WHY PEOPLE BUILD THE WAY THEY DO
THE SHAPING OF THE BUILT ENVIRONMENT OF GANGTOK

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CHAPTER I: INTRODUCTION

Architects, Planners and Policy Makers in India tend to view development from a highly Westernized perspective. Their policies, geared towards restructuring Indian cities to resemble environments in the West, may represent values of the Indian upper-class but are not always appropriate for regular people living in these environments. People\(^1\) therefore adopt various strategies to negotiate the rules and regulations, manipulating them to suit their own needs and wants while remaining within legal boundaries. This thesis examines the building practices of people, particularly the process they follow and the effects of their negotiations and actions on the built environment. It provides an insight into the viewpoint of the people; the standards, needs, aspirations and motives that guide them in their pursuit of progress. I argue that people have the “creative potential”\(^2\) to shape environments that best suit their purpose. These environments may not be “perfect” but they have their reasons, logics and advantages. Authorities and professionals should therefore shed their prejudices against indigenous environments and recognize the strengths of the “people’s way” of building. It is only when they support people as they strive for advancement that real progress can be achieved.

\(^1\)I have used the term “people” in the thesis to signify the populace engaged in building as property owners, separate from the agency involved in making formal policies for city development. It represents the group who is expected to follow these policies. “People” is distinct from squatters since they have legal rights to their property. It may loosely be considered to encompass the middle-income group since the high-income group usually hires architects or engineers to design their buildings and so their building process is substantially different.

Context

As John Habraken has remarked in his writing, “For thousands of years, built environments of great richness and complexity arose informally and endured.”\(^3\) Many cities all over the world, including those in India were customarily built by its people through a common, shared knowledge of building. There were usually no formal institutions to regulate the building process. Instead, individuals built according to their needs, their actions guided by human relationships and unwritten social norms established by the community.

Understanding neighbors and negotiating with them formed an integral part of their building practice, as did transformations in the environment through everyday interactions with everyone involved in the building process. Cities in India with these “ordinary” environments boast of a rich urban fabric that is both simple and complex at the same time. Seemingly chaotic but with an inherent order, these environments are the manifestation of the energy and vitality of urban life.

In the almost one hundred years of formal colonial rule in India (1858-1947) the British introduced a different form of urban organization in which a ruling body would coordinate city development. Their intention was to use the familiar spatial order of their home environments as a model to restructure the Indian urban environment that they perceived as chaotic and disorganized. The British instituted municipal organizations as the agency that would establish this order. They formulated laws as a means to regulate

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building activity. Various other organizations introduced new forms of building, and in some cases, undertook the construction of planned cities. Jyoti Hosagrahar highlights the changes brought in by British colonizers into the city of Delhi:

…the new British Rulers embarked on a massive program of urban restructuring. In the three decades following the 1857 rebellion almost a third of the city was demolished and rebuilt. The organic city, officials deemed, was unhealthy, unsafe, inefficient, and uncontrolled. The ideal city, in their vision was one that was rationally ordered, commodious, beautiful and salubrious. They were convinced that the perfect rational settlement was to have broad, tree-lined boulevards, orthogonal forms and streets, low densities and distinct land uses…

Concurrently, the British, with their political supremacy were able to create cultural hegemony for their world views. Everything associated with the West was promoted as superior; their values, their ideals, their architecture, their education, and their administrative system. To develop was to become Modern and thus Western, particularly like the British.

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5“West” with a capital “W” is employed to denote Western Europe, United States of America and such other regions that are considered to be developed nations. India is different from these countries not only in terms of economic conditions but also in terms of social and cultural values and practices. Similarly “Western” refers to the ideas and systems formulated by people of the West. These include their customs, languages, beliefs, knowledge, technology and economic and administrative systems.
The British have left India but, six decades later, their perception of development still exists in the minds of many “educated” citizens for whom progress has come to mean a shift towards Western standards and models. An ideal urban environment from the standpoint of architects, planners and policy makers is that of the stereotypical city in the United States of America or European countries– uncrowded and pristine, with large open spaces and wide, multiple lane roads with fast moving cars. This view is manifest in their formalized, “top-down” planning proposals for city development where a single “superior” body of professionals undertakes the design of environments for the entire population. Their designs, often adapted from Western planning schemes have been criticized for not meeting the needs, requirements and aspirations of the people for whom they are built.

After India’s independence from Britain in 1947, Indian politicians, government officials and planners saw their vision of modernity and development come to fruition in the form of Chandigarh. The new capital of the state of Punjab, Chandigarh was one of the first planned city building projects in post-colonial India. Ravi Kalia stresses that the “staggering desire of its leaders to establish India as an independent and modern nation, in many ways, shaped the new city.”6 It is ironic that when the time came to choose, Indians, although eager to build a city “unfettered” by their colonized past, adhered to the planning tenets introduced by those very colonizers and, in doing so, participated in the creation of a city alien to its context and more European than Indian in form.

The planned city of Chandigarh, world renowned for its iconic, sculptural edifices has also been severely criticized for its unconnectedness to the Indian reality. According to critics, the city was built without consideration for the existing social, cultural and economic conditions. Chandigarh had been intended to be a model city in terms of planning. However, Chandigarh has failed both socially and culturally; neither does it provide the economic setup to support all its inhabitants nor does it possess the energy and animation of a true Indian city.

Le Corbusier, with uncritical faith in his wisdom and with a theoretician’s belief in his grand schemes, had hoped that by neatly dividing the city into four different functions—living, working, leisure, and communications—“the population will have qualified for a new condition of living.” In a country like India, where close traditional ties exist between working and living, reinforced by economic conditions, the demarcation of the city into single-purpose zones meant excluding a sizable proportion of the population from the master plan…Chandigarh was meant to be something beyond a new state capital. But it lacks culture. It lacks the excitement of Indian streets. It lacks bustling, colorful bazaars. It lacks the noise and din of Lahore. It lacks the intimacy of Delhi. It is a stay-at-home city. It is not Indian. It is the anticity…

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It is not only in Chandigarh but in almost all Indian cities that the authorities have been constantly trying to bring in a semblance of order through city planning. In New Delhi, the Delhi Development Authority (DDA) was created for the purpose of controlling housing development in the city. Although the DDA has achieved much in terms of quantity, the “orderly-yet-rapid development”\(^8\) has resulted in neighborhoods that are devoid of character. DDA projects have been denounced not only for their indifference to the needs of the inhabitants but also for their uninspiring architecture and poor quality of construction. Critics have noted that dwellings designed and constructed by DDA are characterized by “cheap colours, cheaper architectural motives…”\(^9\)

The situation is not remarkably different in other Indian cities where “Mechanical site planning and monotonous building characterize government projects … creating a dilapidated parody of… geometric formulas…”\(^10\) These architect-designed, expensive concrete boxes are a poor substitute for the cost-effective, incremental, lifestyle-appropriate housing that people can build for themselves.

People build to fit their needs rather than fit their needs to what has been built. They may attach importance to certain Western values but these do not take precedence over their existing needs and wants. People build in response to individual needs, their standards and aspirations guided more by their own perceptions of progress than those

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\(^8\) [http://www.dda.org.in/about_us/about_dda.htm](http://www.dda.org.in/about_us/about_dda.htm).


imposed on them by an “external authority.” Habitats created in this manner are the “…unself-conscious translation into physical form of a culture, its needs and values-as well as the desires, dreams and passions of a people. It is the world view writ small, the [ideal] environment of a people expressed in buildings and settlements, with no designer, artist or architect with an axe to grind.”

Cities built by people for themselves serve them better than those created by planners and designers because they are built in response to the real, existent context, whether social or cultural, and not one that is perceived. For a designer the environment may be a problem to be solved but for people living in these environments it is a part of their life.

In Goh Beng-Lan’s words, “People are never passive recipients of external initiatives but rather always struggle within their own immediate context of constraints and opportunities to produce a meaningful life with their own particular values and goals.”

While designers, preoccupied with the West, seek to transform Indian environments and the Indian lifestyle, people strive to build and develop environments that are meaningful to their particular way of life. To achieve their goal of an ideal city, the authorities, like the British colonizers, devise rules, regulations and development policies that people are expected to follow. People, on the other hand, feel that the administrative practices of the authorities restrict them in their building activities and thereby manipulate the formal system to devise the means to achieve their own ends.

Contradictions in the perception of development between the two parties involved in city making has resulted in the emergence of built environments that are compromises between the intentions of these groups. Most contemporary cities in India have developed in this manner, in the middle ground between the practices of the people and those of the authorities. They exist, not as the black or white of formal or informal but in the interstitial, gray spaces between the two polarities.

**Subject**

This study focuses on Gangtok. The capital of the state of Sikkim\(^{13}\), in north-eastern India, Gangtok has a population of approximately 100,000 residents. Like most other cities in India, Gangtok is a “hybrid city.” The hybridity is visible at many levels. The built environment of Gangtok is a mix of historic, colonial and contemporary; there are monasteries that have remained intact in their form and configuration but are built with concrete and steel instead of stone and mud; there are multistoried apartment buildings with traditional window motifs and curved sloping roofs. The Western New Year on the first of January is celebrated with as much vigor as the traditional New Year and other festivals based on the lunar calendar. The amalgam is also evident in how the city has developed organically/informally within, and in spite of a formal framework provided by the local housing authority. The people of Gangtok, working within the power structure have devised their own methods to negotiate rules and regulations and

\(^{13}\) Sikkim is one of the twenty eight states of India. It lies to the north-east of the country, sandwiched between Nepal in the West, Bhutan to the east and Tibet to the north. For more information on Sikkim go to www.sikkim.gov.in
thus maintain sufficient control over building activity to be able to build according to their requirements. This has resulted in the emergence of a distinctive, part formal part informal building culture that allows the people of Gangtok to manipulate the formal system to suit their purpose while remaining within “legal” boundaries.

Questions and Method

It is within this sphere of conflicting ideals that my thesis attempts to understand why people build the way they do, questioning and negotiating the values held in such high regard by architects, engineers and authorities. It aims to provide an insight into the perspectives of the people who live and work within the realm of this formal-informal system by asking such questions as: Why is it that people continue to build environments that designers consider to be lacking in aesthetics and physical planning standards? Why do people follow some of the rules made by the authorities and choose to ignore others? What guides their choices and standards? What are their needs? What are the constraints faced by people that justify their building methods? How do they achieve their objectives and goals?

