of Public Space

Management within the public space refers to the presence of guiding principles that define social conduct within space, and management of a space can be conducted by either a formal governing body, like a municipal authority or government, or it could be achieved through more informal measures, such as community members or users who develop a sense of ownership to a place.¹⁶⁸ ¹⁶⁹ The idea of management of the

¹⁶⁸ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173

¹⁶⁹ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24.

public of course also applies to the more literal meaning of the term where the managing force also is responsible for the maintenance and the security of the public space. Where the presence of security within the space offers users a range of acceptable behavior within the public space which is inferred through the space, where users who act within this range of acceptable behavior are provided with a sense of protection against any form of harm within space and violators are deterred.

Ash Amin argues that the presence of a management authority which provides a framework of rules within space can temporarily allow for deep underlying issues that require political solutions to be overcome for the duration that a user is within that space.¹⁷⁰ This idea is supported by Matthew Carmona, who emphasizes the need for management of urban spaces to allow for such interactions to take place, but cautions against over management which turns a space autocratic or under management which would make the space exclusionary as people and their ideas of territoriality would be left unchecked and would be informed by their biases.¹⁷¹ This highlights the delicate balance in which the management of space can exist, where formal measures to manage space can quite easily turn into measures of autocratic control, of which there are many examples within Pakistan, primarily the D Chowk¹⁷² which was designed as the public square of the whole city, which now lies defunct, simply due to the intense measures of control applied to it under the guise of management of the space, turning it into an over managed space. Under management of space is also an issue, where the public realm becomes exclusionary as the ideas of territoriality of dominant groups eventually convert the public to

¹⁷⁰ *ibid.* p.15

¹⁷¹ Carmona, Matthew. "The place-shaping continuum: A theory of urban design process." *Journal of Urban Design* 19, no. 1 (2014): 2-36.

¹⁷² D Chowk is an intersection between the Constitution Avenue and the main Jinnah Avenue which forms the spine of the dynamic city center of Islamabad. It gets its name from its plan shaped like the letter "D". Originally planned as a public square, the space underwent several changes over time, with each iteration increasing the security measures and control mechanisms in the space, as of May 2023 the space has effectively been blocked to prevent the occasional protests that used to take place in it, the space currently lies as a heavily policed empty buffer space between the city and the administrative center of the country.

private, and lead to more vulnerable groups being excluded from the urban public experience. A case of it can be seen in the case of the gentrification of Kohsar Market¹⁷³ in F-6, where dominant groups of restaurants replaced local community activities due to the lack of protection offered to them, and the area no longer responds to the needs of the local community effectively excluding them from a public space in their own neighborhood.

An interesting example can be seen regarding the management of public space in Islamabad within the Gol Market¹⁷⁴ in F-7, where the range of acceptable behavior is more inclusive even though the overall governing structure is the same as the rest of the country and the sensibilities of the people may also be similar, however due to the place being frequented by young people, women, foreigners and tourists, there is more tolerance for behaviors that would otherwise be frowned upon in the mostly conservative society, the protection extended to one group also then, somehow extends to others within the space, where the locals can also engage in the same behaviors without any fear. As can be seen in the case of Gol Market where women (who normally do not find a place within the public realm of Pakistan) find a safe space to exist and enjoy the activities associated with the public space. This protection is extended as a mix between government protection and local stakeholder management.

¹⁷³ Located in sector F-6 and planned as a community class IV commercial center for the sub-sector F-63, Kohsar market is home to cafes and restaurants which cater to the tastes of diplomats, politicians and high level bureaucrats. These functions completely displaced the original functions of the sub sector commercial center forcing residents to meet their requirements of everyday supplies from other commercial centers.

¹⁷⁴ Gol Market gets its name from its radial plan, located in the Sub sector F-7/3 the market houses restaurants and cafes exclusively. Which developed over time, incentivized by the increased number of students in the space in the early 2000s due to the presence of tuition academies in the area and the adjacent park within which the market is located. A favorite among Islamabad youngsters, and women, who usually cannot find comfort and security in other public spaces of the city.



Figure 3.11: Image of the Gol Market

Source: https://www.fuzia.com/article_detail/252182/gol-market-f7

The tolerance that emerges within the space from this system of management allows users to be able to engage with each other. This is also influenced by the quality of space and users, defined by the activities of the area, where others know of your reasons to be within the space. People who do not have any reasonable purpose to enter such a space, or those who enter the space with intentions that do not conform to the acceptable range of behaviors, for example, those who intend to harass or to make others uncomfortable, can be immediately recognized by other users who then establish their own responses to the presence of such actors in space, these responses could range from willful ignorance and avoidance to proactive action to remove hostile actors from space, where the intensity of response would correspond to the severity of the violation of acceptable social behavior within the space.¹⁷⁵

The example highlights the interconnectivity of the concept of management of space with the idea of territoriality and ownership, where the restaurants exhibit the management of the space by regularly maintaining it, attracting the the users to the

¹⁷⁵ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24. p.09

area, who then develop an ownership with the space through repeated use, enhancing the sense of safety within the space which allows users to be able to interact with other users in space.

3.4.2 Territoriality and Security as influences for Social Behaviour

Territoriality, according to David Storey, is normally seen as the actions or behaviors used to control or exert power over a geographically designated space ¹⁷⁶ this is supplemented by Ash Amin, who adds that territoriality within a public space is a repetition of spatial demarcations based on daily patterns of usage and orientation.¹⁷⁷ The two definitions of the term build on the basis of power and control, combined with spatial demarcation brought about by regular usage, however, the overlap between Amin's definition and Jane Jacob's idea of ownership¹⁷⁸ lead one to think that within the dynamics of territoriality there may be benefits and drawbacks to the expression of this element within space. Extrapolating on the definition provided by Storey, in light of the examples that have been discussed previously, it can be said that territoriality, when exerted by an entity in the form of absolute control over a space, would lead to private control, where the space would cease to be public by the excessive expression of territoriality through tangible spatial features expressing the control of the territory. Indeed this is true of the encroachments that take place within the public realm, where individuals seeking to increase their territory incorporate parts of the public space under their private control. This is certainly true of undermanaged spaces as Matthew Carmona ¹⁷⁹ mentions, however, in the instances

¹⁷⁶ Storey, David. "Territory and territoriality." In *Handbook on the Geographies of Regions and Territories*, pp. 34-43. Edward Elgar Publishing, 2018. p.34

¹⁷⁷ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5-24. p.11

¹⁷⁸ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹⁷⁹ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173 p.157

where various actors are seeking to express their territoriality within a public space which is managed by rules, this territoriality can take different forms.

When multiple actors populate the public space, the territoriality becomes dependent upon social presence, where the definition put forth by Ash Amin¹⁸⁰, becomes more applicable to social behavior within a managed urban space defined by rules. Social presence within space could be achieved through various means, which could either be in the form of regular usage, loitering for hours within the space regularly, working within the area, organizing protests, to name a few instances of presence in public space. When encountered with multiple stakeholders brought about through increased vitality, the territory is negotiated between various stakeholders, in the case of activity, it could mean competing activities of a similar nature within space, would not occupy each other's area, and if that becomes the case due to a lack of space, a collaborative relationship would form, where both actors due to their permanent status in the public space would attempt to share the territory.¹⁸¹ The latter can be exhibited in F-7 Markaz, where the Jewelry shops occupy a specific area of the Markaz in direct proximity to each other, however, a collaborative relationship between these shops exist where they regularly exchange goods to cater to the customers' demands. The former can be seen in the same space, in the case of the central food area of the Markaz, where the eight different establishments have clear territorial distribution within the public space surrounding them. This boundary, though unexpressed through any physical measures, is determined through the waiting staff, the establishment from which a server would come to the user, is determined by where they are seated in the overall space, where waiting staff from other establishments would not serve the user, rather redirect the order to the eatery in whose territory the user is seated. It is important to note that such instances as explained above, depend heavily on the space being managed, that is, such

¹⁸⁰ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24. p.11

¹⁸¹ *ibid.* p.15

coexistence and negotiation of territory is possible due to the presence of rules and of an authority which manages the space.

However, presence in unmanaged public spaces can be created through means that are intended to be intimidating towards other users,¹⁸² this can point to the encroachment of the public space by certain religious outfits, behavior of certain groups policing individuals within space, actors through their actions creating the possibility of violence if they are confronted and the harassment of a certain groups at the hands of others, to name a few instances in the city of Islamabad. It is important to note that such insidious applications of territoriality in order to establish control over space can also apply to managed spaces where the actors are careful to avoid the direct breaking of the rules, however, the effects sought, are the same, the idea of territoriality within the minds of such actors is one where they exert the most control in space.

¹⁸² *ibid.* p.15



Figure 3.12: The central food area of the F-7 Markaz
Source: Images taken by Author.

In some cases territoriality could take the form of ownership of the public space. Which can be defined as identifying with an area, in this case, a public area, as one's own through repeated usage.¹⁸³ Thus, it can be said that territoriality and ownership are two sides of the same coin. Where ownership can be considered as the more gentle form of territoriality that can exist within the confines of a managed urban space. Ownership can also act as a form of a managing force lending security to the space, this effect is referred to by Jane Jacobs as public responsibility within space, where she explains that people who dwell within the city have to take responsibility for what goes on in their streets¹⁸⁴, this concept also extends to public space where people take public responsibility for each other regardless of their ties with them.¹⁸⁵ The idea that Jacobs attempted to highlight were the effects of ownership within space, Oscar Newman supports this view where users who may frequent a space develop an emotional connection to it, and resultantly take an active part in creating security within the space through action to protect it.¹⁸⁶ Ownership, thus, becomes the point of confluence between the idea of territoriality and security where security is inferred within a space through the actions of ownership of people within space.

Security within public space or the urban realm in general can be looked at through two perspectives, one being objective security, where security is ensured through tangible security measures which ensure that a space is safe, the other being perceived security, which is the sense of safety of space which could be attributed to the presence of people within a space which would ensure safety for a user.^{187 188} In terms of objective security, the measures taken to ensure it are very much tangible

¹⁸³ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022)

¹⁸⁴ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961. p.54

¹⁸⁵ *ibid.* p.53

¹⁸⁶ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

¹⁸⁷ Jacobs, J. *The Death and Life of Great American Cities*, 1961, Vintage Books, New York

¹⁸⁸ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116

within space, these could be in the form of CCTV cameras to track the movement of people and identify miscreant, the constant presence of police officers within space, blast protection walls, and barriers to control movement and redirect people through security checkpoints. However, such tangible measures, intended to increase security also inversely affect accessibility within a space, and make users feel less comfortable within the space.¹⁸⁹

This leads to perceived security, an idea which is explored in detail in the works of Oscar Newman and Jane Jacobs, where it is defined as a sense of safety, interweaved with the concept of comfort in space with various factors such as ownership and vitality influencing it.^{190 191} One of the most identifiable ideas in urbanism discourse regarding perceived security is Jacobs' concept of "eyes on the street" which is a form of community surveillance where deviatory practices are discouraged simply by the presence of social actors in space.¹⁹² These social actors are individuals who exist in the public realm and take ownership of a particular street or part of a neighborhood. The presence of these individuals is rooted in the presence of activities within the public realm which creates urban security through social participation.¹⁹³ Newman elaborates on this idea where ownership projected onto the public realm by the presence of a private entity would result in natural surveillance of the public space when multiplied over multiple stakeholders in space, in other words, more people who exert ownership on space would lead to more natural surveillance of the space which would lead to a more effective communal security system allowing users to perceive the space as more secure.¹⁹⁴ However, such a sense of safety, cannot simply be achieved through the achievement of

¹⁸⁹ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹⁹⁰ *ibid.*

¹⁹¹ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

¹⁹² Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24.

¹⁹³ Jacobs, J. *The Death and Life of Great American Cities*, 1961, Vintage Books, New York, p.32

¹⁹⁴ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

territoriality in space, nor through design alone. The attitudes of the stakeholders also plays a major part in the achievement of a defensible space. In light of this, Newman provides a criteria which highlights the likelihood of a resident intervening during a crime or reporting it in “their space”. The residents would intervene in an incident only if they feel that their personal property rights are violated by the action, or if they are able to identify with the individual against whom a crime is being committed, or, lastly, if they feel that their actions can help and not expose them to retaliatory actions.¹⁹⁵ This criteria highlights the fact that the residents of an area need to believe that they themselves are secure in their space which speaks to the need of objective security, they must be able to take complete ownership of the public realm in proximity to their property, and lastly, have empathy for other users.

3.5 Considerations for a Vital Urban Space

The social impulses and the ideas affecting social behavior within the space indicate the multifaceted nature of interaction within public space, however, we are yet to explore the factors of the public space itself, that allow for vitality to form in it. The vitality developed through activity generation would lead to more meaningful interactions between users, encouraged by the social impulses of territoriality, ownership and security and negotiated within the structure provided by the personal preference of users. However, within this idea, what part does the public space as a component of the urban fabric of the city play to achieve such an effect, and what considerations would be needed to develop such an effect.

¹⁹⁵ *ibid.*

3.5.1 Walkability and Access

Walkable access is maintained as the most effective means to provide access within a public space, this connects to the idea of scale where the human scale of the built environment influences how the space is perceived by the user.^{196 197 198} In terms of developing more social interaction, walkability indicates the most potential in terms of allowing for new interactions to take place. This is in part due to the speed of travel of the pedestrian users, who are open to the experiences of the public realm when passing through it, the potential of activities to be able to pause users within space and the equitable experience afforded to users regardless of their position in the social hierarchy.¹⁹⁹ According to John Montgomery urban spaces should operate at several scales to accommodate a variety of users on the human scale, and should become more intricate allowing for multiple opportunities of interaction²⁰⁰, connecting the concept to walkability within public space to the effectiveness of interaction within space.

There is not a consensus on the ideal walking distance, however, based on the writings of Jan Gehl²⁰¹, John Montgomery²⁰², Elizabeth Plater-Zyberk²⁰³, Douglas Farr²⁰⁴ and Carlos Moreno²⁰⁵, a range of ideal walking distance can be determined

¹⁹⁶ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

¹⁹⁷ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

¹⁹⁸ Congress of New Urbanism. "Charter of the New Urbanism." *Bulletin of Science, Technology & Society* 20, no. 4 (2000): 339-341.

¹⁹⁹ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961

²⁰⁰ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.p.107

²⁰¹ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

²⁰² Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116

²⁰³ Duany, Andres, and Elizabeth Plater-Zyberk. "The neighborhood, the district and the corridor." *The new urbanism: Toward an architecture of community* (1994): 17-20.

²⁰⁴ Farr, Douglas. *Sustainable urbanism: Urban design with nature*. John Wiley & Sons, 2011.

²⁰⁵ Moreno, Carlos, Zaheer Allam, Didier Chabaud, Catherine Gall, and Florent Pratlong. 2021. "Introducing the "15-Minute City": Sustainability, Resilience and Place Identity in Future Post-Pandemic Cities" *Smart Cities* 4, no. 1: 93-111. <https://doi.org/10.3390/smartcities4010006>

which ranges from a 7 minute walking distance approximately equivalent to 500 meters to a 15 minute walk, roughly equivalent to a 1.4 kilometer distance ²⁰⁶ disregarding barriers and inclining terrain, between areas of interest such as attractor activities and transit stops, allowing for the users to be able to walk to these areas. This connects to the idea in terms of equal accessibility for all users especially for economically disadvantaged classes who cannot afford the means of private automobile transportation.²⁰⁷ Montgomery states that for longer pedestrian routes, the route can be broken into parts where smaller public spaces could be placed to create points of interest where users can pause if needed or to create variation in the landscape to create interest in the activity of walking lending a pleasant experience to the activity of walking. ²⁰⁸ It is also essential that barriers to pedestrian movement should not exist around public spaces. Where the presence of physical barriers such as difficult terrain, freeways and railway lines, and security infrastructure in the form of check posts and fencing, adversely affect the movement of the pedestrian population. Routes which are designated for walking can be supplemented with bicycle routes which offer a faster and equitable way to traverse through the space without compromising the pedestrian nature of space.²⁰⁹ This is to accommodate users who may be passing through the space to reach their destinations and are constrained by time. An example would be a person passing through the public space to reach a transit stop in order to get to work on time. Forcing the obligation of interaction and pause on such users would be counterproductive to the optional nature of interacting within space.

²⁰⁶ Pozoukidou, Georgia, and Zoi Chatziyiannaki. 2021. "15-Minute City: Decomposing the New Urban Planning Eutopia" *Sustainability* 13, no. 2: 928. <https://doi.org/10.3390/su13020928>

²⁰⁷ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022) p.64

²⁰⁸ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116

²⁰⁹ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

Walkability responds in spirit to the need of public space to be accessible to as many people as possible, therefore it is beneficial for a public space to be accessible within walking distance to the residential and commercial areas of the city who would then populate the urban space leading to vitality.

3.5.2 Density

The concept of density pertains to the amount of people that inhabit space per unit area. The idea links to vitality where multiple design professionals maintain that density is one of the main contributors of vitality within a space where they establish a direct correlation between density and vitality, where increase in density is going to lead to more people in space.^{210 211} However, such simplifications do not truly address the complexity of the subject of urban vitality. It is true, that more people living close to public spaces would ensure more people would have walkable access to the public space. The ideal density of residential and commercial areas which could be achieved while maintaining the human scale, where people have a connection to the street and the activities happening within the public realm are indicated to be between 4 to 6 stories.^{212 213 214} Where the building maintains its connection to the public realm and users can partake in the activities of the public realm and be able to exert ownership on the area around them. Structures higher than the recommended number of floors leads to isolation of the higher floors from the public realm who may not be able to partake in the urban public experience.²¹⁵

²¹⁰ Congress of New Urbanism. "Charter of the New Urbanism." *Bulletin of Science, Technology & Society* 20, no. 4 (2000): 339-341.

²¹¹ Farr, Douglas. *Sustainable urbanism: Urban design with nature*. John Wiley & Sons, 2011.

²¹² Congress of New Urbanism. "Charter of the New Urbanism." *Bulletin of Science, Technology & Society* 20, no. 4 (2000): 339-341.

²¹³ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116

²¹⁴ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

²¹⁵ *ibid.*

Thus density, in the case of public spaces could be used to ensure a vital social mix of people within the space, where some areas for example less affluent areas in proximity to the space could be allowed to develop more density to allow them to contribute more users to the space, therefore ensuring an equitable social mix within the space. However, increasing density overall may lead to overcrowding of public space, which would be counterproductive to the idea of forming interactions within public space where users may begin to avoid the public space due to overcrowding of the public space.

In the case of Islamabad one can wonder if more density is needed within the urban realm, the city with low rise, two story single use residential dwellings organized within the formal city accommodate on average, two families per unit which is bifurcated on the basis of floors. Looking at this, also from the perspective of local sensibilities to density, where Pakistan has a rapidly growing urban population and attitudes of people are generally avoidant of density, as evidenced by the flight of the urban populations from city centers to the rapidly growing suburban developments in the major cities of the country. It necessitates caution to apply the ideas of density on the urban fabric simply to create more users within a space which could also be counterproductive to vitality within public space due to the risk of overcrowding which may lead to other, more complex issues when combined the forces that exist within the public space.

3.5.3 Diversity

Diversity as a concept can pertain to the presence of different types within an area, this could pertain to diversity between people on the basis of their ideas, diversity within land use where land use could be distributed between residential, commercial, social, service and institutional uses, or it could be diversity within activities present within a public space.

