BORDERING PRACTICE AND TERRITORIALITY:
EXAMINING ISLAMABAD AND NEW DELHI

ALI ARSALAN PASHA SIDDIQUI

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Submitted by ALI ARSALAN PASHA SIDDIQUI in partial fulfilment of the requirement for the degree of Masters of Architecture in the Department of Architecture, Middle East Technical University by,

Prof. Dr. Gülbin Dural Ünver
Dean, Graduate School of Natural and Applied Sciences

Prof. Dr. T. Elvan Altan
Head of Department, Architecture

Prof. Dr. Güven Arif Sargin
Supervisor, Department of Architecture, METU

Examining Committee Members:

Prof. Dr. Aydan Balamir
Department of Architecture, METU

Prof. Dr. Güven Arif Sargin
Department of Architecture, METU

Prof. Dr. Ali Cengizkan
Department of Architecture, TEDU

Assoc. Prof. Dr. Namik Erkal
Department of Architecture, METU

Assist. Prof. Dr. Olgu Çalışkan
Department of City and Regional Planning, METU

Date:
I hereby declare that all information in this thesis document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name: Ali Arsalan Pasha, Siddiqui
Signature:
ABSTRACT

BORDERING PRACTICE AND TERRITORIALITY: 
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Siddiqui, Ali Arsalan Pasha

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Islamabad and New Delhi are two planned capital cities; yet they exhibit completely divergent social and territorial formations. The research posits that this difference is due to the Islamabad gridiron plan functioning as a network of borders which resist the processes of territorialization and restrict sociospatial revision. Borders are not only space-bound; they are also time-bound – in essence, they function as spatial as well as temporal phenomenon. Since space evolves with time, it is necessary for borders and territory to develop and transform, bringing new meaning to sociospatial practices. Therefore, when borders are permanently designed and defined as a spatial bounding box, they resist the evolution of territory and sociospatial practices. This results in segregated and poorly managed cross-border relations. In order to define and subsequently redefine territoriality of a given space, it must undergo processes of deterritorialization and reterritorialization, where it re-establishes itself as a territory – with redefined boundaries and redefined sociospatial relations. This redefinition allows the revision of social relations that are impacted by the territory and as a result allows the breakdown of established norms and prejudices, in order to give shape to new social practices. Fixed borders resist these mechanisms of territorialization, thereby preventing the revision of social processes and resulting in stagnated sociospatial sensibilities. The aim of the research is to understand the impact of borders on social relations, through the exploration of territoriality and segregation. The aim is to begin by highlighting
a prevalent and relevant definition of borders as a spatial instrument and briefly studying its impact on social relations. Subsequently, the research aims to study borders as a political instrument and its impact on identity and territoriality. Finally, the research aims to conduct a comparative case study on the urban planning of the two aforementioned capital cities, which will clarify the impact of borders on spatial and territorial processes.

**Keywords:** Bordering Practices, Territorialization, Identity, Segregation, Sociospatial, Temporal
ÖZ

SINIR PRATIKLERİ VE BÖLGESELLİK:
ISLAMABAD VE YENI DELHI

Siddiqui, Ali Arslan Pasha

Yüksek Lısans, Mimarlık Bölümü
Tez Yöneticisi: Prof. Dr. Güven Arif Sargın
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enstrüman olarak altını çizmek ve kısaca sosyal ilişkiler üzerindeki etkilerini araştırılmaktır. Akabinde, bu araştırma sınırları politik enstrümanlar olarak ve kimlik ve bölgesellik üzerindeki etkisini incelemektedir. Son olarak araştırma, mekansal ve bölgesel süreçlerde sınırların etkisini, iki başkentin kentsel planlaması üzerine karşılaştırmalı bir inceleme ortaya koyarak açıklamayı hedefliyor.

**Anahtar Kelime:** Sınır Pratikleri, Bölgeselleştirme, Kimlik, Tecrit, Sosyo-mekansal, Geçici
To my parents and my wife
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CHAPTER 1

INTRODUCTION

1.1 STATE OF THE ART
Islamabad and New Delhi are two 20th century South Asian capital cities which were planned by foreign architects and then developed further by local planning authorities. While Edwin Lutyens laid out the Masterplan of New Delhi in an axial geometric manner similar to the planning of Washington and Paris; Islamabad was planned by Constantinos Doxiadis who proposed an innovative and detailed gridiron layout reminiscent of Chandigarh, Melbourne and New York. While both planning models are successful and thoroughly executed, there is a major difference in sociospatial practices and social integration, when comparing both cities. The gridiron layout of Islamabad has been repeatedly strengthened by development of road networks and specific sectors, which have kept in accord with the original layout. While an acceptable development procedure, this process has led to the definition of economic and social zoning, with specific sectors of Islamabad being occupied by the affluent middle and upper classes, while others providing residence to lower classes. On the other hand, although New Delhi exhibits a well-defined and implemented city layout, the provision of adjustment and lack of rigidity in the urban structure, in addition to irregular growth in the early years, has allowed the capital to retain a more socially integrated demographic. Both cities are the abode of a similar demographic, provide administrative and cultural facilities derived from being in the proximity of historic cities and are capital cities of much larger capital territories, which are divided into several smaller units. It is the aim of this research to explore why such discrepancy between social classes exists in the case of Islamabad, but is increasingly reducing in the case of New Delhi. As an initial postulate, the research posits that the gridiron planning of Islamabad acts as a network of bordering instruments, which prevent the processes of territorial establishment and disestablishment – hence facilitating
stagnated and rigid sociospatial relations. In this essence, it is necessary to explore what borders represent as a conceptual instrument and studying their impact on territorial and social practices.

Borders are consistently reduced to morphological lines in the urban landscape rather than being understood as urban entities with spatial and political significance. In this essence, the research would begin by thoroughly understanding the meaning and implication of borders today and endeavour to achieve a substantially relevant definition. The research aims to continue further by thoroughly investigating the origins and evolution of segregation practices across different paradigmatic scales. In order to define and subsequently redefine territoriality of a given space, it must undergo processes of deterritorialization and reterritorialization, where it re-establishes itself as a territory – with redefined boundaries and redefined sociospatial relations. This redefinition allows the revision of social relations that are impacted by the territory and as a result allows the breakdown of established norms and prejudices, in order to give shape to new social practices. Fixed borders resist these mechanisms of territorialization, thereby preventing the revision of social processes and resulting in stagnated sociospatial sensibilities. The aim of the research is to understand the impact of borders on social relations, through the exploration of territoriality and segregation. The aim is to begin by highlighting a prevalent and relevant definition of borders as a spatial instrument and briefly studying its impact on social relations. Subsequently, the research aims to study borders as a political instrument and its impact on identity and territoriality. Finally, the research aims to conduct a comparative case study on the urban planning of the aforementioned two capital cities, which will clarify the impact of borders on spatial and territorial processes.

1.2 PROBLEM DEFINITION
Borders and boundaries are demarcation tools, primarily used to segregate social groups and define a hierarchy of accessibility. The permeability of such segregation elements directly affects the transitional accessibility of social groups. As a result, more transitive spaces allow a higher level of mobility, which positively affects social and political relations due to a balanced social hierarchy. Borders are not only space-bound; they are also time-bound – in essence, they function as spatial as well as
temporal phenomenon. Since space evolves with time, it is necessary for borders and territory to develop and transform, bringing new meaning to sociospatial practices. Therefore, when borders are permanently designed and defined as a spatial bounding box, they resist the evolution of territory and sociospatial practices. This results in segregated and poorly-managed cross-border relations.

1.3 AIM OF THE THESIS
The aim of the thesis is to answer pertinent questions regarding borders as instruments of territorial syntax. To begin with, the aim is to understand borders as a distinct spatial identity rather than merely an edge of space – in essence, achieving a substantially relevant definition. The definition aims to study the inherently dialectical function in borders of dividing and uniting simultaneously and studying its transitive potential. The research aims to continue this study by establishing a framework which examines the evolution of demarcation practices through history. Once a substantially relevant definition is achieved, the research aims to study borders in a political paradigm and examine the relationship between border coding and territorialization practices. The goal is to understand what borders and bordering practices have come to represent, how they impact territoriality and in what capacity do they allow or inhibit the processes of territorialization, deterritorialization and reterritorialization. The research posits that determinate borders results in the restriction and prevention of territorialization practices, which gives rise to stagnated sociospatial relations and results in socioeconomic segregation. The postulate is examined through theoretical research and culminated in the examination of a case study comparison between two planned capital cities.

1.4 METHODOLOGY OF THE THESIS
The study endeavours to conduct research regarding the formulation and employment of borders as spatial instruments. It aims to decipher the theoretical basis of the emergence and utilization of demarcation practices, exploring it in reference to order and disorder. The research further explores borders as a political instrument and the implications of borders on the processes of territorialization. Finally, the research aims to study the relation between border and territorialization practices by examining a case study comparison between the economic zoning and housing
policies of two planned capital cities. The minor case study aims to examine the social integration and sociospatial relations in two major South Asian planned capital cities, in order to explore the impact of rigid planning as compared to a more adjustable layout. Islamabad, in this case, exhibits a blatant gridiron plan which has not only existed since its conception, but strengthened repeatedly by development of road networks and specific sectors. According to the study of borders and territorialization, this research posits that such rigidity in urban planning, inhibits the opportunity for reterritorialization and as a result engenders sociospatial discrepancies in the urban layout. On the other hand, although New Delhi exhibits a well-defined and implemented city layout, the provision of adjustment and lack of rigidity in the urban structure, has allowed the capital to undergo repeated processes of territorialization and retains a more socially integrated demographic. At first glance, both capital cities of Islamabad and New Delhi seem to function on different planes and retain distinct origins. A most significant difference is that, while New Delhi is a late-colonial city planned during the British rule of India, Islamabad is clearly a post-colonial city designed to cement the independent status of Pakistan. In addition, the Delhi metropolitan region is considered among the top most populated regions, behind Tokyo and Mumbai; while the Islamabad-Rawalpindi region is the abode of a much smaller population. However, this is the extent of the differences between both capital cities – and more similarities are revealed with closer scrutiny. Both cities were established as the sites of new capital cities in order to establish and cement a geostrategic advantage to governance – the capital was shifted from Calcutta to New Delhi, while in Pakistan the seat of power was moved from Karachi to Islamabad. Both cities were facilitated and consistently supported by the presence of historical cities in their proximity; New Delhi derived sufficient resources from the historically important city of Delhi, while Islamabad drew support from the Buddhist and Gakkhar city of Rawalpindi – where both ancient cities of Delhi and Rawalpindi date as far back as 1000 BC. In addition, Islamabad and New Delhi are small capital centres embedded in larger capital territories; namely, the ICT or Islamabad Capital Territory nearing 1000 km² total area and the NCT or National Capital Territory of Delhi which is around 1400 km² in total area. Both territorial zones are divided into districts, zones and sectors – where NCT is divided into 11 districts, the ICT is divided into 8 administrative zones and 5 urban zones. Finally,
both cities have a similar demographic, primarily dominated by Punjabi settlers during the subcontinent partition, but also the abode of migrants from around the country – giving shape to a culture of integrated diversity, yet also the negative side effect of ethnic and religious segregation.

1.5 STRUCTURE OF THESIS
The thesis is divided into three parts. After the introduction, the second chapter researches the employment of borders as spatial instruments. It aims to decipher the theoretical basis of the emergence and utilization of demarcation practices, exploring its implications on perceiving order, establishing order and achieving order and disorder. The third chapter further explores borders as a political instrument and the implications of borders on the processes of territorialization. The research studies how borders function in a political paradigm, conducting brief theoretical study on reterritorialization practices of the 20th century. The chapter essentially endeavours to achieve a comparative definition of borders and bordering practices, focusing on the transient and contingent qualities of the latter – studying its impact sociospatial and political terms. In the final chapter, the research aims to study the relation between border and territorialization practices by examining a case study comparison between the economic zoning and housing policies of two planned capital cities – Islamabad and New Delhi. The research studies the history, demographic and planning of both cities and explores economically motivated housing allocation as an implication of economic zoning. The economic zones indicate the employment of borders and bordering practices, which define a relationship between borders and territorialization practices.
CHAPTER 2

THE CONCEPT OF BORDERS REDEFINED

2.1 INTRODUCING THE PROBLEMATIC
In order to understand why territories, towns and cities exist, a good starting point is to consider a world without cities or divided territories. Agriculture is believed to be a pre-requisite for cities, which help preserve surplus production and create economies of scale. The accepted theory is that cities first formed after the Neolithic Revolution, with the spread of agriculture, where the advent of agrarian activities encouraged hunter-gatherers to abandon nomadic lifestyles and settle near each other and be involved in agricultural production. Agriculture yielded more food, and led to denser human population and larger settlements, in addition to food surplus that required storage and could facilitate trade – which led to growth and expansion. This, in a nutshell, is how cities were formed. To address the aforementioned postulate, for there to be a world without divided territories and cities, three conditions need to be satisfied; mainly, the achievement of equalised productivity, constant returns to scale in production, and constant returns to scale in exchange. Equalised productivity is possible if each individual engages in equal amount of productivity, making them responsible for their own sustenance, which will lead to the negation of specialised occupations and negate the formation of specialised settlement subdivisions and specialised territorial interests. Secondly, a constant return to scale in production would mean that if production is subject to economies of scale, then productive output and labour input are maintaining a steady balance. Finally, constant returns to scale in exchange, is possible if there are scale economies in exchange and two households are able to link together and exchange the products in which they have a comparative advantage.
The distinction between cities and settlements essentially took place, when not all inhabitants of a certain settlement engaged in agrarian activities, leading to specified duties – such as trade and food storage. (Childe, 1950, p. 3) While a settlement is considered a mass of individuals, regardless of its size, the development of specialized occupations eventually leads to social grouping, segregated zoning and economic reorganization. Even today, this can be noted as a characteristic distinction between a small city and a large town – the existence of social grouping which lead to the foundation of organized government. Settlements, which have served as the abode for civilization, evolve into towns and cities as civilians direct efforts towards establishing spatial zones; leading to the subsequent established city being divided and demarcated into private and public space, through the use of borders and boundaries to achieve territoriality. While the ontological multidimensionality of borders is acknowledged in various ways, in most cases, a border is simplified to a mechanism of division and exclusion, or a site of encounter and connection, but rarely both simultaneously.

As is widely accepted, borders and boundaries are demarcation tools, primarily used to segregate social groups and define a hierarchy of accessibility. Reduced to the simplest definition, borders are pluridimensional and multiplanar urban phenomenon which harbour a concurrently dialectical function of connecting and separating. They are produced by human beings to secure space yet as a cultural product they are a modifiable and shapeable phenomenon. As an urban space they divide entities, yet they belong to neither and both entities simultaneously, acting as a transition zone. They show the evolution of populations, identities, cultures and political forces over a period of time, but retain attributes of a current temporal phenomenon. Despite such a variety of socio-spatial consequences, borders are associated with a negative connotation, being linked to terms like exclusion, segregation and marginalization. Philosophically speaking, the concept of borders has undergone some strict scrutiny in the past few decades, requiring an epistemic revision with regards to prevalent studies in sociology, geography, politics and architecture. It would, hence, prove useful to conduct a brief study on the concept of borders; studying how they are perceived and understood by the user, how they are used in order to secure territorial interests and define settlements and how evolving definitions are impacting the typological, ontological and epistemological attributes in a social, spatial and political paradigm.
2.2 INSTRUMENTS OF PERCEIVING ORDER

Borders and boundaries are consistently reduced to morphological lines in the urban landscape rather than being understood as urban entities with spatial and political significance. They tend to represent instruments for defining and dividing territory, into functional and spatial units\(^1\), a practice that has evolved through development of civilization. It is evident in the establishment of settlements and urban planning that borders are employed as a tool of establishing order and regularity – a trait that has evolved with the developing psyche of the rural and urban civilian. In this regard, borders are used to establish order, primarily because to the civilian, the border instrument represents a tool of perceptual order – a trait evident through the study of Gestalt psychology. Gestalt psychology is an approach originating from the Berlin School of experimental psychology, which aims to understand man’s ability to acquire and maintain meaningful perceptions in a consistently evolving environment. The central principle of the approach is that, the mind forms a visceral whole with self-organizing tendencies; a percept or gestalt, which has a reality of its own, independent of the parts.

It primarily began in Germany in 1910, when Czech psychologist Max Wertheimer observed flashing lights at a railroad crossing that resembled lights encircling a theatre marquee. Through the use of a motion-picture toy called the “zoetrope”, he was able to investigate the conditions that contribute to the illusion of motion pictures – an effect that is technically known as “apparent movement”. He concluded that the effect of apparent movement is generated not so much by its individual elements as by their dynamic interrelation. Wertheimer recruited Kurt Koffka and Wolfgang Köhler, to work with him on the research. Building on the research, Koffka claimed that: “[I]n addition to the sensory elements of a perceived object, there is an extra element which, though in some sense derived from the organization of the standard sensory elements, is an element unto itself.” (Koffka, 2000, p. 531) In what Koffka called “Gestalt-qualität” or form-quality, he elaborated that when we hear a melody, we hear the distinct notes, in addition to a form quality which binds them together into a tune, as a

\(^1\) Heidegger (1971, p. 154) relates the concept of boundary to the Greek term “horismos”, the root of the English term “horizon”, defined as “a boundary to divide, mark out, settle and define”. They represent demarcations which legitimise the space by giving it location, meaning and definition.
result, allowing us to perceive the melody as a whole.

The whole-part relationship is a useful study, where the whole is not understood as merely the sum of its parts – rather a separate entity that is perceived; a relationship that can be observed with regards to space and elements that shape space. Considering the simple attributes of the spatial bounding box, it can be inferred that any bounded space has dimensional attributes, infill space and bounding outlines. The meaning and purpose of the space is a holistic attribute, one which is separate from the individual attributes of the bounded space, but nonetheless one that exists. While it is thoroughly established that the whole and parts have their separate yet imperative significance, the aim of the research is to establish the validity of the bounding outlines of a spatial bounding box in spatial perception. The aim is to understand how boundaries are perceived with regards to Gestalt psychology and assist in the definition of borders and outlines from a perceptual perspective. Gestalt psychology is conducted through the observation of key principles of emergence, reification, multistability and invariance. The principles are put into effect through different rules of arrangement between elements in an environment, such as, similarity, proximity, continuity, symmetry, closure, connectedness, good form or prägnanz, common fate and experience. Although all the rules stated above are imperative in understanding the perceptual and sociological implication entailed with spatial perception, the laws of “continuity”, “closure” and “prégnanz” are most useful with regards to demarcation tools and bounding outlines – how people perceive them, interact with them and how borders evolve over time.

Of the four principles stated, emergence and reification apply most correctly to borders as an urban entity. Borders are subject to the principle of emergence, since whenever a perceiver aims to identify an object or form, they initially seek to identify its outline. In this regard, we may observe borders as the outlines of space – simple demarcations on the planar surface that give legitimacy and meaning to the defined space. Emergence is the process of forming and understanding complex patterns from simple rules. When attempting to identify an object, a perceiver first seeks to identify its outline, followed by matching the outline pattern against shapes and objects that are commonly known. The production, perception and reception of space achieve
legitimacy, function and meaning by first establishing its borders and then focusing on the spatial attributes.

Emergence is achieved through the fundamental principle of gestalt perception, which is the law of Pragnanz or the law of good Gestalt, which says that we tend to order our experience in a manner that is regular, orderly, symmetrical, and simple. Pragnanz is a German word that directly translates to mean pithiness\(^2\) and implies the ideas of salience, conciseness and orderliness. The law explains that elements of objects tend to be perceptually grouped together if they form a pattern that is regular, simple, and orderly. This law implies that as individuals perceive the world, they attempt to eliminate extraneous stimuli of complexity and unfamiliarity in order to observe a reality in its most simplistic form. This leads to the establishment of a global regularity and a perceptual order.