In view of understanding the people’s way of building I carried out detailed studies of the building process employed by four individuals in Gangtok. Kamal, Dilip, Dorji and Bimal\(^\text{14}\) are the main characters of my case studies.

\(^{14}\) Names of the individuals and the area they live in have been changed to protect their privacy.
The original intention for research methodology was to study residential or residential/commercial buildings in Gangtok currently under construction. In accordance with the plan, I chose Kamal and Dilip because apart from the fact that their buildings were in the process of construction, as neighbors, we have known each other personally for a long time. The familiarity, I reckoned would make conversation easier, especially on matters that they might have been uncomfortable discussing otherwise.

I had come across Dawa’s building while visiting an aunt in that neighborhood. His construction had blocked off one of the more easily accessible pathways to her house. According to her, after an argument with her landlord Dawa abruptly stopped the ongoing construction of a staircase within his property leaving no public access. This brusque act had puzzled and intrigued me. Since his building was still under construction, it provided the opportunity for an interesting case study.

The reason for choosing Bimal’s house is its uniqueness. Unlike most other multistoried buildings of Gangtok, the house he lives in is one storied and has ample open space in the front. This difference in character offered the possibility of comparison between the ideals and intentions of these four owner-builders.\textsuperscript{15}

The four case studies are designed to provide an analysis of the process followed by each of these individuals in constructing their building; the reasons for building, the process followed and the results achieved. It discusses the different needs for building,

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\textsuperscript{15} The term owner-builder is used to represent the category of house owners in Gangtok who also participate in the construction of their building. They may not be the physical builders (mason, carpenter, etc) but participate as designers, contractors or material suppliers.
the ideals of the builders and the negotiations they follow with the challenges and opportunities provided to them.

Although generalizations cannot always be made it is my assumption that these individual acts aggregate to form the larger building practice and therefore these case studies are an insight into the building culture that has shaped the environment of Gangtok into what it is today.

**Literature Review**

Amos Rapaport\(^{16}\), Howard Davis\(^{17}\) and John Habraken\(^{18}\) have all emphasized that a city is comprised not only of monumental buildings designed by architects but also the “everyday” buildings designed and built by people. Rapaport and Davis also dwell on the complexity of the built environment. They argue that social and cultural factors are as important as physical factors, if not more so, in shaping the form and nature of the built environment. Rapaport calls the element that provides a unifying character to the design intentions of individuals “tradition,” while Davis calls it “building culture.”

For Habraken the city is an organism that is constantly renewing and reinventing itself; a city is not defined merely by its physical form but also by the people inhabiting it. The idea of continual change brought about by people further increases the complexity

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of the built environment while highlighting the importance of people in the process of city building.

At the other end of the spectrum are studies on cities that are considered to be the creation of architects. Ravi Kalia has explored the city of Chandigarh in his book *Chandigarh: In Search of an Identity*; James Holston has examined Brasilia in *The Modernist City: an Anthropological Critique of Brasilia*. While both authors recognize the positive aspects of these two great cities, they accept that they were designed in compliance to a different set of ideals that totally disregarded the social, cultural and economic conditions of the society for which they were built. Instead, the design of these cities imposed “new forms of perception, experience and interaction” on the people. Holston’s discussion on the people’s reassertion of customary values into the otherwise unfamiliar built environment brings forth the fact that people do not quietly accept impositions on their way of life. They find ways of upholding, adapting and assimilating their value structure in the society.

Jyoti Hosagrahar exemplifies this in her book, *Indigenous Modernities: Negotiating Architecture and Urbanism*. When British rulers first introduced building laws for the old city of Delhi to regulate growth in accordance to their value system, the inhabitants, unaccustomed to formal authority viewed the regulations as an intrusion on their private and communal space. People did not protest openly against the government

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but they adopted various methods to manipulate and negotiate the rules and regulations. The end result was a compromise, a hybrid between the intentions of the authorities and those of the people.

James Scott calls the non-confrontational strategies used by the “relatively powerless” in achieving their own ends, “weapons of the weak.” In his book by the same name Scott makes his argument in reference to peasant activity, but it can be agreed that indirect, informal, low-profile techniques of resistance followed by individuals “are often the most significant and the most effective over the long run.”

These discussions make apparent the discrepancies between the authorities’ and the people’s view of development. In the present system of governance the authorities have greater control over the course of development. However, scholars like Nabeel Hamdi and Anisur Rahman have stressed the importance of development at the local level where people have the power to direct development. Hamdi in his book Small Change writes “intelligent practice builds on the collective wisdom of people and organizations on the ground-those who think locally and act locally-which is then rationalized in ways that make a difference globally.”

Rahman is of the opinion that efforts at development in developing countries have failed because the upper-class leaders, who consider themselves superior, have imposed

their view of development on the people. He considers giving people the opportunity for self-development the right step in the path of progress.²³

The advantages of self-built housing can be identified in the work of Robert Fichter and John Turner.²⁴ Although housing in Gangtok is not completely self-built and does not belong to the same category that these authors address, there are many similar characteristics. Housing in Gangtok is largely “owner-built” and are clearly designed to serve its owner best.

**Rationale**

Studies on contemporary Indian cities tend to either focus on formal, architect designed spaces or on squatter settlements that are informal and illegal. Authors such as Ravi Kalia and Vikramaditya Prakash²⁵ have extensively explored the city of Chandigarh; studies on the slum settlements of Yamuna Pushta²⁶ and Dharavi²⁷ explore the other extreme. However, most building activity in the cities of India occurs as a complex combination of these two extremities. Hybrid urban environments are more common than the absolute environments on which these books concentrate.

Consequently, any study on the urban environment of India will be incomplete without an understanding of the large proportion of formal-informal spaces built by people through negotiations within the formal city and its legal guidelines provided by the authorities.

Further, such a study is necessary for the authorities to review their guiding principles and analyze if their practices have been conducive to progress. If people are disinclined to respect policies made for their benefit the ability of policy makers to respond to the needs of their society is questionable. If designers are to fulfill their task of producing an “appropriate environmental response to a people’s aspiration to a better life”\(^{28}\) they need a better understanding of the environment in, and for which they design. It is imperative for them to appraise their own opinion about their own cities, especially the people and processes that shape them. Concurrently, they need to be critical of their ideals and values, and question if their conception of a perfect city based on the European model, with its formalized building methods is actually suited to the local Indian lifestyle or not.

Even in the Western world, architects are unhappy with the way their cities function and are trying to find other, better ways of building a city. Realizing that Modern buildings and cities they have built are egocentric and unsustainable, they have started re-evaluating their ideas of what a city should and could be. New Urbanism, for example, is an “American urban design movement” that promotes sustainable living through mixed-use designs, walkable communities and “context-appropriate

\(^{28}\) Jamini Mehta, *Architectural Education in India (overview).* [www.architexturez.net/+/subject-listing/000225.shtml](http://www.architexturez.net/+/subject-listing/000225.shtml)
architecture”\textsuperscript{29}. Coincidentally, the urban environments of India that authorities are trying so hard to change have many of the characteristics that Western architects are trying to achieve inherent in them. They are diverse in the use of space, promote community living, are culture specific, sustainable and also adaptable to changing usage. Hence the timing is highly relevant for a study of the processes through which ordinary people of India construct buildings, build spaces, and shape cities.

**Organization**

The thesis is organized into five chapters. Chapter-II provides the background for the study. It describes the built environment of Gangtok in its present state with a discussion on how even the establishment of formal building laws by the authorities have not resulted in the organized and planned city that had been expected. Instead, transformations in the environment have taken place as necessitated by the changing needs, circumstances and social values of its inhabitants.

Case studies in Chapter-III identify the building process followed by four individuals living in Gangtok. These studies shed light on why and how individuals build; their reasons for building and the methods they follow. It discusses the motives behind their manipulation of the formal system of building and why they value the informal system over the formal.

\textsuperscript{29} http://en.wikipedia.org/wiki/New_Urbanism (accessed 05/12/08, 5:22 pm)
Chapter-IV provides the broader building scenario with discussions on how actions similar to those discussed in the case studies have shaped the built environment of Gangtok. It argues that, although the city may not be perfect in its present form, it has its advantages. Discussing the positive role that the environment of Gangtok plays in the self-development of its inhabitants, it finally urges architects and planners to overcome their prejudices about self-built environments. It is only when the authorities can appreciate the peoples’ way of building that the development plans and policies they formulate can promote real progress.
CHAPTER II: THE SETTING

The city of Gangtok has grown considerably in the last few decades. Spurred by rapid urbanization, there has been an enormous increase in building activity. The local authorities had established laws to direct growth towards their ideal of a planned and organized city. However, in spite of regulations, development has not occurred in the formal manner expected; it has continued to retain its informal character.

Sikkim was an independent kingdom until 1975 when it merged with India to become its 22nd state. Although Sikkim had been slowly undergoing urbanization, first under the British colonizers, and later as a protectorate of the Indian Union, the process gained momentum after this important political change.

Gangtok, being the administrative capital of Sikkim, is urbanizing more rapidly than other towns and cities in the state. Although there are nine notified urban areas, 55.5% of the total urban population of Sikkim is concentrated in the Notified Town Area.
of Gangtok\textsuperscript{1}. The city has experienced a population increase of over 150\% in the last decade of the twentieth century (Figure 1).

Gangtok’s growth as an administrative center is matched by its economic growth; most of the big businesses and banks are concentrated in the city. Apart from that, good hospitals, schools and colleges are also within, or very close to the city limits. The presence of these facilities and the subsequent job opportunities draw many residents from other parts of the state to the capital. It is not only the Sikkemese but even residents from other states of India, especially those from neighboring states of West Bengal and Bihar, who move to Gangtok in search of jobs and better opportunities. They are attracted by the high standard of living in Gangtok where the per capita income of its inhabitants (Rupees 11,356.00) is one of the highest in the country.\textsuperscript{2} Since this increasing population requires accommodation, the demand for housing, both owner and rental, is constantly on the rise.