Land use is the main tool that has been used by planners to plan cities and the life within them. Thus it can be said that the public realm forms as a direct consequence of land use planning, though land use is not the only factor towards the development of the public realm, its influence is undeniable.²¹⁶ Within the public realm, that is, all the public areas of a city, land use determines the location of activities. Where activities, as it has been established, draw people towards them. However, in the scope of the conversation of diversity and vitality, land use determines the kind of people who would inhabit the space and what kind of activities would be provided for people and where, on the scale of the city. In terms of vitality within the public realm of the city, particularly in the case of Islamabad, activities are mostly limited to the commercial areas of city, which are subject to their own challenges in the form of homogeneity of area use, which is counterproductive to vitality. In this scope diversity within land use planning in the areas around the public space allows for diverse user groups and activities to inhabit the public space.

However, looking at the scale of the public space and the individual user, the macro decisions determined through land use planning though important, are comparatively less significant than the diversity needed in the realm of activities and user interaction. Diversity between users serves as the grounds for cohesive human interaction. Where if there was no diversity within users, there would be no need to engage users in dialogue with each other as the homogeneity within users would already be established. However, that is not the case, good cities are by their nature diverse due to the fact that they are inhabited by humans who are diverse,²¹⁷ there can be common ideas between them, but every individual brings a unique perspective which is the result of who they are as individuals. One could potentially attempt to categorize this diversity based on common social indicators to understand it, indeed

²¹⁶ Lewis, Roger K. (1987) "The Powers and Pitfalls of Zoning," and "From Zoning to Master Planning and Back." In *shaping the City*. Washington, DC: AIA Press 1987, pp 274 281.

²¹⁷ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022) p.64

people do that themselves as well, where they try to navigate the complexity of a diverse society by developing groups of kinship based on common ideas or social factors, in an attempt to develop a sense of community within themselves.²¹⁸ A consequence of this natural process of grouping, however, is the conflict between groups. How does space negotiate between the conflicts of such groups to a point of negotiated coexistence? That would also be the crux of social cohesion. Reorienting ourselves to the idea of human diversity within space, the presence of these various groups and independent actors within space needs to be ensured through the means of the public space attracting such groups within it through the use of activity which serves the diverse needs and wants of these diverse groups.

Diversity between activities, can be determined through establishing a hierarchy of activities within the public space. That is, the establishment of primary activities which serve to attract users to space and secondary activities which serve to retain users in space. Primary uses are programs that act as people attractors, e.g. offices, residences, recreation opportunities etc. Whereas secondary uses refer to the businesses and services that grow in reference to the primary uses in order to serve the population that the primary uses attract.²¹⁹ It would not suffice, according to Jacobs, if all the activities within a space were homogenous in nature. An area full of cafes, or bookstores, or grocery stores would effectively bind usage of the space to a strict time window where the presence of users within space outside of the time frame would be improbable. This limitation is applied through the various opening and closing times of different activities within space.²²⁰ Although, such constraints can be overcome through the development of diversity within both primary and secondary activities within space, thereby creating a diverse mix of activities which

²¹⁸ *ibid*

²¹⁹ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116. p.105

²²⁰ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961, p.153

could potentially serve people at different times of the day, thereby ensuring vitality within the space for longer durations of time.

3.6 Spatial Considerations for Vitality and Cohesion

It has been established to this point that a sense of safety is essential for the development of the casual social encounters which could foster cohesive relationships between users of a public space. The intangible dimensions of this sense of safety as a result of the management of space having been discussed previously. The area that requires enquiry here is the physical aspects of a public space which could allow for a sense of safety to be achieved for the users within the public space.

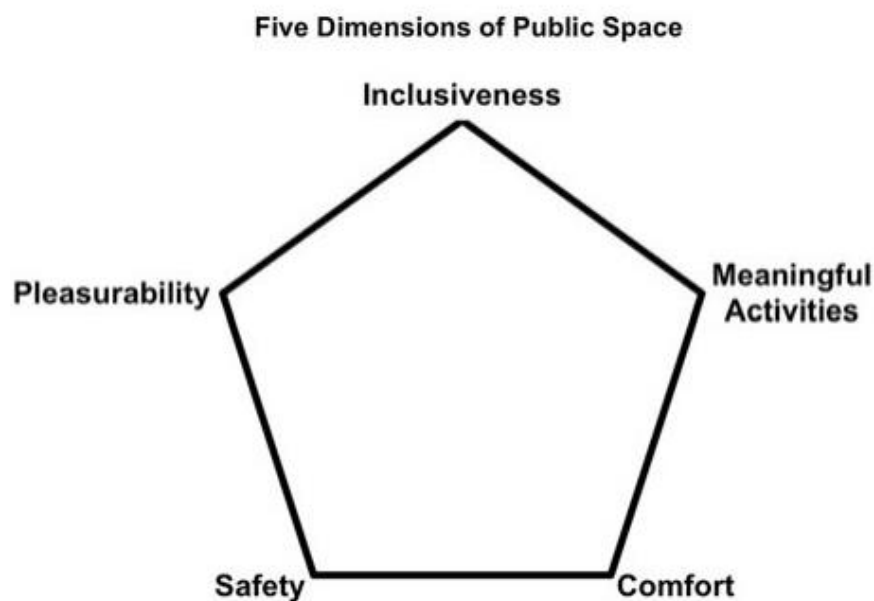


Figure 3.13: The Dimensions of Public Space

Source: Mehta, Vikas. 2013. "Evaluating Public Space." *Journal of Urban Design* 19 (1): 53–88.

A sense of enclosure, which can be emphasized through the physical aspects of the public space, namely through curating the elements of paths, boundaries, the openings within the boundaries (porosity) and scale, has the ability to contain the experience of a space, where the larger public space could be further divided and designed into more intimate spaces where the user may feel safe. This sense of enclosure requires the expression of tangible boundaries of space, which would work towards providing physical security to the users while also containing the space into finite boundaries aiding the management of the space which would work towards the development of a sense of safety needed by the users to allow for cohesive interactions. Such a discourse also encourages the question, what other physical elements of a public space may contribute towards encouraging potential socially cohesive interactions between users. As an extension of the concept of a sense of enclosure, the elements of paths, boundaries and the porosity of space can be inferred to contribute towards such an effect.

The paths in a space refer to the pathways taken by the users to pass through the space,²²¹ the treatment of these paths is detrimental to the sense of safety users may feel through the public space. Since the paths are directly linked to the dimension of access in a public space, the treatment of these paths would consequently determine the accessibility of space. Beyond that the features, or the design of the path, in terms of the details, such as, lighting, surface treatment, provision of shade, etc., may also serve to supplement the sense of comfort and safety users may feel in the space. The placement of areas of rest and also the provision of public seating would create moments of pause within the movement that takes place on the paths, where, in such moments of pause, there may lie the opportunity, for fostering social interaction between users.²²²

²²¹ Bain, Lesley, Barbara Gray, and Dave Rodgers. *Living streets: Strategies for crafting public space*. John Wiley & Sons, 2012.

²²² Unwin, Simon. *Analysing architecture: The universal language of place-making*. Routledge, 2020.

The paths serve to connect the spaces both physically and visually. The physical accessibility provided by the paths has been discussed previously, as such, the visual connection within a path and a space as a means for inferring a sense of safety can be discussed. Jane Jacobs ²²³ and Oscar Newman ²²⁴ mentioned this idea in their respective works, where the safety of the path (referred to in their writings as the street and the pedestrian pathway) was determined by how visually accessible it was perceived to be by the users. This concept simply does not refer to the perception of safety of a path, rather research on improving physical security in urban areas also highlights visual connection as an effective strategy to improve social surveillance within the public space. What this entails is that, the path or the space which has a high degree of visual connection would offer an unobstructed view for a larger distance so as to inform the users about what lies ahead on the path, ²²⁵ considering the day-night conditions in a space, this concept also extends to incorporate the lighting within public spaces and paths during nighttime hours to maintain this visual connection of the users within space. ²²⁶ Contemporary research into the phenomena suggest a positive correlation between the sense of safety the users feel within a space with the visual connection provided by the path and the open space. ²²⁷ Consequently, in light of the connection between a sense of safety on the usability of the space, that is, users would visit a space regularly if they perceive it to be safe ^{228 229 230 231}, and the usability of space being a direct determining factor of vitality

²²³ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961.

²²⁴ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

²²⁵ *ibid.*

²²⁶ *ibid.*

²²⁷ Spence, Charles. "Senses of place: architectural design for the multisensory mind." *Cognitive research: principles and implications* 5, no. 1 (2020): 46.

²²⁸ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

²²⁹ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961.

²³⁰ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

²³¹ Mehta, Vikas. 2013. "Evaluating Public Space." *Journal of Urban Design* 19 (1): 53–88.

within the space^{232 233}, a connection between this physical aspect of the space can be inferred with the concept of promoting socially cohesive interactions in public space, where an increase in connectivity both visual and physical could improve the potential interactions that could take place through enhancing the sense of safety of users thereby encouraging more usage of space.

Boundaries in respect to fostering interaction within a public space would contribute to developing a sense of enclosure within the space which would contribute towards the users feeling safe within the space.²³⁴ The boundary of a space can be expressed both as a hard boundary, which would be an explicit spatial element separating two areas of a space, think a wall, a high speed road, a perimeter fence etc., or it could be expressed in the form of a soft boundary which establishes the bounds of the space, but the means through which the boundary is created, though deliberately established through design are not perceivable as such, in this aspect the use of natural landscape elements offer one such example of the expression of a soft boundary, where dense vegetation or water features in space can be used to develop boundaries without the space feeling deliberately contained.²³⁵ Overt measures of expressing a boundary as would be the case in a hard boundary, will have their own share of advantages and disadvantages, where some means may be effective in demarcating space but would feel counterproductive in terms of imparting a sense of safety and enclosure for a user, and others may be effective in creating a sense of safety for the users but might not be effective in terms of ensuring equitable access to the space.^{236 237 238}

²³² Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961.

²³³ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

²³⁴ Mehta, Vikas. 2013. "Evaluating Public Space." *Journal of Urban Design* 19 (1): 53–88.

²³⁵ Unwin, Simon. *Analysing architecture: The universal language of place-making*. Routledge, 2020.

²³⁶ Jacobs, Jane. *The Death and Life of Great American Cities*, Vintage Books, New York, 1961.

²³⁷ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.

²³⁸ Mehta, Vikas. 2013. "Evaluating Public Space." *Journal of Urban Design* 19 (1): 53–88.

In terms of the accessibility of the public space, the porosity of the boundary and the space also merits discussion where the porosity of the space, which, when talking from the perspective of the built spatial features of a public space could be summarized as the frequency of openings present in the boundary,²³⁹ and in abstract terms, from the perspective of accessibility could mean its approachability for multiple user groups. This relationship between porosity and access determines how a space is perceived by the user in relation to its boundary. The openings in the boundary determine the porosity of the space, these openings in turn are the points of access in a space. This allows for the design of the boundary to be significant in terms of inferring a sense of safety and enclosure for the users of public space, as the number of openings within the boundary determine the effectiveness of the boundary to be able to provide security to the users contained within the space, in that, a highly porous boundary may not be effective in inferring a sense of safety to the users whereas a boundary which does not have any openings becomes a barrier to the flow of people. In these regards the boundary of a space has to respond to the flow of users within the space and the use of boundaries with the aspect of porosity could be used as an effective strategy to organize public space to be able to create enclaves of perceived safety which could encourage social interaction.

Scale within a space is a determinant of how that open space responds to the user, an oversized space would not necessarily feel comfortable for the user, too small and the user would feel too contained within the space, the perceptive boundaries of appropriate scale are quite dynamic and may shift between users²⁴⁰, however, the use of scale in the built environment for developing a sense of enclosure within a space

²³⁹ Janson, Alban. "Porosity—Ambiguous Figure and Cloud." *Feldhusen, S., Poerschke, U* (2016).

²⁴⁰ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116. p.107

is an idea that is well established within Architecture.²⁴¹ ²⁴² Considering the perspective of a public space being a place for the users, the scale would also need to be oriented towards the users, that is, the human scale, which would determine how comfortable and secure the users may feel in space. In respect to the horizontal scale which would be more relevant in the context of open public spaces, walkability of the space offers a strategy to adhere to the human scale, where a walkable space may feel more comfortable to the users and an expansive un-walkable space may not feel comfortable or secure for the users.²⁴³ These ideas of scale can be applied to open public spaces as well where walkability could determine the usage of space after connecting with the concept of access.

Returning again to the idea of a sense of enclosure, we can think of it as product of the effects generated through the physical elements of public space which are; boundary, scale and connectivity, these elements would work in collaboration with the other aspects of public space discussed as part of this research to encourage socially cohesive interactions within the public space. Within the physical considerations of space it is important to understand that the features of public space should be used keeping in mind that the overuse of such elements may be counterproductive, for example, the use of too many boundaries, whether they be soft or hard boundaries, may lead to a fragmented space, the provision of too many paths may result in the public space becoming a transitory zone where the users cannot take ownership of the space due to the constant ebb and flow of users through space and no pausing activity is present, or, having too much porosity in the boundaries of a space which may lead to a decline in the sense of safety of the users.

²⁴¹ Kahraman, E. Duygu, and Ebru Cubukcu. "Developing the standards for sense of enclosure: an experimental study in virtual environments." In *CPUD'17/II. International City Planning and Urban Design Conference*. 2017.

²⁴² Ewing, Reid, and Susan Handy. 2009. "Measuring the Unmeasurable: Urban Design Qualities Related to Walkability." *Journal of Urban Design* 14 (1): 65–84.

²⁴³ *ibid.*

3.7 Activities of Cohesion: Learning from the Context

The idea of activities as attractors of users in space has been established, these activities would attract users to the public space where the increased vitality would form the grounds for interaction within the users. Additionally the ideas of management in space which mediates these interactions has also been established which, when combined with the primary activities within the space would allow for the interactions generated through the vitality created through activity to be able to develop social bonds within the public space.

However, an activity caters to the requirements of certain user groups, and the management structures within activity can certainly mediate interactions within them, however, in the context of users, the activity may not, through the nature of activity allow access to diverse user groups, this would apply to commercial activity where access to the activity is determined through affordability. There may exist commercial activities which may respond to the needs of lower economic groups and as such the economic exclusion would not apply in their case due to the activity being in the range of all economic groups, however, the presence of the higher social classes may not occur in these spaces owing to a lack of interest due to the activity not being something that the higher socio-economic classes need.

According to Ash Amin the dynamics of interpersonal interaction within public urban spaces is quite unpredictable as it is mediated by the personal social experiences, expectations and conduct of the individuals in the space.²⁴⁴ This raises the question of how an equitable experience can be achieved for a member of a different economic class within a social space in Islamabad, considering that they have a completely different context from the city and its residents. The inherent programming of the space, thus, becomes an important tool to organize and mediate interactions within the space. Amin maintains certain spaces such as libraries,

²⁴⁴ Amin, A. (2008) Collective Culture and Urban Public Space, *City*, 12:1, 5-24

museums, retail centers, squares, parks, appear to develop an order within them, which negotiates a certain trust between individuals simply due to their presence within the space. This trust or insurance of security within interaction seems to be guided through the combination of the features, rules, function and the connotation of the space in the mind of the users. Amin talks about the rules of space which are implicitly communicated as part of their functional expression, this creates areas where interaction between various users from different social and economic groups can be achieved in a curated manner due to the ability of the space to meter the negative impulses of social, racial, economic and gender biases.²⁴⁵

This leads to the identification of possible activities within the context of Islamabad, which through the nature of the activity itself, allow for multiple user groups to be attracted to them, which then subsequently provide the necessary management structure to mediate social interaction within them, and lead to the development of social cohesion. The key impetus for such cohesive activities would be a common interest which transcends social barriers between groups, the presence of a management structure, and the activity encouraging and mediating interaction.

Table 3.1 lists such possible cohesive activities extant within the context of Islamabad in comparison to their economic access expressed as the cost of engaging within the activity. These activities have existed within the local context and are grounded in the local culture as they have traditionally responded to the social and commercial needs of people in the city which can be seen through the popularity these activities have enjoyed over the years, and their continued engagement with the users. Such activities could be further enhanced in light of their effectiveness to draw users and their significance to the local urban culture.

²⁴⁵ *ibid.*

Table 3.1: Cohesive Activities in Islamabad
Source: Prepared by Author

Cohesive Activity	Description	Price Range	Activity Type
<i>Dhaba</i>	Informal semi-permanent Restaurant which offers low cost, and fresh food	Low	Commercial and Social
<i>Khokha</i>	A semi-permanent shop occupying a small footprint offering basic food items, tobacco products snacks and cold drinks.	Low	Commercial
<i>Chai Spot</i>	Ranges from Permanent to Impermanent in space, accompanied by seating and tables, offering tea and snacks. Allows people to sit indefinitely.	Low	Commercial and Social
<i>Arcade</i>	Offers low cost access to videogame consoles and snooker tables. People pay by the hour for using these areas. Popular amongst the younger members of the society.	Low to Medium	Recreational and Commercial
<i>Landa bazaar</i>	A temporary Bazaar with multiple vendors offering cheap clothing options.	Low to Medium	Commercial
<i>Weekly Bazaar</i>	A multipurpose temporary bazaar, with a variety of products available at a low cost.	Low to Medium	Commercial
<i>Baara</i>	A permanent bazaar with multiple vendors dedicated specifically to the sale of unstitched fabric.	Low to Medium	Commercial
<i>Sabzi Mandi</i>	A permanent wholesale market for the sale of fruits and vegetables.	Low	Commercial

The activities shown within the Table 3.1 can be commercial, social or recreational and can also be a combination of types as exhibited by the *Dhaba* (Informal Semi Permanent Restaurant) and the *Arcade*. The particular nature of such spaces, with their intrinsic rules and perception of security, combined with their accessibility and the social nature of the activity makes them potential areas of socially cohesive interaction.

The commercial functions shown in the Table 3.1, due to their low cost of engagement allow for more diversity within their users, despite the fact that most are markets for the lower economic classes such as *Landa Bazaar* (Cheap Clothing Market), *Weekly Bazaar*, *Baara* (Inexpensive Fabric Market) and *Sabzi Mandi* (Wholesale Vegetable Market), these activities are surprisingly popular amongst all the socio economic classes, this is curious as to what would interest the upper classes to engage in these activities designed for the poor. The answer may lie in cultural perspectives, where bargaining culture is cemented in the psyche of the people of Pakistan²⁴⁶, where new formal commercial areas do not offer the option of bargaining, the commercial activity is dependent on one's ability to bargain for a deal. This opens the avenue of inquiry into the ability of culture to be able generate cohesive activity within the public space, where people from all walks of life would feel inclined to participate in the activity.

²⁴⁶ Wajiha Akmal and Danish Ahmed Siddiqui, "Do Cultural Values Affect Negotiation Styles in Pakistan: The Mediatory Role of Cultural Intelligence," August 29, 2020, SSRN, <https://ssrn.com/abstract=3683091> or <http://dx.doi.org/10.2139/ssrn.3683091>.

Table 3.2: Festivals that influence the formation of festival markets and generate activity in the public space and the months when they occur.

Source: Prepared by Author

Festivals	Type	Duration	1	2	3	4	5	6	7	8	9	10	11	12	Lunar Event
<i>Mela</i>	Secular	15 days													
<i>Book Fairs</i>	Secular	3 days													
<i>Festival Markets</i>	Secular	30 days													
<i>Christmas</i>	Religious	1 day													
<i>Eid Ul Fitr</i>	Religious	3 days													
<i>Eid Ul Azha</i>	Religious	4 days													
<i>Easter</i>	Religious	1 day													
<i>Basant</i>	Secular	10 days													
<i>Ramazan</i>	Religious	30 days													
<i>Muharram</i>	Religious	10 days													
<i>Jashn-e-Bahar</i>	Secular	10 days													
<i>Independence Day</i>	Secular	1 day													
<i>Defence Day</i>	Secular	1 day													
<i>Pakistan Day</i>	Secular	1 day													

Festivals could be said to be the product of collective cultural values of the society,²⁴⁷ where they mediate community coexistence and aid in the development of social connection between different members of society.²⁴⁸ Festivals also have the ability to generate temporary markets within the public space in addition to the social and recreational activity that they generate. Thus, festivals can be seen as an activity that temporarily achieves diversity within activity types, which could point to their

²⁴⁷ Crespi-Vallbona, Montserrat, and Greg Richards. "The Meaning of Cultural Festivals." *International Journal of Cultural Policy* 13, no. 1 (2007): 103–22.

