WHY PEOPLE BUILD THE WAY THEY BUILD

A STUDY OF HOUSES IN DANNCHHI, KATHMANDU VALLEY
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INTRODUCTION

Most valued literature on the Nepali built environment draws our attention to the easily definable extremes of vernacular buildings and architecture. These categories are considered pure and exclusive: architecture is considered modern, designed and executed by professionals. Vernacular buildings are built by ordinary people without the help of formal experts such as architects. Vernacular strictly belongs to the place, to its past and untouched by foreign influences, while modern architecture can help transform traditional societies into modern societies that resemble the advanced-west. While these concepts may hold true at the extremes—or in regard to their core values-- most of the built environment belongs to the “gray area or the liminal space in-between these, and are hybrids with multiple influences. This thesis concerns the production of spaces and building practices by ordinary people, particularly in rural Nepal who are increasingly influenced by western and other modernities.

There are three types of buildings in Nepal: firstly, in rural and semi-urban areas people build their own buildings using clearly distinct methods specific to the locality and community. These buildings, principally termed “vernacular” architecture, are spread out or densely organized in villages, settlements, and specific neighborhoods in urban areas. Secondly, some buildings are constructed using drawings and involve professionals
such as architects, engineers and contractors who practice “modern” building methods. They usually abide by the building regulations of local governments and depend on bank loans and other formal sources of funding. Thirdly, and most commonly, people combine modern techniques with traditional practices and produce architecture of mixed design and building practices. This category, the contemporary is the focus of this thesis.

According to dominant discourses, villages are supposed to be “traditional” and its vernacular architecture is supposed to be felt and experienced as contrasting to contemporary architecture. (Gray 1995) Moreover, vernacular houses and built environments are considered picturesque and give the impression that they completely respond to the needs, aspirations and culture of the local people. These time-tested buildings are antithetical to the buildings that transform societies, i.e., per CIAM notion of architectural modernism (Holston 1989). Produced by the people, these buildings and environments reflect and speak strongly about who these people are, what they think, how they act, what they do, and what they believe. This is a primary area of study, and there are institutions such as the Vernacular Architecture Forum which promote the study of such buildings and built environments.

Traditional or vernacular architecture is not pure as depicted. These have developed over a long period of time, both incorporating various elements from other cultures and undergoing periodic changes. Hence what we see today as vernacular is also a product of successive hybridizations over a long period of time (Perera 2009). Yet this architecture has not absorbed enough western elements to work and feel western-modern. In some rural areas, people still build in this “traditional” manner, because of its cost
effectiveness, the ease to build using the existing knowledge, and utilizing the locally available materials and builders. They also increasingly incorporate selected elements from outside, particularly of western origin, but not limited to the west.

Fig 1.1 and Fig 1.2: Examples of traditionally built houses in Dannchhi.

In contrast, the “modern” structures represent a formal approach to building and are mainly constructed in urban areas. As illustrated in figures 1.3 and 1.4, in this type of building, trained architects and engineers work as consultants and implement their plans through formal contractors. While the formal consultants work with drawings, follow building codes of the municipalities, the builders work with banks for funding. These buildings are organized around structural grids made up of columns, beams and slabs built in reinforced cement concrete. They are built in formal building materials such as steel, iron, and glass produced in factories and perfected by building professionals according to particular standards. These modern buildings are built by people who are formally educated and work in formal institutions and companies. The formal sector has its own needs, including for spaces and designs, conceived in a modern-global language based on a global common sense and driven by westernization. Hence these middle classes engage in space-making through modern means have the need for modern architecture.
Yet it is hard to find purely modernist or vernacular buildings. Almost everyone uses both locally developed and imported components to create their buildings. The large majority of buildings that fall into this third category of buildings are not designed by architects, nor do they completely follow older building practices. This ‘in between’ architecture can be termed as contemporary because it is how people produce their modernity at the present time. They have appropriated, adapted, and familiarized materials, building elements and construction methods from appropriate places. The larger influences in rural Nepal are from their familiar (vernacular) practices, which have gradually been transformed by the combination of western and other foreign elements. The contemporary (“in-between”) architecture is place-specific, culture specific, and displays the adaption of external (western) elements more vividly.

Designers and scholars who employ the clear and exclusive categories of vernacular and modern view this contemporary architecture created by the people as confusing, incomplete and shabby. As common people do not apply modern construction methods, larger planning processes, and building regulations employed by the middle
classes, whatever they produce is considered as lower quality. These buildings certainly show certain inability of the builders to internalize foreign and western ideas that come with the building elements they borrow. The costs of building these houses are much higher, as steel and concrete are the main ingredients which are not produced locally. These constructions show the desire of people to improve their living conditions but, in regard to housing, their model has been the west of their own imagination. Although these people’s practices have been continuously growing, we have very little knowledge of them: they have not been studied in depth. The creation of a better built environment for the majority needs us to understand of these ordinary building processes.
### The Study

This thesis is an investigation into this ordinary architecture, the “in-between.” It asks what people build, how they build and why? The study, which follows these broad questions, is an inquiry into the lives of the ordinary people in a rural setting and it
investigates the nature of ordinary building practices. It attempts to understand how people and their lives connect to the built environment and how the local is connected to the global and other places outside local and national boundaries. Hence the study is translocal, i.e., how locality is produced within a global context that connects the locality to other localities across regional and national boundaries (Appadurai 1996). Here I refer to the building of “modernity” in Nepalese villages combining ideas, materials, methods from Nepalese past, vernacular, urban areas, the west, and other parts of the world including India, which might also provide the same to other places in Nepal as well as abroad (cf. Perera 2009).

In order to make it tangible, the study focuses on Dannchhi, a village in Kathmandu District in the Bagmati Zone of Central Nepal with a population of 5,848 and 1,082 households in 1991 (Census 1991). The village is located about 8 km away from the ring road in Kathmandu City. Although close to the city it is a village governed by a Village Development Committee (VDC), the lowest level local authority in Nepal. Nevertheless, most of its built environment has changed from historic vernacular to contemporary. Case studies of both vernacular houses and contemporary architecture can provide a strong context for the understanding of this contemporary architecture.

Some questions that drive this thesis are as follows: How are people constructing their own modernities? How are the locals producing their globality? How can we understand this locally produced globality in terms of its spaces, building elements and building practices? What “traditional” spaces and building elements are the residents
willing to give up? What “western” spaces and building elements are the residents willing to accept? How are the elements combined to produce contemporary dwellings?

The Relevance of the Study

Most architects are critical about the messy built environment and blame the people and their ignorance for creating it. In most modern architecture produced today, the designers employ what they view as high-end designs and cutting-edge technologies but, the people continue to build separately from this process. During its long course, Modern Architecture has professed to impose alien objects, altering human behavior as per the ideas of the architect, and the design ideology at large (Day 1990).

They look down upon the lack of professional input. Hence very little effort has been made by architects and architectural critics to understand people’s processes and investigate why they build the way they build. Hence, they have not been able to learn much from people’s building processes. This thesis is an exploration into this taboo zone with the intent of understanding design and construction by people, so as to rethink the role of an architect in places where the professionals currently have no or little access.

As Appadurai (1996, 7) stresses in regard to globalization, “there is growing evidence that the consumption of the mass media throughout the world often provokes resistance, irony, selectivity and in general agency”. In regard to architecture, the alien objects de-humanize the environment and push the people to get on with their own building processes, in their own way. As a large part of our built environments is still built by ordinary people, they continuously find ways to exercise their agency over the built environment whether it is in urban, semi urban or rural areas. Here, agency is
referred to as the capacity to make choices and to impose those choices on the surroundings. It is in this sense that this thesis inquires how to enhance people’s processes. The goal of the study is therefore to better understand people’s building practices, the production of spaces and building elements. This study is a step towards finding, redefining, and repurposing the role of the architect in an environment where people are actively involved in building their own environments.

Today, the world is not sheltered from the effects of globalization. The local is influenced by the global and other localities beyond national boundaries. There is a struggle, in this regard, between change and continuity in the daily lives of people. Despite these changes, people strive towards creating a better life and a progressive world. Hence an objective of this study is to find the global local connections in a locality, understand changes and continuity, and find ways to investigate the opportunities to improve the quality of life through architecture.

Focus

The focus of this thesis is ordinary people and their lives; especially what they build, how they build and why they build as evident in spaces, building elements, building practices, and the activities the people perform in these spaces. The study is carried out in Dannchhi. It will pay special attention to building elements in the house like floors, walls, roofs, windows, doors, stairs, and columns, and the building methods and building techniques employed in building.
Framework: Literature

Dor Bahadur Bista (1976) asserts that there are two cultures present in contemporary Nepal: the indigenous culture and foreign influenced culture. The indigenous culture is mainly related to the subsistence economy and farming, while the foreign influenced culture is related to schooling and the formal economy (Bista 1976). The influence of other cultures is a strong impetus for change in the recipient culture. Homi Bhabha (1996) argues that all forms of culture are continually in the process of transforming through the production of hybrids. The cultural landscape at hand is such a hybrid product. Most people move between and practice in indigenous and foreign cultures, thus creating their own hybridity. Bhabha (1996) also argues that a third-space of hybridity arises with the intermingling of two cultures, which gives rise to aspects that are unique to the hybrid. The third space of hybridity is uniquely authentic. Although fixed cultural traditions are usually viewed as the authentic culture, hybrid culture is also authentic. As Bhabha (1996) further argues that authenticity and hybridity are not opposites but natural extensions of each other. Hybridity produces new forms of authenticity and is inherent in the processes of social and cultural dynamics in which various cultures confront each other. Authentic and hybrid products are evident in the buildings in Dannchhi.

In an interview Bhabha (in Rutherford 1990, 221) highlights “But for me the importance of hybridity is not to be able to trace original moments from which the third emerges, rather hybridity is the ‘third space’ which enables other positions to emerge”. Similarly, the houses in Dannchhi have the qualities of a ‘third space’ that allows the
emergence of a new position. This new position is neither characterized by completely vernacular nor modern, but derives from both.

As Bhabha (1996,) further argues, the third space is a margin which resists the center, and yet in this process of de-centering it is itself transformed into something new. Instead of origins, therefore, this thesis attempts to understand the production of third spaces combining extant building forms and methods combined with elements borrowed from the west and other cultures. Hence this involves the combination of external-internal, within-without, and global-local in Dannchhi.

Following these ideas, this study investigates the overlapping and the in-between of these categories, particularly the creation of third spaces. Viewing this hybridity situated in the local, this thesis aims to locate, identify and understand the different hybrid elements that have over time become parts of normal and mundane events in the daily lives of the people of Dannchhi. From a cultural and anthropological standpoint, this study investigates these ‘third spaces’ from a local vantage point. The ‘in between’ in this case is the people’s production of their houses using some influences from their past and outside and weaving them into their continuing familiar practices, thus creating the present context.

This study attempts to understand the modernization of Dannchhi as a translocality. This refers to the development of a locale, particularly a housing landscape, which is connected to many other places and practices in the world, or the global context (Appadurai 1996). This is particularly evident in Dannchhi where labor, materials and
ideas transcend the local reach. The movement of people outside of their locale (especially for work) has facilitated the bringing back of ideas as seen by them through their experience. This study tries to understand what ideas are imported and how they are transformed to create contemporary Dannchhi and its dwellings.

Pieterse (2003) defines globalization as an ongoing production of a “global mélange” through hybridization processes. Similarly, this is a study on the local productions of globality and the various forms of hybridization produced through translocal means and cultural expressions. The study maps out the creativity of local people in articulating the difference by indigenizing the global. This study is about the creation of indigenous modernity in Dannchhi.

With the migration of people in and around the Kathmandu Valley, people have familiarized the spaces, the architecture and the building practices. With various forms of land ownerships, cultural influences, and political changes, people have learned to familiarize their built environments. As outsiders have migrated to regions which were originally inhabited by indigenous people, overtime there has been an adoption and familiarization of the indigenous cultures into their own cultures. This is evident in the building culture in Dannchhi.

**Vantage Point**

In a study more directly focused on social space, Nihal Perera (2009) argues that people produce their own spaces for their everyday activities and cultural practices. He argues that, in order to better observe people’s processes of creating space, the scholars
need to 1. Focus on people’s processes accepting their significance, 2. Employ analytical frameworks that acknowledge people’s agency, and 3. Shift the vantage point to one that is empathic to the people whose processes are being studied. This study attempts to understand the production of dwelling spaces from the position of the inhabitants and the builders in Dannchhi. In addition to the literature reviews and learning from secondary sources, the study was carried out through primary observation of houses, the environment, and activities in Dannchhi and more extensive interviews of ten selected inhabitants.

**Methods**

The study required a combination of methods including literary studies, field surveys and in-depth interviews with selected participants. The field work began by building a background understanding of the village. As the village is divided into *toles* (small neighborhoods built around courtyards or open spaces), the study began by exploring houses in particular *toles* and building an understanding from units of houses and households to larger *toles* and the village.

Taking each house as a unit, the field survey included questions and in-depth interviews with the participants. Beginning with the observation of small events and occurrences that took place in the village and houses, the questioning process was expanded to trace the larger processes and structures in a bottom-up direction. The little findings found during site visits, be it an object, space, building practice, building
element, material, a different person, a group, caste, or an activity, all were used as foundations to build the upward search.

In the process five old houses and five new houses were selected for deeper investigation. These include vernacular and modern type houses and in-depth interviews with the inhabitants of these houses. The focus of the questions was mainly the spatial aspects of the house, its physical elements, and building practices.

The transformation was then mapped out to find out what elements and aspects of these houses are changing, not changing, and what changes are welcome what are resisted. The purpose was to ascertain how and why these are changing. By taking spaces in and around, the spatial elements of each house, their related activities, the building practices, and their transformations were mapped out to find out how they produce the (trans) locality.

Organization

Chapter II discusses the context. Introducing Nepal, its people and broadly giving a picture of the geographical terrain mainly the land. The historical background highlights the political, social and cultural changes, trying to explain the external and internal changes that have happened over a period of time. There is a discussion of the land and subsistence farming, which explains a bit about life in rural Nepal followed by a broader discussion on the contemporary thinking in Nepal regarding Globalization and Development.

Chapter III documents the case studies. It begins with interviews and conversations and moves on to show and explain their built environment. Chapter IV
highlights the differences between the old house (vernacular houses) and the new houses (in-between houses), in terms of spaces, building elements and building practices. This studies and documents the changes and transformations taking place in Dannchhi. Chapter V tries to build on a perspective which consists of the interpretation of interviews and the analysis of data collected from the field. Lastly the conclusion attempts to highlight what the people of Dannchhi have given up to be modern, and what they have not given up to be Nepali.
The Material Context

Nepal: Land and the People.