Clearly discernible forms and spaces are perceived and interpreted easily and by default, since they take less time to process and present less unknown information, allowing the perceiver to establish a regularity. In this essence, even when confronted with an ambiguous or undefined shape, the human mind endeavours to simplify it into integral parts; first establishing the outline and subsequently focusing on the infill. It can therefore be stated that when encountering a given space, the perceiver endeavours to simplify and achieve a discernible reality – which is accomplished first and foremost by establishing the borders of the perceived space. This implies that borders are a necessary tool, which allow the perceiver to observe and establish patterns and qualities of space. Borders are also subject to the Gestalt principle of reification which is the constructive or generative aspect of perception. Reification can be explained by progress in the study of illusory contours, which are treated by the visual system as “real” contours, as seen in the diagram. (Koffka, 2000, p. 531) Reification suggests that a complete outline needs not be presented to a viewer to convey the complete form or shape, rather only a sufficient amount of information may prove to be enough.\(^3\) It is achieved through the gestalt laws of closure, continuity and similarity.

\(^2\) Pithiness may refer to qualities of being succinct, acute and easily discernible.
\(^3\) With regards to the perception of borders, this principle holds true, as may be observed in the example of traffic cones, garden trees or park fences; where a defined outline is not employed, rather the elements used to distinguish the space are placed in a linear equidistant order to highlight a distinction. The placement implies that a place is distinct, without the use of a continuous divisive element.
The law of closure states that individuals perceive objects as being whole, even when they are not complete, implying that when parts of a whole picture are missing, the observer’s perception fills in the visual gap. Research shows that the reason the mind completes a regular figure that is not perceived through sensation is to increase the regularity of surrounding stimuli. This is because when observing a complex arrangement of elements, the perceiver tends to look for a single, recognizable pattern.

Similar to the law of Prägnanz, closure seeks simplicity, where the perceiver combines parts to form a simpler whole. In this essence, when encountering a space where the bounding outline is ambiguous or unclear, the individual mind endeavours to fill in the visual gap in their perception of space. In the case of borders, the perceiver may aim to identify familiar shapes and forms, which indicate an outline and imply a distinction of space, such as a sharp difference in topography, a difference in topographic texture, the presence of divisive elements like trees or fences and so on. Hence, one can observe that the individual’s requirement for achieving spatial closure is highly dependent on the establishment of its borders and perceiving space as a familiar whole.

Adding on to the law of closure, the law of continuity states that elements which build up objects tend to be grouped together and therefore integrated into perceptual wholes if they are aligned to form a continuity. This implies that elements arranged on a line or curve are perceived as more related than elements not so aligned, indicating a visual
pattern. With regards to borders, this perceptual phenomena can easily be observed with the placement of traffic cones on the road, organisation of plants in a canary or picket-fences on a farm – where the continuous linear arrangement of elements indicates a distinct outline.

The law of continuity establishes coherence with the law of closure, where the perceiver fills in the gaps between linear arrangements of elements to achieve a continuous enclosure. In cases where there is an intersection between two varying arrangements, individuals tend to perceive the two as separate uninterrupted entities, indicating that stimuli remain distinct even with an overlap. It can thus be stated that individuals perceive borders to be linear arrangements of easily comprehensible elements, which establish a visual continuity and imply a distinction of space.

Building upon the laws of closure and continuity is the law of similarity which states that elements within an assortment of objects are perceptually grouped together if they appear to be similar to each other. This similarity can occur in the form of shape, size, colour, shading, texture and other visually perceptible characteristics. When viewers observe similarity in characteristics, they assume an interrelation between the elements due to shared attributes. With regards to elements that indicate a border and distinction of space, similarity in shape and size is the most commonly observed attribute, whether it is an international border with standardized posts and wire mesh, similarly scaled boundary walls of a residence or posts of similar shape and size following an

Figure 3 & 4: The Law of Continuity
http://designshack.net/articles/inspiration/design-science-what-is-gestalt-theory/
equidistant linear arrangement to indicate a clearly defined outlines. The law of similarity aids the laws of continuity and closure to establish more thoroughly comprehensible spatial borders in this manner.

Figure 5 & 6: The Law of Similarity
http://designshack.net/articles/inspiration/design-science-what-is-gestalt-theory/

The brief study on Gestalt principles of emergence and reification establishes the importance of studying borders from a perceptual perspective and indicate their importance in civics and planning. It can be observed through the principle of emergence, that borders and outlines are the initially observed and recorded attribute of any given space where the perceiver aims to simplify and organize their perception of space. In addition, the principle of reification indicates that borders need to establish the implication of closure and continuity in order to convey the impression of enclosure, even if the said enclosure is not completely bounded. The implication of continuity of similar elements bodes well to imply an arrangement used to indicate a distinction of space, common examples of which are employed in planning and spatial organizations. The study highlights the human need for simplicity and order, the need to establish the outlines of space and the basic perceptual mechanisms for achieving easily comprehensible spaces and territories. To understand how the perceptual mechanism is translated into the establishment of settlements and occupancy of territory it is essential to briefly highlight the study of Ekistics.

2.3 INSTRUMENTS OF ESTABLISHING ORDER
Ekistics, or the science of human settlements, founded and developed by Constantinos Apostolou Doxiadis in 1942, with an important impact on regional, city and
community planning. An architect and town planner by qualification, Doxiadis developed the science of human settlements, with a view towards geography and ecology, in addition to studying and employing psychology, anthropology, culture, politics and aesthetics. The study of Ekistics implies that it is imperative to understand the interaction of human groups with their environment and function, leading to a thorough understanding of how settlements form and inter-relate.\(^4\)

The goal of building such settlements, indicates that certain rules and principles need to be established which identify what is most suited to human dimensions. Doxiadis claimed that successful human settlements can only be achieved when man establishes a system to maximize his potential contacts, while minimizing the energy expended for accomplishing tasks. At the same time the settlement must make it possible for him to maintain a distinct identity and routine from others, in addition to achieving a desirable relationship with his environment. (Doxiadis, 1968, p. 28) Through research and statistical analysis, he concluded optimal principles for the achievement of successful human settlements, which would essentially allow man to accomplish all of the abovementioned tasks. In essence, settlements were created by observing man’s function and interaction with space – used to define the boundaries of his own territorial interest and that of his manner of settlements. (Doxiadis, 1970, p. 395)

Doxiadis discusses the evolution of human settlements, starting from nomadic activity and continuing on to localized concentration on the organization of settlements – elucidating that the driving rationale throughout the process of settling and place-making is, the “distance” an individual is willing to go or can comfortably cover in the course of his daily life. It is an essentially simple concept, yet it makes perfect sense that, man is most keen on defining the boundaries of his own territorial interest, which he finds most comfortable and practical with respect to movement and function. The assessment of what is comfortable and practical with regards to settlement, is achieved through a sensory process – where our sensory limits form the outer boundaries of the human scale and man serves as the tool to define the scale of his immediate surroundings and the formation of his urban world. This can be observed when

\(^4\) In his seminal book, “Ekistics: An introduction to the Science of Human Settlements” Doxiadis claimed that Ekistics takes into consideration the principles man takes into account when building his settlements, as well as the evolution of human settlements through history in terms of size and quality.
Doxiadis states that, “The width of a street is of human dimensions if the number of people moving in it justifies it. The dimensions of squares are derived from the maximum distance at which people can hear or see events taking place in the square, which is seldom more than a hundred yards, in length or width.” (Doxiadis, 1965, p. 26)

It can, hence, be observed that according to Ekistics, the establishment of any settlement and activity relied on the demarcation of topography in accordance with human dimensions and man’s functional convenience. As a concept and observation, the modus operandi of Ekistics is very similar to Le Corbusier’s Modulor, which itself incorporated earlier studies such as the Vitruvian man by Leonardo Da Vinci, Fibonacci series, the golden ratio and anthropomorphic studies by Leon Battista Alberti.

The derivation of mathematical rules and geometric proportions from the human body and natural environment, is an applicable method of design, which takes into account functional ergonomics and applies it to scales ranging from products to city planning scales. Hence, the division of land into parcels and allotment of parcels, would have been in adherence to human dimensions, achieved through the employment of borders and boundaries. In this essence, borders represent the outer boundaries of the human sensory scale, which allow the undertaking of any activity compliant with human dimensions and senses. In terms of human settlements, borders served as the tool of defining the optimal zone of activity with regards to human dimensions, in a physical and visceral sense.
The total dimensions of villages were always accommodated to the human scale, where the size of a village community was defined by the maximum distance that man could afford to walk to his fields; to work and return before sunset, around one hour's walk each way – elucidating that ancient cities were built according to human dimensions. (Doxiadis, 1964, p. 345) Doxiadis elaborates in this regard that ancient cities could be divided into two categories; mainly, those formed through a natural growth and those created according to the Hippodamian gridiron plan. The employment of a gridiron layout allowed the division of settlements into smaller parcels and demarcation of topography according to a defined land-use arrangement. While observing human dimensions and sensory limits, the use of a planning grid allowed the creation of land parcels and functional zoning, indicating anthropologically functional divisions of land, which were easy to achieve and secure. Doxiadis terms this the “Anthropocosmos” model which may be understood as territorial arrangements made by Anthropos or man for his own benefit and welfare. (Doxiadis, 1974)

Habitable land is occupied by nomadic tribes and settlements are established according to human scales and functional efficiency, only to evolve into specialized occupations, functional zoning and demographic parcellization of the settlement. Once a population moves from the nomadic to the settlement phase, it becomes imperative to define territories, for the achievement of basic functions such as residence, labour and acquisition of resources, in addition to defining a mode of governance. It can be observed through the study of Ekistics, that man has employed the use of borders to define the boundaries of his territorial interest and to achieve personal welfare. Furthermore, man has used borders as a tool for dividing settlements into smaller zones catered to human dimensions, sensory comforts and functional efficiency.

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5 Doxiadis quotes from Aristotle’s Politics, regarding the grid-iron layout of Miletus as laid out by Hippodamus: “His system was for a city with a population of ten thousand, divided into three classes; for he made one class of artisans, one of farmers and the third the class that fought for the state in war and was the armed class. He divided the land into three parts, one sacred, one public and one private: sacred land to supply the customary offerings to the gods, common land to provide the warrior class with food, and private land to be owned by the farmers.” [Aristotle (Politics, II, V, 2) on Hippodamus the Milesian]

6 With obvious benefits, the land parcels also facilitated social segregation, which is an imperative point of discussion. Yet, it is important to note that the evolution of settlements has followed the same mode of governance and development by default.
Doxiadis’ work has made useful additions to planning and place-making concepts, establishing Ekistics as the science of human settlements. By analysing man’s employment of borders to establish functionally suitable territories, Doxiadis conducted a detailed study on the evolution of settlements into villages, then into cities and then megacities. Proposing a gradation beginning from individual or Anthropos and continuing to the universal city or Ecumenopolis, he derived a hierarchical scale of Ekistics Units, which cumulatively added on from the base individual grade to the universal city scale.7

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>No. of Users</th>
<th>Area (m$^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropos</td>
<td>1</td>
<td>4,084</td>
</tr>
<tr>
<td>Room</td>
<td>2</td>
<td>28,059</td>
</tr>
<tr>
<td>House</td>
<td>5</td>
<td>200</td>
</tr>
<tr>
<td>House Group (Hamlet)</td>
<td>40</td>
<td>1,400</td>
</tr>
<tr>
<td>Small Village</td>
<td>100</td>
<td>9,800</td>
</tr>
<tr>
<td>Village</td>
<td>250</td>
<td>68,650</td>
</tr>
<tr>
<td>Neighbourhood</td>
<td>1,500</td>
<td>480,570</td>
</tr>
<tr>
<td>Small polis (town)</td>
<td>10,000</td>
<td>3,364,000</td>
</tr>
<tr>
<td>Polis (city)</td>
<td>75,000</td>
<td>23,548,000</td>
</tr>
<tr>
<td>Small metropolis</td>
<td>500,000</td>
<td>164,836,000</td>
</tr>
<tr>
<td>Metropolis</td>
<td>4 million</td>
<td>1,153,850,000</td>
</tr>
<tr>
<td>Small megalopolis</td>
<td>25 million</td>
<td>8,077,000,000</td>
</tr>
<tr>
<td>Megalopolis</td>
<td>150 million</td>
<td>56,538,000,000</td>
</tr>
<tr>
<td>Small Eperopolis</td>
<td>750 million</td>
<td>395,772,000,000</td>
</tr>
<tr>
<td>Eperopolis</td>
<td>7,500 million</td>
<td>2,770,408,000,000</td>
</tr>
<tr>
<td>Ecumenopolis</td>
<td>50,000 million</td>
<td>19,392,857,000,000</td>
</tr>
<tr>
<td>Total Habitable Area</td>
<td>-</td>
<td>135,750,000,000,000</td>
</tr>
</tbody>
</table>

Table 1: Ekistic Territorial Scale (Doxiadis, 1976, p. 186)

While Doxiadis conducted the study in order to further his research of human settlements by using the settlement gradation to define optimal and functional

7 Doxiadis states that: “If we closely and systematically analyse our living space, we shall discover that we live in fifteen different space units of increasingly greater dimensions. The first of these, and the smallest, is that of man himself – it is precisely the space occupied by the human body with all its limbs extended; the second is the room; the third, the dwelling; the fourth, the dwelling group; the fifth, the small neighbourhood. Leaping upward, we come to the eighth unit, the traditional town of 30,000 to 50,000 inhabitants; then to the tenth, comprising the metropolis with around two million inhabitants; the eleventh, the conurbation with several million inhabitants, and the twelfth, a new type of urban concentration going by the name of ‘megalopolis’, like the one stretching along the east coast of the United States. Finally, we come to the fourteenth and fifteenth units, the urban continent and Ecumenopolis, the universal city”. [The city (II): Ecumenopolis, world-city of tomorrow: from Impact of Science on Society, v.19, no.2, April - June 1969, p. 179-193]
settlement dimensions – the research also indicates the significance of using bordering instruments to establish territory and occupancy. He was able to successfully define dimensions and demarcations ranging from the scale of Anthros or individual to the scale of Ecumenopolis or global city, by applying Walter Christaller’s Central Places theory to the total habitable area on the earth and achieving a system based on hexagons division. (Doxiadis, 1970, p. 400) Doxiadis was able to employ Christaller’s theory to achieve a classification of territorial dimensions, as seen in Table 1. The usage of Christaller’s theory of dividing the global habitable territory into hexagons, clearly elucidates the employment of borders and divisive tools to quantify and define territories and settlement units. Used as instruments to establish territory and occupancy, the bordering tools function in a spatial and increasingly social paradigm – in essence, an instrument of establishing sociospatial order and regularity. It is essential to study borders from the perspective of social, cultural and political practices, rather than focusing only on spatial and territorial attributes – which may introduce new definitions, functions and evolution of borders and bordering tools.

2.4 INSTRUMENTS OF ORDER, DISORDER AND REORDER

The study of borders has garnered major interest in the late 20th century, specifically with the research conducted in France; by the joint work of philosopher Gilles Deleuze and psychoanalyst Felix Guattari.8 Their collaborative work, particularly “A Thousand Plateaus” is replete with the language of borders, where border terms are accompanied by references to a host of other geographic concepts, such as plateaus and milieus, zones and landscapes, latitudes and longitudes, and tracings and mappings – an increasingly relevant study today.9 According to Deleuze and Guattari, the previously attributed approach towards the concept of borders, as an apparatus for articulating lines of demarcation and difference, introduces a reductionist and Euclidean perspective to spatial thinking, resulting in a dematerialization and depoliticization of social space. It is hence beneficial that the developing analysis of borders is towards a shift from territorial dividing lines and political institutions, inclining more towards socio-cultural practices. With new multifarious definitions under study, borders and

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8 Their seminal work “Capitalism and Schizophrenia”, was a two volume work, consisting of Anti-Oedipus in 1972 and A Thousand Plateaus in 1987; a significant step in the development of post-structuralist theory.

9 Following their research, border studies have undergone a dramatic expansion of new perspectives, in large part because they were recently opened to critical social theory and interdisciplinary research, especially in the works of Noel Parker and Nick Vaughn-Williams.
bordering practices have become increasingly important in the study of social and spatial concerns.

The manner in which Deleuze and Guattari approach border studies, requires an understanding of certain terms; mainly, nomad, assemblage and deterritorialization. "Nomadism" is a way of life that exists outside of the organizational bounds of the "state". Briefly put, according to Deleuze and Guattari, the state operates through the capture and restriction of free movement, by striating space and defining hierarchical systems of relations which lead to inequalities. The nomadic way of life is characterized by movement across space which exists in sharp contrast to the rigid and static boundaries of the state, since the space is not bound or defined by morphology or enclosure - leaving it undefined and qualitative, while remaining unrestrained by systems of organization. The nomadic represents a system of land distribution which is opposed to that of the static city of fortifications and demarcations. It represents a system which opposes the parcelling out of closed spaces defined and demarcated by roads and borders, rather distributing people and animals in an indefinite and uncategorized open space – representing a space without divisions, borders or enclosures. Deleuze and Guattari use two different terms to examine the use of space and its relationship with the inhabitant – mainly, “sedentary” and “nomadic”. Briefly put, the nomadic trajectory represents an inverse of the sedentary model; land is not distributed to people, rather people are distributed on the land. The nomadic, in addition, implies a profoundly different relationship between occupant and inhabited space, as compared to the sedentary mode where people belong to a place and a piece of land belongs to a people. That is the essence of the sedentary relationship, a definite and inert interaction between inhabitant and place. As a direct contrast, the nomadic

10 The base principle is that nomad space is smooth and heterogeneous, while State space is striated and homogeneous. The spaces inhabited by nomads, such as deserts and seas, are smooth and fluid, while the State spaces – are striated with walls, enclosures and roads that exhibit constancy of orientation and metric regularity.
11 The manner in which Deleuze and Guattari use the term “nomadic”, draws reference from a dissection of its etymology, where they trace the word to ancient Greek “nemo”, which means, “I distribute”. The term nemo is also the root for “nomas” and “nomos”; where the former refers to “roaming and wandering”, while the latter refers to “the act of distributing”, but is also used as “law” or “custom”.
12 Deleuze and Guattari (1980) A Thousand Plateaus, p. 380. The full quote is: “Even though the nomadic trajectory may follow trails or customary routes, it does not fulfil the function of the sedentary road, which is to parcel out a closed space to people, assigning each person a share and regulating the communication between shares. The nomadic trajectory does the opposite: it distributes people (or animals) in an open space, one that is indefinite and noncommunicating. The nomos came to designate the law, but that was originally because it was distribution, a mode of distribution. It is a very special kind of distribution, one without division into shares, in a space without borders or enclosure.”
13 If an inhabitant endeavours to move or locomote, it is considered as an activity which is different from the norm and to be done for a finite duration; since the default sedentary activity is to reside.
order relies on movement being the default activity, hence, movement and travelling is the default mode of relating to any given space. The relationship to an inhabited place is always secondary to the principle of movement, where the inhabitant is not defined by place, but merely interacts with it. The sedentary manner of distribution may be represented by an agrarian organization, where land parcels are divided and allotted to specific inhabitants; while the nomadic order can be compared to a desert or an ocean, which has no clear borders or demarcations. Movement across sedentary distributions of land is defined and designed through the use of borders and boundaries; where tracks, roads, walls and fences govern and secure the route of movement. In comparison, the nomadic order of distribution is void of borders or demarcation, where nomads are dispersed into an expanse to chart their own paths and define their own landmarks and nodes, natural or otherwise. In this essence, according to Deleuze and Guattari’s schematic, the idea associated with nationalism and identity as witnessed throughout the world, whether between India-Pakistan, Israel-Palestine or China-Nepal, is an example of sedentary distribution – where spatial instruments like borders govern social processes like mobility and interaction. In contrast, the 50 United States of America and the countries involved in the European Union, represent a more nomadic distribution of land, where every inhabitant’s relationship to place is provisional. This relationship may adapt and evolve over time, depending on the subject’s movement and interaction, where the relationship evolves from spatial to sociospatial and spatiotemporal. The proposition of nomadic distribution of space sheds new light on the concept of borders and territoriality, questioning the static ontology ascribed to it and instead recommending a provisional and adaptive terminology. Further study requires the understanding of the term “assemblage”, which can best be explained as a heterogeneous and open-ended grouping of elements, which helps explain how different sources and actors, may interact in a contingent and provisional manner. An assemblage can be observed to bring about any number of effects, ranging from aesthetic to machinic, from productive to destructive and so on. It can best be explained by Deleuze and Guattari stating:

“In a book, as in all things, there are lines of articulation or segmentarity, strata and territories; but also lines of flight, movements of deterritorialization and destratification. Comparative rates of flow on these lines produce phenomena of relative slowness and viscosity, or, on the contrary, of acceleration and rupture. All this, lines and measurable speeds constitutes an assemblage. A book is an assemblage of this kind, and as such is unattributable.” (Deleuze and Guattari, 1980, p.3)
Essentially a contingent grouping together of entities, the aforementioned “book”, represents a coming together of unconnected segments that are capable of producing any number of effects, as opposed to a coherent and defined whole generating one manner of reading. Since the assemblage operates in a provisional manner and lacks definite organization, it can bring together a variety of disparate elements, whether material or semiotic, while remaining open ended and heterogeneous.