²⁴⁸ Banga, Cathrine, Hasan Kilic, and Stewart Musarapasi. "An Investigation of Residents' Perceptions of Positive Festival Impacts, Community Attachment and Well-being: A Study on the Jameson Festival, Victoria Falls, Zimbabwe." *Journal of Regional Economic and Social Development* 13 (2021): 7-22.

effectiveness in attracting and retaining people regardless of their socio-economic background. It seems pertinent now, to mention the various festivals that exist within the context of Pakistan, Islamabad in particular. The predominant festivals celebrated within the city are listed in Table 3.2, which consist of both secular and religious types alongside the time of the year during which they occur, where lunar events happen on a different date every year with the date of the event being pulled forward by 10 days every year and the cycle being restarted every 33 years. The mix between solar calendar and lunar calendar based festivals allows for the overlapping of multiple festivals at certain times, and at others, can allow for the distribution of festivals within a year, this would certainly influence the diversity of experience within these celebrations and can enable festival based activity in the urban realm throughout the year. Occasions like the *Mela* ²⁴⁹, *Basant* ²⁵⁰, and *Jashn-e-Bahar* ²⁵¹, are culturally significant events and instances where people can be brought together within the urban space, the preexisting cultural significance of these events can also attract diverse users and create the necessary conditions for urban vitality.

²⁴⁹ Mela is a fair that is arranged within the spring and fall season, sometimes coinciding with other festivals, lasting between three to five days, it is not a festival but it forms an integral part of the social culture of Punjab in Pakistan. The fair encourages a variety of different activities catering to the diverse age groups that visit it.

²⁵⁰ Basant is an early spring festival characterized by the flying of kites in the sky. Usually done through people occupying their rooftops to fly their kites to compete with other flyers, play music, and have barbeques. Additionally kite catching is a major activity for children in neighborhoods as they run to catch the fallen kites whose lines have been cut.

²⁵¹ Jashn-e Bahar or Vaisakhi is a spring festival which is celebrated by the Sikh and the Hindu Faiths and is also celebrated by Pakistani Punjabis as part of their culture. The Festival is characterized by a Mela which is held for the occasion. Other social events are also sometimes added to coincide with the festival, such as the flower show by the Rose and Jasmine Garden in Islamabad, as well as the Lok Mela by the cultural ministry of Pakistan.

3.8 Application of Ideas of Vitality and Cohesion in an Open Public Space

Based on the study of urban vitality as a product of the conditions in urban space, we can see the direct link between activity generation and urban vitality, and based on the satisfaction of some criteria social cohesion could also be potentially be achieved through this vitality. We have seen how public space can benefit from the introduction of activities within them, and that certainly holds true for urban public space that is located within the built fabric, however, it would be amiss if public open spaces were not explored as a different type of public space within the city.

Before the idea of activation of urban green spaces can be addressed, it is important that the type of urban green space be identified in order to develop an approach grounded within its nature. Benjamin Stanley et al, provide a useful categorization of public open spaces where the spaces are divided in three different categories which are then expressed at different scales in different forms. Table 3.3 shows the categorization of urban spaces as Grey spaces, which are urban open spaces characterized by the presence of pavements and their urban nature.²⁵²

Specifically looking at the green spaces which form part of Islamabad's ecological grid based on the framework of categorization provided by Stanley, it can be seen that these areas best fit the definition of an *incidental space*²⁵³, which could be any green or grey space located at the margins of other spaces that is either ignored or not intended for any specific use other than visual amenity, safety or physical separation. Khaled Al Hagla mirrors this definition, opting instead to refer to such areas as Amenity green space which is a maintained landscaped area with no specific

²⁵² Stanley, Benjamin W., Barbara L. Stark, Katrina L. Johnston, and Michael E. Smith. "Urban open spaces in historical perspective: A transdisciplinary typology and analysis." *Urban geography* 33, no. 8 (2012): 1089-1117. p.1094

²⁵³ Stanley, Benjamin W., Barbara L. Stark, Katrina L. Johnston, and Michael E. Smith. "Urban open spaces in historical perspective: A transdisciplinary typology and analysis." *Urban geography* 33, no. 8 (2012): 1089-1117.

use except the amenities mentioned previously.²⁵⁴ On the level of the city these spaces take the form of semi wild natural open spaces which can sometimes act as wildlife habitats or green buffers offering a connection to nature in an urbanized environment which are especially vulnerable to becoming dumping grounds for waste and areas of social deviance.²⁵⁵ Based on the original intent of the ecological grid, and its current conditions, it can be inferred that the natural enclaves of the ecological grid in Islamabad can fit the description of an incidental space, this allows for clarity in terms of determining strategies for future approach for these areas.

Table 3.3: Typology of Urban Open Spaces

Source: Stanley, Benjamin W., Barbara L. Stark, Katrina L. Johnston, and Michael E. Smith. "Urban open spaces in historical perspective: A transdisciplinary typology and analysis." *Urban geography* 33, no. 8 (2012): 1089-1117. p.1094

		Scale		
		City	Intermediate	Residence
Form	Transport Facilities	Harbors, Airport and Train Station Parking	Transit Stations, City Gate Areas	Driveways, Parking Areas
	Streets	Central Boulevards	Street Space	Pedestrian Alleys, Paths
	Plazas	Large Formal Plazas	Smaller Neighborhood Plazas	Interior Courtyards
	Recreational Space	Stadiums, Greenbelts, Beaches	Sports Facilities, Playgrounds	Houseyard Playspace
	Incidental Space	Natural Features and Semi-Wild Areas	Empty Lots, Transit Borders	Marginalized Space Between Buildings
	Parks and Gardens	Major Formal Park and Garden Space	Institutional Gardens, Small Parks, Cemeteries	Household Gardens
	Food Production	Orchards, Agricultural Fields	Grazing Commons, Community Gardens	Kitchen Gardens, Small Horticulture
			Grey space	
			Green space	
			Grey/Green space	

²⁵⁴ Khalid Al-Hagla, "Towards a Sustainable Neighborhood: The Role of Open Spaces," *Archnet-IJAR: International Journal of Architectural Research* 2 (2008), <https://doi.org/10.26687/archnet-ijar.v2i2.239>.

²⁵⁵ Benjamin Stanley, Barbara Stark, Katrina Johnston, and Michael Smith, "Urban Open Spaces in Historical Perspective: A Transdisciplinary Typology and Analysis," *Urban Geography* 33 (2012)

The question then becomes on the adaptation of the ideas discussed on the generation of activity to develop vitality and cohesion. How would the incidental space adapt to the introduction of activities and their associated functions and whether it would be prudent to do so, considering that such spaces do serve as natural habitats despite the pressures of encroachment and pollution that they face as well as the perception of these places as no-go areas. The matter of approach comes into the fore. Traditionally, green space has been considered through the lens of landscape and urban planning to understand the distribution of green space in the urban landscape and to manage them for the provision of services and activities for urban communities.²⁵⁶ ²⁵⁷ Landscape urbanism offers a varying perspective by fusing the sensibilities of landscape design and urban planning to view such incidental green spaces from the lens of infrastructural landscapes and approaching them as hybrid landscapes, offering an approach based in the acceptance of the nature of these sites as disturbed sites and focuses on working with the natural processes to make new hybrid ecosystems where the green space is weaved with the fabric of the city.²⁵⁸ Such an approach suggests developing urban strategies through the development of infrastructure networks through landscape where it is argued that there should be a relationship between the underlying structures of topography and hydrology and the major structuring elements of the urban form, affirming the need for the development of networks of open public spaces integrated with functioning systems of public transit, pedestrian movement, water management, economic development, public facilities and activities and ecological systems to serve the social needs of the city.²⁵⁹

²⁶⁰ It should be pointed out that the nature of activity within open green space ought

²⁵⁶ Ekkel ED, de Vries S. 2017. Nearby green space and human health: Evaluating accessibility metrics. *Landscape and Urban Planning* 157: 214–220

²⁵⁷ Semeraro T, Scarano A, Buccolieri R, Santino A, Aarrevaara E. 2021. Planning of urban green spaces: An ecological perspective on human benefits. *Land* 10: 105

²⁵⁸ Mossop, Elizabeth. "Landscapes of infrastructure." *The landscape urbanism reader* (2006). p.170

²⁵⁹ *ibid.* p.172

²⁶⁰ *ibid.* p.174

to develop as a product of the landscape and its function, in this case the forces applied onto it are similar to a public space and the same ideas apply on it, for example you would not have a bar in a children's park, considerations of the criteria mentioned impose a standard of suitability of the activity within the space. Similarly, the desire to draw users within a space, is, in fact determined by the people who inhabit the space. In the case of an open space, especially a semi wild incidental space which has been left to decay over time this presents a quandary. How does one introduce activity within a space which determines people develop an attachment to it, and develop structures for its management, which then determine the activities within it, leading to the attraction of more people and eventual cohesive interactions through vitality.

It has been documented that incorporating social activities within open green spaces can provide a way for the individual to connect to the larger community and create a sense of ownership in the space which may provide the individual with the agency to adapt the space in order to increase opportunities for use.²⁶¹ The activity of a community garden works as an apt example for a cohesive activity which fulfils the criteria of suitability within space and provide the space for the development of social capital and lead to the integration of different groups within the space. Specific functions within this activity could also help members of the community learn more about nature and understand the natural processes contained within the space.²⁶² However, caution must be taken to ensure a public system of management to prevent the perception of such activities within the urban green space from being considered as private territory which would severely hamper the accessibility of the activity and

²⁶¹ Rasidi, Mohd Hisyam, Nurzuliza Jamirsah, and Ismail Said. "Urban Green Space Design Affects Urban Residents' Social Interaction." *Procedia - Social and Behavioral Sciences* 68 (2012): 464-480.

²⁶² Lin, Brenda B., Monika H. Egerer, and Alessandro Ossola. "Urban Gardens as a Space to Engender Biophilia: Evidence and Ways Forward." *Frontiers in Built Environment* 4 (2018): 79.

could also potentially lead to the encroachment of the public land by the activity.²⁶³

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Thus the intent of an interventional approach for these spaces can be developed, where the incidental green spaces which form the ecological grid of Islamabad would be activated through the insertion of suitable activities which encourage the development of social bonds, ownership and a closer relationship of the users with the natural systems. The insertion of these activities would be in pursuit of achieving urban vitality leading to increased interactions between users within a network of activities and open green spaces mediated by management structures that would ensure that cohesive interaction takes place, whereas systems would be developed in these spaces to increase both physical and socio economic accessibility in these areas.

²⁶³ Hou, Jeffrey, and David Grohmann. "Integrating Community Gardens into Urban Parks: Lessons in Planning, Design and Partnership from Seattle." *Urban Forestry and Urban Greening* 33 (2018): 46-55.

²⁶⁴ Macintyre, Vanessa G., Sarah Cotterill, Jamie Anderson, Chris Phillipson, Jack S. Benton, and David P. French. "'I Would Never Come Here Because I've Got My Own Garden': Older Adults' Perceptions of Small Urban Green Spaces." *International Journal of Environmental Research and Public Health* 16 (2019): 1994.

CHAPTER 4

FRAMEWORK FOR AN URBAN DESIGN BRIEF

The ideas discussed previously have allowed for us to develop a lens to look at the incidental spaces which form part of the ecological grid. Based on these ideas it is necessary to take a closer look at these spaces and their interaction with the formal city of Islamabad to identify the diversity of experiences along the ecological grid which could help define the nature of activities that may populate the incidental spaces as a consequence of the interventional approach. These activities would form part of the larger framework for the development of a network of cohesive spaces within the ecological grid.

4.1 Area of Intervention and the intersecting Urban Situations

The issues pertaining to the selected area along the streams were discussed in chapter 3 where it was established that there was a lack of cohesion in terms of the interaction between the residents of the informal settlement and the residents of the formal sector. However, when looking at the ecological grid and the incidental spaces that form part of it, there are multiple situations of interaction that can be identified along the length of the stream. Madanipour maintains that diverse populations may meet at such intersections where the interaction between these users may encompass the processes of politics, sociability, economic exchange, and cultural performance.²⁶⁵

²⁶⁵ Madanipour, Ali. "Urban design and public space." *International Encyclopedia of Social & Behavioral Sciences* (2015). p.790

Mehta elaborates on the concept by naming such instances as part of the parochial realm which he defines as space that is shared by similar interest groups and is characterized by commonality, sociability, friendly interactions and collective identity.²⁶⁶

Indeed this would be the case if these urban situations were to solely exert themselves onto the adjacent incidental spaces which form part of the ecological grid. And it is possible to be able to maintain similar interest between diverse user groups through the mechanisms of spatial planning and through curating experience within the incidental space as an extension of the character of these urban situations. Keeping this in view, it should also be noted that from the perspective of generating a network of cohesive urban spaces within the selected area of the ecological grid, the identification of these urban situations, as instances of interaction between diverse user groups within various forms of urban public space, is significant due to their ability to act as generators for diversity. If the ecological grid is to be used as a system of cohesive open spaces, its connection to diverse situations of experience present in these places is essential to attract users into the ecological grid from these areas. These situations would understandably exert their influence on the incidental space, indeed this can be seen in the manner that these situations presently have attempted to utilize this space, but, for a system of cohesive urban open spaces to develop, a deliberate interventional approach, which incorporates this process within it alongside the ideas of generating cohesion and vitality would be needed. This is in relation to the overarching ideas of management of public space, security and diversity discussed in the previous chapter.

²⁶⁶ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022), p.80



Figure 4.1: The ecological grid highlighted in the selected area of study alongside the contours of the landscape.

Source: Adapted image prepared by the Author based on map from Google Earth.

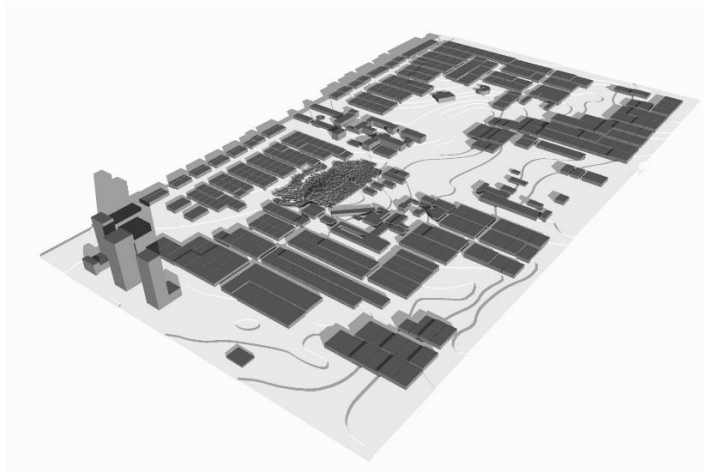
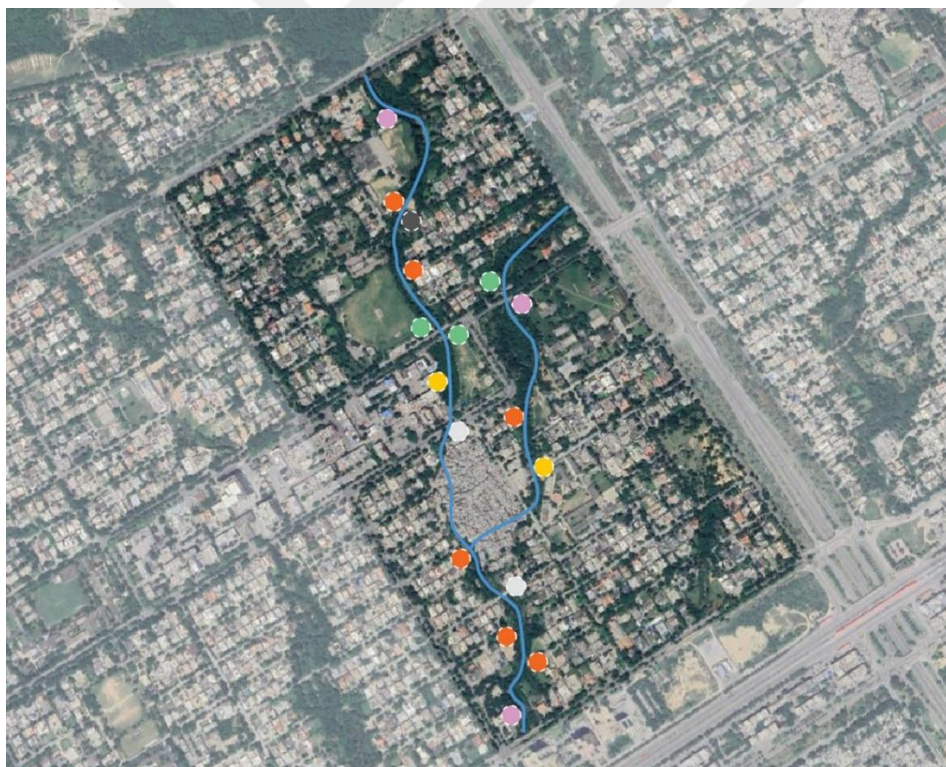


Figure 4.2: Massing model of the selected area showing the placement of building blocks in relation to the landscape
Source: Prepared by the Author.



LEGEND

- Situation of Residential Areas
- Situation of Commercial Areas
- Situation of Parks
- Situation of Schools and Religious Seminaries
- Situation of Main Roads and Streets

Figure 4.3: Selected Area of Sector F-7 (F-7/3 & F-7/4) with the Urban Situations Highlighted along the Ecological Grid
Source: Adapted image prepared by the Author based on map from Google Earth.

Mapping the entire extent of the selected area a few instances of interaction between areas of the formal grid with the ecological grid can be identified, these are;

- i. Residential areas of the subsectors, where the residents of the city formal reside.
- ii. The Markaz and the Sub-sector Commercial Centers where the residents of the city formal and the city informal (informal settlements) are attracted to for their commercial needs, that is, purchasing the necessities of life and also engaging in social activity.
- iii. Parks, which fulfil the recreational needs of the users of both the formal and informal residents.
- iv. Schools and Religious Seminaries, where the educational and social needs of the users are fulfilled.
- v. Intersections of the structure of the Formal Grid, roads and walkways, areas where connectivity links can form between the formal grid and the ecological grid areas determining the ease of access to the ecological grid.

These areas represent multiple situations of interaction between the ecological grid and the formal city. Upon inspection of these situations, one can infer the connectivity patterns between the the residential areas and the amenities that are provided to them, such as the Markaz addressing commercial and social needs, parks responding to recreational needs, and schools alongside seminaries responding to educational and social needs. Where the passage of users across the incidental spaces of the ecological grid would surely increase the connectivity of these diverse situations through reducing distances and crating new routes of access.²⁶⁷ This effect could potentially increase the usability of the incidental spaces and would lend the spaces significance as connective nodes between the ecological grid and the formal city, where the introduction of activity could serve to concentrate users within these

²⁶⁷ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

spaces and develop vitality. It must be emphasized that activity generation in a space is also bound by the concept of receptivity, which necessitates that the usability or the attractiveness of an activity must be fulfilling some needs or wants of its users in order for it to successfully attract people ²⁶⁸, this could also be called the “appropriateness of the activity” where the nature of the activity is determined through variables that are defined by the context of where it is located, the attitude of the people in that location and the overall accessibility of the activity.

