The Power to Produce

The Impact of Limited Access to Electricity in a Nepali Textile Industry

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Abstract

This thesis explores electricity as *a difference that makes a difference*, focusing on a textile industry in Nepal. Based on six months of fieldwork in a peri-urban town called Lubhoo, I use a particular kind of power saving measure as a prism to explore aspects of daily life and work. Colloquially known as "load shedding," the power saving measure is institutionalized nationwide by the state electricity corporation and regulates access in predetermined periods, distributed equally between areas. Despite the formally equal electricity supply, there are ways of securing improved access. Electricity supply is therefore not equal in practice, though augmented access comes at significant financial costs. I aim to show that limited access to electricity has a significant influence, both in households and textile factories in Lubhoo. This is especially apparent in the stop-start rhythms of factory production and more broadly in the use of machines and newer technology. Furthermore, the limited electricity supply compounded the (negative) influence of international labor and sales markets, of which Lubhoo is now irrevocably a part. The industry struggled to compete with the popularity of international work migration. This led to unstable labor access in most factories. However, the ability to mitigate the impact of load shedding through improved energy access did enable some owners to keep a more stable workforce. Despite the challenges and frustrations stemming from load shedding, there are some related effects that are not necessarily negative. Load shedding slows down industrial production and thus capital accumulation. I suggest that this could be inhibiting the implementation of harsh industrial labor regimes and a focus on production and profits as a goal in itself. By tracing the impact of load shedding throughout the textile industry and other areas of life, I will show that difference in electricity access does indeed *make a difference*. However, how the latter plays out depends on factors that are not related to electricity as such. Building on the ethnographic descriptions throughout this thesis, I suggest that electricity may be thought of as the lifeblood of industrial modernity. This metaphor can go some way toward exploring the relation between electricity and modern life. Furthermore, with this metaphor in mind, I argue that the conditions in Lubhoo may be characterized, at least in a technological-economic sense, as "anemic modernity."

Keywords: Energy, Electricity, Load shedding, Industry, Modernity, Development, Migration, Nepal, Lubhoo, Lubhu

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I am enormously grateful to my supervisor Thomas Hylland Eriksen for responsive, supportive, inspiring and enlightening guidance. I cannot imagine anyone better to aid me in navigating the complexities and conundrums that I grappled with throughout these two years. To use a well-worn, yet succinct, anthropological trope: You are good to think. I would also like to thank the Overheating research group for thoroughly stimulating discussions. My work has benefited hugely from your influence, and made the process much more interesting. The same goes for my fellow students. Thank you for sharing in the joys and frustrations of the illusive craft called fieldwork. While inspiration, suggestions and help for this thesis has come from many people, special mention goes to Ola Gunhildrud Berta, Stine Helmersen, Elna Bastiansen, Frederick Steier, Elisabeth Schober, Henrik Sinding Larsen, and of course, my parents Helge Tolleshaug and Jorunn Vindegg. Thanks also to my Nepali language teacher, Sunita Subba. Your help was fundamental to my research.

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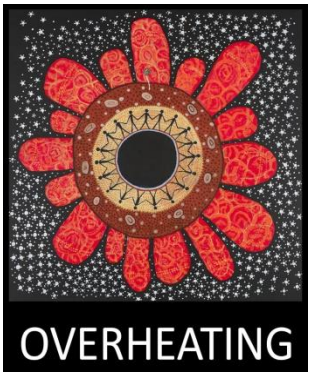
As I hand in this thesis, my thoughts are with the people of Nepal even more than usual because of the earthquakes that devastated the country in the last four weeks. I am, rather selfishly, relieved that Lubhoo was not as badly affected by the destruction as other areas of Nepal. Even so, as many as fifty houses in Lubhoo have reportedly crumbled, taking lives with them, and countless people have been forced to stay in makeshift tents on open ground during the last few weeks. My deepest sympathies go out to all the people of Nepal.



Trevor Nickolls: Warmun Mandala (c) Trevor Nickolls/BONO

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Preamble: *Bhatti Ayo*

*"*Bhatti ayo!*" (light came!), the little girl shouted and sprinted as fast as her legs could carry her to turn on the TV. An older girl who was just as eager in her race to the television followed her, but being a little bigger, she was also a bit slower. Just before the shouting and sprinting began, the lights started to flicker and the refrigerator started to hum. It was six o'clock on the dot. Power from the electrical grid had come back and in effect energized both objects and people. The girls parked firmly half a meter away from the TV, were now staring incessantly at an Indian soap opera. It was Friday and the power had been gone for six hours, since twelve in the afternoon. If things went as scheduled, 16 blissful hours of access to electricity would follow, until ten o'clock on Saturday morning. But, as chance would have it, the time slots assigned for access to electricity were uncharacteristically deviated from on this day. After about ten minutes of dramatic background music and people speaking Hindi in shocked tones of voice coming from the living room, the light flickered again, the humming of the fridge died down, and the TV went black. A few moments later, the girls trudged back into the bedroom to join the others. The little girl muttered "*bhatti gayo*…" (light went) and once again settled down next to a small boy who was still preoccupied with playing games on his father's smartphone.*

This scene took place in an area called Lubhoo,[1] just outside of Kathmandu in Nepal. It serves as introduction to the main theme of this thesis: Access to electricity. I will explore the conditions of daily life and work in Lubhoo through the lens of an electricity distribution system known as "load shedding." Power cuts are commonplace in many areas of the world. However, the particular regime of electricity distribution that was in effect throughout my stay in Nepal is uncommon. During the first few months of my stay in Lubhoo, you could set your watch after when electricity was scheduled to come and go. If the Loadshedding[2] timetable stated that power would come at 18:00, it would be there by 18:01. If it was supposed to go at 22:00, you could be certain that it would not stay a minute longer. Because people were able to rely on the accurate implementation of the schedule, they could organize daily tasks around the hours of access to power. Conversely, during the wet season, there were more hours with access to electricity in total, but it became less predictable. This was a source of frustration, and at times led to people not being able to take advantage of the added amount of hours because they were unable to plan ahead.

[1] Also written "Lubhu" or "Luvu"
[2] See chapter one for an explanation of this spelling.

The main emphasis of this thesis will be on a textile industry that has a long history in Lubhoo. The roughly one hundred small-scale factories in the area relied on electricity being provided to power their looms. The Loadshedding put constraints on working hours, labor access, flexibility of production, and had an impact on both international and domestic labor migration. These scheduled power cuts are not new in Nepal. Loadshedding measures of varying severity have been part of life in Lubhoo for more than a decade. In the following chapter, I will give an overview of the general energy situation in Nepal, before narrowing more specifically in on Lubhoo. This will introduce the broader context in which my research and subsequent analysis took place.

Chapter 1:
Energy in Nepal

Energy in Nepal is scarce. Even in the capital, which has privileged access to most goods and amenities, a discrepancy between supply and demand is part of everyday life. It is therefore paradoxical that walking in the streets of Kathmandu can be quite taxing due to air pollution. Much of the pollution is dust and dirt that whirls up from the many small dirt roads. However, emissions from throngs of rundown cars and busses, routinely sidestepped by more nimble motorcycles and scooters, are a big part of the local pollution issues as well. Despite the petrol and diesel shortages cropping up repeatedly, there is usually enough fuel available to create daily traffic jams in and around the city center. If you step out at the wrong place, Kathmandu can be unpleasant. The plethora of small temples and pagodas often emphasized in tourist brochures and descriptions from outside the country are still there, but to find them, one now needs to navigate streets milling with people, and cars driving in places that were not built to handle that kind of traffic. Kathmandu has expanded quickly. In spite of its tarnished, but enduring image as an untouched Shangri-La, it is now beyond a doubt a major city. The charming, calm side streets one might expect to find are now more the exception than the rule. Walking around in Kathmandu, I often found myself longing for quiet. I rarely found it. Perhaps I looked in the wrong places, but as I was told plenty of times when people found out that I was doing research: Kathmandu is not the real Nepal. At first, I thought I had stumbled on something significant in the social imaginary of Nepalis. What had Kathmandu lost which meant that it was no longer part of the *real* Nepal?

Figure 1: Traffic in Kathmandu is consistently congested (photo: author)

To my slight disappointment, I found out that people were more or less basing this statement on statistics. Most people in Nepal still live in rural settings, bucking the trend of over half the world's population now living in areas counted as urban (Central Bureau of Statistics [CBS] 2012: 3; UN 2012: 4). Though rapidly urbanizing, the majority of Nepal's population are small-scale farmers. This is also evident in their energy use. 63% of all households use firewood as their main source of energy and at least 24%[3] of the population does not have access to electricity (CBS 2014: 11, 20). Mini hydroelectric plants in nearby rivers have blessed some fortunate villages, but that is still rare and certainly not feasible for all. Petroleum products are more easily transportable, but are also in erratic supply in more peripheral areas. It is common to see petrol being sold in old one-liter plastic bottles, even in Kathmandu, where there are numerous gas stations. Kathmandu is not the *real* Nepal. It is a disjointed, fast-paced metropolis with severe growing pains. The district of Kathmandu had

[3] While the "Annual household survey 2012/13" states that 76.1% of households have access to electricity (CBS 2014: 11), this access is most likely severely limited outside major cities. In comparison, a UNDP report puts the number of grid-electrified households at 42.5% (UNDP 2007: 6). It is highly unlikely that the number grid-electrified households has increased by 33.6% in the intervening years.

a population growth of 61% in the last decade, according to the 2012 national population survey (CBS 2012: 3). In contrast to the firewood used in rural areas, people in Kathmandu and other urban environments buy imported canisters of Liquefied Petroleum Gas (LPG) to cook food. The near total lack of vegetation in Kathmandu makes this a necessity.[4] Fortunately, to my knowledge, the supply of LPG has been stable for several years. A shortage of cooking fuel would most likely be very difficult to deal with. The gas is used in the many snack houses (*khaja ghar*) and cafés around the city, as well as households. The import of petroleum products such as petrol, diesel and LPG make up nearly 20% of expenses for import of goods to Nepal. This is in stark contrast the second highest import group, "vehicles and spare parts", which accounts for 5% of the same, according the National Bank of Nepal (NRB 2014: Table 15). The import of petroleum products is extremely expensive for the Nepali state and is consequently expensive for consumers.

This brings me to another of the most commonly used sources of energy in urban Nepal, namely electricity, which will be the focus of this thesis. The pattern of electricity consumption in urban areas is also very different compared to rural areas. Whereas electricity accounted for a mere 1% of general residential energy use in 2009, it accounted for nearly 29% of the energy used in urban households (Water and Energy Commission Secretariat 2010: 89-90). There is a substantial lack of electricity in Nepal. This has manifested itself in a nationally institutionalized power saving measure, colloquially known as "Loadshedding." The state grid provides electrical power at specific hours each day. Predetermined intervals follow a day-to-day schedule, which specifies at which hours of the day electricity will be available. The schedule changes every few months to reflect the relation between the amount of available electricity and peak demand. For example, when I arrived in Nepal in January, the area where I lived had a daily Loadshedding of twelve hours. This was reduced to around nine hours each day in May. The preamble to this thesis gives some insight as to why I chose Loadshedding as the starting point for my research (see also chapter two).

[4] There is a significant discrepancy between the use of firewood versus LPG in rural and urban areas. Whereas 71.9% of the rural population use firewood the main cooking fuel, 69.8% of urban dwellers use LPG for the same purpose (CBS 2014: 20).

Group	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00
2	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30
3	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	10:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00
4	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00
5	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00
6	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 14:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00- 16:00 19:30-24:00
7	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00

Figure 2: A reconstruction of the Loadshedding schedule as it appeared on the website "battigayo.com" on May 13 2014.
Time slots indicate periods when electricity would *not* be available.
The area where I conducted fieldwork for this thesis (Lubhoo) is part of Group 6.
Original image in appendix A.

Electricity in Nepal

So what is the background for the persistent shortage of electricity in Nepal? Despite the fact that the country lies between the two emerging economic superpowers of India and China, Nepal is in effect quite isolated from the world at large. Nepal is landlocked—it has no coastline. The border to China crosses the Himalayas to the north, meaning that transport and trade through that route is expensive at best and impossible at worst. This leaves India as Nepal's main trading partner and connection to the rest of the world, mainly through the port in Kolkata (Whelpton 2005: 150, 153). The only other viable option for trade is by air, which is generally too expensive to justify economically. This is important because it means that large-scale import of coal or oil to provide electricity is not a feasible option. Electricity in Nepal is subsidized, and has been for many years. The accounts for the Nepal Electricity Authority (NEA) show a deficit for every year accounted for in its financial report from 2013, with an expected loss of 4.5 billion Nepali rupees[5] for the fiscal year of 2012-13 (Nepal Electricity Authority 2013: 96-97). So far, no other resources have been discovered that can be used as a quick fix for the energy crisis that has been affecting the country for more than a decade (R. S. Shrestha 2010). However, there is one natural resource that Nepal is rich in,

[5] Equivalent to around 45 million dollars.

namely water. Nepal has immense potential for developing hydroelectric power, though the amount of power that is regarded as viable for development varies.[6] Nepal could potentially become a net electricity exporter if it was able to utilize the potential for electricity production in its numerous rivers. However, most of the current and planned hydropower installations in Nepal are "run-of-river" installations, meaning that there is very little potential for storing water in dams. Consequently, very little power can be stored for later use, which amongst other things, manifests itself in increased Loadshedding during the driest months of January, February, March and April (NEA 2013: 6; NEA 2014: 6, 9)

Loadshedding: an Egalitarian System of Power Distribution?

The Loadshedding system divides power access equally between households, at least in principle. Keeping in mind that Nepal produces much less electricity than there is demand for, something has to be done in order to ensure that the electricity grid is not constantly on the edge of breakdown. Giving supply to the whole country at once, at least the part of the population that has access to the state grid, would most likely result in no one getting stable access (R. S. Shrestha 2010). That being said, even with Loadshedding, a decreased voltage is problematic (USAID-SARI 2003). When people use a lot of electricity, the voltage in the supply suffers. Amongst other things, this results in some household appliances performing poorly or not working at all. The family I lived with throughout my fieldwork had bought a microwave some years back, but they regretted it. Because of the low voltage, it generally did not work, and it seemed impossible to predict when it would.

The word "Loadshedding" in English literally denotes "shedding of load." That is, distributing the supply of electricity in relation to available capacity. However, I found no indication that this reflected the understanding and use of the word locally. Furthermore, there is no equivalent word in Nepali to denote the same concept, as far as I know. The most common suggestion given was *bhatti nabaeko bela*, literally meaning "time when light does not come." I choose to write Loadshedding[7] capitalized, but without italics, in order to capture both its use as an emic term, referring to the concrete, experienced effects of the electricity rationing system *and* the technical system itself.

[6] See for example S. H. Shrestha (2004: 99-110); R. S. Shrestha (2010: 9); Water and Energy Commission Secretariat (2010: 54).

[7] An alternative would be writing the local pronunciation of the word phonetically, i.e. *lodsheding*. Also note that the term is commonly written "load shedding" in reports and other literature.

It is also worth noting that the distribution of electricity (and much of its production) is controlled by the state through the Nepal Electricity Authority. This is a prerequisite for implementing Loadshedding hours equally for all. In an article on the Loadshedding system and its consequences, R.S. Shrestha (2010) discusses the implementation, background and economic repercussions of Loadshedding for Nepal as a whole. While he is complimentary to the NEA's work in implementing the Loadshedding equally in all zones, he also criticizes the state company for being naïve in their estimations of both future production and consumption. Notably, he quotes the NEA in their annual report for the fiscal year of 2007/8 as predicting that Nepal would be free from Loadshedding within 2014. This did not occur. Moreover, it is noted in the latest annual report of the NEA that the Loadshedding system will continue to be part of everyday life in Nepal for several years to come (NEA 2014: 9).

Despite the relatively equal distribution through state control of electricity, there are other ways of securing improved access to electricity relative to others. This is typically done in two ways. The first, which is most common in households, is to buy a huge battery connected to a current-inverter system. By investing in such a system, access to electricity extends to 24 hours a day (see chapter three). Another way to get more electricity is through a generator, usually running on diesel. This is normally far too expensive for household use due to fuel prices. It is therefore more common in businesses, amongst them, some of the textile factories (*kapada karkhana*)—the focus of this thesis.

Energy in Lubhoo

This brings me to energy in the area where I conducted fieldwork. I will start with a description of the general area. Lubhoo is a Village Development Committee (VDC) in the Lalitpur district of Nepal, located around 10 kilometers southeast of Kathmandu city. It houses roughly ten thousand people according to the latest population census (CBS 2011: 14). The general layout of the area is a rural-urban mix. The main urban area has by far the highest population density, in which people of the Newari ethnic group represent the majority. Newaris make up just over half of the total population of Lubhoo. They speak their own language as their mother tongue, but nearly all are fluent in Nepali as well. Newaris are also over-represented as business owners in Lubhoo in relation to their numbers. This was reflected in ownership of textile factories as well. On the periphery of the urban core resides a much more heterogeneous mix of migrants. The largest groups here are people from *Bahun*

(Brahmin) and *Chhetri* castes.[8] There are less dense residential areas on the periphery of the urban core interspersed among patches of farmland, which a significant proportion of the population cultivates combined with with other occupations. The buildings next to the main road in Lubhoo contain a large number of small shops and other businesses. In many cases, people reserve the first floor for a small business, while they use the second or third floor for residences. The town center is concentrated around the local bus park, which is surrounded by shops selling clothing, fruits and vegetables, dairy products, meat, liquor, and more.

Figure 3: A Tuesday afternoon in the center of Lubhoo (photo: author)

Energy access in Lubhoo is similar to that in Kathmandu. It is tightly connected to the capital and has the same general electricity infrastructure. As far as I could tell, all houses in the area had connection to the state electricity grid (see also chapter two). It is important to note that the relatively central location of Lubhoo and its proximity to the capital means that

[8] I use "Newari," "Bahun" and "Chhetri" as emic terms. Newari is a term for an ethnic group, while Bahun and Chhetri are derived from the Hindu caste system. These terms are not interchangeable as analytical concepts, but ethnic and caste categories are used interchangeably to denote various kinds of heritage in Nepal. This is in reflected in colloquial Nepali, where *jaat* is used to denote both caste and ethnicity (Whelpton 2005: 9). This categorization is also used in the national census, where all such terms are categorized as "castes" (CBS 2011).

the electricity grid in Lubhoo is likely much more stable than in more peripheral areas of the country. Only a few purchases or tasks would require people living in Lubhoo to go to Kathmandu. In other words, Lubhoo is amply supplied in terms of fulfilling daily consumer needs. Access to petrol and diesel fuel is a bit scarcer than in the capital, mainly because the nearest petrol station is a few kilometers away, between the outskirts of Kathmandu city and Lubhoo. Access to LPG (cooking gas) was generally unproblematic as well, apart from some minor issues I heard of while I was there. However, this was not a problem of availability as such. It was more a case of some shopkeepers using the importance of LPG in order to sanction customers they considered disloyal to their store. The factories, which will make up the main empirical material for this thesis, were dispersed throughout the area. There were numerous factories located on the side of the main road, while others were scattered on the fringes of the rural spaces (see chapter two).

Main Research Questions

This thesis will explore access to electricity as *a difference that makes a difference*, inspired by Gregory Bateson ([1972] 2000: 381). It will mainly focus on limited energy access for a textile industry. It will explore questions such as:

- How does limited energy access influence an industrial mode of production?

- What are the implications for industrial production in an area with limited energy access when competing on a global market?

- What can we learn from doing research where energy is limited that is also useful for thinking about life in places where there are no practical limits to energy use?

- What is the relation between electricity and modern life?

My appropriation of Bateson's phrase requires some clarification. His was originally a definition of *information* in a technical sense. Hence, it does not necessarily relate to energy as such. Yet, Terrence Deacon points out that, despite Bateson's intentions, this abstract definition could just as well be applied to a concept of energetic (or thermodynamic) work: "a difference in the distribution of energy in one system that can be used to produce a difference in the distribution of energy in another" (2013: 334). To use a succinct example: Differences in the distribution of electricity to the Lubhoo factories (i.e. the coming and going of Loadshedding) makes a difference for their production capability. The coming and going of access to electricity is this *difference that makes a difference*. The phrasing also begs the

question: What kind of difference? Or, difference for whom? As I will show, in the Lubhoo industry, vagarious electricity supply had an impact on time regimes and rhythms of work, consequently on productivity, and competitiveness. Furthermore, the boundaries between working life and domestic life are difficult to disentangle and I would argue that any clear-cut distinction between the two would be fallacious. Differences in access to electricity also extend into the homes of people that, directly or indirectly, are connected to the industry. Additionally, as I will show in chapter three, limited access to electricity also influenced daily life removed from the industry. Such is the importance of electricity in powering people's lives.

Energy and Anthropology

As of now, there are surprisingly few anthropological studies of energy and its significance in daily life. In *Cultures of Energy* (Strauss, Rupp, and Love 2013a: 22), an anthology attempting to remedy this, it was phrased as "a startling paucity of analysis of the everyday life of energy: how people view it, appropriate it, use it, conserve it—and why." This thesis will contribute to this small, but growing, field of research.