Nepal is a landlocked country in Southern Asia. Nepal has been a kingdom for over 1,500 years and its history has been shaped by Tibetan, Chinese, Indian and British influences. The modern era Nepal came into formation in the 1760s, before which were smaller princely states. Nepal was one of the few Asian nations that remained independent during the heyday of European imperialism in the eighteenth and nineteenth centuries. As the British colonial power consolidated in the Indian subcontinent, for fear of the Nepalese kingdom being absorbed in the British Empire, in the 1860s the Rana rulers established a working relationship with the British. Following a treaty, the British were permitted to recruit Nepalese soldiers for the imperial army. At the same time, the British granted the Rana rulers control over domestic affairs and protection from internal and external enemies.

The Himalayan country of Nepal is located between China to the north and India to the south. Nepal covers an area of 147,181 sq km (56,827 sq mi), with an average width of 193 km (120 miles) and length of 885 km (550 miles). The countries geographical boundary is defined along the North West to South East axis parallel to the Himalayan mountain range.
The country can be divided into four topographical zones: the Great Himalayas, the Middle Himalayas, the Outer Himalayas, and the Terai. The highest zone is the Great Himalayas, in northern Nepal. Eight of the ten highest mountains in the world are located in this area averaging above 8000 m (26,240 ft). These include Mt. Everest, Mt. Lhotse, Mt. Makalu, Mt. Dhaulagiri, Mt. Manaslu and Mt. Annapurna. To the south of the Great Himalayas are the Middle Himalayas, mostly comprising of the Mahabharata Range, with peaks averaging less than 3,000 m (9,900 ft.). There are several rivers that run through Nepal’s Middle Himalayas including the Seti, Karnali, Bheri, Kali Gandaki, Trisuli, Sun Kosi, Arun, and Tamur. South of the Middle Himalayas lies the Siwalik Range of the Outer Himalayas, with an average elevation of about 1000 to 2000 m (about 3300 to 6600 ft.). The southernmost Terai region is a flat and fertile lowland. This area comprises of the northern extension of the Gangetic plains of India. Out of the total land of Nepal about 77 percent is covered by mountains and hills (www.en.wikipedia.org/wiki/nepal).

Map 1.Map of Nepal Source: www.mapmandu.com
The total population of Nepal in 2007 was estimated at 29 million. Kathmandu, the capital, lies in the Middle Himalayas, at an elevation of 1,310 meters (4,300 ft.). While it has a population of about 4.5 million (2009 estimate), there are six other big cities: Biratnagar, Patan, Pokhara, Birgunj, Dharan and Nepalganj. While 86 percent of the total population lives in rural areas, the Terai and the hills hold about 49 and 44 percent of the population respectively. About 7 percent live in the mountains.

Nepal is a multi-ethnic country, with ethnic groups such as the Khas (Brahman, Chhetri,) Newar, Gurung, Magar, Rai, Limbu, Sherpa, Tharu and others. The population distribution on religion is 81 percent Hindus, 11 percent Buddhist, 4 percent Muslim and about 4 percent others. Nepal is largely an agricultural country with 71 percent of the population working in agriculture, mostly doing subsistence farming, 3 percent in industries, 11 percent in service sector and 1 percent in others (http://en.wikipedia.org/wiki/Demographics_of_Nepal).

The Nepali people are mainly descendants of three major groups of migrants: from India, Tibet, and North Burma and Yunnan via Assam. Among the earliest were the Kirat of the east mid-region, Newar of the Kathmandu Valley and the Tharus in the southern Terai region who are also regarded as aboriginal people. The Brahman and Chhetri groups came from India’s present Kumaon, Garhwal and Kashmir regions, while other ethnic groups trace their origins to North Burma and Yunnan and Tibet for example the Gurung and Magar in the West, Rai and Limbu in the east (from Yunnan and north Burma via Assam), and Sherpa and Bhutia in the North from Tibet (www.en.wikipedia.org/wiki/nepal).
Today the Nepali population consists of two major groups, the Indo-Aryan and mixed Indo-Mongoloid group and the Mongoloid group. Both Indo-Aryan and Indo-Mongoloid comprise of 80 percent while the Mongoloids form 17 percent. The movement and migration of people into Nepal from the East-West and North-South directions has resulted in hybrid groups, for example, of the Indo-Mongoloid group (www.en.wikipedia.org/wiki/nepal).

Nepali, the national language which is derived from Sanskrit is widely spoken by the Indo-Aryan and Indo-Mongoloid groups who are also strict adherents to Hinduism. The Mongoloid group comprises of different ethnic groups like Bhutia, Sherpa, Gurung, Magar, Tamang, Rai and Limbu people. Most of the Mongoloid group speaks Nepali although each ethnic group has its own language. The religious affiliations also follow ethnic boundaries: while the majority of Indo-Aryans and the Indo-Mongoloids practice Hinduism, the Mongoloid group remain divided between Shamanism and Buddhism. But, some of the ethnic groups like Newar, Gurung, Magar, Tamang, Rai and Limbu also practice Hinduism (www.guru.edu.np).

**Historical Background of Nepal**

The shaping of Nepal has happened with the various political and social changes, which has had its impact on the socio-cultural front of the people. It is possible to categorize different eras of these changes and this can provide a clearer picture of the contemporary Nepali people. Most of this section have been built up from Sujeev Shakya’s *Unleashing Nepal* (2009), Dor Bahadur Bista’s *Fatalism and Development*
(1991), and John Gray’s *The Householder’s World* (1995). The period between the 1750s and the 2000s is marked by five major transformations. The phases are as follows:

a) The Unification Era (1768-1840): the United Kingdom of Nepal came into existence

b) The Rana Period, (1846-1951): supported British colonialism in the Sub-continent


In the 1700s, the Himalayan region had many smaller prosperous kingdoms, of which the most prosperous one, both in terms of agriculture and trade, was in the Kathmandu Valley. The famous tiered temples of Bhaktapur, Patan and Kathmandu were built during this time. In the 1760s, Prithivi Narayan Shah, the ruler of nearby Gorkha state conquered the valley and gradually annexed the states surrounding it expanding his own empire. This marked the beginning of what we today consider as the unified-Nepal. This also marked the beginning of the political dominance of Indo-Aryans and their religion: Hinduism.

The strength and the stability lasted during the lifetime of Prithivi Narayan Shah. After his death, taking advantage of the situation, a lower ranking Army officer captured power and established the dynastic rule of the Ranas. During this time the East India
Company already had colonies in India. The Ranas, after their defeat in a war, soon colluded with them. From then on the Nepalis were used by the British to fight against the Indians and others in the region. As the Ranas soon began to emulate the British, the British colonial culture made a significant influence on the Ranas and subsequently the Nepali people. During the Rana period the Kings mainly from the Shah Dynasty continued to be the monarchs, but as nominal heads of state; the executive powers resided with the Ranas.

During this period, the *Muluki ain* or the first legal code was written, in 1854. This legal document, explained that the Kingdom of Nepal was founded on Hinduism, and the society was founded on the hierarchy of castes in which status was determined with the conception of purity (Gray 1995).

Buildings built in British colonial architectural style during this time still house many important government offices in the Kathmandu Valley. Houses too can be seen to have such influences, with colonial style carvings and decorations on them, but mixed with indigenous styled architecture. These houses mainly belonged to urban elites and the upper caste people.
The Ranas introduced the practices of ‘chakari’ and ‘afno manche’, these and the social organizations built upon these have their effects until today. Chakari brought the Rana rulers and the common people in close contact, mainly for the monitoring of the latter. The people had to visit the rulers every morning and show their loyalty towards them. This practice still continues among the people today, although in a modified form; they take gifts in order to show loyalty and please their superiors and authorities. Afno manche, which means own people, was a practice of forming a group of people related to each other by the bond of knowing them and referred to as “own people.” As they worked together, people formed groups and called those who were in one’s group afno manche. This was a process of identification through social groups, which also served as
a source of information: It explained who that person was, who he/she was linked with and where he/she came from. This identification method or system helped dealing with each other and work responsibilities became clear and easy (Bista 1991).

When the colonized Indians were fighting against the British rule, its ripples were felt in Nepal too. Some of the elite and high caste people who studied in India at that time, and influenced by the Indian National Congress, began to question the politics of the Rana regime. They, who desired to create a pro democratic government set up through elections under a multiparty democracy, were able to bring the King of Nepal, who was a nominal head during the Rana regime, back to power with the help of Indian leaders (Shakya 2009). Later after a few years of the newly elected government, King Mahendra, the then King, took over the executive powers of the country through a military coup. In this, he completed the return of the monarchy. He then introduced the local-council-based system of governance; the local councils that were created under the system are known as panchayats. The monarch abolished multiparty democracy and went into a single party “democratic” system.

The decentralized, panchayat rule was based on the spirit of democracy, but now combined with Nepal’s classical tradition of local governance. There was a hierarchy of governance units from local to regional to national levels, with the national level panchayats functioning as the council of ministers who advised the king. The king in this system remained the source of all power and authority (Shakya 2009). The caste system was replaced by a class system and organizational bodies.
The *panchayat* rule was overthrown by the popular uprising of 1991, paving the way for the multiparty democracy in Nepal. This multiparty democracy brought in new changes in the socio-economic front. Some of the villages surrounding Kathmandu began to see new factories, asphalted roads and vehicles. While it opened doors for industrialization and the improvement of the economy, the neoliberal economic policy also left many people in poverty, questioning the consequences of these policies. This period also experienced a lot of in-fighting between political parties and gave birth to the much dissatisfied groups leading the *People’s Revolutionary Movement*, popularly known as the Maoist Movement.

Another popular uprising in May 2007 abolished the 240-year old monarchy and turned the country into a republic. Today the country that Prithvi Narayan Shah established as a Kingdom is in the process of becoming a federal democratic republic governed by the elected body, the Constituent Assembly, which is writing a new constitution. These political transformations from a monarchy to a republic have also been accompanied by social changes: The vertical emphasis of the social structure defined by centralized power and a caste system is apparently giving way to one that is more horizontally organized and seen to be more equitable, egalitarian and decentralized.

*Land, Farming and the Subsistence economy.*

Since land has been the main means of production, its ownership systems have played an important role in the governance systems since the establishment of the unified Nepal. Historically, there has been a strong relationship between people and their land.
Land has been the main source of subsistence besides cattle farming; most of the rural populace lives on subsistence farming. Hence the rural landscape is dominated by agricultural land and houses which look like farm or peasant houses. These are houses through which households support their subsistence.

There were two main systems of land tenure operating during this time: the Raikar system and the Kipat System. In Nepal, land has traditionally been considered the property of the state. This system of state landlordism is known as “Raikar” (Regmi 1999). Under this system there were three sub-systems: the Birta, Guthi and Jagir sub-systems. The state granted land, both waste and cultivated, to individuals and religious and charitable institutions under a freehold tenure. As a result the Birta, Guthi and Jagir land-tenure systems came into being as derivatives of the Raikar land-tenure system. Birta lands were granted in appreciation of services rendered to the state in the past. Guthi is a form of institutional land ownership, mostly held by religious and charitable institutions as temples, monasteries, schools, hospitals, and orphanages. Jagir was a land assignment, or compensation made for the services provided to the state (Regmi 1999).

The Kipat system was communal form of tenure. This type of ownership was limited to certain communities of Mongoloid origin, such as the Limbus, Rais, Danuwars, Sunuwars and Tamangs in the eastern and western hilly areas of Nepal (Regmi 1999).

The basic function of production land was subsistence farming. The land owned by an ordinary person was used to grow enough to provide for the basic needs of the family, very few had a desire to produce a surplus for trading purposes or to earn money.
Only the richer, who were also closer to the power center, had more land and had the people to work for them in their fields. They traded their produce for other grains, salt, tea, and/or oil. The size of the land was the primary indicator of wealth of a person (Gray 1995)

Fig 2.4 Cultivated Agricultural land with peasant households  
Fig 2.5: Agricultural land and peasant households  
Fig 2.6: Agricultural land along the hillside.

Fig 2.7: Farmers in Dannchhi  
Fig 2.8: Peasant house in Dannchhi
While the vast majority of the population still lives on a subsistence economy, there is a clear split between rural and urban areas. The landlords and the educated elite are more conversant with urban environments and a global-modernity and they seem to work along the lines of a capital-driven neoliberal economy. In this context, the Maoists represent the rural populace and the subaltern communities. Subaltern refers to people who are socially, politically and geographically outside of the hegemonic power structure (Postcolonialism). The Maoists believe that the solutions to the social problems that the large majority of people face and the predicaments that they are in lay in another system, i.e. socialism. Hence, they fight for a socialist republic.
Observations

Introduction to the Village.

| Narayanhi Palace Museum, can be taken as the heart of the city or the downtown area. |
| Kathmandu-Dannchhi-Sankhu road, is about 14 km long from the ring road to Sankhu. |
| Dannchhi, is about 12 km from downtown Kathmandu. |

Figure 4.1: Map of Kathmandu Valley showing the ring road, airport and Dannchhi.

Kathmandu Valley Ring Road, which runs around the city is about 28 km long.

Tribhuvan International Airport is situated 5.56 km east of Kathmandu city.

Changunarayan Temple (Nepal Engineering College) 4 km north of Bhaktapur and 22 km from Kathmandu city.
Dannchhi lies on the road between Kathmandu’s ring road and Sankhu, a small town east of Kathmandu, about 6 km away from the ring road. It was originally a Newar town the name of which, in Newari, means a store place. According to a local resident Kamal Prasad Poudel, it was used to store wealth, grains and ammunitions in the seventeenth century. Since the time of Prithivi Narayan Shah (the 1760s onwards), Indo-Aryan people formed the majority of Dannchhi’s population.

Prithivi Narayan Shah’s army and administrative officials who settled in the valley, used the most fertile and irrigable land like Dannchhi to set up villages. These places were called *Kanth*; *kanth* is neither a city nor a village, but a settlement type that falls in-between. There are a large number of these within Kathmandu Valley and they hold a population from 100 to 500 households. Today these places are located in the outskirts of the (expanded) city, just outside the ring road of the Kathmandu valley, and some have become sub-urbs.

Within the valley, however, there are hardly any older (traditional) buildings or *kanths*; the buildings are “modern” and have reinforced concrete structures. Currently, the pressure of modernization is intense in former *kanths*, not least because the city is expanding and the houses in these are old. With people building newer houses next to their old ones, the landscape is rapidly changing. The landscape of Dannchhi clearly speaks of this recent onslaught of modernization.

People’s lifestyles are transforming from living in a subsistence economy to a market economy. People no longer rely on farming, alone; many are employed in Kathmandu and nearby cities. The use of land is changing from farming to residential and
commercial, and also from crop farming to poultry to nursery farming. There is a transformation in life-support from subsistence to a monetary form. People are propelling the change to have a better life which does not require them to do hard physical work like plowing the fields. People seem to find more comfort in earning money and having an easier life than a difficult one. In sum, the types of production are transforming. Along with this, the culture of building is also changing.

