

Contemporary Architecture
within the Tibetan Diaspora
in India

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Abbreviations

CTA:

Central Tibetan Administration – the Tibetan government in exile founded by the Dalai Lama in 1959

RWA:

Resident's Welfare Association – a political instance representing the inhabitants of New Aruna Nagar

Tibet:

A state with vaguely defined borders on the Himalayan plateau, that legally existed until 1949

PRC:

People's Republic of China – the communist state called out by Mao Zedong in 1949

TAR:

Tibet Autonomous Region - a Chinese province that roughly covers the area of former Ü-Tsang

TCR:

Tibet Cultural Region – those areas that are home to Tibetan culture and people

TAP:

Tibet Autonomous Prefecture - prefectures within the PRC that are culturally Tibetan and enjoy more autonomy

CCP:

Chinese Communist Party – China's only and ever-ruling political party

Abstract

This thesis addresses the development of Contemporary Architecture within the Tibetan diaspora in India over the past 60 years in exile. Tibet had been a largely isolated and rural place, the most religious conservative state in the world and developed unique architectural typologies. After the Chinese invasion in 1949, however, over a hundred thousand Tibetans fled to India and became a modern, open-minded society.

Based on a profound investigation of the cultural, political and economic circumstances that Tibetans in India and China are exposed to, this research compares vernacular Tibetan spatial patterns with those in the diaspora in India and then relates them to contemporary architecture in China's Tibet Cultural Region. Different kinds of Tibetan settlements in India and China refer differently to vernacular building tradition. Furthermore, this thesis explores, what social problems the lack of cultural sensibility in architecture creates and how Tibetans uprooted in different settlements reconstruct and individualize their space.

The investigation aims to understand, how sensible, historically informed preservation and continuation of Tibetan building culture could be facilitated. Subsequently, I want to explore, to which extend an architectural intervention could trigger a sense of belonging within the Tibetan diaspora and what a value-based, culturally sensible modernization of Tibetan architectural practice could look like.

Keywords:

Tibetan diaspora

vernacular building culture and identity

migratory architecture

reinterpretation, assimilation and modernisation

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Introduction

In times of globalization, massive migration and acceleration of political and cultural changes, it seems interesting to analyse more deeply, how and to which extent those processes are reflected in the built environment. Accepting architecture as the most direct physical embodiment of social and political circumstances, at the same time being a major tool to implement and express ideology, its role within any process of transformation cannot be underestimated.

Considering the issues of globalization and migration, the development of Tibetan architecture over the past 60 years is a particularly interesting case. Tibet was almost entirely isolated from the outside world until 1949 and therefore developed unique, easy-to-recognize architectural typologies. However, after the Chinese invasion to Tibet in 1949 and the subsequent first migration wave to India, Tibetan architecture couldn't develop as independently anymore. Tibetans remaining in China were object to enormous political pressure. Accordingly, the expression of Tibetan nationalist or Buddhist values through architecture was strictly prohibited. More and more, Chinese architectural tradition was projected on Tibetan building culture. In India, on the other hand, their main destiny of exile where around 80 per cent of the Tibetan diaspora live, Tibetans became exposed to an entirely new cultural, economic and natural environment.

The diaspora is unique in many ways. Tibetans were a tremendously religious and conservative people that, in exile, has undergone significant social changes and became a modern, western-oriented society within a comparably short period of 60 years. Besides that, it has the second oldest government in exile and is one of the best-organized diasporic communities in the world. Therefore, this thesis will also briefly discuss the socio-political circumstances under which architecture has developed – both in Tibet before 1949 and in India after that.

Previous academic research has been done on Vernacular Tibetan Architecture. Institutions such as the Tibet Heritage Fund were aware of the danger to lose Tibetan architectural culture very early and took care of its preservation and documentation. Tibetology is a recognized academic discipline around the globe and Tibetan tradition and culture are broadly discussed among scholars. Equally, the Tibetan diaspora has been the topic of many pieces of research.

However, barely discussed in academia is the development of Tibetan architectural culture over the last 60 years, since the situation of 150,000 Tibetans in exile and 6,000,000 remaining in China constantly changes due to political circumstances. Especially secular architecture in both the Tibetan diaspora and in China is barely discussed. International attention on Tibet is mostly of religious and spiritual nature. According to Yeshe Choedon, professor at New Delhi's Jawaharlal Nehru University, „hardly anything about the Tibetan refugee community has been documented so far. Most times, the focus is only on the political struggle.“ (Purohit, 2019)

This thesis is meant to investigate the recent developments of secular Tibetan architecture over the past 60 years and to reflect on how the specific socio-political circumstances have affected the preservation and transformation of vernacular form and material.

In a brief introduction, this thesis will address the situation in Tibet before 1949, especially concerning its cultural influences and values, as well as the conflict with China, the history of migration, the government in exile and the legal situation of Tibetans in India.

Afterwards, four vernacular Tibetan archetypes will be analysed: first, the nomadic black tent as the most initial form of Tibetan architecture; second, monastic architecture as the main influence on Tibetan building culture; third, the spatial configuration of traditional villages in the prefecture of Yushu; forth, preserved townhouses and the urban fabric in Lhasa.

In relation to that, as next step, the architectural development of three settlements in India - Bylakuppe in Karnataka, New Aruna Nagar, Majnu Ka Tilla in Delhi and McLeod Ganj, Dharamsala in Himachal Pradesh - will be discussed. Although those settlements differ very much, they all relate to vernacular Tibetan building tradition in some ways and it is interesting to observe, how they respond to local sociopolitical circumstances.

Finally, I will look back to China and analyse, how two types of Tibetan settlements in China - Yushu town in Qinghai province and two villages that were subject to government policy - differ from Tibetan settlements in India.

This investigation is done in support of an architectural endeavour, in which an understanding of the essential elements of Tibetan architecture and their transformation in the last 60 years will inform a situated architectural intervention in a Tibetan community in India. The objective is not to recreate, imitate or reconstruct Tibetan architecture, but to explore how architectural form and identity intertwine, change, and transform, and how these elements may inform new architectural interventions that are culturally sensitive and historically informed. I will conclude this thesis with a statement of whether and how an architecture intervention could be a useful tool to improve the living conditions of the Tibetan people in exile.

Tibet before 1949

The Tibetan highlands were first inhabited 4,000 years ago by nomadic herders called „Chiang“. They practised the Bön-cult and lived in so-called „black tents“ that still exist today. (see figure 1-4) For millenniums, the Tibetan highland was completely isolated and divided into more than 40 kingdoms without central power. (Franz, 2000)

Modern Tibet was founded in the 7th century by Songtsam Gampo and called „Tupo“ back then. It reached from Samarkand to Xi'an and from the Silkroad to the Ganges delta. To bring peace between Tupo and China's Tang dynasty, Gampo married the Tang emperor's daughter, princess Wenchen. She introduced Chinese traditions to Tibet, such as chopsticks, jade, silk – and Buddhism, China's state religion. Today, this marriage is often mentioned to „prove“ the historical connection of China and Tibet. (Franz, 2000) Nevertheless, Mongolia, Tibet and China went through constant wars, alliances and territorial conflicts. In 763, Tibet occupied China with help of Turk people and requested them to cede lands. When Buddhism replaced the Bön-cult as Tibet's state religion in 836, Tibet as a nation fell apart. In 1240, the Mongols occupied China and Tibet. They assigned Tibetan clerics to become China's spiritual leaders. Tsongkhapa, a revolutionary Gelugpa monk, became the 1st Dalai Lama. After the end of the Mongol sovereignty in 1642, the 5th Dalai Lama became Tibet's spiritual and political leader. He centralized power in Lhasa, planned Potala Palace and installed the Panchen Lama as his teacher and master. (Anand, 2001) Different Buddhist schools in Tibet either sympathised with Mongols or Chinese. In 1708, Chinese Qing dynasty arbitrarily installed a 15-year old boy as Dalai Lama and finally pushed back the Mongols. Twelve years later, Tibet became a protectorate of China, who sent two representatives to Lhasa as equivalents of the Dalai Lama and the Panchen Lama. To strengthen its power, China financed the three major monastery schools, Drepung, Ganden and Sera, and established a Tibetan library in Beijing. When Nepalese troops occupied Tibet in 1788, the Chinese were the ones to fight them back. (Ahmad, 2012)

Democrat Sun Yatsen took power in China after the fall of Qing dynasty in 1911. Tibet received seats in the Chinese national assembly. The Dalai Lama and the Panchen Lama had special representatives in the parliament until 1949. Sun Yatsen offered the Dalai Lama to become China's religious leader, but he refused. The black stripe on China's national flag between 1912 and 1929 represented Tibet. (Franz, 2000) In the meanwhile, Tibet and Mongolia had signed a treaty about Tibet's independence from Mongolia. China, Tibet and British India had a meeting in 1914, where they acknowledged China's protectorate over Tibet but disagreed on China's claim that Tibet had belonged to them for over 700 years. The Tibetan government started to maintain independent diplomatic relations to India, Nepal and Bhutan in 1947. It was invited to a conference by England but became disinvented by China shortly after. In 1948 the Tibetan government travelled to the USA via Hong Kong. (Franz, 2000)

Until 1949, Tibetan politics were based on a system from the 17th century, established after the independence from Mongolia. Political posts were covered by two people, a cleric and a layman. Equally, the national assembly consisted of 175 clerics and 175 monks. There were no democratic decisions but only arguments, final decisions were taken by the Dalai Lama. Monasteries owned slaves and lands. Accordingly, clerics had more political influence than laymen. Also, the tax system was highly profitable for clerics and aristocrats. Because of permanent labour shortage, free-lancing day labourers had relatively good lives. Slaves, on the other hand, were inheritable over generations and had no rights. Women were heavily discriminated in Tibetan society. Polyandry was a common phenomenon before 1950. According to a monks quote, every 4th man born was forced to join a monastery. (Franz, 2000, S. 188)

Tibetan borders were never clearly defined and changed over time depending on the political constellation with China and Mongolia. Historians largely agree that the area of Tibet was majorly defined through its geographical setting - the Himalayan plateau north of the chain of peaks. This area is much larger than China's TAR (Tibet Autonomous Region) nowadays. Tibet was split into Ü-Tsang (Central and West Tibet, today TAR), Amdo (North Tibet, today Qinghai and parts of Gansu) and Kham (East Tibet, today parts of Qinghai, Sichuan and Yunnan). The Tibetan government mostly ruled Ü-Tsang. Amdo and Kham were already under Chinese influence before 1949. (Denvos, 1980) Tibet used to be among the world's most difficult places to reach and was culturally isolated for a long time. By 1950, less than 100 foreigners had been to Lhasa. Before the Chinese government challenged Tibet's existence, Tibetans barely identified themselves with their nation. Power was mostly examined through local leaders or monasteries, thus people rather felt as belonging to their region. Lhasa had little political power over remote parts of the Highland (Dreyfus, 2003 p. 38-9). Traditional Tibetan society was heterogeneous, divided by religious schools, socio-economic differences and provenance. Vernacular Tibetan architecture, however, was largely shaped by the natural environment and Buddhist, philosophical influences. Therefore, it did not significantly differ within Tibetan society (T. Jampa, personal communication, 7. October 2019).

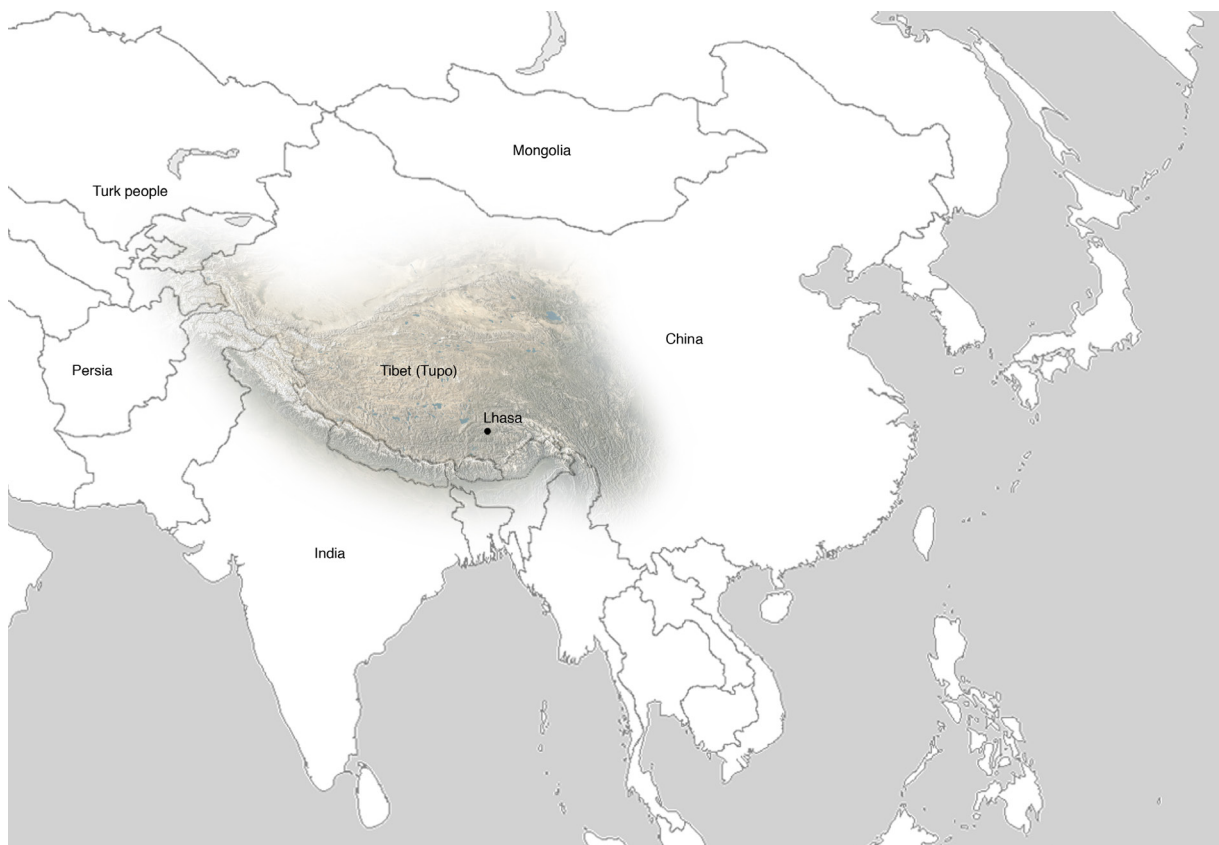


figure 1 (above)
The extension of ancient Tibet (Schmitt, J., 2020)
Its area was mostly defined through the topography.

figure 2 (below)
Tibet after 1949 (Schmitt, J., 2020)
former Tibet's area is divided into several Chinese provinces.



Cultural Influences and Values

Buddhist tradition has a major influence on Tibet's built environment. Before 1949, Tibetans were more devoted to religious practices than any other people in the world. 10% of the population were nuns or monks and more than 6000 nunneries and monasteries existed throughout the country. (Powers, 1995) Also, residential architecture was strongly influenced by Buddhist values.

On an urban scale, this is mostly manifested by the facilitation of religious practices, primarily the circumambulation around sacral spaces, as can be seen especially in Lhasa. Furthermore, quick sequences of dark and bright spaces are a typical characteristic of Tibetan street networks. This relates to religious values in a sense that Buddhists are meant to breathe black air – suffering – in and bright air – compassion – out. (Franz, 2000)

Most buildings are very introverted and enable people to focus on themselves. Buddhists traditionally meditate and practice equanimity in a daily routine. They believe that the source of suffering can be found in oneself rather than in the relation to a divinity. (Anand, 2001)

In the interior, the use of symbols is very dominant. Swastikas represent fortune, infinity ribbons stand for eternity and reincarnation. Deer and wheel symbolize constant change and repetition. Also, Tibetan letters can often be seen inside. The five colours of Tibetan Buddhism - white, ultramarine blue, yellow, red and green – are predominant on fabrics and prayer flags. They represent five cardinal directions, five Buddhas and five elements. (Franz, 2000).

The conflict with China

In 1949, after 37 years of democracy, Mao Ze Dong called out the People's Republic of China (PRC). The new state became acknowledged by the USSR, India and Great Britain. Tibet immediately requested all Chinese representatives to leave Lhasa. Under international law, thereby all bounds were terminated. Until today, most countries neither acknowledge nor question China's presence in Tibet. (Franz, 2000)

A year later, 30,000 Chinese soldiers took control over Lhasa, which had only 20,000 inhabitants at that time. They forced the „Seventeen Point Agreement for the Peaceful Liberation of Tibet“ onto the Tibetan government, which legitimized China's troops in Tibet to defend the international borders and to be in charge of Tibet's external affairs. On the other hand, it guaranteed freedom of religion and habits, special protection of monasteries, freedom for slaves and serfs and the redistribution of property among monasteries and farmers.

In 1954, the Dalai Lama and the Panchen Lama went to Beijing for a year to negotiate about their potential role in the new state. At the same time, they rejected an offer to establish an exile government in the USA.

Repressions for Tibetans became more serious after 1955. Farmers were requested to pay further taxes for their lands and shortly after had to cede them to the state. China claimed control over all Tibetan monasteries. First protests arose in 1957 and continued over the following two years. On the 19. of March 1959, Chinese troops violently suppressed unrests in Lhasa and murdered 15,000 Tibetans. (Franz, 2000)

1st migration wave

During the unrests, from the 17. of March to the 31. of March, the Dalai Lama fled to India, many Tibetans followed. The „Great Famine“ in 1960 and 1961 hit the agriculturally unstable Tibet particularly hard and stimulated further migration. This so-called first migration wave ended in 1963, when Chinese border controls were intensified due to the breakout of the Sino-Indian war in Kashmir. 80,000 Tibetans had escaped in those four years. (Ahmad, 2012)

The Indian authorities had established two transit camps for Tibetan Refugees, Buda Duar in West Bengal and Misamari in Arunachal Pradesh. Heavily overpopulated, epidemics broke out. Many Tibetans were sent on road construction in the mountains, but the living conditions barely improved. Shortly after, permanent refugee settlements were established on lands provided either by the central or the state governments. The Dalai Lama established the CTA in McLeod Ganj (Dharamsala), a former British health resort and three more reception camps in Majnu Ka Tilla (Delhi), McLeod Ganj (Dharamsala) and Kathmandu. (Bentz, 2012)

2nd migration wave

Deng Xiao Ping took over the power in 1979 and economically liberalized China. The border between the TAR and Nepal opened for trade and tourism in 1980. China's new policies allowed Tibetans to „visit“ their families in exile - 25,000 of which never returned to China. Another 3,100 Tibetans migrated to India, when Bhutan forced Tibetans in exile to accept Bhutanese citizenship and adopt its culture. (Bentz, 2012) The second wave ended in 1988, when a series of new restrictive laws in China led to protests in Tibet and the Tian'anmen „incident“ in Beijing. (Fischer, 2005)

3rd migration wave

The third wave describes the relatively stable flow of migration after 1989. Under Jiang Ze Min, China's president between 1993 to 2002, the country experienced a rather liberal phase. Culture and diversity flourished. Tibetans, however, still faced great oppression. In 1996, Chinese authorities forbade images of the Dalai Lama in Ganden monastery. 600 monks fled. (Bentz, 2012) Nowadays, the images are forbidden in entire China.

In 2008, the year of the Beijing Olympics, President Hu Jin Tao faced the most serious protests in Lhasa after 1989. To prevent from too many international visitors of the Olympic games also travelling to the TAR, the province had been shut down for foreigners and security measures tightened. Subsequently, the annual number of escapes slightly decreased. After Xi Jin Ping had come to power in 2013, the annual number of Tibetan refugees dropped to approximately 80. (Puri, 2019) His life-long presidency marks a new era of absolutistic dictatorship in China.