An early attempt at explicating the connection between livelihoods (or rather "civilizations") and energy was made by Leslie White (1943). However, he framed it within an evolutionist paradigm. While this kind of perspective is now generally perceived as misguided, one should perhaps not have been so quick to throw the proverbial baby out with the bathwater. White's "evolution" of culture presupposes a linear transition and implicit hierarchical division of cultures or societies (in whatever way we might use these terms to lump people together). This is for example stated by James Ferguson (2006: 177-182) as plainly untenable in contemporary social science. However, that does not mean there is nothing to gain from thinking in an evolutionary frame, provided one keeps the lessons of post-colonialism and, as Johannes Fabian ([1983] 2014) shows, the pitfalls of an implicit concept of linear social evolution, in mind. While we can refuse a *causal* relationship between access to energy and changes in whatever we might think of as culture, we can certainly say that there is a *correlation* between more efficient energy exploitation and changes affecting certain areas of people's lives. I will argue that the lack of stable access to electricity in Lubhoo has led to considerable challenges for the local industry in competing in a globalized sales- and labor market. The problems resulting from this is also reflected in the World Bank's new development plan for Nepal, which primarily focuses on infrastructure and agriculture (World Bank Group 2014a; World Bank Group 2014b). This focus seems to reflect the

necessary steps for achieving economic growth. Put simply: There would be little point in making incentives for developing an industrial sector if there is no power to run the factories and no roads to transport the finished products. The regrettable consequence of White writing of a linear form of societal evolution on this topic, is that the evolutionist paradigm in social science was later shunned to such a degree that his successors may have abandoned research on energy altogether through fear of association. There can be no doubt that changes in ways of producing and making use of energy has led to great changes in people's way of life and the opportunities that are available to them. While White's way of subsuming all human change and "progress" to energy is reductionist, he could scarcely be accused of not recognizing the importance of energy in people's lives.

In Tanja Winther's study of the electrification of a Zanzibari village ([2008] 2011), she has an explicit focus on social change. Changes are also a central theme in this thesis, but in a slightly different way. Winther's focus is on change in a linear sense by investigating and describing how newfound access to electricity affects a community.[9] However, access to electricity is not new in Lubhoo. I will therefore not attempt to describe the changes before and after the introduction of electricity. My goal is to analyze behavior and influence on lived lives that emerges in the face of vagarious electricity supply. Loadshedding is largely out of people's hands to control, but its implications for everyday life is beyond doubt. The shifting periods in which electricity is available in Lubhoo reflects people's routines of handling Loadshedding. Consequently, capturing its influence on people's lives and livelihoods requires a more dynamic approach. My focus is therefore not on change as such, but on continuous adaptation and interaction under consistently varying circumstances.

Strauss, Rupp and Love (2013a) have to a large extent "brought energy studies home," with many of the texts focusing on OECD countries—meaning countries that already have a high level of energy consumption. The notable exception is the part on "electrification and transformation," where the focus is much like Winther's (2011): Tracing the changes that result from new-found energy access. While this literature is relevant for my own purposes as a theoretical and empirical backdrop, I see it as most relevant to keep it as such: A backdrop. My focus will not be on people's semiotic conceptualizations of energy (e.g. Rupp 2013), nor with implications stemming from the actual production of energy (e.g. Rolston 2013), but rather the consequences of its (lack of) utilization. The point I am making is this: Energy matters. My approach in this thesis is made succinctly by Harold Wilhite:

[9] See also Gurung (2009) for a less extensive study of electrification in a Nepali village.

"Anthropologists have missed the point that people do not consume energy *per se*, but rather the things energy makes possible, such as light, clean clothes, travel, refrigeration and so on (…)" (2005: 2). My focus will be on the things electricity make possible, as well as the things limited access to electricity make difficult or impossible. The continually shifting availability of electricity in Lubhoo makes these kinds of dynamics clear. Following the saying "you don't know what you've got until it's gone," most people in Lubhoo are acutely aware of the opportunities that electricity facilitates.

With this in mind, I will also draw on several other fields of anthropology in this thesis. Loadshedding will be the starting point to reflect on and further contextualize anthropological studies of industry, economy, migration, time, and modernity. My take on the anthropology of industry has a starting point in E.P. Thompson's analysis of "Time, Work-Discipline, and Industrial Capitalism" (1967) in England. I see continuity from Thompson to later research on industrial work. Thompson's reflections on the different conceptions of time connected to an industrial versus agricultural mode of production is interesting, and many of the same arguments were for instance given by Pun Ngai (2005) several decades later. However, I will argue that a temporal dichotomy of industrial and agricultural time does not apply for the industry in Lubhoo. Rather, I will draw on Laura Bear's framework for "the anthropology of modern time" (2014a). Bear's observations are perhaps not original. Indeed, Thompson (1967) made similar arguments regarding worker's resistance to and mediation of conflicting time regimes in capitalist production decades earlier. However, I see Bears perspective as more nuanced and better suited to grasp the changes in the global economy that have come about since the 18th and 19th century. What I will call "Loadshedding time" had a profound influence on production in the Lubhoo factories. The seasonably variable conditions for industrial work in Lubhoo relates to this argument. I will argue that the way different factories dealt with these seasonal variations can give more fuel to the fire for claims that the concept of "Economic Man" as a universally applicable model of human economic behavior is reductive. For this purpose, Marshall Sahlins' *Stone Age Economics* ([1974] 2004) is worth mentioning. Taking inspiration from Alexander Chayanov's work on Russian peasants ([1966] 1986), Sahlins argues that the image of "Man" as a maximizing individual is ultimately tautological: Whatever someone is doing, it is the maximizing of something (2004: xi). Seen in relation to the conditions in Lubhoo, it seems that the enduring model of *homo economicus* could be related to the practically endless energy supply characteristic of countries dominating the global economy.

This argument is made thoroughly by Alf Hornborg, which he phrases as an "image of unlimited good" (Hornborg 1992: 7; Trawick and Hornborg 2015: 1–2, 8).

In the context of global economy, I will also draw on studies of migration and labor[10] mobility. Again, Pun (2005) is relevant. Her depictions of urban-rural migration in Chinese industrial work resonate with the domestic labor migration that was ongoing in Lubhoo. To explore the influence of international supply and sales markets in the Lubhoo industry, I will argue that the oftentimes partial connection to large-scale markets resonate well with what Anna Tsing (2009) calls "supply chain capitalism." Stacy Pigg (1992) makes useful reflections on the effect that decades of foreign aid and related development discourse has had on the social imagination of Nepali people regarding rural and urban places in Nepal. She argues that the logic of *bikaas* (development) flattens complex social landscapes into a two-dimensional grid: cosmopolitan versus villager and developed versus backward, which again affects perceptions of being "modern" in Nepal. Inspired by Ferguson's (2006) and Bruno Latour's (1993) reflections on what might constitute modernity, and my own focus on electricity, I will argue that electricity can be thought of as *the lifeblood of industrial modernity*. However, the concept of modernity has a fraught past, is many-faceted, and highly disputed (see for example Ferguson 2006: chap. 7). A lack of electricity in itself does not mean that someone or something is *not* modern. I therefore limit this argument to *industrial* modernity in order to avoid overstating my claims.[11] The part electricity plays in (modern) life most directly affects the use of technology and machines. This becomes particularly apparent in the literally on-again off-again relation to electricity in Lubhoo, both in the household and in the textile factories. In reference to the lack of modernity's lifeblood (electricity) in Lubhoo, I will argue that this could be metaphorically termed as industrial "anemic modernity," which will be an underlying theme in this thesis. In reference to Mark Liechty's (2002) study of modernity in Kathmandu, I would argue that the lack of electricity in Lubhoo makes it challenging to lead a *Suitably Modern* life, due to the frustrations stemming from limited access to electricity. The on-again off-again access to electricity is implicated in stop-start

[10] I use the terms "work" and "labor" interchangeably, not in a strictly analytical sense. I generally use "work" to denote an occupation (e.g. weaver) or performing tasks related to production (e.g. weaving work). I use "labor" to denote performing tasks related to reproduction (e.g. household labor) or working capacity in abstract form (e.g. source of labor). Though I do not distinguish strictly between the two, note that it can be fruitful to do so (e.g. Arendt [1958] 1998: chap. 3 and 4).

[11] I concede that it would also be perfectly valid to argue that industrial production is not necessarily dependent on electricity, at least historically. However, I see it as uncontroversial to claim that the vast majority of contemporary industrial production makes use of electricity in some stage of production, at least any *modern* industrial enterprise.

rhythms in many areas of life and a "proliferation of hybrid" (Latour 1993) practices related to technology. Finally, apart from inspiring the focus of this thesis, Bateson's definition of flexibility as "uncommitted potentiality for change" (2000: 505) is more directly useful for thinking about work in the Lubhoo textile industry, as well as more generally about energy consumption.

On Scale and Structure of the Thesis

The empirical chapters in this thesis (3, 4, 5 and 6) in many ways revolve around social arenas of gradually increasing scale. That being said, "scale" can be a diffuse concept. It is a *vertical* metaphor. It denotes layered and hierarchical ordering of the size and complexity within which a given phenomenon operates. Thus, it is distinguished from, but not juxtaposed to, *horizontal* metaphors like distribution, spread and flow that have characterized the analytical toolbox related to globalization. Scale is therefore a way of denoting the extension and connectedness of a given phenomenon in time and space (Blommaert 2007). It can be fruitfully used to denote many of the same analytical variables as the local-global dichotomy, but scale is often more precise as it can be used more relatively. It has long been recognized that nothing, or at least very few things**,** are ever purely local or purely global (Collier and Ong 2004). Therefore, having to denote something as either local or global at any given point in an analysis becomes an "all or nothing" terminology. While a given phenomenon may be (or always is) incorporated in networks of varying size and complexity, coming to grips with this in a fruitful way often necessitates a degree of precision in-between local and global levels. Standardization is also an important dimension in scale, or what Tsing (2012) calls "scalability". As she observes, "scalability is possible only if project elements do not form transformative relationships that might change the project as elements are added" (ibid.: 507). In other words, large-scale phenomena are contingent on standardized and somewhat simplified conditions in order to be capable of crossing boundaries, be it general-purpose money, universalist religions or a global market for textiles—not to mention time, through the clock. However, as Thomas Hylland Eriksen notes, despite increased standardization on a global level, "this does not mean that everybody is equally affected, nor that standardization is perfect and all-encompassing" (2007: 51). Indeed, as we shall see in later chapters, incorporating large-scale (or scalable), standardized phenomena at a small-scale level often leads to friction (Tsing 2005: ix-x, 5-6).

The scale of the empirical chapters in this thesis starts at the household level (chapter three). Next, it gradually increases to production in various Lubhoo factories (chapter four); then to

broader patterns of gender relations and labor migration affecting these factories (chapter five); and ends up at the scale of international markets and its influence on the Lubhoo industry (chapter six). I now turn to a chapter on research methods, motivations behind this thesis and a more comprehensive introduction of Lubhoo.

Chapter 2:
Motivation, Methods, and Place

When preparing to do research for this thesis, I had another topic in mind than exploring the impact of limited electricity supply. My initial interest lay in the presumed shift from caste to class as the primary category for social rank in Nepal. I knew that access to electricity was erratic before arriving to do fieldwork, but not specifically how the system worked. I had therefore not considered making energy access the focus of my research.

A Change of Plans

I had planned to do a comparative household study by taking advantage of a social network I was already a part of upon my arrival. My goal was to live with several families in the Kathmandu valley to compare households of different social and economic standing. As it turned out, I ended up living with the same family throughout most of my fieldwork. My relationship with this family started when the mother of the house stayed with my parents in Oslo as part of a social work exchange program in connection with Oslo University College. I also visited Lubhoo and this family in November of 2012. This visit inspired me to do research in Nepal. However, the first time I broached the subject of perhaps living in another home near Kathmandu, I realized that I had not communicated the plans and goals related to my research well enough beforehand. The immediate response I got from the father of the house was that if I was unhappy living with them, they could arrange something to make sure I was content. I consider these people my good friends, and I would not want to upset them. For me it had nothing to do with being happy to stay with them or not, but it was obvious that they did not interpret it this way. At the time, this felt very frustrating. As far as I could tell, they simply did not understand the needs and purposes of my research. Still, I could not preclude there being some other reason they were not explicit about. They seemed almost suspiciously keen to have me stay with them. As far as I was concerned, I had only been taking advantage of their hospitality so far. I was eating their food and occupying a room in their house without giving much in return. Were they worried that I would simply leave without giving them something in return for taking me in?

It was not until I spoke with a fellow Norwegian who had also done fieldwork in Nepal that I understood why my original plan would be very difficult to carry out. My new

acquaintance had also struggled to deal with social friction related to where she should or could stay during her fieldwork. Nepali norms of hospitality are very strong, and one is expected to make every effort to please guests that visit one's home. Related to this is an expectation that if a guest is in fact happy, there should not be any reason live anywhere else. If this does happen, others can interpret it as a sign that the family has failed in their role as hosts. If a family were to ask others if a foreign visitor might be able to live with them as well, they would likely interpret it through this frame. Therefore, no matter how willing one might be to help, it would be very awkward to send a guest somewhere else, not least if it was in the same general area.

My decision to stay in Lubhoo for the better part of my fieldwork was partly pragmatic. I had friends and contacts here that could introduce me to others and guide my scope of enquiry. The centrality of an inductive approach in anthropological method is another contributing factor. I came to realize that Lubhoo was much more interesting from a research perspective than I had initially thought. Anthropological studies of economy and globalization have been of great interest to me throughout my studies. This no doubt affected my inquiries about Lubhoo during the first couple of months of my stay. I gradually became confident that doing a study related to these areas of anthropological research would be fruitful. The chat I had with my fellow Norwegian was a turning point in my research. It was the final push in terms of deciding, at least partly, to discard the research proposal that I had spent the better part of a semester developing. As in other anthropological research projects, the pragmatics of gaining access (in part) necessitated a change of focus.[12]

George Marcus argues for the merits of doing "strategically situated (single-site) ethnography" (1998, 95-96). Following Marcus, the "world systems" that are explored in this thesis are energy and economy. All people extract and utilize energy in one way or another. However, the amount of energy available to different people in different places varies widely. As I have shown, energy in Nepal is scarce. There was also a discrepancy in the various appliances available that run on electricity compared to the amount of electricity

[12] Cato Wadel (1991: 129-37) details a similar experience from attempting to study unemployed in four Canadian neighborhoods. Shortly put, he did not get the kind of access he required to carry out his original plan. Instead, he carried out a fruitful fieldwork predominantly based on a single informant. This later led him to describe quantitative research methods as "a continuous dance between theory/hypotheses, methods and data *while* doing fieldwork" (Wadel 1991: 127, my translation).

that was available to most people in Lubhoo. I will show some implications of this in the following chapter.

In *The impact of Electricity* (2011), Tanja Winther reflects on selecting and justifying electricity as a topic of study. Inspired by Daniel Miller (1998), she posits that when dealing with people and their objects, it is important to keep in mind what *matters* to them (Winther 2011: 6-8). In my own case, I chose to focus on electricity *because* of its importance in people's lives. Not a day went by where I did not see, hear, or feel Loadshedding in some way. For instance, people usually mentioned whether electricity would be available in connection with cooking. It would affect whether one had the opportunity to cook rice in an electric cooker, or if they would have to make it using gas in a pressure cooker. The relative ease of using the electric cooker compared to using gas relates to the use of technology as a means to make daily tasks easier. There were ways to make rice without electricity, but people would still try to make it in the least labor-intensive way by cooking beforehand if there would be no power when one planned to eat. While I have not been able to find statistics that specifically measures the number of households that are connected to the state electricity grid in Lubhoo, I can infer its extent from the population census of 2011. Out of a total of 2,365 surveyed households in Lubhoo VDC, 2,317 of them (98%) were reported to use electricity as the main source of energy for lighting (CBS 2011: 9). Accordingly, these households had access to electricity in some form.

There is an argument here for "casting one's net wide," particularly at the start of anthropological fieldwork. Hann and Hart (2011) note that "fieldwork means following up whatever seems important as it happens." They also note that "at some stage though, the ethnographer must seek analytical closure in order to draw simple patterns from these open-ended inquiries (…)" (2011: 169). I tried to follow their example. During fieldwork, the anthropologist needs to be flexible, or at least preserve some "uncommitted potentiality for change" (Bateson 2000: 505) in order to focus on what *matters* to people. Had my original plan worked out, I would have stayed only a short while in Lubhoo. Consequently, I might not have had time to notice the influence Loadshedding had on both domestic and working life. Living with a family was particularly fruitful in this regard, as well as for getting an overview of daily life in Lubhoo more generally. I present some of these findings in the following chapter, though the focus here is also on electricity. My choice to focus on Loadshedding therefore stems from experiencing its influence myself and observing the

influence it had on others. Mainly *observing* daily life was characteristic of the first two months of my research. There was often little else to do, as I did not speak Nepali.

Language

I was not able to find a Nepali language course to attend before leaving for fieldwork. My knowledge of the language therefore mainly consisted of a "Teach Yourself Nepali" language course (Hutt and Subedi 2005). This was far from sufficient. I quickly realized that I needed to learn Nepali in order to get anything other than superficial conversational data. During the initial phases of fieldwork, I committed myself fully to learning Nepali. After about three months of mind-numbing effort at speaking with people in Lubhoo as well as going to a private language tutor every other day, I became proficient enough to use Nepali effectively in an everyday context. I had in fact not expected to be able to communicate as well in Nepali as I eventually did.[13] The father of the house was particularly important in this regard, not least during the first couple of months. He speaks English fluently and would often translate bits of conversation for me. The effort to learn language in itself turned out to be a boon in terms of gaining knowledge and understanding of people's lives, since the best way to learn a language is to speak it. A large square near the house I stayed in was particularly relevant for this. The open space was a gathering point for many, especially for younger generations. It was a regular site for both cricket and football matches, as well as a place to sit and relax in general. I therefore ended up stuttering my way through countless conversations in this square.

[13] However, I did not find the time to learn how to read and write the Devanagari script. This is a limitation to my data, though I did not find it very problematic. The few times I needed information written in Devanagari, I had someone translate or simply read the text aloud for me.

Figure 4: The square (photo: author)

Another routine I established early on was to make the ten minute walk to the center of town. Apart from being a useful opportunity to make observations and participate in daily life, this also had a more practical function. I would usually buy some staple goods such as vegetables and lentils for the family I stayed with in order to contribute to the household. Vegetables sold here were imported from other places in Nepal, though local farmers selling their produce also supplemented these. A common sight was women carrying various kinds of vegetables like cauliflower (*kauli*) and spinach (*saag*) in baskets fastened to their backs with a head-strap. They would make their way down to the town center from various locations in and around Lubhoo to sell their produce. These women, and likely their spouses, are examples of people for whom Loadshedding did *not* make much difference. The point being that it is perfectly possible to lead rich, full lives without concern of, or dependency on, electricity. Buying groceries was also a good excuse for approaching people without having to introduce myself as a researcher every time. Hanging out in these places also led to a few strange conversations. I found myself more than once trying to argue against people who spoke to me about how poor and undeveloped Nepal was. One man

sited the UN human development index as evidence that Nepal was no good and that my country of origin was much better. Norway was at the top of the ranking year after year, whereas Nepal was always near the bottom. I argued that people in Norway were not necessarily any better off or that Norwegians were not happier than Nepalis because of this, but it seemed to fall on deaf ears. I surmise that my country of origin did not make any real difference for the people with whom I had these kinds of conversations. It seems the point was mainly to vent frustration to a foreigner because of the pervasive image of Nepal as an underdeveloped country (see Liechty 2002: xi; Pigg 1992).

This connects with another aspect of the way I was positioned in relation to most people in Lubhoo. There would be no point in claiming that I was treated as one of the locals. I am a white, blonde Norwegian man, standing at over 180 centimeters at full stretch. In contrast, most Nepalis are short of height, have dark hair and a darker complexion than I do (although the latter varies widely). Consequently, I did not have the slightest chance of blending in anywhere in Lubhoo. I do not see this as a detriment in regards to finding answers to my research questions. One of the worst things that could happen to an anthropologist is to be perceived by ones interlocutors as uninteresting. While there is such a thing as getting too much attention—the protagonist of anthropological research should very rarely be the researcher him/herself—the consequences of not being able to attract anyone's interest is by far the most detrimental to getting access and data. I had few problems with getting attention or interest from people, at least if they had the time and energy to suffer the naïve questions of a researcher. However, this was often not the case for factory employees.

Data Gathering in an Industrial Environment

I gathered much of the information I have on the textile industry in the form of semi-structured interviews. However, I also supplemented most interviews with conversations that were more informal. There are several reasons why I chose to conduct interviews rather than "hanging out" with owners and workers in the factories. The first relates to my language skills. Trying to lead a conversation in a direction related to my research, making sure that I touch upon the aspects of life I planned to explore, while at the same time allowing room for following up topics that emerged during the course of conversation, was challenging to balance when speaking a language in which I was not entirely fluent. Therefore, having an interview guide as support was important. Another factor is that I was, in the end, studying people at work. I found that both employees and owners were most

likely to agree to a more formal request to conduct an interview. In many cases, I used an interview to establish a relation. This made it easier to stop by and have informal conversations at a later point. Supplementing interviews with more informal conversations at various other times and in various other contexts is vital in anthropological research in order to verify and further contextualize statements given in an interview setting. A fundamental recognition regarding anthropological data gathering is that opinions, attitudes, observations, values and more are very much context-dependent. The same person may give seemingly contradictory statements depending on the situation in which a person finds him/herself in during a conversation. Therefore, I deliberately strove to make internal comparisons (Barth 1999: 81-85) in order to come to grips with the presumed diversity of opinions, experiences and practices to be found in Lubhoo. This is also reflected in my analysis. In various parts of this thesis, I will make comparisons between individuals, households and factories, as well as comparisons with other studies. My ambition is that, in the end, this will give a characteristic and (strategically) representative image of life connected to the Lubhoo textile industry.