Dannchhi is divided into Chalan taar and four toles: Salmi, Adhikari, Subedi and Paudel. Chalan taar is the Bazar area where there is a temple, the VDC’s (Village Development Committee) office, the school and the tree bus stop. This is the original Dannchhi.
Figure 4.2 Chalan Taar and the Tree bus stop

Figure 4.3 Salmi Tole and the road from Dannchhi to Sankhu

Figure 4.4 Adhikari Tole

Figure 4.5 Dannchhi

Figure 4.6 view of Subedi tole

Figure 4.7 Road in Subedi tole

Figure 4.8 Road from Dannchhi to Bhardabas
Tole literally means a neighborhood. Salmi tole has been a formation of mixed
groups of people, which include shops, small restaurants and workshops this is developed
mainly along the roads to Bhadrabas and Sankhu. The remaining toles like the Subedi,
Adhikari and Poudel bear the names of the families that lived there. The formation of
these toles began with large amounts of land given to each family during the Rana period
as either Jagir or Birta under the Raikar land ownership system.

Raikar is a system of state landlordism. Traditionally, all state-owned lands were
regarded as Raikar. In a more literal sense, Birta meant an assignment of income from
the land by the state in favor of individuals in order to provide them with a livelihood.
Birta was regarded as a form of private, property; its ownership not only insured a stable
and secure income to the beneficiary, but also symbolized high social and economic
status. The use of the term Jagir, which is of Persian origin, denoted land assignments to
government employees which was originally confined to India. Jagir land assignments
were invariably made in consideration of current services, and land grants in appreciation
of services rendered in the past were usually associated with the Birta system (Regmi,
1977). For example, one family of the Subedi’s was given 40 ropanis of land (4.76 acres)
about 3 generations ago under the birta system. Today the land is sub-divided among the
sons and their families who have built houses next to each other, thus forming a tole. On
a collective initiative people have been willing to set back their building to allow the
construction of a road in front of their houses. Thus the tole keeps expanding, while some
of them also sell land to people other than family, but the name of the tole still remains
the same. The expansion is not just in front of a house but around it.
Fig. 4.9 Prem Bahadur Subedi’s house.

Fig. 4.10. Mukunda Subedi’s house.

Fig. 4.11. Ganesh Shresha’s old and new houses.

Fig. 4.15 Subedi tole

Fig. 4.12. Guruba’s house. Fig 4.13. Vishnu Poudel’s house. Fig. 4.14. View of Subedi tole
Figure 4.16. House of a Newar with a restaurant on the ground floor. Fig 4.17. Old house of Sundar Poudel at Poudel tole. Fig 4.18. New houses on the way to Poudel tole. Fig 4.19. Fields viewed towards Dannchhi from Poudel tole.

![Map of Dannchhi upto Poudel tole](image)

Fig 4.20. Map of Dannchhi upto Poudel tole

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Fig 4.25. Old house of Kancha Dulal

Fig 4.26. Old and new houses in Subedi tole

Fig 4.27. House of Kancha Dulal

Fig 4.28. Hay stacked in front of Subedi tole.

Fig 4.29. Map of Dannchhi.

Fig 4.30. Passages between houses in Salmi tole.

Fig 4.31. Poultry farming in Salmi tole.

Fig 4.32. Old house, women sitting and talking.

Fig 4.33. Small temple in Salmi tole.
Conversations and Interviews.

Introduction to the Interviews.

The entry to Dannchhi became easy through Umesh Subedi, who I have known for some time and is a resident of Dannchhi. Most of the interviews were arranged and suggested by him. Umesh is familiar with all the people with whom we spoke, and whose houses we visited. We would go together to the select houses, as I picked those houses while walking around Dannchhi, and Umesh and I would try to meet up with them. Sometimes we would not meet them then we would move on to other houses.

First, questions were for people living in vernacular type older houses which were later modified for people living in in-between houses. Generally the questions were in four areas a) questions related to the village, b) questions related to individual houses, c) questions on building practices, and d) socio-cultural questions.

Questions related to the village were for example: what does the name of the village mean, since how long people have been living here, when was the road built, where are the sources of drinking water, and who governs the village?

Questions on individual houses were: how old is the house, how many people live in the house, do you have a job or what is your occupation, what are the different activities conducted in different areas, and what do they like about the older houses in comparison to the newer ones and vice versa?

Questions related to building practices focused mostly on the house that was being interviewed and some of them were: who designed the house, who all were
involved in the design, who built the houses, from where did they come, who made the design decisions, what were the design constraints and considerations, where did you get the materials from, how much did it cost to build the house formed the main part of the questionnaire.

Some samples of socio-cultural questions were: where do social events take place, are there specific social events in the village, what all do you do collectively in the village, where do you go if you have a problem, what are the changes you observe in the village, and what do you think are causing these changes?

To find more about the in-between houses the questions were modified although the categories remained the same. The questions focused on changes and comparisons drawn between the older houses and new houses. Some of them were, what are the main differences you feel about the new houses, how has it changed your life, why did you build this new house, are you happy with this new house, what to want your village to be like in about 15 years, how has life changed since the past 10-15 years, what do you think about the changes are, and are they for the better or worse?

*Conversations with Raj Bahadur Adhikari.*

Raj Bahadur Adhikari lives in an old house with his wife, son, daughter in-law and two grandchildren. He has one cow and farmland or khet, he is too old to work in the fields but he hires farmers to work in his field who are paid in cash and kind. Although he is a retired army man, he has enough land to feed his family that he had acquired through the system of Birta landownership, i.e., ancestral property.
His house is about 30 years old and is made up of mud bricks which are sun dried on the inside while kiln baked on the outside. The kiln-baked bricks have a better finish so they are used on the outside. The mortar for the brickwork is mud from around the land and building site. Mud plaster is used in the interiors. It is mixed with cow-dung, sand, mud and saw dust. This provides good insulation; the house stays warm during winter and cold during summer. Sometimes the builders also used bajra instead of cement mortar which is also a mixture of beaten brick or brick dust, black sticky oil and lime. There are some cement plaster can be seen and these are recent additions. The cost of the house was Rs. 30-40,000 thirty years ago. It was built by Newar builders from Gokarna.

In explaining how difficult the task of building a house was, Raj Bahadur refers to an old saying in Nepali: “you are a man only after you have built a house”. The Newar builders would build a kiln on site and bake bricks in it. The kiln was called a bhatti The Newar builders consisted of dakarmis (masons) and shikarmis (carpenters). But apart from brick and wood, stone was also used as a building material for the foundation. Although roof tiles were readily available at that time, Raj Bahadur went for CGI roofing, as it was a more permanent solution. Wood was mostly hardwood called agraat and was mainly used for floor beams. It was mainly bought from the market, which were hand crafted and transported in a thela (three wheel cart). The soft wood was utees used for secondary beams and planks of the floor.

According to Raj Bahadur, the process of designing the house was an engaged interaction with the builders. The design decisions were made as the building was built;
the builders would show him samples of designs that they wanted to apply on the house. In regard to a window, the builder took us to show where it was already tried. On deciding for the roof, Raj Bahadur says, “at first we had thought of a two sided sloped roof, but because we could not get the tiles from the factory we choose to use CGI roof instead”.

Like most city people, they wanted to buy roofing tiles from the factory. But there was confusion: the tiles they had ordered at the Harisiddhi factory were actually taken by someone else in their name. As they were powerless, according to Raj Bahadur, they were not given any tiles and so had to settle for corrugated sheets, which at that time was not so appealing. They had to change the design of the roof, that’s how it became a lean-to roof.

Raj Bahadur told me that while building a house, people had to stay with the builders and help them.

To supervise, we used to work and help them out. … We had to supervise by ourselves. As the building was being built we gave our input and designed as it was getting built. We changed it and decided on it, while building it. … We took advice from other people who had already done it, or were building houses. We also took advice from builders.

Raj Bahadur is about the fifth generation living in the village. He says earlier there were very few houses but now the village has grown bigger. With seven to eight people living in each house, he knew everyone in the village. “Nowadays there are people
we don’t know in the village,” he says. “They never had to buy any food from outside, instead they sold food to nearby villages.” He stresses that, during his time, education was meant only for males. The females had to take care of the household works, but these concepts are changing and it is for the good.

During the Panchayat period, according to Raj Bahadur, the village panchayat solved most of the people’s problems. Now it is the village development committee (VDC). There was a village mukhia or head of the village. With modernization, people have grown smarter, but they have also become dishonest. Earlier we could trust anyone but nowadays, he says, we cannot trust anyone. Earlier, development in the village was carried out by shram daan, i.e., collective labor that was freely donated.

He says, we used to give shram daan and one person from the house had to go and volunteer with other people or public works. People also gave food, money or whatever help they could. Earlier the community used to be there, the village people were involved in many organizations, and they used to donate money or food grains etc. and maintained the village development activities.

Raj Bahadur very honestly shares that he had a good life compared to others, although these days he is having difficulties due to isolation. He was of the opinion that today it is necessary to have a job while farming is also essential. He thinks he is lucky because he has a job and he is farming land, while many of his village-folk only rely on farming.
Fig 4.34 and Fig 4.35 The house is L-shaped with a front court, usually for drying food grains. The colonnaded part is a pidi for resting --where people came and sat—and is also used for storage. It seems like that space has lost its essence now that many things have changed. On the ground there is a kitchen and dining and a small store room.

Fig 4.36 and Fig 4.37 The elements like the decoration of the doors and the window borders were suggested by the builders as making the building stronger and durable. They come from Newari Architecture.
Fig 4.38 L Shaped layout, with a front agaan and colonnaded pidi. Fig 4.39 Hay dried in the sun in the agaan.

Fig 4.40 The grain store behind the stack of hay. Fig 4.41 The toilet is outside the house, but attached to the main structure with a plastic overhead water tank.

**House of Kamal Prasad Paudel.**

Kamal Prasad Poudel remembers that he was ten years old when the current house was built; it is now about 63 years old. This house too was built by locally available materials like wood and mud. He is proud to claim that this house is warm in winter and cool in summer. Kamal Prasad does both farming and is a priest performing Hindu rituals.
According to him, Dannchhi is a Newari word that means a place to keep wealth which is now filled with non-Newari migrant population.

On talking more about the design process, he says, we designed as we liked and directed the building process. The house was mostly designed according to site conditions, although there were some principles like keeping the ridge of the house, dhuri, along the east-west axis. It had to face east-west for reasons of sunlight coming into the house. As the windows for lighting were placed parallel to the ridge, the ridge of the roof had to be oriented according to bringing in adequate light, and heat during winter, from the east and the south.

Mr. Poudel thinks a house is a type of culture, it keeps on changing. Earlier the roofing was of khar, or kind of branches, now it is of tiles; even recently, the CGI sheet were used and, most recently, people have begun to use reinforced concrete. He thinks the people’s lifestyle and the house should be integrated, as they were found in the older houses that reflected the farming practice. Today the modern houses are not so integrated, he observes. The modern houses are more like “you do what you want and I’ll do what I want”. Although he is not articulate in this way, he seems to see individualism in today’s landscape of Dannchhi.

He thinks the main reason for the development of this new house form is because of the increased production of food due to the modern inputs such as fertilizer. People therefore have more money to spend on housing. He thinks this new house form is produced as a need and also a compulsion. People do not want to revert back; they want
to keep moving forward. “As we now have electricity in our villages, we do not want to go back to using ‘tukis’ or lamps.”

It has a cultural part where people follow what is being done all around.

Fig 4.42 and Fig 4.43 The blue paint is from the local market, and was done a few years back. He painted it because he wanted to make it look better and younger.

Fig 4.44 The picture shows a dhiki which is operated with the foot to grind rice. Fig 4.45 The other picture shows a sitting place, sometimes used for sleeping. The seating has a store below for storing mud and soil from the fields used for kitchen work, to repaint the floor, or similar activities.
Fig 4.46 The front court used for enjoying the sun and drying food grains. Fig 4.47 The front yard has a tap and a cleaning area to wash clothes and dishes. There is also a kitchen garden (in the background) for fresh vegetables.

Fig 4.48 and Fig 4.49 The front semi-covered area pidi is used for sitting, it has been plastered with cement a few years ago. The tiles used for flooring is called telia manufactured in Bhaktapur. Kathmandu valley has good soil therefore brick is used all over, and exploited even for roofs and floors. There are many tile factories, manufacturing roof tiles, floor tiles and bricks all of which are made of clay.
Fig 4.50 and Fig 4.51 The kitchen floor is made out of clay, but is no longer used. Today they use gas (LPG) which is commonly used for cooking in urban areas. They also have electricity, replacing the tuki the oil lamp.

Fig 4.52 and Fig 4.53 The wood is seasoned for building by drying and subjecting to high temperature using fire to kill insects which are harmful in the long run. There is also a paste used to paint over it.
Fig 4.53 and Fig 4.54 They use both the traditional method of cooking, using wood, and a gas stove which uses LPG gas. This is also the dining area, where they sit and eat on the floor.

Fig 4.55 and Fig 4.56 The first floor has two bedrooms with a corridor in between. Part of the main bedroom is for grain storage.
Fig 4.57 and Fig 4.58 Rice is stored in the box in the bedroom. Usually this is not shown to people, because it is believed if people eye it ("evil eye") then it they may lose it somehow; be stolen or the next harvest will be bad. The wooden windowpanes.

Fig 4.59 and 4.60 Additional storages on niche walled cupboards in smaller rooms for storage.
Fig 4.61 and Fig 4.62 The staircase has a horizontal door to separate the ground floor from the first. All grains have been stored at upper levels which are closed off from the ground floor to prevent theft. The living cum bed room with a TV is a relatively large room.

Fig 4.63 and Fig 4.64 The attic or top floor is used as storage where all the wealth is kept. Other people are usually not allowed to see this floor; it is like peeking into someone’s wealth. Usually rice grains and other grains are stored here.
Fig 4.65 and Fig 4.66 The roofing is very rough with rough finished wood work with hardwood like agrat and bamboo.

Fig 4.67 and Fig 4.68 Tiles baked in Bhaktapur are placed on top of purlins. The flooring is clay plastered finish.
Fig 4.69 and Fig 4.70 The rear view of the house: only the front is painted blue the rear is mud colored. The smaller holes on the walls are used for inserting bamboo scaffolding which are left as they were. This practice of leaving the holes made for scaffolding is seen in ‘in-between’ type of houses also. The building to the side is a store and cow-shed.

**Conversation with Ganesh Shrestha**

Ganesh Shrestha's house was built around 1970. The house adjacent to the old house is a new house which was built around 1997. In total there were two families and eight people living in both houses. Ganesh Shrestha heard from Kamal Prasad who said that there is somebody in the village to interview people about old houses, and asked if they had come to interview him. They both expressed and felt that people are actually taking interest in the old houses, but also feel that this old building type is being replaced by a new building type.