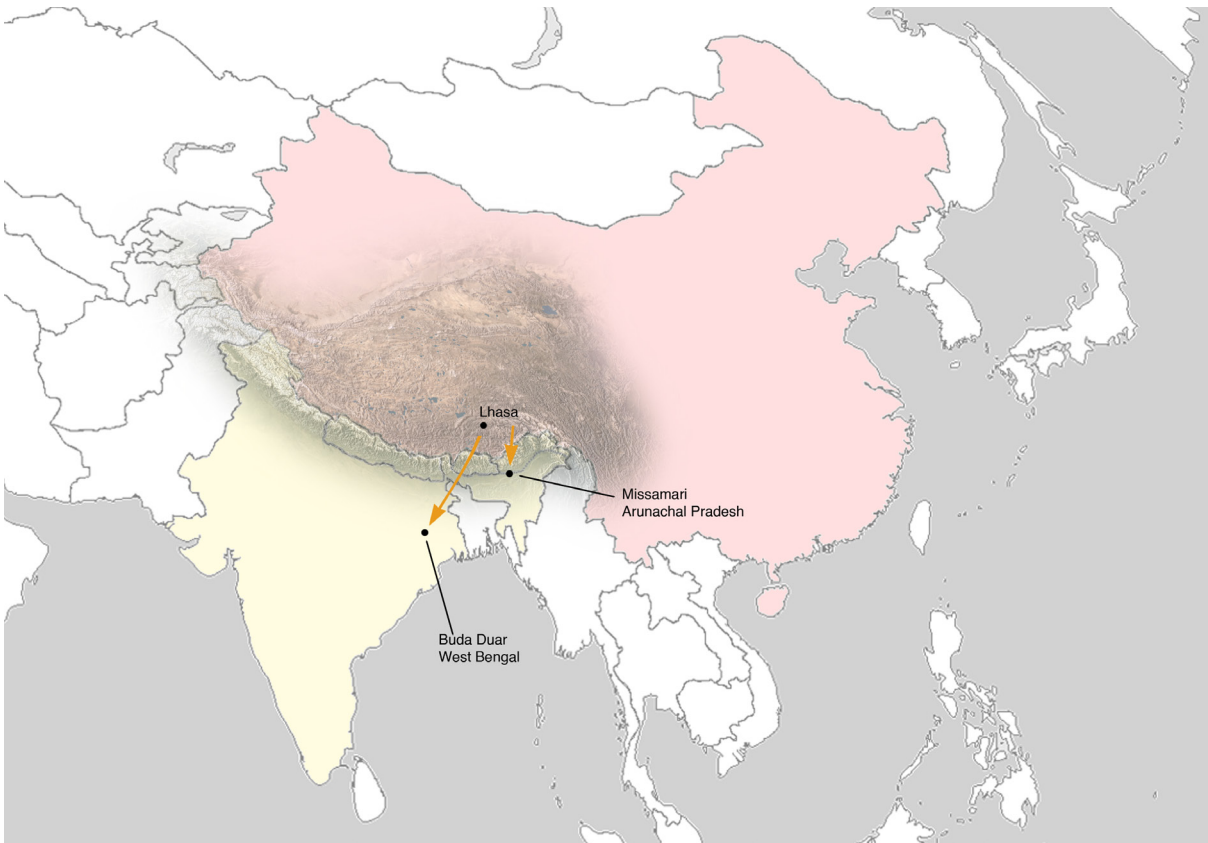
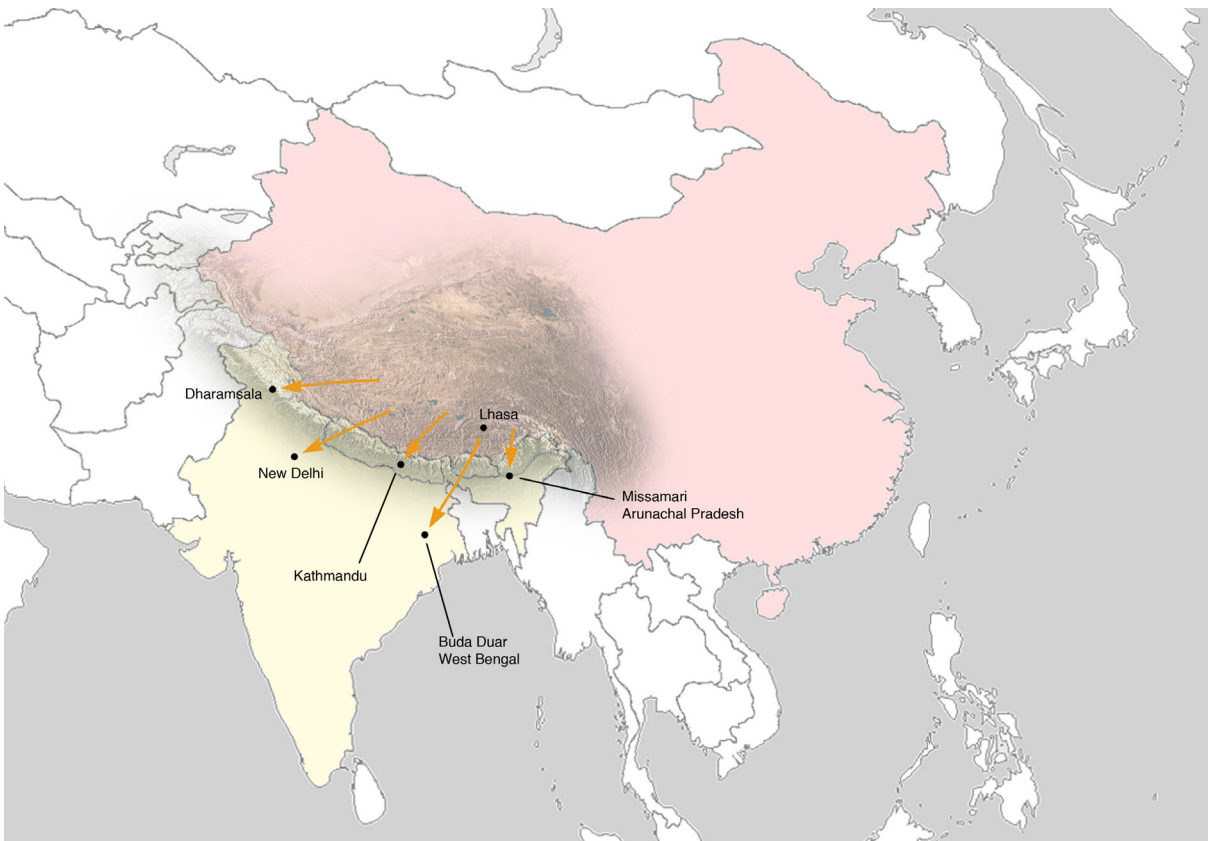


figure 3 (above)
The first two arrival camps (Schmitt, J., 2020)
Bada Dar and Missimari were established by the Indian government.

figure 4 (below)
The main arrival camps (Schmitt, J., 2020)
The camps in Delhi, Dharamsala and Kathmandu were opened by the CTA



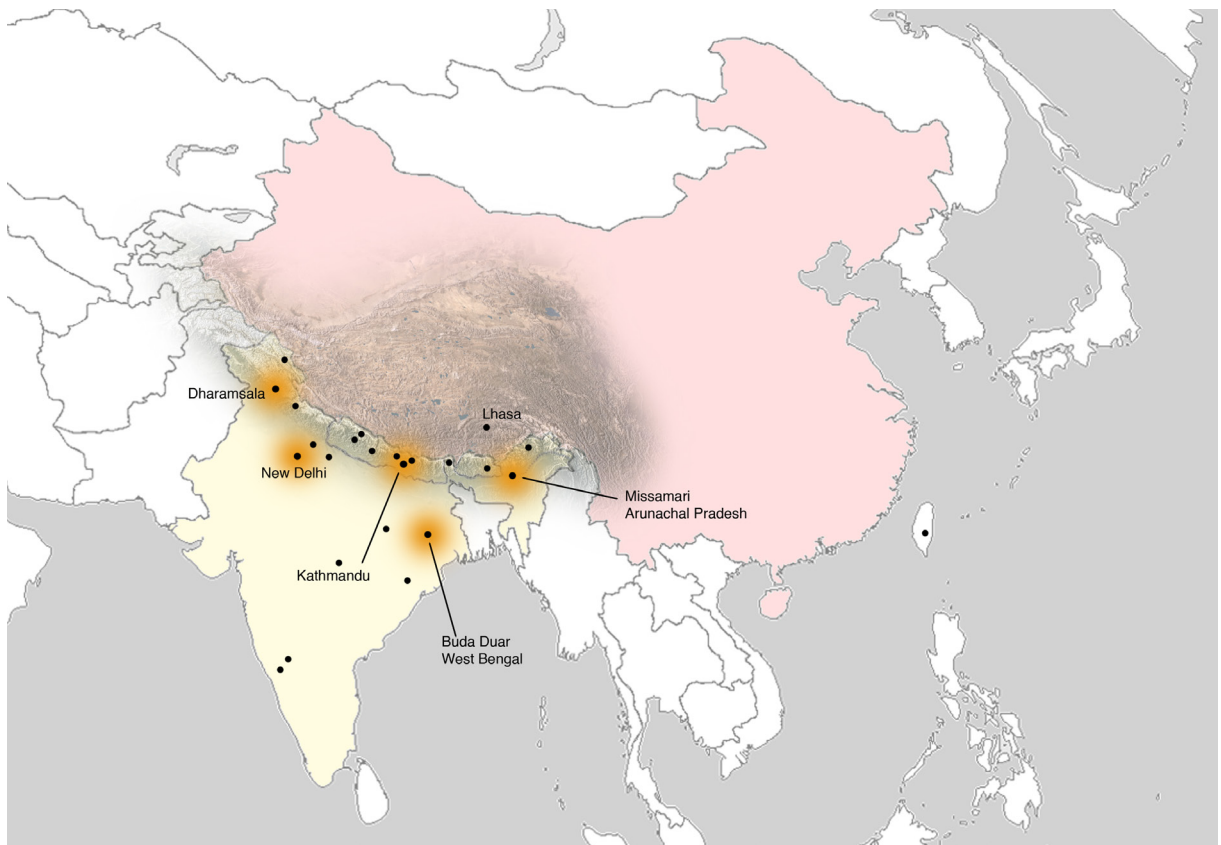
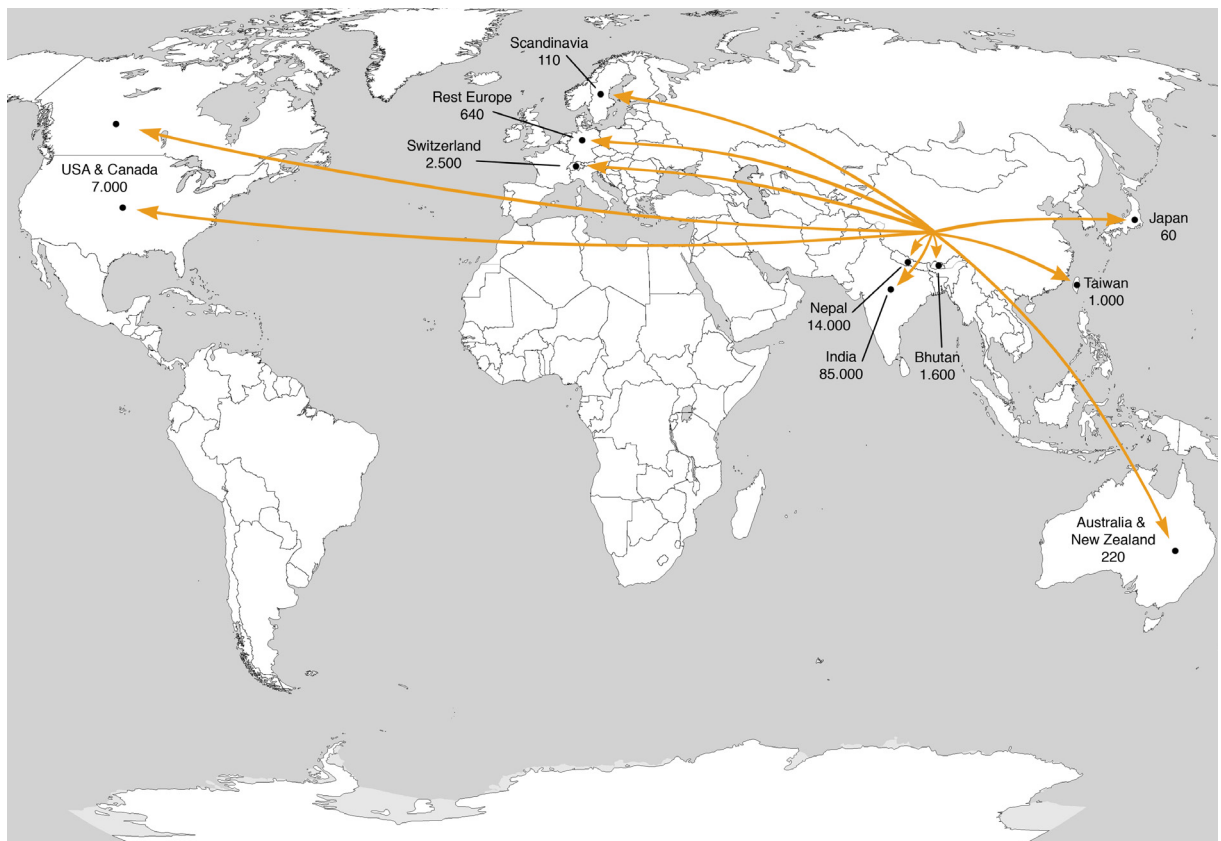


figure 5 (above)
distribution of Tibetans in India (Schmitt, J., 2020)
From the arrival camps (orange), Tibetans went on to the settlements

figure 6 (below)
Tibetans all over the world (Schmitt, J., 2020)
the largest Tibetan exile communities are in India, Nepal and the U.S.A



Most Tibetans escape on foot. A third of the refugees are under 18, 40% are clerics. (T. Phuntsog, 2018) (International Campaign for Tibet, 2019). The CTA's reception camps provide newcomers with free meals, lodging facilities and medical care. Arrivers are being interviewed, registered and get Identification Certificates (ICs), issued by the CTA. (Om Prakash, 2011) Children below 18 years are being put into Tibetan schools, clerics into monasteries or nunneries, adults into handicraft centres and elderlies into care centres.

Refugees can state the settlement they would prefer to live at, but finally become distributed by the CTA. (Pehrson, 2003) Therefore, apart from few institutions - the Tibetan government moving from Lhasa to McLeod Ganj, the Chagpori Institute from Lhasa to Darjeeling, the three major monastery schools Drepung, Sera and Ganden from Lhasa to Karnataka - there are no larger groups of people that went as a whole from one particularly place in Tibet to somewhere in India. (T. Jampa, personal communication, 7. October 2019) However, over the past 60 years, Tibetans in India became freer and freer to organize themselves, move within the diaspora and became gradually less exposed to interference through the Indian government or the CTA.

Today, officially, there are 127,000 Tibetans in exile, 100,000 in India, 14,000 in Nepal, 1,600 in Bhutan, 1,000 in Taiwan, 60 in Japan, 7,000 in the USA and Canada, 2,500 in Switzerland, 750 in the rest of Europe and 220 in Australia & New Zealand. Inside India, Karnataka (44,468), Himachal Pradesh (21,980), Arunachal Pradesh (7,530), Uttarakhand (8,545), West Bengal (5,785) and Jammu and Kashmir (6,920) are the states that host the majority. Not all Tibetans in exile are registered. Scientists assume that the number of unreported cases is relatively high. (CTA, 2019, 1994b)

The UN Human Rights Council (HRC) currently considers Tibet among the least-free regions in the world and conditions as „fast deteriorating“. (Martinez Cantera, 2019) Since 2008, more than 200 Tibetans self-immolated. Overall, however, due to extreme political consequences, there is little resistance. Protests are oppressed in their very roots and the Chinese surveillance network creates a constant climate of distrust. Also, the intrinsic Buddhist attitude of practising equanimity and finding the core of any problem in oneself, instead of blaming or harming any other being, impedes any resistance (T. Phuntsog, 2018)

Besides the question, whether China's occupation of Tibet is historically legitimate or not, one should also take into consideration, that within the 60 years of occupation, Tibet's GDP has risen by more than 10,000%, the expected lifespan increased from 36 to 75, the number of doctors per 10,000 inhabitants rose from 4 to 65, and Tibet's infrastructure rapidly developed. Where would Tibet be if it had developed independently from China? Who says that political structures should correlate with ethnic regions? Historically, the abolishment of scattered regionalism was progressive.

The cultural contrast between China and Tibet, especially this intrinsic value of inner peace in the context of an international conflict, makes mediation extremely difficult (T. Phuntsog, 2018). As Persian already described in 1950 in „Die Zeit“, „it is the irony of global political destiny, that Buddhism, the oldest, violence-disapproving world-religion, is subject to the most powerful and aggressive thrusts of militant communism, because Buddha's most noble commandment was and is: may all living being be contented.“ (Persian, 1950) Korten Tsering, former president of the Majnu Ka Tilla's residents' welfare association, even explains the Chinese control over Tibetan land as part of the ever-changing universe: „China was once under Tibetan control. In our time, we have been born on the loser side“ (Doshi, 2017)

The government in exile

India is in the unique situation of having two legal political systems located in the same geographic place. The Central Tibetan Administration (CTA) is considered the best-functioning government in exile that ever existed (Pehrson, 2003). Based in McLeod Ganj, it has its parliament, a constitution, ministries and half-official diplomatic relations with other countries. Financially, the CTA is supported by numerous governments and international organizations. (Om Prakash, 2011) The Dalai Lama himself stepped back as political leader of Tibet in 2011, the current prime minister is Lobsang Sangay. (Martinez Cantera, 2019) Each settlement is represented in the Tibetan parliament through a settlement officer, who is head of the local department of home in case of official settlements and head of the local resident's welfare association in case of informal settlements. (Om Prakash, 2011) The CTA claims to represent Tibetans anywhere in the world, however, maintaining contact with Tibetans in China is difficult due to the political situation. (Doshi, 2017)

Initially, the Tibetan exile government requested an independent „Great Tibet“. During a speech of the Dalai Lama in the European Parliament in 1988 however, he accepted Tibet as a part of China but demands further autonomy. Until today, this so-called „middle-way approach“ is the official agenda of the CTA. (Martinez Cantera, 2019)

The Indian government and the CTA decided to deliberately keep Tibetan refugees isolated from Indian society to preserve Tibetan culture and ethnicity. (Grent, 2018) Scholars nowadays disagree, whether this strategy of cultural preservation has actually worked out. (Bentz, 2012)

Legal Situation of Tibetans in India

„A refugee is an individual, who, owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country...“

UNHCR (2003) (United Nations High Commissioner for Refugees, 2019)

According to UN-definition, refugees are migrants who flee because of persecution and cannot return safely to their homes in the prevailing circumstances. There is no explicit accordance about whether Tibetans are considered refugees or not. On the one hand, because modern migratory patterns can be complex mixtures of categories such as economic or political refugees. (Pehrson, 2003) On the other hand, China, as permanent member of the UN Security Council, has no interest in granting Tibetans refugee status according to UN law. (Chiswick, 2000)

The 1951 Refugee Convention states that refugees have the right to asylum in other states, should be treated following human rights and must not be refouled. As of 2018, 144 states, including China, have signed it. India, Nepal and Bhutan have not (United Nations High Commissioner for Refugees, 2019).

Bhutan only hosts a small number of Tibetans since most of them left when the government asked them to accept Bhutanese citizenship and adopt its culture.

In Nepal, Tibetans are ascribed „illegal immigrants“, but the Nepalese government tolerates their presence. On top of that, since 1991, the UNHCR maintains an office in Kathmandu, granting Tibetans a „status of concern“. This entails a lower degree of responsibility and protection than normal refugee status. (International Campaign for Tibet, 2019)

The Indian government grants Tibetans refugee status according to Indian law. (Pehrson, 2003) Children of Tibetan refugees born in India before 1987 as well as Tibetans residing in India for twelve years automatically have the right to get Indian citizenship. (Bentz, 2012) Indian passports come along with many benefits such as better chances of employment, e.g. in the army, funding own businesses or easy travelling. However, most Tibetans chose to live with restrictive refugee status in order to legally remain Tibetan and keep their right to elect the Tibetan parliament. Applying for Indian citizenship is alternative to Tibetan identity and impedes an eventual return to Tibet. (Grent, 2018)

Most Tibetans in India are not Indian citizens but have an RC (Residence Certificate), that they need to reapply for once a year. (Grent, 2018) An estimated 10,000 Tibetans in India are not officially registered.

In order to improve bilateral relations with China, the Indian government officially recognizes the TAR as part of the People's Republic and has tightened the situation for Tibetans. Any engagement into anti-China political activities such as the Tibetan rallies in New Delhi is prohibited. (Martinez Cantera, 2019) (Grent, 2018) Furthermore, India doesn't assign new lands to Tibetans and urges the Dalai Lama to no further encourage migration. (CTA, 2019) The Chinese surveillance network, on the other side, which reaches far into the Diaspora, is being tolerated. (Tenzin & Sarin, 2018)

Problem Statement

As previously described, until 1949, Tibet's cultural isolation has resulted in a very specific, easy-to-recognize and distinguishable architectural language, which subsequently produced a high degree of regional sense of belonging among people. Today, few Tibetans live in their traditional habitat or an urban and architectural environment that naturally developed over centuries. The typical spatial conditions of Tibetan settlements only remain existent in few places, have never been replicated and are about to disappear.

In India, home to 80% of the diaspora, Tibetans either inhabit official settlements on lands temporarily provided by the Indian government or scattered communities around bigger cities.

While traditional Tibetan architecture developed in harmony with the natural environment and accordance with Buddhist values such as sutric and tantric literature or structures of mandalas and viharas, most contemporary architecture is not a modern interpretation of those values, but if anything, rather a poor copy of traditional form language. (Powers, 1995) (Templeman, 2010)

In India, a law issued by the Indian government together with the CTA in 1961 stipulates the deliberate isolation of Tibetans from the India society for the sake of cultural and ethnic preservation. Refugee camps are located far away from civilization. Education takes place completely separately. Only few Tibetans are legally allowed to work in Indian companies and institutions. As result, there is little interaction between Tibetans and Indians as well as a mutual lack of knowledge about each other.

Unarguably, the preservation of Tibetan culture is incredibly important. Nevertheless, it remains questionable whether forced isolation from Indian society is the right way to do so. How would we react, if nowadays the German government kept Syrian refugees in isolated camps for the sake of preserving their ethnicity and culture? On the other hand, do we not largely agree on leaving Amazonian native tribes on their own and not intersecting their traditional lives with our modern values?

I assume we largely concur, that the degree of a people's interaction with another should not be legally enforced but instead represent an average of people's individual choices and their desire to integrate and assimilate. Identity is fluid and therefore inevitably object to modernization, globalization and loss of tradition. Through education in libraries, in museums or by supporting fine arts and cultural events such as theatre or music, traditional Tibetan culture could be institutionally preserved. Then, traditional culture and regional identity might not necessarily suffer from integration but sharpen and reinvent itself while being exposed to other influences.