However, when looking at it in terms of social cohesion and vitality the ecological grid and the incidental spaces within it are not the sources of users which will lead to diversity. Rather, based on their virtues alone, at best they can be attractors of people within space, but that too after introducing activities within them. The informal settlement of France colony offers a contrasting position in this regard, the location of the settlement within the confines of the area of the ecological grid could be said to be a generator of users from the ecological grid itself, thus diverse interactions between the formal and the informal could be developed through the ecological grid if the informal settlement is considered as an inherent part of the ecological grid, contributing to the diversity of users within the incidental spaces activated through the introduction of activities.

²⁶⁸ Amin, Ash. “Collective Culture and Urban Public Space.” *City* 12, no. 1 (2008): 5–24.

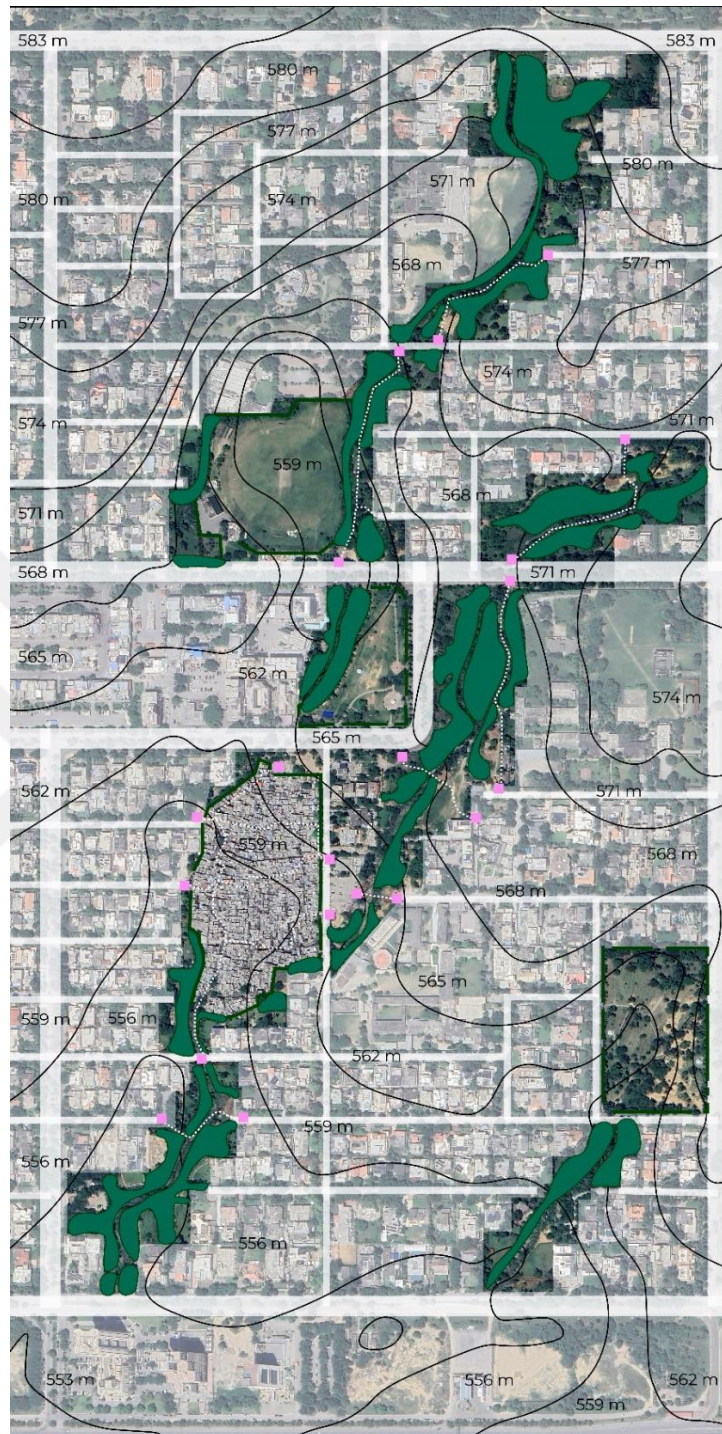


Figure 4.4: Instances of connection (pink) between different urban situations in relation to the foliage of the ecological grid (green) acting as impassable boundaries.
Source: Adapted image prepared by the Author based on map from Google Earth.

This establishes the significance of the urban situations along the streams and incidental spaces as factors which would influence the nature of activity within the incidental spaces which would form connective nodes between the situations and the ecological grid. When combined with the diversity of users gleaned from the informal settlement within the ecological grid, and the users from the formal city attracted through increased connectivity between preexisting situations, the incidental space would become the point of contact between two diverse groups, with activity generation, along with the mechanisms of management of space mediating this interaction.

4.2 Modeling an Approach

It has been well established through this research that the intent of Ekistics for the streams of Islamabad has been to develop them as natural enclaves. Indeed, this entire study stems from the premise that Ekistics and its ideas also influenced the development of the ecological grid, as a means of increasing the exposure of the individual to “nature” to serve as a temporary escape from the urban living experience.^{269 270} The status of these natural enclaves along the streams as a grid of nature superimposed on the city was to be supplemented with the placement of key social and institutional functions at their peripheries.²⁷¹ This was entirely dissimilar to the treatment of the right of way green patches which were always planned to be temporary until the necessity arose to expand the roads, rather, the ecological grid was intended as an extension of the idea of the Margalla national park area, passing through the city, where the streams and the related vegetation were to act as tools for environmental regulation.²⁷² The streams now, and their intended natural enclaves,

²⁶⁹ Doxiadis, C. A. (2005). Islamabad, the creation of a new capital. *Ekistics*, 72(430/435), 113–130.

²⁷⁰ Lovejoy, Derek. “The Design of Islamabad – New Capital City of Pakistan.” *Journal of the Royal Society of Arts* 114, no. 5123 (1966): 923–941.

²⁷¹ Mahsud, A. Z. K. (2010). Rethinking Doxiadis’ Ekistical Urbanism. *Positions*, 1, 6–39.

²⁷² Mahsud, A.-Z. K. (2006). Doxiadis’ legacy of urban design: Adjusting and amending the modern. *Ekistics*, 73(436/441), 241–263.

over time, and through subsequent development policy failures and lack of upkeep, could be safely said to behave as a left over space, rather, based on Stanley's categorization, an incidental space, which may be characterized by natural features and semi wild areas, but has escaped the attention of the users in space where resultantly no one takes ownership of it, hence, the intended natural enclave, is neither completely natural, nor planned, leading to it becoming an incidental space in contradiction to its original intent.

Therefore, an approach to reconcile the original intent of Doxiadis regarding the ecological grid, with the ideas of cohesion, vitality and activity, would prove beneficial towards the resolution of the concerns in regards to the lacking social cohesion within the city. Where such an approach could potentially lead to the future development of the ecological grid as more consistent with the original nature that Doxiadis intended, while serving the concerns of the present city, becoming a system of alternate connectivity, vitality, cohesion and maintaining its natural character.

Thus such an approach would need to cater to the development of new system of public open spaces within this preexisting system of natural enclaves within the city where interaction between users can take place for the development of social cohesion. These public open spaces would be supported through the generation of activities which would serve as people attractors and increased connectivity between these spaces to form a network which then connects to the larger city would serve to improve access and allow more users to be able to utilize these areas. The development of the system of public open spaces would also allow for the development of conditions which would catalyze the revitalization process of the natural areas as part of Doxiadis' original intent for the area.

4.3 Activities for the Activation of Open Public Space

The activation of the open spaces is essential for the development of vitality and subsequently cohesion within the open space, which would require activities to be

introduced into the space. This would attract users to the area and also mediate the exchange between the users and create grounds for cohesive social interaction. Thus, necessitating the exploration of the concept of activity, to determine the best fit for activities in the particular context for the ecological grid and Islamabad.

Within the realm of activity, there are various categorizations for the activities based on how they behave within public space. These could be on the basis of their ability to draw in users, such as primary and secondary activities.²⁷³ It could also be on the basis of their permanence in space, such as permanent and temporary activities.²⁷⁴ There are also activities which are static which occupy a fixed position within space and others which are dynamic which periodically or regularly through the space.²⁷⁵ Lastly, there is also the formal and informal activity which is a consequence of planning decision, where formal exist as the result of a planning process and zoning decisions and informal activities result within the space in response to a certain demand from the users which may not follow the restrictions or ideas of the formal planning of an urban space.²⁷⁶ These various categorizations are described to highlight the multifaceted nature of activity in public space and the variety of influences that may determine the nature of the activity.

There is a need for the reconciliation of these various definitions of activity in the context of this study where the focus is on the ability of the activity to be able to attract users within the space and allow for interaction between users to be mediated within the space. This also needs to be looked at from the lens of the various social impetuses which influence human behavior in public space. Resultantly, from the perspective of attracting users, the introduction of primary and secondary activities would serve to attract users to the space. From the perspective of diversity of users

²⁷³ Jacobs, Jane. *The Death and Life of Great American Cities*. New York: Vintage Books, 1961.

²⁷⁴ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24.

²⁷⁵ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022), p.201

²⁷⁶ *ibid.*

and experience within space the aspects of permanence, formality and dynamicity of the activity could be incorporated.

Permanent primary activities as attractors of users in space have the ability to define the public space and subsequently define the qualities of the secondary activities.²⁷⁷ It is thus essential that the primary activities introduced in the public open spaces should be conducive to the intended nature of the space which is that it is a collection urban green open spaces, where purely commercial activities should be discouraged to avoid consequences such as the privatization of public space, explored in detail in the previous chapter.

However, there do exist certain commercial activities which may provide the benefit of generating vitality and through the nature of the exchange that takes place within the activity, the potential for social cohesion while minimizing the negative effects of territoriality in space. These informal activities that originate as a response to a demand by the users in a space are by nature, grounded in the context, and providing room for such activities to develop in the open space would be beneficial to the intent of achieving cohesion through vitality.

4.3.1 Informal Activities within the Public Realm

The informal activities that exist in the study area are numerous, however, it can be seen that most of these activities are seen only within the Markaz and exist within various states of permanence. Some of these vendors have become permanent fixtures in the space with a regular clientele and them forming social connections with the shopkeepers of the area who accommodate them and their business. These informal activities along with a brief description of their business and status within the public space are highlighted in Table 4.1.

²⁷⁷ *ibid.*

Table 4. 1: Informal Activities that exist within the Study Area

Source: Author

Informal Activities in the Commercial Areas	Description	Price Range
<i>French Fry Kiosk</i>	A stall with a fryer, semi-permanent fixture in space. In the space for 20 years.	Low to Medium
<i>Book Stall</i>	A stall on a cart which is packed up and locked at the end of the day. Not moved away. Semi-permanent fixture in space. In the space for 15 years.	Low to Medium
<i>Perfume Seller</i>	A stall on a cart selling copies of popular perfumes and some originals as well. Stall is packed up and locked at the end of the day. Not moved away. Semi-permanent fixture in space. In the space for 12 years.	Low to High
<i>Afghan Jewelry Stall</i>	Stall set up and not moved. Wares packed up in a bag every day and taken away by the vendor. Permanent Fixture in space. In the space for 21 years.	Low to Medium
<i>Watch Stall</i>	Watch Cases set on the ground, packed up at the end of every day. In the space for 16 years.	Low to Medium
<i>Miscellaneous Goods Seller</i>	Sells miscellaneous items such as TV remotes, picture frames, torches, etc. Wares set on the pavement, temporary fixture in space.	Low
<i>Ice Cream Kiosk</i>	Ice Cream machine placed on the pavement, power sourced from the neighboring shop, permanent fixture in space. In the Space for 25 years.	Low
<i>Hot Chocolate and Coffee Kiosk</i>	Frothing machine placed on a table, on a pavement, power to run it sourced from neighboring shops, permanent fixture in space. In the space for 25 years.	Low
<i>Tea Stall</i>	Tea stall, set up on the pavement, power sourced from neighboring shops, seating accompanies the stall, packed up every day, temporary fixture in space.	Low
<i>Balloon Seller</i>	Cart with a Helium Cylinder, the balloon seller places his wares next to the main collector road a few hundred feet from the flower shops	Low



LEGEND

- | | | |
|--|-----------------|-------------------------|
| ● Informal Restaurant (<i>Dhaba</i>) | ● Garment Stall | ● Balloon Stall |
| ● Informal Store (<i>Khokha</i>) | ● Perfume Stall | ● Wristwatch Stall |
| ● Food items seller (<i>chips, icecream, burger</i>) | ● Book Stall | ● Afghan Jewelry Seller |

Figure 4.5: Mapping of informal activities in the selected area of F-7/3 and F-7/4.
Source: Adapted image prepared by the Author based on map from Google Earth.



Figure 4.6: Vendors occupying the Sidewalk in F-7 Markaz
Source: Image taken by the Author



Figure 4.7: A french fry vendor in F-7 Markaz
Source: Image taken by the Author



Figure 4.8: Vendors and peddlers in Islamabad.
Source: Dharejo, Nazia, Ashiq Ali Jhatial, and Hakim Ali Mahesar. “A Study of Socioeconomic Conditions of Street Vendors Sindh, Pakistan.” *AMRJ* 1, no. 1 (July-December 2021).

In addition to the informal activities seen in the F-7 Markaz, there are also transient activities that are ingrained in the urban cultural context of Pakistan which find their expression within the residential areas of the sectors in Islamabad. These activities, also informal in nature, listed in Table 4.2, exist in the form of hawkers and peddlers offering niche services and products which respond directly to the needs of the residential areas. Though the activities and the actors associated with them, do not permanently inhabit the space, the routes they have developed, along with the specific time where they pass through the space add to the richness of the urban environment in terms of activity within the street²⁷⁸, lending them an identity as part of the urban realm in the residential areas. The pedestrian nature of the activity, the physical labor involved and the price range of the goods offered indicate that these hawkers belong to the lower economic classes, still, their trade allows them access into residential areas where otherwise they would be viewed with suspicion. This access, combined with the trust developed through their regular presence in the space allows them to informally interact with the residents, which works towards developing social cohesion within the residential areas.

Table 4. 2 : Transient Commercial Activities not limited to the Commercial Areas (Hawkers and Peddlers)

Source : Author

<i>Transient Commercial Activities</i>	<i>Description</i>	<i>Price Range</i>
<i>Challi Wala</i>	Sells steamed corn. Carries his wares on a cart.	Low
<i>Jhaaroo Wala</i>	Sells Brooms and Cleaning Equipment. Carries his wares on his head, walks through the neighborhood.	Low
<i>Churri Wala</i>	Sharpens old Blunt Knives.	Low
<i>Ice Cream Wala</i>	Peddler who sells Ice Cream, moves through the neighborhood on a bicycle	Low
<i>Machli Wala</i>	Peddler who sells fish, moves through the neighborhood on a bicycle	Medium

²⁷⁸ *ibid.* p.201

Table 4.2 continued.

<i>Raddi Wala</i>	Buys discarded paper, Metal and some forms of Plastic. Walks through the neighborhood pushing his cart.	Low
<i>Sabzi Wala</i>	Sells Vegetables and Fruits. Walks through the neighborhood pushing his cart.	Medium
<i>Tulai Wala</i>	Fluffs Old Pillows and Quilts. Passes through the neighborhood on his bicycle. The profession is under threat of extinction, due to modern mattresses.	Medium
<i>Murammat Wala</i>	Repairman who repairs old stereos, televisions, small home appliances etc. Passes through the neighborhood on his bicycle.	Low
<i>Maalish Wala</i>	Masseuse who offers head massage. Carries his collection of oils in bottles which he carries in his hand and walks through the commercial areas.	Low
<i>Daanon Waala</i>	Peddler who pushes his cart and roasts nuts, maize and chickpeas. Seasonally available only in the winters.	Low
<i>Papar Wala</i>	Sells poppadum, a local snack, carries his wares on his bike.	Low
<i>Chaabi Wala</i>	Straw Basket Seller, carries his wares on his back.	Low

The vendors shown in Table 4.2 indicate the nature of their activity as responding to the needs of the residential area, however, some of these such as the *Challi Wala*, *Ice cream Wala*, *Daanon Wala* and *Papar Wala*²⁷⁹ are not just found in the residential areas, rather, they are observed to be present at the exits and parking lots of schools at closing time²⁸⁰ and within parks in the late afternoon²⁸¹ as shown in Figure 4.9. The usage of these areas by the vendors corresponds to the peaks of usage of these areas, where these vendors attempt to use the increased number of people in a space to sell their wares to meet their daily quota, where they are more often than not, successful in doing so. This indicates an adaptability of the activity in being able

²⁷⁹ “Wala” is a local language term which means in this particular context “seller of”, used to refer to a vendor. The wares being sold by the vendor is mentioned after which the term is attached. For example; Ice Cream Wala, i.e a person who sells Ice Cream.

²⁸⁰ School Closing time in the country is at thirty past one, which the vendors are aware of allowing a window of time where the children have not yet left for home, and can buy the goods being offered.

²⁸¹ Due to the climate of the country, it is common practice for parks to be used when the sun is at a lower position and the temperatures are more bearable, this usually results in activity being concentrated in parks in a time frame which starts two hours before sunset and lasts till sunset.

to operate in various different contexts, and also exhibits potential in being applicable to the spaces within the ecological grid.



4.3.2 Activities in Natural Enclaves

The ecological grid, was envisioned as a system of natural enclaves within Islamabad, and though currently its nature represents that of an incidental space due to the neglect it has faced over the years, the natural character of the space is something that needs to be retained, owing to the general perception of Islamabad as a “green city”²⁸² and the pride that the residents of the city feel in this character of the city.²⁸³ Ecologically speaking, it is also necessary to attempt to preserve this nature as in the past decade Islamabad has lost one-third of its vegetation cover.²⁸⁴ In terms of activity generation, these facts require reflection, where the proposed primary activities in the reactivated ecological grid should reflect the intent of the preservation of the natural character of these spaces.

A potential source of inspiration for the activities that would be non-invasive to the natural character of a natural enclave could be the activities extant within the Margalla Hills National Park, of which the ecological grid was planned to be an urban extension.²⁸⁵ The primary activities that can be identified in the National park are as follows;

- i. Trail Hiking; a walking and hiking activity which involves walking to a vantage point for the purpose of camping or picnicking. Some users may also engage in the activity for the purpose of fitness and increased connection to nature.
- ii. Bird and Wildlife Watching; where certain protected areas in the national park are designated as wildlife reserves offer a diversity of local flora and

²⁸² Botka, Dusan. "Islamabad after 33 years." *Ekistics* (1995): 209-235.

²⁸³ *ibid.*

²⁸⁴ Shah, Zohaib M. “Islamabad’s vanishing forests” *Dawn*, March 20, 2023, <https://www.dawn.com/news/1743153>

²⁸⁵ Mahsud, A. Z. K. (2010). Rethinking Doxiadis’ Ekistical Urbanism. *Positions*, 1, 6–39.

fauna species which visitors can observe from designated vantage points from the hiking trail.

- iii. Blossom Picking; a seasonal activity carried out in spring where people from local rural communities in the National Park area engage in the picking of *Kachnar*²⁸⁶ Tree blossoms, which is a local variety of tree, whose blossom buds are used in the local cuisine.
- iv. Camping; where people camp overnight in designated campsites near the national park road, which are linked to the hiking trail as well. People may drive or hike to these camping sites to engage in the activity of camping. People may also choose these sites as picnicking locations and for meditation gatherings.