Since an assemblage is more heterogeneous and contextually contingent, the border entity conveys different meanings to different observers, where depending on the context, different components may come together to form a specific assemblage. A given boundary may be perceived and interpreted in different manners, for instance, a boundary wall around a territory may signify an instrument of comfort and security for some, while being a symbol of political oppression for others. This represents a multidimensionality, where borders represent shifting and manifold sociospatial formations, which may be best understood through the study of assemblage.

The concept of assemblage grants more importance to processes and phenomena rather than form and structure. It is important to understand that processes are heterogeneous, contingent and emergent, without starting or finishing points. It refers to a continuous process of transformation, renovation and movement with regards to evolving relations and attributes; what Deleuze and Guattari have termed as territorialization. In simple terms, territorialisation is the process of organizing and defining a territory and through which an assemblage stabilizes and reinforces its identity. In contrast, deterritorialization refers to processes which decontextualize a set of relations, while at the same time representing new possibilities for grouping and assemblage.

In anthropology, it may refer to a weakening of ties between culture and place, where some cultural aspects may tend to transcend certain territories boundaries, while others do not. However, this is not construed as a degradation of culture and cultural practices, rather is denoted by the term reterritorialization which occurs immediately after, where culture and place are revised and reappropriated according to the evolved relation. Where deterritorialization disturbs established relations and challenges
existing norms, it also conveys “lines of flight”\textsuperscript{14}, which represent new possibilities of reterritorialization – essentially, deterritorialization simultaneously gives shape to a complementary reterritorialization. The states of deterritorialization and reterritorialization are contingent, relative and continuously in flux, causing continuous revisions between subject-place relations and requiring consistent coding and recoding. However, this is a positive attribute of territoriality which allows new possibilities of territorial formation and a revision of sociospatial and spatiotemporal norms.

It may initially appear that the concept of deterritorialization and reterritorialization promote a lack of spatial distinction, definition and complexity; in essence endorsing a borderless expanse of space. However, the manner in which Deleuze and Guattari use the term, refers to the complete opposite, where it facilitates new manners of bordering practices and promotes spatial complexity.\textsuperscript{15} New approaches to borders and bordering are the result of assembled and reassembled temporal and spatial frameworks, which include transformative processes for the revision of social and spatial orders. This leads to the process of bordering to be understood as an event of “becoming”, which can best be described as a process of change and movement within an assemblage, one which generates new manners of being without imitation or analogy to previously existent models. If, for example, an urban or national borders is revised and moved, the nationality of populations adjacent to the border will change accordingly, regardless of prior models of settlement. In this regard, the bordering phenomena does not merely exist inactively within or in between categories, rather actively participates in the organization and reorganization of territories and society.

In essence, the notions of nomadism, assemblage and territorialization shed new light on the concept of borders, rejecting the dialectic in favour of multiplicity and contextual contingency. To unveil the interlaced relations of power, territory, identity and so on, it is imperative to go beyond dialectic analogies of citizen-state, native-

\textsuperscript{14} Line of flight is a term, which designates the moment when a premeditated change happens, when a threshold between two paradigms is crossed.

\textsuperscript{15} The complete quotation as referred by Woodward and Jones (2005, p.240) is: Rather, deterritorialization and the heterogenesis it produces are processes that bring forth socio-spatial complexity that was disguised by the functional and categorical divisions of institutionalization. In this use of the concept, then, deterritorialization facilitates new, inventive forms of bordering.
migrant, inside-outside, in order to revise the core-periphery approach and substitute it with territory, territorality and territorialization. It is essential to notate, that borders can no longer be considered territorially bound; but are increasingly becoming non-local, transient and temporal, disregarding a coherent territorial logic, with the rise of the internet, mobile phones, CCTV and various surveillance systems. The evolving nature of borders can best be summed up by Etienne Balibar’s chapter on The Borders of Europe, where he states:

“Borders are being both multiplied and reduced in their localization and their function, they are being thinned out and doubled, becoming border zones, regions, or countries where one can reside and live… This in fact means that borders are no longer then shores of politics, but have indeed become… objects or, let us say more precisely, things within the space of the political itself.”16 (Balibar, 1998, p. 220)

As a result, borders can be observed as open ended, heterogeneous categories, which are contingently defined as processes of territory, identity, power, freedom, security and so on. They represent a limit between two territorial or social entities, acting as an instrument of separation and order, but also as an interface between different systems. Rather than considering borders as territorially fixed and static, it is imperative to study them as bordering practices, taking into account the processes of territorialization and the evolving paradigm of contingent sociospatial processes.

2.5 BORDERS AS SPATIAL INSTRUMENTS
Borders as an instrument to secure territorial interests has been a long accepted definition, evolving from metaphorical lines in the sand to international fences and multiplanar entities, used to define and separate core-periphery, urban-rural, private-public and so on. Aside from minor paradigmatic inconsistencies, the epistemological and empirical understanding of urban and non-urban has been evidently consistent due to the inside-outside dialectic binary function of borders; ranging from the Chicago school’s study of space in early 20th century, to neo-Marxist urban sociology and geography in the 1970s and on to the debates on globalization, urbanization and

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16 The complete quotation is as follows: “Borders are vacillating. This does not mean that they are disappearing. Less than ever is the contemporary world a 'world without borders'. On the contrary, borders are being both multiplied and reduced in their localization and their function, they are being thinned out and doubled, becoming border zones, regions, or countries where one can reside and live. The quantitative relation between "border" and "territory" is being inverted. This means that borders are becoming the object of protest and contestation as well as of an unremitting reinforcement, notably of their function of security. This in fact means that borders are no longer then shores of politics, but have indeed become - perhaps by way of the police, given that every border patrol is today an organ of "internal security" - objects or, let us say more precisely, things within the space of the political itself.”
sustainability from the 1990s onwards. However, the late 20th and early 21st century have seen urbanization being questioned and reconfigured, calling into question various inherent and inherited cartographies sustaining urban theory, while shedding light on sociospatial relationships, territoriality and place-making. It has become increasingly essential to put the concept of borders under scrutiny, to achieve new and pertinent understandings of space, place and territory.

The chapter briefly touches upon the concept of borders, endeavouring to achieve a relevant definition in the visceral, spatial and epistemological sense. With regards to the visceral and perceptual characteristics of borders, a brief study of Gestalt theory and the perception and reception of borders indicated that the perceiver aims to simplify and organize their perception of space, to achieve an implication of enclosure and to ensure simplicity and order. This target for order is apparent in man’s attempt to create a coherent structure in topography through the use of demarcation tools for the achievement of territoriality. When populations move from nomadic activity to settlement, the definition of territories act as a vital tool for ensuring residence, acquisition of resources and eventually labour – all of which adhere to human dimensions and functional convenience. Through the brief study of Ekistics theory, it can, hence, be observed that borders represent the outer boundaries of the human sensory scale, serving as the tool of defining optimal zones of activity and territories appropriate for the human scale. The only certain attribute to borders is that they represent a visceral and epistemological limit between two territorial or social entities, while maintaining a dialectical function of an instrument of separation and an interface for connection. However, analysing the concept of borders and subjecting them to poststructuralist scrutiny, leads to redefinition from borders to bordering practices; from territorially fixed and static entities to heterogeneous and contingent processes; and from a dialectical binary distribution to one subject to multiplicity and heteronomy.

In light of the study conducted in the chapter, it would bode well to enquire whether a new border epistemology is possible to define. Is it possible to resolve the aforementioned analyses into a coherent theory; to understand borders as tools of enclosure used to achieve sensory and functional convenience through
territorialisation, but at the same time rejecting the previously accepted dialectic function of binary oppositions in favour of more contingent, transient and temporal attributes? Can an epistemology be defined which rejects the static attributes of borders while accepting the provisional nature of bordering practices, and if so, how would these practices be understood and utilized? It would be beneficial to question whether new and alternative topologies are possible, which would be able to dissociate the concept of borders from the study of territoriality and place-making and focus primarily on borders as a spatiotemporal phenomenon. Going beyond the elemental mechanisms of division, exclusion, encounter and connection; it is becoming increasingly necessary to question the ontological multidimensionality of borders as pluridimensional spatial phenomenon, by asking the simplest questions: Who makes borders and how are they made? How does the practice of demarcation and territoriality establish and reproduce space? How do borders allow different social and political possibilities? How do borders change overtime and how do they enable transformation? Answering these questions, in light of the evolving concept of borders will lead us to consider new ontologies and aid in the attempt to identify an alternative epistemology. The foundations of urban studies must today be fundamentally revised, making it vital to define new theoretical categories through which to investigate the production and reproduction of sociospatial processes across scales and territories. The study of borders, territorialization and urbanization, requires the definition of a new conceptual lexicon, in order to code, recode and decipher currently emergent landscapes and to achieve an epistemology that is historically appropriate while remaining contextually contingent.
CHAPTER 3

BORDERS AND THE PRODUCTION OF TERRITORY

3.1 THE POLITICAL PROBLEMATIC

As seen in the previous chapter, there has been a resurgence in the study of borders, with researchers and practitioners endeavouring to achieve an evolving and relevant definition. The previous chapter highlighted brief studies into the perception, implementation and evolving understanding of borders – where the use of bordering practices is becoming increasingly suitable as a substitute for borders. The revised concept of borders subjected to poststructuralist scrutiny, detaches them from territorially fixed and static entities to heterogeneous and contingent processes; moving from a dialectical binary distribution to one subject to multiplicity\(^{17}\) and heteronomy. This chapter tackles the relation between Borders and Power, how borders relay power by defining the do’s and don’ts and define the power to integrate and segregate.

Some very useful questions were posited in the previous chapter, which merit detailed study into the evolving epistemology of what borders represent, attempting to resolve the analyses with coherent theoretical and spatiotemporal frameworks. It is essential to explore whether an epistemology can be defined which rejects the static attributes of borders while accepting the provisional nature of bordering practices and how it impacts territorialization and territorial practices.\(^{18}\) From the research conducted in the previous chapter, it is evident that borders play a significant role, in sociospatial phenomenon; most importantly impacting the production of space and territory. Borders must be approached as entities [or processes] which are not fixed or static,

\(^{17}\) The concept of multiplicity represents an alternative to the accepted notion of binary distribution. It posits indeterminate identities and transient characteristics ascribed to entities, leaving open infinite possibilities for revision and appropriation.

\(^{18}\) Territorial practices attribute the physical planes of state territory – which range from the external limits of borders, fences, walls and barriers, to large scale infrastructures which enable processes and flows. [Brenner & Elden: Page 26]
rather are a consistently evolving construct, intrinsic to territorial and urban growth. It is essential to understand and study what role borders play in the production of space, what significance do they have as political entities and how do they function in the political realm. Essentially, as a political entity, borders represent a limit and distinction between two territorial and social entities – engendering dichotomous notions such as us-them, inclusion-exclusion, inside-outside, permitted-forbidden and so on – while at the same time representing an interface between adjacent entities.

This chapter aims to understand borders in the paradigm of territorialization, politics and the production of space. The goal is to explore the central character of borders in securing and coding territory, highlighting the effect of borders on territory and territorialization. The research aims to explore the impact of the processes of territorialization-deterritorialization-reterritorialization – essentially, a revision of borders and bordering practices – on social and political activities. Changing borders is a manifestation of the processes of deterritorialization and reterritorialization, which leads to a revision of identity, territoriality and entity relations. It allows the disestablishment of prejudice and fixed perspectives, while providing the opportunity for new approaches and activities. More determinate borders prevent the opportunity for reterritorialization and hence strengthen already established social segregation giving shape to stagnated sociospatial processes. To explore this concept further, it is important to understand how space is produced and what role borders play in the production of territory and space.

The previous chapter saw the study of borders being elevated to a relevant and prevalent definition through the works of Deleuze and Guattari, who are integral to the understanding of borders and bordering practices as indeterminate sociospatial entities. However, their perspective of space and spatial activities is more along conceptual and theoretical lines - therefore, in order to ground their theoretical framework in concrete reality, it may be useful to juxtapose the work of Henri Lefebvre on the topic of territory and space. Lefebvre’s work trains its attention explicitly on both the symbolic and concrete aspects of space. His political analysis is quite similar to Deleuze and Guattari, highlighting the struggle of people to realize their own power and use it to manage their affairs for themselves, but he embeds his
analysis of political struggle explicitly in an analysis of space. Lefebvre applies a more general analysis of space to the city and urban space in particular. Essentially, we may read Lefebvre’s urban society as the manifestation of Deleuze and Guattari’s new land.

3.2 BORDERS AND THE PRODUCTION OF SPACE

Since the 1991 translation of his seminal work *The Production of Space*, Henri Lefebvre has been at the forefront of sociospatial theory, with his writings creating a lasting influence upon leading urban commentators and researchers. Lefebvre’s argument in The Production of Space is that space is a social product, or a complex social construction based on values, and the social production of meanings which affects spatial practices and perceptions. This argument implies the shift of perspective from space to processes of its production; embracing the multiplicity of spaces that are socially produced and made productive in social practices; and the focus on the contradictory, conflictual, and, ultimately, political character of the processes of space production.

Lefebvre suggests that after the consolidation of capitalism as a historical and geographical system, territory functions as the setting and medium for the manifestation of state activities at all scales (Brenner and Elden, 2009, p. 23) – suggesting that state action and territory are involved in an interdependent evolution, where one facilitates the other and vice versa. Urban studies are undergoing revision and transformation, shifting towards the analysis of sociospatial and spatiotemporal processes, requiring new strategies of research and analysis. It is vital to define new theoretical categories through which to investigate the production and reproduction of sociospatial processes across scales and territories – where to begin with it is essential to understand what territory implies in the political paradigm.

In contemporary terms, *territory* may be understood as an arrangement of spaces and their respective contents – deriving instruction and information from social and cultural activity. This indicates that territory maintains an interdependent relationship with culture, both developing mutually, rather than territory acting as a determinate platform for the manifestation of cultural practices. It is important to understand that territory, similar to state and space, is historic rather than determinate (Brenner and
Elden, 2009, p. 28) – it undergoes evolution and is exposed to processes of territorialization, where it is repeatedly revised and reorganized. Lefebvre was able to successfully bring state, space and territory together by defining relations between practice, representation and experience relating them historically and contemporarily. (Brenner and Elden, 2009, p. 28) The relational study holds true, since territory and space can no longer be understood as determinate entities – owing to the observation that they can construct, deconstruct and reconstruct – and can be politicized-depoliticized and functionalized-defunctionalized. (Raffestin, 2012, p.131)

Territory, then, is the result of the production of actors – synonymous with Lefebvre’s social space – connecting to the notion of “territoriality” which may be understood as a spatial strategy to influence, stimulate or control resources and people, through the control of territory. (Raffestin, 2012, p.126) From the perspective of a sociospatial and cultural instrument, territoriality represents a set of relations that finds its origins in a three-dimensional social space-time system – which includes processes linked to the sphere of production and culture, such as linguistics, morality, ethics, religion, spirituality and materiality. (Raffestin, 2012, p.125)

An additional term for study is the territorialization of space, which he claims forms the precondition for the emergence of “politics” in the modern sense. The constitution of modern nation-state through the invention of borders led to the transformation of virtually indefinite heterogeneous space into territories controlled by “monopolistic” state powers, renders it homogeneous. (Balibar, 2004, p. 191) This can be better understood if we employ a more general conception of territory, which includes institutions, power structures, culture, language, ethics, demographics, activities, duties and many more – in addition to spatial demarcation and allocation. To territorialize, then, would entail the ascribing of identities for collective subjects within structures of power. (Balibar, 2009, p. 191)

The continuous production and reproduction of territory, indicates that territory is in constant flux – always being produced and reproduced by the actions of the state and through political struggles – while simultaneously facilitating state operations and ongoing efforts to contest them. (Balibar, 2009, p. 191) The production of territories,
by means of existing territories, is an operation of creation and recreation of economic, cultural, social and political values – of which borders are an essential part. Critical study consistently questions the perception of territory and borders from material, moral and political perspectives, where territory is assumed to be pre-social and pre-political space. However, borders and territory are intrinsically political – not neutral or organic – functioning as historically and spatially contingent instruments which impact relationships of power. (Balibar, 2009, p. 191)

One may explore the impact of this research on the topic of borders and the production of space. Analysing borders indicates conducting an investigation into where borders are, why they are at a particular place and what that location reveals about the social, economic and political order. It is evidently clear through Lefebvre’s ground-breaking work that not only is space produced – but it is produced socially and is a manifestation of power relations between entities. His proposed distinction between perceived, conceived and lived dimensions of social space (Lefebvre, 1991, p. 38) may be successfully applied to the question of territory, in investigation of territorial practices and representations of territory.

Globalization has resulted in the generation of new territorialities, which constitute a substantial reallocation and appropriation of previously held relational systems, as a result proposing new constructed territories. By dividing people into nations, groups, classes; each with its own ontology and history; politics seeks to manage the divisions between entities – the divisions which are maintained by borders and bordering practices. Space, then, is political, and manages an interdependent relation with power. Lefebvre signifies the linkage between space and power when he states, “What space signifies is dos and don’ts — and this brings us back to power. Space lays down the law because it implies a certain order — and hence also a certain – disorder. Space commands bodies. This is its raison d’être.” (Lefebvre, 1991, p. 121) It may be sufficient to claim that political space is the abode of power, where the establishment of regulations and provisions – through the employment of borders and bordering practices – results in the exercise of power and control. It is imperative to understand the relation and distinction between “public space” and “political space”, where political space has an essential connection to public space, but it would be incorrect to
term them synonymous. A given political space becomes a public space, not only through the imposition of economic forces and mapping by sovereign powers, but also when it is used and instituted by civic practices, debates, forms of representations, and social conflicts. In essence, by definition, public spaces may be termed as political spaces – but not all political spaces may be understood as public spaces. (Balibar, 2009, p. 191)

3.3 BORDERS, SPACE AND POWER

Borders are a central instrument for the definition of state, since they function to decide the provisions of opportunity; mainly regarding inside and outside, friend and enemy, accepted or rejected. In Deleuzian study, one of the primary tasks of the State is to striate the space into territories by imposing divisions and distinctions, using it as a tool for communication, governance and order. The goal is to eradicate activities which are deemed nomadic, through the control of migration and establishment of sociospatial rights and regulations. It can be observed that the State operates through the capture of movement and though the partition of space in territories. It is able to do so successfully through the striating of space into hierarchical systems of relations, in turn, creating socio-political inequalities and harnessing the lines of flight and freedom. The establishment of a democratic form of governance, leads to the pursuit and acquisition of a territorial ideal, which even today is believed to be the primordial claim to sovereignty and governance. Democracy pertains to territorial governance being attributed to the inhabitants, to define methods of establishing a sovereignty in a given territory. The replacement of a monarchic sovereignty by a democratic state, results in even more emphasis placed on borders and the allocation of provisions and rights. As Balibar puts it, “the citizens ‘belong’ to the state, which, in turn, is their ‘property’, or ‘belongs’ to them in an exclusive manner” (Balibar, 2009, p. 191) implying that the state is a property owned by the people, yet at the same time it functions as a representative of the people’s rights and aids in the establishment of rules for governance.

