



POLITECNICO DI TORINO
Msc. in ARCHITECTURE AND CONSTRUCTION CITY

A.Y. 2022/2024
September 2024

Identity and Transition in the EMME Region's Urban Morphology.

Identity of Traditional Uyghur Settlements under
Urban Development in Yining City

Tutor:
PROF. MARCO TRISCIUOGLIO
Co-Tutor:
PROF. DIDEM TURK

Candidate:
Wenjun Song



Figure 1. Diverse architectural styles in Xinjiang

PREFACE

Xinjiang has long been a place of rich cultural diversity and complexity. As a Han individual born and raised in this region, I have grown up surrounded by various ethnicities and traditions. I consider myself fortunate to have been nurtured by such a blend of cultures, each of which has left a unique and lasting imprint on me—marks I deeply cherish.

As I began to study this city in a more structured way, I came to realize that every building, every street, and even the daily habits of its residents are living memories of this place. These elements are what give Xinjiang its distinctive and captivating identity.

It brings me great joy to focus on my hometown for my final graduate project, using my words to share the story of this remarkable city. In doing so, I hope to intertwine my personal memories with the collective memory of this city, capturing its essence through my lens.

ACKNOWLEDGEMENTS

Completing this project was challenging, as I worked on it while traveling between China and Italy. Throughout this period, I received invaluable academic and personal support from Professor Marco Trisciuglio, for which I am deeply grateful. I also extend my sincere thanks to Didem Turk for her insightful suggestions.

I am especially thankful to my family and friends for their unwavering support, which allowed me to remain focused and confident while far from home. This journey has been deeply meaningful, and I am truly grateful to all who have supported me along the way.

CONTENTS

Abstract	7
Chapter I : Background Analysis on Yining	
1.1 Geographic location	9
1.2 Historical Foundations	13
1.3 Key Locations on the Silk Road	17
1.4 Multi-ethnic culture	21
1.5 Diversity of architectural	26
Chapter II : Urban Context	
2.1 Yining mapping	37
2.2 Development in four periods	43
Chapter III : Contradictions in Urban Development	
3.1 How do they coexist?	51
3.2 Traditional District	59
3.3 Uyghur Traditional House	65
Chapter IV: Project	
4.1 Site Analysis	83
4.2 Strategy	93
4.3 Intervention	97
Conclusion	113
Bibliography	115