\textsuperscript{1} Urban Development and Housing Department, Government of Sikkim. \textit{Strategic Development Plan for Gangtok Metropolitan Area.}

\textsuperscript{2} http://sikkimipr.org/GENERAL/PEOPLE/PEOPLE.HTM
To add to the already large population is the influx of tourists (Figure 2). Gangtok is not only the center for administration but also the hub for tourism in the state. The city by itself is a tourist destination; most tourists traveling to other parts of the state also stop here because of its good hotels, travel agents and transport facilities. Moreover, permits and permissions for visiting restricted parts of the state are available only in Gangtok. The tourist population is so high that in the year 2000, the number of tourists who visited Gangtok was more than the total population of the city.³

Sikkim is largely dependant economically on the tourism industry. With strong impetus provided by the government, tourism has grown drastically. Although tourists do not visit throughout the year, facilities for them take up a large amount of space. Many of the prime locations in the city are taken up by hotels, restaurants and travel agencies. Other hotels and lodges catering to the budget traveler abound the city. Parking space also has to be made available for the numerous taxis that ply during the tourist season. Thus, where on one hand the population is constantly on the increase, the amount of land available for housing is reducing.

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³ The total tourist inflow in 2000 was 152997 while the population was approximately 1,06,000.
Since Gangtok is built on a hill with a very steep eastern slope, extremely difficult to build on, the possibilities of lateral expansion is limited. Growth has been taking place all along the National Highway (Figure 3) but most inhabitants still prefer to live close to the city center since commuting long distances on inferior, mountainous roads susceptible to landslides is neither safe nor desirable. Population pressure on land within the city limits of Gangtok is therefore very high.

Shelter as a basic need is always in demand, and as the increasing population has to be absorbed within a limited space the buildings are either being built higher or closer to one another. New buildings are quickly taking up spaces left in between the old ones. People who had originally built two or three storey structures are rapidly adding more floors to their property. Most of these buildings have an illegal, temporary “shack” on the terrace that is used as storage space.

Land in Gangtok available for housing is either privately owned or in the hands of the Government. During the Chogyal’s (king) time, in the 1960’s, the government had started a policy of leasing land to the people so that they could build their houses.
according to their own means. The policy is still followed and the Urban Development and Housing Department (UD&HD) is now responsible for allotment of land. The fact that there are more than two thousand applications for “virtually non-existent housing plots”\(^4\) gives an idea of the current housing situation. Under immense pressure from the public the UD&HD is allotting a few building plots that are quite small in size, ranging from 20’x 30’ to 20’ x 25’. Often, pieces of land previously considered unsuitable for building are also being sanctioned. Because of the sloping terrain much land is taken up by retaining walls and drainage spaces so that the plot size is further reduced. Even for those who own land, subdivision over generations has left them with rather small plots to build on.

The most striking feature about the built environment of Gangtok is its density. The entire hill side appears to be covered with row after row of buildings (Figure 4). The density is further apparent on closer examination. Public access between buildings is often narrow with steep staircases. It is not uncommon to see buildings encroaching upon

public pathways or built so close to each other that hardly any light can pass through openings on the walls. Most buildings along the road lack garages and have insufficient setback so that vehicles are parked all along narrow streets making them congested and difficult to manoeuvre (Figure 5).

Figure 5: The built environment of Gangtok. Narrow public staircases (a), encroaching on public land (b), buildings built extremely close to one another (c), parking on narrow roads (d). Photo (b) courtesy: Siddharth Rasaily.

For architects, planners and authorities who are more concerned about the physical aspects, this built environment seems unorganized, untidy and unclean. Even during the 1980’s when urban growth in Gangtok had not reached the proportions that it has today, the authorities had been critical of the building activities of the people. In their opinion, unregulated construction had “…resulted in encroachment of septic, water supply tanks, land within compound of Government quarters, within the notified green belt and … [was] likely to cause landslide during monsoon…”\textsuperscript{5} The desire to prevent, what was in their view, haphazard growth and to develop Gangtok in an organized and formal manner had resulted in the creation of a regulatory body in the form of UD&HD

in 1985. The authorities formulated the *Codified Laws of Urban Development and Housing Department* to “…bring about an equitable and proper distribution of house sites and promote planned, organised and systemic growth of towns and bazaars…”⁶ These rules sought to formalize the building process by making it compulsory to obtain official approval before commencing construction.

The rules formulated by the authorities at that time, which includes by-laws for building setbacks, building heights, cantilever projections, minimum size and height of rooms, lighting and ventilation, waste disposal, and storm water drainage are still prevalent today. Permission from UD&HD is required for any new construction as well as additions, alterations and major repairs of buildings.

An owner is expected to submit copies of a drawing for the proposed structure. The drawing has to be made by an architect and include a site plan, floor plans, elevations, sections and structural details. The drawing is scrutinized by architects and engineers at UD&HD and sanctioned only if it meets the requirements laid down by the law.

The authorities use several methods for the enforcement of their rules. Legal status is granted only to those buildings whose owners possess an approved drawing. Municipal water supply and electric connections can be obtained only after officials from UD&HD sign an Occupancy Certificate. This certificate is provided once the completed building has been checked for discrepancies. Approved drawings are also required for

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⁶ Ibid.,1.
obtaining loans from the bank and for selling the property. Based on the extent of
violation, any construction which is not in accordance with the sanctioned drawing is
subject to fines or even demolition.

Twenty-three years after the formulation of these laws, and in spite of various
policies followed by the government to ensure that the rules are followed, growth in areas
where construction is dominated by people has not lost its informal nature. Unlike
constructions in squatter settlements this informality cannot be ascribed to illegal
building. 95% of the builders possess all documents that confirm their legal ownership.
Further, completed buildings are legally occupied and have connections to municipal
water supply and electricity. Many of the owners have financed their buildings with loans
from the bank, and buying and selling of property is carried out legally.

The adherence to a formal building process in terms of legal documentation and
paperwork but the development of a contradictory built environment raises questions
about the nature of the existing building culture. How has an informal environment
developed within a formal building practice? How have the people of Gangtok managed
to build differently within the bounds of the formal system? And why has it been
necessary for people to build in a manner distinct that what had been envisioned by the
authorities?
CHAPTER III: FOUR CASE STUDIES

Chapter II discussed the existence of a distinct building culture in Gangtok that, despite the presence of agencies, processes and procedures that endorse organized growth, has resulted in the development of an informal built environment. This chapter explores this informal formal-building culture through the study of building processes followed by four individuals living and working in Gangtok. Kamal, Dilip and Dorji are owners currently constructing their building. Bimal lives in a building constructed several years ago and distinct to the other three. This difference offers an opportunity to look into the building culture of the past.

Case Study 1

Kamal Tamang is a travel agent who shares the ownership of a four storey building with his sister, Madhu and brother, Vinay. Madhu is a government employee while Kamal and Vinay together run a successful travel agency and an economy class hotel in the building they own. Kamal is married to Anabela with whom he has a four year old son. Between his family, constant telephone calls from customers and other travel agents, and regular white water rafting and trekking trips that takes him away from his home for a week or more at a time, Kamal leads a busy life.
The Tamangs’ property is in the Penangla area which is a prime location in the city. It is a thriving business and residential community approximately fifteen minutes walking distance from downtown. Two good schools, a few banks and a number of hotels are located in the area. The bus terminus is across the street from the Tamangs’ property; taxis are easily available and the Hospital is at a distance of about half a kilometer (Figure 6). Because of its proximity to the city center and all these facilities, properties in this neighborhood are much sought after.

The building that the Tamangs own is a four storied concrete framework structure with plastered brick wall partition (Figure 7). Because of the sloping terrain of their land two floors of the building are below the level of Penangla Road. The third floor of the building, which is at the level of the road, is divided into five parts, four of which is rented out for shops. The fifth part serves as the office for the travel agency and also the reception area for the
hotel that Kamal and Vinay own. The hotel rooms are located on the second and fourth floor. Madhu and Vinay have their apartments in the first floor while Kamal and his family live in an apartment in another building that is owned by his father-in-law. This building is on the same street, separated by two other buildings.

On the northwestern side of their property, bordering Dichiling Road was a trapezoidal piece of land, about 600 square feet in area (Figure 8). This land belonged to the government and was used by the community for a number of purposes. It was an informal gathering space and a place for idle chatter. It was invariably the point of exchange for local gossip and news. For children it was a playground. The Tamangs and their neighbors had also been using it for drying clothes and food items and for basking in the winter sun. Most people had expected the land to remain vacant forever. In their
perception it was too small to be built on, especially with the legal requirements for substantial setbacks.

However their perception was incorrect. The Tamangs came to learn from one of their neighbors that a person with some standing in the local political scene was being allotted the plot by the UD&HD. Since more than 90% of the people in Gangtok build four or five storied buildings Kamal feared that a massive structure built in that small plot would completely block his property. It was important for Kishore to prevent this from happening and so he decided to acquire the land himself.

There was problem for Kamal because he was not eligible to obtain the land. Under the existing law a family who already owns property in Gangtok is not entitled to buy land from the government. It would have been unthinkable for Kamal to illegally appropriate the land because he is from a “respectable” middle-class family. Also, squatting on government land would be below his status even if he applied for legal sanction later. This meant that he would have to find a way to acquire the land without breaking the law. Kamal, therefore decided to rely on his social capital. Being a member of the Legislative Assembly of Sikkim his father-in-law wielded sufficient influence to
have an exception made in this case; he arranged for the land to be allotted in Anabella’s name. Kamal does not feel that this transaction was unlawful since it is fairly common in Gangtok and in Indian society in general, for people who have “contacts” with high ranking government officials or politicians to have such favors granted for them. Once he had the property papers from UD&HD he also negotiated financially with the people who were formerly being allotted the plot so that they would not create problems for him later.

Kamal had to abandon his original intention of leaving the land vacant and simply constructing a boundary wall. He learnt from his friends that land allotted by the UD&HD has to be built on within six months or else it is subject to being reinstated by the government. There is no written rule to that effect but Kamal was not interested in verifying it with the authorities. Rather than taking a chance, he decided to invest in a building that he did not need at the moment. Kamal might have considered that building a permanent structure would reinforce his entitlement to the land.