A third reason why I chose to do many interviews is, in essence, that the looms were very loud. This had extensive implications for data gathering. It meant that having an informal conversation on the factory floor was out of the question. My opportunity to talk to weavers at work was therefore limited, not least because of the constraints on working hours caused by Loadshedding. I could scarcely convince weavers to take time out of their already limited working day to talk with me. At the face of it, there seems to be a simple solution to this issue. I expected it to be a simple matter of checking the Loadshedding schedule, wait until a planned power outage was approaching and hang out near or in a factory until the electricity supply was cut off. I tried this on several occasions, though this plan turned out better in theory than in practice. While factory work did stop immediately when Loadshedding set in, getting time to establish a relation with factory workers was still difficult. Generally, production in the Lubhoo factories revolves around the Loadshedding schedule—when there is power available, you work. However, being unable to do factory work (during Loadshedding) did not mean that employees were idle. Making use of the time when there was no power to get other chores out of the way, see ones family and rest up for another work session was crucial in order to make good use of the time available for

production.[14] This resulted in weavers having little time to spare for an intruding anthropologist. While I did consider going through the owner to make people to set aside time to talk to me, I decided against it in the end. For one thing, I would feel that I was coercing people to talk with me. That would be ethically dubious to say the least. In addition, it would most likely restrict what employees would be comfortable to share with me because of my direct association with their employer. Owners, on the other hand, had different working constraints and routines, as Loadshedding affected them much less than the workers. The owner's working hours were more flexible and they could more easily set aside time speak with an inquisitive stranger at a distance from the cacophony of noise coming from the looms. Furthermore, a (social) power dimension could have affected this. Factory owners had less to lose than an employee did if they were to disclose something they should not have. There was little room for any trade secrets in this kind of production and I found no indication that owners felt they needed to conceal anything of this sort. The owner's openness in discussing their business and the industry in general seems to reflect that they believed their perspective to be significant, in contrast to the attitude of the employees. Simply put, they were more inclined to "tell their story." A relevant aspect, also related to (social) power in a broad sense, was my position as a foreigner and the comparative poverty of many factory employees. As James Scott notes regarding the everyday resistance of Malaysian farmers: "Deference and conformity, though rarely cringing, continues to be the public posture of the poor"(1987: 273). *Not* speaking up (at least not immediately) may well have been a way for these weavers to protect their position in relatively asymmetrical power relations both within the factory and in terms of broader socioeconomic inequality in their relation to me. My reason for believing the latter will become clear shortly.

Most weavers were generally busy and not very interested in talking. I went to see a trio of male weavers most often. The reason for this was again partly pragmatic. The factory they were working in was very close to my house. After a number of frustrated attempts at having a longer conversation with them in less trying conditions than shouting over the looms, I also tried walking with them on their way home. Or, "following them" would perhaps be a more apt phrasing. I decided to ignore temporarily my nagging feeling of being a pest—reasoning that my goal of getting their perspective on the working conditions and what brought them to Lubhoo would justify the means. This did give me a bit more

[14] This may be termed as balancing the relation between capitalist time and social time (Bear 2014a). See chapter four in particular.

time for conversation than the five minutes the weavers normally used before going home when Loadshedding set in. Unfortunately for me, the rented room the weavers lived in was no more than a few minutes' walk from the factory. I found myself wishing that it might have been longer so that I would have more time to talk. I also hoped that they might invite me inside. I would then be able to see how they lived as well. However, as we got closer to their room, all three of them became noticeably flustered. Their facial expressions became apologetic and their gaze started wandering. For me, this was a clear sign that I should take my leave, for which they seemed quite relieved. Common courtesy would be to offer their as-of-yet uninvited companion for a cup of tea. They were obviously reluctant to do this. The reasons for this could be many, but I suspect that much of it was due to a sense of embarrassment in showing their humble living conditions to a foreigner. It became clear to me on numerous occasions that many Nepalis had rather exaggerated notions about living conditions abroad and consequently what was suitable for a foreigner.

There were also some language issues. The weavers mostly talked amongst themselves in their own native tongue (Chaudhary) and gave short, polite, but slightly perplexed answers to my questions in Nepali. However, when the owner, Govinda,[15] came in for one of his periodic visits, they spoke to him in Nepali. Govinda spoke Newari as his mother tongue. Thus, as was often the case in Lubhoo, Nepali was a local *lingua franca*, enabling communication across ethnic boundaries. Speaking Nepali was not a problem for either of them. They readily switched language when they had to. I interpret their (initial) reluctance to engage with me, disregarding the aforementioned time-constraints, to be a combination of skepticism and incredulity that I would be interested in talking with them. However, attempts at explaining why I wanted to talk to them seemingly made little difference. This was also reflected in their body language, and what seemed like bemusement at my interest, when I eventually managed to sit down and talk with them after two months of trying to build a relation with them. I will expand on the specifics of this in chapter five.

My preliminary introduction to the industry was through a friend—the father of the house whom I stayed with throughout my time in Lubhoo. I conducted interviews with four owners as well as one weaver in late March with my friend helping as an interpreter. He also knew a bit about the industry in general. He helped me to shape the early focus of my research and gave valuable initial context, which allowed me to go beyond a more superficial line of inquiry at an earlier time. That being said, I was not satisfied with taking

[15] All names of informants in this thesis are pseudonyms.

all the information he provided at face value. This did turn out to be important, as some of his impressions of the industry turned out to be wrong upon further investigation. This was also the case for the interviews I made with him. At the time, I did not have the needed language skills to interview people alone. However, I returned to these interviewees to confirm and expand upon the information given from May onwards. Generally, my friend's interpretations were correct, but I was able to rectify some errors that turned out to be significant. Note also that my friend was *Bahun* (Brahmin). As Gerald Berreman ([1962] 2012) details, the caste of a translator can have a profound effect on the information people are willing to share. Therefore, in particular due to the history of the caste system in Nepal, I was compelled to follow up these interviews by myself once I had sufficient language skills.

Aspects of Ethnicity, Caste, and Class

All but one factory owner I spoke with was Newari, and all but one of them was of the *Shrestha* (Merchant) caste.[16] The only owner I met who was not Newari was an Indian Muslim who had migrated to Nepal 17 years ago. Tellingly, none of the Newari owners claimed to know of any factory owner in Lubhoo who was not Newari. That being said, the Brahmin I lived with, was of the impression that there were some *Bahun* or *Chhetri* owners as well.[17] I take this as a sign that there were no explicit attempts at discriminating others from taking part in the industry. As Geert De Neve (1999: 363-64) notes on learning to operate looms in the south of India, "the lack of formal training makes it difficult for outsiders to enter the occupation and acquire the necessary skills. Power-loom operators are aware of these restrictions and are seldom eager to expend the time and effort needed to train a person, unless they know him or her personally." I would posit that the same was the case for owners in Lubhoo. Unless one had some form of social ties to appeal to, motivating someone else to teach you would be difficult. My impression is therefore similar to John Harriss' in that the patterns of involvement along caste lines show the long-standing connections between caste background and educational opportunity rather than caste prejudice *per se* (2012: 535).[18] Physical proximity and being part of an established social network is at least as plausible an explanation for the proliferation of Newari Shrestha owners rather than active discrimination of others. In this sense, these dynamics have

[16] The Newari caste system is complicated, not least in the case of the diverse Shrestha case. For some preliminary context, see Toffin (2007: 7-10, 14, 175-77) and Rankin (2004: 130-38).
[17] *Bahun* and *Chhetri* denote higher ranking *jaat*s in the caste system. When speaking generally, people also merged the two, referring to it as *Bahun-Chhetri*. As far as I know, there were no factory owners belonging to these castes.
[18] See also Aasland and Haug (2011) for a survey from Nepal reaching similar conclusions.

characteristics associated with *class* rather than *caste*. Apart from inheriting the business, learning the trade from a relative or friend was the most common entrance to becoming a factory owner.

That being said, it would be naïve to assume that the caste system was of no relevance in Lubhoo, despite it being formally abolished in 1963 (Whelpton 2005: 156-59). It is possible to think of notions of caste as a kind of embodied knowledge that affects social interaction in ways that does not lose significance due to legislation alone. From what people told me regarding castes in Lubhoo, there were still a few high-caste people who were averse to contact with people of Dalit castes, but these were few in number and discrimination was upheld out of the public eye. My impression is that people generally regarded caste-based discrimination as "backwards." Most importantly, I heard of no one who had been or felt excluded from the textile industry due to caste background. I am not thereby concluding that caste was of no significance. It may well have been a part of factory life, but issues of caste will not feature prominently in this thesis.

Location of the Factories

Figure 5: The entrance to a factory (photo: author)

There were reportedly around one hundred factories dispersed throughout Lubhoo during the period of my research. This approximate number is based on estimations given by three factory owners who been active in the local owner's association. They roughly estimated that the industry consisted of 100 factories, with 1200 looms, employing 800 weavers and 400 others for various tasks needed to facilitate weaving. The "average factory" would then have 12 looms, 8 weavers and 4 other employees, though this seldom matched my own findings. Note that my use of the word "factory" is wide. It encompasses anything from cottage-like production connected to a household, to full-time work located in a separate building. That being said, all the factories in Lubhoo are small. The largest one I visited required 10 to 12 weavers to service 22 looms. The smallest needed 2 weavers for its 6 looms.

Factories were often hard to find, as they rarely had anything on the exterior of buildings indicating that there was a factory inside. However, the noise coming from the looms was a distinguishing trait. In order to seek out new factories, I would walk around Lubhoo when there was power from the grid and listen for the distinctive "tacking-noise" they produced.

The factories were dispersed rather haphazardly over a wide area, and I was surprised on several occasions to hear the noise of looms coming from buildings that I assumed were only used for housing. I realized at an early stage that mapping out the locations of all the factories alone would have been time-consuming work. I therefore made no attempt at this, choosing rather to focus on those I stumbled upon or was directed toward by acquaintances. The timing for visiting a factory was also important. If there was no power, operations were usually shut down and the door was locked. As noted previously, if there was power, there was little opportunity to strike up a conversation as people were busy working and had little time for talking.

A Short History of the Weaving Industry

Weaving in Lubhoo started in 1946 when Ramlal "master" Shrestha was employed by the government to train cottage industry workers in Pathan (near Kathmandu). Being from Lubhoo, he called many people from his community to receive training. In early periods, weaving was an aside to farming. I will not go into detail regarding earlier techniques and machines used for weaving apart from noting that they did not require electricity. It was not until 1993 onward that electricity-requiring *power looms*[19] became the most common machines used for weaving. As I will show in chapters four and five, farming was still an important companion to weaving. Therefore, I will argue the Lubhoo industry has always been (and still is) linked to seasonal, stop-start rhythms that typically characterize agriculture (see chapter four). Furthermore, the lack of electricity (the lifeblood of modernity) means that the pure roles and categories associated with modernity will be difficult to realize. That is, as Latour (1993) notes, if they ever can be.

Selection and Limitations of Thesis

I never tried weaving myself. Two owners mentioned it on separate occasions as something I might be interested in, which I confirmed. I have no doubt that their offer was sincere, but as it turned out, a suitable occasion never appeared. Given more time, this would definitively have been a fruitful experience. The phenomenological aspect of doing the work and feeling its effects personally would have given me an improved position from which to expand upon the factory work as experienced by the workers. It would also most likely have

[19] Many of the looms in factories I visited were from India. Mallika Shakya (2004) connects the spread of Indian machines and workers in the Nepali garment industry to the multifiber agreement (1974-1994). The same may well have been the case for cloth-making. See also chapter four for a more thorough description of the looms.

been a useful way of getting closer to my would-be coworkers (see for example Mollona 2009; Pun 2005). In short, my empirical data is derived from observation and conversations rather than participation as such.

Lubhoo VDC had a population of roughly ten thousand people according to the national census of 2011 (CBS 2011). This means that I only had contact with a fraction of the population of Lubhoo during my research. Furthermore, out of the one hundred factories registered in the association, I have in-depth data on twelve of them. Still, I am confident to have captured some aspects of life, particularly in the industry, that have more general significance. As I have stated, my focus is on the Loadshedding as a recurring starting point for my ethnographic depictions and subsequent analysis. That being said, it would be remiss to assume that the Loadshedding is of grave concern for all people in Lubhoo. All inhabitants were in fact not overly concerned with missing anything of importance because of the supply of electricity. Exploring life in Lubhoo through the prism of Loadshedding indirectly excludes some ways of living that are by no means less valuable or interesting. However, in a place as diverse and complex as Lubhoo, it would be a monumental task to do justice to all ways of life through a fieldwork of six months and a resulting master's thesis. Still, an important part of fieldwork is also acknowledging what one is *not* focusing on. The point is to recognize the existence of other potential research topics, which could be just as interesting by making explicit the selection that comes from taking up a particular focus in one's research. I now turn to a chapter on Loadshedding and domestic life as a step toward making a more holistic depiction of life in the Lubhoo textile industry.

Chapter 3:
Electricity and Domestic Life in Lubhoo

In this chapter, I will provide some insight as to how the Loadshedding affects domestic life and use of technology in Lubhoo. Though it is not the main emphasis of this thesis, it would be remiss to treat domestic life and work as separate from each other—the vagarious access to electricity has an impact on many areas of life, not merely in the textile industry. Before delving into the empirical data that makes up the basis of this chapter, I will make a few comments regarding its scope. The empirical basis for this chapter is not particularly broad. However, I have in-depth and long-term knowledge of daily life in the family I stayed with as well as more superficial data on several other households. I am thus aware that access to electricity in the household I stayed in is comparatively better than in many others. With this in mind, I am confident that my broader sketch of the asymmetries of access to electricity is representative of the varying material conditions in households more generally. An important point here is how comparatively better economic status facilitates opportunities to enhance ones access to electricity through investing in technology and other energy sources.

Electricity and Household Amenities

For people of comparatively better economic means it was quite common to invest in a "house battery," connected to a current inverter system. The inverter would charge the battery when grid power was available, storing electricity for use during Loadshedding. The battery functioned as a backup for less electricity-intensive equipment such as lighting, charging laptops and phones, as well as 24-hour internet access. Other more power-consuming equipment such as refrigerator, microwaves, vacuum cleaners or washing machines[20] were *not* feasible to use without grid power, as it would drain the battery very quickly. This was also the case with water access, for which this family had a common, yet not universal arrangement. Outside of the town core, having a well connected to a tank on top of one's house was common. When there was power from the grid, they would use a pump to supply water to the tank. The force of gravity would then supply water to the

[20] I follow Alf Hornborg's definition of machines as "technological objects the existence and operation of which is ultimately dependent on access to inanimate energy sources such as fossil fuels and electricity" (2014: 17, note 2).

house in pipes. Though this water was not fit for drinking, they could use it for indoor plumbing as well as washing clothes and dirty dishes. In addition to private water access, a water-reservoir up in the hillside, finished in 1980, also supplied water from about 30 public taps in the Lubhoo area (Rajbhandari 1986: 38). Therefore, access to clean water in general was not a problem in Lubhoo. This is in contrast to Kathmandu city, which has severely polluted groundwater, something that people in Lubhoo did not hesitate to point out. However, having a private well made a difference because it saved some people (mainly women or children) from having to carry large quantities of water to their house every day. Winther also notes how electricity led to more efficient time-use for women and young girls on Zanzibar (2011: 57-58), partly easing the burden of household labor. In Lubhoo, not only did this save physical labor, it also spared some people from literally having to clean their dirty laundry in public. Mark Leichty writes of water taps in Kathmandu as "old public spaces"[21] in contrast to "new public spaces," focused on facilitating a consumer culture, designed for display or consumption of modern commodities (2002: 146-47). If these old public spaces are indeed spaces for the production of community in daily life, through gossip and formal ritual (ibid.), lessened use of these spaces could lead to less interaction in the public sphere and hence less participation in one's local community. I will not expand further on the possible implications of this here. However, I will note some other aspects related to the availability of consumer items that had led to people keeping more to themselves and socializing less because of individualistic use of media technology later in this chapter.

The family I stayed with throughout my fieldwork had all of the abovementioned amenities available. The less power-consuming equipment could be used at all times, barring any exceptional circumstances. As for the more power-consuming items—the refrigerator, microwave, vacuum cleaner, and washing machine—they only used the refrigerator and vacuum on a regular basis. All of this equipment is used to make easier what Mary Douglas and Baron Isherwood have termed work that is high in "periodicity constraints" ([1979] 1996: 86-89), denoting work where one has little choice regarding when it has to be done. Most domestic chores are high in periodicity constraints. If the house or your clothes are filthy, or if your family is hungry, there is seldom much room for putting off cleaning or cooking for very long. In this household, consumer articles that made domestic tasks easier

[21] His examples are water taps, vegetable markets, rest houses and temples (Liechty 2002: 147).

were available, but the limited period in which they could be used meant that a non-electricity requiring method had to be available, and was often used in the end.

Harold Wilhite (2013: 66) touches on similar aspects of changing consumption practices and energy use, in his example from Kerala, India. He discusses replacing a tool with energy-using technology. Among the examples he includes are replacing a broom with a vacuum cleaner and a wash basin with a washing machine. Wilhite's (2008: chap. 4) more comprehensive ethnography of household labor, use of appliances and the position of women in Kerala households also resonate well with my own findings. Additionally, Wilhite argues that "things are bearers of predispositions for consumption" (2013: 66). I find this perspective valuable in that, all other things being equal, whatever tools or technology are available to people, they will use the most efficient and practical solution. Energy-using technology is (generally) much more efficient than exclusively using manual labor. This perspective touches on the concept of "energy slaves" discussed, amongst others, by Hornborg (2013: 48-50). He argues that the use and availability of fossil fuels played an important role in the abolishment of slavery. By reducing "work" to denote the amount of energy needed or used to accomplish a given task, the work of a servant and work done by technology that derives energy from extra-corporeal sources becomes comparable. I see this as related to Leslie White's perspective (1943), though in a less deterministic and all-encompassing sense. There is a critical difference in comparing energy use in concrete practices of work in different places or time-periods, and doing the same with an abstract concept of *culture* or *society* (see Barth 1999). Making use of energy slaves to make mundane tasks quicker and easier to accomplish is understandably much more tempting than doing work without it. However, in the case of Lubhoo, energy slaves are in erratic supply. Making use of them requires that they are available when it is necessary to perform a given task. When they were available depended on access controlled and scheduled by the NEA (through the Loadshedding schedule).

As Niko Besnier comments on modernity on Tonga: "In any given society, not everyone is equally invested in modernity because it does not offer an identical range of possibilities and does not represent the same kinds of constraints for everyone" (2011: 14). I find this observation useful when thinking about asymmetrical opportunities and constraints that differences in access to electricity give rise to in Lubhoo. In this context, making a monetary investment in a battery could be seen as an *investment* in modernity, both in a literal and metaphorical sense. It was both an investment in improved access to goods or things that are

associated with modernity, and in being a modern person. As my supervisor, Thomas Hylland Eriksen noted in a conversation regarding electricity and its relation to modernity, electricity is in many ways the lifeblood of modernity. Without electricity, one is excluded from using a plethora of technological "objects of modernity". They simply do not work. This is again related to consumption and freedom to consume—what Mark Liechty phrases as Nepalis' challenge "(…) to *produce themselves* as members of, and inhabitants in, a world that is both modern *and* Nepali (2002: xi, original emphasis).

The NEA controls electricity supply, and distributes it equally in terms of periods of access. However, people who can afford it have found ways of enhancing their access to electricity through the private consumer market. Due to the unstable access to electricity in Lubhoo, having a battery makes a significant difference. As Winther notes in her study of the electrification of a Zanzibari village, the availability of electric lighting theoretically extends the day to 24 hours (2011: 144). Where one would otherwise be beholden to sunlight in order to get work done, having stable access to electric lighting enables putting off some work for later, in effect providing a less intensive work schedule and more freedom to decide when to do what. Perhaps the most pervasive difference in this respect is opportunities for leisure time in the evening. This is connected to sleeping less, both in Lubhoo and Zanzibar, as people tend to use their added waking hours for relaxation and entertainment (Winther 2013: 171-3). This connects to pervasive images of the good life: The opportunity to spend time away from work and duties. Similar dynamics of taking advantage of the privilege to *not* work in Nepal were damned by Dor Bahadur Bista (1991) during the 1980's. While his rhetoric is polemic when writing of Brahmins in Nepal (of which he himself was a part), it seems that the privilege of a relative lack of activity has long been an "upper-class" privilege in Nepal.

Doing "Women's Work"

It was going on a month into my stay in Lubhoo before I finally had to succumb and wash some of my clothes. I nearly had to insist on doing the washing myself. The family I stayed with repeatedly suggested that Diddy[22] would be more than happy to do it for me. Diddy was the housekeeper who was employed in the children's home that the father of the house was running in the two bottom floors of his three-story house. Being an added burden for

[22] The word *diddy* means "older/big sister" in Nepali, but it can have other meanings depending on the context. Relevant to this case is a general term for women employed as housekeepers, doing chores such as cleaning the house, washing clothes and cooking.

Diddy was not an alternative for me. This was partly due to my insistence on being (relatively) self-reliant, and partly because Diddy had enough on her plate already. After borrowing some basic equipment for washing clothes, I found myself sitting crouched on the bathroom floor with two buckets and a bar of soap, trying to figure out the best method for washing clothes like this. Noticing that my already sore back did not appreciate this exercise made me painfully aware of how important technology can be in order avoid doing physically tiring labor and freeing up time for other activities, especially for women. Both husband and wife in the family I stayed with had full-time jobs. Had it not been for Diddy helping with some of their housecleaning and washing (for which they compensated her), managing the household would be very difficult for them. The difference in the amount of working hours and physical exertion involved when comparing manual and technology-based ways of washing is significant. Whereas putting on a wash in a machine takes ten minutes at most, I had to scrub and rinse all of my clothes by hand. With my inexperienced technique, that took me at least an hour and a half. Then there were the time-constraints for drying clothes that were more specific to the climate in the Kathmandu valley in February. Had I not been able to dry my clothes in the sun, I might as well not have hung them up at all. It would have been too cold for my water soaked clothes to dry before nightfall, when the temperature dropped close to freezing. This meant that I had to find a day I could stay at home for most of the afternoon and one that was also sunny. Most days the sky had been clear, but when the clouds did come, they were usually thick as fog. Seeing as I experienced this as inconvenient, despite my otherwise open schedule, managing the same while having fulltime employment would have been challenging indeed. For people who cannot receive help from a "diddy," household labor is by default taken care of by women. In fact, I would go as far as saying that many would judge it as strange if a husband did more than a minimum of the housework that was expected of him.