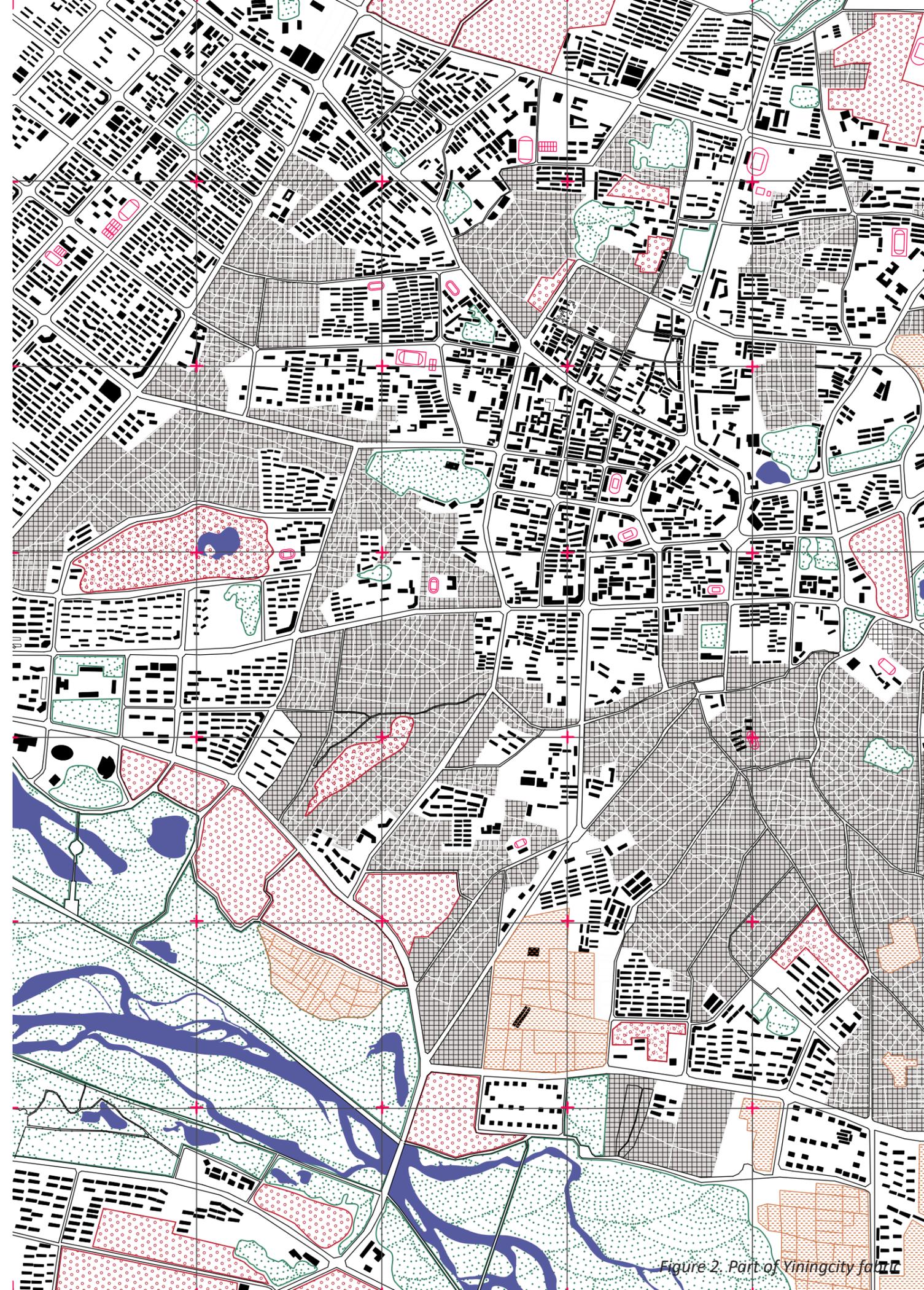


Figure 2. Part of Yining city

Abstract

A city rich in cultural treasures, Yining is located in the Xinjiang region where traditional Chinese culture and Western influences converge. Throughout its history, Yining has been a typical area characterized by the coexistence of multiple ethnic groups, religions, and cultures. The city has a unique form and structure. In the modern era, as economic industries have evolved, traditional settlements have become unable to sustain the city's operational demands. As a result, historical settlement patterns have been abandoned. The new community layouts are formulaic, lacking distinct characteristics, and have been widely replicated, simultaneously eroding the soul of traditional neighborhoods. This represents an erasure of spatial identity, blurring the city's collective memory.

This study is based on the urban spatial context and evolutionary structure of Yining across different historical periods. By examining the types of traditional settlements, it aims to identify the city's cultural genes and interpret the vivid essence of traditional Uyghur dwellings in Xinjiang. The objective is to preserve the concept of local identity, to understand the relationship between living customs and residential spaces from a broader perspective, and to build a "bridge" that connects memory with the future.

KEYWORDS:

Cultural identity, Multi-ethnic, Multicultural, Uyghur house typology, City Memory.



Figure 3. Photo of Yining city street

Chapter I :
Background Analysis on Yining



Figure 4. Yining city boundary

1. Geographic Location



Figure 5. China's location on the world map



Figure 6. Xinjiang's location on China map

The Xinjiang Uygur Autonomous Region, covering an area of 1.66 million square kilometers, is the largest provincial administrative region in China by land area. Situated in the heart of the Eurasian continent, Xinjiang shares over 5,600 kilometers of land borders with eight countries: Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Pakistan, Mongolia, India, and Afghanistan. Historically, it was a crucial passage along the ancient Silk Road and now serves as the second "Eurasian Continental Bridge."

Yining City, the capital of **Ili Kazakh Autonomous Prefecture**, is the political, economic, cultural, and transportation hub of the region. It is the largest city along China's northwestern border. Historically, Yining has been a vibrant center of cultural exchange in the Ili River Valley and a focal point for ethnic diversity. In modern Chinese history, Yining served as both a stronghold against Tsarist Russia and one of the first cities in the western region to open up along the border. Today, Yining is a multicultural city home to 37 ethnic groups, including Han, Uyghur, Hui, and Kazakh. It stands as a gateway city for China's opening to the northwest and a key urban center within the Tianshan North Slope Economic Belt in this autonomous region.