Kamal deemed it necessary to obtain building authorization from UD&HD before starting his project, yet he did not concern himself too much with the official procedure and rules for gaining approval. He was aware that the drawing for approval had to be made by an architect but he did not hire one for the purpose. There were various reasons for his decision. Firstly, he did not believe that an architect would be useful for him or his project. In his opinion architects are impractical, idealistic, and more concerned with visual appearance than about functionality. Secondly, he was reluctant to ask a professional to design such a small building because he felt that the scale of the job would be beneath their position. Thirdly, he intended to build a fairly simple and
“practical” structure and was confident of being able to carry out its design and construction without an architect’s help. For him it was only a question of building the reinforced cement concrete (RCC) framework and later dividing each slab area into rooms according to requirement. Since he already had some experience of building design from the construction of their older building he knew the basics of how that was done. Thus the only reason he needed the drawing was for legal purposes and so, in his view, it did not have to be necessarily made by an architect. Finally, Kamal needed someone to not only make the drawing but also acquire building permission.

In the bureaucratic setup of UD&HD gaining approval may take anywhere between one month to six months or even years. Architects rarely consider obtaining building sanctions as part of their services and Kamal did not have the time or the patience to do it himself. Expediently for him, the draftsmen employed at UD&HD provide both services for a fee substantially lower than what an architect would charge. The draftsmen make the drawing and then get it signed by a government recognized architect\(^1\) that they have dealings with. They usually pay the architect a share of their fee. For all legal purposes these drawings would then be considered to have been made by an architect. Since these draftsmen work in the same office that grants the sanctions, they have acquired a good knowledge of what is acceptable to higher officials who approve the drawings and the building permit. They make it a point to incorporate those

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\(^1\)Government recognized architects are specially authorized by the UD&HD to make approval drawings. One of the requirements for this authorization is that the architect should have his office in Sikkim. Although the law mentions only architects, drawings signed by civil engineers are also accepted by the UD&HD.
particulars in their drawings. They are also comparatively faster in gaining approvals – they personally follow the movement of the drawing file through the various stages of the sanctioning process. They make sure that physical site examinations, whether done personally or by a colleague, are carried out without delay. They are also in the position to put in a good word to the officers involved in the sanctioning process. All these reasons make it more viable for people to hire draftsmen. Moreover, it is probable that Kamal found the draftsman more approachable since their social status is not as high as that of an architect. Kamal thus chose this quicker, easier and cheaper option of hiring a draftsman from UD&HD to make his drawing and also obtain the approvals.

Discussions with the draftsman about the nature of the building were minimum, since Kamal had no intention of following the drawing during construction. It was implicit that the building would be made of concrete and bricks. The draftsman was free to make any other decisions necessary for completing the drawing. His main concern would be to obtain building sanctions.

The submitted/sanctioned drawing is for a three-and-a-half storied structure (Figure 9). According to the drawing, the built-up area of the ground floor, after leaving a seven feet wide setback on the side facing Dichiling Road and six feet setbacks on all other sides, would be close to 160 square feet. The floors above, with three feet wide cantilever projections on two sides would have an area of about 300 square feet each. The first floor was to house a garage and a shop, all the floors above would consist of a lounge area, a room and a toilet. It seems that the draftsman added a garage for the benefit of the sanctioning officer. Although there are no written rules to the effect, in the
case of road-side properties authorities approve more easily of designs with designated private parking.

The drawing was sanctioned in a month’s time and Kamal had to visit the UD&HD office only a couple of times during the whole process. However, only two floors out of the three-and-half floors were sanctioned for construction because according
to the submitted Stability Report the plot fell under Zone 4\(^2\). This zone is a relatively unstable soil zone and thus unsuitable for larger construction.

Kamal prefers to build with concrete and bricks. Although a two storied building would not necessarily need an RCC framework, once built the structure would require very little maintenance. Wood and stone were other options but they were much more expensive and therefore not feasible for extensive use. Besides, concrete offered the possibility of vertical expansion.

Most of these building materials that he is using have to be transported by truck to the building site. A private supplier from Gangtok delivers sand and aggregates from a river quarry about 40 kilometers away. Wood is supplied by another dealer in Gangtok but Kamal buys the bulk of factory manufactured products such as cement, steel, bricks, corrugated galvanized iron (CGI) sheets, plumbing fixtures and some pre-cast concrete items (such as staircase balustrades) from traders in the city of Siliguri, 114 kilometers away.

\(^2\) Land in Gangtok is divided into six separate zones by the Geological Survey of India based on its soil stability. Zone 1 is the most stable and it is permissible to build five-and-a-half storied buildings in this zone. The permissible building height in Zone 2 is four-and-a-half and so on.
away from Gangtok (Figure 10). He prefers to buy them from Siliguri\(^3\) because even with the added cost of transport, goods are cheaper there than in Gangtok. He may buy small quantities from a local dealer in Gangtok if he runs out of supplies.

Labor for construction is also from out of state. Kamal has hired a mason from Islampur (see Figure 10), a small town in West Bengal for carrying out the construction. There is no separate contractor in charge of the job; instead, the mason is the contractor for labor while Kamal is responsible for material supply. Since most laborers have learnt their skills through apprenticeship and not through formal education, they are not versed with the system of legal written contracts. The contract between Kamal and his mason is therefore verbal and based on trust. In the absence of precise drawings, a verbal contract is also more fluid than a formal written contract and allows the possibility of easily incorporating changes as construction progresses.

Kamal’s mason has his own set of laborers working under him. They include several masons, carpenters and helpers all of whom are also from Islampur. Kamal chose non-locals to work for him because in his opinion local masons are weak at calculations and therefore more prone to making mistakes in construction. Good quality of work was an essential requirement for him.

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\(^3\) Sikkim does not have any factories that manufacture these building materials. People in Gangtok, therefore have to bring in supplies from other parts of India. Siliguri in West Bengal is the closest city where these materials are either manufactured or sold at wholesale (lower) prices. There are a few tradesmen in Gangtok who supply building materials but their high prices deter people from buying from them.
Kamal and the mason have together negotiated a lump-sum amount to be paid for the job. The mason usually takes a part of the predetermined amount each week and Kamal maintains a log book to keep track of the amount paid. If changes made by Kamal demands more work than what had been originally discussed the payment amount may be negotiated again. Since this is a common practice and occurs frequently it does not create problems between the two.

The actual building and the drawings have very little connection. Kamal has hardly followed the drawing sanctioned by UD&HD. Instead, all decisions regarding the real physical construction of the structure including building layout, floor heights, position of foundations, size of structural members, and choice of material manufacturer have been made by Kamal after consultation with his mason. The mason makes all crucial construction decisions and Kamal values his mason’s judgment even over those of his engineer friends. He once had a civil engineer friend visit his site hoping to obtain advice from him on structural construction. However, when his friend proposed beams and columns smaller in cross-section and with less reinforcement bars than what the mason had projected, Kamal adopted the mason’s decision. Construction workers, he believes use time-tested methods that can be better trusted than those of engineers who hardly have any knowledge of on-field construction. To prove his point, Kamal enunciates the story of how two buildings in Gangtok owned, and therefore evidently designed by engineers recently collapsed. Kamal’s decision to use larger columns was also partly based on the preconception/misconception that the larger the cross-section of structural members the stronger the building. Although scientifically incorrect, this seems
to be a commonly shared view in Gangtok and Kamal, like other builders in the town, feels more comfortable following old practices than experimenting with new concepts.

Kamal is not completely opposed to new ideas; it is a matter of whose advice he values. The opinion of architects and other professionals is not of much significance to him but on his mason’s behest he agreed to use a new, special and more expensive kind of aggregate for concrete that was supposed to make the structure stronger. As also evident in his preference for larger columns, structural stability is of utmost importance to Kamal since he knows that Gangtok is in a geographically fragile zone. Based on his convictions and to the best of his ability, he will not make any compromises in this regard even if it means increased construction costs.

Kamal believes in building regulations and its ability to create “good” environments. He says that building rules and regulations are “important to prevent undesirable city growth.”\(^4\) It is his opinion that building bye-laws for the city of Gangtok have been made for the good of the society and therefore the sanctioning process followed by the UD&HD is a necessary step in the building process.

Yet, from the manner in which his building is being constructed it is evident that following these rules is not amongst his priorities. The new construction is grossly inconsistent with respect to the site boundaries shown and sanctioned in the municipal drawing. Understandings and negotiations between him and his neighbor in terms of territory is more important to Kamal than any building bye-law. Completely

contradictory to the drawing, part of the southern wall of the second floor of Kamal’s building is common with that of his neighbor’s. Kamal provided ample windows for light and ventilation on the wall facing the road and therefore did not need any openings on the southern side. He therefore discussed the possibility of a shared wall with Chettri, the owner of the adjacent building. Since Kamal shares good neighborly relations with Chettri, he obliged and agreed to have a contiguous boundary as long as it did not block the window on his wall. Kamal’s building now has an ingenious extension touching his neighbor’s wall only a few inches short of the window (Figure 11). Although this extension may seem small it is enough to fit a toilet that would otherwise have taken up space within one of the rooms. Consequently the room is much more spacious than the one in the drawing.

Figure 11: With permission from his neighbor, Kishore extended part of the south-wall to form a common wall with the adjoining building. He made sure that he did not block his neighbor’s window.
On the side facing the road, the setback which was supposed to be seven feet according to the drawing is hardly three feet wide. For Kamal who is used to living in a society where shops open directly on to the street, a seven feet gap between the road and his building seemed unnecessary. Besides, Chetri had not left as wide a space either. Since there had not been any trouble with the authorities regarding this matter, Kishore considered it safe to set back his building by only the same distance as his neighbor had.

The reduced setback makes it impractical to build a ramp for vehicular access to the garage space proposed in the drawing. Kamal is not greatly concerned about this because he is used to parking his car on the street. Free parking is available and allowed on Dichiling Road along certain lengths where the road width is sufficient to parallel park a car and leave enough carriage way for a single vehicle to pass through. Although it is sometimes difficult for Kamal to find parking in the area he would rather rent out the space for a shop since this would mean extra income for him and his family. The possibility of income generation seemed more important to Kamal than putting up with the slight discomfort of having to search for parking space once in a while.

On the eastern side where his new building is adjacent to his older property, Kamal had the freedom to build as he deemed necessary. Here the six feet wide gap shown in the drawing has been replaced by a three feet wide passage. The proposed three feet cantilever still exists so that the new slab projects over this passage to connect with the floor slab of the old building (Figure 12). It seems that Kamal’s intention was to connect the old building with the new. Although the width of the passage is sufficient for access, the extended slab has blocked out most of the light reaching the ground floor of
the old building where Madhu and Vinay live. Kamal believes that he did not have a choice in this matter. It is probable that he either did not anticipate the extent of reduction in illumination, or that he did and chose expansion of space over issues of lighting and ventilation. Madhu and Vinay do not seem to greatly mind the lack of light either. They simply turn on electric lights.