Whether it is a successful mode of governance or not is a topic of debate, yet it is only with the rise of Europe to global predominance that the idea of a European territorial state became the global archetype. The European Union (EU) was officially defined
as a confederation of independent states, where each state carried its own territorial limits, while contributing to the establishment of common limits, in essence a common citizenship. In principle, the EU remains open to indefinite expansion without pre-established limits (Balibar, 2009, p. 193) nonetheless, the borders within the EU cannot be termed as simple boundary lines – rather they function as spatial instruments developed through the practices of an originally European model of territorial statehood. Lefebvre emphasizes that “modern states emerged from the mottled institutional landscapes inherited from precapitalist social formations in early modern Europe” (Lefebvre, 1991, p. 280) leading to the spread of a state-centred political economy and associating democracy with territorial citizenship.

The definition of territory through the employment of sharp borders used to distinguish ethnic and religious identities is a model that proved successful in Europe and America – yet, one which saw excessive political turmoil in the case of North Africa, South Asia and the Middle East. This is, in part, due to attempts to define a nationalist identity, a side-effect of the territorial nation-state – which has undergone constant reinvention due to mobilization and appropriation of national populations.

Figure 8: Europe before and After World War 1
http://www.bbc.co.uk/guides/zp3ncdm
The iron curtain during the Cold War, maintained a division between the communist East and the capitalist West, which should have disintegrated with the collapse of communism as a political regime. Instead, it gave rise to a North-South economic divide, separating the developing and underdeveloped countries. In the second decade of the 21st century, these divisions are increasingly evident, yet they are laden with uncertainties and ideological conflicts regarding the reterritorialization of public power and manifestation of order as a spatial system.

The fall of the Berlin wall was supposed to signal the advent of a more global and equally distributed freedom and democracy. However, it has become increasingly evident that instead of separating East and West, there is an intangible wall which now divides the rich capitalist North from the poor and devastated South. The physical damage caused by the first and second world wars was eventually repaired and paved the road for new developments in infrastructure and technology. However, the social reverberations of the wars and subsequent political turmoil resulted in battle lines being drawn between neighbouring states, whether it is India-Pakistan, Israel-Palestine, USA-Mexico, North African nation-states or Middle Eastern countries – manifested primarily through the definition and strengthening of bordering
instruments. The US-Mexican border, for example, disturbs historic migration and transport routes, with millions of family relations bisected by the border; while borders in the Middle East and North Africa represent culturally and historically dissociated definitions of space.¹⁹

Figure 10: The reterritorialization of Middle East after World War 1

When not managed properly, borders fail to enable or celebrate sociocultural differences, rather exacerbate the situation by strengthening segregation. Yet, the inherent instability of borders, the fact that it is an apparently determinate entity which can instantaneously become indeterminate and change, gives borders a symbolic significance in sociospatial activities. The case of the Middle East after World War 1, is a useful study in the revision of borders and reterritorialization. The early 1920s saw the fall of the Ottoman Empire and the emergence of the Republic of Turkey in 1923. However, that was not the only process of reterritorialization that took place, with the emergence of Syria, Iraq, Jordan, Lebanon and Palestine as new republic states. This revision of territoriality has been the source of contestation and contention in the Middle East for almost a century now, with the emergence of the Jewish state of Israel, tensions between Persian Shi’ite Muslims and Arab Sunni Muslims and many more.

¹⁹ The Somalia-Ethiopia border is contextually and culturally irrelevant, especially since there are over 4 million Somali residents in Ethiopia, while the border between Israel-Palestine undergoes political turmoil and mutation.
The problem in the establishment of new territorialisles is, the rejection of previously held sociospatial and spatiotemporal sensibilities – which theoretically may be resolved easily, but in practice take much longer. In addition, the processes of territorialization are not singular, mutually-exclusive phenomenon that occur in space. They are cumulative, contingent and recursive processes that occur in place – where place may be understood as lived or inhabited space – and have a recurring impact on subsequent processes. The dissolution of Russian, German and Austro-Hungarian Empires after World War 1, led to the emergence of new states, such as Germany, Austria, Hungary, Czechoslovakia, Yugoslavia and others. Yet, this division paved the way for subsequent division of Czechoslovakia into the states of Czech Republic and Slovakia, while the magnificent Russian Empire was transformed into the USSR and following the dissolution of Soviet States, divided into the states of Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Modern Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

As seen in Figure 10, the Soviet Union still harboured many of today’s independent states, by the end of World War 2, but the territorialization processes set into motion.
by the end of World War I would lead to a massive deterritorialization. This began by the formation of the *Eastern Bloc* – a name used by NATO-affiliated countries for the former communist states of Central and Eastern Europe.

Figure 12: Russia and Soviet Forces in 1949 – 1989
http://www.economist.com/blogs/graphicdetail/2014/03/daily-chart-15

Figure 13: Dissolution of Soviet Union in 1991
http://www.economist.com/blogs/graphicdetail/2014/03/daily-chart-15
Reaching the end of the 20\textsuperscript{th} century, the Soviet Union was under the pressure of internal and global forces, unable to sustain such a large territorial empire. This led to the dissolution of the USSR in 1991 and the subsequent formation of independent states, as noted above. Yet, while the territorial condition managed to continue for the last two decades, the activities taking place in Crimea and Ukraine in the last few years, indicate further territorialization processes taking place. This has led to the annexation of Crimea and its assimilation as a Russian territory – while the independent state of Ukraine is now undergoing civil war, divided between the decision to unite with Russia or sustain as an independent state. A similar case can be observed in the partition of the Indian subcontinent in 1947, when it was divided into the independent states of West Pakistan, India and East Pakistan. However, less than a year after its partition, India and West Pakistan became involved in their first war of 1948 on the border – followed by subsequent wars in 1965, 1971 and 1999.

Figure 14: Subcontinent before Partition  
http://defence.pk/threads/upholding-the-kashmir-cause.359574/
The forced deterritorialization failed to cause a successful reterritorialization, especially since the concerned demographic underwent forced migration and relocation. In addition, the establishment of East and West Pakistan was able to successfully sustain itself for a brief period of 24 years, where the war of 1971 led to the reestablishment of East Pakistan as the independent state of Bangladesh.

Figure 15: The reterritorialization of the Subcontinent in 1947 and 1971
http://news.bbc.co.uk/2/hi/in_depth/629/629/6922293.stm

The division between India and Pakistan led to the nearly 70 yearlong conflict between the neighbouring states on the topic of Kashmir Province – where the wars of 1965 and 1991 were attempts to invade and defend the divided territory of Kashmir.

Figure 16: Division of Punjab and Contestation of Kashmir Province
http://www.cliomuse.com/train-to-pakistan.html [edited by author]
The case of Kashmir is a prevalent matter between the two neighbouring nuclear powers, where the result of politically enforced processes of territorialization have failed to generate a cohesive urban and social structure. The divided province of Punjab is also a highly contested territory, with the Pakistani Punjab and India Punjab retaining sites and edifices of historical, religious and cultural significance, for members of all faiths. The Wah Gah border which connects the historic cities of Lahore and Amritsar, is an active and divisive crossing point, where a large number of people from both sides are denied entry into the neighbouring state.

While causing a negative side effect in some cases, it is evident that the transition from one territoriality to the subsequent other, propagates a revision and appropriation, where certain spatial and territorial constructs are abandoned in favour of new interventions. In a nutshell – this is the essence of territorialization. The territories of previous territorialities are unable to fulfil the requirements of new territorialities and territorial constructs – deteriorating in its condition, to be used as raw material for the construction of new territories. This is elaborated in the processes of deterritorialization and reterritorialization – where either a space is immediately available for the intervention of new sociospatial processes – or an available territory is recycled to meet the requirements. In many cases, especially in the case of longstanding metropolises, different processes of territorialization take place at different periods of time – resulting different territories originating from different territorialities, leading to a mosaic-like geographic form – a collage city. (Rowe & Koetter, 1978)

Identities or self-definitions are inherently territorial, based on kinships that bind entities together through adjacency and proximity. Through the development of settlements, identities have been borne out of kinship and the formation of social clusters, which have been defined and redefined repeatedly through the employment of borders and bordering practices. An additionally useful 20th century example of identity revision is the implication which the new Turkish Republic had on the already resident Turkish population – in terms of social, cultural and political identities. The establishment of the new territory of the Turkish Republic under the command of Mustafa Kamal Ataturk, endeavoured to define new sociocultural practices, aiming to
dissociate with the previously held narratives of the Ottoman empire and move towards a 20th century Modern republic. The revision of territory set into motion a revision of religious practices, social etiquette, gender roles, local and international perspectives and socio-political goals. It would appear that the reterritorialization of the Ottoman Empire, gave shape to an abstract space, which facilitated the preparation and development of a new spatiotemporal modus operandi. Abstract space, as Lefebvre states, appears to be homogeneous and devoid of differences, in contrast to absolute spaces of precapitalist social formations, which were primarily organized with regards to political and religious differentiations. (Lefebvre, 1991, p. 285) In essence, abstract space may refer to a territorial transition period between deterritorialization and reterritorialization – where the space destroys its own historical conditions and internal difference in order to impose an abstract homogeneity.20

3.4 CODING BORDERS AND TERRITORIAL SYNTAX

There has been substantial evolution in the understanding of borders as a tool for spatial organization, however, initially, they were understood simply as boundary lines between territories, whose existence was considered determinate and geographically justified. Eventually, this understanding was developing into ascribing certain socioeconomic functions to borders, with regards to definition of territory, binary logic of opportunities and social segregation. Recently, however, new literature has attributed new properties and purpose to borders, elaborating them as social and territorial constructs, playing an important role in the development of social, territorial and national identity. (Agnew, 2008, p. 3)

It is important to highlight that, although borders may retain the coding mechanism for achieving territorial processes, they too are historic spatial instruments and undergo evolution and growth. They may be understood as artefacts of previous territorial formations which undergo reterritorialization – in some cases leaving borders as residual urban phenomena. (Agnew, 2008, p.2) The observation of borders existing as residual phenomena is a useful addition to the prevalent definition, emphasizing the

20 Lefebvre describes the function of abstract space as one which, “destroys its (historical) conditions, its own (internal) differences, and any (emergent) differences, in order to impose an abstract homogeneity. In this way, abstract space permits continuous, rational economic calculation in the spheres of production and exchange, as well as comprehensive, encompassing control in the realm of statecraft.” [Lefebvre (1991) p. 370]
geographic and historic attributes of borders and bordering practices – rather than merely accepting them as determinate entities. Indeed, it is possible that long after the provision of new borders and territories, the urban tissue retains remnants of residual bordering practices – since, borders are complex human creations and sociospatial instruments, terming them as processes rather than determinate forms.

In this essence, borders represent an indeterminate and contingent spatiotemporal phenomenon, one which implies a dialectic function of separation and integration, while remaining open to various other manifestations. Indeed, what may constitute a border to some people, may represent a gateway to others and a barrier to others – indicating a user-based appropriation. A proposed shift of emphasis from borders to bordering processes or bordering practices, leads to new complexities and perspectives in the study of borders, putting focus on the processes of bordering, de-bordering and re-bordering, etc. This shift from a noun to a verb indicates a philosophical, theoretical and epistemological change, moving from fixed patterns towards a recursively evolving manifestation and requiring new approaches to studying borders as social instruments.

The perspective of borders being substituted by bordering practices, supports a spatial understanding leaning towards indeterminate and dynamic forces, rather than fixed form. This represents an epistemological revision of entity and identity, where it is possible that the dialectic function of borders is no longer valid – where the binary distribution of inside-outside and interior-exterior is invalid – instead representing occurrences in the dynamic processes of a cosmic whole. (Parker, 2009, p. 27) This arrangement posits the absence of a definitive inside and definitive outside, rather a generalized differentiated space – a gradation of the effects of inside and outside. (Bennington, 1995, p. 186) Borders, then, may be characterized as indeterminate processes, which represent the abstract space of achieving territorial and social order through the interaction of adjacent spaces. This claim advocates the study of entities from a relational perspective, focusing on the generation of identity through dynamic interaction rather than fixed form. With regards to space and territory, such an approach suggests consistent and recursive deterritorialization and reterritorialization, where territory is repeatedly appropriated and revised with regards to respective
adjacent spaces. In essence, with spaces undergoing processes of territorialization, the shared zone of negotiation and appropriation would take place at the territorial borders, embedding an indeterminate characteristic in the genetic makeup of territory.\(^{21}\)

This attribute of indeterminacy is one that is central to the employment of borders and bordering practices, where borders are understood as an interface or transitory zone between entities. The transit between creates a short-lived transitional reality – which accommodates and juxtaposes incongruous moments in a shifting sense of time and place – in essence similar to the aforementioned abstract space elaborated by Lefebvre.

The generic understanding of borders appears to be too inflexible as a concept for distinction between entities – invoking differences, separation, control, power relations – highlighting the necessity for discriminating identities and entities in a more flexible manner. This may be possible through the employment of bordering practices – rather than borders – which represent a determinate zone of interaction between infinitely indeterminate entities. The attributes of bordering practices, are ones that this research posits should substitute the prevalent concept of borders – making them indeterminate, non-divisive, interactive platforms and spatiotemporally facilitating.

Bordering practices are not traditionally territorial in the sense of being inscribed upon the surface of the earth and need not represent a space of confrontation between identities – rather they may represent zones where identities may interact with each other in a continuous myriad of activities – yet one void of hostility and negation. The proposition is to observe identities engaged in a competitive-collaborative activities that subsequently become integrated within and between the respective identities. The outcome, is akin to the nature of identity i.e. provisional, especially since the activities function on the basis of transient setting and resetting of identities – akin to the processes of territorialization.

\(^{21}\) The new evolving definition of borders exhibits certain parallels with the concepts of Thirdspace by Edward Soja and Heterotopia by Michel Foucault, especially since the prevalent literature advocates the indeterminate and socially-focused attributes of borders. Putting it briefly, thirdspace and heterotopia lie along the same lines of Lefebvre’s lived space, which focuses on socially produced spaces – offering infinite possibilities for organization. They represent a particular manner of interpreting socially produced space – borne out of the parallels drawn between the conventional studies of space and new sociospatial and spatiotemporal perspectives. According to Soja, this posits the existence of a sociospatial dialectic where spatial relations, social forms and processes were all mutually constitutive. Parallelled by Lefebvre’s triad of perceived-conceived-lived and Foucault’s heterotopology; thirdspace proposes a critique of the binary logic that has dominated traditional ways of thinking about space and geography, essentially indicating a new approach to borders and bordering processes.
3.5 INDETERMINATE BORDERING ZONES

Borders serve a great number of vital socio-political functions, the primordial one being the separation of institutional and services – essentially, defining who is eligible and who is not. Eligibility is a useful term in the study of borders, since territorial restrictions on eligibility invokes contractual obligations on individuals, which give shape to the infrastructural power and autonomy of the state. (Agnew, 2008, p. 4) Eligibility ties into governance and mobility, where the State uses borders and bordering instruments for the striation of space and the control of individual mobility and freedom. In this regard, it is important to explore how the study of borders and bordering practices as indeterminate, non-divisive instruments, impacts territory and territorial practices in political terms. In essence, territorial social formations may be said to represent the root of all identities (Crowley, 2005) and the presence of an indeterminate, transitory space between territorial entities would undoubtedly impact the sociocultural identities of the inhabitants. Rather than focusing completely on fixed and established identities and definitions, the bordering practice may acquire qualities through relations between entities – yet qualities which can be amended, abandoned, manipulated or even replaced.

In this essence, the “indeterminate bordering practice”, allows the acquisition, revision and loss of identities – allowing a recursive process of deterritorialization and reterritorialization. These processes prevent the establishment of determinate perspectives and sociocultural norms, increasing the opportunities for accessibility and cross-border interaction, while decreasing the State’s power of striating space and imposing control. The aim of the conducted analysis is to propose a shift from previously held spatial narratives of determinate planning towards a sociospatial perspective, by placing the user at the centre of the production of space – terming the user the co-author and co-creator in the production of space and place. (Hill, 2003, p. 62) This indicates that an alternative design strategy needs to be formulated, which takes into account how inhabitants use and re-use the urban space - helping understand the implications of borders and bordering practices, with regards to newly established definitions and ontologies.
Moreover, the study conducted in the research posits an acceptance of a dialectically inclined attribute associated with borders as an intrinsic characteristic. Yet, owing to the transient and contingent nature of borders and bordering practices espoused throughout the research, the dialectic nature need not be construed in a negative manner – since the resulting discriminations are indeterminate. These discriminations arise between and within entities throughout political processes, stemming from contestations between identities and characteristics. Yet, owing to the indeterminate nature of bordering practices, the identities are transient and may shift over time, allowing a revision and appropriation of established norms and preventing the establishment of determinate bias.

Yet, it is increasingly necessary to explore how borders as political instruments, function on an urban scale – and the impact of borders on urbanism, urbanization and the urbanite. The relationship between the urban inhabitant or urbanite and the urban condition or urbanism, may be termed as a mutually dependent symbiotic relationship. Urbanisation in essence, can be considered the urbanite’s response to the stimuli inculcated through Urbanism, where the city and the citizen can both be considered active entities, which are bound to interact with each other engaged in a political contestation leading to sociospatial practices. The citizen, then, is a social practitioner, actively participating in the production and reproduction of space – where the urban processes are not bound by form, but by activity. The city, then, can be understood as an engine for capital accumulation – a site for contestation. It harbours within itself, an ontological paradox; it is cyclic, since it arranges the circumstances for the establishment of capitalism and subsequently provides opportunities for the praxis of its disestablishment. The establishment-disestablishment-reestablishment relation, exhibits parallels with the processes of territorialization – yet, a territorialization that is manifested as a phenomenon of capitalism.

The spatial and socioeconomic system of capitalism is a value-based system of governance – indicating that value is immanent to capitalism – hence demarcations and discrepancies are immanent within urban society. The mode of capitalism is produced and reproduced in the superstructure of ideological institutions, which are manifested in the urban structure through spatial phenomenon. The city, in this
essence, is not only a reproductive, but more so a productive instrument – producing space and spatial practices. This production and reproduction of space, gives rise to the subsequent cycles of capitalism, where fictitious capital is produced and used as a process of money-begetting-money. This leads to rising property prices and higher land value; where land was once seen as a source of production, the move from industrial to post-industrial capitalism after the 1970s, saw that very land being traded as a commodity for rent and lending. The immanent discrepancy in the urban society is not resolved, but heightened through the processes of capitalist reproduction, which distinguishes and differentiates the demographic on the basis of socioeconomic status.

This process of destruction of the old and reconstruction of a new environment is consciously implemented under the guise of globalization and development, where capitalism has creatively destroyed heritage, everyday life and habitual lineage by transforming the urban system. A territorialization which is a manifestation of capitalist motivations, fails to generate a successful new urbanism – specifically because it is a territorialization based on value and social discrimination. The result of such processes, is what the German urbanist George Simmel has termed the “blasé attitude” – where the citizen is detached from the city and the urbanite is dissociated from the urban processes. While the metropolitan spirit of an urban metropolis may function as a source of sustenance – which shapes and nourishes the urbanite in a heuristic manner – the blasé attitude of the urbanite leaves the citizens in a desensitized psycho-emotional stupor, strengthened by recursive capitalist territorialization.