Figure 7. Yining's location on Xinjinag map

2. Historical Foundations

Prehistoric Development

Yining City is the largest urban settlement in the Ili River Valley, located at the western end of the Tianshan Mountains in Xinjiang, within a temperate semi-arid desert region. Geological research indicates that the middle to late period between 1.8 billion and 800 million years ago marks the formation of the oldest metamorphic basement of this oasis basin in the Ili River Valley. Approximately 10,000 years ago, traces of human activity began to appear in the Ili River Valley. The Aktube microlithic cultural site, located in the northern part of Yining City, has been identified as a typical area of early human activity through archaeological discoveries. Artifacts unearthed in Yining, such as perforated stone axes, stone pestles, and other stone tool fragments, all confirm that **human beings began to thrive in the Ili River Valley from the Neolithic period.**



Figure 8. Ili River Oasis, Source: China National Geographic website



Figure 9. Stone Age Archaeological Photos, Source: Chinese Archaeology Website

The Emergence of Cities

The emergence of cities in Xinjiang often took place on oases, primarily to support agricultural settlements. According to the Book of Han, the earliest tribe recorded in Ili was the Saka, who lived in the 3rd century BCE and had a relatively advanced Bronze Age civilization. Later, the Xiongnu conquered the region, and only a few Saka in Ili remained, intermarrying with the Xiongnu. Due to limitations in their lifestyle and production methods, the development of the oasis environment at that time was minimal, and the Ili River Valley largely remained in its natural state.



Figure 10. Portrait of the Xiongnu

In 60 BCE, the Xiongnu submitted to the Han Dynasty, and after the Western Han unified the Western Regions, the area was officially incorporated into the Han Empire's territory. The Han military began agricultural settlements in Zhaosu within the Ili region, breaking the previous tradition of undeveloped and uncultivated lands in the Ili River Valley. From that point on, the Ili River Valley began to take on the characteristics of a natural, social, and economic complex. The increasing number of people coming from Chang'an and other areas to farm in Ili introduced more advanced agricultural techniques to the local population, significantly boosting the agricultural productivity of the Ili Oasis.

In 657 CE, the Tang government appointed Su Dingfang as the Grand Governor of the Ili Circuit, once again unifying the Western Regions and ensuring the smooth operation of the Silk Road.

Guarding the City

The year 1840 marks the beginning of modern Chinese history. After the Opium War, the Qing Dynasty's overall national strength declined, leading to increasing foreign interference in the development of the Ili River Valley. From 1851 to 1860, the Russian Empire compelled the Qing government to sign unequal treaties, resulting in the cession of vast territories west of Ili. It was not until 1881, during the reign of Emperor Guangxu, that these lands and captured cities were restored to China. In 1882, the Qing Dynasty reasserted control over Ili, and in 1884, Xinjiang Province was established. By 1888, the Ili Prefecture was founded. Following this, large-scale development of the Ili River Valley commenced, leading to the initial formation of Yining City as a multi-ethnic urban settlement where diverse residents lived and thrived. During the Republican era, the involvement of Soviet experts in the Xinjiang government marked the period of the fastest development of the Ili Oasis.



Figure 11. The Russian invaders in Yining

Urban Settlement Development After the Founding of New China

In 1949, the People's Republic of China was established. In 1950, a special administrative region was created in Ili. This designation was abolished in 1955, and the Ili Kazakh Autonomous Prefecture was established with Yining City as its capital. In 1985, the Ili region was reestablished, and Yining City came under the jurisdiction of the Ili region. In 2001, the Ili region was abolished, and Yining City fell under the direct administration of the autonomous region, becoming a key political and military center of the autonomous prefecture. In this resource-rich oasis, continuous development led to the gradual formation of a robust industrial system, which steadily advanced and ultimately gave rise to the contemporary urban settlement of Yining City.