In contrast to the other three sides of the plot where Kamal was using every inch of available space for building, on the northern side he has left some space open. Kamal felt that the triangular piece of land was too small and irregular to build anything that would be usable. Further, he needed some space to store building materials and mix concrete during construction. The open space was ideal for the purpose.

Kamal’s new building is nearing completion. Like he had intended, the building is straightforward with no extra frills except perhaps the plaster brick bond design on part of the front wall (Figure 13). The rest of the walls are plain with no ornamentation. Cement and concrete is ubiquitous in the building. All the surfaces of the building are plastered with cement- the walls, the ceiling and the floor. Kamal intends to paint the interiors. The window frames are made of wood and are awaiting wooden shutters with glazing to be
installed. The plywood door shutter is yet to be fixed to the door frame. The concrete staircase from the first floor level to the terrace is open to sky. Kamal intends to install ready made concrete balustrades and construct the railing in-situ out of concrete. He has installed an iron gate at the northern end of the plot. Galvanized corrugated iron sheets that were used for the scaffolding have been placed to function as a boundary wall for the time being. He may build a concrete or brick wall later.

Kamal is happy with the way his building is taking shape. He expects the shops on the first floor to be rented out soon although he has not yet decided what to do with the second floor. However, he is certain that he will not be renting it out. Kamal did not say as much but the naked reinforcement rods protruding from the columns on the roof indicates that he intends to build more than the sanctioned two floors. Whether he will submit a new drawing and try to get it sanctioned before building any higher or build first and wait to be found out is anyone’s guess.
Figure 13: Kishore’s new construction with other adjoining buildings.
Case Study 2

While Kamal was compelled to buy land to preserve his privacy, and had the “contacts” and the money to immediately acquire it, Dilip Basnet who lives only about three hundred meters downhill and needed land to build a house, had neither the influence nor extra money and so had to wait for thirteen years before he was finally allotted government land.

Dilip is a fireman and his wife, Nina, a school teacher. Dilip is originally from a small town in Sikkim while Nina from a village in West Bengal. Both of them moved to Gangtok because of their jobs. The couple has two daughters; twins aged three who have just started kindergarten at a private school. Dilip’s daughter from his earlier marriage is away in college and visits them during the holidays.

With growing children in the family, the couple had started feeling the need for more space. Dilip and Nina had moved into a rented, two-bedroom apartment after their marriage six years ago. They have lived there since but had been yearning for a house of their own. Their own house would be built according to their needs and would therefore suit them much better. It would also provide them the security of knowing that they would not have to worry about a shelter for the rest of their lives. Nina feels that home ownership brings a sense of satisfaction that a rented apartment cannot offer. The couple also had doubts that with ever increasing housing costs they would not be able to afford renting an apartment in the future.
Dilip’s rented apartment is in Dichiling (Figure 14). This area is a predominantly residential community favored by professionals such as doctors, lawyers, government officials, teachers and bankers. As in Kamal’s case, amenities such as grocery stores, taxis, buses and medical facilities are easily accessible. Dilip and Nina especially like the locality because their workplaces and their children’s school are within fifteen minutes walking distance. Since Dilip and Nina are both well educated with graduate degrees, they also like the fact that most of their neighbors are educated people with whom they can easily relate. Because of these reasons they were keen on building their house in the same area.

Dilip is a Sikkim Subject Holder and therefore eligible to lease land owned by the government. He prefers obtaining land from the government because they provide it at a reasonable price. Privately owned land is not only extremely expensive but also difficult to find. Thirteen years ago, when he
was living in a government quarter provided by the Fire Department, Dilip had submitted a request to UD&HD for a building plot thinking that even if he did not build on it right away it would be a good investment for the future. Since Dilip had not really needed the land he had not followed the request through. His application had been pending with the UD&HD until two years ago when, after he and Nina decided to build a house, he visited the housing office and petitioned with the officers for a plot.

A year later, Dilip was finally sanctioned a building plot. He had happened to know one of the recently recruited town planners who helped him push his request based on the fact that amongst all the applications for land, his was the earliest. Dilip also “offered tea” to a draftsman at UD&HD who provided him with information on possible building sites in Dichiling. Dilip was therefore able to request for, and receive a plot within the same block as his current rented apartment.

This plot of land is about three-hundred-and-fifty square feet in area and from an outsider’s point of view it hardly seems ideal for building. Besides being unstable for construction, the plot is neither adequate in size nor has provision for vehicular access. The slope of about 70% is extremely steep for construction even for conditions of hilly terrain. Retaining walls would take up much of the already small space. The plot does not have direct vehicular access; it has to be approached from the motor-able, Dichiling Road by a concrete footpath that runs along an open storm water drain flowing through the area. This drain runs right along the plot boundary making the already geologically

5 “Offering tea” is the local euphemism for the practice of giving money to get work done.
fragile land more susceptible to landslides and therefore, relatively dangerous for building (Figure 15).

Dilip, however, is not deterred by this. He feels fortunate to have obtained the plot that many other applicants had desired because of its location. To add to all other advantages is the fact that he can easily oversee the construction of his building without spending much time or energy in traveling. He would have obviously liked a larger plot but considering the dearth of space in Gangtok he is thankful for what he has and is willing to make a few adjustments as far as space is concerned. The presence of merely pedestrian access does not bother him either because he does not own a car; almost everything that he and his family needs is available within walking distance. Since public
transport is quite dependable in Gangtok he figures he can use it for commuting long distances whenever he needs to, or otherwise simply rent a taxi.

As for the storm water drain; he is prepared to spend extra money to secure the drain by strengthening its side walls all along his property line. This would prevent storm water gushing through the drain from eroding his land. Dilip is also hopeful that the State Public Works Department will assist him financially for the project since the drain is public property.

Dilip, like many other people in Gangtok seems to have a lot of faith in the power of concrete. He supposes that he can make up for the lack of stability in land by making the construction secure. He believes that a strong house with sturdy concrete foundation and retaining wall should be able to withstand landslides. He observes that it is not uncommon to see buildings built close to storm water drains or on unstable land (Figure 16), infact there are two being built on land directly below his where land conditions are almost similar. He takes solace in the fact that many others before him have built their houses on land considered unstable and is therefore willing to take a chance.
Dilip and Nina used up most of their savings to buy the building plot so they intend to build their house with a housing loan from one of the many commercial banks in Gangtok. Since they are both employed and get regular salaries they are confident of being able to obtain a loan, and also of paying it off in a few years in monthly installments. The couple feels that making monthly payments to a bank towards property they own is a better option than paying rent for an apartment that will never be theirs.

Dilip is rather particular about legal issues and would have obtained approval for construction from UD&HD in any case, but the sanctioned drawing was more important to him because he would need it for obtaining the housing loan. Banks require a copy of the sanctioned drawing for all formalities, including calculation of the loan amount.

Dilip happened to be acquainted with an architect practicing in Gangtok from whom he had the approval drawings made. He was aware that an architect usually undertakes projects that involve complete design and not just making municipal drawings. Since he was familiar with the architect he did not feel uncomfortable requesting him to make only the drawing he needed. Besides, he knew that he would not be able to afford comprehensive services. The architect obliged and agreed to make the drawings for him. However, he would not be responsible for getting approval from UD&HD. Since the architect did not charge for his service, Dilip could not push him any further in this regard.

Dilip did not discuss his requirements with the architect. He did not feel the need for it because he wanted the drawing only for legal purposes; he would build the house
according to his own requirements. He provided the architect with the site drawing that had been prepared by the draftsman for official records along with the geological report.

The architect’s drawing is for a four-and-a-half storied structure in concrete and bricks. After leaving an eight feet setback on the side adjoining the storm water drain and five feet gaps on all other sides, the ground coverage of the building is two-hundred-and-seventy-four (274) square feet. Because of space constraints the architect has designed the house so that each floor has one room. The whole house is arranged vertically with the living room on the ground floor, one room and toilet each on the first and second floor and a kitchen on the top\(^6\) (Figure 17). It is interesting that even within that small space the architect has squeezed in a one-room apartment in the basement that could be rented out. This living space consists of a room, 10’x 10’ in size, a kitchenette and a toilet.

Dilip did not wish to be caught up in the sanctioning process which is usually lengthy and cumbersome. He therefore paid the same draftsman who had helped him earlier to acquire the plot to obtain the approvals. Dilip only made a few visits to the town planner he knew for speedy approval; the draftsman carried out all the necessary formalities.

Dilip’s drawing has now been sanctioned and he has applied for a bank loan. He hopes to start construction soon. He is certain that he will not use the architect’s design for his house since that house is too small for him. Dilip will probably be able to wrest

\(^6\) The floor levels is as referred to in the permit drawing (Figure 11).
out space for himself by extending his house beyond the legal boundary line towards the storm water drain.

Figure 17: Approved municipal drawing for Dilip’s building. Drawing courtesy: Dilip Basnet.
Case Study 3

Dorji Bhutia lives with his family in Nayagaon. His is a joint family and apart from his wife, his son, daughter-in-law, daughter, son-in-law and his four grand-children all live together in the same house. Dorji used to work as a government contractor until he retired from service in the year 2005. No one else in his family has had a permanent job; his son and his son-in-law take up small contracts whenever they are able to acquire one, all the women in the household are housewives, and the children study in a government school.

Dorji owns the building with the house he lives in. It is a four storied structure with its north-western side abutting the Nayagaon Road. Three floors of this building are built in concrete and bricks while the top floor is made of ekra with a sloping corrugated galvanized iron (CGI) sheet roof (Figure 18). Dorji has rented out the lowest floor for shops and the second and third floors for apartments. Their house is on the fourth floor and consists of three rooms, a kitchen and two bathrooms.

Ekra is the local name for wattle and daub. The house has a wooden framework with an infill of split bamboo mesh, plastered over with a mixture of cement and sand. The cement and sand is a modern take on the vernacular plaster of soil (clay) mixed with cow dung and hay.
Nayagaon is about one-and-a-half kilometers away from the city center and is by and large a residential community (Figure 19). Until 1985 people building in this area did not have to follow any formal building regulations and so it grew organically, the development largely responding to the need for affordable rental housing in close proximity to the bazaar area. After the formation of UD&HD in 1985, Nayagaon was incorporated into the Notified Town Area of Gangtok. Since then all building activity has come under the purview of this department.