This became apparent when the mother and father of the house talked about the time when they were living with the father's family in a much smaller house, roughly 150 meters across the square where they lived now. Six members of the father's family still lived there: his mother and father, grandmother (father's mother) and his younger brother, along with his wife and their son. Around nine years ago, the couple I stayed with also lived in this one-story, three-room house. While they both described this time as unpleasant due to cramped living space, an added frustration was that the wife of the then newlywed couple, felt that she got no help from her husband with cooking or cleaning. The father of the house also

conceded as much, but said that he did not feel comfortable helping as much as he would like, because the others in the house would look down on him. This was in contrast to the division of labor in their new home during the time I stayed there. While the main burden of domestic work still fell on the mother of the house, the difference was much less than what I observed and was told of in other households.[23] Still, it was not hard to notice a difference in practice when the husband's 96-year old grandmother was visiting, as she would do every other day. Both husband and wife agreed that there was no point in showing that he was helping more around the house than what was common in his grandmother's younger days—she would not approve of that.

An interesting connection to the domestic division of labor is a difference in gender connotations related to a tool and energy-using technology. Though no one ever said it explicitly, cleaning with a broom, in contrast to using a vacuum cleaner, had different gender connotations attached to it. I never saw the father of the house clean with the short-handled straw broom—a tool with a long history of use in Nepal, which is most commonly used by women, or sometimes children. The use of a vacuum cleaner, on the other hand, did not have the same gender connotations related to it and the father of the house frequently used the vacuum to clean the house. In fact, the father of the house used the vacuum cleaner much more often than his wife. Walking around crouched over with a broom, sweeping the floors as you go, would without doubt be perceived as odd if a man were to do it. After repeatedly expressing my wish to help around the house as much as I could, my hosts eventually conceded that if I was at home, and had the time, it would be nice if I vacuumed parts of the house. It was difficult for them to find a suitable time in the morning or evening to vacuum given the limited electricity supply. Even so, the one time I took it upon myself to clean with a broom, it seemed to make my hosts slightly uncomfortable and it did not take long before they commented that the floor was clean enough. That particular way of cleaning was a woman's job, even in a house where the division of labor was less divided by gender lines than most others. The dual set of practices related to technology-use in Lubhoo, caused by the Loadshedding, makes this more readily apparent than in other places, where a broom and vacuum cleaner would not be used as interchangeably.

[23] I will expand on the implications that the asymmetrical division of domestic labor along gender lines has for women's ability to keep stable wage work in combination with Loadshedding in chapter five.

When Technology Fails: The Broken House Battery

It was just about a month into my stay in Lubhoo, and I had just about gotten used to the new rhythms of life. The Loadshedding took some getting used to, as I come from a country that is rich in energy. Lack of electricity is not something anyone in Norway normally needs to contend with in daily life. Still, adapting to it was not very hard. It was mainly a case of figuring out which power outlets that connected to the house battery, and worked during Loadshedding, and which did not. My private need for electricity was mainly for having lights after dark and charging my phone or laptop. There was also the inconvenience of not having insulated houses and no reliable source of indoor heating. From January to March, that was harder to deal with, and something I was not as prepared for as I could have been. While I was familiar with cold weather, I was used to being able to escape into a warm house, no matter how cold it was outside. Throughout January and February, the temperature dropped to near 0 degrees Celsius at night and the difference in temperature between inside and outside became negligible. I then realized to what extent I had taken for granted electricity as a source of residential heating. Analogous to Wilhite's example of air-conditioner use in Kerala (2013: 65-66), I would venture an educated guess that electricity consumption would increase exponentially in Nepal due to use of indoor heating during the colder months, if Loadshedding would end. The family I stayed with already had a small electric heater, but did not use it very often, as they could not rely on it for heat during Loadshedding. Therefore, they tried to get by without it most of the time. Following Wilhite, I would argue that unrestricted access to energy consumption can be viewed as a bearer of predispositions for *added* consumption. Indeed, Westskog and Winther (2014) have made the argument for a limit on total energy consumption per capita in Norway—a country which draws nearly all its electricity from hydroelectric power, like Nepal, but where there is normally no gap between supply and demand, unlike in Nepal.

The "house battery" facilitated better energy access in this household on par with the wealthiest households in the neighborhood. The contrast regarding use of electric lighting between houses in Lubhoo became apparent after I had, on several occasions, walked up to the roof terrace in order to observe changes in lighting after dark directly after Loadshedding set in, and when the power came back. The larger, painted houses in the neighborhood were the least affected by the Loadshedding. The amount of (externally visible) lights in these houses was more or less constant whether there was power coming from the grid or not. When considered together, these points become clear signs of who was

comparatively well off. Not everyone could afford to build a house with more than one floor, and not all of those who could afford that, had the money to paint their house, as paint was very expensive. Bigger houses also had more lights installed, which meant they consumed more electricity. Moreover, they did so even when there was Loadshedding, as the people living there could invest in a big battery to free themselves from the worst effects of the electricity shortage. Many others had to limit themselves to one or two backup lights during Loadshedding, if they had any at all.

The effects of Loadshedding and the difference that having a big house battery made, became all the more apparent a few weeks into my stay, when the battery in my house started to fail occasionally due to failure of being charged. The battery had gotten old. It was now around three and a half years since the family had bought it. All batteries have a limited lifespan, and after more than three years of heavy use, I was not surprised that its capacity had declined significantly. However, it seemed that the other members of the household had not planned for this contingency. Drawing on Pierre Bourdieu's term *doxa* (1977: 164, 167-68), Winther argues that "to some extent, electricity's arrival can be considered as a moment when practices were temporarily removed from their mundane state (…)" (2011: 8). In the following case, I will take a similar approach, but in the opposite direction. The loss of privileged energy access, caused by the ailing battery, constituted a period where practices were temporarily removed from their mundane state (at least the state they had been in for the past three and a half years). This revealed the importance of electricity in daily life and the difficulties that can arise if access to electricity becomes *less* stable after people have adjusted their practices to make use of the opportunities that electricity facilitates.

From the day I arrived in Lubhoo in early January, the battery became gradually less dependable. The mother and father of the house both had smartphones, which were their primary source of entertainment. Browsing Facebook, along with playing a game called Candy Crush Saga[24] was common, as well as reading news online. They also had a laptop that the father of the house used to do accounting and make reports for the donors to the children's home. Their son would also play on the laptop if he had some free time in the evening. As the battery's capacity became gradually worse, however, charging phones or

[24] Playing Candy Crush Saga was exceptionally popular with people who had a smartphone. This pattern emerged without paying any particular attention to it. I encountered many who had a job, but struggled to find fulltime employment. For those who had the means, using a phone to entertain oneself during idle periods was common.

laptops became problematic, as charging anything for 10 or 15 minutes would put too much strain on the battery, causing it to fail. This would result in a blackout in the whole house, and leave even less power for the lights, which were sorely needed after around 6pm, when it got pitch dark outside.

The father of the house was by far the most knowledgeable regarding how batteries worked. He had in fact set up the inverter system (regulating the charging of and power supply from the battery) and all the wiring in the house himself. He had a side job as an electrician while studying for his bachelor's degree, from which he had learned quite a lot about doing electrician's work, though he did not get any official certificate. Because of this, he tried to restrict the use of the battery in the evening to powering lights in an attempt to avoid the battery being completely drained and the house from being engulfed in darkness. Still, not everyone listened at all times. Every now and again, someone would come up to the third floor in order to charge their phone during Loadshedding, as was their habit. The father of the house then had to tell them to unplug the charger, to their disappointment. He also did struggle to follow his own advice one evening, when he could not resist the temptation of trying to get some charge for the laptop. This once again caused the battery to become overstrained, which cut off the supply of electricity in the house. As lighting is less power-consuming than charging a phone or computer, there was usually some juice left in the battery to power at least some lights after it became overstrained the first time. This happened daily.

By the time I began my stay with this family, they relied completely on the battery as their alternative source of electricity. They had discarded alternative sources of lighting, including candles.[25] We noticed this only when the battery started to malfunction. For more than a month, light conservation was in effect when there was Loadshedding in the evening. The lacking backup electricity was not felt as much during the daytime when the sun provided sufficient light. Consequently, if the battery shut down during the day, which it did, the effects on daily life were much less severe. However, when the Loadshedding set in between 6 p.m. and 8 p.m., having enough backup electricity for lighting became gradually more problematic as the evening progressed. During several such evenings, there was only

[25] While an approach inspired by actor-network theory could have enabled reflections on the more semiotic aspects of lighting (for example Bille and Sørensen 2007), my focus here is on the practical concerns of having sufficient light stemming from the scarcity of electricity. However, the fact that candles were completely discarded as a consequence of having better access to electricity is an interesting contrast to the use of candlelight where electricity supply is abundant (Bille and Sørensen 2007: 277-78; Winther 2013: 167-71).

sufficient voltage in the battery to power a single lightbulb. This meant that everyone in the house gathered in the main bedroom on the third floor, except most of the children (in the bottom two floors), who were put to bed early. In these cases, the lack of lighting put severe constraints on one's range of movement. When leaving the room where there was light, I had difficulty seeing farther than half a meter in front of me. Even after my eyes had adjusted to the darkness, navigating through it was a challenge. This precluded doing much at all in any other room.

The difference that a battery makes for activity was also apparent in the contrast between the house where I was living and the house of my host's patrilineal relatives. On evenings when there was Loadshedding, I often saw someone in the house across the square navigating the dark using a small light from a cellular phone (i.e. *not* a smartphone). Several times, visits to this house had to be cut short because power from the grid, and thereby the lights, were about to go. Alternatively, if there was Loadshedding, visitors would usually leave some time before the sun went down. Whereas people's freedom of activity and movement was severely limited on many evenings in the house across the square, the battery in the other house made people's opportunity for activity independent of sunlight. That is, as long as the battery worked as expected.

The (potential) lack of light also entailed that meal times were pushed forward. Normally, we would eat the last meal of the day between 7 p.m. and 9 p.m. However, when Loadshedding was scheduled to be in effect during this period, we would eat around 6 p.m., before sunset. The prudence of this became clear to me one evening when I came home at 7 p.m. after a trip to Kathmandu, and had to finish my dinner using a headlight that I had bought, as the battery failed while I was eating. Because I was the only one who had not eaten, this was largely unproblematic, but sharing this light source with the three others I would usually eat with would have been cumbersome for all of us.

Electricity, Multimedia, and Social Life

Around this period, the father of the house had also lost his smartphone, leaving only the laptop and his wife's phone to serve as entertainment. The batteries in both these devices were also rather poor. They would be drained after a couple of hours of intensive use, at the most. When there was no more battery in these devices, it was usually decided that it was time for bed, regardless of whether the time was 8 p.m. or 10 p.m. Winther notes similar connections to the availability of electricity and use of time through access to artificial

lighting and watching television[26] on Zanzibar (Winther 2011: 144-47, 203-4; 2013: 168-73). The family I stayed with would often stay awake longer in order to watch TV or entertain themselves with a phone or laptop, similar to what Winther calls "leisure time" (Winther 2011: 146). However, when both electric lighting and electricity-requiring entertainment devices became only sporadically available, the motivation for going to bed at later hours was diminished. Note also that there was an added incentive for going to bed early related to the weather in January and February. When temperatures were hovering just above freezing in the evening until sun-up, it also became increasingly uncomfortable to avoid using blankets due to the cold. Still, when there was power from the grid late in the evening, bed-times were again pushed back in order to make use of the boons that electricity provided.

Having observed this dynamic, I asked the family what they did in the evenings before they got phones and a laptop to keep themselves entertained. The father of the house answered that they used to play *a lot* of cards, and watch more TV, because the Loadshedding wasn't as bad before. On a related note, some months later, I had a conversation with the mother of the house about changing social habits caused by the increased availability of multimedia devices and internet access. Her impressions were not all positive. She said that some years earlier, people used to meet and chat (*gaph garcha*) more often, or gather around the same TV.[27] Nowadays most people had their own TV and their own phones. Therefore, they were staying inside their own houses more than before. Children were also going outside less. It was getting difficult for the mother to coax her son to go out to play because he wanted to stay at home and play Angry Birds: Star Wars or some other mobile game. She noted that the vast amount of information that was available with the advent of smartphones and Internet was important, but she was disappointed about how people were using it. They were only using it to go on Facebook and play Candy Crush Saga. However, despite of this, she did not see it as a negative change overall. Both domestic and international news was now more widely available, which meant that people had better access to information of what was going on in the world.

[26] I am disregarding TV's. While it would be technically feasible to power a television using a battery, when there was Loadshedding in the Lubhoo area, the signal from the TV cable would also be cut. Therefore, the opportunity for watching television was also affected by the Loadshedding.
[27] The father of the house also told me that, when he was younger, so many people had gathered in his neighbor's house to watch the only TV in his village that the floor nearly collapsed due to the weight of the crowd. After this, the neighbor would prop up the TV on the railing of his porch so that people could stand outside to watch instead.

End of Chapter Remarks

The purpose of this chapter has been two-fold. The first was to provide context for the domestic, social and material conditions in which the Lubhoo textile industry is situated. That is not to say that aspects of life which are connected to the textile factories in Lubhoo will not be dealt with in the ensuing parts of this thesis, but they will be not be discussed in-depth in the same manner. The second is to contribute to remedying the "startling paucity of analysis of the everyday life of energy (…)" (Strauss, Rupp, and Love 2013b: 22). The second is a broader analytical frame that has so far been implicit in this chapter: Bateson's reflections on "Ecology and Flexibility in Urban Civilization" (2000: 502-13). I find the general framework on the relation between flexibility in relation to environment[28] particularly useful when thinking about people's practices related to the regime of electricity supply in Lubhoo. The continually shifting access to power necessitates the retention of uncommitted potentiality for change due to changes in electricity supply. In practice, this meant that, that despite having a vacuum cleaner, it was also necessary to have a broom on hand in case the vacuum was unusable when the house had to be cleaned. People without the opportunity to store a reserve of electricity (in a battery) could be seen as shifting between a preindustrial and an industrial way of life every few hours as the Loadshedding went in and out of effect. Such is the importance of electricity in maintaining a modern way of life. Or, in Hornborg's terms: The importance of energy slaves (2013: 48-50). Regarding energy slaves, there is also something to be said about what one might call domestic work regimes, related to the source of energy and medium through which work is performed: By a hired servant or by machines. It is by no means given that Diddy would have a job if there was no Loadshedding. Had it been possible to replace Diddy's manual labor with machines using electricity, she might have become redundant. In addition, there is what Wilhite (2014) has called "the problem of habits" related to energy consumption, or the difficulty of *retaining* uncommitted potentiality for change (Bateson: 510-11). The case of the decaying battery above is an example as to how quickly one can become accustomed to a higher level of energy consumption. Or, to paraphrase Bateson, becoming addicted to an ad hoc measure (2000: 497). The battery was "ad hoc" in the sense that the family was not able to finance a replacement themselves—it had been given as a donation to the children's home. And, more importantly, it must be noted that my (Norwegian) family and I financed a new battery for

[28] I use the term "environment" here in a broad sense, also incorporating social, economic and technological aspects. It is therefore similar to what is elsewhere called structural conditions (e.g. Wilhite 2013: 62-3). However, my use is more closely related to Bateson's use of the word "ecology" (2000: 511-13).

the house in the beginning of March. In the days leading up to replacing the battery, both children and adults had largely readjusted to life without privileged access to electricity. Nonetheless, it only took a few days for previous habits to be restored once the new battery was installed. I would argue that the ailing battery in this household can be seen as analogous to the global dependence on fossil fuels. Both have been recognized as unviable sources of energy in the long term. Yet, that has not stopped people from becoming dependent on them. As we have seen, adjusting to a lower level of energy consumption can be difficult once energy becomes more unreliable, or depleted. The need to retain flexibility in dealing with the conditions imposed by Loadshedding will also be part of the following chapter, specifically in the production regimes in the textile factories of Lubhoo.

Chapter 4:
Energy, Time, and Labor in the Lubhoo Textile Factories

Figure 6: A stack of cloth: The end product of the factories (photo: author)

In this chapter, I will account for various labor regimes found in different Lubhoo factories. The focus will be on three factories that, together, broadly represent the different conditions found in the factories of Lubhoo. I will draw on literature both from industrial and economic anthropology to elucidate opportunities and constraints related to the various ways labor was organized. The organization of production was generally predicated on differences in energy access, labor access, and the factory's connection to sales—whether the owner sold the cloth him/herself, or through someone else. Another recurring theme in this chapter is time. I will draw on the theoretical framework sketched by Laura Bear (2014a) which aims to reveal new aspects of "modern time" in all its "heterochronic" expressions, seen as contingent historical products (ibid.: 6-7). Bear argues that "the abstract time-reckoning of

capitalism" is the most dominant in modern time, and adds that "this always comes into conflict with concrete experiences and social rhythms of time" (ibid.: 7). The timespace in the factories of Lubhoo is complex for a variety of reasons. Even so, I will argue that "Loadshedding time" is the most fundamental cause of these complications. It conflicts with both social rhythms of time and the abstract time-reckoning of capitalism (i.e. capitalist time). More broadly, this constitutes "economic time" in the factories. Before going into detail regarding the organization of labor, I will give a brief outline of the industry in general.

Outline of the Industry

The factories in Lubhoo produce rolls of cotton fabric, which are later used to make garments. Most factories imported the thread they used in production from India. While there was some thread being made in the south of Nepal, its quality was a problem. A few factories were using some Nepali thread in order to support domestic trade, but they were hesitant to use much of it because it was not as strong as the Indian type. Accordingly, it broke more often, which slowed down production. Given the particulars of weaving and the limited amount of production time available due to Loadshedding, having strong thread was essential. Furthermore, even if the quality of the thread produced in Nepal was good enough, the amount would reportedly not be enough to supply the industry as a whole. Shortly put, the industry depended on foreign markets, both for access to raw materials and for selling their products. [29]

I will cover the consequences of the industry's connection to a global sales market in chapter six. For now, it is important to note that many owners estimated that they were selling around 90% of their products to foreign markets. The industry was largely outcompeted domestically by imported textiles from China and India. The imported textiles were slightly cheaper, but also more robust. The difference in price and durability of the products was, as far as most owners were concerned, the reason why Nepalis would not buy domestic textiles. Another important aspect to keep in mind is that while the industry in general consisted of small-scale cottage type factories, it was in the end (mostly) supplying a global market. In chapter six, I will argue that the market conditions in Lubhoo resonate well with the heterogeneous "supply chain capitalism" depicted by Tsing (2009). I now turn to production in the Lubhoo textile factories under conditions created by Loadshedding.

[29] See Whelpton (2005: 145-49) for a broad sketch of industrial development in Nepal from 1951 to 1991.

Working the Looms

Figure 7: A power loom (photo: author)

The work of a weaver in the Lubhoo factories was mostly determined by which kind of looms were installed in a given factory. The *power loom* was by far the most common kind. Put shortly, its operation was semi-automatic. The machine alone did the actual stitching together of threads in order to make the cloth. However, the power loom demanded more or less constant attention. The small shuttles that were flung back and forth by mechanical arms on either side of the cloth needed to be changed every few minutes when the stitching thread inside ran out. An added constraint was that the thread in the shuttle had a tendency to break.

The *full automatic*[30] was a less common, but a more technologically advanced loom. This kind of loom required less input from the weaver, but installing and operating it also required more resources. Few owners could afford to purchase one in the first place, let alone organize and afford access to a specialized technician required to repair the more complex machinery in the event that it broke. Therefore, acquiring these newer looms was out of

[30] For a video of a full automatic loom in action, see: tinyurl.com/nb3w6rx.

reach for smaller operations. The three owners I spoke to who had been able to install full automatic looms cited having to depend less on employees as an incentive for installing such a machine. They would thus be less vulnerable to their workers choosing to leave, either to work abroad or to go back to their village (*gaû*) for a period. I will detail this in the following chapter. For now, it is important to note that there was a labor shortage in the industry which had severe repercussions for some factories.

Industrial Work, Energy, and Time

As noted in chapter two, my data on the experience of running a factory derives mainly from the point of view of management. However, I do have more in-depth knowledge of the workers in a factory located close the house I stayed in, owned by a man in his fifties called Govinda. This stems from many semi-daily visits I made during the course of several months. I did not gain much in terms of data each time I was there, but it did give me the impression that however cyclical and periodical the work in the factories was, the tasks were essentially the same each day. All other factories I visited also conformed to this general pattern, notwithstanding variations in size and layout.

Much has been written on industry and its effect on time and its management. I will contribute to this discussion based on the particulars of the industry in Lubhoo. One of the first to explicate a difference in the conceptualization of time related to industrial work compared to other types of work was historian E.P. Thompson. In his analysis of the incipient English working class in the 19th century, he stresses the consequences of having a personal time piece (i.e. a watch) and how this led to an externalization and quantification of time in an unprecedented way (1967). The stress on atomization of labor tasks in studies of industrial work and the control of time from the side of management has also been a theme in many other studies of factory work (e.g. Burawoy [1979] 2009; Pun 2005: 86-100). However, largely due to the vagarious access to electricity in Lubhoo, a strict kind of time management regime had not been institutionalized in Lubhoo (barring one exception, which I will return to). The relatively small scale of each factory is another relevant aspect, which I will discuss later.