Ganesh Shrestha thinks he knows what I will ask him so he just started off by differentiating the old house and the new house. He differentiates *kacchi* and *pakki* which means weak and strong standing for old and new. He thinks that the old house is very warm and climatically effective which in turn affects ones health.
In winter the new concreted- *pakki* house is very cold, especially the cement floor is cold. “People get sick due to coldness, my mother cannot live inside there because it is very cold,” he says. In contrast, “the old house has low ceiling height, the doors are smaller, and we could not take out our sofas from inside. We use mostly *gundri* straw stitched floor mat. … In the *kacchi* house, during rainy season we face difficulties, even if there is storm and strong winds.

He thinks it is relatively unsafe during earthquake also. There is road passing in front of his house and he explains how the road was a *Kacchi* road until 2-4 years and now it is *Pakki*. He says:

We have given part of our land to build this road, as a part of helping build the road. Initially we did not want to give but later as everybody was giving up for the good of other people, we also gave and allowed to build a black top road. This road used to be a small road going further north to other villages, first came the house then the road. This road was built on a people’s initiative not a government’s initiative. So as everyone co-operated in allowing their land to be used by the road, we did the same.

The Builders were from Gokarna as well. The house was built in winter. Bricks were made in winter as, otherwise, in the rainy seasons the mud would wash away. So the house was built in winter as well.
The bricks of the old house were sun dried and were made out of clay from the land, they are plastered with a layer of clay paste which has given a reddish color to the house. The store house bricks are whitish.

The new house is two and a half storied, with a shop, a grinding room, three rooms on the first floor, with the kitchen and a store and a terrace on the second floor.

Ganesh Shrestha is a retired mechanic, who used to work in the government factory. Out of three houses seen above, the one in the middle is the main (old) house, the one to the right in the photo is the newly built house and the one to the left is a store which was also a later addition. Ganesh has a farm, but also used to have a job. So he works within two systems, one that of “food” and one that of “money” as he himself defines these.
Fig 4.73 and Fig 4.74 The exterior interior relationship of the old building, is such that there is usually an open space where the woman is sitting, used for drying and other utilities. The semi-covered area is protected from the climate is used for sitting and as a utility area for beating the paddy, and grinding rice. Behind it are four rooms.

Fig 4.75 and Fig 4.76 The roof of the pidi or the veranda has tiles over it which are manufactured in Bhaktapur. The struts of the pillars have carvings done by Newari craftsmen who are well known for their artistic abilities.
Fig 4.77 and Fig 4.78 The woman is sitting on a seat made out of straw. The stone grinder at the corner of the veranda is used to beat paddy, to take the seed (rice) out of it. Nowadays people use machines for this process. So the handmade grinder is no longer in use.

Fig 4.79 and Fig 4.80 Inside on the walls of the semi-open space are niches used for storage and pujas and placing night lamps.
Fig 4.81 and Fig 4.82 The use of hardwood and bamboo with a rough finish. The wood is from the nearby area.

Fig 4.83 and Fig 4.84 The flooring made of bamboo, smaller strips of bamboo laid as planks on bamboo beams, which is finished with a 4-5 inches thick layer of clay plaster. Over this a paste or protective floor finish is applied to keep the floor smooth and clean; it is re-pasted periodically to keep the house clean.
Fig 4.85 and Fig 4.86 The semi-covered area provides access to two rooms—one behind the other—where cattle are kept. At the center is a staircase that leads to the first floor. To the side of these rooms are two more rooms used for storing utensils and farming equipment. These rooms are still used the same way.

Fig 4.87 and Fig 4.88 The equipment store room and the central staircase.

Fig 4.89 and Fig 4.90 The brown colored finish is a clay paste used to keep the house clean; it protects the wall or the floor against insects. The electric meter box seen on the first floor attached to the wall.
Fig 4.91 and Fig 4.92 The wooden staircase seen from the first floor, leads to the kitchen and store on the top floor. The photograph is taken from the open space usually used for storage in the first floor.

Fig 4.93 and Fig 4.94 The living room next to the storeroom. This room is connected to two other rooms, one to the right of the TV and the other behind the TV. The baby sleeps on a box to store rice grain used as a bed. The TV furniture, the sofas and the table represent modernity in this old house. The ceiling is protected from dust and dirt particles falling from the ceiling with a plastic sheet. The fan is also a new addition that signals change.
Fig 4.95 and Fig 4.96 The grain store-room before entering the living room and the first floor window sill which separates the window openings into two parts; the open able and fixed. The brown colored clay plaster is periodically renewed.

Fig 4.97 and Fig 4.98 The top floor --just like an attic-- is used for cooking, dining and storage. Tiles bought from Bhaktapur are used on the roof.

Fig 4.99 and Fig 4.100 Bamboo is used as rafters and purlins in the roof. The vertical tie struts are used as overhangs for the roof, the ties are used as cantilevers. The washing unit seems to be a later modification, with a drain installed, otherwise water was just thrown out of the window. The water is hand carried in buckets up-to the kitchen from the ground floor.
Fig 4.101 and Fig 4.102 The thickness of the wall on which the rafters rest is about 18 inches and, at points storage units or shelves built into it. There is a window through which water used for washing was thrown down to the fields.

Fig 4.103 and Fig 4.104 The view out of the windows looking into the street: the strut is used to support the extended eave of the roof.
Fig 4.105 and Fig 4.106 The additional room is double storied to stack up hay and straw, this is also built out of locally made sun-dried bricks.

Fig 4.107 and Fig 4.108 There is piece of stone outside the house called the Kumar God, which is worshipped every morning before doing anything.
Fig 4.109 and Fig 4.110 The new house has a shop selling essential goods to the villagers like rice, dhal, soap, and biscuits. The wall between the two rooms is being used by the locals as a notice board to paste notices and other things. This has sprung up naturally and it is a good place as many people visit the store. Since there are other villages up the road, I believe that people use this place as an intermediate stoppage to collect information. There are government notices also on this wall, like water supply and those of the Sanitation Department.

Fig 4.111 and Fig 4.112 The other room is used for grinding, where people from their fields come and use this grinder for a fee. Even this new house is well connected to agricultural life and life of food and farming is significant for its organization and design.
Fig 4.113 and Fig 4.114 On the first floor there is a small threshold to stop the water as it flows to interior spaces. Ganesh complains that one of the drawbacks of this design is that water just enters the rooms, there is no protective layer of roof. Just inside the corridor are two rooms.

Fig 4.115 and Fig 4.116 Two bed rooms: the room on the left is behind the door seen on the right.
Fig 4.117 and Fig 4.118 On the floor above the bed-rooms is the kitchen which is not in use but being used to store corn. This has a CGI roof with steel trusses. The terrace outside is used for drying food, just like in the older houses.

Fig 4.119 and Fig 4.200 There is an overhead tank for water supply. Dried vegetables on the left.
Conversations with Mukunda Subedi.

Mukunda Subedi lives in a sixty year-old house. He is a retired army man who also does farming for a living. There were altogether 9 people living in the house at one time but now there are only three; his daughters are married and live separately and his parents are no more. Otherwise three generations of people had been living in this house at one point.

Mukunda says usually there would be someone to look after the house when they were away for work either in the job or the field. But these days they lock their house,
which he thinks is safe enough because their neighbors help look after when they are away. His children went to school in the village but are not employed yet. He thinks it is very difficult to get jobs these days. Although they are educated they still help out in the fields during rice plantation and other works in the fields.

The house is built of baked bricks facing the outside while sun-dried bricks on the inside. The bricks were made out of clay from the area around the house. The bricks were made by hand and dried in the sun. An in-situ brick kiln was made and used to bake the bricks for the exterior.

The family used wood and bamboo from their nearby jungles and around their farm. Some of the wood was also borrowed or donated by neighbors and friends.

Although Mukunda's house was built by Newar builders, being an Indo-Aryan, his house is different from a Newari house. The basic difference is the layout of the kitchen and its location on the first floor.

Mukunda thinks the new house is about comfort and ease and, most importantly, one that solves the problem of water leakage from the roof. Besides the physical aspects, he also thinks of fitting into the society of people who build like each other. He thinks people do not understand enough why they are building in this particular way. From a health point of view, these new houses are not good, as they are very cold due to the cemented or concrete floor and plastered walls. He knows that people say that it is good from an earthquake point of view and it may stand for 2-3 generations. But the phenomenon of building these new houses has grown so much that he says nowadays
people are selling their land and building these new houses even for status and seems like a fashion. According to Mukunda, earlier everybody could build a house, but today everybody cannot build a house. The income from a job is insufficient to build a house. This new house is expensive from that perspective and is almost a fashion to sell a farm plot and build a new house.

Mukunda asserts that, earlier, people used to help each other out by donating building materials and loaning out help so that they could repay later. But in regard to the new type of building one has to have a lot of money. He feels that it is more about money now. After the 1991 earthquake, he got help from family and friends, particularly materials, for repairing his house, but today this help has reduced.

Mukunda thinks it is a kind of social vice that is spoiling the social harmony. There is too much learning, mostly of bad things, from others; doing what others are doing, without thinking what is right for them. People are also interested in building status now. Now the government agencies are also beginning to talk about using concrete pillars as a mandatory requirement. He feels it is the people who build who are to be blamed. He shared a Nepali proverb: 'Look at your size of the neck and swallow the bone'. He meant that someone should look at what they can build and then build. But this new culture is provoking; even if you cannot afford it you need to build it to compete with others.

From a nationalistic perspective also, all the materials are brought from abroad, creating a dependence on other countries.
He thinks that “these new houses are too much for extant community and people know too much, more than what they need. … This type of house is inappropriate. The bone is bigger than the neck. The “knowledge system” focuses too much on the new, rather than what we already have. Too much emphasis on the external is the trend. They are only interested in using un-known elements, too many alien elements.”

It is driven by money; people have seen all around and have been exposed to the outside world. People want to adopt external things more in a manner that is inappropriate.

He thinks that people have made a future of the house but not a future of their lives. It has become only for them, not others. He feels this new technology is a leap forward, too far off the existing society. He thinks that the expense and knowledge does not match; there needs to be something that everybody can build and not just driven by money.

Fig 4.205 The balcony is a new attachment to the old house.

Fig 4.206 Side elevation, there is a 4 ft. passage to houses behind Mr. Mukund’s.
Existing old kitchen is not in use these days. Kitchen is on the ground floor. The new kitchen with gas stove and dining table. Janto is a handmade stone for hand grinding cereals and dhal. Wooden stair leading to the upper floor with only 7 steps.
Fig 4.211 Puja room is also on the ground floor.

Fig 4.212 There are three rooms in the first floor with an extended concrete floor.
There is a passage in between the rooms leading to the balcony where Mr. Mukunda is standing. This space is used for drying vegetables etc. The floor is constructed out bamboo strips placed on bamboo beams, with a 4-5” thick clay layer placed on it. This is plastered with a smooth clay paste.
Fig 4.217, Fig 4.218 there is storage space right on top of the first floor. Outsiders are usually not taken to see it to prevent people from (evil) eying the wealth of the house. Nowadays the wealth has moved from grain to money.

Fig 4.219 and Fig 4.220 There are also stores at the top and first floor.
Fig 4.221 and Fig 4.222 The back yard has a grain and paddy storage house and a small kitchen garden.

Fig 4.223 and Fig 4.224 This toilet is a recently phenomenon in the village. The concrete roof indicates it is new. The (jali) type windows are for ventilation.
Fig 4.225 and Fig 4.226 Parts of the roof seen from the ground floor; the beams are beginning to rot.

Conversatio n with Sundar Poudel and Badri Bogati

Sundar has an old house and a new RCC house in the same compound. This shows how the connection of the house to the landscape has changed. It indicates the change from a thatched roof to a tiled roof, and from tiled to a CGI corrugated roof sheet. “According to people’s capabilities and capacities, people are always in a state of progression” explains Sundar Poudel.

Land selling has become a fashion, says Sundar Poudel, in Dannchhi most people own 20-25 ropanis of land. This land is agricultural land, either Bari or Khet. (Bari is where water source has not reached the land and khet is irrigated land to grow crops like rice and wheat). Because of commercialization and the changing times, people are shifting towards selling a plot of land, building a house, buying a motorcycle, faming a
nursery, a shop front, a restaurant, or poultry farming. People are shifting from the traditional agricultural lifestyle to modern means of production, and more commercial and adopting money making systems. It also seems like the city people are buying plots of land and selling them at a higher price to other individuals, solely with the intention of making profit. The buyers of land don’t want to build anything; they are more interested in selling the land to other buyers and make a profit out of it.

As Badri Bogati, who is a retired driver at the Nepal Electricity Authority, explains, the people in the city have a lot of money but are investing in the agricultural land in Dannchhi. There are even many sights of land plotting, or land divided into plots with road facilities, sanitation pipe lines and electrical poles which are sold to potential buyers from the city. Badri was in Sundar's house at the time of interview with Sundar, so it so happened that I went over to talk to Badri also.

This building culture, particularly the building of RCC-structured houses has been a recent phenomenon. According to Sunder:

These commercial phenomena collectively and external changes has entered the village in less than a decade. There is a growing trend of making easy money and making profits and these have become the sole intention of life. People don’t want to work hard like before, growing crops working hard in the fields, and harvesting. People want an easier life, to produce more by doing less.

Danchi is modern in terms of what people are doing, what they are building and the way they live. It is becoming modern in regard to the means of production and
lifestyle. The shift from a subsistence economy to a market economy is widely evident. And it is in this context Sundar and others explain the changes in house design.

Observing Sundar’s house, the *pidi* of the old house, including the activities which still takes place in exactly the same manner (See Fig 4.227 and Fig 4.228). It is a social space, where outsiders come, sit and chat with the household people, drink tea, while the residents do small household work. Yet along with construction, the names of many spaces and building elements have been replaced by English words: from *pidi* to *verandah* and *mataan* is now called the passage or corridor. In this, the change has been exaggerated through linguistic and other representations.

![Fig 4.227 and Fig 4.228 New House pidi and Old house pidi](image)

Sundar and his wife have different reasons for why people build these new types of houses. Sundar talked about his sons and daughters’ pressure to build this new modern house. Sundar says he has many relatives and friends living in the city with all modern amenities and facilities. There was pressure to go with the flow, not to be left out, and keep up with changing times. His wife talked about how a person from the city saw their house and living conditions when approaching them to ask for his daughter for an
arranged marriage. For this purpose, the person from the city wanted to see if they lived in a pucca house which also symbolizes modernity and mentality of the family. After Sundar and his family faced rejection, Sundar’s wife wanted to build a modern RCC house so that her daughter could get married.