Yet it is essential to study how such processes of territorialization manifest on the scale of cities – through the study of urbanism and urbanization activities. It is useful, even more so, because while territorial processes between nations imbues a political and geographic identity, the effect of urban territoriality on social identity is much more refined and discernible. A beginning point of study may be to understand how varying city formations and urban patterns impact territory and territoriality – which as a result affect territorialization and social identity. While emergent territories throughout history have led to integrated and multifarious community structures, the study of planned cities and the impact on territoriality and identity is a beneficial point of study.
CHAPTER 4

BORDERS AND TERRITORIALIZATION: A CASE STUDY

As seen in the previous chapter, the indeterminate nature of bordering practices, results in recursive processes of territorialization, allowing a revision and appropriation of established norms and preventing the establishment of determinate bias. As studied in Chapter 2, borders have played a central role since ancient civilizations, in the establishment of order and the definition of settlements. Ranging from the definition of land parcels in agrarian civilizations to the establishment of residential and commercial zones in developing city settlements, borders have been used by planners as an instrument of demarcation and governance. It would hence be beneficial to conduct research into the case of planned cities, in essence, studying the employment of bordering instruments in the establishment and governance of the city.

4.1. A BRIEF REVIEW OF PLANNED CITIES

The planning of cities is a practice that dates back to ancient civilizations in eastern and western history – where in the West, the Hippodamian layout for Miletus set the precedent for gridiron planning; the East witnessed orthogonal and rectilinear arrangement of forms in Mohenjo-Daro and Harappa. To this day, the planning of cities and urban regions is a highly political and time consuming activity, bringing together a myriad of public and private sectors in order to achieve a successful design – with the goal to create and maintain a higher standard of living conditions and achieve the betterment of society. Brasilia represents a successful manifestation of such ideas, a perfect balance between the political power exercised by President Juscelino Kubitschek de Oliveira and the architectural brilliance of the late Oscar Niemeyer. In the 20th century, African and Asian countries exhibited a trend of transferring coastal capital cities to more geostrategic and planned central locations – seeing the transfer of Lagos to Abuja, Almaty to Astana and most recently from Yangon to Naypyitaw – a trend that is historic and yet relevant.
The transfer of political centres in Asia also saw the relocation of Calcutta to New Delhi as the seat of political power and the post-independence movement from Karachi to Islamabad as the newly-planned centre of politics and commerce. Planned cities have the primary advantage of achieving spatial conditions which may allow social integration – provided that the zoning and allocation of functions and land-use is conducive for its achievement. Studying successful examples of planned cities which have encouraged social integration, such as, Canberra, Brasilia, Curitiba and even Baghdad, indicate that even though the cities are planned urban initiatives, there is an acceptable amount of tolerance with regards to adjustment of the urban layout. This ties into the topics of borders and territorialization – where tolerant or adjustable borders allow the opportunity for deterritorialization and reterritorialization – indicating a revision of spatiotemporal norms and allowing a revision of sociospatial practices.

The minor case study aims to examine the social integration and sociospatial relations in two major South Asian planned capital cities, in order to explore the impact of rigid planning as compared to a more adjustable layout. Islamabad, in this case, exhibits a blatant gridiron plan which has not only existed since its conception, but strengthened repeatedly by development of road networks and specific sectors. According to the study of borders and territorialization, this research posits that such rigidity in urban planning, inhibits the opportunity for reterritorialization and as a result engenders sociospatial discrepancies in the urban layout. On the other hand, although New Delhi exhibits a well-defined and implemented city layout, the provision of adjustment and lack of rigidity in the urban structure, has allowed the capital to undergo repeated processes of territorialization and retains a more socially integrated demographic.

At first glance, both capital cities of Islamabad and New Delhi seem to function on different planes and retain distinct origins. A most significant difference is that, while New Delhi is a late-colonial city planned during the British rule of India, Islamabad is clearly a post-colonial city designed to cement the independent status of Pakistan. In addition, the Delhi metropolitan region is considered among the top most populated regions, behind Tokyo and Mumbai; while the Islamabad-Rawalpindi region is the abode of a much smaller population. However, this is the extent of the differences
between both capital cities – and more similarities are revealed with closer scrutiny. Both cities were established as the sites of new capital cities in order to establish and cement a geostrategic advantage to governance – the capital was shifted from Calcutta to New Delhi, while in Pakistan the seat of power was moved from Karachi to Islamabad. Both cities were facilitated and consistently supported by the presence of historical cities in their proximity; New Delhi derived sufficient resources from the historically important city of Delhi, while Islamabad drew support from the Buddhist Gakkhar city of Rawalpindi – where both ancient cities of Delhi and Rawalpindi date as far back as 1000 BC. In addition, Islamabad and New Delhi are small capital centres embedded in larger capital territories; namely, the ICT or Islamabad Capital Territory nearing 1000 km$^2$ total area and the NCT or National Capital Territory of Delhi which is around 1400 km$^2$ in total area. Both territorial zones are divided into districts, zones and sectors – where NCT is divided into 11 districts, the ICT is divided into 8 administrative zones and 5 urban zones. Finally, both cities have a similar demographic, primarily dominated by Punjabi settlers during the subcontinent partition, but also the abode of migrants from around the country – giving shape to a culture of integrated diversity, yet also the negative side effect of ethnic and religious segregation.

4.2 THE CAPITAL OF PAKISTAN: ISLAMABAD

Islamabad is one of the examples of modern urban planning undertaken shortly after the formation of the new state of Pakistan to serve as its capital city. The planned capital is located in the Potohar Plateau in the north-eastern part of the country, within the Islamabad Capital Territory at the foot of the Margalla Hills. The region has historically been a part of the crossroads of Punjab and Khyber Pakhtunkhwa with the Margalla Pass acting as the gateway between the two regions. It is located within the Islamabad Capital Territory, with a population around 2 million and together with its neighbouring twin city of Rawalpindi, the greater Islamabad-Rawalpindi metropolitan area is the third largest in Pakistan with a population of over 4.5 million inhabitants. Looking at sheer numbers, Islamabad can be regarded as a successful model of urban development. Half a century after its inception and the implementation of the plan the city has grown tremendously, occupying more space than assigned in the original plan. The northeast of the potential metropolis leads to the hill station
of Murree, and to the north lies the Haripur District of Khyber Pakhtunkhwa. Kahuta lies on the southeast, Taxila, Wah Cantt, and Attock District to the northwest, Gujar Khan, Rawat, and Mandrah on the southeast, and the metropolis of Rawalpindi to the south and southwest.

The modern capital and the ancient Gakhar city of Rawalpindi stand side by side and are commonly referred to as the Twin Cities, where no exact boundary exists between the two cities. Islamabad is the hub all the governmental activities while Rawalpindi is the centre of all industrial, commercial, and military activities. The two cities are considered sister cities and are highly interdependent. The Master Plan for Islamabad was prepared in 1960 by considering Islamabad as a part of a large metropolitan area.

Figure 17: Masterplan of Islamabad and Rawalpindi
by integrating the city of Rawalpindi as a twin city. These two cities were considered highly dependent to each other in overall urban development. From the last two decades, the economic growth of twin cities accelerated due to development of private housing schemes, however, physically integrated but institutionally disintegrated cities could not match the pace of rapid urban development. Islamabad Capital Territory is divided into eight zones: Administrative Zone, Commercial District, Educational Sector, Industrial Sector, Diplomatic Enclave, Residential Areas, Rural Areas and Green Area. Islamabad city is divided into five major zones: Zone I, Zone II, Zone III, Zone IV, and Zone V. Out of these, Zone IV is the largest in area. Zone I consists mainly of all the developed residential sectors while Zone II consists of the underdeveloped residential sectors. Each residential sector is identified by a letter of the alphabet and a number, and covers an area of approximately 2 km × 2 km. The sectors are lettered from A to I, and each sector is divided into four numbered sub-sectors. Sectors A - C are undeveloped with stringent focus being paid towards the development of Sector D12, due to its economically beneficial location.

Figure 18: Masterplan of Islamabad Zone 1
http://manahilestate.com/maps/#sthash.ToS73ebp.dpbf

Different planning and institutional arrangements were set up to develop urban areas in the twin cities, a disintegration which caused a great deal of problems, including urban transport and housing are the most notable one.
Additionally, the sectors of E8, E9 and E10 contain the headquarters of the armed forces and respective associated universities. The F and G series contain the most developed sectors, with F5 being an important hub for the software industry, containing two technology parks. The G sector also contains important governmental and religious centres such as the Jinnah Convention Center, Serena Hotel, Red Mosque and the Pakistan Institute of Medical Sciences. The H sectors are the abode of educational and health institutions, while the I sectors function as heavily industrial zones. Zone III consists primarily of the Margalla Hills and Margalla Hills National Park, in addition to the Rawal Lake. Zone IV and V consist of Islamabad Park, and rural areas of the city, where the Soan River flows through.
After its conception in the second half of the 20th century, the city has seen a fair share of development and growth in infrastructure, while maintaining the original gridiron Masterplan. The development of arterial roads into the 16km long East-West Margalla Avenue, Zero-point Interchange, Jinnah-Faisal Avenue Interchange, Faisal Avenue and the 28 km long North-South Islamabad Highway, has led to substantial increase in trade, transport and urban diaspora, with an emphasis on suburban living and commuting. The development in infrastructure has led to a boom in construction and real estate, facilitating the erection of various architectural projects, including the 110m high Centaurus mixed-use complex, with ample office space, residential units, 5-star hotel and a four-storey mall containing over 200 shops; the Giga World Trade Center in Islamabad’s Defence Housing Authority (DHA); and the newly completed Islamabad Safa Gold Mall. Additionally, the boom in real estate and construction is running in tandem with the development of transport facilities, including the new Islamabad International Airport in Fateh Jang, the 22km long Rawalpindi-Islamabad Bus Rapid Transit Metrobus and the soon to begin mass transit rail system connecting Rawalpindi and Islamabad.

Figure 20: Blue Area, Islamabad’s Central Business District and Economic Divide
https://www.facebook.com/sheraliphotography

Bearing the scale of development in mind, it would imply that Islamabad is functioning as a successful model of a 20th century planned capital city – balancing and integrating
administrative, commercial and recreational functions. However, the city has been unable to tackle pertinent issues regarding population, housing and energy – owing as much to its governing system as to its planning layout.

4.2.1 HISTORY OF THE CAPITAL

When Pakistan gained Independence in 1947, Karachi was its first capital. Traditionally, development in Pakistan was focused on the colonial centre of Karachi, while the new President Ayub Khan wanted it to be distributed equally. Moreover, Karachi was located at one end of the country, making it vulnerable to attacks from the Arabian Sea. It was considered pertinent to locate the new capital where it could be dissociated from the business and commercial activity of Karachi and yet be easily accessible from different parts of the country. A commission was accordingly set in motion in 1958, entrusted with the task of selecting a suitable site for the new capital with a particular emphasis on location, climate, logistics and defence requirements, aesthetics, and scenic and natural beauty.

![Islamabad Aerial View before Construction](http://www.cda.gov.pk/about_islamabad/history/)

After extensive research, feasibility studies and a thorough review of various sites, the commission recommended the area North East of the historic garrison city of Rawalpindi. At the same time Dhaka became the capital of East Pakistan, expressing Pakistan’s desire to adapt to the new situation of a bi-territorial sovereign state and its interest in the internal development of its remote provinces. Pakistan and hence Islamabad drew considerable initial attention owing to Pakistan’s then status as a “model developing country” (Pfeffer, 1967) Many factors influenced the decision regarding the location of Islamabad, such as transportation and communications, factors of national interest, defence, economic factors, civic factors, existing facilities,
etc. The nearby existing city of Rawalpindi would offer Islamabad considerable aid in facilities and initial housing needs, while the Chaklala airport of Rawalpindi will help air transportations, the Rawal dam will secure water supply, the existing railroad and highway connections will serve communication needs. (Doxiadis, 1960, p. 7)

In September 1959, the government of Pakistan decided to establish the Federal Capital Commission for the preparation of the master plan and programme of the new capital. The contract was awarded to Doxiadis Associates, one of the world’s leading planning consultancies that had built its reputation on concepts such as ekistics (the science of human settlement) and dynapolis in the search for the “City of the Future” (Mahsud, 2001). The idea of a replicable urban and housing model arose from Doxiadis’ vision that a universal city system – what we would now call a global system – would fuse to form an urban network, the Ecumenopolis, and all parts of the earth would thus interrelate. Doxiadis demonstrated that the creation of Islamabad is more economical rather than investing on Karachi for functional use as a capital, justifying his approach by calculating per square foot expenditure for creation of Islamabad and for existing capital of Karachi. He said of Karachi, “The layout and structure of the existing port city did not allow it to take on the functions of a modern capital. On the other hand, the influx of refugees intensified the existing problems and created new ones.” (Doxiadis, 1960) The site of the capital city was selected by highlighting nearby centres of gravity and activity, such as the Grand Trunk Road, the Margalla Hills range and the ancient Gakhar city of Rawalpindi, which provided access to existing transport networks, supplying labour for the development and accommodating early inhabitants and offices for Islamabad.

On May 24th, 1960 the preliminary master Plan of Islamabad and the planning principles that will make this capital a model for "A City of the Future", were presented to the Cabinet and approved by H.E. the President of Pakistan. To implement the Master Plan, the National Capital Commission was dissolved and replaced by the Capital Development Authority (CDA) in 1960. CDA was assigned a strong power to plan, implement and control the development of national capital and its wider area of influence. The greater area of the capital, the metropolitan area, has been planned for a future population of about 2,500,000 inhabitants within a period of two generations.
Even today, the CDA is maintaining and developing housing and commercial complexes, keeping or breaking infrastructure promises made in the early phase, adapting the concept to modern requirements: all these tasks present as great a challenge as achieving acceptable levels of hygiene, adequate provision of drinking water, and reliable waste disposal to stabilise the capital city's environment. The original Master Plan of Metropolitan Islamabad was based on the principles of the “dynapolis” – dynamic metropolis comprised of Islamabad, Rawalpindi and National Park. It was proposed that Islamabad and Rawalpindi will expand dynamically towards southwest along with their centre cores with least possible adverse effects in traffic. (Frantzeskakis, 1995, p. 237)

The city was conceived into grid-iron patterns developed into 2 kilometres by 2 kilometres sectors segregated by the hierarchy of wide principal roads. The sectors were used for distinct land uses such as residential, educational, commercial and administrative. Housing was provided in grid-iron pattern sectors on disciplined hierarchy of communities according to their income groups, yet a cohesive unity was achieved through the arrangement of communities clustered around an enlarged shopping centre. According to Doxiadis, a coherent unity of scale was an important principle employed to achieve a cohesion between the various elements of the town, where he states, “The city is not a conglomeration of isolated and unrelated spaces, but one entity of interrelated spaces.” (Doxiadis, 1960, p. 10) The whole metropolitan area is sub-divided into sectors, called Communities Class V, each for about 20,000-40,000 people, resulted from the adoption of a pattern of principal roads placed 2,200 yards apart in a grid formation. This formed a modulus in the town and facilitated a unified scale for the whole metropolitan area.

4.2.2 PLANNING THE CITY
Doxiadis envisaged an urban environment – a dynamic metropolis or dynapolis – that would experience endless growth manifested by continuous expansion and high urban density. He stated the primary function of any capital city to be for it to represent itself as an administrative centre for the country. He elaborated the administrative functions of the capital as being “Administration on a national level; cultural services physically or symbolically connected with the country's administration, such as a national
museum or a national library; Special non-governmental institutions of national importance, such as banks, welfare organizations, etc. and the diplomatic representation of foreign countries.” (Doxiadis, 1960, p. 17) He designed Islamabad as a series of square sectors set parallel to the city’s backbone – the main axis, Jinnah Avenue, beginning from the Presidential Palace and extending southwest, lined by the commercial centre. The first four sectors G6, G7, F6 and F7 were designed at the eastern top of the backbone and form the nucleus of residential and functional development. The urban form was arranged to facilitate two central functions; providing civic, commercial and recreational services to the inhabitants; and to represent capital-city administrative functions.

Doxiadis proposed the placement of functions geared towards the public in more central locations of the Masterplan, while he supported the arrangement of capital-city functions along the foothills of the Margalla range in an elongated arrangement. He elaborated this proposition by stating:

“The administrative sector is developed in an elongated synthesis. In this way communication between the various administration services can be carried out in a rational manner, whereas at the same time possibilities for future development of the city towards a predetermined expansion area are maintained, in accordance with the principles of the dynamically expanding city of dynapolis.” (Doxiadis, 1960, p. 7)

On the basis of the theory and principles of dynapolis, the Capitol complex was placed at the heart of the synthesis between administrative and civic functions, where the city would “emanate” from and expand further.

Each sector (Community Class V) of Islamabad is self-contained and self-supported with respect to everyday life. It is sub-divided into three or four smaller Communities (Class IV) by income groups of occupants. In the centre of the sector is the allocated civic centre or markaz, containing all types of shopping, business and civic activities. Adequate space has been provided for buildings serving certain functions at various levels, in accordance with the number of people served by these buildings. In each sector there is space for three or four secondary schools, three or four primary schools for smaller community areas and a kindergarten or children's playground in immediate vicinity of residences. The same hierarchical planning of spaces of several sizes is
provided for functions such as health, recreation, sports activities, which best serves the inhabitants of each sector and with manageable transport opportunities. Locating the civic spaces in proximity to residences in a variety of scales allows the formation of smaller clusters, which come together to form bigger clusters – a classification deeply embedded in Doxiadis’ Masterplan. With regards to residential plots, most plot sizes range from 111 sq. yards to about 3,000 sq. yards, depending on income group. Most plots were rectangular in shape, with emphasis given to managing an equivalent frontage between the varying plot sizes. As a general rule, all houses were provided with at least two rooms and a kitchen, water closet and a shower room. Sufficient space was provided for outdoor living, while each house had closed, semi-covered and open living spaces, which proved to be successful regarding the climatic conditions.

Three decades after the commencement and establishment of Islamabad, a government commission was launched to investigate the conditions of housing and buildings – beginning with the G6 sector – which set into motion the never-ending debates regarding deteriorating infrastructure and construction standards. Kreutzmann states the commission’s report and highlights an irregularity in the allocation and occupancy of property when stating, “Government housing occupies 59% of available residential land, and private housing 41%.” (Kreutzmann, 2013, p. 135) He goes on to state that, 19% of the 837 private dwelling units are wrongfully occupied, whereas, in the 3,610

![Fig. 22 Primary Sectors of Islamabad](http://edoc.hu-berlin.de/suedasien/band-3/135/PDF/135.pdf)
government units the percentage is much lower at 15%. Nonetheless, the deteriorating conditions and lack of available housing led to the approval of a redevelopment plan for the G6 sector; where, the development authority focused more on constructing habitable space and less on quality standards. In stark contrast to Doxiadis’ physiognomic perspective and functional criteria, the development added further storeys to existing structures going up to eight storeys high, proposing a mixture of housing, trade and services.

The redevelopment led to a revision of Doxiadis’ eleven class system of property allocation – now reduced to three classes on a new five class scale. The new plan proposed; 4208 units of 77 m² Class V houses, 3684 units of 111 m² Class IV houses and 1650 units of 149 m² Class III houses. According to Kreutzmann, 95% of all public housing was abolished due to the new classification proposed, where the Class V houses corresponded to Category F houses by Doxiadis. (Kreutzmann, 2013, p. 135)

The new development was also conducted, in part, to attract more investors interested in building private apartment blocks and utilize unused spaces at the sector margins. No change was suggested to the basic pattern of subdividing sectors into communities with different hierarchies of function. The existing road systems were strengthened by
wider roads and improved access to all residential areas to meet changing requirements. The planning concepts such as the ones proposed for the redevelopment of G6 sector ended up dominating the development of new sectors, which were increasingly unlikely to meet the increasing demand for affordable housing, resulting in a deviation from Doxiadis’ vision of Islamabad and the expanding gridiron dynapolis.