Because of its informal beginnings, Nayagaon still retains many of the characteristics of an organically built Indian urban environment. Vehicular access is limited to about 25% of the buildings in the area. These buildings line the narrow Nayagaon Road on either side as it winds down the hill slope. About 95% of buildings adjacent to the road are mixed-use with shops on the floor adjoining the road level. These
are a variety of small establishments of grocers, fishmongers, tailors, etc who cater to the
needs of the people living in the area. The road, because of the shops, also forms a
community space where people meet informally as they go through their daily activities.
Partly because of the need for basic necessities to be within walkable distances the
community is densely inhabited. Access to other structures that lie beyond the road-side
properties is through a labyrinth of footpaths. Although there are some government-built
pathways, most of these footpaths were built privately by property owners to access their
buildings. Because of this the paths are an irregular mix of passages and stairways of
various widths and types depending on the requirements of the owners and the resources
available to them (Figure 20).

![Figure 20: Footpaths are an irregular mix of passages and stairways.](image)

It is in this informal environment that Dorji is constructing a new building next to
his old one. Dorji resented being asked questions about the construction and was
disinclined to share information about his new building. He appeared to be of a churlish
disposition but might have been reluctant to speak because he was busy with the
construction work. His daughter, Chewang, however was more amiable and open to
conversation.
Dorji’s reason for constructing the new building was largely economic. He had wanted to invest his savings in some venture that he and his family could fall back on once he retired. This was especially necessary since no one in his household has a regular source of income. The rent from the shops and apartments on lease in his older building would have been insufficient for the whole family in the long run.

Dorji had built his older building in 1984 on only a part of his ancestral property and so the other half was still empty. The demand for rental housing is high in Nayagaon and Dorji figured that constructing a building for renting would be a feasible option for him. Since his property was on the road side he would easily be able to lease the first floor for shops. He would also be able to get substantial rent for the apartments on the floors above. Further, this would be an opportunity to build a bigger residence for his family since their older house was becoming overcrowded.

Dorji knew that his savings would not be enough for the multistoried structure that he was planning to build but he had a financial plan in place. He would build the structure in phases finishing one floor at a time. Renting out the space as soon as it was available, he would then use the rent to build the next floor. In this way, he would not have to borrow money from any financial institution and so would save on the interest. Dorji did not mind living frugally until the construction was complete. Construction work would also keep him engaged in some activity.

Dorji’s work as a government contractor had brought him into the association of many individuals involved in the formal building process. Since Nayagaon is now under
the UD&HD, any legal construction would have to be sanctioned first. Dorji made good use of his social connections to obtain drawings and approvals.

He had his municipal drawing made by a civil engineer. Although, strictly speaking, an engineer is not an architect, drawings with his signature is accepted by the UD&HD. The reason for this anomaly between theory and practice in the rules of the department is that in the 1980’s, when the rules for the sanctioning process were first made, there were very few architects in the state. Much design work was done by civil engineers and so, necessitated by circumstances, they were also authorized to sign drawings. The practice continues to the present day.

Dorji did not have any discussions with the engineer about his requirements. The drawing submitted to the UD&HD was made by the engineer based merely on his judgment about Dorji’s needs. The engineer visited the site once and Dorji provided him with the site dimensions and the stability report according to which the building could legally be five-and-a-half floors high. That was all that the engineer required.

The basic configuration of the building as per the drawing is not very different from other neighboring road-side properties in Nayagaon, and in many ways also similar to the drawing for Kamal’s building (Figure 21). The materials used are concrete and bricks; the framework is of RCC and the partition wall of bricks. The lowermost floor is divided into two spaces with rolling shutters on the side facing the road; one for a shop and another for a garage. Access to the rest of the floors is through a staircase facing the road and built as a cantilevered projection on the south-western end of the building. From the second floor the building is extended on the north-eastern side with another set
Figure 21: Sanctioned plan for Dorji’s new building. The photographs in blue are from the original blue print. The drawings on the left have been reconstructed.
Original drawing courtesy: Dorji Bhutia
of columns; towards the road side is a three-and-a half feet wide cantilever extension. All of the floors from the second to the fifth are designed to be single family residences. The topmost floor is a penthouse with sloping roof.

Dorji was able to have his drawings sanctioned relatively fast; according to him it took two days which is implausible but not impossible. The officials at the UD&HD are usually particular about setbacks and footpath dimensions as well as sewage and water connections being shown in the drawing. In many cases if this information is missing the drawing is sent back for revision. In the drawing submitted by Dorji, the site plan hardly shows any site dimensions. Any proposal for waste water drainage and sewage disposal is also absent. Dorji must have known someone in the sanctioning department very well to have been able to get away with these discrepancies. The lack of site dimensions in the drawings allows Dorji the choice to make his own decisions for construction especially with regard to the property lines.

Dorji’s building has been under construction since 2002. He is the contractor for the job. Taking care of construction work helps him maintain the quality of construction and also keep a check on finances. Dorji hires his laborers on a job basis since he feels that if hired on a daily basis they work slowly so that they can make more money out of the same job. His contract with his laborers is also verbal and therefore subject to negotiation. Since the construction of his building has been going on for almost six years his laborers have changed a couple of times. However, he tries to retain the same laborers whenever possible since they get used to each other’s working methods. Many of his
laborers live in the same neighborhood and he knows them personally so he can always call them back when he starts construction after a break.

Like Kamal, Dorji buys most of the building materials in Siliguri. He places order for bulky materials such as cement, bricks and reinforcement bars on the telephone to a dealer he knows in Siliguri. The dealer sends him the materials in a truck along with the bill. Dorji may either send a check for the amount through the truck driver or deposit the money in a bank. Dorji sometimes rents a vehicle to drive down to Siliguri to buy materials such as tiles, bathroom fixtures and door and window fixtures that he prefers to choose on his own. He buys wood and sand from local dealers who deliver the materials to his site.

When Dorji first started the construction of his building he finished the site work first. That included excavating the sloping land to make it level and then constructing a retaining wall. Once that was complete he built the RCC framework for five floors so that his building consisted of only columns, slabs and the staircase. After that he partitioned the first floor into two separate spaces and let them out as shops. Once he had enough money from the rent of these two shops he started partitioning the second floor. After that he completed the third floor and so on, renting out the space in each floor as construction progressed. He is presently finishing the interiors of the fifth floor where he intends to move in with his family as soon as construction is complete.

As exemplified by Kamal, most people in Gangtok do not follow sanctioned drawings thoroughly; the practice is more widespread in Nayagaon where people had been building informally until very recently. People building in the area usually argue
that since someone else has constructed his building in a particular way they are also entitled to do the same, even if it is against the current by-laws. Thus if the boundary of a neighbor’s old building is directly on the edge of the road another person constructing a new building will consider it his right to leave no setback. Or if a building nearby is six floors in height, people consider it legal to build the same number of floors even if it is against the height regulations. Because of this it is extremely difficult to control building activity in the area.

Dorji has not followed the sanctioned drawing either. Instead he has constructed his building according to his own design which is quite different than that in the sanctioned drawing and, in many ways more suitable for his needs. The first floor which was supposed to have been part garage and part shop has been rented out for two shops. Dorji does not own a car and so does not need parking space. However, when he brings back building supplies in a rented vehicle it is parked on the street. The inhabitants of Nayagaon who own a car often park their vehicle on the street mostly because their house is not directly accessible by road or because the older buildings adjoining the road do not have provisions for a garage. Sometimes they do not want to use valuable rentable space as a garage. At other times, owners of new houses who do not own a car do not build garages. If one of their tenants happens to own a car, such as in the case of a taxi driver, the car has to be parked on the street. Since Nayagaon Road is narrow, parking often causes problems for vehicular access especially in the evenings when everybody brings their cars back home. Although people complain about the situation they do not want to solve the problem by giving up their private space and leaving a wider gap between the
road and their building edge. Dorji has set back his building on the road side by three feet which is half the legal requirement of six feet. This gap is the same as that between the road and his old building.

Dorji decided to build the internal staircase for access to the rest of the floors of his building in the back so that more space would be available for the shops in the front. His plan was to utilize the legally required gap between his old building and the new one to construct a flight of steps from the road to the second floor level. This would also serve as a public pathway since these steps would connect to an existing public stairway. From the second floor he would build a private staircase to the floor above (Figure 22).

Dorji’s intentions were good but he stopped the construction of the public staircase halfway so that now the steps end abruptly, leading into a narrow passage with an open peripheral rain water drain running right through the center (Figure 23a). Chewang believes that her father made a mistake while marking out the position of the footings at the back and that left insufficient space to continue the pathway. One of their neighbors’ however thinks that Dorji did that on purpose to stop access through his property to the building behind his when relations between him and the owner of that
building went sour. Whatever be the reason, Dorji has also suffered because the second floor, and the internal staircase, can now only be approached through the irregular steps at the back of the building. To worsen the situation, there is about two feet of height difference between the last step of this stairway and the second floor level with no extra space to extend it further (Figure 23 b and c). Dorji has placed some old cement bags
filled with soil to bridge the gap temporarily but the entire staircase will have to be redesigned and rebuilt in the long run. This means extra expense for him.

Since Dorji has provided windows on the south-eastern and south-western sides of the building also he has been careful to leave at least the minimum gap required to open them within his own plot boundary (Figure 24). The gaps, about three feet wide in each case, is not absolutely effective for providing adequate daylight in the rooms but it is still better than not having any windows at all.

Dorji has designed and built the rentable apartments based on the current housing requirement. A study done by a non-governmental organization has reported that the tenant population in Nayagaon is 60-70% of the total resident population. The tenants are from varying socio-economic backgrounds but a majority of them belong to the lower-middle income group working as drivers, waiters, Class III and IV government employees, tailors etc. Many of them are migrants from neighboring states such as West Bengal and Bihar8. To suit the needs of this income group Dorji has built two smaller apartments in each floor instead of one big

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8 Report presented by Sikkim Development Foundation.
apartment (Figure 25). The apartments are therefore cheaper and more likely to attract prospective tenants.