Winther's reflections on changes in time management that coincided with the arrival of electricity in the village of Uroa are relevant to the unstable electricity supply in Lubhoo. In short, Winther argues that Uroans' exploitation of time became a more complex task with the arrival of electricity. I will not dwell on the particulars of the change in Uroa. I will only

note that Winther's reflections show that changes in people's use and perceptions of time is contingent on the particular circumstances in which people are situated (2011: 144-47). With this in mind, it is not given that clock time will become dominant in an "industrial capitalist" environment (c.f. Thompson 1967: 80). Note that Thompson's perspective is not (strictly) deterministic. He does not simply assume that "the clock" in itself facilitated the institutionalization of a strict work regime. It also took prolonged, and at times violent, effort from industrialists, which the workers often resisted. However, I would posit that uninterrupted energy access constitutes an even more fundamental factor than the machinations of factory owners. Compare his quote, commenting on the ill-discipline of pottery workers: "If a steam engine started every Monday morning at six o'clock, the workers would have been disciplined to the habit of regular and continuous industry (…)" (1967: 75). This obviously presupposes access to sufficient energy to power the engine. I did not find any similar scheme for disciplining workers in any of the Lubhoo factories I visited. That is, at least in the factories with erratic electricity supply. Moreover, Thompson seems to crystalize time-discipline as a universal factor in industrial work when he writes: "Without time-discipline we could not have the insistent energies of industrial man; and whether this discipline comes in the forms of Methodism, Stalinism, or nationalism, *it will come to the developing world*" (1967: 93, emphasis mine). In what follows, it will become clear that Loadshedding time had a fundamental effect on the management of production in the factories. I will show that Loadshedding time is incompatible with capitalist time. The continuous coming and going of electricity in Lubhoo at times required forgoing another socio-biological time: Eating hours. I had not stayed long in Nepal before getting the impression that Nepalis were rather particular about their meal times. The main reason for this—as I was told on numerous occasions, especially because of my own feeble stomach—is related to Ayurvedic notions of health. Eating at similar times every day is important to maintain balance in the body. If they diverge too much, it can lead to sickness. For a period of several months (January to May), this was very difficult to adhere to for the weavers in Govinda's factory, something which will become clear shortly.

A common way of greeting someone in Nepali is to ask if they have eaten. Depending on the time of day, one either asks if the other person has eaten their morning, midday or evening meal (*khana/khaja khanu bhayo?).* Consequently, I found that on many occasions, the three weavers in Govinda's factory would often go an unusual amount of time without eating in order to work when electricity was available. If I went there between 2 p.m. and 6 p.m., I

would ask if they had eaten lunch *(khaja khanu bhayo?)*. To my surprise, they often answered that they had not eaten yet (*khaeko chaina)*, even when the usual time for eating the midday meal was long past. The same was often the case for the morning meal. The hour I made my visits varied considerably. After a month, a pattern emerged that the weavers would consistently stretch eating times in order to work**.** The weavers chose to ignore their growling stomachs, telling them it was time to eat, in order to follow capitalist time more consistently (Bear 2014a: 21-23). "Eating time" became incompatible with capitalist time in particular due to the confounding influence of Loadshedding time. These weavers were after all dependent on working when there was power from the grid. Furthermore, they needed to work a certain amount of hours in order to pay their rent and buy food. It is therefore rather ironic that they did not have time to eat the food for which they were working to afford. We see here that time is not *one thing* that cannot necessarily be understood as moving forward in a linear and synchronous manner. These three times were related and in a sense interdependent in the factory work, despite being incompatible on a fundamental level. The challenge for the weavers was therefore to mediate the relation between them in a useful way.

The effect of Loadshedding on the amount of activity in the factory was palpable to say the least. The weaving work in itself was not particularly strenuous (at least physically), but all the more monotonous. The looms required constant supervision and attention (disregarding full automatic looms). Had it not been for the sheer volume of noise coming from the looms, the sound they made might have been considered enjoyable. However, the first few times I entered the production floor of Govinda's factory, I experienced it as very unpleasant after a short while. When all ten looms in the factory were going at once, it released a cacophony of "tacking noise" caused by the metal ends on the shuttles hitting the wood of the loom arms, which were flinging the shuttles back and forth. There was no doubt in my mind that the noise level of the looms led to hearing loss if one did not use any kind of hearing protection. Nevertheless, this did not seem to bother the weavers much and they wore no hearing protection. When asked if it was hard to deal with, they answered that they were used to it (*hamro baani chha*).

From what I was told by various owners and judging from my own observations, a single worker would normally operate up to four power looms at once,[31] given that the rows of looms were facing each other so the distance between them was as short as possible. The work required constant attention in order to time the changing of stitching thread in the shuttles. This was necessary in order to make use of as much of the thread as possible while also making sure that it did not run out before stopping the looms. If this happened, the loom would have to be wound back before starting up again to prevent there being a gap in the stitching. Another important factor was to spot when the stitching thread broke as quickly as possible to make sure the resulting tear in the cloth did not become larger than necessary. When the thread invariably broke, the torn part of the stitching had to be undone and the weaving needed to be restarted. The earlier a break in the stitching was spotted and stopped, the less stitching needed to be undone. This made it easier and faster to start production again.

When the time to change the stitching thread approached, the weaver's eyes would focus on the shuttle being flung back and forth, their heads moving ever so slightly in rhythm with the loom for up to 20 seconds, before pulling a lever to stop the loom at the right time. The shuttle was visible only for a split second before being hurled through to the other side. Stopping the loom at the most opportune moment made the shuttle easier to get hold of, thereby making the process of changing the thread quicker. I had some difficulty in seeing the shuttle at all, let alone how much of thread was left. The weavers had no trouble spotting it, however. It took me a while to see what the weavers were actually doing upon stopping the loom—their skilled hands moved so quickly that it was not easy to discern for my untrained eyes. Ideally, changing the stitching thread would take no more than ten seconds. If the thread broke or ran out before the loom was stopped, however, it could take from 30 seconds to a minute in order to get the machine working again. Making sure this did not happen was vital. A full minute spent on managing only one loom could mean that the stitching thread in another ran out or broke in the meantime. In the worst case, this could lead to the weaver continually lagging behind in maintaining production, causing far more disruption than the mere minute spent on the one loom. When the Loadshedding set in, however, the change in activity was profound. The pressing tacking noise died down in an instant and the room would go dark if it was late in the day—at times making it hard to see

[31] This was a general estimation I was given by several owners. However, the number varied widely in practice. I was on another occasion told that one weaver could feasibly operate as many as ten looms at once.

until someone turned on a few battery-run lights. The weavers would then usually make some short preparations for the next time work would start up again, before going home.

Energy Access and Flexibility of Production

Piece-rate payment and a mostly unregulated work schedule was the most common way of organizing production in Lubhoo. One could understand this pattern as giving the workers freedom to decide their own working hours. In effect, however, they had little choice but to work both night and day for a few hours at a time during the drier months when Loadshedding was the most frequent. With the limited electricity supply, there were few other options. Most factory owners saw forcing their workers to complete a minimum amount of production to be out of the question. It was hard to find anyone willing to cope with the constantly shifting working hours already. The situation was not ideal for either party.

Yet, a few of the larger factories had invested in electrical generators that ran on diesel to improve energy access, thereby facilitating more stable working hours for employees and expanded production capabilities. However, this was not a viable option for most. Besides the initial obstacle of acquiring the money for the needed equipment, producing by generator was also predicated on having a relatively large operation. The diesel required to run the generator was expensive. As a result, producing by generator was financially akin to a zero-sum game. The higher energy costs and relatively small size of each factory eliminated the already marginal profits gained from sales. Still, there were some definite advantages gained from having the option of producing by generator. The most important one was providing increased, and more stable, working hours for weavers.

An owner named Vishnu stated that though he used a generator, there was no incentive for him to use it in order to generate profits. He just about broke even between the costs of production and sales due to the increased energy expenses. Sometimes he even lost money. The sole motivation for him was to be able to attract local workers. He reasoned that people who are originally from Lubhoo would be less wont to simply pack up and leave for other work as they had more ties linking them to the community. His employees also received piece-rate payment. By increasing the time available for production, he could offer his workers more stable working hours as well as the opportunity to work more, which increased their prospective salary. Vishnu also had a loose schedule regarding working hours. His weavers could come in at any time between 6 a.m. and 10 p.m. As long as there

were a certain minimum[32] of people weaving, he would run the generator during Loadshedding. He thus had a competitive advantage compared to other factories that did not have enough looms to offset the loss in profits resulting from added energy costs. Few factories had local people employed, and Vishnu took pride in the fact that all his weavers were from Lubhoo. In Govinda's factory, the situation was rather different.

Govinda could not find anyone from Lubhoo to work in his factory, mainly because production was entirely dependent on the Loadshedding schedule. His three weavers were from the Terai region,[33] all of whom were from the same village. Govinda too, gave piece-rate wages. His weavers were also free to come and go whenever they pleased. He claimed that he would never make them work any specific number of hours. Still, because he paid his workers for each meter of cloth produced, it was in practice necessary for them to work long hours in order to make a living wage. This resulted in challenging working hours in his factory from the time I arrived in early January to the middle of May when there was an average of twelve hours of Loadshedding each day.[34]

During the first two of those months, I had not yet started to delve fully into the textile industry. Still, I know that their working hours were very hard because the factory was located very close to my house. It was nearly impossible for me *not* to notice when the cacophony of tacking-noise would start coming from the factory. For example, some days they would work 6 p.m.–10 p.m. until Loadshedding set in. They would then start up again at 2 a.m. when the power came back, work until 6 a.m., then have an extended break until around midday, when they would do a few hours of work again. As Loadshedding time would shift a few hours each day, they had to shift their work pattern. This was rarely an issue for weavers in the two factories that used a generator regularly. Yet, there were some differences between them as well.

Because he had a generator, Vishnu had some leeway in tightening his initially flexible work schedule. He said that every once in a while, he would convince his employees to put in extra hours if he was behind on a shipment or needed to fulfill a large order. His argument

[32] I am uncertain as to the specific number of weavers he required. Also note that this could function as a form of indirect labor control. Weavers would need to make sure that others were working at the same time as them if there was Loadshedding. Moreover, if one weaver was away from work without notice, it could prevent others from working.
[33] Terai (also written Tarai) is a belt of flat, (sub)tropical lowlands, stretching across a large portion of southern Nepal on the border to India.
[34] It is likely that they had been working similar hours at least two months before I arrived as well.

was that this was fair because he was helping his employees by using the generator to begin with. His workers normally accepted this, according to him. By using the generator in this way, Vishnu increased the flexibility of his production through improved and diversified energy access. By using it sparingly, he kept some *potentiality for change* in reserve (Bateson 2000: 505). This enabled him to increase production for a limited amount of time when it was needed.

The organization of Ram's factory stands in contrast to Vishnu's limited generator use. Ram also produced by generator, but used it to commit all of his looms to produce 24 hours a day, six days a week. He had two teams consisting of two weavers working twelve-hour shifts. The main reason why this was a viable business tactic was that his six looms were *full automatic*. These required less input, supervision and, consequently, fewer workers to operate. The newer looms were also more dependable. The thread was less prone to break, thereby avoiding many of the periodic stops in production caused by older models. Ram focused his business plan on maximizing production. In contrast to factories with power looms, the total output of his factory was more predictable. The downside to this was a decreased opportunity to increase production to fulfill larger orders, or decrease production when demand was low. This was also reflected his frustration regarding foreign buyers who had little sympathy for any challenges related to production or transportation.[35] For them, he said, the only thing that mattered was delivering the shipment on time. In this factory, a generator was used to expand production, but since all the added energy was committed to production, he actually had less flexibility than others did—even the factories that did not have a generator. Ram had found a "technological fix"[36] (Bear 2014b: 75) for the constraints of Loadshedding time, only to encounter other constraints related to the abstract time-reckoning of capitalism.

The preceding text gives a general overview of the ways in which labor was organized in the Lubhoo textile factories. The example in Govinda's factory was by far the most common. The two others are relevant exceptions resulting from augmented energy access and thus different opportunities for organizing labor. The comparison between factories that had a generator and those that did not shows that energy access was fundamental for the organization of labor. Local asymmetry in access to electricity was therefore *a difference that*

[35] I will expand on aspects of markets and knowledge in chapter six.
[36] I take the word "fix" in this context to denote both mitigating a technical deficiency (in the sense of repairing or augmenting) *and* to make time "fixed" (e.g. stable or rigid).

made a difference. As I will now show, it also led to variations in the adaptation of factory work when the Loadshedding schedule changed.

Seasonal Factory Work: Time, Energy, and Economic Reasoning

As April turned to May, the dynamic of the Loadshedding schedule gradually changed. From May 14 onward, the NEA published a new schedule, increasing the daily average of electricity supply by two hours. However, prior to the change in scheduled access, there had also been a gradual proliferation of unscheduled power. There was, without any apparent consistency, power available in excess of what was detailed in the NEA schedule. It was getting warmer and increased melting of snow from the Himalayas, as well as some erratic rain, led to more electricity being produced from the run-of-river power plants (NEA 2013: 6). The effect was that the time slots in the schedule became less reliable than before. In addition to the 14 extra hours of power each week, the power would often come an hour or 30 minutes ahead of schedule, or it would last for a similar amount of time after it was scheduled to be cut off. The change in Loadshedding time also led to changes in the factory work. More hours of electricity supply made it possible to work and produce more. I had assumed that this would result in the owners making incentives for their employees to increase production. However, I was surprised to find that in the factories that now had the opportunity to increase working hours, rather than maximizing production, the seasonally enhanced energy supply was used to work at less tiring hours. With this in mind, it also seems odd that Govinda's weavers actually worked at such grueling hours when Loadshedding was high.

However, the situation was more complicated than simply getting increased access. The power supply also became more unstable than it had been. The power was now wont to go even when it was scheduled to be available. This was frustrating for most local residents, but none more so than for the factory workers. One of the most important consequences of measuring time by a clock is that time itself is made static, predictable and *objective.* By objective, I mean both in a literal and metaphorical sense. A clock measures and displays time. In the same stroke, time thus becomes externalized, formal and more disconnected from subjective notions of its passing. Through its connection to clock time, Loadshedding time also had these characteristics. However, when the schedule was no longer consistently dependable—specified time slots and actual electricity supply not always coinciding—it seemed to obtain similar characteristics to an inaccurate timepiece. It could still give an indication as to when power would be available, but the lack of dependability drastically

reduced its usefulness. This may in part explain why the enhanced power access resulted only in a marginal increase in production. It may also go some way toward explaining why Govinda's weavers worked such grueling hours when Loadshedding was high. Govinda's factory had previously been running both day and night. Now, weaving was rarely done outside 6 a.m. and 22 p.m., and not always consistently within that timeslot. For the weavers, a significant difference was that they had more autonomy in deciding when to work. As Jonathan Parry notes based on observations from a state-owned steel plant in India, "indeed, a good deal of [factory work] is better described as consisting in long fallow periods of comparative idleness punctuated by bouts of intense activity" (1999: 109-110). However, due to the idiosyncratic working conditions in Lubhoo, it was not always up to the workers when they could shift between idleness and intense activity.

Due to the increased access to electricity, Govinda's weavers could potentially double their wages these days. This implied doubled production as they were paid for each meter of cloth produced, but it was difficult in practice because both owner and employees claimed that they did not know the Loadshedding schedule. This statement was surprising to me, as the current schedule was noted in the newspaper every day. It turned out that while it was still in the paper, the fact that it matched imperfectly with the schedule was a problem. Therefore, Loadshedding time had become less salient in his factory, to the point where both owner and workers had given up organizing work around it.

Regarding the now-unreliable schedule, one of the workers said: When we are home and we see that light comes, we go to work. It seems that time related to domestic and work spheres became more fluid during the period of improved but unstable electricity supply. The time for starting work was not initiated by the tolling of a factory bell, but with the coming of electricity. The latter was a far less predictable way of organizing labor, and was not controlled by the manager. Rather, it was predicated on the schedule of the NEA, and more importantly, the signal itself reached into the household—heralding the arrival of the power to produce. Thus, like the "artisans" in two Sheffield steel factories depicted by Massimiliano Mollona, there was a close connection between home and factory (2009: chap. 3, 130-31). In Lubhoo, this was a prerequisite for managing working hours effectively. Mollona depicts two (seemingly) disparate working classes: "artisans" and "proletarians." These two classes' relation to their jobs is mainly predicated on two dimensions: relation to their machines at work and the proximity between domestic and work spheres. The artisans felt less alienated from their work because they saw their skill and knowledge as

indispensable to the production process (ibid.: 35, 172-73). The separation between the factory and the artisan's homes was also negligible, both physically and in the minds of the workers. For the proletarians, it was opposite. Their work was unskilled. They thus took little pride in the work itself. They also lived farther away from the factory and distinguished clearly between their working lives and their domestic lives. For them, work was merely a means to an end—facilitating self-realization at home (Mollona 2009: 130-31). Note that Mollona's discussion is also about the tension between the standardized and the unique, or in the words of Tsing (2012), the scalable versus the non-scalable. Morris Ltd, described by Mollona as a Victorian workshop rather than a modernist factory, was unique and informal. In contrast, UNSOR was modernist: both standardized and more formalized. With this in mind, it is highly interesting that UNSOR eventually closed down, whereas Morris managed to keep going, despite its many issues (2009: 176-77). It shows that modernization is by no means a guarantee of success. Indeed, it can lead to the downfall of a business.

I would argue that the relation to work for the three weavers in Govinda's factory is a mix of artisan and proletarian relations. Viewing the looms as technological objects,[37] the weaver's relation to the machines was largely characterized by total alienation. The looms would in a sense produce by themselves, given that they received correct and timely input. When the weavers followed this procedure, the manufacturing speed of the looms was set. The task of production was therefore one of maintaining the work of the machines rather than working *with* them. This is not to say that their work did not require any skill. It was based on embodied knowledge, apparent in my own initial inability to see clearly what they were doing when managing the looms. However, this did not resonate with the weaver's attitude toward their work. Their relation to factory work was thus much like the proletarians of Sheffield. However, the particular time-constraints for production also made it necessary for the boundaries between factory and home to be fluid. In this respect, the wife of the oldest weaver (28) had a similar role to the wives of the Sheffield artisans who periodically showed up on the factory floor (Mollona 2009: 170-71). Moreover, her role was even more closely integrated with the production itself. She would do more peripheral, but necessary, work in the factory every now and again: sweeping the factory floor, removing lint from the looms

[37] For an enlightening discussion on making technology a viable (and crucial) subject for anthropological study, see Pfaffenberger (1988). With Pfaffenberger's reflections in mind, it is clear that my own depictions of the looms as technology are limited, though I would argue, no less important.

and winding up new spindles of stitching thread. Her husband also said she was taking care of cooking and cleaning in their rented room, for both him and the two others, who did not have wives of their own.

The change in Loadshedding time also led to a shift in the relation between home and work in another factory, with different consequences. The usual practice for Vishnu had been to run a generator when there was no power from the grid. Now, instead of attempting to increase the output of the factory, his strategy was to increase his profits by using the generator less. Because there was now an increased minimum of hours available for production, he convinced his workers to go home and tend to domestic matters or their farming plots when there was Loadshedding. He also claimed to have enough experience to predict with some certainty when there would be power available, regardless of what was designated in the schedule.

We see here two different understandings of and reactions to fluctuations in Loadshedding time. One owner saw the change as making the circumstances surrounding production less stable and predictable in spite of there being more power available. His reaction reflected his relation toward his employees. Lack of predictability was a problem, and one he could not easily circumvent. Hence, he could not reasonably demand that his employees kept a strict working schedule. The three weavers he employed, therefore got more autonomy in deciding their own working hours. In Vishnu's factory, the workers in effect got *less* freedom to decide their own working hours. The seasonally enhanced access to electricity provided Vishnu with the opportunity to increase his profits without increasing production by saving energy costs. Contrary to the weavers under Govinda's employ, the vagarious power access now affected Vishnu's workers more than previously.

Power to Produce and Power to Control

The conditions in Lubhoo can be read as a critique of both Marxist and more general analysis of industrial production and technology. Reliable and unrestricted access to energy has generally been taken as a given in these frames of analysis.[38] A *very* simplified frame of Marxist analysis could be phrased as follows: The capitalists control the means of production and through that the social relations of production, usually through working contracts. Thus, they exert control over their employees (working) lives. However, in the

[38] For a similar discussion in a Marxist frame, criticizing economic theory for a lacking perspective on energy (or entropy), see Hornborg (1992); Trawick and Hornborg (2015).

Lubhoo factories that did not have an added source of power (a generator), control over the means of production (the looms) was partly predicated on the Loadshedding schedule. When there was no power, the means of production were, essentially, useless. I would argue that because of this, the owners of the Lubhoo textile factories struggled to maintain a strict working schedule. The correlation between energy access and institutionalizing a strict working regime is most apparent when comparing Ram's factory to the other examples. In his factory, there was power at all times. He was therefore able to run his factory day and night in strictly defined shifts.

The factories' loose working schedules stand in stark contrast to the authoritative labor regime in a Chinese factory portrayed by Pun (2005). Had there been a similar lack of electricity in the factory in Shenzhen, enforcing such a strict labor regime would be much more difficult. Still, energy access simply was never an issue in most studies of factory work. But, should Strauss, Rupp and Love's (2013b: 22) forecasts of the future of the world's energy supply turn out to be correct, it is a constraint one may need to include in the future. Also in contrast to Thompson's depiction of clock time as facilitating factory work-discipline (1967), the Lubhoo owner's lacking control over electricity supply severely restricted their ability to, and legitimacy in, controlling working hours strictly. In other words, it made the principles of "Scientific Management" (or Taylorism), for instance summarized by Harry Braverman ([1974] 2009), nearly impossible to implement. In addition, the small size of each factory was significant in this regard. It made it difficult to separate and compartmentalize different tasks in the production process.