By the 1990s, it became increasingly evident that the original Masterplan failed to cater to the housing needs of a large proportion of population, where the sectors had been unable to meet the growing demand of the population. It was proposed that at least two Zones of the Islamabad Capital Territory, should be reserved for private sector to meet the growing demand for housing provision. Under the Islamabad Capital Territory Zoning Regulation 1992, Zone 2 and 5 was reserved for private housing development in Islamabad. In Zone 2, private sector was allowed to acquire land and develop residential schemes in accordance with the rigid grid-iron pattern residential sectors as planned in Zone 1, while in Zone 5, private sector were given the opportunity
to develop housing scheme according to the acquired area of any shape. The CDA was responsible for the approval of the detailed lay-out plan according to their specified standards, while the real estate developers was responsible for providing independent accesses, water supply and primary sewerage treatment systems to their housing schemes. By 2006, many housing schemes were implemented in Zone 2 and Zone 5, of which the Bahria Town housing scheme has proven to be most successful. A completely private housing scheme located in Zone 5, 15km away from the main Zero Point Interchange in Islamabad and 4km away from the Sadar Central Business District in Rawalpindi, Bahria Town has seen unprecedented growth in the last decade. There has been an increasing demand from private sector organizations, who need more efficient and open institutional framework to implement their plans – something which the government and CDA try to oppose. This can be achieved by considering Islamabad and Rawalpindi as a part of metropolitan area, establishing planning standards and guidelines under one organisational set up and facilitate the growth of private housing schemes which can help the government tackle the issue of public housing.

4.2.3 HOUSING LIMITATIONS OF THE GRIDIRON
Islamabad reached an estimated population of around 1.67 million in 2011, which according to the estimate of Population Census Organization will rise to around 2 million in 2020. It is the home to many migrants from other regions of Pakistan, with the majority coming from Punjab. A large proportion of the migrated population came from Sindh and rest from Khyber Pakhtunkhwa and Azad Kashmir. Smaller populations emigrated from Federally Administered Tribal Areas, Baluchistan and the newly formed province of Gilgit-Baltistan. There is a hierarchy of language, while Urdu and English are the official languages, Punjabi dominates the social sphere and daily interactions. Most of the inhabitants are Muslims, however, there is a minority population of Christians in the city, who have limited access to employment and education. Due to the large amount of migrants and varying timelines of settlement, the social fabric of the population seems to have grown in a fragmented, rather than, holistic manner. Social divisions evidently seep into spatial divisions, where the recurrent emigration from the country seem to strengthen the sociospatial differences,


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ranging from ethnic, to economic, to religious, to birthplace and even mother tongue and lineage. Economically affluent residents prefer to live in a community inhabited by residents of similar socioeconomic status, while the underprivileged endeavour to form colonies, in order to survive and thrive through communal interdependence. Over time, social structures in the sector were cemented, however, after being established they permanently reflected income hierarchies. With rising inflation, increased taxation and developing economy, the gradation of income has become much more diverse – with stark contrast between beginning government officials and experienced personnel. The allocation of properties and plots to senior officials indicated housing shortage with regards to new officials, where the government housing program became unable to cope with the rising demand – especially since the gridiron proved to restrict the size and number of plots, as seen in the table.

<table>
<thead>
<tr>
<th>Sector</th>
<th>No. of Plots</th>
<th>Average Plot Size</th>
<th>Square yards</th>
</tr>
</thead>
<tbody>
<tr>
<td>E7</td>
<td>342</td>
<td>2-4 Kanals</td>
<td>1000 - 2000</td>
</tr>
<tr>
<td>F6</td>
<td>1231</td>
<td>2-4 Kanals</td>
<td>1000 - 2000</td>
</tr>
<tr>
<td>F7</td>
<td>1318</td>
<td>2 Kanals</td>
<td>1000</td>
</tr>
<tr>
<td>F8</td>
<td>1589</td>
<td>2 Kanals</td>
<td>1000</td>
</tr>
<tr>
<td>F10</td>
<td>1659</td>
<td>2-3 Kanals</td>
<td>1000 - 1500</td>
</tr>
<tr>
<td>F11</td>
<td>1653</td>
<td>1 Kanal</td>
<td>500</td>
</tr>
<tr>
<td>G6</td>
<td>800</td>
<td>0.5-1 Kanal</td>
<td>272 - 500</td>
</tr>
<tr>
<td>G7</td>
<td>370</td>
<td>0.5 Kanal</td>
<td>150 - 250</td>
</tr>
<tr>
<td>G8</td>
<td>1176</td>
<td>0.5-1 Kanal</td>
<td>150 - 250</td>
</tr>
<tr>
<td>G9</td>
<td>2917</td>
<td>0.5-1 Kanal</td>
<td>150 - 250</td>
</tr>
<tr>
<td>G10</td>
<td>2925</td>
<td>1 Kanal</td>
<td>500</td>
</tr>
<tr>
<td>G11</td>
<td>3197</td>
<td>1 Kanal</td>
<td>500</td>
</tr>
<tr>
<td>I8</td>
<td>2375</td>
<td>1 Kanal</td>
<td>500</td>
</tr>
<tr>
<td>I10</td>
<td>2562</td>
<td>1 Kanal</td>
<td>500</td>
</tr>
<tr>
<td>I11</td>
<td>834</td>
<td>2 Kanals</td>
<td>1000</td>
</tr>
</tbody>
</table>

Table 2: Residential Plots in Islamabad: (www.cda.gov.pk)
Kreutzmann refers to Mahsud’s contradiction of the planning concept, who criticizes the spatial expansion dynamics for being in contrast to stagnation within sectors, especially regarding social mobility. He states, “A strictly delimited hierarchical concept regulates the distribution of available housing space. Extensive packages of building plots were reserved for government property developers, who built housing of different sizes and standards according to an index based on civil service income groups. Government employees were to live in social segregation in the accommodation assigned to them.” (Mahsud, 2001, p. 95) This entailed the grouping together of different income groups in what may be termed “economic clusters”, allowing the residents to establish a communal standard of living and security. Despite the social and moral complications associated with this process, the practical implications were also not favourable. In essence, this procedure meant that promotion at work implied a resident relocation; essentially, social and spatial mobility were interlinked.

Even today, there is insufficient housing in Islamabad for civil servants and government officials, where low-income personnel are forced to establish accommodation in Rawalpindi and make an hour-long commute to Islamabad every day. According to Mahsud, it is estimated that “between one third and half of all Islamabad’s workforce commute between the twin cities of Islamabad and Rawalpindi.” (Mahsud, 2001, p. 95) A large portion of the existing housing in Islamabad, is not occupied by the income groups for whom it was originally intended, where economic authority and social network triumphs any and all planned allocation. A large amount of building sites in key locations in the city, were allocated to senior armed personnel, bureaucrats and political officials, regardless of the original Masterplan or economic allocation. Emerging market forces and realistic social activities, have overruled the initial principle of a social mixture aimed at representing overall society – using the gridiron Masterplan to establish a thorough socioeconomic hierarchy in the city. Any address in Islamabad is sufficient to estimate the conditions of the sector and the social status of its inhabitants. According to Kreutzmann, “Social stratification has found its spatial expression: The E and F sectors are now reserved for members of the upper-middle and upper classes and for diplomatic personnel and members of international organisations and enterprises. Mainly worthy medium-rank
civil servants reside in the G sectors, whereas the ‘I’ sectors provide more basic housing close to factories and industrial plants. In the latter case the distance and lack of access to the central business districts reduces the desirability of the housing there. The H zone is almost entirely reserved for public – mainly educational – institutions.” (Kreutzmann, 2013, p. 141)

Figure 25: Difference between Morphology between F (left) and G (right) Sectors
https://www.facebook.com/sheraliphotography

In the case of Islamabad, specific focus can be applied to the marginalized squatter settlements inhabited by the city’s Christian population, examining why the religious disparity has led to a social and urban disparity. In fact, the lack of basic facilities and housing for the underprivileged and socially distinct, led to the development of squatter settlements and temporary commercial markets, representing as Kreutzmann states, “an independent, planner-free adaptation of urban functions to the needs of an increasingly differentiated urban population.” (Kreutzmann, 2013, p. 142) The clearly defined land parcels of commercial and residential activities have recurrently failed to provide sufficient residential spaces for minorities, who have slipped between the gaps of the severe gridiron planning of the city, into zones of urban residue where they take abode as illegal citizens. Due to their unlawful ownership of the public space, they are consistently under threat of large-scale gentrification and real-estate development, where investors and landowners aim to usurp the occupied land and appropriate it for commercial viability under the guise of progress and development. Today, according to the Human Rights Commission of Pakistan Housing Report, there are at least 24 squatter settlements in urban and rural areas of the city, with 13,521 families consisting of 84,591 individuals living in them. (HRCP, 2014, p. 312) It may be very plausible
that the increasing economic disparity strengthens and cements the Masterplan into socioeconomic zones, juxtaposed with the allocation and relocation of squatter settlements in the urban residual gaps of the gridiron plan.

4.2.4 TERRITORIALITY AND IDENTITY IN ISLAMABAD

The gridiron layout is undoubtedly a richly diverse and pluridimensional urban structure, with different sociospatial practices taking place, as part of a larger whole. The planner’s intention of an unlimited expansion through the repetition of sectors or 2 x 2 km cells, was central to the theory of dynapolis – an approach that retains structural and social merits. However, it may be observed through the aforementioned research, that Doxiadis failed to take into account territorial processes that would eventually take shape – focusing more on networks and zones rather than territories. The impact of parcellization on the processes of territorialization is evident by the distribution of income groups in the sectors of Islamabad – which resist the opportunity to deterritorialize and hence fail to generate new territorialities. Doxiadis approached the planning process from what we may discern as a more modernist and structuralist perspective, echoing realizations of the earlier planned city of Chandigarh by Le Corbusier. The aim of the gridiron layout as evident in its implementation, was to create microcosms or clusters based on a fractal-like division of space. A Class V community or a sector was divided into 4 smaller Class IV communities. So, a Class V community like F7 sector, was divided further into 4 Class IV communities of F-7/1, F-7/2, F-7/3 and F-7/4. Each Class IV sector was further divided into smaller Class III community structures, which would provide residence, immediate amenities and small scale commercial spaces. As mentioned earlier, the research conducted on the practice of Ekistics and Ekistics principles is evident in the planning of Islamabad – where the city was planned according to human comfort and local demographic activities. The cluster formation of community structures is based on the principle of comfortable travel distance, with each community structure being self-sustaining and independent. In this essence, a resident of the F7 sector, would need to traverse the bounds of his residential sector only to conduct administrative or governmental duties – primarily in the Blue Area central business district. While the proposed self-sufficiency and independence exists, it also segregates communities and locates them into their own sectors and microclusters.
The fractal loop, so to say, ensures defined and successful planning principles; while at the same time communicating a clear Prägnanz and ensuring good gestalt perception. The gridiron layout and sector formation are tangible and embedded into Islamabad’s collective urban memory; a system that although is beneficial in navigation and allocation may be problematic in allowing the development of space perception. It is a common complaint in residents of Islamabad who relocate or commute to other cities like Lahore, Karachi and Rawalpindi for work or education, that the other cities lack a clear and discernible urban structure – causing problems with navigation, allocation and identity. On the reverse, residents of other cities, especially Lahore and Rawalpindi, echo a common criticism that Islamabad lacks diversity and cultural richness, since everything is planned and well-allocated. According to residents of other cities, everyday negotiations and adjustments regarding social practices and spatial decisions is essential in generating and sustaining a rich cultural urbanism – an observation that is found lacking in Islamabad.

While the existence of self-sufficient fractal microclusters is useful in generating an active and engaged urban structure, the resistance to the processes of territorialization prevents the urbanism from growing into a self-sustaining urban system. It is evident that the community microclusters were designed and defined in such a specific manner, because Doxiadis ensured the clarity and coherence behind the principles of Ekistics and anthropomorphic planning. However, the community class divisions have undergone unprecedented changes and growth – with urban development increasingly manifesting itself within the community microclusters rather than only through the defined replication of sectors. A Community Class V sector is not what it was when Doxiadis planned it, with the advent of multi-storey buildings, small plot divisions, new commercial initiatives and appropriation of public spaces for commercial benefit. A useful point of study may be to explore the development of Islamabad through a space-time mapping of the city – which would evidently show the city growing in the proposed directions, but also increasing in density and unplanned urbanism.
4.3 THE CAPITAL OF INDIA: NEW DELHI

South Asia has set the precedent for planned cities, ranging from India’s temple towns with their geometric layouts to the Anglo-Indian cantonment, which lead to the design for the colonial capital of New Delhi. Initially, the original city of Delhi or *Purana Dilli*, did not extend beyond the protecting walls of Shahjahanabad – the city built by Mughal Emperor Shah Jahan as capital of the sultanate in 1638. But, over a century has passed since the conception of New Delhi as the seat of power in the Indian subcontinent and the Indian nation state – and New Delhi has maintained its dynamic stature. The city is the capital of India and seat of the executive, legislative, and judiciary branches of the Government of India, also serving as the centre of the Government of the National Capital Territory of Delhi (NCT). Situated within the metropolis of Delhi as one of the eleven districts of the NCT, the capital boundaries were defined by the Yamuna River in the east, the Aravellis Hills in the west, Lodi Garden in the south and Tilak Marg in the north. (Varma, 2014) At a citywide level, Delhi appears, indeed, as a city without spatial continuity, a mosaic of contrasted sectors. The pattern of organization of the urban space is marked by a series of factors, including geography and physical barriers, the different historic periods, from the Mughal rule to the British rule, the trauma of Partition and the Independence, and the impact of the independent Government, through its efforts of town planning and in asserting the status of Delhi as a capital city. (Dupont, 2004, p. 160) This study is targeting the regional district of New Delhi, while conducting a brief overview of the Delhi metropolitan area.24

Delhi is historically and culturally connected to both the Upper Doab of the Yamuna-Ganges river system and the Punjab region, bordered by the state of Haryana on three sides and by the state of Uttar Pradesh on the east. The Delhi metropolitan area lies within the NCT, which has five local municipal corporations: North Delhi Municipal Corporation, South Delhi Municipal Corporation, East Delhi Municipal Corporation, NDMC and DCB. As of July 2012, the NCT comprises eleven districts – of which New Delhi is one – 59 census towns, 300 villages, and three statutory towns. The local

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24 Colloquially and globally, the names Delhi and New Delhi are often used interchangeably, however there is a clear difference between the two. Delhi, is the second largest metropolis in India and has a historic significance spanning over two millennia. New Delhi on the other hand is a “territory” in Delhi, with a population around quarter million residents; compared to Delhi’s population of over 20 million.
and urban culture has been influenced by a lengthy history and historic association as
the capital of India, exemplified by 1200 heritage buildings and 175 monuments as
national heritage sites. Delhi as the capital of the Mughal sultanate bore witness to
several significant works of architecture, including the Jama Masjid, Red Fort, Qutab
Minar and Humayun's Tomb. A site of political and religious importance, Delhi is also
the abode of the Laxminarayan temple, Akshardham temple and the Baha’i Lotus
Temple.

Figure 26: Aerial View of New Delhi and the Expanding Metropolis
http://www.gettyimages.com/galleries/photographers/roberto_schmidt

New Delhi was established as the seat of political power during the last decades of
British rule in India. However, after the partition in 1947, the newly sovereign state
required additional centres of administration, where legislation was passed in 1956 to
divide India into federal states with corresponding capital cities. Chandigarh in Punjab
by Le Corbusier and Bhubaneshwar in Orissa by Otto Königsberger were significant
additions to the Indian topography, yet, New Delhi by Edwin Lutyens never lost its
importance as a state and national capital city. An increasingly metropolitan and multi-
ethnic city, today the population is composed of local Delhi residents, Punjabi migrants
and various other ethnic groups from around India, providing abode for various
communities. Varma explains the influx and formation of micro-clusters when stating, “Like a balloon inflated beyond its capacity, the city has exploded into hundreds of habitats. Each is self-contained. The parts are meant to constitute a whole, but the whole is not defined by them.” (Varma, 2014) The growing metropolis is becoming increasingly striated and differentiated, resulting in an urban contestation and collation of sociospatial microcosms – a city of “permanently malleable space” (Varma, 2014) which simultaneously develops in size and heterogeneity – progressing rapidly with time through the advent of technology yet remaining rooted to its 3000 year old ancient history.

4.3.1 HISTORY OF DELHI-NEW DELHI
Historically speaking, Delhi is not a single city but a combination of eight cities that have been established over a period of 3000 years, starting as far in the past as 10th Century BC – a reality evidenced in the ruins and monuments which mirror an architecture through time. The city is referred in the great Hindu epic the *Mahabharata*, mentioned as a city founded by the Pandavas on the banks of Yamuna River and called it *Indraprastha*. Formally and territorially speaking, the Tomar ruler Anangpal founded *Lal Kot*, the first city of Delhi in the 11th century, followed by the establishment of the Delhi Sultanate in 1206 AD by Qutubuddin Aibak, who also laid the foundations of the Qutub Minar, India's tallest stone tower at the site of the first city of Delhi.

By the early 14th century, *Siri* was established as the second city of Delhi, followed by *Tughlakabad, Jahanpanah* and *Firozabad* as the third, fourth and fifth cities of Delhi, during the Tughlak dynasty rule till the early 15th century. The Mughal Empire saw the establishment of *Purana Qila* by Emperor Humayun, the sixth city of Delhi in mid-16th century. Substantial construction activity took place during the reign of following Mughal rulers Akbar and Jahangir, but it was during the rule of Shah Jahan in 1639, that the walled city of Shahjahanabad was built and served as the capital of the Mughal Empire. Shahjahanabad or Old Delhi was the capital of the Mughal Empire from 1649 to 1857, when it came under the direct rule of the British Crown and was made a district province of Punjab.
But, Delhi was always considered a significant outpost of political and economic power, hence in 1911, the capital of British Raj was shifted from Calcutta to Delhi as declared by King George V and the eighth city of Delhi, now known as New Delhi, was conceived in 1911 and formally inaugurated in 1931. This was due to the fact, that unlike Calcutta, which was located on the eastern coast of India, Delhi was at the centre of northern India and would be logistically ease the administration of the British Indian Empire. The foundation stone of New Delhi was laid by King George V and Queen Mary at the site of Delhi Durbar of 1911 during their imperial visit. Building the new city took nearly twenty years, which proved to be a challenging and daunting task, especially since, the colonial political class primarily aimed at providing an urban manifestation of their imperial vision rather than create a capital around the historic identity of Delhi and its requirements. The architects Edwin Landseer Lutyens and Herbert Baker had been commissioned – more due to their political connections rather than expertise in planning – nonetheless considered suitable to achieving the imperial
vision. Lutyens was tasked to design the Masterplan and manage the overall design, while Baker was given charge of secretariats and Parliament house. Ancient and traditional Indian elements and motifs were employed as design precedents, drawing inspiration from Buddhist religious complexes and Mughal edifices, however, the overarching aesthetic was aimed at manifesting British imperialism.

From conception to planning and completion took a period of 20 years, from 1911 to 1931, when New Delhi the new capital city was inaugurated by the Viceroy Lord Irwin – informally termed as Lutyens’ Delhi, paying homage to the Masterplan designed and executed by the British architect. Less than two decades later, following the partition of India in 1947, a limited autonomy was conferred to New Delhi and was administered by a Chief Commissioner appointed by the Government of India. The partition of a united India also saw an unprecedented bloodbath, when Delhi became the site of a particularly vicious campaign in which Muslims were butchered in thousands. Many moved to camps for safety and, eventually to Pakistan, even as an estimated half a million Hindu and Sikh refugees from Pakistan, especially Punjab, poured into the city, literally transforming Delhi into somewhat of a city for refugees. Eventually, the hysteria caused by partition and mass migration settled down and both nation states of India and Pakistan established themselves as independent republics.