He has also used very basic finishing materials for these apartments to keep the construction expenses, and therefore the rent, low. In contrast, he has used much more expensive finishes for his own residence. Tiles on the last flight of steps leading to the fifth floor demarcate his house from the rentable apartments.

While the apartments for tenants have the cheaper concrete floors with plain plastered walls, his house has marble floors and smooth lime punning on the walls. The kitchen in the apartments for rent has a concrete counter but no cabinets. In his house he is building a modern kitchen with granite counter tops and wooden cabinets and shelves (Figure 26). His bathroom has tiles on the floor and the walls. Even the door shutters and fixtures are of much better quality in his apartment. His apartment also has the luxury of a verandah which is not available to his tenants.
The Bhutia family is looking forward to moving into their new house. Dorji is making sure that his house has the best materials that he can afford even if that means taking a longer time to finish. All the floors below have already been rented out and Dorji is getting good money as rent. Chewang wishes that they had given more thought to the main access but she is confident that they will be able to manage constructing a staircase that is easy to access in the available space. Dorji’s neighbors would have been happy if Dorji had built the public footpath but the other pathway still exists and so life goes on for them.
Case Study 4

Bimal Magar is a lower-division clerk in a government office who rents an apartment in the building diagonally opposite Dorji’s property (Figure 27). He lives in the house with his wife and two children. His daughter and son, fourteen and nine years old respectively, go to a government school. His wife stays at home but she sometimes makes pickles and special food items on order to make extra money for herself.

Bimal and his family moved to this apartment about eight years ago. He had previously been living in another rented apartment. That house was far from the city center and he had been searching for a house closer to the business district and possibly within walking distance of his children’s school. This apartment was affordable and not too far from the main bazaar; further it belonged to a person from the same village that he was from. Considering these factors he promptly moved to this apartment when it became available.

The building that Bimal lives in is unusual because in an area where almost all structures are multistoried and built to utilize every inch of available space this one is single storied and has substantial open space in the front and side.
This building was built in a different time for different needs. Namgay, the owner, built his house in the early 1980’s when Sikkim had just become a part of India. Gangtok was the only large town in the state and he had to visit often, either for official work or for visits to a doctor or even for buying goods that were not available in his village at that time. For most villagers Gangtok was the “happening” place and owning a house in Gangtok was also a status symbol. Namgay already owned land in Gangtok, so he made the decision to build a second home for himself. This way he or other members of his family could stay in the house whenever they visited the town.

For reasons of security, Namgay did not want the house to remain vacant when they were not staying in it. A house with an absentee landlord is susceptible to vandalism and theft. There are also chances of encroachment, and Namgay was concerned about his property. At the same time, he imagined that his building would be better maintained if it was continually occupied. He therefore designed the building so that he could retain a small apartment and the rest of it could be rented out.

Since Nayagaon was not under a housing authority at that time and therefore not subject to formal regulations, Namgay was free to build as he deemed necessary. He was mainly guided by his needs, wants, and social norms prevalent at the time.

Namgay’s plot is a road side property and if Namgay desired he could have excavated the land to start building directly from the road level like Dorji has done. However, his image of a house was one located as far as possible from the road with a front yard and garden. Following this ideal he had the gently sloping land excavated to have a roughly L-shaped, flat piece of land about halfway between the road and the
highest point of his plot. Leaving plenty of open space on the side facing the road and the
north-eastern side, he located his building towards one corner of the plot (see Figure 27)
with about five feet of space between his plot boundary and the edge of the building. This
allows for adequate openings for light and ventilation.

Namgay’s choice of materials was RCC and bricks. Most people
building new buildings at that time had already started building with these
materials since it was considered to be permanent, as against the ekra, which
required relatively more maintenance and was considered impermanent. Since
India had a number of factories producing steel and cement, the merger
with India had also made these materials more easily available. Mr. Namgay had wanted his building to be at par with those of
other owners. Moreover, concrete gave him the choice of adding more floors if he found it necessary.

Although Namgay constructed his house with “urban” materials he retained the
more rustic materials and building method for the steps leading to his house. They are cut out of the land and paved with rough cut stones (Figure 28).
Namgay built the house with his own money. Obtaining bank loans for construction was not common during that time.

The house is built to a relatively simple plan that Namgay worked out with his mason. The building consists of a long corridor with three rooms on one side and two kitchens, a bathroom, a water closet (WC) and a toilet on the other; at the end of the corridor is another room (Figure 29). Three of the rooms, the bathroom, W.C. and one of the kitchens were to be rented while the rest of the house was for his own use. Namgay’s idea was to rent out the space to bachelors or young couples who formed the majority of people looking for rentable space at that time. The tenants were to share the kitchen, bathroom and W.C.

This property has remained largely unaffected by the pressures of growth because Namgay does not live in Gangtok but in his native village. Unlike Kamal, Dorji and Dilip, Namgay has not been caught up in the urban process. Since he was always involved with his work in the village he never found the need to add any more floors. The naked reinforcement rods protruding from the columns on the terrace have remained as such. He has less use for the house now because he does not visit Gangtok as frequently as before. Many of the facilities earlier available only in Gangtok are now available in
other towns close to his village. Moreover with the construction of new roads, going to the city of Siliguri has become much easier. Namgay prefers going there because the city has a wider range of choices as well as cheaper services and goods.

Namgay has therefore rented out the entire building now. Bimal occupies the rooms that had been originally meant for him and is in charge of collecting rent, paying bills, and other necessary work related to the property.

From the state of disrepair of the building it seems that Namgay does not care much about it. The cement concrete flooring is coming out in many places, the external walls have mildew and fungus growing on them, the internal walls have patches caused by dampness and the paint on the walls, doors and windows have all faded off (Figure 30).

Further, his property has been subject to encroachment. The building in the front has been built so close to the boundary that its wall almost touches the roof slab of Namgay’s building. In the owner’s absence Bimal does not have much control over the neighbor’s actions. The open space in the front has also been taken over by children in the neighborhood who use it as a playground.
Bimal knows that there are no parks or playgrounds for children in the neighborhood and even his own children play there so he does not complain.

Bimal has resigned himself to the condition of the house because that is what he can afford in close proximity to the downtown area. He does not have any intentions of buying property in Gangtok; instead he wants to return to his village once he retires. Nonetheless, living in the city has changed his perception of a house and when he goes back to the village he hopes to build a two storied concrete building, the lower floor of which he can rent out and himself live on the upper floor.

Bimal reflects the ideals of many other residents of Gangtok who are in the city to earn a living. They have either come from smaller towns and villages in Sikkim or other
neighboring states in search of better opportunities for themselves and for their children. Once they retire or when their children are grown up they expect to return “home” where they can live in comfort with their savings.

It is uncommon to find properties like Namgay’s in Gangtok. However there is a few that have, for several reasons, not completely succumbed to urbanization. These properties are dispersed all over the city and with the more common buildings like those of Kamal and Dorji form the fabric of environment built by the people of Gangtok.
CHAPTER IV: ANALYSIS

The intimate and unceasing interaction between people and the forms they inhabit is a fundamental and fascinating aspect of built environment. We are all players: agents who inhabit the environment, transforming it to our liking and making sure that things stay as we choose, within the territory we claim.¹

Kamal, Dorji, Dilip and Bimal are all agents working within their own capacity to make life better for themselves and, in the process, changing the environment in which they live. To a certain extent, they are all bound by the formal/legal system but the ultimate power to control building activity within their own territory still remains in the hands of these individuals. This chapter analyses the building culture of Gangtok and its physical and social outcome as represented in the case studies. In doing so I argue that within the available, limited resources, environments built by people best serve their needs.

The built environment of Gangtok as it is today is a hybrid of the results of the actions of the authorities and the people. The two have worked in their own ways to create an environment that has meaning for each of them. The authorities have tried to bring in a sense of formality into the built environment and have even partially succeeded in cases where the space and territory are majorly controlled by the government. Public spaces and public buildings are built through a formalized building process where planning and design is done by architects and planners and construction is undertaken by contractors bound by a written legal contract. The main market area, M.G. Marg, for instance, has undergone many face-lifts since the early 1960’s when it was first established to give it a formal, westernized character (Figure 27).
However, the informal character in the built environment is exceedingly pronounced in residential and mixed-use residential/commercial areas. Since housing constitutes 69% of the total number of buildings in Gangtok, with another 6.8% being residences combined with some other use\(^2\), the majority of the built environment is in the hands of the people.

The housing market of Gangtok is dominated by individuals. Government or public housing is minimal and where available, restricted to State or Central Government employees. The State Housing Development Board which was partly responsible for housing supply is presently a defunct body. In many Indian cities, real-estate developers have been responsible for providing housing, at least to the middle and higher class. In Gangtok, however, government policy is not conducive to large scale real-estate development by private parties. In such a situation, individuals build for themselves as well as others, providing rentable housing and space to those who do not own property.

**Negotiating Space and Control**

*The Codified Laws of Urban Development and Housing Department* was meant to provide overall structure to individual building activity. Although made in the best interests of the city and its inhabitants, these rules are not followed in practice for several, interrelated cultural, social and practical reasons.

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Intolerance to External Authority

People are usually unreceptive to external authority. For many of them, architects, planners and officials are part of a social group distinct from their own. In their minds, this elite group does not have much idea about the needs of regular people. Part of this apprehension arises from the fact that the ideals of the policy makers do not necessarily match theirs. As a result, people view the rules of the authorities as an imposition on their private territory and find consolation in disregarding them. Kamal, Dorji and Dilip do not have the power to flagrantly oppose authority represented by UD&HD so they follow the latter’s rules on paper. However, they uphold their own values in practice by negotiating the rules and building not according to the sanctioned drawing but as per their needs and standards.

Impersonal, Standardized Rules

Architects and planners work at a scale that makes their strategies impersonal. Their inclination to oversimplify issues concerning city building and frame rules based on generalizations and standardizations do not work in their favor. For Kamal, Dilip and Dorji who work at the level of their building and a few others immediately adjacent to theirs, these standardized rules have very little meaning. The nature of their building and its spatial relation to the surrounding is based more on their own needs and the requirements of people directly affected by its construction. Issues of maximizing space and capitalizing on site-potential at their specific level become more important than following some general rules.
Rules are more effective when people can relate to it in their daily life. Every individual has a different set of needs, requirements, constraints and potentials to work with. A particular rule may be relevant for one person but not for another. Providing a parking garage in properties abutting motor-able roads is in itself a beneficial rule. However, from Dawa’s perspective, building a parking garage is a waste of space because he does not own a car. He would rather rent the space for a shop since it would then become a source of income for him.