Sundar talked about hygienic spaces and well lit rooms. He now thinks that the older house did not have ample light. They felt the old house had many hassles in regard to cleaning and plastering (painting) with mud on every big occasion. They feel that time has brought the changes in their house.

Sundar and Badri too talk about the culture of Dekha-sikhi, learning from others by looking at others, or even copying or imitating others. In all this, Sundar also agrees that this new houses is breeding poverty, while a person needs to sell a piece of land to build a house, with the costs of steel, and concrete, the costs of such houses is extremely expensive for such ordinary people. But today it has become a status thing to sell a plot of land and build an RCC modern house.

Badri Bogati on the other hand feels that the advantage of this village over the city is the environment. We have electricity, telephone, drinking water and sanitation but we also have a better environment, says Badri. As many villagers do, Badri had a story to illustrate how practicality is more important than rules. He said that when heavy loaded-truck turns a driver should give passing side on a narrow road. Yet, he said, it is not wise to park on the left hand side although the rule is to keep to the left side; to give a passing side we have to go on the right side so that the truck can easily pass. Practicality is more important than rules, he asserts.
Fig 4.229 and Fig 4.230 The above pictures are Badri Bogati’s house, he has a terrace area like the ‘pidi’ on the first floor. He has a sitting dining table. I got the impression that he has some exposure to the modern world through his work and his job in India. His house has some Indian influences in regard to the spatial layout and terrace design.

Conversation with Umesh Subedi.

Umesh is married and has a one year old son but lives with his parents. He has a job in the city. Like most other villagers, he has sold a plot of land and is building a new house.

He shared with me his thoughts about the village and life in the village. The availability of modern technology and education has changed the village over the years. He says first there was a television in one house and then slowly moved to other houses. Cable connections came to Thali (nearby village) three years ago, but we have electricity and we pay our bills to Nepal Electricity Authority. About 10 years ago we received telephone connection and we pay our bills to Nepal Telecom.

Besides technology, social activities have also changed. For example, during marriage ceremonies neighbors and relatives would get together and do all the cooking for the guests but, nowadays, they use a catering service. This catering service is an
organized group of people who not only cook and serve food but also bring and erect tents and arrange chairs for the occasion. These groups come from city fringes from places like Chabahil and Gaushala, about 8 km from Dannchhi. This service is undertaken as a contract.

The other change is land pooling, plotting and selling by city folks. Land pooling is collecting land by individuals mostly farm land and selling them in buildable land plots of regular shapes.

The other change is migration for work to America, the UK, Japan, Malaysia, Qatar and Dubai. The main aspiration of the people is higher status and to become rich. In the past decade, migration for labor has tremendously increased. About 12 percent of the national income is remittances, money sent home to family by working people outside Nepal.

The bazaar in Dannchhi has simple goods materials but, for others, we need to go to Kathmandu. “We can buy vegetables and goods for daily use in Dannchhi, but for goods related to puja and festivities we have to buy from Kathamandu city” says, Umesh. The villagers usually stock food for about six months, this includes rice, wheat, potatoes, corn which are sourced from the fields and can be stored for longer time. For daily use, smaller vegetables like onions, garlic, cauliflower, pumpkin and other green vegetables are grown in the bari, or kitchen garden.

According to Umesh, these villagers usually do not have to buy a lot; they also sell what they have extra for example rice, milk and yogurt. But with regard to storage of
food, there are very few freezers in the village. The use of a freezer is resisted, because people try to eat fresh food and believe in the value of fresh produce.

Umesh thinks the most respected people are the priests, the elderly and good people. We respect people who do not harm others, those who do good to others, who can think and act for the good of the others. Such people are invited to meetings to resolve social problems, says Umesh.

Umesh says nowadays, people are into real estate business, and the building industry, selling bricks, sand, aggregate and cement. They are mostly agents of bigger city dealers. As an industry, poultry farming is popular says Umesh.

The biggest difficulty that the villagers face on a regular basis is transportation. There are only a few buses to Sankhu and they are also filled with people; there is no space in them. Not everyone can buy motorcycles. There is a vehicle shortage according to Umesh. Secondly, there are no job oriented offices, factories, or other kinds of places of work. For work they need to go outside, either abroad or to the city. Umesh thinks his life in the village would be better if he did not have to leave the village for work.

Umesh wants the village to be full of services and better infrastructure like in the cities. He thinks the city is the model for development of the village at the moment. Although now some facilities like the water supply are quite good. The waterline which is supplied by the government comes from Sundarijal into a tank that was built by the government. The government has provided a system of collective water distribution system, i.e. for every twenty-five households there is one tap. Apart from the government
source, there is a small stream and underground water source the water from which is collected in a tank. This water is normally used for drinking. The government water source is used for washing dishes, clothes and bathing. Umesh thinks it is better to develop such systems through community efforts.

**Conversation with Kancha Dulal**

Kancha Dulal is also a retired army man. He lives in an old house and is building a new house next to the old one. The biggest difference in this new house, he laments, is the cost. The old house that he helped build cost just fourteen thousand Rupees; today, he has spent over ten lakh Rupees but his house is still incomplete. He thinks nowadays money is the biggest constraint. “Transporting steel is tremendously difficult, we have pay for loading and unloading, find labor ourselves, the whole process is still a big hassle” says Kancha.

The other factor which is one of major drawbacks is the lack of knowledge on this new building technique. He says “we build new houses solely putting our trust in the hands of contractors. Earlier, for the old house, I carried the wood and I was familiar with construction. But in this new method [of constructing modern houses], there is a great chance I can be cheated.” Kancha remembers how fast he built the old house: "we began building the house in November, we laid the foundations in December and we shifted in February". This new house is taking months to complete. We lack knowledge of how it is being built, says Kancha. According to my own experience in post-tsunami development in Sri Lanka, the lack of knowledge of building leads to dependence.
Kancha remembers how they struggled to build the old house; “now this house has become insufficient and is failing to meet our needs” he says. “At that time it was a big thing for us.” Now the needs have changed. He wonders what people want. He thinks people want improvement and better lives always. In order to meet his new needs, he is building the new house. He thinks “we have to move according to the time and today’s time has brought about a change in the building culture and this is responsible for this new building.

Conversations with Navraj Subedi

Navaraj thinks people are mainly earning quick money by selling land. He says we cannot earn much through regular salaries. People collect plots of land, add value by bringing providing electricity, roads and sanitation, and sell them. According to Navaraj there are many changes in the village:

The changes can be felt through the passage from cycles to cars, from greeting Namaste to handshake and the changes are west and English-speaking oriented. Sometimes the changes are good, like for example there used to be no toilets in people’s houses but with the changes in the toilet habits, people have now slowly learnt hygiene within this new paradigm.

One of the major transformations can be seen in how the toilet has entered the house. First the villagers used to defecate in the fields, and then came toilets outside the house, and now the toilet is brought into the house. The transition from field to the outdoor toilet to internal toilet is worth observing says Navaraj. How people’s habits change and new
ideas get accepted gradually is to be noted. In addition to these particular transitions, these need to be understood as part of larger process of change and transformation.
CHAPTER IV

Comparative Analysis

1. Spatial Elements

1.1 Pidi – Verandah

Pidi is a “verandah” that acts as a semi-open transition space between the exterior and the interior of the house. This space is usually between a colonnade that supports a projecting roof and the wall and is defined by the raised floor, from the ground level. This space also links the house with the exterior open terrace called aagan, or court in front. It
is usually tiled and used for activities such as drying food, washing, cleaning. This space is usually located in the front of the house. In winter, it is used for sitting in the sun.

**Pidis in Old Houses**

![Fig 5.3. The old house of Ganesh Shrestha.](image1)

![Fig 5.4. The old house of Kancha Dulal sitting around the “pidi”](image2)

![Fig 5.5. The house of Prem Subedi, the “pidi” is recessed.](image3)

![Fig 5.6. The hanging of floor mats and other outdoor things.](image4)

![Fig 5.7. The hanging of calendar, electricity meter, belt and a niche for doing puja.](image5)

![Fig.5.8. Hanging of Umbrella, cap and storage of wheat and rice.](image6)

*Pidi* is not really a verandah in English sense; as above figures reveal, it is a different multifunctional space. It is where the inside and outside meet. It is used to store material that need not be, or should not be, brought into the house, but cannot be put out
because they need some protection from environmental elements and/or animals. While many activities of this nature are illustrated above, there are also activities that depend on time: a good example is drying clothes on a rainy day.

This applies to people as well. The *pidi* is also a seating and interactive space for the inhabitants to chat with guests and other visitors who need not enter the rest of the house. Outsiders do not enter beyond this point without permission.

The *pidi* is usually orientated towards the south, south-east or the east. Although people continue this practice without asking why, it appears to be to gain maximum sun exposure for the *pidi* as well as the entrance during winter.

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*Fig. 5.9. Using the “aagan” to dry rice (dhan) in Prem Subedi’s house. Fig 5.10. Children bathing in front of the house of Kancha Dulal using water from the well. Fig.5.11. Ganesh Shrestha’s mother sitting in the aagan and enjoying the sun.*
**Pidis in New Houses**

Fig 5.12. House of Sundar Poudel. Fig 5.13. Pidi becomes balcony on the upper floor. Fig 5.14. New Pidi added to the old house of Mukunda Subedi.

Fig 5.15. Terrace of Ganesh’s new house still used for drying. Fig 5.16. Terrace of Mukunda’s house used for studying and sleeping. Fig 5.17. Terrace of Badri’s house.

Fig 5.18. Balcony of Shyam Adhikari’s new house. Fig 5.19 Terrace with a washing area in Shyam’s new house. Fig 5.20 Top most terrace of Shyam’s house.
The pidi has taken new forms in new house. Although people still continue the activities like drying, washing, and sitting in *pidis*, the building materials have changed and the activities have also slightly changed. The use of cement plaster, steel pipes, concrete columns and reinforced cement concrete roofing are the material and features used in *pidi*. Some of the older houses are also incorporating these new ideas.

Although the *pidi* has usually been on the ground floor, the new houses also have balconies on the upper floors which substitute or expand the functions of *pidi*. The terrace and the balcony are the new forms of *pidi*. In this new usage, the “pidi” has moved vertically onto upper floors and the older uses of such storage, like hangings have lessened.

### 1.2 Kitchen / Dining Spaces

![Fig 5.21 Chulho traditional hearth. Fig 5.22 Utensils placed over the hearth to dry it. Fig 5.23 shows hearth for burning with wood.](image-url)
The kitchen is usually located on the ground floor in most Chettri-Brahman houses while on the top floor of Newari houses. In the case of Chettri-Brahman houses, the kitchen and dining forms the entry room along with the Puja room. Some have a centrally placed, colonnaded hall for kitchen and dining, while some have separate rooms for cooking, eating and puja. Sometimes the puja, the cooking “chulho” and eating are done in one room using the sitting posture.

The activities like washing the hands for before eating, washing utensils and washing for cooking is done outside in the “aagan” where the water tank is placed. Most eating is carried out sitting on hay mats on the floor, but these are now being replaced by dining tables. Cooking was also carried out mostly by women in a sitting position; this is being replaced by cooking on tables, standing.

Fig 5.24. The kitchen of Kamal Prasad Poudel, which has a telia tile (clay tile) flooring. The adjacent space is also used for dining with floor mats to sit. Fig 5.25 The wood hearth is replaced by a gas stove. They have also replaced the floor mat with a dining table. Fig 5.26. The floor of the kitchen is plastered and cleaned after every meal with a paste made out of red mud and cow dung. Cow dung usually protects the kitchen against insects.
The new house of Sundar Poudel has pushed the kitchen right to the back of the house. It is now accessed through a corridor, and there is a door in the kitchen to go outside and behind the house. Most old houses are transforming the old ways of cooking, especially washing and the seating. The new ways are being brought-in in the old houses.
also. They have stopped using the traditional hearth, and the use of wood. They have stopped using the floor to cook, as in by sitting and cooking; now they are using tables and gas stoves.

Modernity is constructed through new objects, processes, activities, and changes in the use of space. The use of cement plaster and materials like plastics has substantively transformed the kitchen. The substitution of modern materials has brought in modernity, but to adapt to these changes, the people seem to be changing gradually, making both old and new practices and then gradually changing to the new practices.

The transformations are motivated by comfort and ease, particularly the new notions they learn from television, mass media, and advertisements.

1.3 Living and Bedrooms Spaces

A sofa has entered the bed rooms along with TV show case thus defining a living room that combines elements form bed rooms and living rooms. The sofa represents a modern gesture for greeting guests and seating respected people. This room has seen the
presence of computers, television and telephones. It is also the show case of the house, exhibiting family photos, pictures of gods and goddesses, and of the former king and queen. Although there is no specific living room in the older houses, in the newer ones the living room is the largest room in which many people can be accommodated. In older houses one of the larger rooms is converted into a living cum bed room. For the most part, it is the television and the sofa that defines its modernity.

Fig 5.36. Bed room in Kamal’s house, with two beds next to each other, a photo hanging on the wall. Fig 5.37 The grain storage box as part of the bed room. Fig 5.38 TV show case and photos on the wall in Kamal’s house more or less define the living room.
The living cum bed space is defined by the television, carpet, and flooring mats. While its sleeping space is also used, the room is usually used to entertain guests. The furniture like beds and dressing tables are also modern. This room is like a show piece, it is presumably the best room in the house. Devoid of the old hanging things on walls, this is the show room. The photos on the wall feature major events like the retirement ceremony or some other honoring ceremony and include family photos, and certificates that mark the greatness of the family. It is a space to entertain guests who used to be received in the hiti, a community gathering place. This more privatized meeting space has become a place to exhibit the greatness of the family to the outsiders.
1.4 **Puja room and spaces**

Fig 5.42. The bedroom of Ganesh’s new house, with the dressing table and clothes rack in modern style. Fig 5.43. The bed is grand and different from the older ones. Fig 5.44. The wall hangings in Badri’s living room, pictures of the former king and queen, his family pictures, his certificates and his farewell pictures from his office.