It is also pertinent to mention that these recreational activities are accessible in terms of physical and economic access due to the fact that they involve the activity of walking within the national park which is part of the public realm. However, due to the protected status of the national park, nighttime activities are discouraged for the preservation of the environment and the biodiversity and also to ensure the safety of the users within the unfamiliar terrain of the forests that consist of the area of the national park. These activities mentioned, represent the potential activities that may be able to attract users to the restored ecological grid as well, where the forested lands that make up part of the ecological grid could potentially serve in some areas as common city woods for the purpose of recreation in nature.

²⁸⁶ *Kachnar* is a variety of an orchid tree local to the region of Islamabad where the buds of the flowering tree are picked before the blossom to be used in local cuisine.

4.3.3 Activity, Revitalization and Regeneration; a community led initiative in Kachnar Park, Islamabad

While discussing potential activity generation in an urban green space, it may be worth mentioning the case of the *Kachnar* Park in Islamabad's Sector I-8. The park is unique in terms of its character, firstly as a case of the development of a forested area which forms the buffer between the Islamabad highway, secondly as a community led initiative to regenerate a neglected green space with efforts to introduce new activities within the space.

The *Kachnar* Park started off as an initiative of the CDA (Capital Development Authority) in 2005 to develop a buffer forest between the Islamabad Highway, a major arterial road of the city lying on the north-south axis which forms the link between Islamabad and Rawalpindi, and the Sector I-8. The 1.4 kilometer long patch of the forest was partially cleared of the dense vegetation where the older trees which formed the canopy of the forest were retained. The CDA developed walking tracks, gazebos, exercise spaces, public toilets and a parking lot as part of the functions of the park. A plantation campaign was also conducted where *kachnar* seedlings were planted which gave the park its name. However, by 2017 the park had lost most of its charm to the users and showed signs of neglect and dilapidation of the facilities and was a hotspot for crime and drug users.²⁸⁷

These conditions catalyzed a community led initiative by the name of "Friends of *Kachnar* Park" consisting of the residents of sector I-8 who lived across the road from the Park. The initiative initially started from volunteers doing cleanup drives to remove solid waste from the park as an activity every morning, inspiring more volunteers to participate and take ownership of the park. This phased intervention by

²⁸⁷ News Desk. "Islamabad – the Beautiful Kachnar Park Once a Rubbish Dump Turned into a Beautiful Garden by Citizens on Self Help Basis." *Pakistan Observer*, March 18, 2021. <https://pakobserver.net/islamabad-the-beautiful-kachnar-park-once-a-rubbish-dump-turned-into-a-beautiful-garden-by-citizens-on-self-help-basis/>

the local community expanded towards a restorative approach, where preexisting tracks were restored and formalized for the purpose of walking, jogging and cycling activity. The community then petitioned the CDA to aid them in the restoration of the facilities and the lighting within the park to be able to improve the security of the space and increase its appeal to the users.

These efforts were successful in revitalizing the park as by 2019 the park had gained in popularity with the residents of Islamabad who would drive to the Park for recreational purpose. Beyond the revitalization efforts of the local community, new plantation drives were introduced specifically targeted for the young population in the area to increase the involvement of the youth within the park activities. Additionally, some dilapidated corners of the park next to a rainwater culvert which was an originating point of a stream were designated as community garden spaces, where users could temporarily use the land to grow organic vegetables where the community would provide the compost that they created themselves from mulch retrieved from the trimming of trees, with the only condition for getting the land being that the user would prepare it themselves for the purpose of farming. This strategy was met with success, as former dilapidated and waterlogged areas of the park were revitalized through the process, allowing the “Friends of *Kachnar* Park” to formalize unused areas of the park as paved clearings for accommodating new activities which would increase community involvement in the park. New activities within these paved spaces such as Yoga classes, Meditation Sessions, Dance classes and Karate Lessons for Children were introduced in the park which offered a diverse experience to the users, leading to increased vitality within the park.²⁸⁸

²⁸⁸ Jamal, Sana. “A Park Side Story in Islamabad.” *Gulf News*, April 9, 2018.
<https://gulfnews.com/world/asia/pakistan/a-park-side-story-in-islamabad-1.2202464>.



Figure 4.10: Restored walking tracks in Kachnar Park
Source: Friends of Kachnar Park

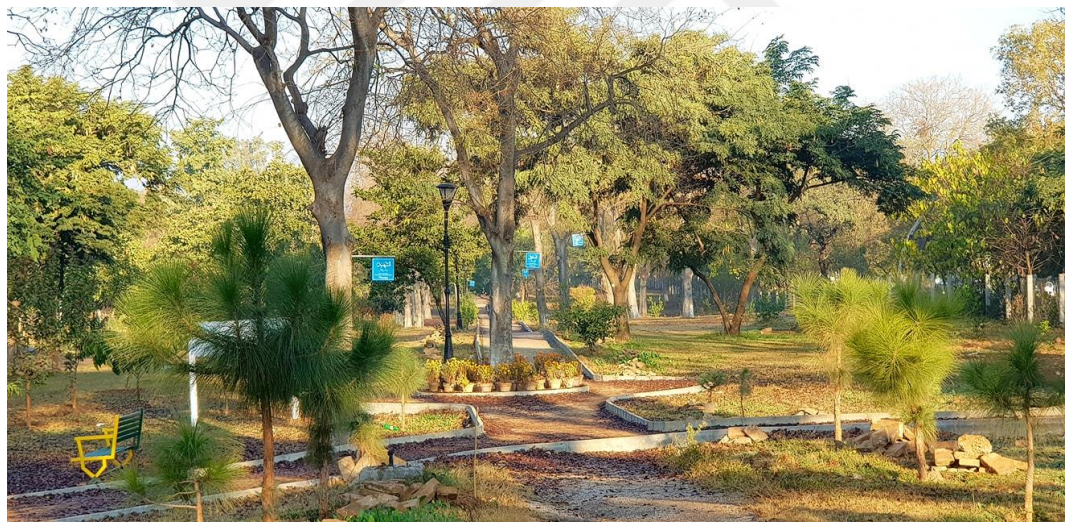


Figure 4.11: Restoration process of walking tracks in Kachnar Park
Source: Friends of Kachnar Park



Figure 4.12: Community Volunteer from the “Friends of Kachnar Park”
Source: Friends of Kachnar Park



Figure 4.13: Award Ceremony for the Karate Classes held in the Park
Source: Friends of Kachnar Park

The park operates now as an open air community center,²⁸⁹ where certain spaces allow for the community to be able to hold their events and shows immense potential for the green space to act as a managed public space. Where cohesive interactions can potentially take place. The case for *Kachnar* Park showcases the potential for activities and community based management of public space to be able to generate vitality, within neglected spaces.

Table 4.3: Activities within Kachnar Park

Activities	Description	Accessibility Status
<i>Community Gardens</i>	Plots of waterlogged land are provided to interested users where the preparation of the land for cultivation is facilitated by the management body in the form of providing fertilizer and the assistance of a gardener.	Open to all, subject to preregistration and availability of plot
<i>Footsal Matches</i>	A small-scale version of football which involves five people on each side, the activity is carried out daily by local neighborhood kids in a clearing area of the park whose boundaries are defined by tree plantations.	Open to All
<i>Yoga Classes</i>	Organized by the management body and a volunteer instructor with a nominal fee to generate funds for the maintenance of the park.	Paid Activity, Open to all, however, separate sessions for men and women
<i>Dance Lessons</i>	Organized by the management body and a volunteer instructor with a nominal fee to generate funds for the maintenance of the park.	Paid Activity, Open to all, however, separate sessions for men and women
<i>Karate Lessons</i>	Organized by the management body and a volunteer instructor with a nominal fee to generate funds for the maintenance of the park.	Paid Activity, Open to all, subject to the instructor's discretion

²⁸⁹ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24.

Table 4.3 continued.

<i>Group Meditation sessions</i>	Volunteer instructor from the management body guides a group of people in the open plaza space of the park.	Open to all, however, separate sessions for men and women
<i>Drawing Excursions</i>	Volunteer artists guide interested users in the activity of drawing elements of the park promoting engagement of the users with the park.	Open to all.
<i>Picnics</i>	Impromptu activity, conducted on the discretion of the users.	Open to all.
<i>Group Walking</i>	Impromptu activity usually generates by itself, where users find other people they know also engaged in the activity of walking and join these people.	Open to all.
<i>Seasonal Plantation Drive</i>	Organized by the management body before the rain season and spring to redevelop the green cover of the park.	Open to all.

The list of activities within *Kachnar* Park make a case for activities to be able to be introduced within an open urban green space which do not compromise the natural quality of the space. It also presents the idea of management of space to be combined with the idea of an activity to develop an activity out of actions taken as part of the management of the urban space, drawing on the interests of users to help in maintaining the urban space. Initiatives such as the community vegetable patches, and the monthly plantation drives could increase community involvement in the space, providing the platform for increased cohesive interactions between users while working to maintain the space.

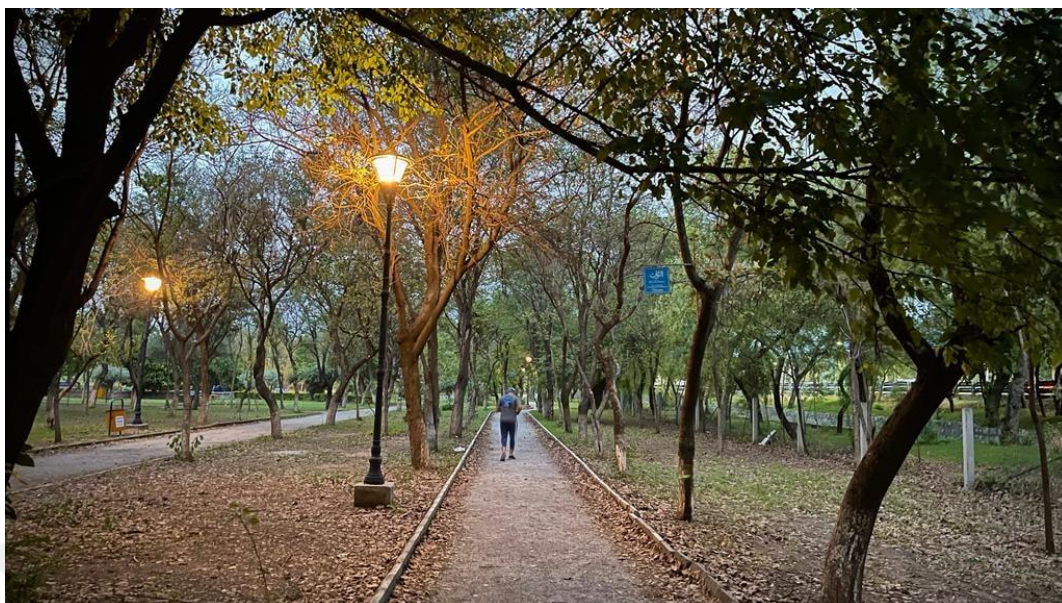


Figure 4.14: Lighting along the Park walking Tracks
Source : Friends of Kachnar Park

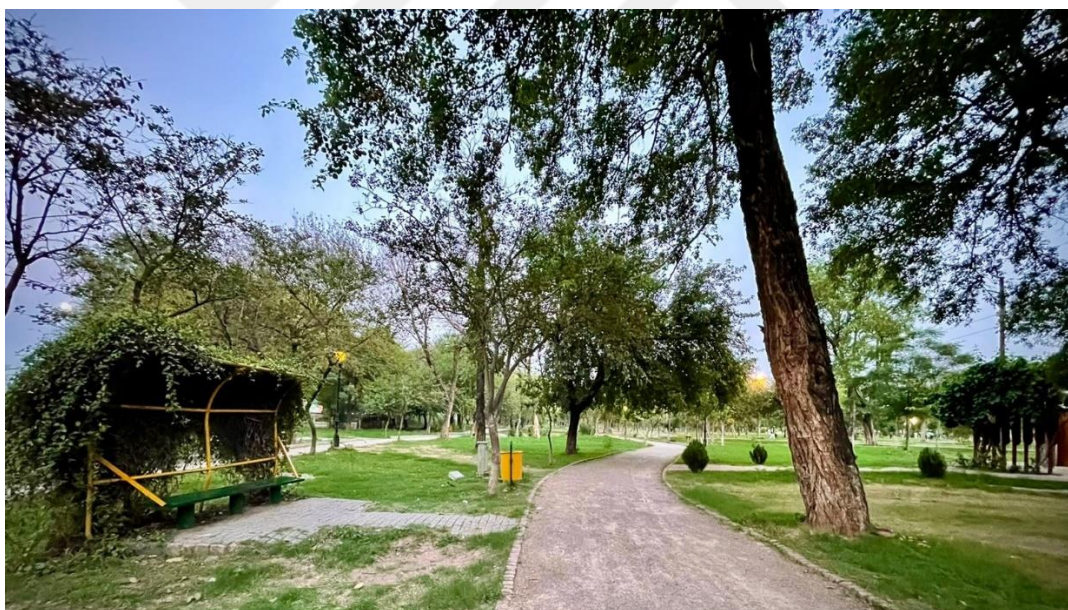


Figure 4.15: Shaded benches and Gazebos as part of the Park's Infrastructure
Source : Friends of Kachnar Park

4.4 An approach for the development of a Network of Public Open Spaces

The ideas discussed within this study are expansive and diverse in terms of the subject matter and require reconciliation with the contextual situation, before a framework for intervention can be proposed, the approach for the ecological grid is to be defined, this approach would determine the strategies for the incidental spaces of the ecological grid and would provide the pathway towards the development of social cohesion through vitality within these spaces.

The intent here is to develop an interconnected network of public open spaces which respond to the needs of the public in order to generate urban vitality with diversity within the spaces forming part of the ecological grid. The interconnectivity of spaces would be necessary in order to increase access between different open spaces and the activities contained within them. This interconnectivity would need to operate on different scales, where connections between adjacent spaces within a particular area would work on the pedestrian scale, however, as distances between spaces increase, other means of transportation would need to be applied which offer similar if not the same equitable access as walkability. Bicycle access ways and Low gauge public transport may offer such solutions which would allow increased accessibility to further away areas within the ecological grid while maintaining, as much as is possible, equitable access.^{290 291 292} Within the larger context of the city this system of public open spaces would need to be connected to existing systems of access such as the roads forming the formal grid of Islamabad with its associated transportation infrastructure and mass transit lines. To that effect, the intersections between this

²⁹⁰ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

²⁹¹ Congress of New Urbanism. "Charter of the New Urbanism." *Bulletin of Science, Technology & Society* 20, no. 4 (2000): 339-341.

²⁹² Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.

system and the formal grid would be significant as the access nodes between the formal city and the ecological grid.

Based on the current condition of the ecological grid it becomes necessary to include the revitalization of the natural character of the space into the conversation regarding the activation of the open green spaces. Where the condition of the space would, in terms of its natural character, be detrimental to its usage by the people.²⁹³ As such the development of reclamation and restoration tactics for the natural elements would be a requirement for the development of new vital urban spaces to be able to connect them to the contextual landscape. There is also the matter for the development of the necessary infrastructure of public spaces to create the conditions necessary for the introduction of new activities within the open public spaces. Where the spaces would need to respond to the needs of the primary attractor activities within the space. Additionally the placement of connective infrastructure to link the public spaces with the larger context of the city and between the other public spaces within the ecological grid for increased accessibility. Similarly, the placement of tangible spatial elements is also needed to be able to reinforce the ideas of accessibility and security within the space.²⁹⁴

Activity generation would be seen as the primary means for the development of urban vitality within the developed urban open spaces and would be the vehicle for the induction of cohesive interactions within the space, where the nature of the activities would be placed in a hierarchy within the spaces to generate diversity, minimize the negative effects of territoriality and encourage the management of space. Understanding the constraints of the context, where the natural character of the space cannot be compromised for the sole purpose of generating activity, the physical presence of the primary activity within the space would be determined

²⁹³ Amin, Ash. "Collective Culture and Urban Public Space." *City* 12, no. 1 (2008): 5–24.

²⁹⁴ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

through their ability to provide a management structure within space to mediate social exchange and the potential of such activities to attract users. Other activities may be introduced in the space to provide a diverse experience to the users serving to retain them in the space or increase their engagement within the space, for this purpose, secondary, transient and informal activities appropriate to the contextual constraints could be introduced as a means to retain vitality within the space.

The informal settlement of France colony, can be seen as a source of diversity within the ecological grid, using the path as a means to increase integration of the settlement with the open green spaces and potential revitalization and formalization processes could be used to further integrate France Colony into the fabric of the ecological grid, perhaps as concentrator of unique commercial activities within the space which would be appropriate to the people of the local community of the settlement. The walled confines of France Colony with its fixed points of entrance²⁹⁵ could serve as similar nodes of connection as the instances of the urban situations interacting with the ecological grid. Where the adjacent situations to the ecological grid would exert a degree of influence in the form of ownership and inform the type of activities that would be generate within the spaces.

4.5 Implementation Model for the development of a Network of Open Public Spaces

The approach for the development of a network of open public spaces highlights key areas of focus for the definition of the network to ensure its effectiveness towards the achievement of urban vitality and resultantly, social cohesion, within the ecological grid of Islamabad. The ideas of reclamation of the incidental spaces, activity generation, accessibility and diversity are key intents for the development of

²⁹⁵ Moatasim, Faiza. *Master Plans and Encroachments: The Architecture of Informality in Islamabad*. University of Pennsylvania Press, 2023.

vitality and social cohesion within the ecological grid. These would form the basis of the implementation model for the network of Public Open Spaces. Within these larger terms, there are also essential ideas which are needed in order to achieve the aforementioned conditions for vitality and cohesion. These concepts being the presence of security, ownership and management of public space, which interlink within each other and develop the conditions needed for the development of cohesive interactions between users to take place.

It should be mentioned that a phased approach would be the best possible fit for implementing the ideas of vitality and social cohesion within the context of Islamabad, where the city management has shown a susceptibility in the past to initiate mega projects in the past with expansive scales. However, quite a few of such projects end up not being completed due to either lack of funds or public interest. One only has to look at the Citizen's Club project in F-9 Park ²⁹⁶ and the abandoned cultural center project in the Shakarparian National park ²⁹⁷ as examples of unfulfilled mega projects which severely impacted the natural character of the green spaces within the city. It is then, perhaps, more prudent to have the process for intervention to consider such realities of the context and have the process of development of a system of open spaces divided within phases which could be implemented successively.

Phased implementation models have seen popularity within recent years as potentially effective and lower cost solutions for the urban environment, and have been reasonably successful as an urban revitalization strategy²⁹⁸, as can be seen through the works of Tactical Urbanism, ²⁹⁹ which, although operate on a more

²⁹⁶ Abbasi, Kashif "F-9 Citizen Club building awaiting visitors for years", *Dawn*, January 12, 2023, <https://www.dawn.com/news/1731161>

²⁹⁷ Abbasi, Kashif "CDA decides to revive abandoned culture complex project after 14 years", *Dawn*, March 24, 2023, <https://www.dawn.com/news/1743802>

²⁹⁸ El Messeidy, Rania. "Tactical urbanism as an approach to reuse residual spaces." *Journal of Engineering Research* 3, no. December (2019): 41-47.