In China, traditional Tibetan architectural practices can barely be pursued. In order to feign an indifference of Tibetan and Chinese building tradition, sacral and institutional buildings are being designed in a way that they merge Chinese communist architectural elements with regional Tibetan characteristics. (Peters, o. J.) Residential houses largely have to be built according to governmental standards. Authorities deter Tibetans from individualizing their built environment. As part of the agenda „A new socialist countryside“, millions of Tibetans were forcefully resettled to housing complexes that completely disregard traditional habits, people's occupation, values and the natural environment. (Adams et al., 2013) In my eyes, these processes can't be considered modernised tradition in the sense that any tradition inevitably objects to transformation. Rather, we should talk about forcefully indigenized modernity. (Herrle & Wozniak, 2017)

In both India and China, Tibetan architecture has lost its social dimension. It does not relate to a traditional sense of community, it does not facilitate people's habits and fails to create a sense of belonging on any scale. (Foreman, 1996)

Research Question

Again, considering architecture as the most direct physical embodiment of political social circumstances, and an essential tool to implement and express ideologies, how has Tibetan architecture, this isolated and therefore very specific and distinguishable building culture, developed since 1949, considering Tibetan's unique cultural and political situation in exile? How is contemporary Tibetan culture reflected in contemporary architecture?

Can and should we try to preserve Tibetan architectural tradition or should we accept culture to be changing, therefore tradition to be vanishing and treat modern Tibetan architecture in relation to Indian building traditions? And in either case, what is the right way to do so?

This thesis is meant to investigate, whether the deliberate isolation of the Tibetan exile community in settlements in India, initiated by the CTA and the Indian government, actually facilitates the maintenance and continuation of Tibetan architectural practice and thereby creates a sense of belonging within the diaspora in India.

To evaluate this question, I want to answer four sub-questions more thoroughly:

- 1) What social problems does the lack of cultural sensibility within architecture create?

This question addresses the relevance and legitimacy of the main research topic. How and to which extend is the maintenance and continuation of Tibetan architectural practice one of the factors that stimulate a sense of belonging among Tibetans in exile? Which social function does architecture have within the Tibetan diaspora? This issue is closely related to the question of how Tibetan life-style and sense of belonging have changed and assimilated to Indian and western culture over the 60 years in exile.

- 2) How does contemporary Tibetan architecture in India relate to vernacular architecture and is this tradition rather preserved and memorialized or and maintained and continued?

The influence of vernacular Tibetan building culture on recent architectural developments in the Tibetan diaspora shall be examined. It concerns both the potential spatial and aesthetic reproduction of architectural elements as well as the reinterpretation of traditional values that might also have informed modern designs. Again, it will be important to understand, to which extend those values and habits within the Tibetan diaspora still resemble those of Tibet 60 years ago.

- 3) To which extend can architecture stimulate a sense of belonging and how do Tibetans, uprooted in different settlements, reconstruct and individualize space?

This third question is meant to evaluate the feasibility of a potential architectural intervention informed by the findings of the research. Following the second question, it analyses, which traditions and accordingly which architectural features are the main identity-giving aspects of Tibetan building culture. Of course, collective identity is hard to define and its projection on individuals a personal and sensible issue. However, there are tendencies within a society that are shaped by many individuals and represent certain consensus among people. Those models are solely macro-analytical, behaviour-based and also take rational economic or spatial criteria into account. Architecture in this context is considered the manifestation of individual or collective decision-making.

- 4) How has Tibetan building culture diverged between India and China over the past 60 years concerning the sociopolitical circumstances?

After 1949, Tibetan building culture has been majorly exposed to two social, cultural and political worlds: China, a communist autocratic system that heavily suppresses Tibetans people, culture and identity on the one hand and India, a poorly functioning democracy that tolerates but isolates Tibetans on the other. Although the main focus of research shall be on the development of Tibetan architecture in India, it seems promising to investigate how those different socio-political settings have traced in architecture.

Methodology

The two main sources of information were literature review and a field trip with extensive documentation of architecture through photographs, mapping and interviews.

Literature provided a theoretical framework. There is a lot of research on general Tibetan tradition, on vernacular Tibetan architecture, on the political development over the past 60 years, on migratory patterns, and even sociological research on the Tibetan diaspora.

However, the contemporary architectural development within the Tibetan community worldwide, especially concerning secular architecture, is an academically relatively unexplored issue. Fieldwork, therefore, appeared to be the only way to properly document the more recent developments in Tibetan building culture. This thesis contains information and images collected in Bylakuppe (Karnataka), Majnu Ka Tilla (Delhi), and McLeod Ganj (Dharamsala, Himachal Pradesh) in India, as well as from Yushu (Qinghai) and Lhasa (Tibet Autonomous Region) in what is China nowadays.

All places visited were examined on different architectural characteristics of all scales:

Location & Urban Scale:

- Connection to the Natural Environment, Relation of Interior and Exterior
- Urban Fabric and Public Spaces

Building Scale

- Arrangement and Sequences of Space
- Relation to Buddhist Values

Construction & Handcraft

- Use of Colours, Symbols and Letters
- Building Process and Materialization

The work with comparative cases turned out not to be helpful. Especially, investigating, how previous cases of mass migration have manifested in migrant-initiated architecture, studied for example by Kenneth Frampton, Sandoval Strauss, or Ruth Benedict, would have been an interesting side-research. However, as the Tibetan Diaspora differs in so many ways from other migrant communities, the comparison of architectural developments didn't provide relevant results.

First, the number of Tibetan migrants is comparatively small (127,000), comparing for example to studies on the Hispanic population in the USA (59,000,000) or Turkish immigrants in Germany (2,000,000).

Secondly, 90% of the world's migration is of economic nature, 69% of refugees move from so-called „developing“ to „developed“ countries. (The Future Centre, 2019). In both cases, the Tibetan diaspora is the exact opposite, almost 100% are political migrants, 44 per cent of Tibetan migrants are clerics (CTA, 2019) and they moved to a developing country. (Jones, 2001) (Zolberg, 1981)

Thirdly, young adults and well-educated, high-income groups are globally the most migratory. (Zipf, 1949 p.197) (Haug, 2008). Again, those attributes don't apply for the Tibetan diaspora.



figure 7 (above)
Settlements discussed in this report (Schmitt, J., 2020)
Two Tibetan and three Indian settlements will be discussed in this report.

Vernacular Tibetan Architecture

In order to understand the contemporary development of Tibetan architecture within the diaspora in India, it is important to understand, how contemporary Tibetan architecture in India relates to vernacular building culture and how the processes of reinterpretation and assimilation function in the diaspora.

Architecture is the most apparent physical embodiment of the traditions and values described in the introduction. As explained before, due to Tibet's cultural isolation over centuries, its architecture has developed in a very specific and unique way. Besides Buddhist architectural elements - that originated in India but came to Tibet through China - and Mongolian influences, that reached Tibet during the various wars and periods of occupation, there are barely any other cultures that have intersected with Tibetan tradition until 1949.

In the following chapter, four vernacular Tibetan archetypes will be analysed: The first is the nomadic black tent, as the most initial form of Tibetan architecture. The second one is monastic architecture, investigated on the basis of Samye monastery and Sera monastery, as the main influence on Tibetan building culture. Those two are not subject of the actual research topic, the contemporary development of Tibetan architecture, but are inevitable in order to understand the concept on Tibet's secular residential buildings. The main focus within the chapter lies on, third, an analysis of the spatial configuration of traditional villages in the prefecture of Yushu and, forth, of three preserved townhouses and the urban fabric in Lhasa.

Another case, that I considered researching on, is Ladakh in Northern India. Being one of the few regions of former Tibet that are nowadays located outside of China, it is widely considered the place to go for whoever wants to experience well-preserved Tibetan culture. Located at an altitude of 3050 meters above sea level, also its climate is similar to Tibet's. Leh's old town consists of about 200 traditional houses built on the slope beneath the Royal Palace. The architecture strongly resembles that of Lhasa, making Leh the best-preserved historic Tibetan town in the world. (Alexander & Catanese, 2007)

However, also Ladakh did not remain independent and politically untouched. No one can acquire land in Ladhak, Non-Ladhakis even need permits to settle and open businesses here. Last but not least, it is located in the conflict zone Jammu and Kashmir. Therefore, it did not turn out to serve as an informative control case for an authentic, independent development of Tibetan architecture after 1960. (E. Anderson, personal communication, 6. December 2019)

Nomadic Architecture - the Black Tent

Nomadic herders first came to the Tibetan plateau around 4000 years ago and inhabited „black tents“. (see figure 1-4) Those can be considered the most initial form of vernacular Tibetan architecture and still exist today. Until the forced sedentarisation of nomadic herders, a major part of Tibetan people used to live in tents. In some remote regions, people did not start to settle and build stone and mud houses until 20 years ago.

Location & Urban Scale:

The choice of location traditionally followed the principles of Sa Che, a study of energy in a certain area. Those metaphysical influences originally derived from the Bön-Cult and gradually disappeared over centuries, the more Buddhism replaced the Bön-Cult as people's major cultural entity and means of identification. (Dell'Angelo & Dimiziani, 2007)

Since then, the location of black tents is mostly influenced by agricultural measures. Usually, they are being temporarily built up in valleys next to a source of water and stay there until the cattle have exhausted the resources of the surrounding lands. For the same reason, agglomerations of several black tents in the same place are highly unusual. This structure might have influenced the fact, that until today, Tibetan social life is largely focused on the close family and, by trend, traditional Tibetan houses are relatively introverted. (D. Zhou & Z. Wu, personal communication 29. December 2019)

Besides that, due to the extremely cold, windy and harsh climate in Tibet, nomadic tents are made as much in harmony with nature as possible. Because of the black colour, they heat up through solar radiation. One single opening is directed towards the south, as here, the sun is the strongest, whereas cold winds - and demons in the traditional Bön Cult - come from the north. (Dell'Angelo & Dimiziani, 2007)

Building Scale

Black tents only consist of a single large room that can host larger extended families or groups of people. (see figure 3) Tibetan society was highly hierarchic and depending on age, gender and social status, every person had his or her particular role in a certain social entity.

A stove and a long table, reaching from the entrance in the south to the shrine in the north, are the central elements in most black tents. Women traditionally sit on the right and men on the left of the table. Old family members and highly recognized people sit closer to the shrine, whereas young people and those of lower social status take the places next to the entrance. People sleep on the east side of the tent, which, in the morning, is warmer than the west side. (D. Zhou & Z. Wu, personal communication, 29. December 2019)

As we will see in the next chapter, many of those characteristics concerning the spatial arrangement were reinterpreted in rural and urban mud and stone houses and, in some cases, are even still visible in contemporary Tibetan architecture. Of course, functions are then more separated and distributed to various rooms, but the orientation towards certain cardinal directions and the functional arrangement within a unit has largely remained the same until 1949.

Construction and Handcraft

Black tents are traditionally constructed from wooden poles that bear the vertical loads and ropes that are anchored in the ground and horizontally stiffen the structure. (see figure 2 & 4) The tents are covered fabrics and yak leather, which is translucent and, when wet, swells and becomes hydrophobic. (Dell'Angelo & Dimiziani, 2007) The shrine in the north is usually decorated with fabrics, fossilized mussels and wooden carvings.

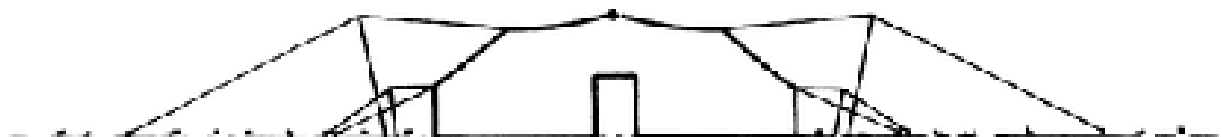
The Black Tent



figure 8 (above)

Traditional Black Tent (Manderscheid, A., 1992)

Black Tents were inhabited by extended families or even larger groups of people.



- Tent pin
- Prop pole
- Guy rope
- 1st fold of the tent cover
- ▭ Ridge pole

figure 9 (above)

Front Elevation (Norlha, 2018)

The Central entrance is usually directed towards south.

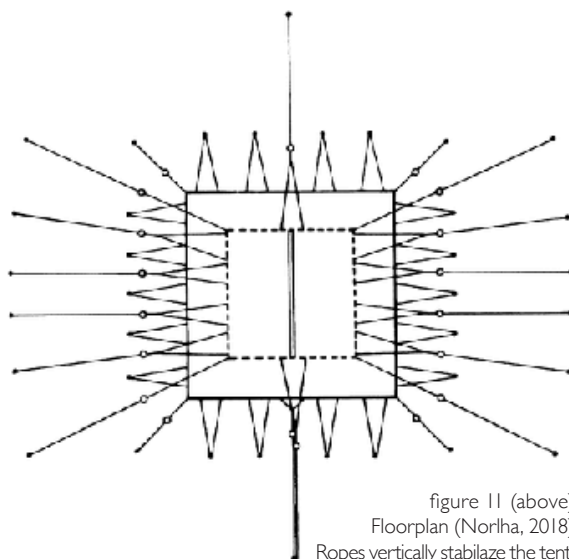


figure 11 (above)

Floorplan (Norlha, 2018)

Ropes vertically stabilize the tent.

figure 10 (below)

The Interior of a Black Tent (Norlha, 2018)

A stove and a long table are the central elements in most Black Tents.



Sacred architecture – monasteries, nunneries and temples

Before the arrival of Buddhism in Tibet, most buildings were, if anything, planned and built in accordance with the traditions and values of the Bön Cult. Buddhist spatial principles gained more and more influence in Tibet from the 7th century onwards. (Herrle & Wozniak, 2017)

Stupas, an early form of Tibetan sacred architecture - first examples are known from the time around 650 and 620 BC - contain remains of great teachers or holy scriptures. Prayer wheels contain papers with wishes and devotions written on them (Powers, 1995). Both were initially built to mark territory. Still today they often mark the approach to towns or villages. (Alexander, 2007)

Monastery compounds and buildings count as the first and predominant form of Tibetan vernacular building culture. Although this thesis is mainly meant to address the development of secular diasporic architecture, the following chapter shall briefly introduce the basic principles of monastic buildings. In such a religious society as the Tibetan people, the influence of religious architecture on private and secular building practice must not be underestimated.

On a side note, it should be mentioned that the empiric part – the field trip – of the following analysis is based on monastic buildings the way they exist today. During the Cultural Revolution, the Chinese army systematically destroyed Tibetan monasteries and temples, only 13 out of 6,000 remained unharmed. (Foreman, 1996) However, in the first years of the era Deng Xiao Ping, monastic buildings were rebuilt and repaired very conservatively and thereby very closely to the way they had existed before.

Location & Urban Scale

The location of monasteries is traditionally chosen in harmony with nature and dependent on a spiritual, metaphysical relation with the environment. (Dotson et al., 2009) Usually, monasteries are situated on a mountain slope facing south for the sake of maximum solar exposure. (see figure 8) The mountain behind in the north protects them from cold winds. Ideally, two rivers south of a monastery converge from east to west. (Krishar & Aguihahri, 1995) Monastic communities were entirely self-contained. (Powers, 1995) Due to the rare availability of proper agricultural fields in the Tibetan highlands, in most cases, monasteries are placed on stony or sandy grounds within a comparably fertile environment. (see figure 5) Any building should interfere with agricultural lands as little as possible. (Peters, o. J.)

For the sake of self-defence, palaces, however, are rather located on mountain peaks. (Pratapaditya, 1996) Also smaller temples, that in some cases might be satellite temples of larger monasteries, are often located in remote, hard to reach areas, which has to do with the practice of meditation and the need for tranquillity and privacy. Potala, Tibet's most iconic building, can be considered a combination of monastic and defensive architecture. (Alexander, 2007)

Sacred Architecture



figure 12 (above)
Bird's view onto Samye Monastery (Google Earth, 2010)
The complex is the oldest in Tibet and its floorplan based on a Mandala.



figure 13 (right)
Prayer Wheels in Samye Monastery (Schmitt, J., 2017)
Circumambulation paths surround the Main Temple.

figure 14 (below)
Samye Monastery's Main Temple (Schmitt, J., 2017)
Also the Main Temple's structure is precisely based on a Mandala.



Building Scale

Most monasteries consist of a main-temple and several side-temple, as well as housing for monks or nuns, assembly halls, a dining room, schools, and many more institutions.

The main-temple as the core element of monastic life is usually placed in the centre of the whole compound. People enter from the south or the east and clockwise circumambulate around the monk's seating area in the centre of the hall. The ceiling above the altar, which is located opposite the entrance in the north or west side of the temple, is usually higher than above the rest of the temple and often brightened up by roof lights. While the entrance side is the most open, transparent side of the building, the entirely windowless wall behind the altar climatically and symbolically protects the temple from outside influences.

Attached to the main hall, there are separate rooms for protection shrines (Dotson et al., 2009 p.113 ff.) Those so-called temple chambers are arranged in a strongly hierarchical way, the more important a chamber is, the further up it is located. (Demood, 1996)

Their earliest forms of temple- and monastery architecture can be traced back to two Indian archetypes: (Alexander, 2007)

The most influential one is the so-called „Vihara“. Originally based on a rectangular prayer space with monk's rooms around, this pattern has modified over time. Since the 17th century, the monk's chambers are temple chambers attached to the main hall. (see figure 8 & 9) Even in residential architecture, this spatial configuration of more private spaces arranged around a more public one, in many cases a courtyard, remained existent (Dotson et al., 2009 p.113 ff.) (Repo, 2009)

The second archetype has been less influential on Tibetan monastic architecture, but is more known in the western world: the Mandala. It initially derived from Hinduist tradition but became applied in Buddhist architecture long before Buddhism arrived in Tibet. Mandalas reflect a cosmic, metaphysical order. (Herrle, 1983 p.68) With its strict geometric, metaphoric meaning, it especially influenced early built temples such as Samye. Originally based on a circular plan, it can integrate both squares and circles. (see figure 5) Circles and round shapes stand for continuity, infinity and impermanence, while squares represent stability immovability, timelessness and the non-natural. (Herrle, 1983 p.68) The path from the outside to the inside of the geometrical form represents the way to enlightenment and fulfilment in the centre. (Patry & Thurman, 1997) (Dotson et al., 2009 p.113 ff.)

Construction and Handcraft

According to the availability of materials in Tibet and its cultural isolation over centuries, monasteries buildings were constructed from mud, wood and stones. In some cases, the outer walls are even built from two layers of stones with gravel for further insulation in between. Many buildings are regularly whitewashed with lime, whereas the trapezoidal window frames are painted black to heat the window openings. The building volumes are crowned with a red frieze, called „penbe“, that is constructed from flexible layered branches for the sake of earthquake prevention and painted red as distinguishing mark for monastic buildings.

Inside floors are made from wooden planks with gravel or sand for heat insulation below and covered with heavy carpets. Inside walls are colourfully decorated with wall-paintings, thangkas (traditional uncoilable rolls with religious paintings), carpets or thousands of small Buddha statues. The load-bearing structure – pillars and beams – as well as the openings – windows and doors – particularly stand out concerning their decoration. Tibet used to have a very sophisticated carpentry tradition. Buddhist art and handcraft are strongly interconnected. The five Tibetan colours play a highly symbolic role in the decoration of temples. Equally, symbols such as the swastika, the infinity ribbon or deer and wheel and quotations of old masters embellish many temples. (Heyne, 2007)

Over the past 60 years, traditional Tibetan monastic building culture became more and more „chinesified“. Golden tilted roofs for examples barely existed in vernacular Tibetan architecture and are purely ornamental. Due to extremely low rain- of snowfall, roofs in Tibet are always flat. Also, interior spatial features such as corridors were extremely rare in traditional monasteries. (Herrle & Wozniak, 2017)



figure 15 (above)
Bird's view onto Sera Monastery (Google Earth, 2015)
The two Main Temples in the northeast are based on a Vihara.

figure 16 (below)
One of the Main Temples seen from the west (Schmitt, J., 2017)
The building is arranged around a large courtyard.



Rural architecture – spatial arrangement of villages and buildings in Yushu prefecture

Within the academic discourse on secular Tibetan architecture, researchers differentiate between two main archetypes: the farmhouse and the townhouse. (Denvos, 1980). In the following two chapters, the architecture of vernacular villages in Yushu and the urban architecture of Lhasa will be briefly introduced.

The Tibetan Autonomous Prefecture (TAP) Yushu is located in the northern part of Kham, one of the three former Tibetan regions. Today, this area is part of Qinghai province, located about 1,000 kilometres northeast of Lhasa. The prefecture mainly consists of wide highland steppes, reaching from 3510m to 5300m of altitude. Three major rivers, Yangtze, Mekong and Huanghe, rise in this area. The yearly average temperatures vary between -4,3°C and +5,2°C. On cold days, temperatures fall to -40°C. The sun, however, is very strong due to the high altitude. Rain- and snowfall is principally very low, but unexpected heavy snowfalls regularly cost herders large parts of their cattle. In winter 1995/96, a third of Yushu's herds were killed in extreme weather. (Miller, 2000).

Yushu is a very rural prefecture. The population density is less than two people per square kilometre, compared to China with 148 inhabitants per square kilometre or the Netherlands with 511 (Schwandt & Hubert, 2020). Yushu town, its capital and most populated town, counts 60.000 people today, but estimations state that it had approximately 2,240 inhabitants in 1937, and little more before the Chinese invasion in 1949. (Gertel et al., 2009) Back then, the vast majority of Yushu's inhabitants were nomads, living in tents. People largely settled within the last century. The villages and buildings discussed in this chapter developed throughout the past 100 years.