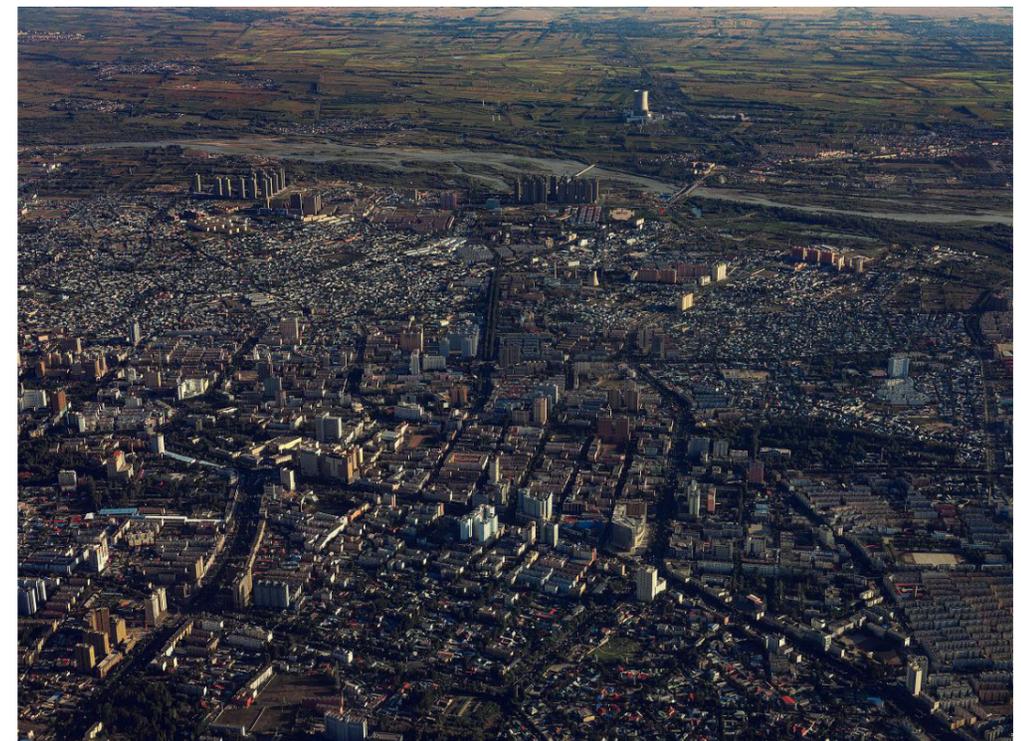


Figure 12. Aerial view of Yining city

3. Key Locations on the Silk Road

The Silk Road: Historical Significance and Key Locations

The term "Silk Road" was not used in ancient times but was first coined by the German scholar Ferdinand Freiherr von Richthofen (1833-1905) in his 1877 publication *China: Results of My Travels and Research*. This term was used to describe the trade routes connecting China to Europe. **Today, most scholars agree that the Silk Road refers to the network of trade and cultural exchange routes connecting ancient China with other parts of the Eurasian continent.** While silk was a prominent product traded along these routes, other goods such as porcelain, paper, and tea were also exchanged. The name "Silk Road" primarily reflects the prominence of silk in early trade.

The Silk Road can be broadly divided into two sections: the Maritime Silk Road and the Overland Silk Road. The Overland Silk Road began in the ancient Chinese capital of Chang'an (modern Xi'an), traversed through Xinjiang, Central Asia, and the Middle East, and reached the Mediterranean, ending in Rome. This route is considered the ancient conduit for connecting Eastern and Western civilizations across the Eurasian continent.

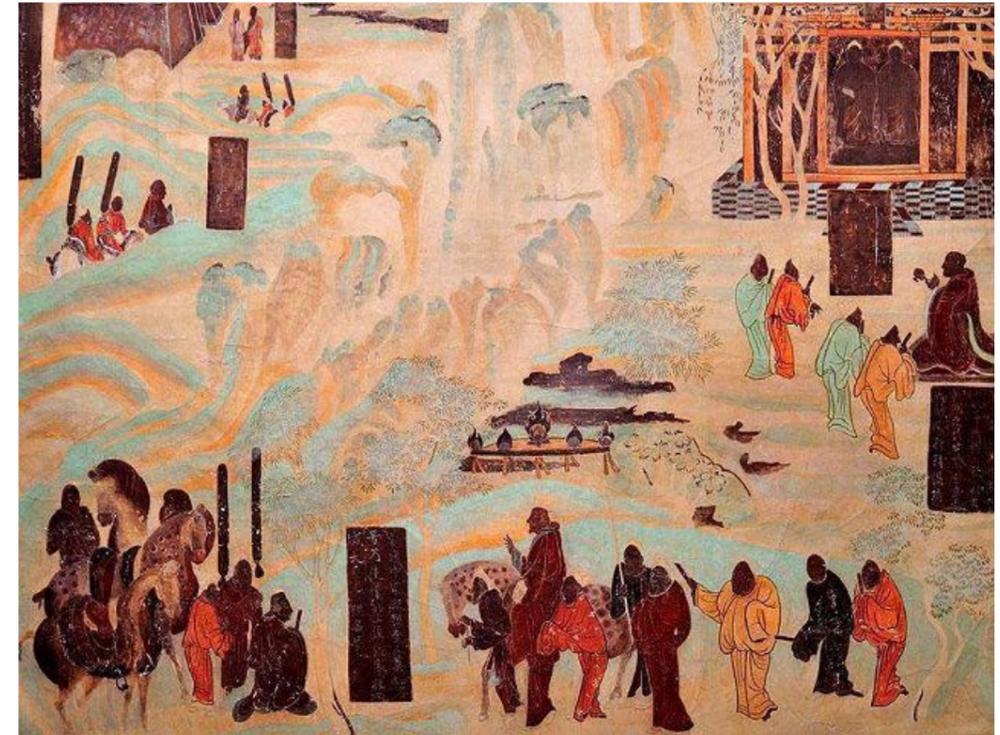


Figure 13. The Dunhuang murals depict caravans traveling back and forth on the Silk Road.