²⁹⁹ Lydon, M., & Garcia, A. (2015). *Tactical urbanism: short-term action for long-term change*, Washington D.C, Island Press

intimate scale than the one being proposed in this framework, have found reasonable success to resolve urban problems through their low cost iterative approach. However, considering the multiple aspects of the framework and the existence of processes of intervention rather than singular interventions as part of the interventional strategies, it would be more appropriate to adopt the phased model of intervention where, in relation to the scale, a series of interventions may take place at once to be able to achieve the desired effects of the process being implemented within space.

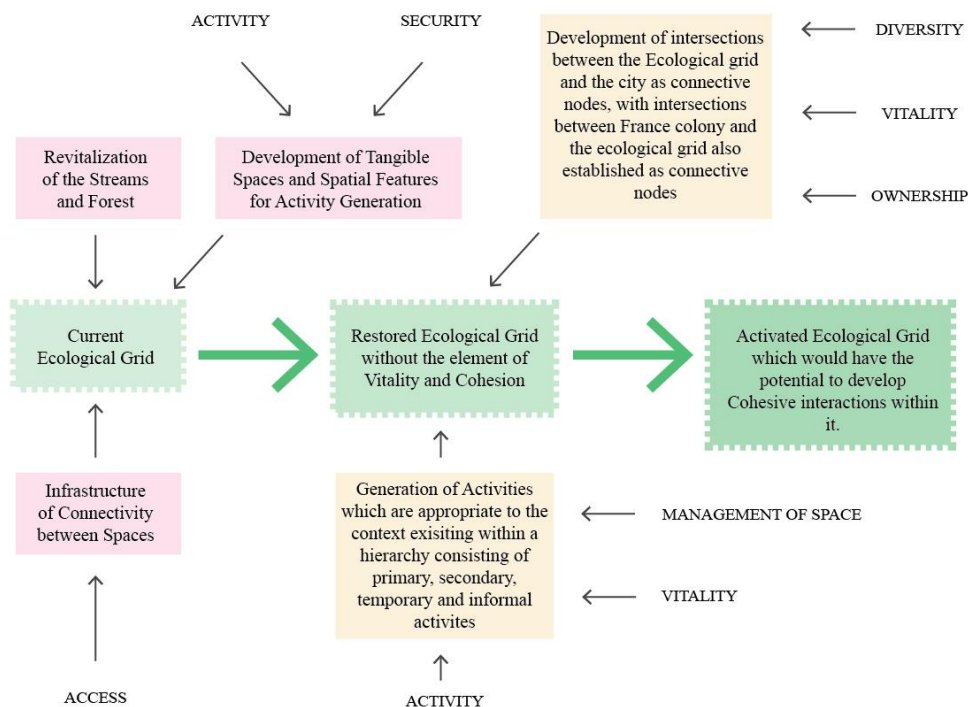


Figure 4.16: Diagram highlighting the approach for the Ecological Grid
Source: Image prepared by the Author.

Figure 4.16 shows the approach for the development of the framework where the interventional practices would be split into parts where the first part would be focused on the preparation of the site where the condition of the incidental spaces would be addressed, focusing on the restoration of the natural quality of the streams

and the forested land within the area of the Ecological Grid. This process would also involve the development of the physical infrastructure of connecting pathways between the urban situations located at the peripheries of the ecological grid, leading to a network of connecting pathways linking the peripheral areas through the restored ecological grid. Restoration of the natural environment and the development of paths would establish a basis of accessibility and security for the next steps, as currently it is not a place where anyone would want to go, hence it is pertinent that the space be made accessible and secure in terms of physical security to counteract the perceptions of insecurity associated with the space.³⁰⁰

Once paths through the ecological grid have been developed and a basic level of usage of the space has been established, the second part would respond to the peripheral intersects between the ecological grid and the city, where these spaces would be stimulated through activities derived from the situations to establish anchor points for the attraction of people, these areas would also provide the opportunity to induce ownership mechanisms in space through proximity. Where primary activities, influenced by the needs of the adjacent situation, would be introduced at the point of connection applying a system of management within the area, and where users, sourced from the adjacent areas would exert ownership over the open space at the node between the ecological grid and the formal city. Similarly the intersections between the informal settlements within the ecological grid would also be formalized as connective nodes to ground the new system of open public spaces within the fabric of the city where the connective nodes utilizing primary attractor activities to attract users from both the formal and the informal context and link to the access infrastructure developed in the previous phase to provide a diversity of users within the network of open spaces. Efforts can be made to develop new points of contact on the paths connecting the urban situations to generate more opportunities to interact

³⁰⁰ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

with the space and to accommodate any resultant transitory activities, serving to add diversity in activity.

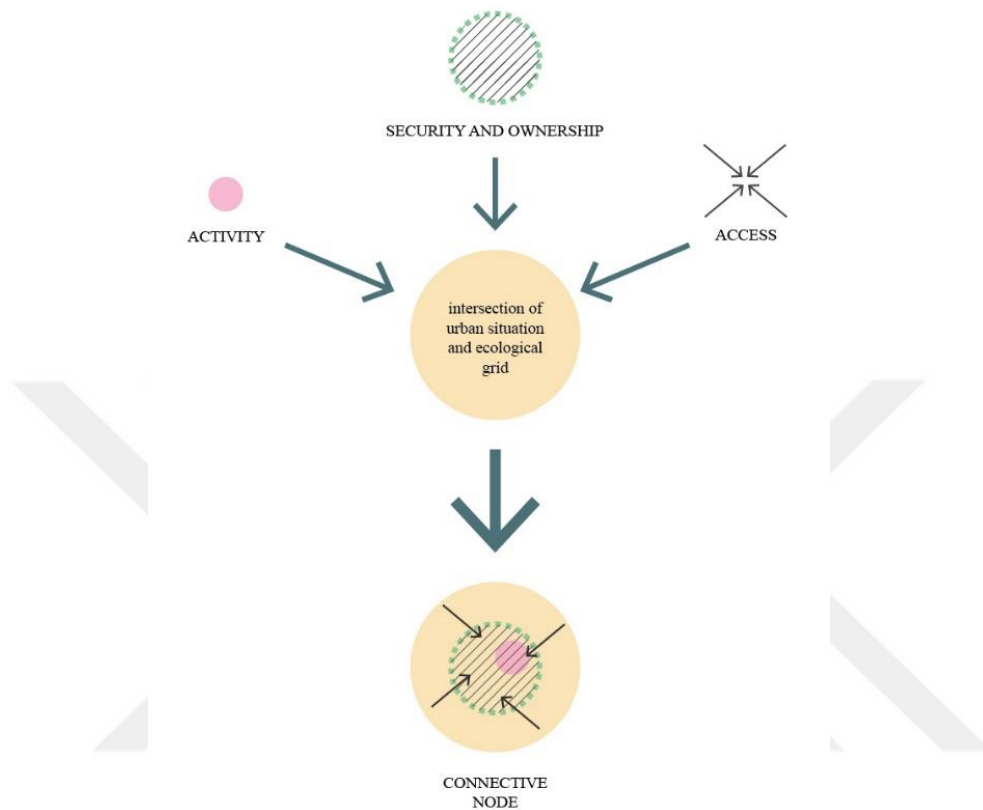


Figure 4.17: Diagram for the development of a connective node
Source: Image prepared by the Author.

The third part would focus on the formalization of the new points of contact into formal features of flexible open space and the development of secondary pathways linking these spaces to each other and the larger network existent in the ecological grid. Here user retention would be encouraged through the development of secondary, temporary, and informal activities, with the flexible nature of the open space attracting a diversity of activities, allowing for increased accessibility of activities, both physical and economic. Leading to the attraction of a diverse user population within the space and also increasing vitality through attracting more users to the space creating the conditions of vitality which could lead cohesive interactions between users.

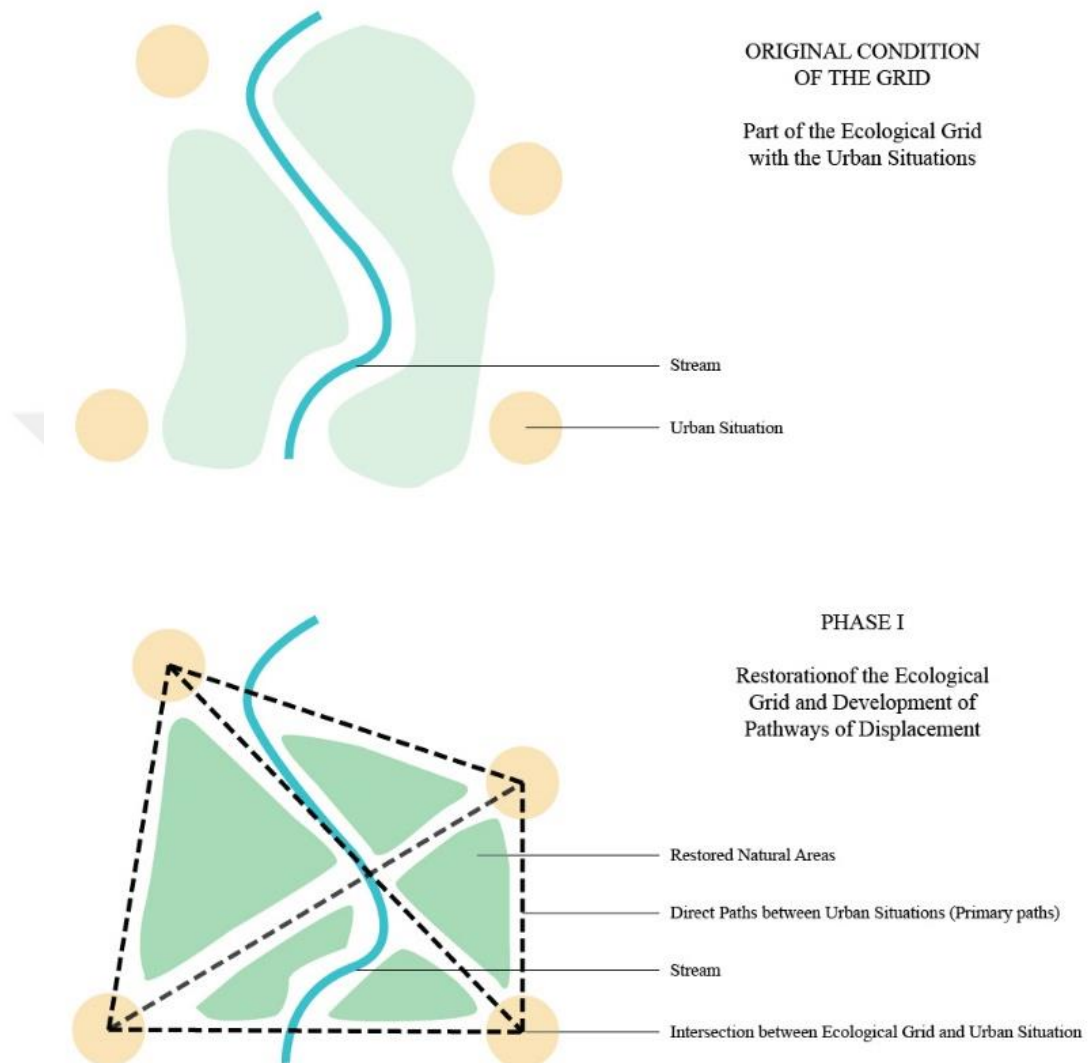


Figure 4.18: Potential Phased Implementation model in the Ecological Grid
 Source: Image prepared by the Author.

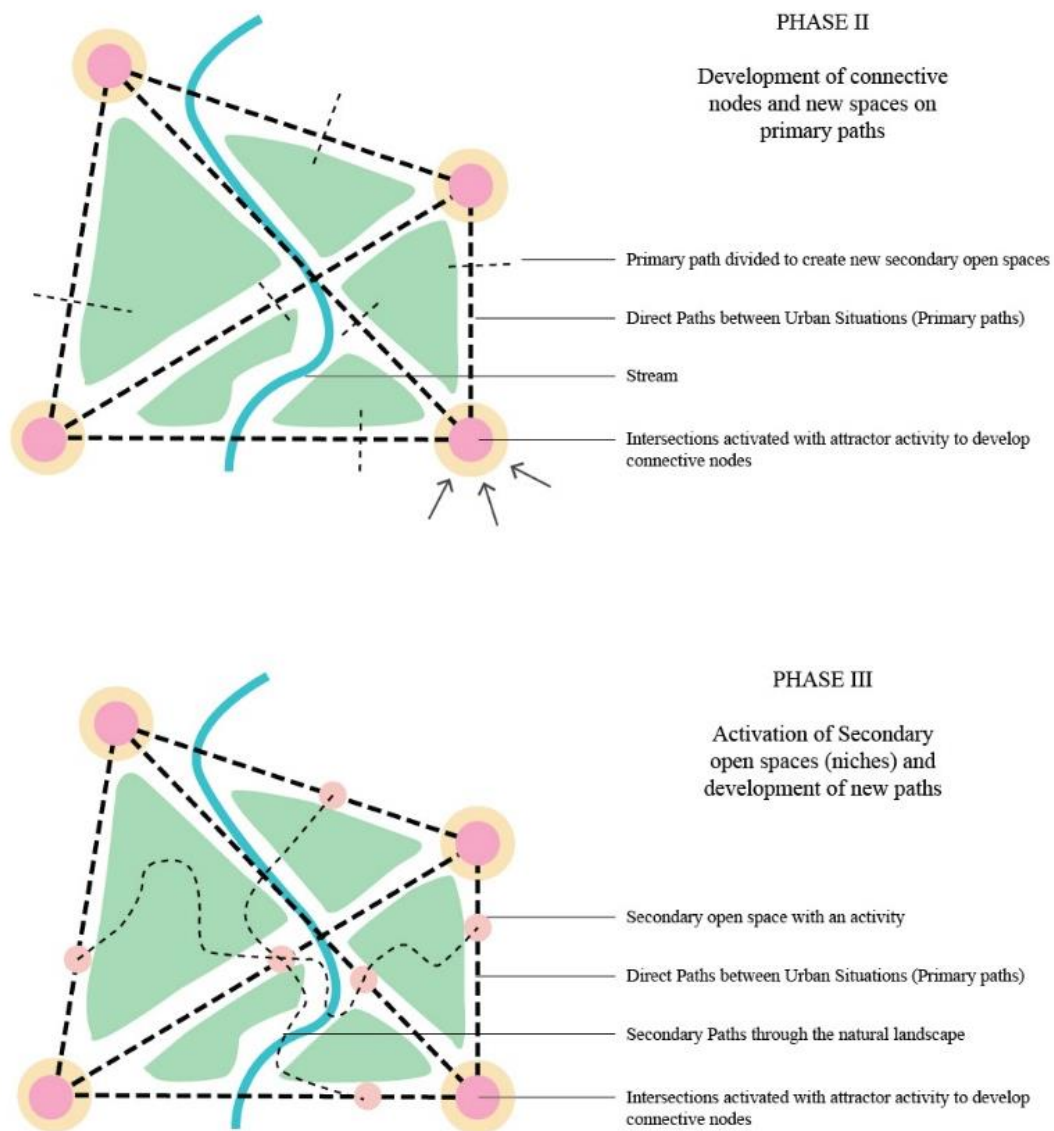


Figure 4.19: Continuation of the Potential Phased Implementation model in the Ecological Grid

Source: Image prepared by the Author

Thus what could be expected would be a network of activated public open spaces existing as a hierarchy of connected spaces within the restored ecological grid linked to the surrounding urban fabric, where diverse activities would be generated as an attempt to generate vitality and resultantly social cohesion. Figure 4.13 illustrates the phased implementation model, based on this proposed implementation model, there would be certain conditions that would need to be developed to accommodate vitality and social cohesion. These conditions would be created through specific policy structures and built environment features which would inform development within the framework of implementation. The framework will be further elaborated as a product of policy structures and design strategies to encourage social cohesion within the city with the recommendations regarding the policy and built environment would be discussed further in the successive units.

4.6 Managing Structures to Develop Vitality and Cohesion

In order to develop the necessary social and urban conditions to allow people to come together in urban space and form the basis of social cohesion and vitality, the policies governing the public open space must be adjusted to reflect this intent. Before any policy structures can be introduced it is imperative to understand that the success of policies is dependent upon their implementation. The policies which are implemented within the urban realm in Pakistan display a deficiency in terms of the approach, in that, the finer considerations of the intricacies of public space are glossed over in pursuit of realizing loftier designs.

In order for input from communities to inform the intervention and policy-making processes, it is imperative that the people be empowered to handle the finer issues within their local context. To that effect, it is proposed that a democratic local community advisory body be formed which represents people from all walks of life who reside in the proximity of the ecological grid, which would be able to hold regular community meetings to be able to inform local interventional measures and address local community concerns. It is also equally important that representatives

from the informal settlements be equal members of this body to be able to inform local intervention measures aimed at integrating the settlement in the fabric of the neighborhood. This is to ensure a balance of decision-making power through equal representation³⁰¹ within the decisions taken for the ecological grid, and would also serve as a forum for the development of cohesive links between communities through their representatives where taking combined ownership of space would require these members to reach a consensus for new interventions, preventing the more negative impulses of territoriality where one community might attempt to dominate the space through the expression of their interests and activities.

The development of these local community bodies could be defined through the connective nodes forming as a result of the interventional framework where these community bodies would be made through the residents living in proximity to these nodes and be able to form a management body for the public space³⁰², consolidating the idea of ownership of the space in the form of a management structure. This idea is also preexisting within the context of the ecological grid where such management structures exist within the open spaces within France colony, where the local community leaders form a management body to address the concerns of the open space.³⁰³ However, it is also important that the powers of this community body be limited by a higher governing structure, i.e. the local government of the city, to prevent the adverse effects of over management of space, where the community body may attempt to privatize the space for their benefit.³⁰⁴ Hence the powers of such a management body would need to be moderated and limited to prevent the adverse effects of territoriality from within the management body.

³⁰¹ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022)

³⁰² Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173.

³⁰³ Moatasim, Faiza. "Walls and openings: The politics of containment of informal communities in Islamabad." *Urban Studies* (2024)

³⁰⁴ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173.

Within the scope of the management responsibilities of the community advisory body the ideas of environmental preservation and restoration, means of accessibility, security within space and appropriateness of activity generation would be addressed, these ideas would be explained in the further sub-parts of the overall policy considerations of the framework.

4.6.1 Preservation of the Natural Area, Environment and Security

Encroachment is a major issue in the public realm of Pakistan where religious outfits, affluent commercial entities and some political entities are the major offenders in terms of seizing public land surrounding their buildings, and including them within the enclosures of their built structures.³⁰⁵ However, the religious outfits are the most active in terms of encroaching non-adjacent parcels of public land and claiming them for their own use by building houses of worship, with clerics developing their own dwellings adjacent to them.³⁰⁶ A clause within the constitution of Pakistan pertaining to the protection of religious sites allows them to carry out this encroachment, resultantly reducing the amount of public land available. Similarly, medium scaled commercial enterprises also in some instances encroach upon the public space or the public right of way. Therefore, in order to preserve the natural environment of the ecological grid, and maintain the spatial quality, legislations and spatial codes need to be applied to respond to the issue of encroachment of the public realm where the management body and the government can be jointly responsible for the implementation of these rules.

However, it is necessary, to allow some leniency regarding certain functions which seem to be acting in benefit to the public realm. If some activity and their

³⁰⁵ Moatasim, Faiza. "Elite Informality." In *Master Plans and Encroachments: The Architecture of Informality in Islamabad*, 123–52. University of Pennsylvania Press, 2023.

³⁰⁶ Dawn.com. "Illegal Construction: Mosques Escape CDA Eyes." *Dawn*, February 14, 2012. <https://www.dawn.com/news/695574/illegal-construction-mosques-escape-cda-eyes>.

impermanent encroachments can be seen to be positively contributing to the public space, they may be permitted to occupy some area of the public space at the discretion of the local community stakeholders. Though, such allowances would have to be temporary additions to space to maintain its flexibility in terms of accommodating other activities and to prevent it from dominating the space.