Location & Urban Scale:

In rural environments, the environmental conditions are the major influence on vernacular building tradition. Farming is very difficult due to the harsh climate and barren grounds, most village inhabitants are herders. Inspired by monasteries, a majority of Yushu's villages are built on slopes facing south for the sake of protection from cold north winds and maximum exposure to the sun. (see figure 11, 14 & 17) (Dell'Angelo & Dimiziani, 2007)

Closed-up, introverted buildings contrast the feeling of complete transparency and free sight created by the wide, treeless, hilly landscape. Despite the enormous amount of space in Tibet, houses are relatively small and minimized to people's needs. (see figure 10 & 12) Life takes places outside, buildings only guarantee the minimal amount of protection needed. (Franz, 2000) The size of a village was usually limited by the number of people that the surrounding agricultural lands and meadows for cattle could feed. Few traditional villages had more than a hundred inhabitants.

To further prevent from wind inside the village, the orientation of the buildings often shifts in a way that no straight streets are going through the village. Instead, streets are either curved or end on T-junctions. Besides that, also the flow of melting water shapes the orientation of houses inside the villages. (see figure 14) (Krishar & Aguihahri, 1995) Visual and physical borders between public and private spaces are created through different height levels. (see figure 12) Unlike inside of a building, higher plots within a certain urban fabric don't necessarily belong to more influential or recognized people, but the level differences are used as a means to create a certain privacy within single units. (Krishar & Aguihahri, 1995)



figure 17 (above)

Residential houses in Dianda (Schmitt, J., 2016)

The quality of carpentry is a major indicator for the wealth of a family.



figure 19 (above)

Dianda's „square“ and residential houses behind (Schmitt, J., 2016)

The level differences create privacy within the single units.

figure 20 (below)

Interior in Dianda (Schmitt, J., 2016)

Sequences of dark and bright spaces relate to Buddhist traditions.



figure 18 (below)

Bird's view onto Dianda (Schmitt, J., 2016)

Dianda is located above agricultural fields and Yangtse River.



Building Scale

The majority of vernacular farmhouses are compact cuboids built from local stone with few and small openings. (see figure 10) Attached to that, most people have a yard surrounded by a high stone wall that creates visual privacy and protects the cattle. Those yards are usually located at the south side of the houses, accordingly, most windows of the houses are directed towards the yards. (Krishar & Aguihahri, 1995) The villages are arranged in a way that almost every unit has direct access to the open field for their cattle. Thereby, also every unit and especially the yards can grow flexibly depending on the size of the cattle. (see figure 11, 14 & 17)

The central room, besides the mandatory shrine and prayer space in every house, is usually the kitchen, that also serves as space for the whole family to eat. In most cases, it is the only source of heat within a building. However, at the same time, it is usually the most private room. Guests of a family can barely enter the kitchen. In the whole building and also in the kitchen, there is a strict hierarchy of who lives and sits where. Still, in very traditional families, women reside in the east and man on the west side of a house. Lamas always sit the closest to the fire. Servants and slaves traditionally inhabited the – mostly windowless – groundfloors.

Construction and Handcraft

Same as for monasteries, the limited availability of natural resources reduced the variety of construction methods in Tibetan villages. All houses were built from either mud or stones, depending on the location, and wood for the roof structure. What was of even greater importance in traditional villages is, that, once demolished, an entire house could be disassembled and its material reused. Before 1950, there was no such thing as waste in rural Tibetan areas. There are no un-natural materials used in traditional architecture. According to Dell'Angelo & Dimiziani, circularity can be seen as an integral part of Tibetan Architectural Heritage (Dell'Angelo & Dimiziani, 2007)

Tibetan farmhouses vary greatly concerning the degree of decoration and the sophistication of handcraft. Principally, living in larger towns such as Lhasa or Shigatse, was a significant privilege, accordingly the more beautiful and embellished houses can be found there. Nevertheless, some houses in Yushu prefecture are of high architectural quality. (see figure 15 & 16)





figure 21 (above)
Bird's view onto Xiege (Google Earth, 2015)
The single units are directed towards the valley in the southeast.

figure 22 (below)
Courtyard in a residential house in Xiege (Schmitt, J., 2016)
Decorated fabrics in front of the doors prevent from cold wind.



figure 23 (above)
Interior in Xiege (Schmitt, J., 2016)
Colours in the interior have both a decorative as well as a symbolic function.

figure 24 (below)
Panoramic view of Xiege from southwest (Schmitt, J., 2016)
All of the houses have spacious courtyards in front.



Urban Architecture – Town Planning and Residential Houses in Lhasa

Ancient Lhasa was one of only a few actual cities in the largely rural Tibet. It is located roughly on the same longitude as Cairo, but due to its altitude of around 3650 metres, temperatures reach from -15 to 28 degrees Celsius and the climate is extremely dry. It lies on the north bank of river Kyichu, which becomes the Brahmaputra in India and Bangladesh. The city has been the centre of the Tibetan empire since its existence. For decades, it was highly isolated from the outside world. Until 1950, less than 100 westerners in total had been to Lhasa. (Alexander & Catanese, 2007)

The extremely slow typological development, the continuity and conservatism in Tibetan architecture can on one side be explained by the country being so isolated over such a long time, but also because no major political and social changes have taken place. Not only in architecture, but also concerning arts and traditions in general, Tibetan Buddhists are known more than others to stick to their tradition very closely, which has to do with the strong lineage they draw back to their roots. Art and architecture, both heavily influenced by Buddhist values, are quite restricted by rules and norms and struggle to modernize (Dotson et al., 2009) There was never something such as styles or periods in Tibetan architecture. (Denvos, 1980) Especially domestic architecture has barely changed over the centuries. (Demood, 1996)

In 1949, 20,000 to 25,000 Menschen lived in Lhasa on only 3km² in around Jokhang temple and in front of Potala Palace. Another 15,000 to 20,000 monks lived in Sera, Ganden and Drepung. The small population and its slow growth had to do with poor infrastructure and accordingly a limited amount of people that nearby agriculture could supply.

Since 1949 and especially during the Cultural Revolution, architectural heritage in Lhasa has got lost. Lhasa's current population is around 475.000. An incredibly dense and narrow street network combined with an absent urban height limit has developed over the past years and leads to sanitation problems as well as a lack of daylight and fresh air. (Heyne, 2007) The Chinese government had initially planned to replace all the 600 traditional townhouses counted by Peter Aufschnaiter in 1948 with new buildings by 2000. Uniform four-storey steel- and concrete blocks with two courtyards per building and no heat-insulation have been built all over Lhasa. For up to 80 families in each of those houses, there are only two water taps. Shops on the ground floor sell mass-produced tourist gifts. So-called „national characteristics“ – pseudo-Tibetan-style painted facades with fake Tibetan ornaments - are supposed to reflect and create a sense of identity among its inhabitants. As private ownership is declining since 1959, most houses, old as well as new ones, lack maintenance. (Peters, o. J.)

Besides the physical heritage, also traditional construction skills are about to disappear. Thanks to the Tibet Heritage Fund, 76 of the old townhouses could be preserved. However, also in those, multiple families were urged to live in a space that was initially designed for a single one. (Tibet Heritage Fund, 2002) The following chapter is based on an analysis of those remaining buildings.

Lhasa



figure 25 (above)
Lhasa, Linkhor (Google Earth, 2019)
Linkhor, the outer loop, surrounds Potala, Chakpori and the old town.

figure 26 (below)
Lhasa, old town (Google Earth, 2019)
Lhasa's old town, with Jokhang in the south and Barkhor around it.



Location & Urban Scale:

Historic Lhasa, same as traditional monasteries and villages, is located between mountains, namely Nyenchen Tanglha, in the north and a river, Lhasa Gtsangpo, in the south.

The town has gradually grown around the centre of Tibetan Buddhism, Jokhang Temple. This large ceremonial complex has been started to build between 642 and 653 and until today remains one of Tibet's most important places for pilgrimage. Around the temple, three circumambulation loops developed. Circumambulation describes the clockwise surrounding of sanctuaries or sacred sites and is the most important Tibetan Buddhist custom. While surrounding the sacred space, people count mantras on 108 sandalwood pearls, clap hands in front of their forehead, throat and heart and kneel down as gesture to shown appreciation to others.

The inner loop, Nankor, is located inside of Jokhang and leads around the main shrine. The middle one, Barkhor, is the most frequented and leads around the temple as well as some attached residential buildings. (see figure 19) The outer one, Lingkhor, leads far around the old town and passed Lhasa's three hills Chakpori, Barmari and most importantly Marpori, on which Potala palace is built. (see figure 18) According to Tibetan Buddhist tradition, every Tibetan Buddhist shall come to Lhasa at least once in a lifetime and walk the three circumambulation paths. (S. Topgyal, personal communication 25. Januar 2017)

Lhasa's urban growth is similar to that of Indian pre-industrial cities in many ways. (Harari, 2017) In both cases, residential typologies differ largely depending on the social status of its inhabitants and were clearly separated. In Lhasa, for example, houses of people with connections to the Royal Court were clearly labelled, whereas, in the case of India, members of different casts inhabited completely different types of houses. Another similarity among Lhasa and particularly Hinduist pre-industrial cities is the absence of a clear separation between work and residency like for instance in early Muslim cities in the Middle East.

Also, in India as well as in Tibet, planners – although town-planning as instance barely existed in Tibet - were primarily supposed to bring human and cosmic principles in harmony (Herrle, 1983 p.68). Lhasa's urban structure is largely based on symbolic characteristics and meant to reflect the cosmic order (Rapoport, 1969) Generally, the concept of a divinity suggested a centre of the world and thereby stimulated the development of towns (Herrle, 1983, S. 47).

Public activity and social interaction in Lhasa rather take place in wider sections of streets and pockets spaces than on deliberately planned squares. The only two real squares in ancient Lhasa were in front of Jokhang temple and next to the mosque in the Muslim neighbourhood, located in the southeast of the old town. Indeed, besides facilitating religious practice, they also serve as a meeting point for locals and even accommodate commercial activity and a market in case of the Muslim one.

However, the streets nearby sacred places seemingly have a more important function. Barkhor, the most frequented circumambulation path leading around Jokhang, is flanked with prayer wheels in the inner side of the loop and shops, restaurants, workshops etc. on the outer side. Here, people from all over Lhasa and Tibet come together. Also smaller streets within different urban quarter are usually home to many small shops and restaurants. These function as major public spaces especially on a neighbourhood scale. In these areas, people one can see on the street would live nearby and know each other.

The succession of narrowness, inside the relatively dense street network of historic Lhasa, and largeness, in pocket spaces and on squares, has a Buddhist-philosophical background: People should breathe in black light - suffering - and white light out - compassion. (Heyne, 2007)

As previously discussed, in Lhasa, architecture served as the major means to differentiate sacral areas from residential ones. Houses generally had no addresses but were known and recognized by the name of its inhabitants. (Alexander & Catanese, 2007) Buddhist elites lived in larger, more beautifully decorated houses that were marked with a red penbe. They ruled the town, had the privilege of good monastic education and could thereby legitimizing their further political power. (Sjoberg, 1960)

Besides the differentiation into sacred and non-sacred buildings, something peculiar within the urban fabric of Lhasa is the complete absence of secular institutions or public buildings such as schools, libraries or hospitals (Dell'Angelo & Dimiziani, 2007)

age: 19th century

residents: Chongye Bumthang family

size: size: 35m x 25m

floors: 2

layout: east wing: servants, stables
west wing: family residence
residential rooms in the north
side of the courtyard

construction: masonry

type: noble house

peculiarity: two gates from opposite sides



figure 27 (above)
Bumthang's main entrance gate (Tibet Heritage Fund, 2002)
The biggest window, Rabsel, is placed right above the entrance.

figure 28 (below)
Bumthang's main entrance gate (Tibet Heritage Fund, 2002)
Within the courtyard, the facade seems symmetric.

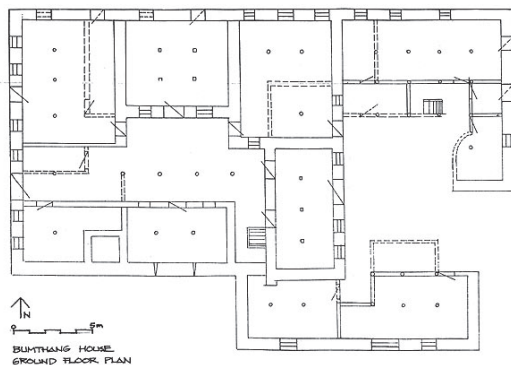
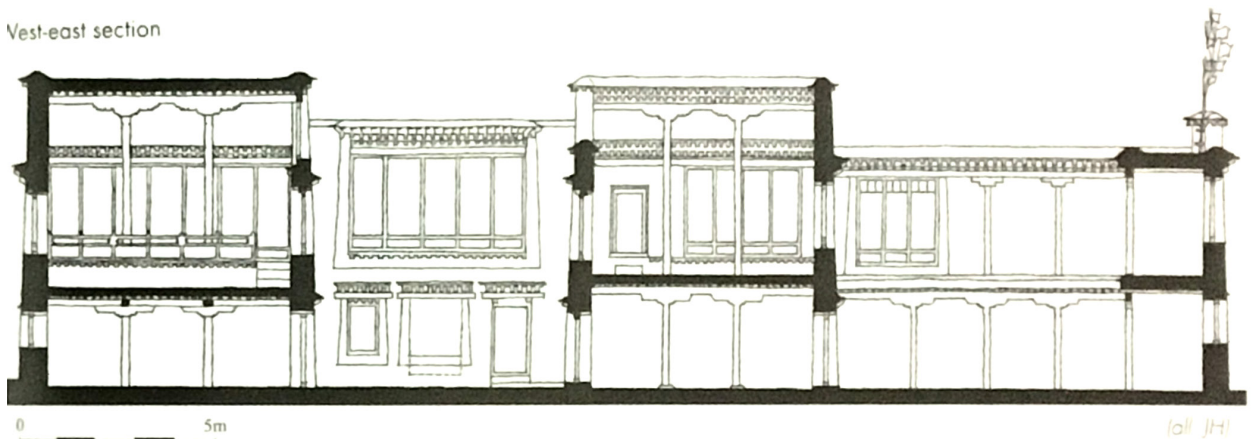


figure 29 (above)
Ground floor Bumthang (Tibet Heritage Fund, 2002)
The entrance through the yard is located in the southeast.

figure 30 (below)
West-east section Bumthang (Tibet Heritage Fund, 2002)
Those rooms with higher ceilings host important people.



Vest-east section



Building Scale

The traditional Lhasa house is roughly symmetrical and characterized by white-washed, inclining walls, red parapets made from straw in the upper part of the wall and flat roofs with elevated roof corners and incense cloves on top.

Few small windows are placed inside black-painted trapezoidal frames, (Templeman, 2010) that follow the shape of the outside walls. (W. Ringzin, personal communication Kommunikation, 29. November 2019) Above those windows and the doors, there are little wood and slate roofs and beautifully handcrafted fabrics attached to them. The complicated wooden overhangs are decorative today, however, initially, they were built to evenly distribute the weight above the window. The largest window of a house is called „Rabsel“ and usually placed in the centre above the main entrance. (see figure 20 & 21) In most cases, the room behind the Rabsel is the family room.

Prayer flags on the roof signify that the inhabitants are Buddhists. Houses of Buddhist elites with relation to the Royal Court were even marked with a red penbe (see figure 24) (Alexander, 2007) (Dotson et al., 2009 p.113 ff.) (Krishar & Aguihahri, 1995)

Lhasa houses are approximately rectangular and arranged around a courtyard. They provided space for an extended family, including relatives, servants, animals and storing goods.

Most townhouses have two or three floors. (Denvos, 1980) The roofs often jump from one level to another for the sake of direct access from rooms to private outside space. (see figure 23) Verandas were usually located above the entrance, often facing south and served to, for example, dry clothes. (Krishar & Aguihahri, 1995) During summer, life took place on the top floor, in winter however, most families moved down one floor due to the cold. Differences in height of floors and ceilings directly expressed hierarchy in the building.

People used to share bathroom and kitchen, often a small winter garden as well as the mandatory shrine. Wealthier families used to have their own schooling rooms. Women and men traditionally lived separately. In most cases, the ground floor was used for storage and stable. The kitchen is usually located centrally on the first floor and the only source of heat in the building. In smaller houses, kitchens could also function as the main living room. (Krishar & Aguihahri, 1995) A standard location for a shrine tends to be opposite the entrance on the first floor. Normally, the more private rooms are on the second floor, accessible through stairs in the courtyard. All rooms have direct access to the gallery facing the courtyard and are therefore also directly exposed to the outside climate. (see figure 22 & 25) In the courtyard, there are plants and a solar oven – a parabolic mirror – to heat water. (Alexander, 2019) (Heyne, 2007)

In the past 50 years, three categories for different types of Lhasa houses have evolved in academia, especially influenced by the definitions of the Tibet Heritage Fund: the noble house, the large residential house and the small house. In their basic architectural principles, those houses are very similar, but they differ depending on ownership and function.

The noble house is characterized by good craftsmanship and materials. The main building is up to three floors high, lower attached outbuildings host servants and stable.

Large residential houses were usually owned either privately, by monasteries or the government. Originally built as temporary lodging for travelling merchants, after the urban growth of Lhasa, they became tenements for monks or nuns during important festivals. Those buildings are less symmetrical and less ornamented.

Small houses were owned by traders and usually consisted of shops and storage rooms, as well as private residential spaces. In small houses, sometimes, the praying- and sitting room are combined. (Tibet Heritage Fund, 2002)

Lhasa

Tromsikhang

age: early 18th century

residents: 6th Dalai Lama
later residential and
administrative building

size: 60m x 40m

floors: 3

layout: shops in the ground floor
dwelling units above

construction: stones, mud

type: large residential house

peculiarity: three entrance gates, three courtyards
used to accomodate more than one family
pillars vary per floor

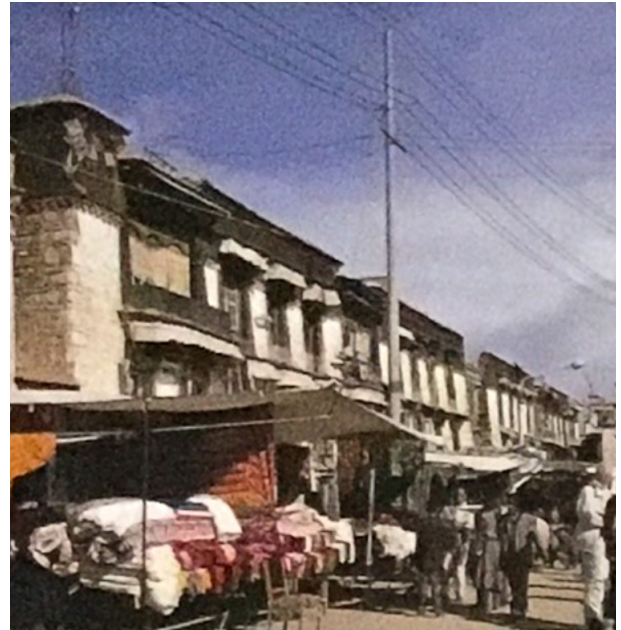


figure 31 (above)
Tromsikhang's Barkhor-side (Tibet Heritage Fund, 2002)
Shops in the ground floor were extended onto Barkhor on market days.

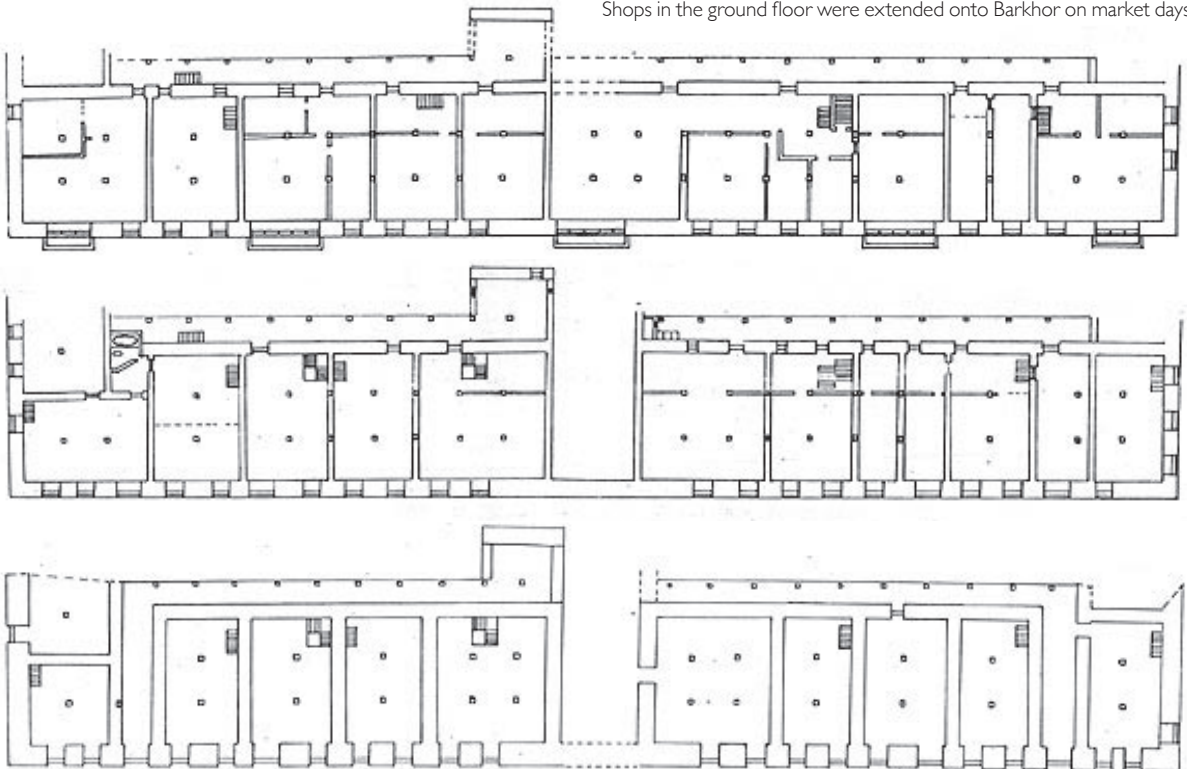
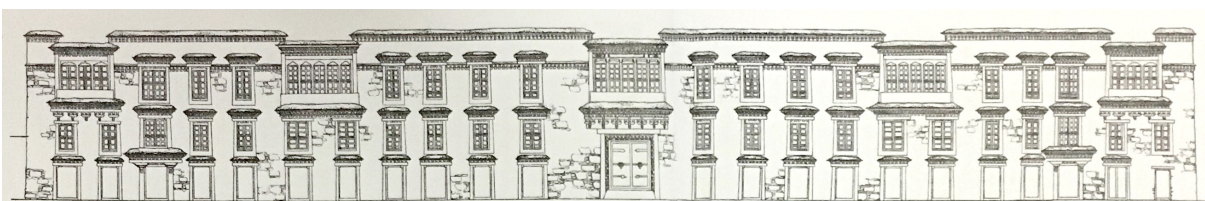


figure 32 (above)
Floorplans Tromsikhang (Tibet Heritage Fund, 2002)
Every level has different kinds of openings towards Barkhor in the south.

figure 33 (below)
South elevation Tromsikhang (Tibet Heritage Fund, 2002)
The facade is entirely symmetrical, the building has three entrances.