4.3.2 PLANNING THE CITY
Soon after under Nehru’s leadership in 1956, Delhi was converted into a union territory and eventually the Chief Commissioner was replaced by a Lieutenant Governor. This led to the first major extension of New Delhi outside of Lutyens’ Delhi, when the Central Public Works Department (CPWD) developed a large area of land southwest of the capital to create the diplomatic enclave of Chanakyapuri, where land was allotted for embassies, chanceries, high commissions and residences of ambassadors. The New Delhi Masterplan was conceived with the primary goal of being a symbol of British imperialism and supremacy; a framework that dictated the entire process, ranging from planning methods to application of symbology in architecture. Since the city is located on the Indo-Gangetic Plain, there is little difference in elevation across the city, while the geographic boundaries served as the first demarcation instruments between urban sectors, primarily the Yamuna River
which flows through the metropolis on a North-South axis and the Aravellis Hills and forest crossing the capital from the south-west to the north.

Figure 28: New Delhi Masterplan
http://www.dda.org.in/planning/zonal_plans.htm

The foundation of New Delhi took place as the capital of British India was transferred from Calcutta to Delhi, where it was eventually decided to establish the new town south of the old city, where at the time only a few villages were settled. (Dupont, 2004, p. 163) At that time, Shahjahanabad or Old Delhi, was relegated to the status of a large slum of overcrowded buildings, especially since a third of Delhi’s urban landscape
was destroyed during the revolt of 1857 and its subsequent suppression. The old city, however, continued to provide and facilitate the establishment of New Delhi, especially regarding housing and institutional support. The subsequent development of the capital city, showed that the choice of location allowed the urban area to spread and extend far beyond initial predictions, witnessing the population explosion of the Delhi urban agglomeration. The following table shows the increasing population from 200,000 in 1911 up to 700,000 in 1941 to today as a metropolis reaching over 20 million residents.25

<table>
<thead>
<tr>
<th>Census</th>
<th>Population</th>
<th>Growth %</th>
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<tbody>
<tr>
<td>1901</td>
<td>405819</td>
<td>-</td>
</tr>
<tr>
<td>1911</td>
<td>413851</td>
<td>2.0%</td>
</tr>
<tr>
<td>1921</td>
<td>488452</td>
<td>18.0%</td>
</tr>
<tr>
<td>1931</td>
<td>636246</td>
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</tr>
<tr>
<td>1941</td>
<td>917939</td>
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<tr>
<td>1951</td>
<td>1744072</td>
<td>90.0%</td>
</tr>
<tr>
<td>1961</td>
<td>2658612</td>
<td>52.4%</td>
</tr>
<tr>
<td>1971</td>
<td>4065698</td>
<td>52.9%</td>
</tr>
<tr>
<td>1981</td>
<td>6220406</td>
<td>53.0%</td>
</tr>
<tr>
<td>1991</td>
<td>9420644</td>
<td>51.4%</td>
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<tr>
<td>2001</td>
<td>13782976</td>
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</tr>
<tr>
<td>2011</td>
<td>16753235</td>
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<tr>
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<td>17115104</td>
<td>-</td>
</tr>
<tr>
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<td>-</td>
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<tr>
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<td>17862461</td>
<td>-</td>
</tr>
<tr>
<td>2015</td>
<td>1824829</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 3: Growth of Population in Delhi26

Owing to space constraints and the presence of a large number of heritage sites in the North section of Delhi, the capital was established on a southern located site. Aside from deriving references from geographical demarcation instruments, New Delhi is structured around two central promenades called the Rajpath or King’s Way and

25 In 2011, New Delhi had population of 142,004 of which male and female were 77,942 and 64,062 respectively. In 2001 census, New Delhi had a population of 179,112 of which males were 99,956 and remaining 79,156 were females. New Delhi District population constituted 0.85 percent of total Maharashtra population. In 2001 census, this figure for New Delhi District was at 0.80 percent of Maharashtra population. There was change of -20.72 percent in the population compared to population as per 2001. In the previous census of India 2001, New Delhi District recorded increase of 6.19 percent to its population compared to 1991.

26 Census of India: Provisional Population Totals for Census 2011: NCT of Delhi. Huge population rise in 1951 due to large scale migration after Partition of India in 1947. According to the 2011 census of India, the population of Delhi is 16,787,941. The corresponding population density was 11.297 persons per km² with a sex ratio of 866 women per 1000 men, and a literacy rate of 86.34%. By 2015, Delhi is expected to be the third-largest conurbation in the world after Tokyo and Mumbai.
the Janpath or Path of the People, where the Rajpath stretches from the Presidential Palace *Rashtrapati Bhavan* to the India Gate and the Janpath begins at Connaught place and cuts the Rajpath at right angles. A site atop the Raisina Hill, was chosen for the palace, especially since the hill lay directly opposite the *Dinapanah* citadel –

Figure 29: Juxtaposed plans of Old and New Delhi
https://www.pinterest.com/pin/340021840594728493/
which was also considered the site of Indraprastha, the ancient region of Delhi. The Masterplan was conceived by Lutyens as a combination of two separate geometric systems, the primary being a hexagonal pattern which linked governmental, commercial and recreational activities with the residential areas. The other grid a monumental design along Rajpath, links the capital complex marked by the Presidential Palace to the India Gate, serving as a promenade of symbolic entry from the riverside. The Secretariat, which houses ministries of the Government of India, flanks out of the Rashtrapati Bhavan. While the Parliament House, designed by Herbert Baker, is located at the Sansad Marg, which runs parallel to the Rajpath. Additionally, Connaught Place, a large, circular commercial area, modelled after the Royal Crescent in England, serves as the origin point of twelve separate roads, including the Janpath, which lead out of the outer ring of Connaught Place.

![Figure 30: Model of Layout of New Delhi](https://housing.com/blog/2013/11/06/delhi-in-pictures-then-and-now/)

Even though in 1911 the Viceroy had taken the initiative to change the face of Delhi, it was the Prime Minister Nehru who in the 1950s became the moving force behind the idea that the city should be managed and planned through an administrative and functional Masterplan. In 1956, Nehru proposed the establishment of a central
authority to control and regulate the expansion of Delhi, leading to the formation of the Municipal Corporation of Delhi (MCD) and the Delhi Development Authority (DDA), essentially to promote and secure the development of Delhi according to the devised plan. The Nehru-driven Master Plan aimed at balanced and integrated development to take care of the growth of Delhi till 1981 – by functionally zoning land uses, leading to the city being divided into a number of planning divisions, each of these being visualized as self-contained in the matter of residential, recreational and commercial activities. Most commercial activity was decentralized, and various district shopping centres were placed within easy reach of residential pocket, designed to serve as composite centres with shopping, business, commercial and professional offices, local government offices, cinemas, restaurants and other places of entertainment. (Lahiri) According to Kuldip Singh, the architect and town planner who interned on the expansion plan in 1955, Nehru played an important role in the growth of Delhi by initiating the Masterplan for expansion and development, followed by his daughter Indira Gandhi who established key institutions such as Housing Urban Development Corporation (HUDCO) in 1970 for dealing with problems of low-income housing and the Delhi Urban Art Commission (DUAC) in 1974 for regulating the aesthetic and architectural aspects of the city.

The main functions assigned to New Delhi were administrative and political, leading to the city developing into a “poly-nuclear metropolis” (Dupont, 2004) with several district business centres and commercial complexes. However, the construction of New Delhi introduced a radical discontinuity in the spatial organization of the entire city, where Dupont refers to Everson in stating:

“The possibility of creating the new city to harmonize visually with the old was never seriously considered. New Delhi was conceived as a purely British settlement juxtaposed to the Indian city.” (Evenson, 1989, p. 148)

Evidently, there was no scheme for the integration between Old Delhi and New Delhi, which continued even after India became independent and remains today as an evident element of differentiation in the urban landscape as well as the socio-spatial organization of the capital. Dupont elucidates the disparity between Old and New Delhi by comparing per hectare population densities, where Old Delhi was 616
residents per hectare New Delhi was a mere 70 residents. (Dupont, 2004, p. 160) It may have been a more suitable option to juxtapose a new Masterplan which integrated Old Delhi and the surrounding cities of Delhi into a unified whole, however, the imperialist layout proposed an urbanization based on deliberate segregation between the old city and new. The contrast was stark, with the high-density intricately-planned Mughal walled city of Shahjahanabad as Old Delhi and the new colonial town with geometric planning and vast dimensions as New Delhi. According to Gupta, it was “the combined fear of the old town encroaching on and spoiling the symmetry of the new, and of the ‘Indian town’ polluting the imperial one that led to the first serious attempt at long-term town planning for Delhi’s urban area.” (Dupont, 2004, p. 165)

Analysing the urbanization of the capital city through time, Dupont states that the administrative, commercial and industrial functions of the capital have generated a contrasting pattern of residential distribution for the workers employed in corresponding economic sectors, with a clear division between the south and north of the urban agglomeration. (Dupont, 2004, p. 167) Most government employees reside in the southern urban extensions with wide dimensions and housing estates, while trade and commerce workers find residence in the north, in addition to industry and manufacturing employees in the north and southeast of the city. However, the socioeconomic segregation began long before New Delhi became a functioning capital city of independent India, where the North-South opposition was established when the new capital was located in the south of the old city. The class separation has followed a spatial and temporal separation, with the new city facilitating the upper rungs of society and the old city being the abode of lower and middle income groups. Evenson elucidated the manifested purpose of the new capital city when stating that even after independence from imperialist sensibilities, “the south continued as a magnet for middle and upper-class residence, as well as providing sites for prestigious governmental and educational institutions.” (Evenson, 1989, p. 189) While, the southern sector accommodates upper-class residential areas and major commercial zones, the main industrial zones are located primarily in the western and north-western sectors. However, the economic activities remain scattered all over the urban area, including industrial production ranging from large industrial estates to small-scale units found in the urban core as well as the urban periphery.
4.3.3 HOUSING THE POPULATION

The Delhi road network consisted of diagonals and radials, at 30 degree or 60 degree angles to the main axis, forming triangles and hexagons. The interlocked duality of contradictory grid and radial diagonals heightens the visual impact of each element and gives the entire plan a complex and creative tension not otherwise possible. Additionally, social hierarchy was used to establish thematic contrast, where planning was used to convey the status of the residents i.e. the closer the road is to the Government house the greater is its width and the higher its status. Moreover, status was communicated by elevations, plot sizes, dwelling morphology, road width, quantity and type of vegetation, size of gates and many more visual indicators. Within the hexagonal grids areas were located on criteria of ethnicity, occupational rank and socioeconomic status. The North-East axis formed the city’s main business avenue, while housing was distributed around the city with the western sectors housing local officials and senior officials were located in proximity of Rajpath and the Raisina Hill.

The first housing programme initiated by the newly independent government aimed at tackling the large influx of migrants from Pakistan, who sought refuge in Delhi after the partition in 1947 – where an existing population of 900,000, was increased by the surplus of almost 500,000 refugees from western Punjab and Sindh – while at the same time over 300,000 Muslims left the capital and migrated to Pakistan. (Dupont, 2004) Residences that were abandoned by Muslim inhabitants, were occupied by newly migrated Hindu refugees in attempts of resettling in the national capital. Most refugees migrated from urban areas in West Pakistan and aimed to maintain a similar lifestyle by becoming involved in trade and commerce – leading to many shops and businesses being bought or taken over by refugees. According to Lahiri, nearly 90% of the shops in Delhi’s booming Chandni Chowk Cloth Market, originally belonged to old residents of Delhi but were taken over by Punjabi immigrations over time – leading to Delhi’s elevated status as a successful retail market city. (Lahiri, Point 40) The large influx also resulted in the formation of colonies and unplanned residential zones, where religious groups showed preference in living among members of their faith – yet, the segregation practices never led to urban and planning reforms. The Delhi Development Authority (DDA) also played a significant role in the urban development of the capital through acquisition of well-placed agricultural land and used it for the establishment
of housing initiatives. In addition, the DDA invested time and finances in the construction of apartment blocks and the allotment of plots, to empower private housing ownership and group housing societies.

From 1947 onwards, refugee housing areas, known as "rehabilitation colonies" were built on the periphery of New Delhi by the New Delhi Improvement Corporation, the CPWD and later the DDA. The colonies of Nizamuddin, Lajpat Nagar, Kalkaji and Malviya Nagar in the south, and two Rajendra Nagars, three Patel Nagars, Moti Nagar,
Ramesh Nagar and Tilak Nagar on the west of the city are products of this era. What was once considered to be an administrative capital of the British underwent a serious change in its cultural value systems with the establishment of refugees in areas like Karol Bagh and Lajpat Nagar. The building of housing colonies throughout the Nehru years attempted to keep pace with the migration of people to the cities and into India from Pakistan. Laxmi Nagar housing, built in the 50's, by the CPWD, for the government employees, is typical of the period. Over time, each area becomes a symbol of status of its inhabitants, depending upon the size of the unit and often the ethnicity of the people who live there. Before and after independence, planners promoted the development of a sprawling, automobile-based, low-density metropolis. Within this unfocused ambient, the new housing enclaves create a counter-image, as though small bits of Old Delhi, however, the new complexes are purely residential and their inhabitants, like their neighbours in more conventional housing, are dependent on motor transport for access to employment, shopping, recreation, and other urban facilities.

After Nehru’s planned development proposals, the government also invested capital in housing estates or colonies for government employees, specifically in the southern region which stimulated a pattern of residential and social segregation – especially since housing was assigned according to economic status and official income. According to Lahiri, the model adopted for residential segregation derived reference from the residential pattern established by the imperialist planning of New Delhi, which separated civil service echelons and segregated racial groups – mainly the British and the Indians. In terms of planning, the sociospatial hierarchy was established and manifested in terms of proximity from the centre of political power i.e. the Rashtrapati Bhavan – a pattern that is evident in the planning of many cities. (Evenson, 1989, p. 150) It was as if the ancient Hindu caste system was finding a sociospatial manifestation in the Delhi Masterplan, where higher ranking officials were allocated plots closer to the centre, while lower-income groups displaced towards the periphery.

Comparing the typology and morphology of housing in the northern and southern sectors provides sufficient evidence for understanding social segregation in the capital – where the southern elite residences are not only larger and more lavish, but also
retain the provision of better amenities, schools, hospitals and commercial spaces. Recent years have also witnessed the relocation of upper classes to the further south suburban outskirts of the capital, where they can successfully occupy larger parcels of land and reside in farmhouses and vast residential complexes. Lower-income groups, on the other hand, were either confined to congested areas of the Delhi urban core or relocated to the peripheral sectors and rural fringes. Following the precedents set by urban elite, since the late 20th century, more and more members from lower-income groups have exhibited preference towards relocating to the urban peripheries of the cities, attracted by less congestion, reduced pollution and opportunities of finding affordable housing.

The urban morphology of pre-modern Asian towns, as Sjoberg states, reflects a “model of socially stratified societies, with the high status people concentrated in the centre of the town where most economic activities, as well as the seat of political power were also located, and with the low status people confined to the urban periphery – or even outside the city walls” (Naqvi, 1968, p. 89) This urban structure has endured in many Asian cities, however, the preindustrial and pre-modern pattern is insufficient in tackling the recent complex urban development taking place in India. However, despite the core-peripheral arrangement of traditional towns, the Indian cities have witnessed the formation of localized spatial clusters, which endeavour to shape a microcosm within a larger macrocosm – namely, a local urbanism. It represents a more complex internal structure, which may be said to contain contrasting cities or urban areas, which Nagpaul has identified as the multiple nuclei development model to explain the urban configuration of the city. (Nagpaul, 1988, p. 187) A mixed land-use pattern which combines residential use and economic activities, represents such a prototypical feature of traditional Indian cities that has persisted in the post-independence period. This pattern is evident in the Mughal capital of Shahjahanabad, with densely populated residential spaces functioning in tandem with concentrated small-scale industrial zones. Dupont states that such an association of residential with commercial activities is also observed in urbanized villages around Delhi and in unplanned settlements; mainly, the unauthorized colonies situated at the urban periphery and the squatter settlements around the city. (Dupont, 2004, p. 167)
Since the new millennium, there has been an evident shift towards apartment living, with a large amount of apartment buildings being constructed, particularly due to scarcity of land. Tenants are residents claim the heightened level of security and availability of facilities is the primary reason for moving into such complexes, many of which are located in the suburbs. One of the largest sectors of Delhi, Dwarka will be the first area to be developed as part of the DDA strategy of urban expansion. Apart from being the site of urban extension and development, the Delhi city peripheries are also the abode of many squatter settlements – a result of the economic disparity that has distributed squatter housing in a fragmented manner around the city. Additionally, almost no attention was paid to the problems of Old Delhi during the planning process of Delhi. Due to the creation of New Delhi, Old Delhi experienced a 28% surge in population between 1916 and 1926 resulting in the spilling over of the population from inside the walled city to the Paharganj area, causing the deterioration of Old Delhi into a large slum area. Nonetheless, Nehru’s attempts at unifying the city and defining an overall structure through the establishment of DDA proved successful – resulting in Delhi being a polynucleated and multifunctional capital city.

Urban expansion entails the annexation and appropriation of agricultural land and rural sectors, which results in the assimilation of many villages into the urban agglomeration. Yet, there is a marked discontinuity in the urban fabric between these organic and vernacular villages and the planned housing estates in their vicinity. (Dupont, 2004, p. 167) The mixed land-use structure and the assimilation of rural and urban, ancient and modern, planned and emergent – has led to Delhi being characterised as a dissociated “mosaic” city, where Mitra states, “The problem of Delhi as a capital city today is a problem of integration.” (Mitra, 1970, p. 48) While, on one hand the urban fabric and land-use was being developed and controlled by the administration, a large part of the urbanization process entailed unplanned emergence of settlements. A large part of Delhi continued to grow unplanned, with thousands of labour and service personnel living in illegal squatter colonies spread across the city – residents that were repeatedly relocated and resettled, especially during the 1970s. The poorer and unemployed sections of the urban population have been repeatedly relegated to squatter settlements and informal housing or jhuggi jhonpri, where the latter were estimated to house around 6000 families in roughly 1000 housing clusters.
varying in size from a dozen dwelling units to thousands of units - a figure which corresponds to nearly 25% of the total population of Delhi. The largest clusters are located in the city peripheries and in the suburban areas, but may also be found scattered around the capital city, not only occupying the urban fringe, but also all the spaces within the urban fabric with available vacant land.

4.3.4 TERRITORIALITY AND IDENTITY IN NEW DELHI

Compared to the previously mentioned case of Islamabad, the urban structure of New Delhi encourages a more cohesive social system. Even though both planning systems exhibit a clear and coherent geometric layout, the aftereffects of zoning in the gridiron and unplanned growth in New Delhi have led both cities in divergent directions. While the parcellization in Islamabad has led to social segregation allocated in defined zoning, the axial layout of New Delhi has allowed different social classes to be distributed in a fragmented manner within the urban fabric. However, the unprecedented migration and formation of informal settlements around the city peripheries, lead to an irregular and unplanned growth structure – which was later brought under control by Nehru’s establishment of DDA. Yet, the territorialities instilled due to an irregular urban structure has allowed the processes of territorialization to repeatedly take place, even after the establishment of the DDA and the proposition of a well-defined Masterplan. This is evident in the current urban structure and the proposed 2021 urban renovation Masterplan, which aims to assimilate dissociated settlements, small villages and varied planning structures into one large mosaic-like urban layout.

While Islamabad may be characterized as a similar layout to Chandigarh, Melbourne and New York; New Delhi is more along the lines of L’Enfant’s work in Washington and Haussmann’s work in Paris. In essence it is a late colonial Masterplan, which was designed as the imperial seat of power – yet retained as the political centre even after the partition of the subcontinent. L’Enfant’s design for Washington in the 18th century with network nodes, public squares and boulevards is along the same lines of the renovation of Paris in the 19th century – where Haussmann’s Paris set the precedent for Lutyens’ Delhi. Like Paris and Washington, New Delhi has also undergone growth and urban revisions, especially to provide housing and infrastructure for the large
number of immigrants and settlers from around the country. Due to its axial layout and juxtaposition of planning grids, New Delhi has been able to offer more leniency in planning techniques as compared to Islamabad, resulting in its growth as somewhat of a mosaic city, which incorporates and identifies varying sociospatial arrangements in a holistic urban layout.