Producing for Use and Producing for Exchange

As Marshall Sahlins shows in his seminal *Stone Age Economics* ([1972] 2004), the model of "Economic Man" as perpetually rationalizing and maximizing his opportunities for production and income, is not universally applicable. Tellingly, my own initial expectations related to work and maximization of income closely resembled the presuppositions of Economic Man. This was after all a capitalist enterprise, where the argument has been made again and again that whether by coercion or consent, the capitalist will extract as much labor and surplus value as possible through control of the means of production.[39] However, my assumptions were wrong, and in the end, the seasonal shift in working patterns in Govinda's factory (as well as others in Lubhoo) more closely resembled the stop-start-like

[39] See Mollona, Neve, and Parry (2009: pt. 1 and 2) for varied examples.

production patterns of various kinds of agriculturalists described by Sahlins (2004: chap. 1 and 2). Of particular relevance to this case is what he calls "Chayanov's rule," inspired by the Soviet peasant studies of Alexander Chayanov (1986). The "family farms" depicted by Chayanov operated in an environment dominated by a market economy (though they were themselves organized non-capitalistically), but the operational logics of the Soviet families seemed to invert the expected logic related to market price, income and labor (Shanin 1986: 2-5). For Economic Man, it would be the most *rational* to produce as much as possible in times when prices were high, in order to sell their crops at the highest price, thereby increasing the value of their labor through increased dividends. The Soviet peasants however, would produce and work *less* when prices were high. When selling their produce at a higher price, they could satisfy their (subsistence) needs through less work. In the terms of economic theory, this would be *irrational*—maximizing profits and acting "rationally" being synonymous.

All this being said, it would be remiss not to make what Sahlins calls "certain methodological apologies" (2004: 74) at this point. The preceding outline of economic behavior is part of Sahlins' discussions of "the *domestic* mode of production" (2004: 74-9, emphasis mine). By now, it should be clear that the mode of production in the Lubhoo factories is not domestic. However, my interest here is not on the "mode of production" itself, but the organization of labor. With this in mind, I argue that the general theoretical frame outlined by Sahlins is a good fit for elucidating my own findings when formulated at its most general level. The phrasing with which I am concerned is: "Productive intensity is inversely related to productive capacity (…)" (Sahlins 2004: 91). As I have shown, there were similar dynamics in the Lubhoo textile industry. Added power did not result in increased production, but rather more relaxed working periods. It is in this sense that the working regime had the same characteristics as seasonally changing agricultural work. The colder months were a period that required more intense activity in order to produce, so much so that the three weavers in Govinda's factory chose to forgo eating for long stretches. It could be that they worked so hard from January until May because they were expecting that a more relaxed period would come. Significantly, they had migrated from a village where farming was the main source of subsistence. That may well be one of the reasons why their factory work had similar features—what we might call "peasant industry."

Of concern here is also Sahlins discussions on producing for use-value versus producing for exchange-value, taken up by several other scholars as well.[40] A difference in this underlying motivation has been noted to correlate with the amount of work that is done by a given individual. Production for use-value is directed toward specific and finite ends, whereas producing for exchange value facilitates accumulation of profit as an end in itself, which has no foreseeable limits (Sahlins 2004: 82-86; see also Hornborg 1992). Michael Taussig ([1980] 2010) deplores the calamities which followed in the wake of colonialism and consequent implementation of a capitalist economic system in Colombia and Bolivia. It is possible to read Taussig's analysis as indicating that capitalism will *necessarily* lead to commodity fetishism through solely measuring worth in terms of exchange value (i.e. money). The peasants in Taussig's study are depicted as being coerced into modern slavery through practices not unlike primitive accumulation (2010: 18-38, 70-73).

However, this perspective does not resonate with the attitudes and labor conditions I found in Lubhoo. One migrant factory worker with whom I had a chat together with my friend phrased it succinctly. Even without Loadshedding, he would not work much longer. He would still try to manage between eight and ten hours daily, as he was doing now. After which he made a statement that my friend gleefully related to me in English: "Oh ho, he is very clever—more clever than me! He quoted [a] philosopher who said: People spoil their health to make money, [and] then they use money to get health again. There is no point." Thus, the attitude toward work and profits seems to reflect that of Chayanov's Soviet peasants, not the limitless capitalist accumulation deplored by Taussig. To turn Taussig's phrasing (2010: 11) on its head: In the Lubhoo textile industry, production was *not* the aim of man. Man was the aim of production.

End of Chapter Remarks

This begs the question as to why "man was the aim of production" in the Lubhoo textile factories. As I wrote in chapter two, farming has always been, and still is, an important companion to the industry in Lubhoo. As far as I know, all owners and most workers had a plot of farmland to cultivate as an alternative source of income. Even migrant workers had access to farmland, if not in Lubhoo, then in their village of origin.[41] In Govinda's case, he

[40] See Hann and Hart (2011: 18–36) for a short overview.
[41] I will expand on the connection between farmland and migrants in the next chapter.

also managed a tailor shop[42] in the center of Lubhoo, in addition to doing farming near his house. Industrial work under conditions of Loadshedding demands a degree of flexibility, both in the factory labor regimes and in terms of drawing on more diverse sources of income. In Govinda's case, if his crops failed, he had the tailor shop or the factory to draw on and vice versa. This was similarly the case for several other owner factory owners. Moreover, access to farmland through kin relations may also partly explain why Govinda's three weavers did not work more when Loadshedding decreased.

Lubhoo may serve as a positive example of Tania Li's (2011) arguments regarding labor in the "land grabbing debate." In Lubhoo, like in much of South Asia, the anticipated transition from farm to factory has not (fully) taken place. In contrast to Li's depiction of Kalimantan in Indonesia, most people have *not* been displaced from their "inefficient" farms. Though, as I will expand on in the next chapter, they are likely in a context where the generalized capitalist system would fail to provide owners and workers with a reliable alternative livelihood or a living wage removed from farming (2011: 281). Either the workers can draw on small farm plots directly, or they can do it through kin. In any case, it constitutes an alternative source of income that is fundamental in mitigating the instability caused by Loadshedding. As I have shown in this chapter, and will expand on in chapter six, Loadshedding time is incompatible with capitalist time. Maximization of profits from the means of production therefore remained unachievable. Still, both workers and managers had to mediate the relation between these times because one always impinges on the other.

Loadshedding makes capital investment less profitable and slows down the "cycles of capital." The dual practice of agricultural work and weaving has historical continuity in Lubhoo. What had changed was the current emphasis on textile manufacturing relative to agriculture. However, I would argue that a transition to fulltime weaving would not be viable due to the lack of electricity. As it stands, capital investment (in new machines) is less affordable than buying and operating older, more labor-intensive looms. Had it been possible to run the looms at all times (without Loadshedding), capital investments would be regained much faster, facilitating investment in new looms. Ram is again a relevant example. He has only full automatic looms and, by no coincidence, he was the only owner who ran his factory at all hours. However, for him, regaining his investment in new looms was also delayed by the Loadshedding. He needed to produce using a generator, which

[42] Fabric made in Lubhoo was not found in any of the numerous tailor shops in the area. From what I was told, cloth from the factories was simply no good for tailoring.

drastically lowers his profits. Furthermore, if he were to expand his operation, he would need another generator. This would doubtlessly present a major obstacle. It would require a large amount of money indeed. Therefore, I argue that we can largely trace the mixed livelihoods in Lubhoo back to the lack of electricity.

I would also argue that the "pacing" of the factories is not exclusively negative. It hinders the institutionalization of very strict labor regimes (e.g. Pun 2005) and puts brakes on the limitless accumulation of capital purported to be *the* aim in the capitalist system (Taussig 2010: 25). While Loadshedding obviously has adverse effects on profits in the industry and is a source of great frustration for owners and workers, not all consequences are necessarily undesirable. The relatively small scale of the factories also makes contact between employer and employee closer and more frequent, likely mitigating worker's alienation in relation to management. As I have argued, Loadshedding is a contributing factor to keeping the factories relatively small by making expansion of operations more difficult. However, as I will now show, Loadshedding also makes the industry uncompetitive on the international labor market that Nepal is a part of.

Chapter 5:
Gender, Mobility, and Labor Instability

In this chapter, I will account for two major factors affecting labor participation in the Lubhoo textile factories: gender and mobility. I will argue that a division of household labor along gender lines largely determines the former, and that the latter is a result of Nepal's integration with an international labor market. However, I will also argue that the local vagary of electricity supply has a fundamental influence on how both of these factors manifest them themselves in daily life. Thus, Loadshedding is *a difference that makes a difference* on both a local and international scale.

"Women's Work" in the Industry: Drafting and Winding

There was a striking absence of female weavers in the Lubhoo industry. I know of only three women who did weaving, though there may have been others (see chapter two). The women who worked in the factories generally did less time-consuming activities—mostly work needed to facilitate weaving. I would argue that a useful distinction can be made between a domestic sphere of activity, which was women's main responsibility, and a wage work, or market sphere, dominated by men (Hann and Hart 2011: 79-88, 94, 168-9). Yet, I must stress that these should not be viewed as two purely separate spheres. Another succinct way of phrasing it would be that work in the Lubhoo textile industry was divided along gender lines. Interestingly, this stands in contrast to several other studies of factory work, where women constitute the main source of labor (e.g. Mills 1997; Norris 2012; Pun 2005; Rofel 1992). Of particular relevance, is Elvira Graner's (2001) study of Kathmandu valley carpet manufactories. She sketches the boom of the carpet export industry and resulting domestic labor migration from 1984 until 1994, when domestic migration "ceased completely" (ibid.: 258). The general decline of the Nepali carpet industry notwithstanding, Graner identifies access to labor markets in the Gulf States as major factor in the sudden decline of domestic migration. Interestingly, she also notes that labor migration to the Gulf States also had a distinctive gender dimension. Until 1998 the Nepali government prohibited international labor migration for females following the rape of a migrant woman (ibid.: 258-9). This barred women from taking work abroad, and left them with far less attractive local and regional labor markets. On the other hand, this changed dramatically between 2006 and

2011 as the number of female migrants reportedly rose from 390 to 10,416 (Sapkota 2013: 1319). That being said, I found little indication that foreign labor migration was common for women in Lubhoo. In other words, the situation depicted by Graner seems to be a better fit for the situation in Lubhoo, despite recent statistics on foreign labor migration.

I will argue that the division of labor along gender lines in effect excluded most women, not only from employment as weavers, but possibly also from foreign labor migration. Due to the unstable working hours caused by Loadshedding, most women found it difficult to balance the time-constraints of household labor and the demands of industrial work. However, as I do not have sufficient data on women's labor migration in Lubhoo, I will not expand on this. I will only note that the few women I spoke with regarding work abroad saw it as unsuitable for the same reasons as why fulltime factory work was difficult: They had children to raise and a house to take care of. The daily fetching of water from public taps depicted in chapter three is a concrete example of this kind of labor. On the other hand, there are a few notable exceptions concerning work in the industry, on which I will elaborate shortly.

Figure 8: Drafting work in progress (photo: author)

One of the side-jobs related to work in the factory was "drafting" *(draft garne)*. As chance would have it, I entered a factory only once while drafting was in progress in a factory. At that point, I had already heard of the casual workforce of five women who were going to and from factories when there for was need for drafting work. It was a two-person job. Shortly put, it consisted of untangling strands of thread on large drums of yarn that would make up the vertical thread which was stitched together by shuttles in the looms. Every strand of yarn needed to be separated by hand and pulled through the slots of narrow metal holders using a small hooking tool. It was monotonous work, but progress was quick. The drafter's hands rarely stayed still for more than an instant while pulling thread after thread through their slots with impressive precision. Apparently, it was possible to do this work by machine as well. Nevertheless, it was one of the few tasks that were practically feasible to do independent of the Loadshedding schedule. Therefore, there was little point in mechanizing it. I never got an explanation as to how mechanization of this task would actually work. However, I expect that the two drafters I spoke with about this were not sure of it either, despite assuredly stating that it was possible.

The drafting women seemed to be in a situation similar to Diddy's (chapter three). Had it not been for the lack of electricity, machines would likely take over their work. Then again, if there was no Loadshedding, household consumer items would likely have become more widely used (for those able to afford it), thus freeing up time for women to have fulltime employment as well.[43] Drafting work was a suitable source of secondary income for these women, as they could combine them more easily with household tasks, child rearing and tending farm plots. It suited them well *because* it was casual. Drafting work was only needed after a full roll of cloth was finished, which took many hours of weaving. Therefore, this job required only part-time commitment. In Douglas' terms, the relatively low periodicity of drafting work was well-suited to combine with other obligations which had a higher degree of periodicity constraints (1996: 86-89).[44]

[43] However, see Klepp (2006: 55-9) for an argument from Norway, Sweden and the USA that mechanization of household labor alone will not necessarily entail more spare time for those doing the work (i.e. women).

[44] Note that my use of "periodicity constraints" is rather more context-specific than Douglas and Isherwood's ambitions of using it as a step to develop structural categories related to class.

Figure 9: A cone winding system (photo: author)

Cone winding was another job usually done by women. It consisted of making neat cones of thread from bundles coming in from India. These could be more or less neatly wound, meaning that some bundles took more time to wind than others. The more intertwined the bundles were, the more often the thread would break. The rollers that twined the thread around the cones then had to be stopped, the thread had to be untangled, and then retied, before starting up again. They would later use the wound cones to supply stitching thread for the looms. Another part of winding was rolling up stitching thread on the small spindles that were flung back and forth inside the loom shuttles. This had mostly the same characteristics as cone winding.

Winding was less time-consuming than weaving, meaning that a single winder could easily make an excess of thread cones by working a few hours every now and again. However, the work had to be done upfront. This affected the flexibility of production. Making cloth of a given color was not possible unless the needed stitching thread was available. For example, a drafted roll of blue thread could not be woven if blue stitching thread had not been wound

as well. To make grey cloth, a roll of white yarn had to be drafted and then woven with black stitching.

The Female Factory Owner

Near the end of my stay in Lubhoo, I was making my rounds to seek out any factories I had not visited earlier, when I spotted an open door with a loom clearly visible from the outside. As I stepped into the first room of the factory, I encountered a woman who was winding spindles of stitching thread. I asked her where the factories owner was. She replied that he was here (*yaha chha*).[45] I then asked if I could talk to him, to which she replied yes, without making any indication that she would go to fetch the owner. I became a bit confused, as this seemed to be the next logical step in our interaction. I stammered a bit, not knowing what to say, when she stated that she was the owner of this factory. This took me by surprise. At this point, I had spoken to only male owners, and several of them had claimed that there were no female owners. Therefore, I assumed this to be the case here as well.

Nearly having to shout over the noise of the looms in the other room, I discovered that she was originally from Bakhtapur,[46] and that she had moved to Lubhoo when she got married. Her husband had originally started the factory, but he had died on a trip abroad a year and a half earlier. After that, she had been organizing the factory herself, employing eight workers to operate her twelve looms. At times it was hard for her to manage, but so far things where "okay" *(thikey chha*). She was balancing management of the factory, doing winding and weaving herself, as well as taking care of her six year old son. Fortunately, she was living right next to her workplace. This made the switching between taking care of her son and other domestic matters easier. Normally, she would make food for her son and do other housework until he went to school in the morning. Then she would work in the factory until her son returned, give him lunch and help him with homework, before returning to the factory. As she succinctly put it, "You have to eat, you have to work. You have to manage" (*khana khanu parchha, kham garnu parchaa. Milaunu parchha*).[47]

All but one of her weavers were originally from Lubhoo. In contrast to many of the other factories, none of her employees had left to work elsewhere, at least not as long as she had been running it. However, she was paying her weavers nearly twice as much as some

[45] Nepali pronouns are gender neutral, the significance of which will become clear shortly.
[46] Bakhtapur is one of the districts and a large city in the Kathmandu valley.
[47] When used as a modal verb, *parnu* can express necessity in various ways such as "should," "must," and "have to." *Milaunu* can also have several meanings depending on context. Here, I take it to mean balancing two or more considerations in accordance with one another (i.e. "managing" them).

owners per meter of cloth.[48] This is likely the reason why she had been able to keep her employees. She also employed another woman who was doing both weaving and winding, thus going against what seemed to the common opinion that women could not manage both factory work and household labor.

As I argued in the previous chapter, the boundaries between home and factory are fluid, not least for women. I will not point to a main factor behind the relative paucity of female weavers in Lubhoo. There are likely several possible factors influencing this. Geert De Neve's (1999) discussions on labor participation in an Indian power loom industry suffering from a shortage of workers, resonate well with aspects of gender in Lubhoo industry. De Neve notes that owners generally were completely indifferent to the gender of the person they employed, not least because they struggled to find enough workers to operate their looms (1999: 383). The latter was the case in Lubhoo as well. All other things being equal, women would constitute a useful source of at least part time labor for factories struggling to attract a sufficient workforce. The difficulty was that all other things *are not* equal. The women I spoke with who were doing work other than weaving in the factories, all sited the need to attend to various domestic matters as challenging to balance with wage-work. Thus, as De Neve also notes, constraints for women workers may have come just as much from their own families as it came from factory employers (ibid.). As in my discussion on caste and class in chapter two, I would argue that owners were not discriminating against women *per se*, but were perhaps hesitant to recruit female weavers because the conflicting demands of industrial work and domestic labor made them an unstable source of labor. The Loadshedding further compounded these conflicting demands. Nevertheless, as I will now show, there was a labor shortage in the Lubhoo factories. It would therefore make little sense on the part of the owners to merely dismiss such large a source of prospective workers. With this in mind, it appears clear that the culturally constituted division of labor along gender lines in the domestic sphere was the main factor in preventing women from participating fully in the industry.

Concerns of Labor Instability

Among the predominantly male workforce, relatively few weavers originated from Lubhoo. The inability to attract local workers was a worry for all factory owners and a serious problem for those less able to compete with foreign labor migration. According to several

[48] Her relatively high wages was striking because all other owners I spoke to regarding weaver's wages said that they were already paying them as much as they could (see also below).

factory owners, as well as local residents, people who had the money to pay a manpower agency to find them a job abroad[49] could rarely be persuaded to work in the factories. Consequently, because of the popularity and feasibility of international labor migration among people who originated from Lubhoo, domestic labor migrants from the Terai region had now come to seek employment in the factories. However, most factory owners regarded migrant workers as an insecure source of labor. Their stay in Lubhoo was often temporary. Some weavers reportedly stayed for only about three months before leaving, either to go back to their village of origin, or to work abroad. Instability of labor periodically disrupted production for several factories. In the most severe instances, it resulted in looms being idle for several months every year. In the following paragraphs, I will present some cases related to migration and insecurity of employment both from the side of management and workers from different factories. This will provide the basis for an analysis of the ongoing domestic and international labor migration affecting the industry in relation to the effect of remittances on the Nepali economy as a whole.

At first I found it rather curious that Ram was the first owner who specifically, and without any prompting from me, brought up labor access as a major problem for production. After all, his was the factory that was running the most consistently (24/6), by using a generator whenever there was Loadshedding. As I discussed in chapter four, most owners stated the inability to provide sufficient and stable working hours as the main reason why workers would not stay for the long term. In practice, the most fundamental reason was insufficient wages, but as far as most owners were concerned, they were already paying as much as they were able to per meter of cloth produced. Therefore, nobody I spoke with saw raising wages in order to mobilize more labor as an option.

Due to the difficulties of talking at length with factory workers (see chapter two), I only managed to talk with two out of the four weavers who were working for Ram. From what the owner told me himself, he employed three migrant weavers from Terai and one who was originally from Lubhoo. The ones I talked to were both Chaudarys from Terai. One of them had ended up in Lubhoo by "following the thing," to use Marcus' term (1998: 91-92). When the factory he was working in near Biratnagar[50] had closed down ten years ago, he asked around to find out where the looms in the factory had been sold. He traced some of

[49] Among the countries mentioned where: Canada, Iraq, Kuwait, Malaysia, Qatar and Saudi Arabia.
[50] Biratnagar is one of the largest cities in Nepal, located in far south-east of the country, close to the Indian border.

them to Lubhoo, and promptly showed up to ask for a job. He had been working there ever since. His coworker had been working there half as long (five years) and ended up in Lubhoo more coincidentally. He had first travelled to Kathmandu looking for a job, before trying his luck in Lubhoo and proving himself a good enough worker to be employed. Both stated that they left their homes because farming was not sufficient (*khet pugena*).[51]

Surprisingly, the employee who had worked in the factory the longest had *not* brought his family to Lubhoo. Instead, he had made a habit of returning home a couple of months each year, during which he apparently had someone else cover for him at the factory. Because he did not live with his family, he never ate at home. Although it was expensive, he claimed to have no choice because there was no time to make food himself while working twelve-hour shifts. His coworker did not mention similar challenges related to eating, only that it was not too difficult to manage time for his family since was working the night shift (2 a.m.-2.p.m.). However, both were sending money home to their families—one to his wife and children, the other to his parents. Regarding the possibility of going abroad for work, their answers were also slightly different. The younger of the two (32) said that he might go abroad sometime in the future, but for now he was happy where he was. His older companion (40) had a slightly different take on things. First, weaving was all he knew. Who would give him a different job? Second, just obtaining a passport cost 10,000 rupees,[52] how could he afford that when he was sending all his money back to his wife?

Despite Ram's worries that his workers might leave or make demands that he could not meet, his employees had been working for him for many years. While two of them saw working abroad as a possibility at some point in the future, they gave no indication that they would leave any time soon. Ram also stated matter-of-factly that weavers who left his factory to go elsewhere would both find and train a replacement before leaving. Like all other factory owners I spoke with, Ram did not have a formal employment contract with his workers. Therefore, any responsibility weavers might have to find their own replacement would be based on a sense of moral obligation rather than any formal or legal responsibility.

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[51] The verb *pugnu* can have several different meanings depending on the context and tense: to be enough, sufficient, fulfilled, ended, or to reach (arrive). As none of them elaborated much on this statement, it is slightly ambiguous. The two most likely interpretations are either that the available farmland was insufficient for subsistence, or that there was not enough work in farming. In any case, the most relevant course of action would be to seek work elsewhere.

[52] At the time, this was equivalent to 100 dollars. This may merely have been a number he stated to get his point across. I heard from others that a passport would cost between 5000 and 10,000 rupees, depending on how long one could wait.

Still, the fact that going abroad was a possibility in itself seemed to work in favor of the weaver's employment situation. For most owners, unless a weaver was an exceptional slacker, it made little sense to fire him. They would merely have to find a replacement and train him as well. As I will show, Ram was fortunate compared to other owners.