Construction and Handcraft

Although Tibetan townhouses are to a major extent characterized by symbols, ornaments and other decorations, there is much less kitsch than in Chinese architecture. Typical symbols are the deer and wheel, medallion ornaments, or decorative beam ends that represent enlightenment. As seen before in monastic architecture or some of the farmhouses, traditional symbolic language interrelates closely with the structure (see figure 28 & 31) (Heyne, 2007)

Paintings or statues of Buddhas – that were initially prohibited in Buddhism and date back to the sovereignty of Alexander the Great who first initiated to visualize of Buddha – can be found in any house. The smallest private apartment would have a small prayer room with at least three Buddhas, representing past, present and future. (Herrle, 1983)

Highly sophisticated, handcrafted fabrics are being hung above doors. Besides climatic reasons, their traditional function is to protect houses from demons. (Heyne, 2007)

In the interiors, there is usually little space to sit on chairs – Tibetans tend to sit cross-legged or on comparably low benches and tables. Furniture with traditional woodcarving plays an important role in how people individualize their homes and are also a major means of representation towards guests.

The quality of handcraft in a house quite directly reflects the wealth of the inhabitants. Same counts for the wooden lattices, handrails of the galleries or windows and doors. (Larsen & Sinding-Larsen, 2001)

Until 1950, Lhasa's townhouses were built entirely from natural materials. For stability, often, the lower floors were constructed from solid stones and the upper floors from mud bricks. The outside walls inclined, the inside walls were straight. On the ground floor, the width of the outer walls floor could reach a metre. To prevent the structure from frost, the walls were being whitewashed regularly. Thick stone- or clay walls accumulated heat and naturally regulated the exposure to moisture and humidity. For insulation, some houses even had an inner and an outer stonewall, the in-between being filled with stone rubble and straw. Every single element of a house could be recycled after demolition. (Heyne, 2007)

Ceilings were mostly built from wood. Any kinds of arches or bows were unknown in Tibetan architecture until 1949. On top of that, a layer of gravel and arga - a traditional mixture of clay and fat - or Tikse - a water-absorbing kind of sand – was applied to water-prove the roof. The entire structure was usually carried by a flexible post and lintel construction that could move independently from the outer walls to prevent serious damage in the case of earthquakes. (Demood, 1996)

Often, there were two door leaves under one lintel, opening both towards the inside and the outside, for more wind protection. Door- and window openings were relatively small and painted black to reduce heat emissions and make use of solar energy as much as possible. (Heyne, 2007)

Until the Chinese invasion, there was nothing such as organized planning processes for the construction of a house. Master carpenters and stonemasons (Chimos) were guided by a monk who was responsible for Buddhist geomancy. Decisions were made on-site and step by step. (Herrle, 1983)

Lhasa

Khimey

age: 18th century

residents: Khimey family

size: 30m x 18m

floors: 2

layout: large, windowless rooms
around a courtyard

construction: stones and mudbricks

type: noble house

peculiarity: medicine Buddha on the beam
painted by the personal doctor of
the 7th Dalai Lama



figure 34 (above)

Khimey's front side (Tibet Heritage Fund, 2002)

Khimey is one of few houses where the Rabtsel is not above the entrance.



figure 35 (above)

Khimey's interior (Tibet Heritage Fund, 2002)

Khimey is particularly famous for its handcraft.

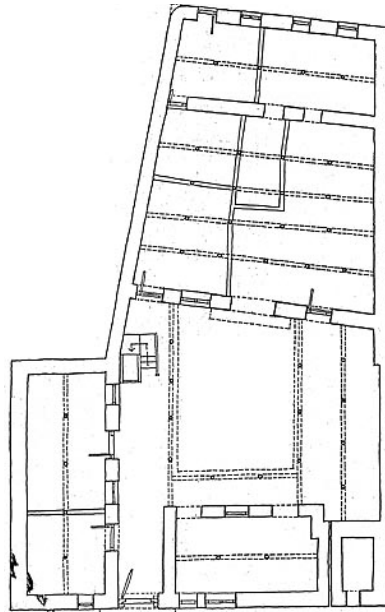


figure 36 (above)

Khimey floorplans (Tibet Heritage Fund, 2002)

Khimey has very deep, windowless rooms, that are only open towards the courtyard.

figure 37 (below)

Khimey elevation (Tibet Heritage Fund, 2002)

Khimey's facade is unusually assymetrical.

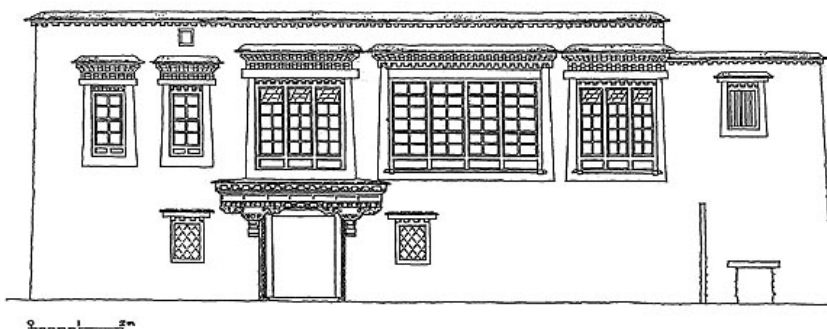
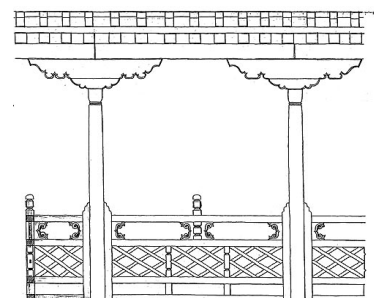


figure 37 (below)

Balustrades (Tibet Heritage Fund, 2002)

The balustrades are beautifully handcrafted.



Tibetan Architecture within the diaspora in India

„*Tibetans have lost their architecture*“ (S. Phuntsog, personal communication, 25. Dezember 2019)

Architecture can be considered the most physically apparent indicator of Tibetan presence in India (Dotson et al., 2009 p.113 ff.) Concerning the development of Tibetan architecture in the diaspora in India, one first has to differentiate between sacral and monastic architecture on the one hand, and secular, residential architecture on the other.

The three major Tibetan monasteries, Drepung, Sera and Ganden, all have an equivalent in India. Unlike in Lhasa, where they were all located around the town, close to the Dalai Lama's residence, in India, they were rebuilt in remote places in Karnataka State, far away from McLeod Ganj. (Anand, 2001) (Grent, 2018) Several distinctive elements of the sacred geography of Lhasa, such as circumambulation paths surrounding the temples, have been rebuilt on a smaller scale. (Dahlström, 2001 p.15)

Compared to any other exile community in the world, Tibetans are unique in the way they recreate their traditional architecture in the host country. Most sacred buildings in the diaspora are exact reconstructions of monasteries back in Tibet. (W. Ringzin, personal communication, 29. November 2019) This recreation, though, is purely visual. All other ways of perceiving architecture, especially auditive, differ completely. (Dotson et al., 2009 p.113 ff.) Is this helpful for the preservation of Tibetan Buddhist culture or leading to an image of Tibetan culture that is redundant, outdated and harmful for the authentic development of vernacular art and architecture? Isn't evolution inevitable to remain alive? Can the true potential of Tibetan art and architecture be fully developed in the contemporary context?

In other places, the Tibetan exile community has created modern interpretations of their architecture, has found a way to mediate between Tibetan values and those of the host society. The Tibetan Institute in Rikon, Switzerland, for instance, reinterprets seemingly thick walls that we know from traditional Tibetan houses and thereby embraced the sense of privacy that many Tibetans are used to. Also, the orientation towards cardinal directions and its location on a slope. The symmetry, as well as the red frieze on top, are features that relate to Tibetan architecture but at the same time appear contemporary. (see figure 32) Another interesting example is the perfect application of a tantric Mandala as floorplan for the Tibetan Buddhist temple Tsagan Aman Khurul in Kalmykia, Russia. The spatial configuration of the architecture is strongly referring to Tibetan Buddhist tradition, the outer appearance, however, is a synthesis between Chinese, Tibetan and Russian building traditions. (see figure 33) (Repo, 2009)

The first generation of secular Tibetan architecture in the diaspora in India bears a significant resemblance with traditional Tibetan architecture. However, both in McLeod Ganj and Bylakuppe, the awareness of traditional building culture has drastically decreased over the years. It is quite simple to observe the transition from initial Tibetan typologies in the 1960s to completely western houses that are being built today. Up to a certain degree, this is surely simply the process of modernisation. Nevertheless, it is interesting to realize, how quickly this process has passed off, also considering the extremely laggard modernisation of Tibetan architecture before 1950. There is almost no typological difference between a traditional Lhasa house from 1300 and 1940. Ringzin, architect and inhabitant of the Tibetan settlement in Bylakuppe, argues, that traditional features also get lost due to rising living standards. (W. Ringzin, personal communication, 29. November 2019) Vernacular Tibetan architecture, he continues, mainly derived from the urge to find cheap, simple and practical solutions concerning the availability of materials and technological possibilities.

Minervini even argues, concerning the limited possibilities, vernacular architecture could also be seen as poor people's houses and the earliest form of social housing. (Minervini, 2007) Vernacularity, he states, moves on, varies and is more a method than a style. Considering, that the Tibetan diasporic community is nowadays in a relatively wealthy situation and has access to modern technology and materials, is it still justified to ask whether Tibetan vernacular architecture influences the current architectural development in the Tibetan diaspora?

Generally, many urban characteristics of Tibetan cities „were migrated“, such as the arrangement around a sacral space, circumambulation paths or the location of monasteries in relation to commercial activities.

On a building scale, the architecture of Tibetan migrants in most places in India assimilated very much to the local population's buildings, which vary largely throughout India. Only a few traditional Tibetan features remain existent in the diaspora. Also visually, the relation of Tibetan architectural tradition in India to its roots in Tibet is very limited. Tibetan handicraft is widely taught, the knowledge given further in the diaspora. (Lhakdor & Dhondup, 2016 p.53 ff.) However, it seems to be barely applied in architecture.



figure 39 (above)
Buddhistisches Institut Rikon (Roland, Z., 2009)
Seemingly thick walls and the red frieze relate to vernacular architecture.

figure 40 (below)
Tsagan Aman Khurul (Repo, J. 2009)
The design, based on a Mandala, made use of local construction techniques.



Demography

The Tibetan Diaspora in India is of relatively high average age. Young, more culturally modern and independent people tend to move further to western countries. The Tibetan community has been growing fairly slow due to the high mortality rate in the first years of exile, continuous dispersion of Tibetans and low birth rates as result of the large number of clerics. (Pehrson, 2003) 40% of Tibetan refugees were monks or nuns. Still today the percentage of clerics within the Diaspora is relatively high, however, there are no reliable numbers.

While in 1998, 85,000 (76.46%) out of 111,170 Tibetans in exile lived in India, (CTA, 2019) in 2009, 94,203 (73,63%) out of 127,935 Tibetans in exile live in India. (Bentz, 2012) The amount of Tibetans in India grew 0.94% per year between 1998 and 2009, the number of Tibetans in exile annually increased 1,3% in the same time. Despite this comparably slow population growth, most settlements have already been overpopulated for ages. (R. Khube, personal communication, 30. November 2019)

Economy

The unemployment rate of Tibetans in India is still 25%. 30% of the working Tibetan population is dependent on agriculture, accounting for 50% in the settlements. Many Tibetans seasonally work in the „sweater industry“ (the trade with aesthetically Tibetan clothes made in India during cold times of the year), in tourism or for the Indian Army, especially in Kashmir. Generally, little trade takes place inside the settlements and within the Tibetan community. Tibetans rather trade with the Indian society.

Due to a high degree of mutual support within the Tibetan exile community, Tibetans are in an economically relatively stable and wealthy position.

Education

In India, both Tibetan monastic as well as secular education is provided for free by the CTA, the Indian government and SOS Children's Village.

Regular school education for Tibetans in India takes place completely separate from the Indian population, even in gradually developed settlements close to Indian cities such as New Aruna Nagar in Majnu Ka Tilla, Delhi. Among Tibetans, there is very little knowledge about both Tibetan history, the history of migration, the development of the diaspora and also about Indian history and society.

Many young Tibetans first intersect with Indians of their age when they go to a state university in India. However, even here, the Indira Gandhi University, India's biggest university with satellite campuses all over the world, maintains branches in Tibetan settlements such as Sera, Bylakuppe. With an annual study fee of 10,000 rupees - affordable for the majority of Tibetan students and families – many students do not consider leaving Tibetan settlements to study in an actual university. (Bentz, 2012) (Grent, 2018)

The amount of Tibetans migrating to India for better education is particularly high. Tibetan monasteries in China lack qualified religious leaders, the access to monastic education is limited and, in most cases, only possible through high bribes. Furthermore, also inside monastic communities, freedom of speech is not given. Instead, monastic education includes a weekly „patriotic re-education campaign“. In India, on the other hand, religious freedom is guaranteed to Tibetans.

Regular monastic education takes 23 years - the spiritual idea is to enjoy life-long education – but takes places completely separate from Indian society. The degree of integration of clerics into Indian society is therefore even lower than among laymen.

In regular Chinese schools, discrimination and humiliation of Tibetan students in Chinese schools are major reasons for young Tibetans to flee. Major exams can only be taken in Chinese language. The chance to get into higher education is very small for Tibetans. Migrants, that have come to India for education, are supposed to return after graduation, but then often become monks or nuns in order to be allowed to stay. Because of that, between 1980 and 1994, during China's phase of liberalization, the percentage of clerics in the diaspora has doubled (Dahlström, 2001 p.25).

Interaction of Tibetans in Exile with Indians:

In „Sense of belonging among Tibetan refugees in India“ (Grent, 2018), Anne Grent defines five indicators for good integration of migrants into a host society:

- 1) The category „cultural norms and values“ describes the initial cultural similarities between the host society and the migrant community. In the case of Tibetans in India, similarities such as the passion for meditation or worship and the belief in Karma create a certain sense of belonging-together. Besides that, especially young Tibetans that have grown up in India, are attached to Indian music, movies and food. A major problem, on the other hand, seems to be Tibetan's limited language proficiency. Tibetan being their mother tongue, they learn Hindi or locally spoken languages only as second or third language. (Grent, 2018)

Political attitudes are also a potential source of conflict. Indians tend to be more conservative than Tibetans, considering, for example, the role of women in society. (Pehrson, 2003) The fact that many Tibetans wish to migrate to the west or go back (Grent, 2018 p.78), not because of aversion to their lives in India but because of the changing political climate in India (Martinez Cantera, 2019), also makes them struggle to properly integrate into Indian society, which they only see as a temporary social environment – although the commitment to remain in India and its perception as homeland are constantly increasing.

- 2) The „host society receptivity“ describes the overall willingness of the host society to accept the presence of migrants and integrate them into their own everyday lives. While no one can deny the Indian people and government their generosity towards Tibetans, their interest in intersecting with Tibetan people seems relatively small. Indians from Kushalnagar – the Indian town next to the Tibetan settlement of Bylakuppe - only know vaguely about Tibetans. Indians barely visit Tibetan refugee settlements, if so, then only for touristic purpose. In Bylakuppe, India's most touristic Tibetan settlement - because of Sera monastery - Indian tourists barely arrive beyond the monastery and don't reach places of interaction with the settlement's population.

- 3) „Social capital and immigrants' social network“ addresses the ability of a migrant community to assimilate to new social environments and respect the host societies' social norms and values. The issue of conservatism and struggle to modernize within Tibetan society, as brought up in the first chapter, is a problematic phenomenon when it comes to the capability to assimilate to a new cultural environment. While statistically, the sense of belonging among refugees is rather induced through economic participation in „western“ countries but through social networks and host receptivity in Asia (Antonsich, 2010) (Amit & Bar-Lev, 2014, S.) (Rajman & Geffen, 2017), the interaction between Tibetans and Indians is mostly of economical nature (Palakshappa, 1978 p. 978) (Bentz, 2012) and statistically usually for a limited period of time. (Grent, 2018 p.73)

Most Tibetans have a large part of their circle of friends inside the Tibetan community and only visit Indian towns for the sake of shopping, leisure or to meet Tibetan friends or family living in there. Tibetans in exile embody a ‚third space‘ somewhere between being Tibet and India and don't entirely feel belonging to either of the places. (Wangchuk, Falcone, 2008)

- 4) The indicator „economic integration and participation in the receiving society“ evaluates the extend, to which the migrant community and the host society intersect economically. As previously explained, large parts of the Tibetan community are dependent on subsistence farming. Due to Tibetan's legal status, integration into Indian companies is difficult. Most employed Tibetans work within their settlement. Tibetan merchants, however, rather trade with the Indian society than inside the Tibetan community. Although those connections are mostly temporary, they still form one of the major bridges between Indian and Tibetan societies. (Grent, 2018)

In some cases, Indians even tend to envy Tibetans for their fast economic development due to support from the Indian government, (Grent, 2018) a good education system and the Western world's financial aid and interest in them. (Pehrson, 2003) Especially in Himachal Pradesh, through governmental support and tourism-related money, Tibetans largely achieved much higher living standards than local Indians. Tibetans would even employ Indians. (Om Prakash, 2011)

- 5) The „exposure to the host society“ defines the degree to which the migrant community is spatially connected to the host society. In case of the Tibetan Diaspora in India, as discussed before, the CTA and the Indian government have deliberately minimized this exposure through locating Tibetan settlements as far away from civilization as possible and designing a legal framework that would impede intersection between Indian and Tibetan people as much as possible. Nevertheless, over the past 60 years, informal Tibetan neighbourhoods have developed next to major Indian cities and Tibetan and Indian society have become spatially closer.

Despite all these trouble spots, among Tibetans, there is enormous gratitude towards Indian people and the Indian government for the way they have welcomed Tibetans as refugees over the past 60 years. In an interview, Tashi, 64, said: „Indians provided us with everything, really. No other country in the world can provide what the Indians have done for the Tibetans. They have given us school systems, paid for the school systems, gave us huge pieces of land to settle in. We have our own government, we have our own administration, everything. And their government does not say anything. If we try to do this in Holland, they will shut us down in one minute. They will say: assimilate! Now you are in Holland, behave like a Dutch person! It is ridiculous actually, the amount of help that the Indians have given us, the space to function.“ (Grent, 2018)

Tibetans interviewed by Anne Grent emphasized, that discrimination, in the form of overcharging and insults, barely occurs and if, then mostly through people that are usually not confronted with Tibetan refugees. „It depends on the knowledge and awareness of Tibetans among the Indians.“ Tashi continued, „If they know our nature, then Indian people are very kind to us.“ (Grent, 2018) This lack of knowledge among Indians concerning Tibetan's history is caused by and at the same time leading to social isolation.

Sense of belonging within the Tibetan Community

„As the child grows, it develops a sense of belonging not only to the family, but to the community, the nation, and a cultural group“.

(Kestenberg & Kestenberg, 1988 p.598)

Principally, the common destiny binds people in the Indian diaspora closely together. Tibetans in one settlement would usually have a well-functioning social environment within the settlement, but at the same time have a broad community of friends in the other settlements spread all over India. Geographic Tibet is admired as a home country and people feel belonging together as Tibetans more than ever before. Yuval-Davis describes the term „belonging as‘ „to be a member of a club, household, grade, society, state, etc., to be resident of or connected with (a place) and to be rightly placed or classified to fit in a specific environment“. (Yuval-Davis, 2011 p.129 - 130) Indeed, Tibetan's sense of belonging exists on many levels.

Nevertheless, there are certain broader conflicts within the Tibetan diaspora weakening the feeling of belonging-together and the sense of community. One major issue is the friction between first-generation migrants (long-timers) and new-comers. The latter, usually rather uneducated and with greater need of support, are often considered a burden to the exile community. A major problem is the land and space for newcomers. Most settlements are heavily overpopulated. The conflict arises, whether further refugees should be granted land in the diaspora or not. Furthermore, many settlements have a problem with an ageing population.