Fig 5.45. Puja room in Mukunda’s house. Fig 5.46 niche for puja in Ganesh’s old house. Fig 5.47. Puja on a stone outside in Ganesh’s old house.
The puja space ranges from a room to a more specific place on a wall, a niche, or even stones on the outdoor flooring devoted to the functions of offering and praying to gods. In contrast to rooms in older houses, wall niches have become more common in newer ones largely because of expense of building a separate room. This is evident in Badri Bogati's house; he is using the wall as a box like niche for praying. The new puja rooms are placed on the half landing of stairs of the last flight of stairs, or on the terrace.
1.5 **Exterior washing spaces**

![Fig 5.51. In Sundar Poudel’s new house, the government-provided water tap is in the front yard. Fig 5.52. Small drum of water for washing clothes in Badri’s front yard. Fig 5.53. Water tank at Kamal’s house, usually filled from a nearby well, is placed in the front yard.](image)

The washing area is usually located in front of the house. It is because people returning home from the fields wash off the mud and dirt in their feet before entering the house, usually from the front. Although people’s practices have changed, the tradition of having the washing area in front of the house still continues, even in new houses. Now even the washing of dishes and clothes is carried out in this space. In most cases, wells are also situated in the front yard.
Fig 5.54. Badri’s front yard. Fig 5.55. Water tanks for washing dishes, clothes, hands and feet in Prem’s front yard. Fig 5.56 Well in front of Kancha Dulal’s house, he has an electric pump inserted into the well and the water is stored in the plastic water tank seen behind. Fig 5.57 External washing space on the terrace on Dilip Adhikari’s house that is under construction.
1.6 Storage Spaces

Food grains seem to be the major storage element. The most common storage spaces are rooms on the upper floors. As refrigerators are still uncommon features in most of these houses there are smaller storage systems like niches on walls with porous windows to allow the airflow to keep the food fresh. Storage spaces are either rooms, boxes, niches, or attic spaces where food grain from the field are stocked in large quantities.
The attic is usually used for the storage of unused materials. Hay, wood, boxes, utensils and occasionally used tools are stored in it. The attic sometimes has a separate area for the storing of food grains. In the newer houses, storage is mainly in boxes and underneath the bed and under the staircase. Separate unused rooms are also common storage spaces. For food storage, the kitchen is better equipped with cupboards. Foods that need air are also hung off the ceiling.
1.7  Circulation - Corridors and Stairs Spaces

The Circulation spaces in old houses are minimal; the stairs are usually placed on one side of the wall and near the entrance. Usually after the landing on the first floor there is a lobby or a common circulation space from which to enter other rooms. This
lobby is used to store shoes in a rack or bags of grain. There is a window on the inside of this space to light the space. In the case of Kamal’s house there is a horizontal door to close and separate the kitchen and the upper floors. The purpose is to keep the upper floors safe where the food grains are stored. While the kitchen was left open; importance was given to food grains.
2.0 Building Elements

2.1 Columns

Fig 5.79. Columns forming the recessed pidi in Raj Bahadur Adhikari’s house. Fig 5.80. Columns defining the recessed pidi in Prem Bahadur Subedi’s house. Fig 5.81. Columns joined at the base with metal clampings is a later addition. Fig 5.82. Columns defining space, and giving support.
Wooden columns form a major feature in old houses. Wood worked by carpenters are used for the structural framework for which particular sizes are determined in coordination with the carpenters. The wood is either bought from town, or obtained from trees in neighbouring forests. The trees are usually from the nearby land, sometimes borrowed from or exchanged with a neighbor, friend or a relative. While they follow the village standards, the column heights are defined by the builders, in consultation with the owner. The wood is collected before hand and allowed to season for the purpose of carpentry.

Fig 5.83. Columns defining space and creating the façade. Fig 5.84. Columns and beams painted to prevent rotting and to protect from termites
Columns have a decorative head (a capital) which joins the beam and the column. The support beam is a design feature with carvings to add to the design of the beam and column, along with the struts that support the roof, fixed on to the columns. The interior columns are painted with ash to protect them from termites, insects and other kinds of rotting. Frequent treatments are a prerequisite to the wood structures and constant repairing and maintenance are required in old houses.
Columns are used in the attic and the roof spaces are roughly finished, without smoothening the timber. The beams are similarly “unfinished.” The columns correspond to the columns on the ground floor standing one on top of the other from the ground above. These columns are centrally placed both supporting the ridge and dividing the
rooms equally along the ridge of the roof. These columns usually follow the same pattern to the ground

*Columns of new houses.*

![Figure 5.91](image1.png) Hollow steel columns with sand filling, and circular reinforced concrete column. Fig 5.92 Column defining the entrance porch on the ground floor. Fig 5.93. Reinforced concrete column acting as a support for the reinforced concrete roof. Fig 5.94. RCC columns used to raise the water-tank on the roof terrace.

Columns in the new houses are of hollow steel pipes and reinforced cement concrete. Usually the steel used are of 12 and 16 mm diameter nationally processed steel. They are either rectangular, square or circular in shape. The layout of concrete columns is usually a grid pattern that creates rectangular rooms and spaces, a pattern found in most
new houses. This is integrated with the whole Reinforced concrete system of construction with beams, and slabs and foundations all of which are of RCC.

2.2 Doors

Fig 5.95. Kitchen entrance of Raj bahadur Adhikari’s house. Fig 5.96 Entrance door of Prem Bahadur Subedi’s house. Fig 5.97 Entrance showing puja and flowers hanging on the lintel of the door in Prem Bahadur’s house. Fig 5.98. Door separating the ground and first floors in Kamal Poudel’s house.
The doors of older houses are shorter, about 5’. One has to usually bend a bit to enter the house. It is considered a sign of respect to bow and enter the house. The threshold is also about 6” high and the purpose is to prevent insects from entering the house freely. The lintel of the door is a place for religious puja, to hang garlands and stick some pictures of gods. Puja is done for the entrance door asking it to protect the house from evil. Some of the houses with upper levels have a door at the top of the staircase to separate the ground the upper floor. This is done for security to protect the upper floors from thieves.

*Fig 5.99* Ganesh shrestha’s house: His shop has all necessary commodities and a shutter door to close. *Fig 5.100* Collapsible door in Ganesh’s house.
Ganesh Shrestha’s new house now has a shutter door that closes vertically and is a popular feature in shops like this. The other gate is a channel gate used to lock the entrance for the upper floors. Both these are metallic doors. In Sundar Poudel’s house, there is a wire mesh jail door in front of the main door to keep the insects out. The main entrance door was about 3’6” with a light window on top of the door. The door was a two flap door, just like in older houses. The door sizes have also changed and the intentions include bringing more light. As compared to older houses, light in new ones seem to be a feature of maximum exploitation.
2.3 Floors

Fig 5.103. Outside Prem Bahadur Subedi’s house. Fig 5.104. Drying food grains in the aagan or the front yard. Fig 5.105. Drying hay in front of Raj Bahadur’s house. Fig 5.106. Front yard of Kamal’s house.

The floor of aagan, in front of the house, is usually tiled and used for drying food grains and enjoying the morning sun in the winter. Recently, people have started to plaster this and also interior floor.
Fig 5.107. Cement plastered floor of the pidi of Kamal Poudel’s house was a later addition. With time, he kept improving and maintaining the house. Fig 5.108 Kitchen of Kamal’s house, flooring of telia tile, locally manufactured, specially produced by Newar artisans.

Fig 5.109. Flooring made up of shorter bamboo pieces packed horizontally on larger sized bamboo beams. Fig 5.110. Hanging tools inside the gaps between the bamboo beams.
Most vernacular houses have bamboo floors. They are built by placing shorter bamboo pieces horizontally on bamboo beams. The top is then leveled with a thick paste of mud finished with a mixture of red mud and cow-dung plaster. The floor thickness is about 6 inches, and is occasionally re-plastered. Although quite stable, these floors move up and down when walking. The materials are largely collected from the nearby jungles, friends, and neighbors. Mud is also dug out from the land around the site.
Fig 5.115 Dining area in Prem Bahadur’s house. Fig 5.116 Puja space defined by the raised floor in Prem Bahadur’s house.

The flooring inside is used to dry potatoes as a way to store for a longer period of time. The definition of spaces for, for example, the puja is achieved by means of elevating the floor level. Elevation is also a sign of respect.

Fig 5.117 Black painted wooden beams in Mukunda’s house. Fig 5.118 Small white spots of initial rotting in Mukunda’s house.
Some of the wood begins to rot over time. Hence the inhabitants use the technique of painting them with a paste of ashes is applied on the wood to prevent from rotting. This was evident in Mukunda’s house. The black wood is the painted wood.

![Image](image1.jpg)

Fig 5.119 Elevated floor defining the space for washing with a tap protruding from the wall in the house of Dilip Adhikari. Fig 5.120 House of Badri Bogati; flooring done by cement punning.

In new houses, floor and telia are tiled. Tiles are available in the market in different sizes. The floors are usually tiled with 4”x6” tiles. Some have used cement punning as the floor finish. The new materials have increased the capacity of Danchhi residents to build vertically as well, with an upper floor (sometimes more).

Some activities have moved from the ground floor to upper floors. This has replaced the former tendency to expand the house horizontally. With more solid concrete, the performance of the floor has greatly increased. The floors also require less maintenance whereas in wooden structures the problem of rotting and termites can be troublesome. Due to potential problems, people are increasingly using more permanent
material which requires less maintenance. They have a need and desire to go towards permanence and towards durability

2.4 Roofs:

Fig 5.121 Thatched-roof and tiled-roof houses side by side in Dannchhi. Fig 5.122 Thatched-roof house of Kancha Dulal. Fig 5.123 Tiled roof of Kamal Prasad’s house. Fig 5.124 Corrugated sheet roofing of the pidi on Kamal Prasad’s house.
The images in Fig 5.121, 5.122, 5.123, 5.124, 5.125 and Fig 5.126 show variations in roofs in Dannchhi. There has been a transition in roofing materials from hay stacked roofing Fig 5.125 and Fig 5.126 to tiles, corrugated galvanized iron, and presently to reinforced cement concrete. The transformation has been over a long period of time but, as all people have not transformed their roofs at the same time, one can see all these variations in the landscape. People desire these new types of roofs because the old type roofs, especially hay roofs are difficult and painful to maintain. They need more frequent maintenance and replacement. People believe that concrete is forever, as they once believed in CGI sheets.

The roof also symbolizes the status of the person. If it is a RCC roof, he must be well off; such is the thinking in the village. People keep adding and changing into better, long lasting, durable and, sometimes, expensive roofs as they keep earning more.
People’s progress has been slow; it has depended on many aspects, rather than just money, although this is the major one.

The main reason behind adopting new roofs has been the problem of leaking, especially during storms and heavy rains. The yearning for performance and durability is based on the difficulties they have faced over the years.

![Fig 5.127 Wooden rafters supported by a column in Ganesh’s old house. Fig 5.128 Rafters and purlins in the old house of Ganesh Shrestha.](image)

The rafters and purlins in most old houses are made out of bamboo. As the natural finish of these are not enhanced and can be considered roughly finished. Their purpose is to hold the tiles in place. Bamboo is locally available. However, as the population is growing and the village is getting denser with houses, there is very few bamboo jungles left in the village. Fig 7 and 8 show Ganesh’s old house for which the tiles are brought from Bhaktapur where they are manufactured in bulk. Despite the new look, the roofs
keep leaking. The tiles can fly off in windy conditions, according to Prem Bahadur Subedi.

Fig 5.129 Showing the Kitchen floor of Ganesh Shrestha’s old house. Fig 5.130 Rough-finished wood used with different sizes of bamboo. Fig 5.131 Interlocking support for the extended roof on the outside of Ganesh Shrestha’s old house. Fig 5.132 Black painted wood in Kancha Dulal’s house.
Fig 5.133 Tiled roof resting on bamboo rafters in Prem Bahadur’s house. Fig 5.134 Tiled roof resting on painted wooden rafters.

Fig 5.135 House of Dilip Adhikari, the new imitation of roof of the old house. Fig 5.136 False roof part of the parapet in Dilip Adhikari, house.
Today the people are gradually transitioning into concrete. Yet the sloping or triangular roof of the older houses still hovers in the mind of people. It is symbolically represented by a “Namaste” roof or a triangular parapet wall as shown in fig 4.17. This shows that people are in a transformative process. Yet as represented in the hybrid form, the people cannot completely leave the past, and need a place in the present. No matter what people still think a house has to have a triangular roof.
2.5 **Stairs**

Fig 5.139. Wooden stairs in Ganesh’s old house, occupying minimum possible space. Fig 5.140 shows a definition of the entry and exit of the stair well, with a brick boundary to protect from water.

Fig 5.3 shows the metal stairs to the terrace of Badri’s house. Here the transformation in materials is evident. Fig 5.4 A metal stair case to climb up to the water tank placed on the terrace

Most of the stairs in the old houses are single flight wooden staircases. A single flight usually has 7 rungs or risers of about 10 inches. The floor to floor height is about 6’
to 6’ 3”. A brick podium of about 10 inches usually protects the wooden stairs from dampness.

As ideas transform, and the inhabitants are capable of accommodating them, the buildings also transform. With the introduction of metal stairs, everybody with a terrace is beginning to have a similar stair and a metallic one. Such is the concept of “dekha-sikhi” which means learning by looking. This has been a major concept applied to buildings. As Confucius explains there are three types of learning: 1. learning by imitation, which is the easiest, 2. learning by reflection which is the noblest, 3 learning by experience, which is the bitterest. Dekha-sikhi seems to fit the learning by imitation.

Fig 5.141 The door of a toilet placed below the staircase in Badri Bogati’s house. Fig 5.142 A puja space just above the last flight of stairs.

In new houses, the use of space is somewhat maximized. This is evident in the use of areas below and above the stairs. As seen in fig 5, the area below the landing in Badri’s house is a toilet, while the area on the landing above the last flight of stairs is
intended to be the puja area (fig 6). Thus this concept of maximum space utilization is prevalent in the way new houses are used, if this aspect is missed out in the design. Making the most of what is available is a widely used value and it is a characteristic feature of the design of new houses where the economy matters more than in the past.

2.6 Walls

Fig 5.143. The walls of Kamal’s house are painted blue. Fig 5.144. The back side of Kamal’s house with holes in the wall for bamboo scaffolding poles during construction.

Fig 5.145 and 5.146 The wall used for hanging materials and tools is a common practice in older houses.
Fig 5.147 and 5.148 Niches in the wall to hang lamp or light “tuki” at night.

Walls are usually not blank. People hang things on walls (Figs 5.145, 5.146). They have various uses, even if they are just vertical, and also have niches for such functions. This practice is still continued in new houses too. Many hang clothes on walls. There are many niches for placing lights or “tuki,” a lamp to light up the space at night. These niches are seen on the outside also. They also hold pictures of gods, idols and sometimes stones, particularly serving a religious/spiritual purpose. Figures 5.147 and 5.148 Show the niches on the wall with a perforated window for ventilating the food stored in the niche.
Fig 5.149 and 5.150 Wall closet to store food with ventilation to bring in air and keep the food from going bad.

Fig 5.151 The additional cement plastered wall done as a later addition in Raj Bahadur’s house. Fig 5.152 The walls plastered with cement when Badri had more money to carry it out.

People work on their houses continuously. It is usually a work in progress, and never finished. The walls of Kamal’s house are painted blue, which is a recent addition. (Figs 5.143, 5.144) This shows how the house is continuously been worked on. The blue color is Asian Paints done four years back. Figures 5.151 and 5.152 shows Raj
Bahadur’s house is in a continuous state of growth. They have plastered the wall with cement and added new materials and elements when they can afford. This also shows that the desire to do so is there although the resources might limit what they finally do.