An owner named Shiva lost two of his weavers without notice during my stay in Lubhoo. They had simply not returned to work upon receiving their last wages. He was of the impression that they had gone back to their village in Terai somewhere, but where they had actually gone was of little consequence to him. He had little opportunity to sanction them in any way, even if he was to find them. Moreover, it was not the first time this had happened. Therefore, his only concern was replacing the labor he had lost. Although the weavers left only a couple of days before I spoke to him about this, he had already arranged for two new weavers to come from Terai through the man who was managing the daily operations of his factory.[53] Still, it would take several days before the replacement workers would come and, until then, he could not do much about his idle looms.

Another owner had not had a full complement of weavers for months—a situation that had been recurring for several years. This was also the only factory owner I encountered who was not Newari, nor was he Nepali, but an Indian immigrant who had been staying in Nepal for the last 17 years. He needed ten to twelve weavers to run his 22 looms, but the first time I spoke with him, he only employed seven. When two of his employees went abroad for work, the number was reduced to five. I managed to talk with one of them on the day before he left for Malaysia. He was going to sell "medical supplies" (said in English), though he had no relevant medical education. In Malaysia, he could apparently make forty thousand rupees a month, instead of the fifteen to eighteen thousand he was currently making in the factory. It is important to note that this weaver was originally from Lubhoo, indicating that hiring "locals" was no guarantee of long-term employment in itself. He was leaving for two or three years, but was not sure exactly how long he would stay. I had already heard of the practice of employers taking the passport of foreign migrants in order to force them to work a certain amount of time. When I asked him if he thought this might happen to him, he answered "yes" (*ho)* with a faint smile, before leaving to make the final preparations for his stay abroad. His wife was also there since she did work in the factory as

[53] This is an exception compared to other factories in Lubhoo. He employed a technician/general manager who looked after the day-to-day operations of the factory. Shiva's need for a middle-manager was mainly due to him having another fulltime job.

a winder. I asked her if it was going to be hard for her with her husband gone, to which she replied, "Now I don't know, ask me later. Maybe it's going to be hard, I don't know," before following her husband. In this factory, production varied significantly according to the season due to lack of labor. The owner said that, in general, new weavers would come to work when there was less Loadshedding, stay for about three months and then leave when Loadshedding increased. This was a challenge for many other operations as well.

The factory that was the most affected by a lack of labor, was also the smallest factory I visited.[54] The owner was a fifty-year-old Maharjan (Newari farmer caste). Initially, he did not intend to work the looms himself, but was forced to do so as he had not found anyone to work for him. He thus confounded the separation between employer and employee. For several months, the only people working his looms were the owner himself, along with his friend who would join him on occasion, when he had spare time. This had been going on for many months and recurred each year. It now seemed to be the norm rather than the exception. Still, he was confident that someone would come to seek work eventually, though he also conceded that if this did not happen sometime soon, he would have to shut down. The small size of his factory may have well been the main reason why he struggled to get hold of weavers. Consistent with the kind of piecemeal and hybrid modernity discussed, amongst others, by Ferguson (2006) and Latour (1993), the separation between capitalist and laborer, worker and manager, employer and employee were also fluid in the Lubhoo textile factories.

As I mentioned in chapter four, Govinda is another example of a Lubhoo resident who does not fit easily into any one occupational category. Being a factory-owner, tailor and subsistence farmer simultaneously, he might be called a "peasant-capitalist." By his own account and from what I saw, he did most of his farm work himself, along with his wife. He also owned the tailor shop where he would spend most of his time, though he employed others to do the tailoring. The factory was actually where he did the least work himself. Govinda was not alone in this occupational pattern. There were at least five other owners who worked farmland or had other occupations in addition to managing a factory. The three weavers whom Govinda employed, however, had followed a more conventional path to end up as factory workers.

[54] My use of the word "factory" is again very wide. This one consisted of six looms, located in the same building where the owner and his family lived.

All three weavers stated that they had left their village of origin to find work because there were already enough people to manage the farming, which was their families' main livelihood. They had therefore left to seek wage work elsewhere and send money back to their families. It was not dire need that made them leave their village. They all stated that the land their families tended was enough to feed everyone and make a small surplus to sell. This could well go some way toward explaining why they were not compelled to work much longer in the factory even though they eventually got the opportunity.

As Tania Li notes in Indonesia, it is not until the safety of having a patch of one's own farmland is removed that laborers have no other option but to work grueling ours. With Mark Liechty's (2002) study of being *Suitably Modern* in Kathmandu in mind, Li's note that large-scale plantations require an abundant and "suitably needy" population stands out (Li 2011: 287). It seems that few workers and owners in Lubhoo were "suitably needy" to become proletarians or capitalists in the strict sense of the terms. Both owners and workers had other options, giving them some degree of freedom in their working lives. In the previous chapter, I described how Vishnu sent his weavers to attend work elsewhere in order to avoid diesel expenses when Loadshedding was reduced. He was thus able to use his worker's farmland as a means of adjusting working hours in order to serve his own interests. Ram's frustration regarding the undependability of his employees points to a different kind of need than what is depicted by Li. Because he had maximized his production by running his looms both day and night, Ram's production was more affected if one of his weavers did not show up for work one day, or decided to go back to his village for an extended period. In contrast, one of Govinda's weavers was away for a month between May and June. He had gone back to Terai in order to finish his primary education and obtain his school-leaving certificate (SLC). Tellingly, when I first asked Govinda where his employee had gone, he was unsure. It was not until I asked him that he found out from the other weavers where he had gone and for what purpose. Drawing on Bateson, one could say that in factory production under conditions of Loadshedding, the flexibility of owners should match that of the workers (2000: 502, 505). Ram's commitment to running his factory fulltime seems to have created friction in relation to his weavers, who had a more relaxed approach to work than what was suitable for him. Govinda on the other hand, was better positioned to deal with his own weavers' more measured approach to work. This was also reflected in Govinda's attitude toward mobilizing new employees, should the need arise. If his current weavers would leave, he was certain that others would come. It was only a

matter of giving workers "facility" (*khamdarlai subhida dinu parchha*). As I have shown in this and the previous chapter, unstable working conditions due to Loadshedding combined with the competition of foreign labor migration made it difficult for both workers and employees to depend fully on the industry to make a living. Another relevant factor in this regard is the effect of remittances from abroad on the Nepali economy as a whole.

Effects of Remittances on the National Economy of Nepal

Chandan Sapkota (2013) makes interesting observations regarding the drastic increase of remittances to Nepal over the last decade. He shows that remittances increased so rapidly that it created signs of Dutch disease in the Nepali economy. A 1977 article in *The Economist* was the first to use the term "Dutch disease". Simply put, the term explains the reduced competitiveness in manufacturing that results from an influx of foreign currency in a relatively small economy (originally the Dutch economy). Regarding Nepal, Sapkota states: "While domestic consumption expenditures increased on average by 12.48 percent between 2000–01 and 2010–11, real GDP growth rate and labor productivity increased by just 3.43 percent and 1.10 percent respectively" (ibid.: 1324). In addition to other factors, this paradoxically led to a rise in wages due to higher consumption and consequent demands for production, as well as a shortage of workers due to high rates of foreign migration. The result was a drastic decrease in competitiveness on the international market for Nepali agriculture and manufacturing. As I have shown, these effects are apparent in the Lubhoo textile industry. Another finding which resonates with the situation in Lubhoo is that "per capita receipt of remittances generally increases with recipient household's wealth" (ibid.: 1322). Poorer families generally migrate to India due to decreased migration costs and remit relatively less than migrants going to Gulf countries, where wages are comparatively high. In reference to the situation in Lubhoo, this supports the factory owner's statements that locals who can afford to go abroad for work prefer this to working in the industry. The domestic migrants that do take jobs in the industry may be those that are "left behind," who struggle to afford the costs of foreign migration. However, Vishnu also stated that in later years, the industry in Lubhoo had become a stepping-stone for working abroad. Several other owners who were frustrated by migrant workers that they hired and gave training, only to see them leave once they made enough money to afford foreign migration, corroborated this.

Several factors contributed to the competitive disadvantage of the Lubhoo industry. The low value of the cloth produced means that wages given to weavers are relatively low. This is

further compounded by production constraints caused by the lack of electricity. A "technological fix" (Bear 2014b: 75) for the latter was to install a generator. However, this turned out to be a halfway measure. Cloth produced by generator power earned little profit for the owner, and sometimes led to a net loss. As I have shown, competing with international labor migration was the biggest challenge for some factories. Moreover, as Sapkota shows, the gargantuan size of remittances to Nepal most likely affected the industry's ability to compete on a global market, even when disregarding the remittances' connection to the continuous labor shortage.

However, the remittance economy seemed to benefit weavers regardless of whether going abroad was a feasible option for them. Even owners who were managing a more stable workforce still had a nagging concern that some of them *could* leave, spurring them to keep employees satisfied. However, this also seemed to affect the employers trust toward their employees. As far as I could tell, the owners were cautious in their attitude toward migrant workers. Because of the Loadshedding, there was little opportunity to give any kind of formal guarantees in relation to working conditions (stability of working hours, minimum salary etc.). For many owners the situation was equally insecure. They could not legally hold their workers because they had no formal employment contract. Many owners claimed to rarely make a profit, not least when Loadshedding was high, but they also felt unable to demand more from their workers and needed to be prepared for the contingency that an employee might leave at any time.

End of Chapter Remarks

It is likely that there was only a small number of female weavers in Lubhoo for a variety of reasons. Balancing fulltime factory work with expected responsibilities in the home would be a challenge for most, not least with the unstable working conditions caused by Loadshedding. On the other hand, there was a shortage of weavers. Women who managed spare time after taking care of domestic responsibilities would presumably be a good source of part-time labor in the factories. That being said, in line with my focus on mobility in this chapter, the tacit assumption that domestic work was women's responsibility can be seen as limiting women's mobility in general. This in turn affected factory owner's ability to *mobilize* women as a source of factory labor. For factory owners then, their predominantly male workforce was in a sense *too mobile* for their needs, leading to labor instability in many factories. Vishnu touched on issues of gender equality during a conversation about the

Lubhoo industry in general.[55] He stressed the importance of gender equality, though his reasoning was that of a business owner. He said that there are nearly thirty million people in Nepal. More than fifty percent are women. If they are all sitting in their homes, there will be no progress *(bikaas hundaina*).[56] Vishnu employed a single female weaver who was working alongside her husband. According to him, that was the only way she would be able to work in his factory. Man and wife should share housework. That way, both could have wage work. He seemed to connect this to Nepal's status as a relatively poor country, when he compared Nepal to Norway, my own country of origin: "It's like this in your country, no? Equal rights. That's how it should be" (*Tapaaiko desma testei chha, hoina?* Equal rights. *Testei huna parchha*).

Migrant weavers were in a sense in a doubly difficult situation. Because they were immigrants to Lubhoo, they had few local connections to draw on. Migrants also, as far as I know, had no land in Lubhoo. This stands in contrast to most local workers who reportedly tended farming plots to supplement income from the factories. Though not all migrant workers I talked to saw their stay in Lubhoo as merely a transitory period, few had plans to stay in the area for the long term. Living in rented rooms, all migrants I spoke to were sending most of their surplus income back to their families. Those who did save up money seemed to do so in order to leave Lubhoo for work abroad. This left little money or motivation to settle in Lubhoo on a more permanent basis. In this regard, their situation is similar to that of the Chinese *dagongmei* depicted by Pun (2005). The *dagongmei's* stay in the city was tiring in the extreme, but the work was endurable because it was always meant to be temporary. Migration from the rural periphery may also constitute a way of escaping hegemonic kin relations through an individual source of income, as well as an opportunity for self-exploration and self-growth in a modern city (ibid.: 60–71). Then, perhaps there is also a different kind of asset than money to be gained from having lived and worked near Kathmandu for a period.

At the end of the last chapter, I noted the importance of land ownership, a recurrent theme in this chapter as well. Thus far, I have mainly focused on the economic aspects of the land as a "safety" should other sources of income fail (Li 2011: 295). Though this is surely important, it is probably not that simple for migrants who are forced to return to their place

[55] It is remarkable that Vishnu was the one who spoke of this more specifically since he was arguably the owner that was the least affected by labor instability.
[56] *Bikaas* can mean both "progress" and "development." See Pigg (1992) for an enlightening discussion of this term.

of origin if their stay in the Kathmandu valley should not work out. As Parry (2003) notes based on migration narratives from an Indian steel town, the village may not be such a tempting place to return to after having migrated. By comparison, the village may be seen as an "area of darkness" (ibid.: 221). Stacy Pigg makes a similar argument from Nepal. She argues that Nepali development discourse has created a generic image of village life and "the villager" as being on the periphery of *bikaas* (development). It is therefore antithetical to more developed, cosmopolitan, urban life. Villagers cannot see their own lack of *bikaas* because of their "villageness." Thus, the very act of distinguishing between those who have *bikaas* and those who do not becomes an implicit way of establishing oneself as "modern" in a Nepali context. An extended stay in the Lubhoo textile factories near Kathmandu, despite vagarious and draining working conditions, could be another way of becoming a *Suitably Modern* Nepali (Liechty 2002). I now turn to a chapter also dealing with the influence of international markets, but with a more particular focus on supply and sales.

Chapter 6:
Scale and Markets

As I showed in chapter five, Loadshedding compounded the industry's difficulties in competing in an international labor market. This was also an issue in sales. There seemed to be a disjuncture between local knowledge and knowledge of the commodity chain that the industry was a part of. I will start with a broad description of the supply and sales markets that the industry was incorporated in as they were used, understood and experienced by Lubhoo factory owners.

Local Influence of a Global Market

As mentioned in chapter four, most of the thread used to produce cloth in Lubhoo was imported from India. Some years prior to my fieldwork, imported thread became more expensive for an extended period, though the reason behind this was unknown. Consequently, making a profit at that time became very difficult for most, and impossible for some. This led to several factories closing their operations temporarily and some closing for good. As I will show, a lack of knowledge regarding markets was not limited to the supply side. It was also an issue in sales.

Most owners considered the domestic sales market to be small. Some estimated that they were selling around ten percent of their products to the Nepali market, some even less, and they were not confident in improving this statistic. In terms of price, the cloth they were producing was only marginally more expensive than foreign imports. However, the slightly cheaper clothes that were imported, predominantly from India and China were, according to owners, often mixed with synthetic fabrics or made of thicker cotton than they were able to produce. Therefore, despite similar costs, the industry was largely outcompeted by foreign products in the domestic market. Regarding the foreign market, Vishnu and Ram stated independently of each other that garments made from their cloth were "use and throw." They had both heard that because these clothes were comparatively cheap on the European and American market, people were buying them for "three, five dollars," using them for a couple of weeks and then throwing them away once they become dirty. This reportedly enabled people to wear new clothes every week and change their styles according to "fashion" continuously. Essentially, the trait that made these clothes undesirable to Nepalis was the same feature that made it desirable to foreigners. The

impression of most owners was that Nepalis need their clothes to be strong because they cannot afford to buy new things very often. They assumed the opposite to be true for the foreign market, though both Ram and Vishnu admitted that they could not be certain if this was actually true. Nevertheless, I would argue that whether people *actually* use the clothes in this way is not important in this context. These two owners were essentially convinced that their business was enabling overconsumption in other parts of the world.

Their inability to be certain of this information also speaks to their disembeddedness in relation to the global market they were supplying, in both a social and economic sense (Hann and Hart 2011: 70). Their diffuse idea of what people are actually doing with their products shows a substantial lack of knowledge regarding their end consumer and thereby the commodity chain they are part of. Owners who were not selling their products directly, but through an intermediary, had even less information regarding where their products would end up and how people were using them. Most owners and workers in the industry had never been abroad. The few descriptions I heard of foreign countries were rather diffuse and seemed slightly exaggerated. This, combined with the fact that they did not relate directly to foreign buyers was a big challenge for business.

The Mexican textile manufacturers depicted by Frances Rothstein (2006) has many similarities to the industry in Lubhoo. In both cases, they organized production informally; there was close contact between owners and employees, who shared precariousness of income. However, a significant difference is that the Mexican manufacturers continuously had to adjust their production according to the needs and wishes of foreign companies. The connection between those producing and those purchasing goods was not as direct in Lubhoo. Even if it were, it is not given that the Lubhoo industry would be able to have as flexible production[57] as the manufacturers in Mexico. Nonetheless, these are market factors that producers should adjust their production after. Taking cotton plantations in India as the starting point of the commodity chain, the factories in Lubhoo are the third link after purchasing readymade thread from across the border. After this, they usually sell their products to Nepali garment factories. The next link in the chain would then be a clothing

[57] "Flexible *production*" in this case denotes continuously changing production according to demand. This is not necessarily the same as the Batesonian interpretation, though there are many similarities. Rothstein's arguments suggest that "flexible production" leads to increased "uncommitted potentiality for change" (Bateson 2000: 505) at the level of global markets, but not necessarily at the level of small informal firms. "Flexible production" may in fact result in *less* flexibility for small firms in the Batesonian sense as they become dependent on continuously changing production, without any opportunity to reverse this development (Rothstein 2006: 68-9, 78-9).

store near the tourist district of Thamel, who would then sell the clothes to foreign buyers. Alternatively, garment factories would sell to buyers directly.

It seems that there was a dual disjuncture regarding knowledge of markets in the Lubhoo industry, both on the side of supply and sales. The reportedly sudden and unexplained rise in Indian thread prices added to the precarious condition of the Lubhoo industry. In chapter four, I attributed the continuing small size of factories to slower "cycles of capital" caused by Loadshedding. This was likely preventing some factories from expanding quickly and outcompeting smaller operations. Therefore, around one hundred factories were able to keep going on the edge of viability, most likely providing income for a larger number of people. The inability to endure price fluctuations in thread was a downside to the small size of factories. Smaller operations struggled more to cope with added production costs and had comparatively less information with which to predict market fluctuations.

As I also noted in chapter four, Govinda said he would not induce his workers to produce more when Loadshedding decreased. His weavers generally produced enough to fulfill the requirements of the cloth trader to whom he sold his products. If production fell below that, he would need to do something about it, but so far, that had not happened. He could therefore be content with letting the weavers manage themselves, although his two other sources of income (tailoring and farming) were also important in this regard. Govinda's attitude toward his factory was, to put it succinctly, relaxed. By comparison, Vishnu and Ram did not have the opportunity to let their workers manage their own working hours to the same degree. They, like several other owners, had their own store in Kathmandu from which to sell their cloth. As mentioned in chapter four, this compelled Vishnu to temporarily increase production if he got an unusually large order, or his stocks had gotten low. Ram also raised concerns of fulfilling orders on time, though he had less leeway in adjusting the amount of production in his factory. Govinda had no direct connection to sales from his operation. Yet, despite Govinda's disinclination to increase production as much as possible, he was also clear on the fact that the period when Loadshedding decreased was the time of year when both he and his weavers could make the most money. There seems to be a correlation between being more closely connected to the sales side of business (market exchange) and asserting more control over production. After spending three days in Kathmandu to get an impression of sales from the factories, it became evident that the competitive side of the industry was more visible there than in Lubhoo.

Overheated Markets in Thamel

Figure 10: Cloth on display in a store (photo: author)

Thamel is the name of the main tourist area of Kathmandu. Nearly every single business in the Thamel area caters to tourists. Whether it is a hotel, restaurant, clothing store, trinket store, or a "supermart," all are oriented toward luring the odd, usually overwhelmed, tourist into buying something. Thamel's most characteristic trait is perhaps the sheer density of shops. Finding a specific place can be a challenge as the amount of signs cluttered over every square inch of every single building makes it very hard to distinguish a particular sign pointing toward a specific destination. However, ten minutes' walk north of the pressingly commoditized tourist core, are businesses that do not cater to tourists in the same way, or seemingly to anyone at all. These are the sales outlets of cloth factories, not only from Lubhoo, but also from Bhaktapur and Thaiba (two other areas in the Kathmandu valley). The places used for sales are essentially storage units located at the bottom floor of buildings on each side of the narrow streets. The shop is closed by rolling down an iron sheet of metal, which is secured at the bottom with a padlock. Outlets are mostly undecorated, only fitted with two or three chairs and a desk. There may be a sign written in Devanagari on the

outside announcing the name of the shop, but often there is no sign either. It is clear that these outlets are not catering to strangers, foreign or not, but to people who already know what they are selling and those who manage them. The most eye-catching features of these outlets are the products on sale. A pile of cloth in myriad colors can be found in a corner of all stores, though again, without any obvious attempts at luring in customers. It has the look of a place that is strictly business, without even the pomp and fluff of advertisement. Factory owners themselves run most outlets from 10 a.m. to 4 p.m. every day except Saturday.

I found it to be a place where the cynicism of markets was more dominant than back in Lubhoo. Owners had a different focus here. The four factory owners I spoke with the most near Thamel quickly touched upon problems resulting from increased competition. Two of them even predicted the downfall of the industry unless something was done to prevent the constant underbidding between outlets. The industry was depicted as being locked in a "race to the bottom." In Bateson's terms one could say that wholesalers were engaged in commercial rivalry that lead to schismogenesis of the symmetrical kind (2000: 69). In other words, the act of underbidding rivals by one seller led to an increase in the same behavior by others, culminating in each seller trying to underbid everyone else. In the end, everyone seemed to lose out because of it, potentially leading to a market-based tragedy of the commons. All sellers I spoke to were aware that this was happening. Still, this did not seem to prevent them from doing it themselves.