The long-timers, also nick-named „Hardees“, are mostly born in Tibet and personally experienced hardships. Especially older Tibetans in exile still have relatively traditional values, also because the interaction with Indian society is minimal. They tend to be very political, full of willingness to fight and sacrifice themselves for the sake of liberation. Newcomers, nick-named „Softies“, tend to care more about a well-paid job and a good life than about the political situation (Dahlström, 2001) and share „the experience of personal involvement in a system or environment“ in India, „so that they feel themselves to be an integral part of that“. (Hagerty et al., 1992 p.173)

As mentioned before, Tibetans only started to identify themselves as such after the Chinese government challenged Tibet's existence (Dreyfus, 2003 p. 38-9). Society was heterogeneous and only became more homogeneous through the shared trauma and a „common enemy“. Many Tibetans in Exile wear black or white bracelets as a sign against Chinese occupation. Another issue that creates tension is the CTA. Still today, many Tibetans in Exile, especially long-timers, quite blindly follow the Dalai Lama's statements (Martinez Cantera, 2019). The younger ge-

neration tends to see the Dalai Lama less like a leading figure and supports the democratization of the CTA. While most long-timers still plan on returning to a free Tibet at some point, young Tibetans tend to support the CTA's middle way approach and are anyway more oriented towards the western world. Besides Indian tourists, between 1,000 and 2,000 Chinese people annually visit Bylakuppe. Particularly young Tibetans people have a relatively neutral attitude towards that and appreciate Chinese people to confront themselves with history. Their critical attitude is mostly directed to Chinese authorities. (S. Phuntsog, personal communication, 25. December 2019)

There is barely any communication about the trauma. Although many Tibetans start to process their history (R. Sarin & S. Tenzin, personal communication, 29. September 2019), the conflict is always on people's mind. The young generation feels something like home in India and identifies with their new environment, however, the more politically engaged older generation still considers the exile as a temporary solution and does not have the „personal, intimate, feeling of being ‚at home‘ in a place“. (Antonsich, 2010 p.645) This conflict is also reflected in education. Should children be prepared for life in India or a liberated Tibet? (Dahlström, 2001, S. 8) And should Tibetans accept Indian nationality when they are offered? The CTA officially leaves it up to Tibetans in exile whether they want to take Indian nationality or not, but in fact, they still try to stimulate Tibetans not to, in order to „preserve their identity“ (Doshi, 2017)

Between western, Indian and Tibetan culture

Quickly after arriving in India, the Dalai Lama got confronted with comparably western-influenced, rational values of Indian society - compared to the spiritual surrounding he was used to. However, he claims reason not to be inconsistent with spirituality and science not to be inconsistent with belief. (Franz, 2000) The CTA, on the other hand, regularly expresses anxiety about the shrinkage of Tibetan culture. (Anand, 2001)

Tibetans live in an in-between world. The feeling of uprootedness and the every-day-presence of the political situation still has a big impact on the Tibetan diaspora. Rituals and commemorative events create a collective memory and are essential for social cohesion. (Anand, 2001) The importance of the Dalai Lama as a means of recollection to the time when Tibetans exercised self-determination in their homeland can not be underestimated. Many old Tibetans go on pilgrimage to India towards the end of their lives to meet His Holiness. The wish to return to geographic Tibet is widely spread within the exile community, although reintegration and finding work turn out to be difficult within the Chinese system - most returnees are even detained and interrogated for a while. In some Tibetan areas, regulations prohibit monks and nuns who have been abroad to rejoin their monasteries and nunneries. (Tenzin & Sarin, 2018)

On the other side, the Tibetan society has liberalized a lot. Young Tibetans look up to western societies. For example, a significant change has happened in the vision of relationships and families, which seems to be more influenced by Hindi movies than by traditional Tibet. Love marriages have replaced arranged ones. If at all, Tibetans still mostly marry inside the community in exile, thus marrying westerners is broadly accepted. Even living as a single woman is considered normal and well-respected. (Dahlström, 2001) Polyandry, common in Tibet before 1959, almost disappeared. (Grent, 2018)

Feeling disconnected from geographical Tibet, young Tibetans tend to characterize themselves as remix between Tibetan, Indian and Western. While their parents stay in settlements, teenagers often live alone in dormitories next to their schools or in boarding schools. Those constellations have created a very independent lifestyle, the so-called „Youth Hostel Culture“. The sense of belonging towards Indian society tendentially increases according to the positive perception of the social climate and financial success. (Purohit, 2019) Especially the rapidly modernizing young generation feels hindered by the CTA's conservative legal and social framework. There are no secular institutions that could connect and create a network for young, modern Tibetans. The Tibetan government in exile, being everything but secular at the time of its establishment, as well as international donors and supporters invested solely into the establishment of monastic institutions. (Doshi, 2017)

People are overall quite happy and have built up a life in India. However, most people on the long run wish to return. (S. Phuntsog, personal communication, 25. December 2019) Many Tibetans struggle to find a balance between perceiving oneself as Indian or Tibetan and a decreasing part of Tibetans in the diaspora actually identifies him- or herself with the values practised by the CTA and its visions for the Tibetan diaspora. (Wangchuk, Falcone, 2008)

Formal settlements - the case of Bylakuppe, Karnataka

The majority of Tibetans in exile live in 54 formal refugee settlements in India (Schweizerische Eidgenossenschaft, 2019). The concept of those settlements was the outcome of negotiations between the Dalai Lama and the Indian government. Every settlement has an assembly, a settlement officer and a justice commission and is subdivided into smaller camps, each of which is governed by a camp officer. Almost every settlement has its monastery as well as a variety of facilities such as schools, old people's homes, medical centres, shops etc. and agricultural field to be cultivated by the people. (CTA, 2019 Planning Council 1992).

The social, religious and geographical composition of each settlement was meant to represent that of Tibet as a whole. Within one settlement, refugees should belong to all social classes, the four main Buddhist schools (Nyingma, Sakya, Kagyü and Gelug) and the three traditional Tibetan regions (U-Tsang, Amdo and Kham), similarly to the proportions within former Tibet. (Bentz, 2012)

As mentioned before, Tibetan refugees in the settlements were intended to remain isolated from Indian society to preserve Tibetan culture and ethnicity. (Grent, 2018) Most of the settlements are situated far out in the countryside on locations solely decided and provided by Indian central and state governments. (Anand, 2001) (Dahlström, 2001) A majority of Tibetans in the settlements don't know any Indians, but also do not consider this a deficit and can't tell the reason why this is the case.

Initially, the settlements were meant to be a temporary solution (Palakshappa, 1978). The building structures have never been renovated since they were built in the 1960s. Poor sanitation and little running water cause regular cases of tuberculosis (CTA, 2019 1994a).

In the beginning, each family of five people was given five acres of land and a two- to three-room house (CTA, 2019). Today, many buildings are completely over-populated, designed for five-member-families, but in reality inhabited by eight on average (United Nations High Commissioner for Refugees, 2019).

By trend, the more traditional Tibetan communities are based in South India, the more modern ones in the north (Grent, 2018). Bylakuppe in Karnataka state is India's biggest Tibetan settlement.



figure 41

Bird's view onto Bylakuppe (Google Earth, 2018)

One can clearly see the difference between the old settlement in the north and the new one in the south.

Location & Urban Scale

The settlement is split into two parts. Lungsung Samdupling, in the north, the old one, initially intended to fit 3000 refugees on 3000 acres of land (Bentz, 2012), hosts 15,600 people today. (see figure 34 & 37) Established in 1960, it consists of 16 camps with two to three kilometres between each of them.

The new camp, Dickyi Larsoe, in the south, hosts 4,700 people since 1969, consisting of seven camps with four to six kilometres between each of them. (see figure 34 & 35) Every camp accommodates around 30 families with 4-14 members each. Inhabitants even estimate the number of inhabitants to reach around 25,000 lays in the settlement, and another 15,000 clerics, among which there are 7,000 non-Tibetans, who are coming for monastic education. Clerics and lays, however, live quite separately. Monks can only leave Sery Jey once a week (S. Phuntsog, personal communication, 25. December 2019)

After its establishment, the camp was quickly overpopulated. Nowadays, the CTA has problems to accommodate all the newcomers. Several satellite settlements around Bylakuppe have developed to compensate the overpopulation. (S. Phuntsog, personal communication, 25. December 2019)

Before the Tibetan inhabitation, the lands were unused, dense forests with wild animals. After initially receiving financial support, the settlement quickly became self-supportive, mostly through farming. Other economic sectors are seasonal sweater selling, trading, shop-keeping and food service. The settlement has a good education system and is home to one of the three re-established major Tibetan monasteries, Sera.

In terms of the size, the connectivity and the degree of integration of each camp as well as the social interaction between different camps, the settlement functions in a similar way than rural areas in Yushu. Each camp is dependent on its own agriculture around and its size is defined by the agricultural resources that the nearby land can provide. Although the plots of land around each building within a camp are too big to create protection from wind by shifting the position of the houses – which in India would not make sense anyway – still the houses are positioned with regard to visual privacy and the openings mostly directed towards the own garden. There seems to be a strong social bond and mutual support among the residents of each camp. However, the interaction with residents of nearby camps is rather limited. Generally, there is little community space in Bylakuppe. Most of the camps have no facilities. Public institutions and other places to meet exist only in few of the camps. In those, streets are principally quite busy but there is little possibility to sit outside and besides shops and restaurants, no space for interaction. This clear separation of social spaces and residential area has been existing in rural Tibet before too. Besides those streets, most of the public space is located next to monasteries.

This lack of space for public interaction makes the Tibetan diaspora hard to access for the Indian population. They can barely develop sensibility and empathy, as – if at all – the only areas they know from the Tibetan diaspora are restaurants and shops, while it seems hard to come closer to Tibetan's more personal space. On the other side, there are many restaurants and public areas in Kushalnagar, the nearby Indian town. Tibetans are all over the place, but don't live there and are mostly among themselves.

The natural setting in Bylakuppe obviously does not resemble anything that Tibetans were used to from their homeland. That makes the traditional choice of location for settlements and monasteries difficult to fulfil in the diaspora – for example, monasteries in Bylakuppe are mostly located on hilltops because of heavy rainfalls and flood risk during monsoon time, rather than a slope facing south as tradition suggests.



figure 42 (above)
Lungsung Samduling (Google Earth, 2017)
The old camp mostly grew organically over time.

figure 43 (below)
Residential house in Lungsung Samduling (Schmitt, J., 2019)
Many old buildings are still arranged around courtyards.



Building Scale

Most of the houses in Bylakuppe are individual and free-standing but built quite compactly on two or three floors with pitched roofs. (see figure 38) The traditional flat roof disappeared, according to the changed climatic circumstances - warm-humid weather with heavy rainfalls. Considering the amount of space available in Bylakuppe and the climate in Karnataka, this compact building style climatically does not make sense, however, this could be a form of recollection of Tibetan building tradition. The inward-slanting walls on the other hand completely disappeared as the risk of earthquakes in Bylakuppe is neglectable.

Concerning the spatial arrangement on the scale of a single housing unit, in some cases, typical features like access balconies and relatively introverted structures were reproduced. Individual houses and compounds grew over time, also the settlement as a whole was subject to gradual growth. One can see quite clearly that the later buildings were built, the less Tibetan and more Indian they appear and especially function.

Many old generation buildings are still arranged around courtyards and open mainly towards the inside. (see figure 36) They are visually relatively introverted, windows to the outside are usually covered with curtains. This introvert-ness is surely part of Tibetan culture, however, it is also considered to be a problem, as it spatially impedes further integration of Tibetans in India. The communicative, interactive aspects of vernacular housing architecture are very limited.

Same as in Tibet, most rooms within a house are directly accessible from the outside. The prayer room is still the central element of the house and generally, the spatial arrangement within one building is relatively similar to those of houses in rural Tibet. Most buildings are made from bricks, whitewashed for water protection, with wooden roof structures and tiles on top. Traditional Tibetan mud and wood huts can't be found here, as mud architecture would be very fragile during Monsoon season. Also, stone houses barely exist in Bylakuppe, which has to do with the relatively cheap availability of bricks.

The newer generation of houses is mostly intended to resemble western architecture. Courtyard structures have disappeared, rooms get daylight from the outer sides of the building. Floorplans are arranged around a central living room, (see figure 40) the prayer room moved to the side - if it remained existent at all. To achieve a similar level of privacy that the courtyards created before, most of the houses in Bylakuppe are fenced. (Om Prakash, 2011)



figure 44 (above)
Dickyi Larsoe (Google Earth, 2016)
The new camp is rigidly master-planned.

figure 45 (below)
Residential house in Dickyi Larsoe (Schmitt, J., 2019)
Most buildings in the camp rather resemble western buildings.



Construction and Handcraft

Many new houses are in architecturally quite poor condition. Build from concrete, they are subject to a lot of moisture. Concrete is currently cheaper than wood in India, also, concrete blocks are cheaper and easier to build than burnt clay bricks. Asbestos and metal sheets are common materials to cover roofs. Most buildings were built by Tibetans themselves with help of Indian workers, few by CTA to accommodate newcomers. (S. Phuntsog, personal communication, 25. December 2019)

Interestingly, on a small, individual scale, traditional elements such as symbols, letters, colours etc, were barely reinterpreted in Bylakuppe's houses, whereas these characteristics would be the easiest to individually reproduce. One can find prayer flags and some symbols mostly on doors, but few colours and all not to the extent they were used in rural residential architecture in Tibet. Also, Tibetan letters are barely visible, which has to do with the fact that most people in the diaspora can't read Tibetan (E. Anderson, personal communication, 6. December 2019) Generally, people barely seem to feel the need to recreate a certain sense of home through small nostalgic features such as the interior designs of their houses.

Despite the gradual loss of vernacular buildings culture, architecture and especially the lack of vernacular Tibetan features in the settlement don't seem to be perceived as major issue creating problems or a lack of sense of belonging among the settlement's inhabitants. Being asked about different possible architectural interventions within the settlements, no one could think of something that the community would need to improve their living conditions. Nor could anyone identify problems about the current spatial and architectural configuration. When asked whether people think, establishing a community centre between the Indian village and the Tibetans settlement - for example at the junction leading from the main road (Kushalnagar – Bangalore) to the Tibetan settlement - would be a useful tool to create more awareness among the two societies about each other, most doubted that it would be regularly visited and didn't see the need to change the current social situation.

Tibetan architectural heritage may currently be getting lost in Bylakuppe. Also, current architectural developments in Bylakuppe are not at all value-based modern interpretations of vernacular architecture, but rather aim to resemble western buildings. However, I believe, that the actual problems of Bylakuppe don't lie in architecture, but elsewhere.



figure 46 (above)
Recent settlement (Google Earth, 2019)
New-comers are provided with those new houses.



figure 47 (above)
Interior of a new house (Schmitt, J., 2019)
Living rooms have replaced prayer rooms as central element of the house.



figure 48 (below)
Recent settlement (Schmitt, J., 2019)
The new designs are rows of identical buildings regardless of any tradition.

Informal settlements - the case of New Aruna Nagar, Delhi

New Aruna Nagar in northern Delhi is an unofficial, but tolerated Tibetan neighbourhood that was first inhabited by Tibetans in the 1960s and gradually grew over the past 60 years. It is one out of three neighbourhoods of a larger district called Majnu Ka Tilla, the other two being Old Chandrawal Village and Aruna Nagar.

Old Chandrawal Village developed in the early 20th century, the British government settled workers involved in the construction of New Delhi there.

Aruna Nagar developed after the Indian independence from Great Britain between 1958 and 1959. Delhi's urban development ministry distributed 925 plots of 40 square yards each to unstress the heavily overpopulated centre of Delhi. People from other parts of Delhi were asked to resettle here in the north.

New Aruna Nagar, the Tibetan colony, has gradually developed after 1960 and remains unauthorized until today. An interviewed 86 years old resident told: „(...) we were coming in on trains and busses, we slept outdoors for the first two nights, then tents and shelters came afterwards. (...) we started the construction of our houses only after two months from the aid that we received. Bricks, lime, and timber, and iron. Only one story high.“

Majnu Ka Tilla is the major transit point for Tibetans wherever they travel, the main place of intersection among Tibetans with „westerners“ and Indians. Nowhere in the diaspora in India, the willingness to integrate is larger. The percentage of Tibetans applying for passports is much higher in Delhi than anywhere else in India. (Doshi, 2017).

A variety of people come to visit New Aruna Nagar every day: food lovers, students, shoppers and beggars - Indians, Tibetans and Internationals. (Kaushik, 2018) Many people even come here for business. The neighbourhood counts approximately 5,000 residents. However, in busy periods, the guesthouses can host another 2,000 people at a time. (T. Karma, personal communication, 11. December 2019) New Aruna Nagar seems like an oasis in the city of Delhi, like another small country.

However, this vitality and this interactive atmosphere are barely facilitated through the neighbourhood's spatial configuration. New Aruna Nagar is characterised through monofunctionality of its architecture, a severe lack of public space besides restaurants and guesthouses, a minimum amount of daylight due to extremely dense building structures, strong introvertness of the whole urban structure and only a few very unattractive access points to the neighbourhood etc. There is no street furniture, and „any articulation, modification and alteration of the street landscape is temporary and shift through movement and time.“ (Kaushik, 2018)

On top of that, the issue of land ownership is a major problem in Majnu Ka Tilla. People own buildings but not the lands. The area was never provided to Tibetan people by the Indian government and is until today not officially recognized - although tolerated - by the government of Delhi. Inhabitants can't take loans on the buildings and feel a constant instability due to their property being insecure. (T. Karma, personal communication, 11. December 2019) Guesthouses have an association to apply for licenses, but still don't have full security. Many of them are owned by monasteries to finance themselves through commercial activities in Delhi.

Another outcome of the unofficial status of the neighbourhood is the poor drainage system. It is not connected to the wastewater system of Delhi, even blackwater is just being lead into the river. Arya Kaushik describes Majnu Ka Tilla as an „area of preventive confinement stripped of all political power besides their rights within the democratic Tibetan government in exile.“ (Kaushik, 2018)

New Aruna Nagar



figure 49 (above)
New Aruna Nagar's street network (Schmitt, J., 2020)
The width of streets differs between 40cm and five metres.

figure 50 (left)
Bird's view onto New Aruna Nagar (Google Earth, 2016)
The old neighbourhood (south) is structured differently than the new one.

Location & Urban scale:

The neighbourhood is a long stretched, north-south oriented block of roughly 485m x 110m, 38,500 m², excluding the area of a completely isolated school ground in the west next to the street, an even more isolated prison in the northwest and a park in the northeast that currently functions rather as public toilet and garbage dump and is therefore barely used for recreation by the neighbourhood's residents. The wide road on the west side of the neighbourhood leads into a big motorway intersection further north and can only be crossed via a bridge in the west, which is the major gateway to the Tibetan colony. The north of the neighbourhood is entirely cut off through the motorway junction. A good 100 metres of agricultural fields - inofficially cultivated by Indians - separate the Tibetan colony from Yamuna river in the east. In the south, there is a small forest and a Sikh temple, strictly separated from the Tibetan neighbourhood. Overall, New Aruna Nagar is a very isolated neighbourhood and significantly lacks integration into the urbane pattern of Delhi. (see figure 42 & 43)

From 1960 onwards, the south part of New Aruna Nagar gradually developed around the first reception office for Tibetans refugees in India, which had been established here. There was no urban plan, the neighbourhood grew organically. In 1982, year of the Asian Games in Delhi, the city government intended to widen the road in the west and therefore resettled those people, whose houses had to be demolished, further to the north, in the east and the north of the prison. This new north half of the neighbourhood has been rigidly master-planned and functions very differently than the south half in terms of its urban qualities.

The entire neighbourhood is arranged around the central square of approximately 175m², faced by two temples. Besides being the largest square of the neighbourhood, it is also located at the highest point of Majnu Ka Tilla and the brightest space within the extremely dense street network, being surrounded only by two-storey buildings. It is the centre of social activity in the neighbourhood. Furthermore, there are three smaller squares of 130m², 65m² and 40m². (see figure 44 & 45) The width of streets varies between 40 centimetres and five metres. The wider sections of the streets are flanked with restaurants and shops and also serve as space for interaction. New Aruna Nagar is entirely car-free.

Many of the anyway densely built houses even cantilever from the first floor onwards and vary between three and seven floors in height, resulting in a GSI of 88,34% (34387m²/38925m²) and an FSI of 357%.

New Aruna Nagar



figure 51 (above)
Temple Square (Schmitt, J., 2019)
Temple square is New Aruna Nagar's centre of social interaction.

figure 52 (below)
Yellow house square (Schmitt, J., 2019)
Yellow house square has various restaurants and shops.



At first sight, New Aruna Nagar appears like any other low-income neighbourhood in Delhi – uncontrolled, organically growing concrete houses of bad structural quality. From outside, the neighbourhood appears completely uninviting. Among its 29 points of entrance, only five are wider than two metres and only four of those remain open at night. (see figure 50) The buildings, as well as the urban configuration, principally appear relatively introverted.

Before anyone arrives on the „main road“ of the neighbourhood or one of the small squares, one first has to pass narrow, dark, smelly, tunnel-like paths. (see figure 46 & 47) Already a few metres after entering the neighbourhood, one feels entirely absorbed by another world. You come from a busy road into a carless neighbourhood. The light situation changes drastically from a wide, open street to a dark, narrow labyrinth. Loud noises from the street are being absorbed in the neighbourhood within a few metres and the smell of exhaust emissions and faeces is being exchanged for that of air-conditioning systems and incenses.