Starting from Xi'an, the ancient Silk Road passed through the Hexi Corridor into Xinjiang. This route connected with Central Asia, the Middle East, South Asia, Europe, and Africa, forming a major channel for East-West exchange. **Yining, as a crucial node on the Silk Road, played a significant role due to its strategic location on China's northwestern frontier, close to Kazakhstan.** It served as a resting and resupply point where travelers could replenish food and water, and engage in cultural and commercial exchanges.

During the height of the Silk Road, the area saw diplomatic missions, commercial travel, and the spread of religious teachings. Without such "transit hubs," the smooth operation of the Silk Road would have been unimaginable. The diverse cultural influences—encompassing various cultures, religions, architectural styles, and ways of life—melded in this city, contributing to its rich and magical cultural tapestry.



4. Multi-ethnic culture

From a geographical perspective, Xinjiang is located in the central part of the Eurasian continent, at the middle section of the Silk Road, serving as a key transportation hub connecting the Central Plains with Central Asia and Western Europe. It is also a convergence point for the cultures of East Asia, West Asia, South Asia, and North Asia. From the perspective of production methods, it is the intersection of agricultural and nomadic cultures. In terms of religion and philosophy, it is a junction of Islam, Tibetan Buddhism, the complementary philosophies of Confucianism and Taoism, as well as polytheistic worship. Culturally, it is a fusion of Han culture with the ancient cultures of Tubo, Western Xia, Uighur, Mongolian, and various other ethnic cultures. Due to its unique natural environment and geographical position, Xinjiang has long been a region where multiple ethnic groups live together, various cultural systems intersect and blend, and multiple religions coexist and influence each other.

Xinjiang has been a region of ethnic settlement since ancient times. The ancient ethnic groups that once inhabited this area include the Saka, Xiongnu, Xianbei, Rouran, Turks, Tiele, Sogdian, Khitan, Qiang, Han, Uighur, Kyrgyz, Uzbek, Tatar, Tajik, Mongol, Xibe, Hui, and many others. Today, with the gradual deepening of the market economy, the ethnic composition has become increasingly diverse. Through long-term migration, differentiation, and integration, modern Xinjiang has evolved into a multi-ethnic region primarily composed of the Uighur people, along with Han, Hui, Kazakh, Mongol, Kyrgyz, Tajik, Manchu, Xibe, Uzbek, Daur, Russian, Tatar, and other ethnic groups. **Out of the 56 ethnic groups in China, 55 are currently residing in Xinjiang.**



Figure 15. Photo of a Kazakh wedding

Ethnic composition

As of 2005, Yining City boasted a diverse population of 430,000 people, representing 35 distinct ethnic groups. This vibrant mix includes the Uighur, Han, Kazakh, Hui, Mongol, Xibe, Uzbek, and Russian communities, among others. The ethnic composition of the city is led by the Uighurs, who make up 49.24% of the population, followed by the Han at 35.13%, the Hui at 7.57%, and the Kazakhs at 4.49%.

These four major ethnic groups have profoundly shaped the cultural landscape of Yining, influencing everything from residential architecture to culinary traditions, social interactions, and religious practices. The Uighurs, with their deep-rooted traditions, have left a lasting imprint on the city's aesthetic and spiritual life, their distinct architectural styles and vibrant cultural practices adding unique flavors to the urban environment. The Han population, with their rich heritage and evolving urban lifestyles, has contributed significantly to the city's modern development, introducing elements of contemporary architecture and diverse culinary preferences. The Hui community, known for their strong adherence to Islamic traditions, has helped to maintain a spiritual and cultural continuity within the city, particularly through their distinctive residential areas centered around mosques. The Kazakhs, traditionally a nomadic people, have brought their pastoral heritage into the urban setting, influencing not only social structures but also contributing to the city's multi-layered cultural tapestry.