**Affinity to Social Control**

People are more inclined to adhere to social norms than legal laws because unlike the rules of the authorities, social control is local in nature and based on the interests of a particular community. These rules reflect social customs and practices of the people. Further, these rules are not rigid; if it fits the interest of the individual without negatively affecting the community, the rules can be negotiated between neighbors or altered with the consent of an elder member of the community. Being flexible and more responsive to the needs of the inhabitants, social rules find a better standing among people. Kamal did not find it necessary to follow the sanctioned drawing and leave the legally required setback of six feet between his new building and other adjacent buildings. Yet, he met his neighbor’s request and built the common wall without obstructing the neighbor’s window.

Social control is preeminent also because people are not accustomed to building under legal control. Before coming under the purview of UD&HD, the inhabitants of Nayagaon had been building according to their requirements, guided by social norms.
The introduction of formal rules based on Western standards did not change their perception of space or their building habits. Dorji is habituated to living in a dense environment and even though bye-laws require a gap of six feet between buildings, a gap of three feet seemed sufficient for him and so he constructed his building accordingly. Both Dorji and Kamal live in a built environment where shops directly open into the street. A building with shops set at a distance from the street would not work in their context. Their buildings, although built in disregardful of the law, are actually respectful of their customary spatial practices.

**Small Size of Building Plots**

With the growing pressure of population on land, the size of building plots in Gangtok has become rather small. Leaving setbacks as ordained in the rule book becomes unfeasible both in terms of economy and livable space. For most people building a permanent house is a once in a lifetime investment. Understandably, they want to build a decent sized house where they can live comfortably. According to the regulations, for properties less than 2,700 sq ft in area, the minimum setback from the outer edge of the road has to be 10 feet, and 3 feet on all other sides. For a piece of land 20’x 25’ in size, almost half the land would be used up in setbacks, leaving a virtually unbuildable plot of land. According to the architects drawing, after leaving sufficient setback on all sides, Dilip will have less than 300 square feet of land to build on. His decision not to build according to that drawing is understandable.

The house that Bimal lives in was built at a time when there was ample space available for building in Gangtok. Moreover, Namgay did not require a large building
because the house was meant to be occupied only during visits from his home in the village. Dawa, Kamal and Dilip cannot afford to build as Namgay did because they neither have a large plot of land nor are their needs the same as his.

**Inconsiderate of Economic Conditions**

Unfortunately some of the rules made by the authorities do not consider the economic condition of owner-builders. For instance, hiring an architect to design their house is not economically viable for most people. People using their life time savings or bank loans to build their house are unwilling to pay the high fee charged by architects. The common sentiment among them is that “rather than use their hard-earned money to pay an architect they would use it to construct a floor slab.”\(^3\) Dilip who is acquainted with an architect used his services but for Kamal it is an expensive luxury. He would rather have the drawings made cheaply by a draftsman who provides the added convenience of getting it sanctioned without hassle.

According to a draftsman at UD&HD, he and several of his colleagues make as many as ten approval drawings each per month. An architect, on the other hand may get only one or two residential consignments in the same amount of time.

**Possibility for Negotiation**

Most interestingly, people do not follow the rules and regulations because it is possible to negotiate them. Permits are important for people because buildings built without approval are considered illegal. Sanctioned drawings are also necessary for

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\(^3\) Kamal Tamang, Interview by author. Gangtok, Sikkim, December 24, 2007.
procuring water supply and power supply connections, as well as obtaining bank loans. Thus, for most people obtaining building sanction is an integral part of the building process. However, their need for formal approval does not extend to the physical construction of the building. Dilip has spent time and effort in getting his drawing sanctioned but he has no intention of following them on site. Kamal never followed the approved drawing; he is constructing his building according to his own design.

Rules and regulations are hardly followed on site because site inspections are rarely made. The process of sanctioning mostly takes place within the office and, for all practical purposes, as long as the papers are in order, the builder is safe. In the rare case that perpetrators are found out by the authorities it is possible for them to use various strategies to avoid legal action. Just as Kamal used his father-in-law’s authority to acquire land that he could not have obtained legally, some use their contacts with politicians and high officials to avoid being penalized. Some others use faked ignorance; an assistant town planner at UD&HD says that when people are told that their illegal construction will be demolished they often ask for forgiveness citing ignorance of rules for their offense. In many cases, officials feel emotionally blackmailed into conceding and letting them go with a warning.

The authorities themselves have offered the possibility of negotiation by adding the provision for payment of fines. A property that has been constructed beyond the approved plan, but within the owner’s property can be legally sanctioned by paying an appreciably small fine of Rupees 5.00 per square foot and applying for “regularization.” Even buildings built without prior permission can be similarly approved. Considering the
value of extra space and the time, effort and money spent in construction the owners are more than willing to pay the insubstantial fine.

The People’s Built Environment

The disparity in the social and cultural values of the people and the authorities, augmented by the pressures of urbanization, and the presence of the possibility of negotiation has led to the manipulation of formal building laws. The resulting building culture has led to the creation of a distinct built environment. Dense and seemingly haphazard, these environments may not seem valuable to architects and engineers, but if, as Turner and Fichter uphold, “…genuine housing values lie in the ability of dwellers to create and maintain environments which serve both their material and psychological needs…” the built environment of Gangtok serves its inhabitants well.

Responsive to Needs

Construction of buildings and the development of communities in Gangtok are in direct response to need. Nayagaon grew in response to the requirement for housing in close proximity to the city center. Befitting cultural and economic needs and wants, the built environment of Nayagaon is dense, and everyday necessities are available in small shops within walkable distance.

Dawa’s building responds to his need as well as the need of his community. While being a source of income for him and his family, it serves to provide much needed

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rentable housing for the multitude of people who relocate to Gangtok for jobs or other purposes.

Dawa’s house is custom built to fit his resources and the market demand. He did not have the finances to build his entire building at one time so he is building it one floor at a time, as and when he has sufficient money. He has rented out one shop-space to a grocer and another to a barber, both facilities that he and his community desired. He also responded to the market demand by building two smaller rentable apartments in each floor instead of one.

Better Resource Utilization and Reduced Expenses

Housing in Gangtok is also more effective in terms of resource utilization because each individual works to maximize his resources, whether in terms of space, materials or social assets. Individualized response makes it possible to pay attention to every detail of construction. Both Kishore and Dawa purchase building materials discerningly, making sure that they get the best deal available. They take the trouble of transporting materials from Siliguri or even traveling to the city since they believe that they can get better quality materials at a fair price there. Kishore wisely constructed a common wall with his neighbor and utilized the extra space to build a toilet. Dilip capitalized on his social asset and had his approval drawing made by an architect free of charge.

Better resource utilization also allows for housing to be cheaper. If the same house built by Kamal or Dorji was built by a developer the cost of building would have been much higher and so would have been the housing rents. Since owners participate in the construction of their buildings the number of external participants involved, as well as
expenditure on them is reduced. Kamal has taken on the role of designer and material supplier; Dorji is the designer and contractor for his building and also invests in terms of labor; Dilip expects to design the house himself and also be the material supplier. The savings construed from self-help is high and ultimately reflects on building costs.

**Contributes to Economic Progress**

The non-formal nature of the built environment and the building process offers alternate economic opportunities to the inhabitants of Gangtok. This is especially consequential for in a developing country like India the large urban labor force cannot be entirely absorbed within the formal sector.

The small scale and the informality of the building industry makes it possible for numerous skilled or semi-skilled construction workers to find employment. This would not have been possible in a formal setting where construction is undertaken by centralized agencies and professional establishments. Kamal and Dawa have both employed several carpenters, masons, painters, etc who are small scale workers and depend on the informal economy for their living.

The nature of the built environment also offers business potential for small entrepreneurs. Since road-side property owners design their buildings to have shops. Rentable spaces for small businesses are available within every neighborhood. Most businesses do well because the community members are also the consumers and there is always demand for their goods. In a society like this even the smallest businesses survive.
It is not uncommon to see cobblers and paanwaalas\textsuperscript{5} open their shop in tiny spaces, by the sidewalk or underneath a staircase and make a living out of it.

**Vibrant Living Environment**

As against formal, designed environments that have often lost their humanistic appeal in the pursuit of monumentality, environments built by individuals, piece by piece, are human in scale. The residential communities in Gangtok are lively, dynamic and animated. The environment is not just a physical object consisting of positive and negative spaces but actually a living entity. The people living and working in these environments inject life into it and make their lives within it.

The dense, walkable built environment fosters a close knit society where people live as one big family. There are community spaces where people interact on a daily basis, be it in small pockets of open spaces or an entire street lined with shops. Even the terraces of buildings become meeting places where men and women come to bask in the sun or dry clothes, read a book or play the guitar.

There is excitement in these communities even as people move about their daily activities. All in all it is an environment where people feel comfortable regardless of whether they are within their private homes or out in the public realm.

\textsuperscript{5} A paanwallah is a person who sells paan (betel leaf wrapped around a varying mix of areca nuts, cardamom, lime paste, tobacco and other flavors).
Valuing People’s Efforts

The built environment of Gangtok as discussed above has many positive aspects. This is not to say that it is completely bereft of faults or that they work perfectly. Nevertheless, the people who build it are doing so to the best of their ability, meeting and adjusting their needs to the available resources. Fichter and Turner pronounce that:

When dwellers control the major decisions and are free to make their own contributions in the design, construction or management of their housing, both this process and the environment produced stimulate individual and social well-being. When people have no control over, nor responsibility for key decisions in the housing process, on the other hand, dwelling environments may instead become a barrier to personal fulfillment and a burden on the economy.6

It is important for the authorities in Gangtok working within their own means to develop the city to recognize this. They should acknowledge the desires of the people and value their effort at achieving their version of development within severe constraints.

The authorities need to review their ideals and the laws they have made and decide in earnest if they wish to work in a new direction to attain progress. This may mean,

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… breaking the monopoly of knowledge in the hands of the elites – i.e. giving the people their right to assert their existing knowledge to start with, giving them the opportunity and assistance, if needed, to advance their self knowledge through self inquiry as the basis of their action, and to review themselves and their experiences from action to further advance their self-knowledge. 

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