The more abstract one thinks and perceives the neighbourhood, the more Tibetan it appears. Especially on an urban scale, the south part of New Aruna Nagar resembles many characteristics of Lhasa. Although the neighbourhood has a stretched and relatively unpractical shape for implementing circumambulation paths, they still exist on various scales: starting on the temple square, small paths lead around the two main temples, flanked by prayer wheels. Larger loops lead through the dense and organic network of streets in the south. (see figure 42)

Also, same as in Lhasa, the entire neighbourhood is grown around a monastic complex and a central street of activity. Interestingly, not only spatially, but also acoustically, the whole neighbourhood is connected to the temple square through loudspeakers.

Furthermore, the concept of public space is also similar to what we know from Lhasa. There is generally little space for social interaction. While actual squares only exist in front of sacral buildings, a major part of informal public and social interaction takes place on wider sections of the streets and small pocket spaces. (see figure 49) The contrasting street landscape correlates with the use of space and the desire for privacy: Comparably wide and straight streets for commercial activity, rather narrow and curved streets for residential purpose.

Quick sequences of very dark and very bright spaces can also be found in New Aruna Nagar; however, it remains questionable whether this is a result of cultural nostalgia and Buddhist philosophy or rather due to a lack of space. (see figure 46 & 47) Also, the variation of the roof height and thereby the creation of private outside spaces is something that still might be coming from Lhasa. (see figure 48)

Those characteristics mainly exist in the old, organically grown south part of New Aruna Nagar. The master-planned northern half, that developed after the Asian Games in 1982, doesn't facilitate any Tibetan habit such as circumambulation, nor does it resemble or reinterpret vernacular Tibetan building culture in any other way.

As often in developing countries, the urban plan for the north of New Aruna Nagar – and also for many other parts of Majnu la Tilla - was less a reaction on local culture – either Indian or Tibetan in that case - but rather result of the transfer of western ideology to the local context (Herrle, 1983, S. 606). Many modern Indian cities, Herrle argues, are foremost economic centres, shaped by rational, technological, aesthetic and economic circumstances, rather than being inspired by traditions and local values. (Herrle, 1983 p.68).

New Aruna Nagar



figure 53 (above)
Old neighbourhood (Schmitt, J., 2019)
The dense street network leads to a lack of daylight.



figure 54 (above)
New neighbourhood (Schmitt, J., 2019)
Cables and air-conditionings block the sunlight from reaching the streets.



figure 55 (below)
New Aruna Nagar's roof landscape (Schmitt, J., 2019)
Terraces and roofs are major points of intersection with neighbours.

Building Scale

Most of the buildings in Majnu Ka Tilla are residential buildings or guesthouses with a standard layout, an entrance area, a staircase, corridors or small halls and rooms towards the outside. They seem to be strongly inspired by western archetypes. (see figure 51) Traditional Tibetan architectural characteristics, such as the height variation as an indicator for hierarchy within a building, the spatial order and organization around a prayer space or the visual connectivity in the inside of a house, particularly through courtyards, got completely lost in New Aruna Nagar. The orientation towards certain cardinal directions is not dependent on traditional beliefs anymore. However, at least in the south part of New Aruna Nagar, houses are mutually shading each other.

While of course, shops on the ground floors are built as open as possible towards the streets, the interaction between inside and outside in the case of guesthouses, restaurants and especially residential buildings is minimal. (see figure 46, 47 & 49) Despite the enormous density and the narrow street network within the neighbourhood, that could be partly compensated through more transparency and integration of buildings into the urban fabric, there is no such overarching urban concept and buildings are very introvert. Something that resembles Lhasa up to a certain degree is the roof landscape. Through a lot of height variation, people have access to the outside at least in the top floors. Unlike the lower floors, the roof landscape considerably contributes to the social interaction between neighbours. (see figure 48)

Construction and Handcraft

Similar to the interiors in Bylakuppe, in New Aruna Nagar, images of Potala, the Dalai Lama and other signs of Tibetan identification such as prayer flags can be found everywhere. However, there are few references to vernacular Tibetan architecture, neither are modern architectural developments anyhow based on traditional values or habits.

Elements like symbols, letters or colours, that had dominated vernacular interiors in Tibet, were barely reinterpreted in New Aruna Nagar's houses, whereas these characteristics would be comparably simple to individually reproduce. Though in some doors, for instance, one can find infinity ribbons and swastikas painted, but those don't form such an integral part of the buildings as they initially did. Also, Tibetan handicraft, such as the complicated wooden lattices or the meticulously handcrafted fabrics are barely visible in the neighbourhood.

Many buildings are in extremely poor structural conditions. The neighbourhood developed at a time when the Tibetan diaspora was not as wealthy as it is today. Houses were built from concrete and in the cheapest way possible, regardless of any form of sustainability. Terrible quality of handcraft, mould everywhere, chaotic installations such as electricity, water and gas and many other problems characterize the neighbourhood. As the presence of Tibetans on these lands is not legalized, many people, although they could financially afford it nowadays, hesitate to invest in the maintenance and upgrading of their buildings.

New Aruna Nagar



figure 56 (above)

Tourist shops in the north (Schmitt, J., 2019)
New Aruna Nagar's north is arranged around a commercial street.



figure 57 (right)

Entrance gate to New Aruna Nagar (Schmitt, J., 2019)
Most access points to the neighbourhood are very uninviting.

figure 58 (below)

Guesthouse seen from the river (Schmitt, J., 2019)
In more spacious areas, one can see the second row of houses from the river.



McLeod Ganj

The mountain village McLeod Ganj is a highly important place within the Tibetan Diaspora. It is the seat of the CTA, the Tibetan Exile Government, and the residence of His Holiness the 14th Dalai Lama. Besides that, several important institutions such as art centres (foremost the Norbulinka Institute, taking care of the preservation of traditional handcrafts) several monasteries, language schools, Buddhist classes, meditation courses, Tibet's medical faculty Men-Tsee-Khang, a history museum and many others are based here.

McLeod Ganj is legally a part of the Indian town Dharamsala, located in Himachal Pradesh in the very north of India. The former British health and holiday resort was assigned to the Dalai Lama shortly after his escape to establish the Tibetan exile government. Today, it is inhabited by approximately 3300 people. McLeod Ganj is a major destination for Tibetan pilgrims with the goal to meet His Holiness the 14th Dalai Lama. (Puri, 2019) But also regular tourists come here for the surrounding nature and in search of spiritual experiences. In the past years, the town has more and more become object to commercialisation and according to many inhabitants gradually lost a lot of its charm. (E. Anderson, personal communication, 6. December 2019)

At an altitude of 2080 metres, the climate is relatively mild, reaching from 0 to 30 degrees Celsius. Like most places in India, McLeod Ganj is exposed to heavy monsoon rains between July and August. The town is located in the midst of high mountains and surrounded by coniferous forests.

Location & Urban Scale:

Once again, McLeod Ganj and Lhasa resemble mostly on an urban scale. McLeod Ganj is located in the most unsuitable place to re-establish circumambulation paths. Nevertheless, three loops surround the central Kalachakra temple. (see figure 52) The inner one just surrounds the prayer hall. The middle one consists of two close parallel streets that pass the temple on both sides. The outer one has a diameter of roughly 400 metres and passes – same as in Lhasa – the Dalai Lama's temple, which again is located at the very side of the town.

Another similarity between McLeod Ganj and Lhasa is the quality of public space. In McLeod Ganj, there are no major squares or other deliberately designed public areas besides those next to the Dalai Lama's temple. However, the two parallel streets passing Kalachakra temple are relatively wide and therefore serve as the major public area in McLeod Ganj, similar to the function of Barkhor in Lhasa.

Also, McLeod Ganj has gradually grown around Kalachakra temple in the centre and the Dalai Lama's temple at the side of the village. (W. Ringzin, personal communication, 29. November 2019) The further you walk away from those towards the outside of the town, the more modern and western houses become.



figure 59

Bird's view onto McLeod Ganj (Google Earth, 2014)

One can see Kalachakra temple (northwest, golden roof), the Dalai Lama's temple (southwest, white roof) and the circumambulation paths around them.

Building Scale:

Again, the influence of traditional Tibetan architecture on contemporary design in McLeod Ganj can mostly be observed in buildings from the early years of exile and has vanished over time.

There are three buildings from the 1960s left close to Kalachakra temple that resemble the typical „small house“ from Lhasa very closely. (see figure 56) Those houses consist of shops facing the street on the ground floor and a second, residential floor upstairs. Through a central staircase, you reach a comparatively spacious access balcony to which all the rooms are connected. While the ground floors are relatively open towards the street, the upper floors are rather introverted and oriented towards the access balcony. All windows towards the street are covered with window blinds.

The facades are completely symmetrical. The entrance doors are located in the centre of the buildings and the access balconies are right above that. Unlike traditional Tibetan houses, that were, according to Tibet's climate, mostly quite compact building volumes, the old houses in McLeod Ganj are built on longish plots that impede the reconstruction of traditional Tibetan archetypes. However, the buildings are designed in a way that a similar feeling of space has been created.

Construction and Handcraft

Not only in terms of the spatial arrangement but also concerning the construction method, they relate to Lhasa's building tradition. On the one hand, they have assimilated to the local climate and the regional availability of materials. The three houses have gabled roofs and are built from burned bricks. On the other hand, it is surely no coincidence that the buildings are white-washed for the sake of water protection and that the wooden lattices, doors and windows are meticulously handcrafted and the main eye-catcher on each of the buildings.

The use of colours and symbols in those houses once resembled that of vernacular Tibetan houses, as can be recognized through leftovers of old paint on the walls. However, as almost everywhere in the diaspora, also in those three houses in McLeod Ganj, those traditions were not considered worth maintaining within the diaspora and have disappeared.

Besides those traditional houses, there is a handful of interesting reinterpretations of Tibetan traditional architecture in McLeod Ganj, whether one aesthetically likes them or not.

First and foremost there is the Norbulinka institute, whose task is not only to maintain Tibetan traditional handcraft but is itself also considered among the finest pieces of Tibetan diasporic architecture. Architect Kazuhiro Nakahara took many Tibetan architectural principles of spatial arrangement, ornamentation or building techniques in consideration, but also introduced new elements, such as round shapes - which barely existed in Tibetan architecture so far - or the integration of architecture into a landscape of water and subtropical plants.

Also, several of the exile government's buildings are interesting modern reinterpretations of vernacular Tibetan archetypes. For example, the Department of Information and Internal Affairs, (see figure 54) which again combines circular and rectangular elements within one building or the Department of Education, (see figure 53) that reinterprets the typical Tibetan inwards-slanted window-frames. (Foreman, 1996)

Compared to Tibetan exile communities in other countries however, also these reinterpretations of traditional Tibetan archetypes are relatively conservative.

McLeod Ganj



figure 62 (above)
Street in McLeod Ganj (Schmitt, J., 2019)
Most houses rather resemble western architecture.



figure 60 (above)
Department of Education (Schmitt, J., 2019)
Traditional Tibetan windows are reinterpreted as corner windows.

figure 61 (below)
Department of Information and International Relations (Schmitt, J., 2019)
Round shapes were being mixed with traditional shapes.



figure 63 (below)
Mixed-use house near Kalachakra temple (Schmitt, J., 2019)
The traditional Tibetan spatial arrangement was recreated.



Architecture in the Tibet Cultural Region

While the main focus of this thesis is to evaluate the development of Tibetan architecture in the Diaspora in India, it seems very important to relate the findings to what is happening in China at this moment. While in China, Tibetans live under supervision and with huge restrictions, it is interesting to observe, which architectural characteristics have survived and how Chinese policies have influenced the development of vernacular architecture.

Over the past 60 years, the Chinese government stimulated massive immigration of Han Chinese to Tibet, especially coming from Sichuan province. Those migrants profit from governmental benefits, good insurance, good schools and high positions in local governments. According to the Chinese Communist Party, the number of doctors per 10,000 people in Tibet has risen from four to 32, the average expectation of life went up from around 45 to around 65. Tibet's economy is growing rapidly, it has exponentially grown by almost a thousand times between 1958 and 2019. Among scholars, however, it remains questioned, to which extent ethnic Tibetans are actually benefitting from that - or if those numbers rather result from the massive migration of Han Chinese to Tibet. (Fischer, 2005)

Many people feel that the economic situation for Tibetans in China is worsening due to the increasing competition with more skilled Chinese labourers. Furthermore, the increasing dependence on Beijing remains a problem. (Fischer, 2005) People's lifestyle has significantly changed. Small, closed economic circles, that were based on regional trade and subsistence economy, are more and more becoming integrated into monetary national and international economy. (Gertel et al., 2009) Tibetans are increasingly dependent on buying goods. Their living expenses doubled.

In parallel with those economic processes, HRW records growing restrictions on social-cultural expression and argues, that the policies increasingly marginalize rural people in their homeland, furthering the goal of cementing China's control over Tibet. For example, party cadres are being stationed in Tibetan monasteries, villages and even private households to monitor rural areas. Their task is to „live, eat and work“ with the local population, to „maintain stability“ and „conduct propaganda work.“

Any form of activism on housing rights is labelled as anti-Chinese and immediately suppressed.

In the following chapter, I will briefly introduce the development of residential neighbourhoods in Yushu town and the architecture of settlements and buildings that have resulted out of the Chinese relocation policies.

Yushu, the capital and economic centre of Yushu prefecture, is located in the south of today's Qinghai province. It is located at an altitude of approximately 3,700 metres, the climate is accordingly harsh and cold. The current population is around 60,000. Estimations state that it had approximately 2,240 inhabitants in 1937, (Gertel et al., 2009) before the Chinese invasion in 1949. Despite the stimulated migration of Han Chinese to Tibetan areas, the town is still inhabited majorly by Tibetans (85%). (D. Zhou & Z. Wu, personal communication, 29. December 2019). In April 2010, an earthquake hit the town very badly. Most of the residential neighbourhoods had to be entirely rebuilt. Therefore, it seems interesting to examine, which characteristics of pre-earthquake Yushu have remained and how the architecture has changed afterwards.

Location and Urban Scale:

The urban arrangement of space has remained relatively similar after the earthquake, compared to what there was before. (see figure 57 & 58) Residential neighbourhoods in Yushu, before as well as after the earthquake, are an interesting mixture of patterns that we know from Lhasa and patterns that we know from villages in Yushu. There are no public squares but rather numerous small pocket spaces for social interaction, height variations within single buildings for the sake of having private outside spaces etc., which remind us of Lhasa's urban fabric. On the other hand, Yushu's residential houses are not built around a proper courtyard but are compact building volumes with an attached private yard in the south side of the building. Streets axes shift to preserve from strong winds etc., as we know it from Yushu.

After the earthquake, those residential neighbourhoods could again grow organically. People kept their plots of lands, were allowed to reconstruct their individual houses according to their needs and ended up building similar archetypes than those that had been existing before for decades or even centuries. (S. Topgyal, personal communication, 25. Januar 2017) This phenomenon shows, that indeed, the values and habits that the architecture is based on, remained very similar.

Yushu Town



figure 64 (above)
Bird's view onto a residential area in Yushu (Google Earth, 2004)
The neighbourhood forms a mixture of rural and urban spatial patterns.

figure 65 (below)
Bird's view onto a residential area in Yushu (Google Earth, 2017)
Urban patterns and residential typologies have barely changed.



Yushu Town

Building Scale:

Many houses in Yushu don't necessarily look very Tibetan concerning their facade design, colour etc. (see figure 59 & 60) However, the compact building volumes with attached courtyards still reflect a similar sense of privacy and introversion than before. From the street, most buildings look very closed, towards the courtyard however, almost all the rooms are visually connected. In that sense, Yushu town's architecture rather resembles that of rural areas than that of Lhasa.

Also, the interior spatial configuration of the individual houses is very similar to that of the houses that existed before. In many of them, still, the shrine is the central element, the kitchen space is at the same time the family room etc. Access to all the buildings is solely through the courtyard. Still, as far as the urban pattern allows it, the buildings are oriented towards the south.

Something that has drastically changed due to the different economic situation is the degree of separation between residential space and commercial space. Houses – such as in Lhasa – that have stores as well as storage and space for cattle in the ground floor barely exist anymore. Most buildings are purely residential.

Construction and Handcraft

Despite the relatively traditional and conservative reconstruction of urban patterns and residential buildings, building technologies have modernized in the course of Yushu's reconstruction. While before, most houses were built from stones and mud, today, most are built from concrete and concrete bricks. Another major development is the excessive implementation of glass to make use of the greenhouse effect. (Krishar & Aguihahri, 1995) (Dell'Angelo & Dimiziani, 2007) Even on existing buildings, verandahs and access corridors are often turned into greenhouses, which turns out to be a very simple means to gain space (Templeman, 2010). The use of this previously unknown technology changes the appearance a lot, however, it seemingly doesn't conflict with the principals that local architecture is based on.

Interestingly, many interiors of residential buildings in Yushu town resemble those of traditional Tibetan houses much more than those in India. People still give a lot of attention to the quality of handcraft, especially concerning the wooden detailing. Also, the interiors in Yushu are much more colourful than most Indian houses. Many people still consider it an enrichment to have good thankas in their home. However, the expression of radical Buddhist values or even political opinions is strictly prohibited, which limits the extent to which people can express their ideas in design.

Yushu Town



figure 66 (above)
View over Yushu Town (Schmitt, J., 2017)
Also reconstructed neighbourhoods were individually designed.

figure 67 (below)
Residential neighbourhood in Yushu (Schmitt, J., 2017)
All buildings and yards are oriented towards south.



Relocated Communities

„Today I am living in a new house with a comfortable life. I am so happy. All of my fortunes do not come from my prayers, but rather from the Communist Party.“

Dekyi, China's Tibet Magazine, March 2009 (Adams et al., 2013)

„People in the village are desperate about abandoning their homes and having to resettle. They don't have any other skills than farming and won't have any herds or land worth speaking of anymore. How is the next generation going to survive as Tibetans?“

Human Rights Watch interviewee from Gyama, Tibet Autonomous Region, July 2012 (Adams et al., 2013)

The government's effort to „Build a New Socialist Countryside“ was launched in 2005 and consists of two sub-programs: (Adams et al., 2013)

1: Comfortable Housing: Rural Tibetans are forced to demolish and rebuild their houses according to strict governmental regulations, either on the same spot or in new settlements alongside roads. In practice, this regulation impedes many Tibetans from farming and herding, as in many cases, the natural environment of the new houses is not suitable anymore. As consequence, the proportion of farmers and herders among the Tibetan population has decreased from 76 per cent in 1999 to 56 per cent in 2008. (Adams et al., 2013)

2: Relocation and sedentarization of nomadic herders: Nomadic herders are being forced to settle in a fixed place, often to the periphery of small towns. As Tibetan herders mostly have never lived in towns or even villages before and have no education, that means a drastic cut in their habits and lifestyle. In most cases, the new regulations force them to reduce or sell their livestock. The estimated number of nomadic herders in the Tibet Cultural Region decreased from 458,000 in 2006 to 46,000 in 2013. (Adams et al., 2013)

The cost is covered through governmental support by approximately 30% on average as well as special bank loans and private savings of roughly 70%. The cost of building a house according to government standards rank between 40,000 and 60,000 RMB, the maximum subsidy for „absolute poor households“ is 25,000 RMB.

The Chinese government denies that any forced evictions take place and justifies the (re-) housing program with the goal of „eight connections to rural homes“: water, electricity, natural gas, roads, telecommunications, state media broadcasting, postal services, and an „exquisite environment“. The government describes the policies as a chance to catch up for the economically backward Tibet. Indeed, the local economy consistently grows faster than in the rest of China, it quadrupled within ten years and is intended to be close to the national level by 2020. Besides that, the policies are intended to protect ecologically fragile grasslands.