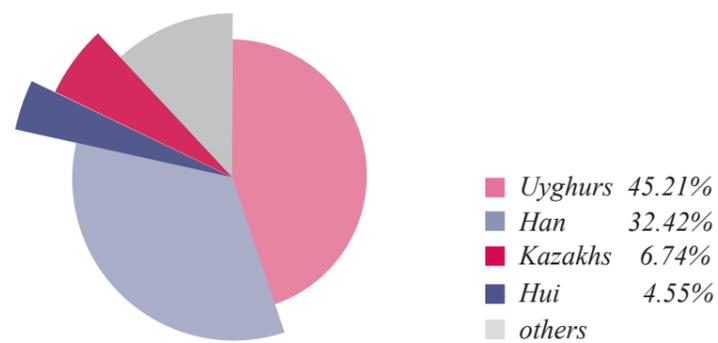


Figure 16. Yining Ethnic composition fan chart,
Source: Data from China's seventh census

Religious Diversity

Historically, the predominant religions in this region have been Shamanism, the Manichean religion (Onggud), and Buddhism. Among them, Shamanism is an indigenous faith. The convergence of multiple ethnicities and cultures has also brought world religions such as Buddhism, Islam, and Christianity into the area. **In terms of religious culture, it can broadly be categorized into Islamic and non-Islamic cultural types.** Non-Islamic cultures can further be subdivided into Buddhist, Christian, Daoist, and Shamanistic cultural types.

In Yining, Islam is the primary religion. The Uighur, Hui, and Kazakh communities living in the city predominantly practice Islam. In Yining, at least 95% of the Uighur, Hui, and Kazakh populations are Muslim. The secularization of religion is reflected in how religious beliefs and regulations shape the daily lives of the faithful. The Uighur, Hui, and Kazakh residents of Yining, like other Muslims, are bound by Islamic rules in various aspects of life, including marriage, funerals, and daily activities, with a notable emphasis on dietary restrictions. **This means that Muslim lifestyles have an exclusive aspect. Consequently, when choosing residential locations, they consider the cultural compatibility of religious practices and daily life (such as food and shopping). This objectively contributes to and maintains their residential clustering patterns.**

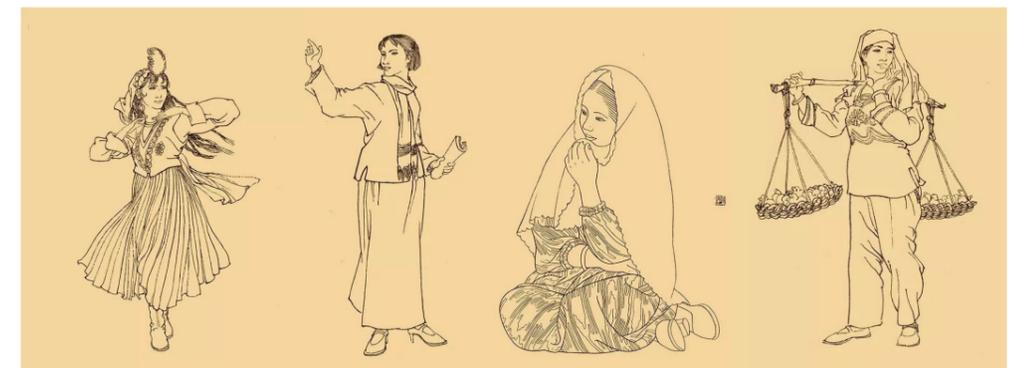


Figure 17. Uyghurs, Han, Kazakhs and Hui portrait



Figure 18. The road signs in Yining City are in Uyghur, Chinese and English.

5. Diversity of Architectural

Various architectural remains reflect the co-existence of diverse ethnic cultures and religious inclusivity.

Architectural styles in Xinjiang have been influenced by religious cultures. By the early 10th century, Islam had spread widely in Xinjiang, bringing with it distinct religious architectural symbols. During the early years of the People's Republic of China, the region's proximity to the Soviet Union led to the construction of numerous Soviet-style buildings. Under the specific historical conditions of the time, architects from inland China, integrating Xinjiang's cultural context, distilled and simplified traditional ethnic symbols, applying them to architecture and resulting in many regionally distinctive buildings. With the progress of society, advancements in technology and economy, and significant improvements in material and spiritual life, modern architectural styles have become increasingly diverse.

Western architectural elements

Orthodox churches and Russian-style buildings reflect the integration of Russian cultural elements. During the modern period, as Russians migrated to the region, they constructed Orthodox churches and Russian cemeteries with traditional cultural characteristics near their settlements. Among these constructions were numerous Russian-style buildings. **Today, Russian architectural forms have blended with the traditional architectural styles of various ethnic groups in Yining, creating a unique and distinctive architectural style.**

The stylistic features of Russian architecture have influenced the aesthetic sensibilities of the various ethnic groups in Ili. Elements such as floor plans, overall styles, and detailed features have been studied and adopted. In the architectural forms of different ethnic groups, features like door frames, roofs, and eaves have typically been influenced by Russian architectural styles.