![Image](image1)

*Fig 5.153 Hanging of photos and pictures on the walls in Kancha Dulal’s house. Fig 5.154 Hanging of pictures and certificates on the wall of Badri Bogati’s house.*

The hangings of photos on the walls is symbolic to people. They live with their memories, pay respect and honor the bereaved, and brag about themselves through certain exhibits such as family photos. (Figs 5.153 and 5.154) The photos are garlanded and fresh garlands are changed on various occasions. This exhibition is deeply connected to their meaning and value, particularly respect and honor to others that enable them to develop their own identity as someone relating to these respectable people.
Fig 5.155. Precast vertical brackets used in the parapet wall in Ganesh Shretha’s new house. Fig 5.156 The brick jali designed parapet wall of Badri Bogati’s house.

In Fig 5.155, the parapet walls are a design feature of the new houses. The vertical brackets are a precast concrete element which is directly bought in the market and added onto the building. In Fig 5.156 the new brick wall design with a perforated jali like design is also a new feature in Badri’s house. Badri claims that he saw similar design in South India; hence he wanted to try it in his house.

Fig 5.157 Interior wall of Dilip Adhikari’s house separating dining and kitchen areas. Fig 5.158 Parapet wall turned into a design element. This fake roof is locally called a “Namaste roof.”
The wall separating the dining and the kitchen is gradually opened up though the introduction of arches and other openings (Figs 5.157 and 5.158). In Dilip Adhikari’s house, the wall is separated by an arch, which is also a broader design feature in the new house. The roof has a parapet wall which is used as a decorative element. As it looks like using the hands to greet in a south Asian way, this feature is metaphorically called the “Namaste” roof. In local terms it decorates the building. This represents the consciousness of the design elements that exhibit the house to the public. Some houses have become show pieces. The magnitude of using the design elements and decorations is also related to the owners’ social status and the economic standing.

Fig 5.159 Rear view of the Namaste roof in Dilip Adhikari’s house. Fig 5.160 A Namaste roof under construction, as a continuation of a parapet wall in Umesh Subedi’s new house.
2.7 Window

Fig 5.161 Front windows facing east in Kamal Poudel’s house. Fig 5.162 Windows partially glazed in Raj Bahadur’s house. Fig 5.163 Railings that act as a physical barrier between the inside and outside in Prem Bahadur’s house. Fig 5.164 Green colored frames adding to the design of the house, Kancha Dulala’s house.

Older houses had windows which opened like doors. They would open from the lintel to the sill but there was a railing to protect anyone from falling over. While some used glass, most of the houses had wooden frame windows, with a protective wooden railing which is actually the sill level of most new houses. All rooms had at least one window, but still because of the size of openings and because of not using glass, the rooms were inadequately lit. They were small in size because of the need to keep the rooms warm in winter.
The wooden window openers are protected from outside by a grill. The grills used in older houses were simpler but the intricately carved wood work supplemented for the design of the windows.
Fig 5.169 Mukunda tried to increase the size of his window, when he made additions to his house. Fig 5.170 and Fig 5.171 Half opening window, the sill is raised and used to sit or place books etc. Fig 7.12 The opening in the roof for cross ventilation, used for drying food.
Fig 5.172 House of Badri Bogati, from behind. Fig 5.173 Use of new types of grill designs, and window frames are more flexible and there are more choices. Fig 5.174 and 5.175 interior of Badri Bogati’s house. Fig 5.176. Long window to light up the stair case, a new design element in Umesh Subedi’s house. Fig 5.177 Window grills fabricated by a metal worker in Chalan taar, Dannchhi
New windows using more glass for lighting, and grill works more sophisticated. The use of glass gives the opportunity to draw more light, it is also moving with times and the availability of materials. Besides, concrete enables longer openings. The use of long windows to light up stair-wells is used extensively in Umesh Subedi’s new house. The window frames are also redesigned in terms of allowing ventilations and jail windows to allow light and air but to keep away mosquitoes. Thus the window frame is modified and modernized to suit the contemporary local needs.
3.0 Building Practices

In order to understand the present we need to understand the past, so is the case with the contemporary building practice in Dannchhi. A clear visual split is evident between the old and the new building landscapes, rather the landscapes of houses. This split touches the shape of the buildings, including roofs, and the use of building materials. Building Practices in Dannchhi can be clearly differentiated between the older practices which have resulted in vernacular houses and the new practices that have produced more modern dwellings. In a broader sense, the contemporary practice represents both a continuation and a change, breaking away from the past but not deviating too much. This has resulted in the co-existence of both historic and (western) modern practices in the present.

The Old Practice:

Materials Labor and Design.

Dannchhi lies in a predominantly Newari locality, this is explained by the huge Newar population in and around the Kathmandu Valley. With this background, most of the houses that I visited were non Newars-, I chose these because it is believed that the ancestors of their current inhabitants settled during the time of Prithivi Narayan Shah. Ironically, the houses of these Brahman-Chettri people in Dannchhi were built by Newar builders from the nearby small town of Gokarna. Although there are differences in the living and housing patterns between Newari and Brahman-Chettri people, the Newari builders seemed to be stronger, more skillful and following a traditional art-form. The
Newars live in close, compact settlements with houses attached to each other, while the Brahman Chettri houses are detached with space around each house.

The type of housing in Dannchhi is complexified by the fact that the Brahman-Chettri communities employ Newar builders. The builders from Gorkarna are strong and skillful. There use different types of contracts including daily wages with food, daily wages without food and lump sum contracts. The payments are made in cash, while food had to be provided by the owners. In the system of building employed in Dannchhi, the owner was equally a part of the labor team; he participated in the construction as far as possible. Thereby they keep the knowledge of everything being built, how it is built and having the firsthand knowledge of the conditions of certain elements in the house. This helped the owner in the awareness of the performance of his house, and ultimately in maintenance.

The Newar builders made all major design decisions in coordination with the owners. I refer to the requirements such as room sizes, room placements, the number of rooms, and the sequence of spaces. The owners worked out the requirements with the builders. The builders calculated the quantity of materials and made cost estimates for the building. The builders then began building in co-ordination with the owners.

If the builders wished to introduce any building or design element, they tried to convince the owners by showing examples in other houses or through a sample created by them. All the major decisions in regard to the requirements pertaining to spaces as well as representations were usually made by the owner, but in consultation with the builder.
To view broadly, the house design was a collective process. The design process involved, friends, relatives and neighbors, as all of them gave in their input and comments. People in the neighborhood also made suggestions to the owner, thus making design and building a participatory process. The owner relied on examples seen in other houses; as such the design process was built upon the idea of “dekha-sikhi.” The process through which people participated by giving their suggestions became a collective affair. This was a linear but complex way of decision making. The villagers believed that one person may go wrong but many people can seldom go wrong. Therefore they opted to arrive at consensus.

The availability of materials was one of the constraints. Clay from the site was used to make bricks; they were either sun-dried or kiln-baked, on site. First, a kiln was made on site. Usually sun-dried bricks were used on the inside, while the kiln-baked ones were used on the outside. In building, the bricks were joined by using a clay mortar and clay for this was also collected from the site, or from the vicinity.

The other major building material was wood; either hard wood or bamboo was used for beams, rafters and purlins. Wood was also collected from the vicinity and sometimes borrowed or exchanged with friends, relatives or neighbors. The whole idea was to work out a house and to do with what is available. So the design is affected by the kind and quantity of building materials available.

To summarize, the houses were built out of material available in and around the village. They did not buy anything from outside and the cost of materials were thus minimized. The laborers were familiar people who were working in the area for a long
time. Therefore the villagers knew the builders would not cheat them. Designing has been a participatory collective process, it happened through a process of suggesting and listening; everybody contributed their suggestions, gave advise and also listened. With all these processes, building a house is was a big task and a social process for the villagers, and by building it themselves they have great love for their house. As this thesis highlights, most of these practices still continue with limited modifications.

*The New House:*

The modern house features new materials, new contractual understandings, new building techniques, and new design methods. The main new building material is reinforced cement concrete. A frame made up of RCC columns, beams and slabs defines the structure of the building; other elements including stairs and parapet wall brackets are also partially concrete. Although the doors and windows are made of wood, the planning of wood, the use of sand paper and paint and the broad use of glass separates these from older houses. There are new storage materials like plastic water tanks and buckets which have replaced the heavy aluminum, copper and bronze water buckets. Plastics have replaced the seating in the indoors as well; while metal stairs have replaced wooden stairs. In short, there is a heavy use of industrially produced material.
Fig 5.178. Shows the old house of Badri Bogati where he grew up. His brother’s house is in front.

Fig 5.179 Kancha Dulal’s, old house is on the left, and his concrete house on the right, and his even older house in thatched roof in the extreme right corner.

Fig 5.180. Plastic seating more a common sight now replacing the older wooden furniture; the purpose is the same, but the material and design have changed.
In the new house, the method of construction is also radically different. The use of steel reinforcement bars and their arrangements while erecting a column or casting a slab, the re-bar scheduling and bindings are new aspects of construction for the villagers, these all sound like some industrial type building process. Very few people understand the process of binding and arranging iron bars. Earlier, in old houses, people knew everything about their house, but today much of the knowledge, especially that of re-bars and concrete, is specialized. The cost of hiring an engineer is high and people cannot afford. So they have to rely on the builders. The building language is no longer common and there is a gap of knowledge. The owners sometimes can be cheated. Still the people place their total trust on the builders to build their dwellings. The technical unfamiliarity of the materials and the process puts the people at a disadvantaged position. So the locals need the help of technically-trained people. The engineers are highly qualified and think they need to make a good living, and in the process want to build buildings where there is money. These villagers cannot afford such services and resort to informal means. Sometimes the lack of good supervision could create problems, the building could become structurally weaker, while only making the contractor richer.

The contractual understanding between the owner and the builder usually is on the basis of the labor contract. The owner buys the materials and provides the builder. The latter works on a lump-sum contract or a unit rate contract. The items of work are listed out and the rates for each of these are negotiated between the owner and builder, for example plastering works is done at Rs 5. Per square foot and the area of work is measured in square feet after completing the work and then the payment is calculated.
The Contemporary Process

The modernization of the building process is not complete. The process of design still continues to be participatory, based on suggestions and listening to what others have to say. The ideas are solicited by and are collected from well-wishers, friends, family and anyone who seems to have something worthwhile to contribute through their experience. The major design includes the “dekha-sikhi” concept. Borrowing ideas from other examples is the most common practice. Thereby the language keeps circulating and used in different forms.

One main difficulty the people face is the non-availability of materials. Dannchhi does not have a big bazaar, nor hardware shops that sell steel rebars or cement. These “modern” building materials have to be transported from outside Dannchhi. All this needs to come from Jorpati which is at the edge of Kathmandu city. Transportation substantially increases the cost, people say that they have to pay 20 to 30 percent more for transportation. This is on top of paying big sums of money to buy modern materials. The project of building a house becomes even bigger due to delays in the material supply, thereby extending the completion time of the house and adding to the overall cost of the house.

The building practice today is such that the owner has to rely too much on the builder. His own involvement in the building process is minimized: It is limited to curing of concrete, curing of plastered wall by watering the walls or floors, and maybe lifting materials and deciding the placement of materials. The buying of materials is a big
responsibility of the owner, which is also guided by a process of collectiveness and suggestions before taking the decisions.

Building has now become a more technical practice, and the common person cannot comprehend the technical process. This limits him from being involved and being more creative. The people’s choices are being limited, most of the houses are standardized, mass produced buildings which uses common materials, technique and even plans. The design process has also become alien to the owner because he has less knowledge and know how on the particular technique. The owner does not know whether they are doing it the right way. The biggest dilemma is that the people of knowledge and specialists like architects and engineers are not reaching places like Dannchhi. Architects and engineers know places like Dannchhi for land-pooling and projects to be sold by developers. The ordinary people and their house are untouched by architects and engineers. It is a developers domain and not of the professionals. The people who cannot afford any of these professional services or modern building materials follow outside models by employing informal means to fill in the gaps in the process of emulating such models.
CHAPTER V

ANALYSIS

*The Meaning of a House in Dannchhi.*

In Dannchhi, people use the rooms in their houses in multiple ways. The unconventional spaces such as those for livestock, shops, and renting exemplify this variety better: In most cases, houses in Dannchhi have livestock, shops and rentable spaces. People use these rooms to make extra income as means to support themselves and achieve a better livelihood. This shows that a house is not an end in itself but a means to different human endeavors to achieve better quality of life.

The house speaks about the family who resides in it. As the house is the place of primary production, the status of people living in it is also defined accordingly. It is a status symbol. The more permanent the house, the costlier it is, the bigger the house, or the more modern it is, higher the status of the family. People grow with their houses, they invest in them. And whatever work is done on the house reflects the status. Usually it is on account of wealth and money.

Although people use wealth to define status, it is far more complex. Sundar Poudel’s wife shared an interesting story with me about building a new house. They had
an older “vernacular” house, but recently built a new one. According to her, because of her daughter’s marriage they had to build a new house. Arranged marriages require visits by the grooms to be. Those who were from the city look at the house first. The groom’s family would make judgments about the bride’s family from the quality of their house. Most of the city folks are modern, live in modern and “in-between” type houses, and are mostly modern in ideas and thoughts, which also meant they are cut off from farming and subsistence life. They would give high points for a new, “pakki” house, i.e., a RCC “in-between” type of house. The grooms’ families have made comments like “they live in an old house, they must be living in an old fashioned way.” Such comments made Sundar’s wife thought that her daughter may not be able to get married because of the old house. So she pressured her husband to build a new house so that her daughter could find a modern groom from the city. There is also the belief that a “bride should go to a better house, so she can have a better life or sukha.

House is also viewed as gari khane, a “bowl to cook your own food”. Gari khane is to do by yourself, feed yourself, or to make a livelihood by yourself. The house was symbolic of all the activities of the family; the house is the representation of the household. Thus it is not just a physical object but a place to conduct daily activities that support their livelihood.

Owning your own house is also a status symbol, as opposed to people living in rented houses. After a certain age young men are supposed to build a house. There is a Nepali saying that “it is only when one builds his own house he becomes a man”. This notion expresses the difficulty in building a house, both physically and financially. Many
people go outside the nation to earn money, save money and come back to build a house. Alternatively they sell land and other properties to do the same. It is therefore a compulsion for a son to build his own house, in catering to his own needs and to raise a family in the desired manner. House, therefore, forms an integral part of life in Dannchhi, and this can be seen as an internal force that continues to exist. What is different today are the forms of production that act on Dannchhi, which are external forces of change.