One owner in particular stressed the proliferation of stores in recent years as contributing to this development. According to him, there had been only 5 stores 15 years ago, but now there were around 30 altogether: 21 from Lubhoo and the rest from Bhaktapur and Thaiba. Notably, this owner had also been working in the owners association for the last five years. However, he did not point to the number of factories itself as a problem. Both he and an employee working in another store[58] sketched a scenario where potential buyers would go from seller to seller, getting prices from each one and then going back again in order to make them underbid each other. It would seem that the number of stores in itself was an important factor here. With so many of them, selling from factories located in three different areas, competition had become more intense. When I suggested that perhaps an agreement on a minimum selling price should be arranged, it was dismissed off-hand. Katharine Rankin (2004) argues that an aversion toward cooperation is an aspect of Newari business culture. Rankin found what seemed to be a pervasive distrust of people outside the

[58] This was Vishnu's store. His store was an exception as the owner himself generally managed sales.

household regarding enterprise in the town of Sankhu. Her Newari Shrestha informants claimed that they would rather endure low profit margins and compete in several identical businesses than cooperate with unreliable relatives, friends and neighbors (2004: 115-19). Notably, this aversion toward cooperation was pointed to by some as an important factor for the recent economic decline in Sankhu. However, not every owner in the Lubhoo industry was against cooperation. One owner even saw an unwillingness to form an agreement across factories as immoral.

When I spoke to him in Lubhoo, an owner named Krishna singled out one wholesaler and factory owner in particular as amplifying the troubles of smaller factories. In addition to selling cloth from his own two factories, this person[59] was importing thread, and selling cloth, for 15 other factories. The operation of the accused was so large that he could negotiate a better price for imported thread and had a larger selection of cloth available than most others. In other words, he had an advantage in economy of scale. Therefore, he could afford to sell his products with an even lower profit margin and still make a substantial income. According to Krishna, he and owners of several other factories had approached him in order to make an agreement for a collective minimum price for selling cloth. The answer from the owner/wholesaler was reportedly that the others could agree on whatever price they liked, but he would continue selling at his current rate. It became clear that this was personal when Krishna stated that he previously liked and had much respect for the owner/wholesaler, but now he did not like him because it was clear that he did not care about others. While I did talk much with this owner/wholesaler, I decided against taking these accusations up with him. Firstly, I did not want tensions between owners in Lubhoo to be aggravated because of my research. Secondly, I would not be comfortable with naming Krishna as the source of these accusations. I saw it as likely that he would get into difficulties if I did. Lastly, referring these kinds of statements from a source, which I then refused to name, would be unfair to the accused. The accuracy of these claims notwithstanding, the fact that *perceived* unfair business practices led to an owner losing respect for another is interesting.[60] Notably, the owner/wholesaler was a much-respected man in Lubhoo. Before seeking him out the first time, I was told that referring to him with the common politeness-suffix "*ji*" would not suffice because this could also be used with

[59] I have redacted the name of this person, not even using a pseudonym, in order to ensure anonymity.

[60] Despite Krishna's claims that this wholesaler was not considerate of others, he did in fact sell some cloth to Ram. This helped Ram expand the range of cloth he had on offer in his shop. Though this was mutually beneficial, the seller was in effect supporting his competition.

people of one's own age and rank. Therefore, it would be more fitting to denote him with the suffix "sir." Even Krishna himself referred to him as "master" during the conversation where he made his accusations. An alleged parochial focus on *value* (i.e. money), combined with a refusal to heed communal *values* (being considerate of others) was deemed as immoral. Succinctly put, this shows that there was no such thing as "just business." Particularly in the small-scale industry of Lubhoo, business is personal.

Consequences of Global Market Integration

I will now give a brief summary of the influence of Loadshedding and the industry's integration in a global supply, sales and labor market. The following list is a summary of production constraints in the Lubhoo factories. Though I have placed points under a main heading, the reader should note that constraints are not as neatly compartmentalized in practice. Constraining factors often overlap and reinforce each other.

Factors limiting production

- Lack of electricity
    - Limited time available for production.
    - Unstable working hours.
    - Unstable amount of production.
    - Inability to supply products on demand.
    - Challenging for employees to make a living wage.
- Small scale of factories
    - Inability to compensate for lack of electricity via generator use.
    - Inability to fulfill larger orders.
    - Increased vulnerability of operation.
    - Decreased viability of investing in new(er) machines (looms).
- Lack of labor
    - Idle looms: Production varies according to seasons.
    - Wages from foreign labor migration are higher than weaving work (despite migration costs).
    - Extra work of consistently having to train new weavers.
- Aspects of culture and social organization
    - Aversion to cooperation between factories.
    - Division of labor along gender lines (de facto excludes most women from work).
- Disjuncture between local knowledge and international markets
    - Small share of domestic markets due to imported clothing.
    - Long term planning according to labor, supply, and sales markets is difficult.
    - Vulnerability to price fluctuations in thread.
    - Lack of consistent demand for products.
    - Inability to adjust production according to buyer and end consumer preference.

This schematic representation clearly lacks nuance, but sums up the complexity of the situation in the Lubhoo industry. While many of these constraining factors stem from issues of global market integration, the situation would not necessarily be any better without the influence of extra-domestic actors (given that this was at all possible). Most importantly, there would most likely be even less electricity available had it not been for the decade's worth of foreign aid given to Nepal.[61]

While this discussion is essentially about effects of globalization writ large, it would be mistaken to assume that having to navigate and relate to external forces and actors is something new in Nepal. Indeed, the argument has been made that Prithi Narayan Shah conquered and consolidated Nepal into a single kingdom in order to prevent an external power from gaining control of the area, namely the British colonial power which had conquered an internally divided India (Liechty 2002: 40-41; Rankin 2004: 72).[62] It is important to emphasize this in order to nuance sufficiently Nepal's history of connections outside of the country's borders, because Nepal has long been romanticized as an isolated and exotic place. This image does not do justice to the complex history of the country (Liechty 2002: xi, 40; Whelpton: 3-5). The importance of emphasizing this is made comprehensively by Eric Wolf ([1982] 2010). If Latour (1993) showed that "we have never been modern," then Wolf showed that "we have never been local." This is not to say that nothing has changed in Nepal's connection with the rest of the world, but rather that it is more of the same. Put differently: The change is quantitative rather than qualitative.

Loadshedding Time and Economic Time

As I showed in chapter four and five, both the objective conditions for production (amount of electricity available) and the potential workforce available to the industry varied widely during the course of the year. However, the abstract time-reckoning of capitalism (Bear 2014: 7) grinds on, irrespective of any particular local conditions. That is at least how it seemed from the standpoint of cloth wholesalers in Thamel. However, there was only a vicarious connection between those who bought garments and the factories in Lubhoo. Therefore,

[61] See Gyawali (2003: 196-243) for a discussion on the roles of the Nepali state and foreign aid related to hydropower development in Nepal. Notably, Gyawali argues that it takes much more than just capital to develop hydroelectricity. See also Sovacool et al. (2013) for a more recent overview.
[62] Note that John Whelpton refutes this view (2005: 37). Nevertheless, the argument that relating to actors from far-flung locations is not new in Nepal still stands.

what appears as the steady pace of "global economic time" may only have been a mirage caused by the disembeddedness of local production and sales in relation to the international markets that the Lubhoo cloth factories were supplying. No wholesalers or factory owners to whom I spoke had any stable arrangement to sell to a specific garment factory or clothing store. Rather, they responded to demand when it came. Most sellers also tried to compensate for their limited production capacity by keeping a stock of cloth available. Loadshedding complicated the *logistics* of production in that it became much harder, if not impossible, to make cloth on demand in the manner depicted, for example, by Rothstein (2006). While logistics is now used in myriad ways related to coordination and planning in general, I am here referring to coordinating and planning the flow of resources in a production regime. The friction that this resulted in was revealed in particular for Ram when he noted his frustration in having to satisfy foreign buyers who had little sympathy for the challenges created by Loadshedding and unstable transportation conditions. He was also not alone in noting that previous problems of delivering orders on time had decreased the dependability of the industry in the eyes of buyers, which had held back future demand. As I have shown throughout this thesis, both control and predictability in resource access were lacking in the Lubhoo industry. It was apparent in access to: raw materials (thread), labor (weavers), transportation (strikes and customs) and demand (customer contact). However, as I have argued: The most fundamental of all was access to energy (electricity). Combined, all these factors made the logistics of the industry challenging to organize efficiently. It created extensive difficulties in the *timing* of different parts of the production process.

Bear's reflections on the "heterochrony" of modern time (2014: 7-8) is a good fit to make clear the local frustrations stemming from the heterogeneous capitalist supply chains discussed by Tsing (2009). Specifically, I am referring to the incompatibility between capitalist, social, and Loadshedding time discussed explicitly in chapter four and more implicitly in chapter five. It is a paradox for the Lubhoo textile industry that it must relate to a global market that operates on the assumption of standardization given the issues caused by local production constraints. Apart from Loadshedding, other domestically particular

constraints mentioned were the *bands*[63] that were instigated by Maoist cadres during, and in the aftermath of, the Nepali civil war[64] as well as the bureaucracy related to exporting products through India. The problem of *band*s had not been a problem to the same extent in the years leading up to my fieldwork, but transporting goods via India was variously noted as problematic still. We could call this a "clash of scales."[65] The global scale of garment supply chains are difficult to link with local idiosyncrasies of production like the conditions in Lubhoo without creating some degree of friction (Tsing 2005).

In chapters four and five, I showed that Loadshedding reduced opportunities to adjust production (cloth type and amount) on short notice. While I also noted that not all consequences of Loadshedding are necessarily negative, I should stress that this interpretation is my own. The experience of Loadshedding for people working in the industry was that of frustration, in particular related to a lack of opportunity to decide when to work. There is an aspect of autonomy related to this. Time off work could be seen as a boon for those who feel overworked, but affected workers by no means experienced the involuntary idleness caused by Loadshedding as positive. Defining energy as "the ability to do work," one could say that the lack of electricity (energy) impeded *the loom's* ability to do work, whereas the weaver's ability and motivation to work was unaffected. At a fundamental level, it is this asymmetry between the capacity of people and the capacity of machines to work that often made the conditions in Lubhoo frustrating for those involved. As I have shown, this had ramifications throughout all parts of the industry. What once started as an agricultural aside had now become industrialized (although idiosyncratically) and had to compete on international markets, even though locally particular constraints made this difficult. Perhaps the point I am making here is made best by returning to Bateson's reflections on "Ecology and Flexibility in Urban Civilization" (2000: 502-13). For the industry, there was no going back from the link to global markets. Both products and people were now going out of the country. As Rothstein's (2006) analysis suggests, large-scale markets favor large-scale firms. Thus, petty capitalists struggle to cope. As Tsing (2012)

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[63] A *band* could be translated as a "strike," but a more apt characterization might be a "shutdown." The term *band* is related to the verb *band garnu*, meaning "to close." This resembles the way *band*s worked in practice. A combination of road blocks and forced closure of businesses by Maoist cadres quite literally shut down Kathmandu during a *band* that occurred during my fieldwork—turning Kathmandu into a ghost town for a day. Notably, the *Band* was instigated due to a controversy regarding the raising of petrol and diesel prices. In other words, it could be seen fundamentally as a dispute over energy access.

[64] For a short introduction to the conflict period see Einsiedel, Malone, and Pradhan (2012).

[65] Credit for this phrasing goes to Thomas Hylland Eriksen.

argues, "scalability" was fundamental to business practice in the twentieth century. While she also argues that global supply chains replaced the hegemony of "economies of scale" in the twenty-first century, this does not mean that economies of scale are no longer significant locally or regionally. In Lubhoo, the importance of economies of scale is shown most explicitly in the critique leveled at the (anonymized) factory owner/wholesaler. The size of his operation gave him certain advantages stemming from economies of scale compared to other operations of comparatively small size. However, making use of these advantages seemed to be deemed unjust by others. An aspect missed by Tsing in her otherwise excellent analysis of the history of "scalability," is that scaling up also requires access to vast amounts of cheap energy, a point which Hornborg (1992; 2006) thoroughly makes. The case of the Lubhoo industry shows this. While the industry had expanded in later years, expansion came in the form of proliferation of smaller factories, not the scaling up of a few operations. As I have argued, the lack of electricity was likely a very important factor in this development. Because the industry now had to compete in a global market, the general absence of economies of scale in Lubhoo had also become problematic. Still, the industry in Lubhoo had so far been able to negotiate these conditions, albeit haphazardly.

Concluding Remarks: Electricity as Lifeblood and Anemic Modernity

> Communism is Soviet power plus the electrification of the whole country, since industry cannot be developed without electrification (V.I. Lenin [1920] 1966: 419).

I will now summarize some of the overarching themes and arguments presented in this thesis. It is time to comment on its main emphasis: Access to electricity as a difference that makes a difference. Succinctly put, I would claim to have shown that difference in access to electricity does indeed *make a difference*. However, the difference it makes depends on many other factors.

In the household (chapter three), I showed that electricity is of fundamental importance regarding the use of technology, specifically electric lighting and household appliances. Limitations in access to electricity also limited the usefulness of these objects to the extent that an alternative, non-electricity-requiring means of doing household work had to be available, and was often used. The example of Diddy shows that electricity is a fundamental part of making use of a labor regime based on the use of machines as opposed to corporeal labor. Diddy's job was, in essence, to make up for the deficit in electricity by doing tasks that machines might otherwise do more easily (e.g. the washing machine or the vacuum cleaner). Had it not been for the Loadshedding, it is by no means given that Diddy would still have a job since her labor could more easily be replaced by machines. However, corporeal labor was still cheaper and more reliable, at least in the household. This meant that her job was still needed, which gave her a wage that enabled her to pay her rent and take care of her son. In Diddy's case, increased use of machines could mean that she no longer had a livelihood. Regarding the production regimes in the factories (chapter four), I showed that the continuous coming and going of electricity led to challenging working conditions. The rhythms of Loadshedding time determined the rhythms of labor. This required considerable effort from weavers to mediate, in one case making them forgo eating in order to work. In contrast, the weavers in two factories that were powered by generators did not have the same issues. However, the owners of the two factories producing by generator also exerted more control over the working hours of their employees, indicating that enhanced power to produce (energy access) also enhanced the power to control (exerting authority over others).

In a related argument, I indicated that Loadshedding likely played an important role in keeping the number of factories high and their size small, which again had various other implications. In chapter five I showed how Loadshedding was implicated both in a lack of opportunity for women to take wage work[66] and in the persistent labor shortage in the industry. The former was also a result of a taken for granted division of labor along gender lines and the latter was arguably mainly a result of the popularity of foreign labor migration. The last chapter then dealt with issues of local competition and problems of relating to international sales markets given the particular production conditions in Lubhoo.

It is important to note that Loadshedding *in itself* is not the cause of the state of affairs I have described. However, it is possible to trace its influence throughout, not only the industry, but also in other areas of life. I stress this in order to avoid being interpreted as making technologically deterministic and thus reductionist arguments regarding energy access (c.f. White 1943). As I have shown, Loadshedding had a profound influence on life in Lubhoo, though this does not mean that "progress" necessarily would follow if electricity supply became practically limitless. Many things would likely change, but in what way and for whom remains an empirical question. Still, as Winther prudently notes regarding socio-economic changes that came about after the electrification of a Zanzibari village: "The gains have not benefited various groups equally" (Winther 2011: 100). For the Lubhoo industry, it is likely that a decrease, or outright disappearance, of Loadshedding would benefit relatively large operations. It would thus benefit people who are already in a privileged position, most likely to the detriment of others who are not in a position to take advantage of the boons that unlimited electricity supply provides. Furthermore, it is not given either that production in the industry overall would increase greatly. For example, it is by no means certain that owners would be able to persuade their workers from going abroad, even if more electricity became available. In this regard, I also argued that neither the owners nor workers in the Lubhoo industry seemed to be "suitably needy" to become fully dependent on weaving to make a living. Another way of phrasing it, drawing on Nobel laureate in economics Herbert Simon (1956), would be that people working in the Lubhoo industry are "satisficers", not maximizers. Simon argues that people mostly settle at an option that appears satisfactory and/or sufficient, rather than "maximizing" as such. The three weavers in Govinda's factory seemed to follow this logic. Rather than maximizing their salaries when

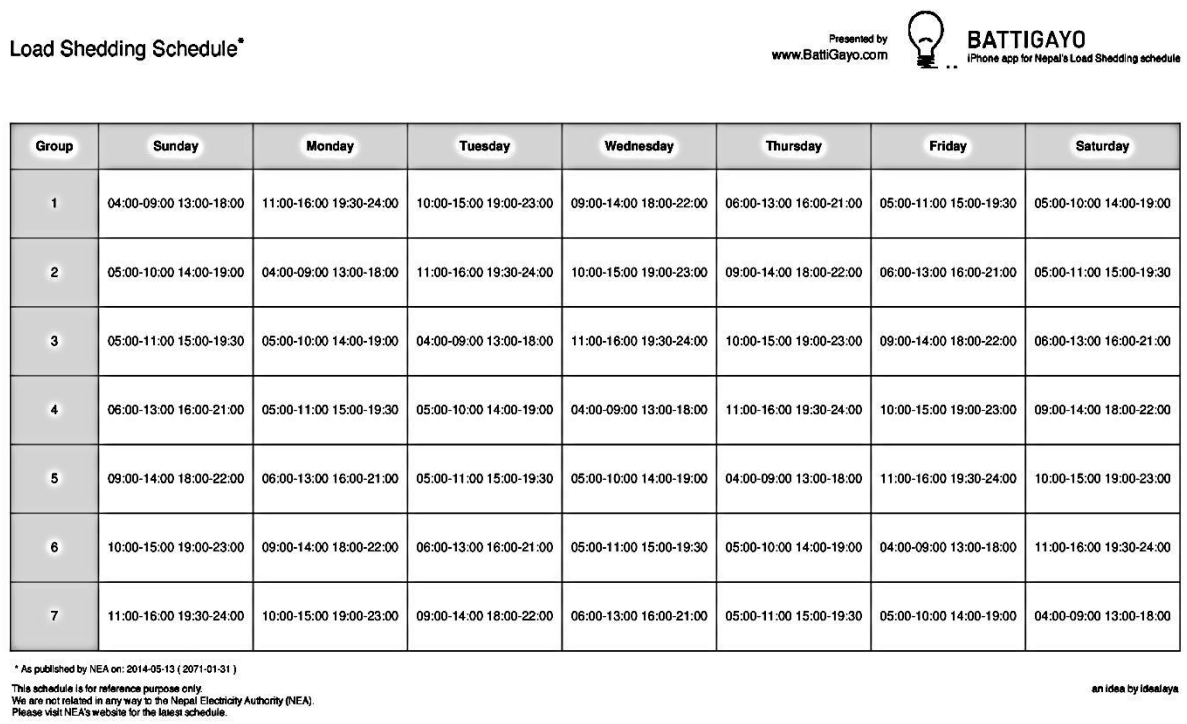
[66] However, note that in Diddy's case and the women working with drafting, Loadshedding actually played a big part in making their work necessary. In other words, increased electricity supply might cause constraints for some, rather than creating opportunities.

they had the opportunity to work more, they were "satisficed" with working a bit more, but at less strenuous hours.

I have argued in various parts of my thesis that we might think of electricity as the lifeblood of industrial modernity. This metaphor is apt in particular because of the continuous coming and going of electricity in Lubhoo. In chapter one I showed that energy, particularly electricity, in Nepal is scarce. In chapter two, I provided a short overview of the history of the Lubhoo textile industry. I argued (tentatively) that as long there is a shortage of electricity for the industry, a complete transition to weaving as a source of income will be challenging. The lack of electricity makes textile production in Lubhoo a fundamentally insecure profession. Therefore, people needed other sources of income as a safety. In chapter three, I drew on Niko Besnier who observes that not everyone is equally *invested* in modernity, to argue that buying a battery is a more literal investment in modernity. Electricity is needed to power different "objects of modernity" (newer technology). Without electricity, these objects are (metaphorically) lifeless. Thus, shifting periods of access made for a stop-start rhythm in many areas of life, particularly regarding the use of machines. In chapter four, an important case is what happened in different factories when more electricity became available during the wet season. I argued that the seasonal rhythms of the factories more resembles the stop-start work of agriculture rather than modern industrial work, and that the main reason for this was the lack of electricity. The looms in factories that did not receive an infusion of energy from a generator could be considered anemic in that their operation was fitful: They were consistently deprived of their lifeblood when Loadshedding set in. Traits that may be associated with modern industry were there, but in a disjointed form. Many factories were also affected by an anemia in a more literal sense: A lack of bodies needed to work (chapter five). An important cause of this was also the lacking production capacity of looms as weavers were unable to work when Loadshedding set in. Then, in the last chapter, I discussed scale and markets in relation to the Lubhoo industry. The industry as a whole was mostly supplying a global market and selling to foreign buyers. These foreign buyers can be said to represent global market forces that are not, or cannot be, overly concerned with local conditions. This epitomized issues related to the incompatibility between capitalist time and Loadshedding time. The lack of electricity slows down the industry, making it hard to connect reliably to the global market, which operates through the abstract time-reckoning of capitalism.

The metaphor of electricity as modernity's lifeblood can go some way toward exploring the relation between electricity and modern life. If electricity can be thought of as the lifeblood of modernity, I would posit that the conditions in Lubhoo may be characterized as "anemic modernity," at least in a technological-economic sense. Periods of intense activity, when electricity surges through the arteries of the state grid, are disrupted by periods of idleness when anemia (Loadshedding) sets in. Therefore, modernity in Lubhoo is fragile, and it will likely remain so—at least until more electricity is available.

Appendix:
Image of a Loadshedding Schedule



Load Shedding Schedule*

Presented by www.BattiGayo.com

BATTIGAYO
iPhone app for Nepal's Load Shedding schedule

Group	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00
2	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30
3	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00
4	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00
5	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00
6	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00	11:00-16:00 19:30-24:00
7	11:00-16:00 19:30-24:00	10:00-15:00 19:00-23:00	09:00-14:00 18:00-22:00	06:00-13:00 16:00-21:00	05:00-11:00 15:00-19:30	05:00-10:00 14:00-19:00	04:00-09:00 13:00-18:00

* As published by NEA on: 2014-05-13 (2071-01-31)

This schedule is for reference purpose only.
We are not related in any way to the Nepal Electricity Authority (NEA).
Please visit NEA's website for the latest schedule.

an idea by ideaslaya

The Loadshedding schedule as it appeared on the website "battigayo.com" on May 13 2014.

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