The general environmental considerations involve a tree and foliage planting policy for commercial, and social areas based on the local CDA (Capital Development Authority) byelaws, which necessitates the planting of a certain number of trees based on the plot size. Planting of foliage, especially native shade providing species along pedestrian walkways and public spaces would keep temperatures manageable within the urban realm, reducing the urban heat island effect³⁰⁷ and providing shaded pathways which would encourage walking as an activity within the city. Additionally, foreign invasive species of trees and plants within the ecological grid would have to be removed to reduce the effects of pollen during the spring season,³⁰⁸ however these would require replacement by a large number of new saplings of different local species, which could be arranged as a Miyawaki ³⁰⁹ forest to facilitate quick growth and develop biodiversity. Activities introduced within the ecological grid would also need to be non-intrusive and should not be expansive, rather, in the specific public open spaces, commercial and social activities should occupy the minimum footprint of a commercial function as specified in the CDA construction byelaws. This is in addition to the fact that permanent activities which require a

³⁰⁷ Loughner, Christopher P., Dale J. Allen, Da-Lin Zhang, Kenneth E. Pickering, Russell R. Dickerson, and Laura Landry. "Roles of Urban Tree Canopy and Buildings in Urban Heat Island Effects: Parameterization and Preliminary Results", *Journal of Applied Meteorology and Climatology* 51, 10 (2012): 1775-1793

³⁰⁸ Shahid, Jamal. "Residents cautioned against rising pollen allergy in capital", *Dawn*, March 18, 2024, <https://www.dawn.com/news/1822228>

³⁰⁹ Miyawaki, Akira. (2004). Restoration of living environment based on vegetation ecology: Theory and practice. *Ecological Research*, Volume 19, p.83-90

building envelope should be limited to the peripheries of the grid and within the connective nodes defined previously.

Within the ecological grid, for the purpose of security there needs to also be the presence of personnel who would ensure security for the users, which could be in the form of park caretakers. However, it is necessary that such individuals, are specially designated for the revitalized ecological grid so as to be locally identifiable in the area and are part of public organizations, this is to avoid such security personnel acting as a private security force for the community management body which could potentially use such individuals for the purpose of privatizing space. It would also be beneficial for the sense of safety of more vulnerable groups such as women, children, the elderly and the differently abled, if the majority of these personnel consists of women, where the public perception of female constables, in the context of the region, is more positive and associated with a greater sense of safety for users as compared to male constables.

In terms of these policy structures being applied onto the ecological grid, especially in the case of security it would also be important to differentiate between the jurisdictional boundaries of the ecological grid and the surrounding urban context. Where the areas would be determined by the closest connective node in which the managing personnel would have a semi-permanent presence. Such administrative boundaries do not need to be expressed through spatial means, but would rather have to be defined through walkable distances from the connective nodes which form the intersection between the walkable ecological grid and the formal city.

4.6.2 Access

The dimension of access would also have to respond to the ideas of economic and social access of the public spaces alongside physical access where more equitable means of access such as walking and cycling would be the preferred modes of access. This is in part due to the scale of the ecological grid and the natural character of the

area which is to be preserved and protected, in addition to the contrast with the formal planning principles of Islamabad, where the predominant form of physical access and movement is through the automobile. Walkable pathways would offer more opportunity to engage with the environment and the activities within the open public spaces³¹⁰, in addition to the reduced impact of walkable infrastructure as compared to the automobile infrastructure.³¹¹ Such less intrusive modes of movement are to be incorporated in the ecological grid as a means of connecting the open public spaces that would be developed as part of the system of vital open public spaces. Within this walkable infrastructure, some paths may have more volume of users than others, such paths should be designated as primary paths, and should be distinguished from other paths through the provision of amenities and unique spatial treatments, and supplemented with cycling lanes to facilitate movement within the space.

Having established walkability as the primary means of movement and access within the ecological grid, it is important to consider the human dimension of the action of walkability, where walkability distances factor in the ability of users to access space conveniently. The idea of walkability defines distances which correspond to a range of 8 to 15 minutes of walking as being comfortable for users to be able to access activities and services.^{312 313} To that effect, long pedestrian paths should be broken into smaller, walkable paths culminating in points of interest or public spaces.

The walkable access within the ecological grid would need to be supplemented with a city wide transportation policy to ensure the opportunity for people not living within close proximity to the ecological grid to be able to access to the ecological grid. The transportation policy would entail the formation of rules regarding

³¹⁰ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

³¹¹ Southworth, Michael. "Designing the Walkable City." *Journal of Urban Planning and Development* 131, no. 4 (2005): 246-257.

³¹² Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.

³¹³ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

developing connectivity between different areas of the city and the ecological grid where initially on road transportation from both public and private sectors would be used on routes developed for accessibility to the connective nodes of the ecological grid. These routes could be formalized and upgraded if there is sufficient demand from users. However, within the ecological grid, the considerations of the environment would not allow high volume public transportation. Though, in the event of a demand of a public transportation system within the ecological grid, low impact and low volume public transport utilizing the primary walking paths could be proposed subject to the approval of the local community.



Figure 4.20: A modified electric vehicle (top) and a traditional horsedrawn open carriage called a tanga (bottom) as potential ideas for vehicles which could be utilised for low impact public transport.

Source : <https://diversifiedgolfcars.com/8-passenger-golf-carts/>
<https://tribune.com.pk/story/928650/takes-two-to-tanga>

4.6.3 Appropriateness of Activity

Activity generation is one of the most significant means to generate vitality within a space ³¹⁴ ³¹⁵ resultantly, the generation of activity within the ecological grid is necessary to develop vitality within the area. However, the contextual constraints of the area necessitate that the activities introduced in the space are appropriate to the context, what is meant by this term is the effect of the activity on the space and its underlying nature which should be linked to the space and the priorities of the people within the space. For example, it would not suffice if one was to encounter a multi-story commercial center in the center of the ecological grid. The ideas that would lead a user to be apprehensive of such a space would be the ideas that determine the appropriateness of an activity, that is, the conduciveness of the activity to its context, the density and impact of the activity on the context, the nature of the activity in relation to the activity.

Based on this idea and the concept of hierarchy of activities which ought to be introduced in the ecological grid where there are primary (attractor) activities and secondary (user retention) activities and temporal (informal /physically dynamic) activities it is necessary to ensure the appropriateness of the primary activities which would be the permanent fixtures within the ecological grid and would be contributing to the people's perception of what the space is going to be. ³¹⁶ This perception of the space is important to consciously develop, as a dissonance between the intent of the space and the perceived use in the users mind can lead to unintended consequences and conflict between the management mechanisms and the user. The permanent status of these activities could also have potential pitfalls in terms of the exertion of territoriality of the activity in space where it could dominate space despite the

³¹⁴ Mehta, Vikas. *Public Space: Notes on Why It Matters, What We Should Know, and How to Realize Its Potential*, 1st ed. (New York: Routledge, 2022)

³¹⁵ Carmona, Matthew. "Contemporary public space, part two: Classification." *Journal of urban design* 15, no. 2 (2010): 157-173.

³¹⁶ Lynch, Kevin. *The image of the city*. MIT press, 1964.

presence of a management structure in the public space. In this respect, it may be better to avoid the usage of commercial activities as the inherent nature of commercial activity, though able to draw in more users in comparison to other activities, the general observation of the behavior of commercial activities in the context of Islamabad, has shown that there is a tendency of these businesses to attempt to encroach upon the public space as the business grows in influence.³¹⁷

To that effect, it would be fitting to limit purely commercial activity within the ecological grid to the levels of secondary and informal activity. Where the primary activities, developed at the peripheral connective nodes, would be social or recreational in nature, and low density to ensure their appropriateness to the intended use and the preservation of the natural character of the space. These primary activities would further be defined through the stimuli from their adjacent urban situation where they would, to a degree respond to the needs of the users from these areas, ensuring that the activity responds to both the users and the context.

In the case of France colony which is a part of the ecological grid due to its location, the intersection between the ecological grid and the settlement ought to be able to retain some of its preexisting commercial nature, where the presence of such activities may allow users of the open public space to interact with the settlement. Such interaction, which is currently not present may help to normalize the perception of the colony which is viewed as an anomaly within the city.^{318 319} This might also create future opportunities for community based revitalization of the area, as the cohesive interactions would lead to closer ties of the formal and informal city where advocacy on behalf of France colony by the residents of the formal city may be able

³¹⁷ Hussain, Faqir. "Encroachments Galore in Islamabad." *Pakistan Today*, April 8, 2023. <https://www.pakistantoday.com.pk/2023/04/08/encroachments-galore-in-islamabad/>

³¹⁸ Moatasim, Faiza. *Master Plans and Encroachments: The Architecture of Informality in Islamabad*. University of Pennsylvania Press, 2023.

³¹⁹ Waheed, Arslan. "'I Will Obey Whatever Orders Will Be Given to Me ...': A Critical Discourse Analysis of an Affidavit from a Slum Upgradation and Rehabilitation Project in Islamabad, Pakistan." *Social Sciences* 10, no. 6 (2021): 187.

to change the city's narrative regarding the settlement in the future and may drive the development body (CDA) to action in terms of revitalizing the settlement.

4.7 Recommendations for the Network of Public Open Space

The development of the framework for the network of public open spaces, with the associated policy structure would also require certain considerations for the design of the physical space itself, these ideas and features would essentially allow the public spaces to embody the character which would encourage social cohesion within the network. These features of the network would address the areas of reclamation of the natural landscape within the existing ecological grid, the development of connective nodes as points of attraction and interaction for users in space, a system of primary paths linking the various nodes through the ecological grid, development of secondary activity niches along primary paths as points of path divergence and activity generation and lastly paths linking secondary activity niches.

4.7.1 Reclamation of the Natural Landscape

The reclamation of the natural elements is a necessary step towards the revitalization of the ecological grid in order to reestablish the connection of the users to this neglected part of the city. It is also consistent with the original intent of Doxiadis in Ekistics to establish this part as a means for connection of the residents of the city with “nature”.³²⁰ As part of this idea, it is essential to explore strategies for the reclamation of the natural landscape and the elements of such a landscape.

According to John Punter, landscape reclamation strategy should integrate the principles of conservation, clarity of vision for the landscape, collaborative design,

³²⁰ Doxiadis, Constantinos. A. “Islamabad, the Creation of a New Capital,” *Ekistics* 72, no. 430/435 (2005): 113–130.

enhanced biodiversity and lastly maintenance of the new reclaimed landscape.^{321 322} Within this strategic framework proposed by Punter, if applied onto the ecological grid, the vision for the landscape, as proposed by Doxiadis, is one that would be most conducive to the landscape which was primarily shaped through his vision otherwise, in that regard, the elements of conservation, collaborative design, and enhanced biodiversity develop as the implementation strategy for the ecological grid. However, in terms of the restoration of the natural landscape, in the ecological grid, where the major problems are the accumulation of solid waste, the pollution of water features through sewage, and the colonization of the space by invasive species of paper mulberry trees, the focus would need to be to reclaim these disturbed natural features within the site³²³ while simultaneously be able to conserve the existing native and noninvasive flora and fauna, encouraging the introduction of new, different local species for biodiversity, develop collaborative design strategies for the development and maintenance of natural landscape features in proximity to the planned new open public spaces.

According to Polster, as an approach, natural processes can also be used for the restoration of disturbed sites, however as part of this approach it is key to determine what factors may be preventing the natural recovery of the site and provide treatments to supplement the natural process responding to these factors.³²⁴ Table – shows the natural strategies and elements proposed by Polster which can be used to remediate factors preventing the natural recovery of a landscape.

³²¹ Punter, John., *The Welsh Development Agency Design Guide – Its Role in Raising Standards in Wales* (Cardiff: Welsh Development Agency, 2002).

³²² Loures, Luís, and Thomas Panagopoulos. "Sustainable Reclamation of Industrial Areas in Urban Landscapes." *WIT Transactions on Ecology and the Environment* 102 (2007): WIT Press.

³²³ Mossop, Elizabeth. "Landscapes of infrastructure." *The landscape urbanism reader* (2006).

³²⁴ Polster, David. F. "Natural Processes: The Application of Natural Systems for the Reclamation of Drastically Disturbed Sites." *British Columbia Mine Reclamation Symposium*, 2009. <https://doi.org/10.14288/1.0042560>.

Table 4.4: Polster's table of Natural Solutions for Reclamation of Landscape
Source: Polster, David. F. "Natural Processes: The Application of Natural Systems for the Reclamation of Drastically Disturbed Sites." *British Columbia Mine Reclamation Symposium*, 2009.

Factors preventing Natural Recovery	Natural Solutions
<i>Steep Slopes</i>	- Erosion to reduce slope angles - Pocket plant establishment in collected organic matter
<i>Rapid Erosion</i>	- Evergreen ground covers - Rough loose soil surfaces - Scattered large woody debris
<i>Compaction</i>	- Weathering through freeze-thaw cycles
<i>Low nutrients</i>	- Nitrogen fixing pioneering vegetation
<i>Adverse Chemical Composition</i>	- Isolating materials from surrounding environment - Dilution of offending materials
<i>Lack of Seed Sources</i>	- Pioneering species with widely disbursed seed
<i>Dark Colored Substrates</i>	- Mulching leaves or other materials
<i>Lack of Micro Sites</i>	- Rough and loose soil surfaces

Having established the context of strategies which can be used for the reclamation of the natural landscape, a strategy for the ecological grid can be proposed which incorporates the ideas discussed on reclamation strategies. The strategy would be divided into a step by step approach to be able to revitalize the natural space, which would conserve the local noninvasive flora and fauna and introduce new local biodiversity in the area while developing new natural solutions for the remediation of the landscape, This step by step approach is stated below;

- i. The remedying of the causes of pollution in the ecological grid would be the first step towards the restoration of the ecological grid, the systematic solutions to the root causes of the issues of solid waste, water contamination through sewage, and the proliferation of the paper mulberry trees which can be seen in the current areas of the ecological grid would allow for successive

strategies to allow the restoration of the landscape to its original situation. The issue regarding the proliferation of Paper Mulberry trees is currently being addressed by the Capital Development Authority (CDA) where the trees in most areas of the city are being cut to prevent their pollen from affecting the air quality causing severe allergies.³²⁵ This would could leave the areas of the ecological grid with a drastically reduced tree cover which would later require restoration, however this step would be needed in view of the public health. The issue regarding the sewage contaminating the waterways can be treated through the identification of the sources where the sewage is being released into the *nallahs* (streams) where these points could be linked to a larger sewage line which could pass along the peripheries of the ecological grid. Similarly, older existing sewage lines which may be contaminating the waters of the *nallah* would be repaired and the exposed parts reinforced, and regularly maintained to prevent any potential contaminating leakages in the future. Lastly, the removal of solid waste and CDA waste dumping sites from the ecological grid and the penalizing of littering in the area would allow the landscape to be in a position to respond to the subsequent treatments for the restoration of the landscape.

- ii. The use of natural processes to reclaim the contamination of the area, caused by the pollution mentioned in the previous point, could be an apt way to add biodiversity into the landscape while also remedying the contamination of the water and soil. For that purpose, based on the nature of contamination natural processes such as the ones mentioned in Table 4.4 can be used to reclaim these areas for use.

³²⁵ Business Recorder. "CDA Cutting, Uprooting Trees for Countering Pollen Risk." *Business Recorder*, January 2, 2023. <https://www.brecorder.com/news/40217896>.

- iii. The conservation of the local flora and fauna, particularly culturally significant species such as, the banyan tree,³²⁶ mango tree,³²⁷ *kachnar* tree³²⁸ amongst many, would benefit the preservation of the natural context of the area and help to establish cultural activities oriented around the environment of the area. The conservation effort of these species could also be achieved through the engagement of actors from the community, thereby deepening their link to the natural environment.
- iv. New diverse species of local flora and fauna could be introduced in the natural areas of the ecological grid to promote a diverse and interconnected ecosystem. These species could also be arranged through the Miyawaki method³²⁹ which utilizes the interconnectedness of different species to develop fast growing, dense and diverse vegetation. Similarly, local species of fish could be reintroduced into the reclaimed streams restoring the diversity of the area.
- v. The community could be engaged to maintain these new areas of forestation, where activities surrounding the upkeep of the natural environment could help form a degree of ownership towards these restored natural areas. New areas within the ecological grid could also be developed as small scale public orchards or community gardens as part of the larger ecological system.

³²⁶ The banyan tree has local cultural significance as a spiritual tree, where various myths within different cultures surrounding the tree demand that the tree be respected by people, where cutting the tree brings misfortune and that one should not pass by them at night.

³²⁷ The mango tree is culturally known as the favorite tree of the Rose-ringed parakeet, a native species of bird characterized by its red beak and vibrant green feathers. The bird captures the imagination of people in the region where the bird is the main character in many children's stories and they are kept as pets in many households.

³²⁸ The activity of *kachnar* picking which happens every spring within the region, where the buds of the *kachnar* flower are picked before the spring bloom to be used in food.

³²⁹ Miyawaki method uses an arrangement of various different species of plants to create an interdependent system of plants which acts as a micro-forest. These Miyawaki forests have the ability to grow rapidly, reaching maturity in a time span of 3 years.

Miyawaki, Akira. "Restoration of living environment based on vegetation ecology: Theory and practice." *Ecological Research*, Volume 19, 2004

The recommendations for the natural landscape would be the first step towards the development of the system of public open spaces where the restoration of the natural character of the area would work to change its status in the minds of the users from a place to be avoided, to a place which could potentially be visited, thereby creating the desire for users to generate activity in the area. The reclamation of the area would also factor into the sense of safety for users, where a well maintained natural area would be considered as safe by the users.

4.7.2 Connective Nodes

The connective nodes, which are the activated intersections between the ecological grid and the urban situations of the formal and informal city. The significance of these points comes from the variety of urban experience which intersects with the ecological grid leading to their potential, through activity generation, to attract a diversity of users into the ecological grid. As part of the framework of intervention to develop a network of public open spaces for the purpose of social cohesion through vitality these nodes represent the primary areas of activity which would attract users within the space, where their placement on the peripheries of the ecological grid allows them to embody a character which is a transition between the formal urban fabric to the natural character of the ecological grid. Here, the development of public open spaces would allow for greater visibility of the processes that are carried out in the system of open public spaces, where the presence of a primary attractor activity would provide incentive for users to be able to interact with the space and if they choose, be able to venture further into the ecological grid.

In terms of the criteria that was previously specified for the development of social cohesion within a public space, the activity in the connective nodes would be responding to the requirements of the users in the adjacent urban situation. Such an activity would exist within an open space which would be managed by the community body to ensure security from any deviant behaviors and allow users to feel a sense of safety, while also being flexible to accommodate transitory activities

and festivals allowing for the space to be a forum of public expression. To that effect, there would be some ideas for the physical manifestation of these spaces which could be factored into their development. These factors would take into consideration the nature of the restored ecological grid as an urban natural enclave, where the connective node would project the ideas of security, ownership and management to the space and provide users to be able to access and interact with the natural space. In short, the connective node would act as the primary points of connection of the ecological grid with the city and consequently be the sources for the projection of management, ownership and security into the revitalized natural enclaves.

The physical details of these areas would need to represent the dual character of these spaces as the transition points between the urban and the natural, where the criteria of security, management, ownership, vitality through activity generation, physical and social access to space would need to be considered and reflected in the physical details of the space. Table 4.5 indicates some potential details and ideas that could be implemented within the space, though it is important to understand that these are examples to illustrate the conversion of these ideas into physical features of space where a detailed design process for implementation may lead to some new and novel methods and details to emphasize the same ideas in the physical space.