**Concept of “Dekha Sikhi”**

Most of the vernacular houses have the same pattern and speaks the same language. *Dekha sikhi*, which literally means learning by imitation, is about learning good aspects of tried and tested new ideas and applying them. This is applicable to guiding life’s direction to practical problems in buildings. People take the principle of *deka sikhi* in school, to imitate a good student, in life to learn from a successful person, and learn from anyone who has changed his life for the better. *Dekha sikhi* is a collective social movement for progress towards prosperity and a higher quality of life.

This concept also speaks of equality to some extent; it is to be at par with another. The movement of this concept is horizontal and is spread by the word of mouth. It emphasizes the growth of the community and it is a bottom up method. This concept pushes a person to strive higher and pushes one’s own limits to be at level with the other.

The practice of older buildings in essence also follows the principle of *deka sikhi* where it is primarily developed upon the collective memory of the people and their skills. Laurie Baker claims to have learnt architecture from ordinary village craftsmen,
carpenters and masons, mud-workers and thatchers; he says that he learnt it from people. The idea of this knowledge transfer through oral means can be seen as *deka sikhi*, a knowledge transferred among the community.

This concept has provided continuity to the tried and tested methods. It is with this type of thinking that builders learnt building techniques for reinforced concrete buildings. The builders learnt this new technique through imitation first and then developed it by trial and error through the application to different situations. At the same time, the application of such technique lacks the knowledge of structures and quality of construction in a formal sense. The tendency to copy the new and the latest has led to the learning of the new technique in construction. In this the new technique is learnt in a more or less vernacular way, which has also been a bottom up process.

This building technique learnt initially in the presence of Engineers and Architects from the cities through modern buildings are now being practiced by independent builders in places like Dannchhi. This type of construction is carried out without the presence of technically qualified people, and the owners have to put their trust on these builders. The learning process and the building practice are propelled by the *deka sikhi* concept.

Since the vernacular buildings were somewhat equal to each other, this new and contemporary architecture built on the understandings and practices of the past have similar characteristics of equality. In principle they are the same. Although there may be many modifications depending on the permutations, combinations and the needs of the users, the format in essence remains the same. Hence it has a vernacular thinking and
language behind these contemporary “in-between” buildings. The base is at the local while the upward movements incorporate and accommodate modern, new developments.

Since 

"dekha sikhi" has been an idea residing among people, it works at the vernacular level of building and construction, or the local building culture. It becomes clear with the residence of knowledge among the people, the flow of knowledge in a horizontal manner, and a practice conducted by the people comprising the building culture of these “in-between” contemporary houses are built on the foundations of the vernacular. Dekha sikhi applicable to vernacular building practices also resides in contemporary buildings.

**Pros and Cons of Contemporary Building Practice**

Kancha Dulal who lives in an old house but is building a new house next to it, says the following about building this new house:

“it was in the month of May, it was a stormy evening and it was raining and pouring hail storms heavily and the front yard was filled up-to knee level with hail. That night I felt like miserable living in this house, while the roof started to leak, I felt like the house was falling apart. Remembering the pain of that night I wanted to build a new house, even though it is way expensive than what I can afford. I am building it bit by bit”.

One of the main reasons for the popularity of the contemporary “in-between” house is the permanence, durability, strength and life. The strength, permanency and life of reinforced cement concrete play a key role in this new construction.
With this type of construction, several issues can be brought forward: the cost, supervision, awareness know-how, and education, reliance on builder, material transportation and availability. Because of the material costs, the cost of the building has gone up unimaginably. According to local sources, it is not possible to build a house with a salaried jagir or regular income; a person can only build a house if he sells a plot of his agricultural land. Regular salaried incomes are just enough to run the house, with minimal savings, and most of the jobs that the people in Dannchhi have are either in the army, bank, or as drivers. These are not high paying jobs and their resources are limited. On the contrary, people do have land, initially agricultural land now being sold to outsiders either for land-pooling or house building. Two of the very common things that the people in Dannchhi do after selling a plot are to buy a motorcycle or build a house.

Although there are many people with a lot of agricultural land, in the form of birta and jagir attained as ancestral property during the time of the Ranas. There are poorer people living in old houses who still cannot afford to build a new house. They can neither sell a plot nor build new houses by themselves. As a result, poor people are left with very few options and keep maintaining their old houses and some change the roofing from thatch to tile, or corrugated metal sheeting.

The supervision of this new technology cannot be done by engineers and architects because people cannot afford to pay them and therefore opt to do by themselves. According to Kancha Dulal, “As I have to trust the builder, I leave the construction solely in his hands; I don’t know what he does.” This means that, for example, if for a floor slab is to be cast, the re-bars must be tied according to some
structural drawing and from calculations and analysis. Here this decision for the re-bars scheduling and design is carried out by the builder himself based on his experience and judgment. The lack of knowledge of the owner keeps him at a disadvantage and can be cheated at times. Therefore this system is fairly complex for an ordinary person to comprehend, and no technical person is available to explain to him prevent from being cheated.

Similarly, the quality of concrete and the concrete mixing process is very crude in its essential steps. All the materials used for mixing and preparing concrete like aggregate, sand and water are not of high quality. That is to say, aggregate may have other ingredients mixed to it, it may not be clean nor washed, similarly sand also may not be clean and fine as required. All these requirements to achieve high quality concrete are overlooked and the end result may not prove to be as strong as it should be. The other aspect is the form work. The quality of the wood is also questionable as it would have been used many, many times. This too reduces the quality of concrete.

The brighter side of the story is that, in regard to the new materials, mainly bought from city centers, their availability is more organized and convenient to buy. The placing of order for the delivery of materials has been a relatively organized process adopted by the material suppliers. This is the side working with the business organizations which is a fast developing area. These organizations are partly responsible for the change in the landscape of Dannchhi.

This construction practice is a fast growing phenomenon in most of the semi-urban and rural areas of Nepal. Yet these houses are very expensive for the common man.
Through this study, it is possible to understand what the reality holds true for these buildings in terms of affordability and workability. This is only an attempt to scratch the surface in the direction of further research to the questions of affordability, cost effectiveness and common knowledge.

**Growth in stages.**

One of the characteristics in the development of the village or a house is its growth in stages. Growing in stages means making additions and modifications to a house in small increments responding to the changing needs and the affordability of the people. Sometimes a room is added to an old house, or just building two rooms to begin with, or making a small road bigger. These increments happen mainly because of constraints in resources such as money, material and know how.

In an old house, the thatched roof maybe changed to one with tiles; when the inhabitants can afford they change it to a one of corrugated sheets. The roof changing process exemplifies how development and growth happens in stages. Building a new house is also a sign of growth, people may have enough fund to build only the ground floor or just two rooms, depending on the need.

The house as a project of development is carried out in small portions in an incremental manner. In *Small Change*, Nabeel Hamdi argues that good development practice facilitates emergence, it builds on what we’ve got. Similarly the houses and the village as a whole is growing and developing incrementally, allowing for emergence. Very few instances are there when people design the complete house and build it
completely. The process of building a house is an engaged one, instead of having everything ready in the beginning and then building it.

The design of modern houses engages in a process of intense planning and trying to figure out everything in the beginning. But these “in between” contemporary houses are planned as they are built and are built as they are planned. Until the house is complete, the inhabitants work as designers and owners is not complete. The emphasis is on emergence and less on design. Hence the scope of emergence is higher than design.

The natural phenomenon is to keep building on what is already there. Building a new house in Dannchhi is still a building on what they already have. People and families keep growing and make additions as they grow. This character shows that the building process continues as it keeps building on and adding on what it already there. Because of resources and time, the process happens bit by bit in small increments.

From an economic perspective, this type of building plays with small investment and small financial capital as opposed to big capital. This reduces the risk carrying capacity of the investors. Hence a creation of a small project is at hand. One that is easy to handle and without extra burden, while still continuing other aspects of domestic life. The size of the project is such that one can still survive doing other domestic chores along with the bigger project.

The managing of funds is also another issue, where lending and borrowing of money is carried out through various people. Banks have still not reached Dannchhi and are still fully not functioning to credit small loans to local people. Most people are given
loans against a co-lateral. Locals mostly keep their land as co-lateral to obtain loans. But this facility again creates high risks for people with less property and land. Hence the Banking loan system is still not feasible and they work for micro-credit or micro-financing. Most people who build new houses have up-front capital as compared to people who make additions to their older houses.

Very few people want to keep their land as co-lateral in the banks to take loans, because they feel the risk is greater and the benefits are lower. The local people feel the banks are actually only serving the rich, who already own lot of land or have enough property. But most local systems of borrowing money are within the village, the borrowers pay back the capital with interest and when they ask for it back. There are also some local banking methods for small lending and borrowing.

What has been most popular of late in Dannchhi are co-operatives, which are small financial institutions giving out microcredits on personal basis. The cooperatives give out loans on the basis of personal contacts and stay within the villagers. The loans are usually small amounts ranging from Rs. 100,000 to Rs. 300,000. This is a popular system among farmers and villagers, as they have been using this local banking system for buying fertilizers and storage materials.

The overall picture about the village is that small money is circulating and accordingly small investment on development works is going on. The whole village is at the same plane of thinking and operating regarding growth and development. It seems like the whole village community are equal with regard to ownership and property. There
may be slight variations, but most of them are on one single plane. Hence with this small financial circulation, there is slow pace of growth.

Although internally there is a slow pace, the external influence is greater and demands a faster pace. With the new growth of houses, land plotting, nursery development and development of roads to fulfill the desire of buying cars by locals, all show signs of fast growth in the village, but the villagers are not well equipped to transform faster. There has been an increased awareness and consciousness among the villagers to grow quickly and are experiencing the possibilities of fast growth. The younger generations believe in this new growth and rely heavily on external influences to bring about the growth.

**Transition, Liminality and Hybridity**

The new building technique entered Nepal in the 1950s and 1960s through India and Europe. Nepali architects and engineers trained in India and the west (both Europe and North America) brought this new technology. This technique was associated with Modernism, and called modern architecture.

Today this technology has prevailed throughout the country mainly urban areas, but places like Dannchhi are just beginning to feel the wave of change. It has been recent; this new type of building technology has been practiced in Dannchhi since 10 years.

In the context of modernism, construction technology is one part, but the lifestyle and change in thinking has been part and parcel of modernism. There has been a
movement out of the “peasant life” into the “officer’s life”. The means of producing houses have also changed.

Although this clear distinction exists, people are mixing both and living in-between vernacular and modern thinking patterns. In the process a distinct third pattern is being created (Bhabha 1990). Hybridity is occurring from two directions, on the one hand, an old framework is modernizing, while on the other hand, the new framework is localizing. These create the contemporary hybridity.

In Prem Bahadur’s house, who relies on farming, has a TV, a gas stove, a computer and a telephone. There are two lifestyles intermingling inside an old or traditional, vernacular house, a changed life brought in through the adoption of technology, and a life related to farming. In his dining area, potatoes are dried, in his front yard rice grains are dried, but his life is transformed because he can talk with his relative in Kathmandu, which he could not do a few years ago, and regards this as modern. Here the meaning of modernity is related to technology. People like Prem Bahadur are adopting technology fast and hence being modern.

The other modernity that is evident is through work, when one gives up a life of farming and adopts education as a theme in life, leading to getting a job, in the city, like for example in the bank, government office, army or other kinds of jobs. This change from a farmer-hood to job-hood, the operating systems have essentially changed. The shift is from food production to earning money. In the process, the means of production including that of houses has changed. This new means of production is also modern.
Prem bahadur and many others have moved on from a *chulho* (wooden fuel burner) to a gas stove, transformed the dining area by having a dining table and seating on chairs as earlier to seating on the floor on hay mats. They are now modern in a way they are using dining tables and chairs instead of the old methods, hence an international language of tables and chairs, hence modern in that particular way. The hybridity occurs when they mix both, traditional cooking methods and modern methods of eating, creating a new hybrid form.

Hybridity occurs when the *namaste roof* derived from the normal roof and the side roof from a vernacular house is intermingled and adapted in a new modern house. This is an element to define the facades; usually the front façade has one of these roofs. This roof is used to express or give a *show*\(^1\) to the building. This feature is a new element to the flat roof modern building designs; the pseudo roof is a linkage to the past that explains continuing relationship with the vernacular.

The situation in Dannchhi is a case of transition, and it is in a liminal state. There is neither complete (western) modernity nor tradition that people follow, but the living conditions of people in Dannchhi combines "western," traditional, and other practices to create their own modernity which is in a state of transition. As a result what we have today, as contemporary is hybrid in nature, and is a liminal building culture.

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\(^1\) Show is a word used by local builders which means a good design.
**Conclusion:**

As a conclusion I would like to bring out what the people of Dannchhi have given up to be modern, and what they have not given up to be Nepali. Trying to answer this question, I would like to begin firstly with the kitchen, dining and eating habits.

The kitchen is one of the common spaces that has become modern. People have given up the practice of using firewood and bought gas stoves and have changed the way of sitting on the floor and eating with a dining table. With the eating activity, what has not changed is the position or location of outdoor washing, if the kitchen is located on the first floor the outdoor washing is placed on the terrace, i.e., outside of the kitchen; in addition to washing utensils, this also facilitates the washing of hands before eating. So primarily what has not changed is eating with fingers and washing before and after meals is carried out outdoors. In a few years, like the change in the location of the toilet which is slowly being part of the house, the washing the hands might also move indoors. Nevertheless, the washing of hands and the meals they eat remains Nepali.

Secondly, the roof has become flat; they have given up the sloping roof, but in most new houses, part of the sloping roof is part of a parapet design evoking the memory of the sloping roof of the past. Particularly, because the traditional house has a typical roof which can be identified as Nepali, so the new houses want to make some connection to the past, but only symbolically. In other words, they have changed the major sloping roof to flat, but the side roof they still retain. Symbolically the side roof of the traditional house has still continued as part of the parapet that gives a traditional Nepali touch.
In the case of the *pidi*, the materials have changed to give it a modern feel, but the practices carried out in that space are Nepali. The space is still used for talking with guests or family, and it retains the idea of spending time with family guests’ neighbors and interacting most of the time with drinking tea.

The people are willing to change and modernize in ways that would enhance their livelihoods for example, open a shop or renting out space to earn more money instead of raring cattle. But the ideas that a house is a space for production and that it forms a part of their livelihood continues. Even the idea of selling a plot of land to build a new house can be seen as a change in the means of production, but used and applied for the strengthening of the livelihood. By building a new house they are strengthening their livelihood.

The location of the toilet in older houses was outdoors, but in most new houses they are placed indoors. Sanitary hygiene has changed; they have given up the fields to a more covered place, then to indoors for convenience and safety. Yet the process of change has been gradual as the toilet in most houses is still outside the house and still connects with their old habits and thinking pattern.

In sum, the Nepali-ness lies in the activities that people continue while the context in which these activities take place keep changing through material, form and means.
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