To this day, many minority residential buildings in Yining use "Russian-style" metal roofs and triangular door frames, reflecting the integration of Russian architectural culture with local ethnic building traditions. In the early years of the People's Republic, about 60% of the houses in the central and northwestern parts of Yining were Russian-style buildings. Currently, most of these houses have not been preserved, but historical images recreate the scenes from that time.



Figure 19. Russian Road in 1930, Source: Yining city urban planning exhibition.



Figure 20. Former Yining Revolutionary Committee, Source: Yining city urban planning exhibition.



Figure 21. Yining hospital in 1860, Source: Yining city urban planning exhibition.



Figure 22. Former Site of the Soviet Consulate in Yining



Figure 23. Yining Orthodox Church



Figure 24. Former Yining Normal University, Source: Yining city urban planning exhibition.

Religious Architecture

Jindingsi Temple is situated on Huaguo Mountain to the east of Ningyuan City, standing majestically as the largest Lamaist temple in China's grassland region historically. It is said to have been built during the late Ming and early Qing dynasties. The temple is named "Jindingsi" because its roof was adorned with gold. Although it existed for only 30 years, it vividly represents the splendor and brilliance of nomadic culture.

Uzbek Mosque was the largest Uzbek mosque in Xinjiang at the time of its construction and remains preserved today. The mosque's minaret, before its renovation, featured a multi-faceted, two-tiered tower with distinct Byzantine architectural style. After renovation, it adopted a three-tiered design, showing clear influences from West Asian architecture.

Mosques such as the **Shanxi Grand Mosque**, the **Red Star Street Hui Mosque**, and the **Hezhou Grand Mosque on Hash Street**, built in different eras, reflect the historical migration of Hui people to Yining from various regions.

Baitula Mosque bears witness to the Qing government's relocation of the Uighur people to Ili for settlement in the early Qing period. Its minaret still retains the original architectural style from its construction period, representing a true example of Qing Dynasty mosque architecture.

Structures such as the minaret of **Baitula Mosque**, **Dunmali Mazaar**, **Shanxi Grand Mosque**, and **Red Star Street Mosque** all use traditional Central Plains wooden architectural styles. The minarets of Baitula Mosque and Shanxi Grand Mosque, with their elegant and upright forms, reflect the integration of Islamic culture with traditional Chinese architectural elements.

The coexistence and inclusiveness of various religious cultures continue to this day. In Ili, there are religious sites from different periods, including Islam, Buddhism, Catholicism, and Eastern Orthodoxy. Various religious architectural forms coexist, such as the large Uighur, Hui, and Uzbek mosques, the entrance of the Yining Eastern Orthodox Church, newly built Catholic churches, Christian churches, and Buddhist temples. The prominent feature of these religious structures is their cultural inclusivity.