Table 4.5: Recommendations for the features of a Connective Node
Source: Author

Element	Features of space
<i>Representation of Dual Character</i>	- Low Density within open space. - Spatial design with natural and synthetic materials with intermittent variation between natural landscape features (grass, soil, mulch and foliage) and urban landscape features (paving blocks, cobblestone, bollards, and benches).
<i>Sense of Safety and Sense of Enclosure</i>	- Ample Lighting - Presence of visual access - Development of boundaries of space - Human scale of space for a sense of enclosure.

Table 4.5 Continued.

<i>Management</i>	- Upkeep of Physical space through maintenance infrastructure and presence of a representative of the management body within the area who can coordinate between various governmental bodies in case of any grievances by visitors.
<i>Physical and Social Access</i>	- Physical access through the design of inclusive access points which attempt universal accessibility in design. - Social accessibility to be ensured through linking equitable modes of access (walkable paths, bike lanes and affordable public transit) with the space.
<i>Activity Generation and ownership</i>	- Activity generation should minimally impact the public space, however should have both indoor and outdoor areas. - The activity should have high visibility to attract users. - Physical details in space could be designed to accommodate transitory activities and festivals, such as concealed electrical points for vendors who may occupy the open space at night, or collapsible parasols or canopies to maximize utilization of space during the hot summer days.

The enrichment of the connective node with the features suggested in Table 4.5 would allow for the connective nodes to become areas for diversity of activity to take place where a primary activity could be supplemented with other secondary activities of a transient nature. The public space with its internal mechanisms would also develop to become a public forum where cultural and social activities might develop, and the space would have the capacity to accommodate such functions and even introduce such new activities if the demand exists from the users. This would develop these public open spaces to develop into generators of further design within the ecological grid, where these nodes would act as the anchoring points grounding the ecological grid within the city, and the activities and features of these nodes, consistent with the intent of developing vitality and cohesion would attract users into the space, who would be further guided into the ecological grid for greater interaction with the natural features or to other connective nodes through the revitalized natural

enclave by the way of walkable paths connecting the connective nodes through the ecological grid.

4.7.3 Paths and Access

Once the connective nodes are established, direct paths between the various connective nodes can be established which would serve the dual purpose of connecting different areas of the city through the ecological grid and also serve as a mode of interaction of the users with the ecological grid. These pedestrian thoroughfares would be used as primary paths where users from the connective nodes may travel to another connective node, or, it could also be used by other users who may be trying to access other areas of the city and use the path due to the directness of the path, thus having users from two sources would understandably amplify the number of people on these paths. Thus the considerations for the design of such paths would include this factor alongside the factors for the development of social cohesion. The considerations for the path are mentioned below;

- i. The aspect of security ³³⁰ would require to be established within the path, though the beginning of the path would be from the connective node which, when combined with the boundaries of the space would establish fixed entrance points for the open space. These points of entrance would require some presence of maintenance personnel, as well as means of social surveillance.
- ii. The dimensions of the pavement would factor the user volume and universal accessibility and the status of these paths as pedestrian thoroughfares where the pavement treatment would respond to the walkability needs of the

³³⁰ Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

- users³³¹, that is, the surface should be comfortable for walking fast and easy to use for the differently abled; and the natural context of the area, which would entail that urban pavement styles would not be suitable for the path and more natural path treatments would need to be considered.
- iii. Due to the path being potentially used during the day and night, the lighting infrastructure would need to be present to illuminate the path to ensure visibility of the path and the security of the users at night³³², however, it must be considered that since the path would be passing through a natural enclave, the design of the lighting should ensure minimum light spill off in order to protect the local ecosystem from being disturbed.³³³
 - iv. The presence of resting infrastructure such as benches and public fountains³³⁴ for drinking water would be needed to ensure the comfort of users and to increase their engagement time with the ecological grid. The engagement times could be further extended through the provision of free internet services which would encourage users to be able to remain in the space for longer, and encourage new users from economically lower classes who may just access the space for the internet. These instances of rest would also generate interactions between users within the path, which would overall enrich the cohesive experience within the ecological grid.
 - v. The demand of users who pass through the space, and use the path as a thoroughfare, may require the development of bicycle paths adjacent to the main path to reduce the commute time between two connective nodes³³⁵,

³³¹ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

³³² Newman, Oscar. *Defensible Space; Crime Prevention through Urban Design*. New York: Macmillan, 1972.

³³³ The fauna in an ecosystem are particularly vulnerable to light pollution where the presence of light can disrupt the circadian rhythms of local bird and animal species, leading to a disruption in their routines for food acquisition and sleeping times, deteriorating their health drastically.

³³⁴ Gehl, Jan. *Life Between Buildings: Using Public Space*, 6th ed. (Washington, D.C.: Island Press, 2011).

³³⁵ *ibid.*

based on the community feedback, and user demand, this could also be supplemented with environmentally considerate modes of light transit.

- vi. The path, considering the requirements of walkability and comfortable walking distances would be divided into parts³³⁶ where the end of a part would culminate in a small scale open space, hereto referred as a niche, where amenities for rest would be provided, and the niche activated through the presence of a temporary or informal activity, such as vendors who may choose to stop in such areas and provide their services temporarily in the area. These small scale, flexible spaces would also act as points of divergence in the path where users, who are interested in interacting with the natural enclave can choose to take the diverging path originating from the niche.

The recommendations of path development establish the paths as an integral part of the system of public open spaces within the ecological grid as satisfying the requirement of access for the development of cohesion within the space. It is important to note that access to the ecological grid, despite the presence of security measures, should not be economically exclusionary. The development of the niches as points of divergence of path, and as areas of temporary and informal activity would allow the development of a hierarchy of open public spaces creating variation within the ecological grid and catalyze the creation of new paths within the ecological grid.

³³⁶ Montgomery, John. "Making a city: Urbanity, vitality and urban design." *Journal of urban design* 3, no. 1 (1998): 93-116.



Figure 4.21: Formation of Connective nodes adjacent to Urban Situations and Primary Paths between these nodes.

Source: Adapted image based on map from Google Earth

4.7.4 Secondary Activity Niches

The secondary activity Niches would develop as a result of the development of the primary path, where the concerns of walkability would necessitate the division of the path into shorter walking distance, with the activity niches providing the variability in spatial quality which is needed in a walkable path. The niche would also offer the opportunity for diversity of experience, where users could choose to take the diverging natural paths (trails) passing through the restored natural enclave. The generation of activity within these spaces would be impermanent to avoid any long

term impact on the environment of the natural enclave where the vendors and the peddlers would temporarily stop in their designated areas which would have the amenities they would require to operate their business (water and electricity outlets). Apart from the impermanent activity, the space would offer the amenities of rest (benches or sheltered pavilions) and interaction with the natural enclave. There could also be the presence of minor landmarks and instances of public art to distinguish these niches which would help develop their own personal character and help in path finding for users who choose to take indirect paths through the natural enclave.

4.7.5 Nature Trails as Secondary Paths

The paths originating from the secondary niches would be used to link other secondary niches within the system of open spaces. However, these paths due to their secondary nature would not need to be direct paths, rather the walking activity on the path would be oriented towards leisure and increased connection to nature. This would be used as a tool to enhance the user's experience within the natural enclave with these paths taking on the character of natural trails through the forest, where the elements of the natural enclave would be highlighted along these trails. This treatment would be similar in nature to the pathways existing in the Margalla Hills national park, where trail hiking and walking are activities which lead to other secondary activities relating to increased connection to nature. The connection of these paths to secondary niches also allows users variance in their experience of space, where they can explore multiple options within the natural enclave which may lead to a unique experience for the users.



Figure 4.22: Development of Secondary Activity Niches on the primary paths with the secondary paths as nature trails connecting these niches.
Source: Adapted image based on map from Google Earth

4.8 Application of the Framework in the Study Area

The application of the framework and its recommendations on the study area would yield multiple instances of interactions between users due to the levels of public space and pathways connecting the spaces, leading to a diversity of interlinked spaces within the ecological grid. With the conditions of Urban Vitality and social cohesion being satisfied by the internal mechanisms of these spaces. The starting and

ending of paths within the ecological grid with activated flexible public spaces allows for the users to interact with the activities within these spaces and through the activity, have cohesive interactions with other users. The ideas of equitable access have been addressed by the universally accessible walkways connecting the primary open spaces (connective nodes) with the secondary activity niches also lying on these paths.

Within the realm of activity, the diversity of activities can be ensured as primary activities in the form of social and recreational activities in the connective nodes adjacent to the urban situations within the formal city and low impact commercial activities in the connective nodes adjacent to the informal city (France Colony) generating a variation in the availability of primary activities which would be responsible for generating vitality. Additionally, the connective nodes due to the flexibility of the public open space would be able to accommodate, transitional and informal activities in addition to providing a forum for the people to celebrate cultural festivals within the space which would encourage festival markets to develop in some areas and would also aid in the formation of cultural links of the users with the space. The presence of the secondary activity niches would provide space to the various vendors and hawkers who currently occupy the urban space of the sector by providing basic amenities within these niches which would enable their pause within the space, thereby incentivizing the usage of the ecological grid within their routes and allowing interaction through secondary activity generation within the niches. Thus consolidating the ecological grid as a formal part of the fabric of the city.

CHAPTER 5

CONCLUSION

The research lays out the recommendations for the achievement of Urban Vitality and Social Cohesion, attempting to address the key issues of economic disparity, inequality of access in the city, and a lack of urban security which all contribute to the lack of vitality and cohesion in the urban realm. These issues are born out of various factors that affect the country overall and are also related to the design of Islamabad as a city designed for a certain social class. Though over time, the intent and the barriers segregating Islamabad from the rest of the populace have eroded to a certain degree, which has allowed for the city to develop a more mixed demographic in terms of a social mix, however, the expression of this social mix in the urban realm is characterized by deep dividing lines in the form of physical and social barriers that segregate the lower economic classes from the higher ones. The framework, thus, can be seen as an attempt to lessen this divide and reconcile the two worlds that inhabit the city.

5.1 Policy and its significance to Vitality and Cohesion

This study recognizes that the increased presence of people in space cannot guarantee that people would rapidly begin to form cohesive relationships with each other simply on that basis, for that effect, the implementation of the recommendations of the framework as proposed by this research are also required to be supplemented by the larger urban policy which would set the ground for the built environment of the city to create the conditions to achieve the necessary effects which build towards the development of Social Cohesion and Urban Vitality.

In the particularly segmented social fabric of Islamabad this is essential, to be able to bring people together within an urban space which has an overlay of rules regarding the working of the space and the social conduct within it, in order to induce a sense of safety within the users for them to be able to overcome the psychological barriers built by them against other social classes. Though the framework attempts to create the conditions where social interaction may take place, it is necessary to establish the significance of governmental and urban policy which do have an impact in shaping the nature of daily interaction within the urban realm.

The social mix of Islamabad can be taken for example, where the framework has attempted to provide the opportunity for the interaction of users existant within the current area of study, it cannot address the larger discrepancies of demographics within the larger scale of the city and the resultant power dynamics that are shaped by it. In order to develop more density in the area, or to create a balance of demographics between different social groups would require policy whose development is the mandate of the local or central government. However, it is apparent that a policy for affordable housing and diversity would ensure a mix of different users within the urban realm, where the further divisions of plot sizes would translate into variation within the built fabric, without stark differences in living standards, allowing a more equitable living condition.

Similarly, in terms of security of users and the receptivity of individuals to interact with each other, education, de-radicalisation programs and policies aimed at increasing a sense of safety for users in the public realm, and the larger areas of governmental and national policy, would play a part. The significance of such policies to the happenings in the system of open public spaces which has been proposed cannot be understated. In terms of the intent for the preservation of the environment, localised rules applicable to the areas of intervention would ensure that the area is protected, however, in the case of the streams of Islamabad which form an interconnected system of water drainage, one cannot isolate what happens to the waters upstream from the area of intervention. There is a need, thus, to develop synergetic policies for the larger preservation of the environment on the scale of the

city which would work to supplement the intents of environment preservation eschewed by the network of cohesive open public spaces.

Additionally a comprehensive public transportation policy on the scale of the city would create the necessary conditions to enhance the usage of this system of cohesive public open spaces where the pedestrian connectivity offered through the ecological grid in confluence with the presence of a larger public transport system would increase the usability of the spaces within the network of open spaces, reducing the dependence on automobiles for mobility in the city through the provision of more equitable means for travel.

The presence of these policy structures on the scale of the city would be significant towards contributing to social cohesion in the system of public open spaces in the ecological grid further imbuing the interventions within the system with the necessary social cues and meaning to be able to create the ideal conditions for the interactions that take place within the public realm, to build towards social cohesion.

5.2 Limitations of Research

The study with its broad area of inquiry due to the expansive nature of the subject of urban vitality and social cohesion certainly has some areas where the research could be further concentrated to be able to inform the framework of intervention and the system of public open spaces further. In terms of the exploration of the subject of social cohesion and urban vitality, this study has focused on the subject through the lens of these aspects influencing the built environment and the resultant effects of this influence. However, the subject itself can be approached through multiple perspectives presented by fields such as sociology, anthropology or human geography. Viewing the subject through the lens of these ideas would certainly yield unique perspectives and would serve to enhance the understanding of the concept of social cohesion and open new conversations on the subject which would lead to more

accurate recommendations from the framework, especially in the areas where it pertains to the abstract nature of human interaction.

Similarly, to achieve a socially cohesive community it is necessary to look at the ideas regarding the governance of a society. Though the idea may seem discursive from the main intent of developing social cohesion, the concept links to the notion of how safe does an individual in a society find themselves. This links to the facilities and the rights that are to be guaranteed to every citizen by the state by virtue of the social contract. Policies safeguarding the rights of citizens, the prevalence of the rule of law, accessibility to healthcare, quality education and economic opportunities thus come into the fore as supporting elements of governance which would build towards a cohesive society. Additionally de-radicalization of extremist elements within the public can only be pursued through the action of state itself, where local communities would be vulnerable to these pressures imposed on them by these elements. The situation as it exists today in Pakistan would require the people to be given confidence to exist in the public space and reclaim it from radical elements within the society to allow the space to be able to develop a communal sense of safety. This would essentially be catered to in terms of looking at governance from the lens of social cohesion and vice versa, to create the necessary prerequisite conditions for vitality and cohesion.

In regards to the urban situations and the analysis of these areas, more extensive documentation can be carried out to enrich the framework and further contextualize the recommendations to a specific local context. The relatively small area of the situation when compared to the overall city offers an advantage in terms of looking into the area in more detail, this would mean extensive social analyses could be conducted to determine the social mixture, economic distribution, age distribution, and general social inclinations of the residents of these areas, which would inform the design of said areas.

Additionally, in regards to the public realm within these urban situations, functions which generate social activity can be mapped extensively over the course of an

extended period of time to be able to determine patterns of movement and activity within the urban space. This would necessitate an in depth study of the patterns of movement and interaction of all the actors within the public space, where distinctions could be made through questionnaires to determine what percentage of users belong to the area and who would be visiting or passing through. This would add useful data contributing to the effectiveness of a public space. An expressed interest in terms of observing the informal activities, as mentioned in this study, in the form of studying their routes, the times that they reach certain points in a neighborhood, and the products which are being sold (which represent the demands of the community) would allow for a greater understanding of the diversity of patterns within a social space, thereby facilitating the development of improved strategies for these areas.

5.3 Future Implications

The implementation of this framework within the ecological grid of Islamabad is expected to yield a more socially cohesive environment within the areas of the ecological grid where access within the city would be ensured to all of its residents regardless of their socio-economic background. The framework could be used to address other areas within the ecological grid in different parts of the city which could then be connected to each other on the scale of the city leading to the development of a city-wide network of public open spaces. This could potentially transform Islamabad into a case study for the achievement of social cohesion within an urban setting. However, as the potentials of the framework have been discussed, the fragility of the system also warrants discussion where the system in all its complexity is vulnerable to forces beyond its reach, such as politics, cultural influences, and global emergencies. These elements could permanently alter social behavior, rendering the development of cohesion as a product of the interventional framework moot. Hence a necessary aspect to ensure the success and future development of the city on these new lines would be stability within the city. That being said, the framework represents a new perspective to approach the development

of public spaces within the city which currently is experiencing rapid growth in the form of urban sprawl where the loss of green cover is one of the most identifiable issues, one which could also be addressed through this system. Therefore, it can be said that the implementation of the recommendations within this study and their expansion to other areas within the city will serve to consolidate the urban fabric, navigating a balance between retaining its character and being an equitable and a socially cohesive environment for its residents.

5.4 Reflections

The study of this thesis was divided in three parts with one part approaching the city of Islamabad in order to understand the circumstances regarding its formation, the intent behind its design, and its growth as a city looking at how these factors have affected the manner in which people interact within the urban public realm. The study of Islamabad overall was necessary to understand the nature of the problem the city is facing and its significance in that particular context. It was found that the issue of inadequate social cohesion was multifaceted and was the byproduct of many different factors which ranged from social biases to the design of the built environment. The research identified that nature of Islamabad's issues can be categorized into inherent problems within its design which did not completely understand the social behavior of the people in the context of the area, and problems that resulted by virtue of its unregulated growth over time.

Informed by these facts, the second part of the study was conducted, which was to look at the literature pertaining to the subject of urban vitality and social cohesion which was evaluated in context to the issues faced by the city of Islamabad, and in particular the study area. The investigation of these various works on the subject of vitality and cohesion yielded a list of factors which contribute to presence of vitality and cohesion within space. Here, activity generation within public space was expressed as a necessary condition for the development of vitality within space which was supplemented by the ideas of management of public space, security in

space, and ownership as being necessary elements to negotiate interaction within public space and ensure the receptivity of people towards the idea of social interaction while feeling comfortable enough to do so through the mechanisms of space. Beyond these elements, accessibility, density and diversity were also found to be the key characteristics present within vital urban spaces where access is necessary to be implemented to ensure people are able to access a public space and where, density and diversity ensure a diverse and vital social mix for the purposes of socially cohesive interactions. These ideas, in relation to the understanding gleaned from Islamabad, both from its past and present situation, helped develop an approach towards the application of these ideas, within an open public space.

This approach was expanded in the final part of the research through a study of the urban situations at the intersections of the ecological grid and the city to form a framework of interventional practices related specifically to the ecological grid in Islamabad. The resultant framework pertains to the development of social cohesion within the city, using its ecological grid as the means for introducing new development and connectivity measures within the city. This is done through recommendations for interventionary practices and management structures for the ecological grid resulting in a system of public open spaces which simultaneously address the particular issues faced within the area and the primary issue of social cohesion and urban vitality.

Thus, to conclude, the framework of an urban design brief for cohesion and its resultant network of public open spaces could be expected to create the necessary conditions conducive to encourage users within the city to be able access this system of open spaces formed through the framework and to interact with each other and form social connections, overcoming their social, economic and ideological biases to be able to harmoniously coexist within the city. Though the aim from the development of this framework may seem to be impractical considering the diverse elements influencing the behavior of people in space, this research attempts to build towards the eventual rectification of this issue, which currently affects the overall society of Pakistan. Therefore, even the implementation of the framework in a small

area of a city could potentially yield positive results for the society overall as it may represent a potential case study to be able to achieve cohesion within a fractured society. It is this idea that has been utilized within this framework and the resultant system of public open spaces, in order to attempt to develop social cohesion within the city of Islamabad. An endeavor it would expectantly achieve.



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