China Daily, the government's English propaganda newspaper, states: „How Can Building Homes for Tibetan People Violate Human Rights?“ China has various domestic laws and signed several UN declarations and regulations concerning the protection of the natural habitat of ethnic minorities and claims to move inside those regulations with the initiative „Build a New Socialist Countryside“. Rural land, they argue, is not privately owned but collective property, administrated by local governments. The Chinese government, therefore, claims that people have no legal right to live as nomadic herders in the places they previously did. (Lorong & Yang, 2012)

Drupshe

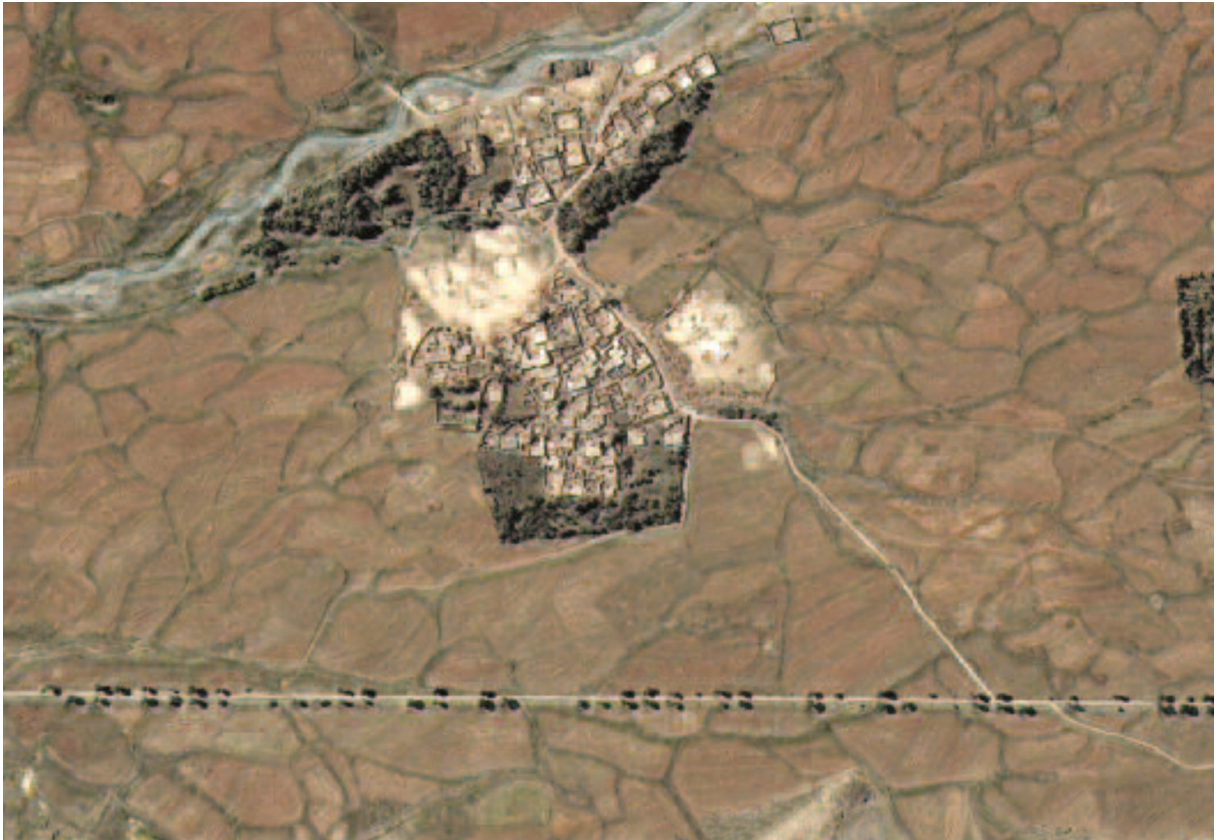


figure 68 (above)
The old village of Drupshe (Lyons, J., Human Rights Watch, 2013)
The village had grown in harmony with nature.

figure 69 (below)
The relocated village of Drupshe (Lyons, J., Human Rights Watch, 2013)
The relocated village disregards any principals and traditions of rural Tibet.



Renowned scholars such as Melvyn C. Goldstein defend the positive impact of substantial economic growth, state subsidies, massive infrastructure investments as well as the expansion of urban centres and markets. Most Tibetans, he argues, appreciate the process of modernization but are concerned about maintaining their livelihood. HRW argues that indeed the economic conditions have improved but at the same time, economic uncertainties have increased, such as fear about employment opportunities, debts and competition in the cash economy. The dependence on buying goods increases, living costs have doubled. (Goldstein, 1989)

Human Rights Watch criticizes, that the buildings are irrespective of climate, altitude, cultural, professional and social setting. (Adams et al., 2013) They argue, that the primary beneficiaries of the growing economy are state entities and Chinese-speaking migrants. Many relocated Tibetans face financial difficulties after the relocation. They had to reduce their herds and feel forced to exchange poor but stable living conditions for a capitalist economy in which they are the weakest actors. The employment opportunities are very small: 60% of nomads were unable to find work after leaving their lands. Furthermore, HRW criticizes the lack of prior consultation with communities affected by relocation policies and the loss of tangible and intangible assets and dissolution of social bonds. The compensation, they argue, seems completely inadequate and there is no way to seek remedies for wrongful evictions. A lot of money just disappears in government processes. The reintegration into the working world is difficult for many. Tibetans feel like „guest-workers“ in Tibet, competing with more skilled Chinese work migrants. (Adams et al., 2013) (Fischer, 2005)

Inhabitants of the new villages are also suspicious, that the new houses might also be mainly intended to facilitate the further surveillance system in China. Informers are found in every village, even monks in monasteries secretly work for the Chinese government. (Pehrson, 2003) Especially Tibetans, that have previously been to India are commonly put under surveillance and are subject to harassment and interrogation by the authorities. Their families and friends can be questioned or get to experience house searches. (International Campaign for Tibet 2002:28 and TIN 2001:17))

Some locals argue, that indeed, the government has many resources and money but lack ideas on what to do and how to invest it. Many designs for houses are very general and not specific for their regions (D. Zhou & Z. Wu, personal communication, 29. December 2019)

Location and Urban scale:

The program „Build a New Socialist Countryside“ significantly influences the development and perception of architecture in rural Tibet.

The settlements are built regardless of any cultural or natural circumstances. They consist of regimented rows of standardized, identical houses. The average increase of space per person compared to people's old houses accounts for only 4.07m², from 19.55m² to 23.62m² per person. (Adams et al., 2013) Besides that, the building plots lack capacity to grow, as by far not all the units have direct access to the open land. Only the outer houses within a settlement have enough surrounding space to keep the livestock, dry products in the sun, stock firewood or repair tools, however, also inhabitants of those units are legally forced to not extend their house or yard. (figure 61 - 64 & 66 - 67)

In many cases, the buildings are designed in the style of townhouses, with washrooms inside, but then lack integral facilities such as running water. (Adams et al., 2013) On top of that, the houses are built on unsuitable and potentially dangerous sites such as mud-rock beds, landslide zones, flood-prone areas or loose grounds. Others are built in locations without cultivable ground or lands suitable for raising livestock around.

Because the houses are orthogonally arranged, the villages are not protected from cold winds at all. Equally, the orientation towards the sunlight has been entirely ignored within the design of the houses. Neither are they located on southwards slopes nor is the yard - as the side where houses traditionally have the most openings - located in the south of the building.

Some scholars even argue that the Chinese government's intention was also to design the villages in a way they would the least facilitate Tibetan habits and religious practice - in order to brainwash Tibetan people and direct their sense of identification away from their „Tibetaness“ and more towards the government. (Peters, o. J.)

Bagkarshol



figure 70 (above)
The old village of Bagkarshol (Lyons, J., Human Rights Watch, 2013)
Wind and the flow of water used to shape the spatial arrangement.

figure 71 (below)
The relocated village of Bagkarshol (Lyons, J., Human Rights Watch, 2013)
The new rural designs don't take any climatic aspects into consideration.



Building scale:

The Chinese government justifies its intervention with the argument, that the new houses are larger, more modern and more hygienic. Besides that, they state, the structure of the settlement is intended to support young kids and old people in terms of accessibility. The designs respect Tibetan traditional architecture and suit ethnic characteristics, such as ornamentation and red parapets painted on the facades. (see figure 67) However, some inhabitants, on the other hand, say, that the new settlements are even inferior to the previously inhabited houses.

The buildings themselves barely respect traditional building culture. Although in many of the Chinese prototypes, the rooms are arranged around half-open, small access balconies and mainly oriented towards those, they don't reach the degree of privacy and separation from the outside as in traditional architecture. Besides that, the functionality of rooms completely disregards the traditional spatial order within a house. Kitchens, as the only source of heat, are mostly located at the side of the buildings and too small to function as a living room at the same time. Prayer rooms or at least prayer spaces are not at all intended. Sleeping rooms are located in the north, although they are especially dependent on the morning sun from the east. However, many people force their individual spatial layout on the given structures, such as the central position of the shrine, the stove and the eating table.

Generally, due to the political situation and people's fear to express their opinion, it is difficult to evaluate, to which degree the inhabitants of the new settlements are satisfied with the structures they are provided. However, it seems obvious that the new houses are not meant to encourage people to individualize but rather impede traditional lifestyle and habits and stimulate people to instead solidarize with the CCP.

Construction and Handcraft:

Besides the inappropriate spatial conditions, also the construction materials – concrete and steel – are in large parts unsuitable for the local environment and the needs of the residents. The houses are not insulated and freezingly cold in winter. Due to poor foundations, there is mould everywhere. Sloped roofs and accordingly high ceilings make the buildings difficult to heat, climatically completely unpractical - and therefore also barely exist in Tibetan Vernacular Architecture. (Dell'Angelo & Dimiziani, 2007) Due to relatively big temperature variations in the Tibetan highlands, the concrete structures quickly crack.

Once entering private buildings, one can observe, that the more neutral and impersonal the urban space and the arrangement of houses is, the more people tend to individualize their own space inside. Although on the outside, the buildings follow a unified „facade-only“ trend, (Alexander, 2007) many homes are very colourful inside, full of traditional carpets and handcrafted yellow and red fabrics. As already seen in Yushu town, the respect to traditional Tibetan handcraft and arts seems to be bigger among those Tibetans remaining in China than within the diaspora. (see figure 65)



figure 72 (above)
 Interior in a relocated village (Schmitt, J., 2019)
 Many features closely resemble traditional Tibetan interiors.



figure 73 (above)
 Relocated community in Yushu prefecture (Schmitt, J., 2019)
 Good infrastructure is one of the „eight connections to rural homes“.



figure 74 (below)
 Relocated community in Yushu prefecture (Schmitt, J., 2019)
 Many buildings are abandoned as they're unsuitable for Tibetan lifestyle.

Conclusions

Does the deliberate isolation of the Tibetan exile community in settlements facilitate the maintenance and continuation of Tibetan architectural practice and thereby create a sense of belonging within the diaspora?

After visiting Bylakuppe in Karnataka state - which has been subject to the aim of the CTA and the Indian government to deliberately isolate Tibetan people from Indian society – as well as New Aruna Nagar, Majnu Ka Tilla in Delhi and McLeod Ganj, Dharamsala in Himachal Pradesh - that have gradually developed and where Tibetans have always been intersecting with the Indian society - I can conclude, that the deliberate isolation of the Tibetan exile community in settlements rather impedes a continuation of Tibetan architectural practice. On an architectural level, the goal to preserve Tibetan culture by isolating people has failed.

The sense of belonging of Tibetans to the Tibetan community, and its expression in architecture through creating space that reflects this feeling of affiliation, have rather sharpened in those settlements that grew naturally and developed in confrontation with Indian society. I believe that in case of the Tibetan diaspora, being exposed to another culture stimulates an awareness of why and how people ended up here. This, subsequently, evokes a nostalgic feeling and the urge to cherish one's place and culture of origin. In contrast to that, if people, like in the official settlements, still live in a similar cultural environment as they did before, the awareness of the fact that Tibetan culture, of architectural or whatever kind, is in danger might be lower and thereby result in less effort to maintain it.

Which social problems does the lack of cultural sensibility within architecture create for Tibetans?

Most structures in both India and China keep Tibetans from practising their tradition, impede any culturally sensible modernization and hinder the intersection with other cultures. Especially those settlements that were master-planned and enforced on people tend to not reflect the needs, habits and traditions practised in everyday life.

To answer this question more precisely, we should differentiate between different generations within the Tibetans community.

Older people, first-generation migrants in India, tend to feel that the architectural and urban configuration of space in most places does not facilitate the way they would like to practice tradition.

Younger Tibetans in India, who are by trend relatively liberal and international, also don't feel their modern, liberal needs in the diasporic architecture to be facilitated.

In China, on the other hand, older Tibetans that tend to practice Tibetan culture and lifestyle in a relatively traditional way can't do so due to political repressions and pseudo-Tibetan facade-architecture, that is enforced onto them regardless of any values that used to be expressed through architecture.

Again, the younger generation here tends to be relatively liberal and international, but is urged to feel Chinese through a fusion of Chinese and Tibetan architecture and therefore lacks a sense belonging to the Tibetan community.

How does contemporary Tibetan architecture in India relate to vernacular architecture and is this tradition rather preserved or continued?

While in the early years of exile, vernacular typologies - especially on an urban scale - were reinterpreted and assimilated to the new environment, this tradition gradually vanished. Especially in organically grown settlements such as New Aruna Nagar, Majnu Ka Tilla or McLeod Ganj, Dharamsala, one can observe the gradual change from more traditional typologies to more western-influenced architecture - not only in an aesthetic sense but also concerning the spatial arrangement. I assume, this change again happens in accordance with people's decreasing awareness of their place of origin. Within the young generation, as explained in the introduction, Tibetans barely identify themselves with Tibetan culture and religion but rather pursue western life-styles.

While individual people rather reinterpret typologies based on values and thereby rather maintain and continue

Tibetan tradition – like in New Aruna Nagar or McLeod Ganj - monastic institutions tend to aesthetically replicate Tibetan buildings very closely, and thereby rather preserve tradition and facilitate a very traditional sense of belonging. In those cases, however, the spatial configuration of buildings and the values those reflect do not go along with the rapid social change within the Tibetan diaspora.

It remains questionable, whether this practice of reproducing architecture is on the long run healthy for the culturally sensible development of Tibetan architecture and its purpose to facilitate people's life-style. Also, assuming that the intention behind reproducing archetypes is to preserve culture, one should ask whether the value of culture is of conservative nature or whether the actual beauty of cultures lies in its flexibility and adjustability.

Another observation during my fieldwork was, that urban architecture in India and Tibet resembles more than rural architecture. While I could especially find many parallels on an urban scale between Lhasa, McLeod Ganj and New Aruna Nagar; the similarities between villages in Yushu and the settlement of Bylakuppe were minimal. I see the main reason for this in the fact, that urban architecture evolved more from cultural habits, Buddhist traditions and is based on comparably complex sociological values and patterns, that people could „migrate to India, while rural architecture is rather influenced by climatic and natural circumstances – the latter obviously differ largely between India and Tibet.

To which extend can architecture stimulate a sense of belonging and how do Tibetans, uprooted in different settlements, reconstruct and individualize space?

To answer this question, we should differentiate between organically grown settlements such as Majnu Ka Tilla and McLeod Ganj in India and Yushu town in China on the one hand and master-planned settlements such as Bylakuppe in India or Drupshe in China on the other hand.

In organically grown settlements, architecture facilitates a continuation of practices and culture rather than preservation. This concerns mostly the urban scale of the settlements. Therefore, the continuation of architectural and cultural practice is something that people share and thereby also stimulates a sense of belonging within the diaspora - more than relating to geographic Tibet. On an individual, interior scale however, in organically grown settlements, spaces rather resemble western architecture than Tibetan buildings.

In master-planned settlements, however, Tibetans largely individualize their own private spaces through aesthetic and nostalgic features. As the urban spatial configuration does not allow people to express themselves, which is, in the case of China, even politically prohibited, individualization and cultural expression rather take place in the interior. Therefore, the relation back to Tibet remains a largely individual thing and is nothing practised together in a community.

How has Tibetan building culture diverged in India and China in relation to the sociopolitical circumstances?

In India, Tibetan characteristics that influence public life and traditional practices can be observed - majorly urban patterns. As explained answering the previous question, Tibetan nostalgia, political and religious beliefs can be much more publicly expressed in India than in geographic Tibet, which is why Tibetan characteristics on an urban scale can exist here.

In China, the political influence of the Chinese Communist Party impedes any traditional Tibetan architectural development. Due to political restrictions concerning the public expression of religious or political opinions, Tibetan villages barely differ from any villages in China. The focus of individualization and expression of personal religious or political values and ideas lies mostly in interior patterns.

Intervention

The deliberate separation of Indian and Tibetan people was justifiable considering that Tibetans initially intended staying in exile for a short period. In that case, one could argue that the separation of the two societies saves massive efforts of integration and encourages Tibetans to continue a similar life to what they had before and have an easy time returning to Tibet.

However, history went on a different path. The chance that Tibetans in exile will return to Tibet soon is very small. While an independent „Free Tibet“ is completely unrealistic, also the so-called middle-way approach currently seems to have no political perspective. Even if the political climate dramatically changed and China's modern, liberal, open-minded young generation manages to initiate some dialogue with Tibetans inside and outside of China, young people in exile are not likely to move back. Therefore, in the eyes of many academics, the deliberate separation of Indian and Tibetan society is by no means justified in these days. As concluded in my research, the goal of cultural preservation has failed anyway. But also the idea of ethnic preservation does not seem strong anymore in times of globalization. In the early 1960s, when Tibetans first migrated, countries and economies functioned much more autonomously. It was normal, that countries, regions and borders represented cultures to a certain degree. However, in today's globalized, internationalized world, it seems wrong to forcefully isolate a people for the sake of ethnic preservation – especially concerning that it is largely against the will of young Tibetans in the diaspora. Identity is fluid. How can one assume that 2nd or 3rd generation Tibetans in exile still have similar values as their parents and grandparents? Cultures intersect everywhere in the world, borders are weakening, and by trend, a sense of identity or belonging is globally less and less based on ethnicity and nationality. The intersection of cultures is not an unnatural phenomenon anymore like it was in the 1950s. 2nd and 3rd generation migrants have barely been to their homeland and feel themselves belonging to, as Charlotte Pehrson calls it, a third space somewhere between Indian, western and Tibetan culture. (Pehrson, 2003) Young Tibetans are largely willing to integrate into Indian society but the spatial configuration barely facilitates that.

The major aim of my architectural intervention is therefore to stimulate more interaction and empathy among Indians and Tibetans, as well as between Tibetans in exile themselves. Therefore, creating spatial conditions that allow and even stimulate this interaction are needed within the Diaspora.

First, the current spatial configuration of residential buildings barely does so. As in traditional Tibetan architecture, most houses are very introvert and designed around private spaces. While it seems relevant and important to preserve these characteristics, a typology shall be found that stimulates integration at the same time as respective the traditional sense of privacy among Tibetan people.

In order to particularly address the interaction between Tibetans and Indian, more profane institutions should be established, that facilitate education, addressing foremost the mutual lack of knowledge about each other as well as innovation and a culturally sensible modernization, reaction on the conservatism in Tibetan society,

I consider New Aruna Nagar the right place for these kinds of intervention. New Aruna Nagar is the melting pot within the Tibetan diaspora, the most vital, interactive place where Tibetans go to meet, to intersect with other cultures, to start something new. My idea is to create some *Pars Pro Toto* reflecting my future vision for the Tibetan diaspora that serves as a catalyser and as inspiration for the further development of the diaspora. It should repatriate cultural, identity-giving memories, that got lost over the generations in exile, and at the same time give respect to modern, open-minded values in the Tibetan diaspora. How can design bridge the gap between the idea of social integration of Tibetans into local Indian society and Tibetans maintaining their culture and tradition?

In the case of New Aruna Nagar in Delhi, this would mean to carefully make an assumption about the future development of the neighbourhood. Which direction will the Tibetan community go and how can architecture facilitate better integration of new Aruna Nagar's inhabitants into Indian society? As identification with the built environment is less and less stimulated through ethnic or local characteristics, which architectural traits should give the architectural intervention its shape? To which extent should we try to preserve and bring Tibetan culture back? How important do Tibetans actually consider the preservation of their architectural identity? Do preservation ideas correlate with local people's needs and how compatible are they with modern policies in Indian neighbourhoods? (Lundrup, 2007)

Some scholars argue that ongoing modernization endangers society's stability: „Cities start to resemble each other worldwide. Integration does not work through existing norms but universalistic values. This leads to social and cultural destabilization.“ (Herrle, 1983, S. 101) How can we then stimulate a Tibetan sense of belonging in modern architecture? Prof. Peter Herrle argued in his dissertation „Vom Mandala zum Flächennutzungsplan“ that „the only chance to preserve more than facades and constructed memories consists in preventing the existing local culture from being used as a substitute for lost cultural identity in the global industrialized civilisation. (...) Not a naive re-traditionalisation, but instead the innovative discourse about traditional structures, whose essential advantage consists in its integrative power, is needed.“(Herrle, 1983, S. 611–612)

What role can a western architect play in this process? Engagement of westerners in development processes in the global south quickly has the connotation of privileged people trying to project their values on different cultures but having only a limited sensibility for local values and habits. Nevertheless, in the case of an architectural intervention that shall mediate between different parties, I believe a neutral, unpredestined, rational point of view is very important. I, in my position as a German architect, can't solve other parties' conflicts but stimulate interaction and exchange of knowledge.

I believe that architecture is the major spatial manifestation of socio-political circumstances. Planners accordingly have the responsibility to stimulate certain developments. My intervention is not intended to solve all the problems addressed through one single project but rather function as a „Pars pro Toto“, the first brick in the wall, an example that serves as inspiration for further development.

Further Research

The limitation of my research lies primarily in the small number of cases I could study. My conclusions are based on findings that I gained through literature research and a field trip to three places in India and four places in what is China today, assuming that those places are representative for the entire Tibetan community in India and China. However, a broader study of cases could provide better evidence for my theses.

Besides that, it would also be interesting, how Tibetan architectural traditions have developed in other parts of the world. Especially the assumption, that a sense of belonging to the Tibetan community and its expression in architecture have particularly sharpened in those settlements that grew naturally and developed in confrontation with Indian society, suggests, that this phenomenon is even intensified in confrontation with completely different cultures. Despite all the differences, India and Tibet are culturally still relatively close, share Buddhist traditions and have been intersecting for centuries. It would be worth exploring, how Tibetan architecture has developed in places like the USA, Switzerland, Bhutan or Japan for instance.

A third field worth exploring – although I didn't do so due to the above-mentioned reasons – would be, how other migration waves have manifested in migrant-initiated architecture. The Tibetan diaspora is surely unique in many ways and hard to compare with other exile communities, but the investigation of architectural patterns in other migrant communities nevertheless could sharpened one's senses.

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Writing this thesis has widened my horizon a lot - not only concerning my architectural development, but also my personal life. I first got in touch with Tibet through my naive affection to wide, barren landscapes and undiscovered, hard-to-reach places. However, the further I dove into the topic – through working in a Tibetan architecture studio, through making Tibetan friends – the more I got confronted with the political struggle. I experienced many restrictions myself and became a witness of surveillance and discrimination. In the position of being a privileged German citizen, this never seriously affected me, but I started feeling a strong desire to dedicate more attention to the topic. Therefore I am very thankful for having the possibility to deal with the development of Tibetan architecture in my graduation studio.

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