While, the observed gestalt principles in the planning of Islamabad implied closure and self-sufficiency, with each defined sector functioning as an independent unit; the Masterplan of New Delhi implies a gestalt of continuity and connectedness, through the employment of boulevards and axial planning. The long running Rajpath and Janpath boulevards define the city’s administrative centre, while at the same time providing connections to landmarks such as the India Gate and the Connaught Place commercial district. In this essence, it may be observed that although Lutyens’ Delhi initially placed the Rashtrapati Bhavan Presidential Palace as a central node of the urban plan, the increase in commercial and touristic activities has also increased the importance of Connaught Place commercial district, India Gate Monument and even the Jama Masjid of Delhi – allowing New Delhi to grow as a polynucleated city model. The provision of multiple nuclei also allows the propagation of socially induced housing and commercial activities, which manifest themselves as appropriated spaces in accordance with social practices. This allows daily negotiations and adjustments regarding social practices and spatial decisions to take place, which help generate an active and engaged urbanism.
4.4 A COMPARATIVE STUDY: ISLAMABAD VS. NEW DELHI

In an interview conducted in September 2015, the retired head of architecture of the CDA of Islamabad, Anwar Said shared valuable information regarding the planning and zoning practices that took place when the capital was being designed. Stating the impact of the gridiron Masterplan on property allocation and economic zoning, he elucidated the relation between the plot sizes proposed by Doxiadis and the corresponding income groups – essentially, higher ranking government officials were allocated larger plots closer to the central business district and political centres, while low income officials were assigned smaller plots farther from the activity. Although it seems like a generally acceptable practice, it is essential to note that the Masterplan was divided into zones, classes and various plot sizes, all of which corresponded to 22 graded divisions of governmental employment – where grade 1 would represent the cleaning staff and grade 22 would represent the district manager or managing director. To put it simply, personnel without a university level qualification were considered in grades 1-16 of the government sector and as a result were allotted plots of 1 kanal or less in the G6 sector – while more educated officials were allotted plots of 2, 3 and sometimes 4 Kanals.

Even though Doxiadis had proposed a Masterplan with mixed demographic and economic integration, the government deemed it fit to cordon lower-income groups to G6 and G7 sectors, while allotting F6 and F7 sectors to higher ranking officials – leading to a segregated and stratified society. In addition, to elaborate more on the stratification, the governmental housing were divided into categories ranging from A-I, where A-E houses were allotted to grades 1-16, F houses for grade 17, G houses to grade 18, H houses to grade 19 and I houses for grade 20 and above. Said rationalizes the government’s decisions stating that, “this was a city for government officials, they had designed the city so that the government moves here. They wanted to bring the government hierarchy here, by giving them incentives, such as to buy plots here. So by default, the officials would want to live in an environment that would suit them and suit their hierarchy and make them feel comfortable.” (Said, 2015)

27 Anwar Said was part of the CDA for 33 years and retired as head of Architecture division in the year 2000. He was kind enough to provide useful information during an interview conducted on 17th September 2015.

28 In Pakistan, a Kanal is a unit of area measurement corresponding to roughly 600 square foot area. A Kanal is further divided into the area unit Marla, where 20 Marla constitute to 1 Kanal.
Additionally, important information was revealed during an interview with M. A. Moktadar, the principal architect of the renowned Naqvi and Siddiqui firm. Moktadar, who was sent to Rawalpindi during the early 60s in order to handle projects for the new capital city, expressed sharp criticism of the Masterplan, especially regarding the Blue Area Central Business District. He stated that, “It has been designed as a linear stretch of commercial activities, which is decentralised and quite pointless. There are no landmarks. There need to be squares and fountains, points of assembly. The placement is fine, but Blue Area itself is inconsistent and counter-productive.” (Moktadar, 2013) Although, Doxiadis aimed at using the Blue Area CBD to exhibit the theory of dynapolis, the implemented design failed to do so and instead lead to an east-west bisector dividing the city into north and south sectors – a planning decision which strengthened the economic segregation proposed by the gridiron layout. The economic segregation is evident in the residential and more so the commercial districts of different sectors of the city.

![Figure 33: F7 Commercial Sector](https://www.facebook.com/sheraliphotography) ![Figure 34: G6 Commercial Sector](https://www.facebook.com/sheraliphotography)

Additionally, it is evident that although the gridiron plan is a useful planning tool, in the case of Islamabad it failed to satisfy the demographic and cultural requirements. Similar to the planning of Old Delhi, Lahore and Rawalpindi – South Asian cities have always been organized with reference to landmarks and central functions, such as mosques and administrative buildings. In this essence, it would bode well to question how the independent self-sufficient units of the gridiron function with regards to the culture and demographic of the locale. It is essential to question the necessity of providing a central post office in the G6 sector, when all sectors retain the provision of their own individual post offices. The same applies to the existence of central mosques such as the Red Mosque or Lal Masjid located in G6 sector or the Faisal
Mosque in the E7 sector – if each sector has its own central mosque, then why are such landmark mosques constructed, where elite officials and government leaders participate in religious activities. According to such observations, it can be concluded that although the gridiron plan successfully planned and parcelled the capital territory zone, its increasing egalitarian planning structure failed to take into account cultural and capitalistic forces.

Similar divisions can also be observed between northern and southern sectors of New Delhi, yet as Dupont states, “the large sectors of Delhi prove to be relatively heterogeneous in terms of types of settlements and socio-economic groups of residents.” (Dupont, 2004, p. 167) However, it is necessary to highlight that residential segregation still exists in Delhi – albeit on a much finer scale – which may include more limited spaces such as block of apartments, residential colonies or slum pockets. This segregation has more to do with the variation in income, socioeconomic status and demographic divisions such as ethnicity, caste, religion and geographical origin. The emerging pattern of socio-spatial differentiation, as Dupont states, may be “the consequence of active or passive filtering mechanisms, or a combination of both.” (Dupont, 2004, p. 167) She elaborates the social recomposition of Old Delhi as a result of affluent residents moving out of the city core towards newer and comfortable housing, whereas lower-income groups failed to make similar decisions due to economic constraints. In addition, the filtering mechanism stated by Dupont is evident in the construction of housing-society apartment blocks in the city peripheries, appropriating the existing rural villages into assimilated zones of the urban cluster.

Delhi, and increasingly New Delhi, are more integrated, more metropolitan and more subject to spatial revisions. In the case of Islamabad, new roads have not been added, rather the existing gridiron has been strengthened by widening the roads further. Lutyens Delhi was planned with the intention of being an imperial capital and anticipated the influx of vehicular mobility – using wider roads from the get go. This case of anticipated planning has resulted in Delhi being more cohesive and integrated as opposed to Islamabad being zoned and segregated. Although Delhi exhibits a geometric layout, the flexibility in divisive tools such as road and transport networks, allows the processes of territorialization to take place and hence resulting in a
community that undergoes sociospatial revisions. As stated earlier, New Delhi is more along the lines of L’Enfant’s work in Washington and Haussmann’s work in Paris. In essence it is a late colonial Masterplan, which was designed as the imperial seat of power – yet retained as the political centre even after the partition of the subcontinent. L’Enfant’s design for Washington in the 18\textsuperscript{th} century with network nodes, public squares and boulevards is along the same lines of the renovation of Paris in the 19\textsuperscript{th} century – where Haussmann’s Paris set the precedent for Lutyens’ Delhi.

Like Paris and Washington, New Delhi has also undergone growth and urban revisions, especially to provide housing and infrastructure for the large number of immigrants and settlers from around the country.

Due to its axial layout and juxtaposition of planning grids, New Delhi has been able to offer more leniency in planning techniques as compared to Islamabad, resulting in its

Figure 35: Plan of the City of Washington, March 1792
https://commons.wikimedia.org/wiki/File:L%27Enfant_plan.jpg

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growth as somewhat of a mosaic city, which incorporates and identifies varying sociospatial arrangements in a holistic urban layout.

Islamabad may be characterized as a similar layout to Chandigarh, Melbourne and New York, with a clear and coherent gridiron structure which parcels and defines land use into distinct zones. The fractal division of sectors into smaller subsectors and community structures is a theoretically and practically sound planning method — it is

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**Figure 36: Schematic of New Delhi Urban Structure [prepared by author]**

**Figure 37: Redrawing of Commissioner's 1811 Grid plan for Manhattan (edited)**

especially so when viewed from the perspective of Ekistics and anthropomorphic comfort.

Figure 38: Schematic of Islamabad Gridiron Fractal

However, as stated earlier, the fractal loop of the gridiron layout has prevented the urban fabric from repeated process of territorialization, resulting in different expansion models for the Zones of the city. Due to this limitation posed by the urban structure, the CDA has occupied and appropriated land from surrounding territories and incorporated them into the Islamabad Capital Territory (see Appendix 1). Similar expansion initiatives are taking place in New Delhi, however due to the mosaic-like nature of the urban structure, the city is expanding in a more fragmented yet locally rooted urban form (See Appendix 2). While the urban growth structure of Islamabad has had to abandon the gridiron layout in favour of simpler and adaptable territorial arrangements, New Delhi has been able to ensure a more successful and cohesive urban form.
CHAPTER 5

CONCLUSION

The research begins with a simple question between two mutually dependant entities, namely borders and territory – and analyses their conducive effect on each other. The field of urban politics and urban planning have consistently endeavoured to either remove borders or enforce borders – however, a study of bordering practices and territorialization processes can enrich the field by adding more detail to the practice of spatial segregation and zoning, by defining a gradation between polar opposites of border and no-border. It is essential to understand through the research that borders are not only space-bound; they are also time-bound – in essence, they function as spatial as well as temporal phenomenon. Since space evolves with time, it is necessary for borders and territory to develop and transform, bringing new meaning to sociospatial practices. In order to define and subsequently redefine territoriality of a given space, it must undergo processes of deterritorialization and reterritorialization, where it re-establishes itself as a territory – with redefined boundaries and redefined sociospatial relations. This redefinition allows the revision of social relations that are impacted by the territory and as a result allows the breakdown of established norms and prejudices, in order to give shape to new social practices. Fixed borders resist these mechanisms of territorialization, thereby preventing the revision of social processes and resulting in stagnated sociospatial sensibilities. Therefore, when borders are permanently designed and defined as a spatial bounding box, they prevent the evolution of territory and sociospatial practices. This results in segregated and poorly-managed cross-border relations. As witnessed in the case of Islamabad and New Delhi, the rigid gridiron planning of the former has given shape to a defined economic and sociospatial zoning, where the borders and parcellization of the city have been strengthened through time. The gridiron tool of segregation is the road network, which divides the city into land parcels – in essence, the roads function as a network of borders used to divide and
segregate the city. In comparison, although New Delhi sees a fair share of economic disparity, the lack of defined borders within the cityscape allow the processes of territorialization to constantly take shape and encourage a revision of sociospatial concerns. This results in mobility from core to periphery of different economic classes and a mosaic-like diaspora of the demographic, which cannot be ascribed to socioeconomic zoning. The case studies clearly exhibit that the definition of rigid and determinate bordering instruments, results in the stagnation of spatiotemporal and sociospatial identities – preventing the processes of territorialization and engendering social and economic segregation.

In light of the study conducted in the second chapter, it would bode well to enquire whether a new border epistemology is possible to define. Borders as an instrument to secure territorial interests has been a long accepted definition, evolving from metaphorical lines in the sand to international fences and multiplanar entities, used to define and separate core-periphery, urban-rural, private-public and so on. Aside from minor paradigmatic inconsistencies, the epistemological and empirical understanding of urban and non-urban has been evidently consistent due to the inside-outside dialectic binary function of borders; ranging from the Chicago school’s study of space in early 20th century, to neo-Marxist urban sociology and geography in the 1970s and on to the debates on globalization, urbanization and sustainability from the 1990s onwards. However, the late 20th and early 21st century have seen urbanization being questioned and reconfigured, calling into question various inherent and inherited cartographies sustaining urban theory, while shedding light on sociospatial relationships, territoriality and place-making. It has become increasingly essential to put the concept of borders under scrutiny, to achieve new and pertinent understandings of space, place and territory.

The second chapter briefly touched upon the concept of borders, endeavouring to achieve a relevant definition in the visceral, spatial and epistemological sense. With regards to the visceral and perceptual characteristics of borders, a brief study of Gestalt theory and the perception and reception of borders indicated that the perceiver aims to simplify and organize their perception of space, to achieve an implication of enclosure and to ensure simplicity and order. This target for order is apparent in man’s attempt
to create a coherent structure in topography through the use of demarcation tools for the achievement of territoriality. When populations move from nomadic activity to settlement, the definition of territories act as a vital tool for ensuring residence, acquisition of resources and eventually labour – all of which adhere to human dimensions and functional convenience. Through the brief study of Ekistics theory, it can, hence, be observed that borders represent the outer boundaries of the human sensory scale, serving as the tool of defining optimal zones of activity and territories appropriate for the human scale. The only certain attribute to borders is that they represent a visceral and epistemological limit between two territorial or social entities, while maintaining a dialectical function of an instrument of separation and an interface for connection.

Analysing the concept of borders and subjecting them to poststructuralist scrutiny, leads to redefinition from borders to bordering practices; from territorially fixed and static entities to heterogeneous and contingent processes; and from a dialectical binary distribution to one subject to multiplicity and heteronomy. Borders serve a great number of vital socio-political functions, the primordial one being the separation of institutional and services – essentially, defining who is eligible and who is not. As seen in the third chapter, eligibility is a useful term in the study of borders, since territorial restrictions on eligibility invokes contractual obligations on individuals, which give shape to the infrastructural power and autonomy of the state. Eligibility ties into governance and mobility, where the State uses borders and bordering instruments for the striation of space and the control of individual mobility and freedom. In this regard, it is important to explore how the study of borders and bordering practices as indeterminate, non-divisive instruments, impacts territory and territorial practices in political terms.

In essence, territorial social formations may be said to represent the root of all identities and the presence of an indeterminate, transitory space between territorial entities would undoubtedly impact the sociocultural identities of the inhabitants. Rather than focusing completely on fixed and established identities and definitions, the bordering practice may acquire qualities through relations between entities – yet qualities which can be amended, abandoned, manipulated or even replaced – as a result.
allowing the recursive process of deterritorialization and reterritorialization. These processes prevent the establishment of determinate perspectives and sociocultural norms, increasing the opportunities for accessibility and cross-border interaction, while decreasing the State’s power of striating space and imposing control. The aim of the conducted analysis is to propose a shift from previously held spatial narratives of determinate planning towards a sociospatial perspective, by placing the user at the centre of the production of space – terming the user the co-author and co-creator in the production of space and place.

In addition, it is necessary to explore how borders as political instruments, function on an urban scale – and the impact of borders on urbanism, urbanization and the urbanite. It is also essential to study how such processes of territorialization manifest on the scale of cities – through the study of urbanism and urbanization activities. It is useful, even more so, because while territorial processes between nations imbues a political and geographic identity, the effect of urban territoriality on social identity is much more refined and discernible. A beginning point of study may be to understand how varying city formations and urban patterns impact territory and territoriality – which as a result affect territorialization and social identity. While emergent territories throughout history have led to integrated and multifarious community structures, the study of planned cities and the impact on territoriality and identity is a beneficial point of study.

The comparative case study between the two Subcontinental capitals, examined the social integration and sociospatial relations in both cities, exploring the impact of rigid planning as compared to a more adjustable layout. Islamabad, in this case, exhibits a severe gridiron plan which has not only existed since its conception, but strengthened repeatedly by development of road networks and specific sectors. According to the study of borders and territorialization, this research posits that such rigidity in urban planning, inhibits the opportunity for reterritorialization and as a result engenders sociospatial discrepancies in the urban layout. While the existence of self-sufficient fractal microclusters is useful in generating an active and engaged urban structure, the resistance to the processes of territorialization prevents the urbanism from growing into a self-sustaining urban system. It is evident that the community microclusters were
designed and defined in such a specific manner, because Doxiadis ensured the clarity and coherence behind the principles of Ekistics and anthropomorphic planning. However, the community class divisions have undergone unprecedented changes and growth – with urban development increasingly manifesting itself within the community microclusters rather than only through the defined replication of sectors. A Community Class V sector is not what it was when Doxiadis planned it, with the advent of multi-storey buildings, small plot divisions, new commercial initiatives and appropriation of public spaces for commercial benefit. A useful point of study may be to explore the development of Islamabad through a space-time mapping of the city – which would evidently show the city growing in the proposed directions, but also increasing in density and unplanned urbanism.

On the other hand, although New Delhi exhibits a well-defined and implemented city layout, the provision of adjustment and lack of rigidity in the urban structure, has allowed the capital to undergo repeated processes of territorialization and retains a more socially integrated demographic. Compared to the previously mentioned case of Islamabad, the urban structure of New Delhi encourages a more cohesive social system. Even though both planning systems exhibit a clear and coherent geometric layout, the aftereffects of zoning in the gridiron and unplanned growth in New Delhi have led both cities in divergent directions. While the parcellization in Islamabad has led to social segregation allocated in defined zoning, the axial layout of New Delhi has allowed different social classes to be distributed in a fragmented manner within the urban fabric. However, the unprecedented migration and formation of informal settlements around the city peripheries, lead to an irregular and unplanned growth structure – which was later brought under control by Nehru’s establishment of DDA. Yet, the territorialities instilled due to an irregular urban structure has allowed the processes of territorialization to repeatedly take place, even after the establishment of the DDA and the proposition of a well-defined Masterplan. This is evident in the current urban structure and the proposed 2021 urban renovation Masterplan, which aims to assimilate dissociated settlements, small villages and varied planning structures into one large mosaic-like urban layout.
While, the observed gestalt principles in the planning of Islamabad implied closure and self-sufficiency, with each defined sector functioning as an independent unit; the Masterplan of New Delhi implies a gestalt of continuity and connectedness, through the employment of boulevards and axial planning – leading to a polynucleated urban model. This also allows the propagation of socially induced housing and commercial activities, which manifest themselves as appropriated spaces in accordance with social practices. This allows daily negotiations and adjustments regarding social practices and spatial decisions to take place, which help generate an active and engaged urbanism. While considered as a successful example of planning and innovative design, Islamabad has yet to overcome the social discrepancy and segregation, which has emerged as a side effect of the otherwise successful gridiron network. According to the research and the case studies, the definition of rigid and determinate bordering instruments, results in the stagnation of spatiotemporal and sociospatial identities – preventing the processes of territorialization and engendering social and economic segregation.

Further research may entail a more thorough analysis of borders across every applicable paradigm, in accordance with outdated and updated social and political theories. In addition, the analysis may be used to formulate new methods of governance, communal gathering, occupancy of public spaces, urban planning, regional zoning and political contestation. An additional point of study, which may benefit in the developing understanding of borders, is the theoretical framework attached to the experience of borders; mainly, the phenomenological dimension of border studies. Phenomenology, which studies the structures of consciousness from an experiential standpoint with regards to intention and meaning, is a field of study that has not been fully utilized to study the concept of borders. In phenomenology, the environment is concretely defined as “place”, where phenomenon and processes are said to “take place” – a parallel with Deleuze and Guattari’s study of bordering practices and Lefebvre’s processes of urbanization. A phenomenological discourse on borders retains the potential to answer questions like; how does one experience a border-crossing? What does it feel like to exist as a border? How do sociological and political implications impact the experience of bordering practices and to what extent? Such questions draw coherent parallels with poststructuralist investigations of
bordering practices; studying the political, sociological and experiential outlook on the emergence, production and sustenance of socio-spatial divisions, while remaining dissociated from territorialist and static epistemology.
APPENDIX 1: ISLAMABAD EXPANSION PLAN
http://www.cda.gov.pk/housing/ictmap.asp
APPENDIX 2: NEW DELHI EXPANSION PLAN
http://www.dda.org.in/planning/draft_master_plans.htm
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