Figure 25. Golden Summit Temple



Figure 26. Uzbek Mosque



Figure 27. Hua Ning Buddhist Temple

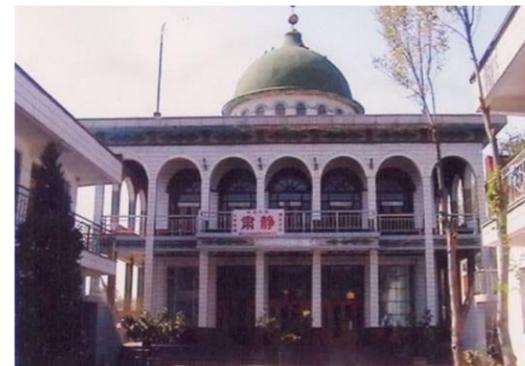


Figure 28. Hezhou Mosque



Figure 29. The Orthodox Church



Figure 30. Shaanxi Grand Church



Figure 31. Baitullah Mosque

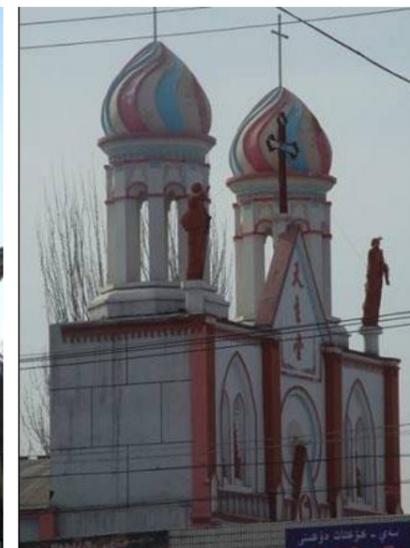


Figure 32. Catholic Church

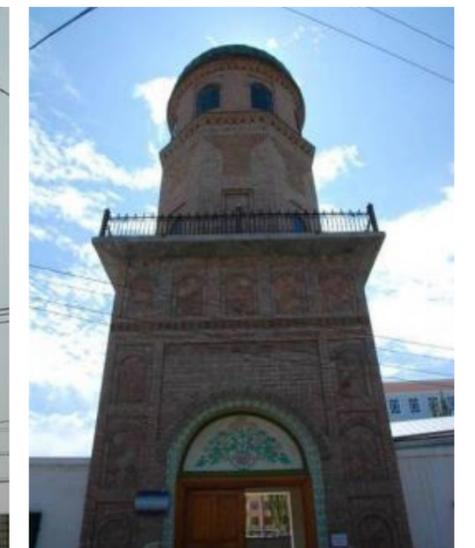


Figure 33. Uzbek Mosque
Source: Photos are from the Internet

Ethnic Housing Patterns in Yining City

The ethnic housing pattern refers to the spatial arrangement and distribution of different ethnic groups within a specific area. It reflects the opportunities for interaction between members of a particular ethnic group and other groups in their living environment. In the 1980s, Yining City's ethnic housing patterns were relatively stable, influenced by social and economic development factors. The city was characterized by a housing pattern where ethnic groups mainly lived in close-knit communities, with large areas of ethnic concentration and smaller, scattered settlements.



Figure 34. Uyghur houses in Yining City, Source: Photo by the author

The Uyghur population in Yining City is spread across numerous streets and alleys, creating a widespread yet interconnected community. Despite this dispersed distribution, there is a noticeable tendency for Uyghurs to cluster around the mosques they have established, which serve as focal points for both religious and social life.

The settlement pattern of the Uyghurs is also shaped by the habits and influences of other ethnic groups living in the city. This interaction contributes to a dynamic cultural landscape, where different communities coexist while retaining their unique traditions. However, within this multicultural environment, the Uyghurs have managed to preserve a distinct way of life, particularly in their housing styles.

Many Uyghur homes in Yining are private courtyard houses, a traditional form of dwelling that has been passed down through generations. These homes often have deep historical roots, with some dating back several centuries. They are cherished family assets, and it is common for multiple generations to live under one roof. This continuity of residence reflects the strong attachment of the Uyghur people to their heritage and land, making them reluctant to relocate unless absolutely necessary.

The architecture of Uyghur homes is a vivid expression of their cultural identity. These residences are typically easy to spot due to their vibrant colors, which range from bright blues and greens to deep reds and yellows, often reflecting the natural landscapes of their homeland. The houses are adorned with intricate decorations, including carved wooden doors, patterned window frames, and detailed plasterwork that display a blend of traditional Islamic motifs and local artistic influences.

Moreover, the architectural style of Uyghur homes is distinctly exotic, standing out from the more modern or Han Chinese-inspired buildings in the city. The design elements, such as arched doorways, latticework, and flat roofs, are reminiscent of the broader Central Asian architectural tradition, which has been adapted to local conditions and materials over centuries. These features not only provide aesthetic appeal but also serve practical purposes, such as creating shaded areas to escape the summer heat or offering privacy for the family.

The Hui people, much like the Uyghurs, tend to establish their communities in close proximity to mosques, which serve as both religious and social hubs for their daily lives. This pattern of settlement around places of worship has led to the formation of distinct Hui neighborhoods, where the sense of community is strengthened by shared religious practices and cultural traditions.

The architecture of Hui houses in these areas bears a strong resemblance to that of the Uyghurs, showcasing a blend of traditional Islamic and local architectural styles. The similarities in their architectural styles are a testament to the deep cultural and religious ties that bind these two Muslim communities. Despite the close architectural

The Han live more scattered, but they have also formed some settlements. A new trade center has been formed on Xinhua East Road today. Because most of the merchants there are Han people, it is commonly known as "Han Street", which is a settlement for Han people. With the gradual increase in foreign immigrants, the Han population in Yining City has grown rapidly. Influenced by factors such as economy and work unit residence, they are scattered in the streets and alleys of Yining City. Their houses are generally less decorated and more modern, and most of the old houses are courtyard houses.

The Kazakhs are a nomadic people whose main business is animal husbandry, so they live scattered in eight counties and one city in the Yili River Basin, mainly in pastoral areas. Although the Kazakhs are the main ethnic group in the Yili Kazakh Autonomous Prefecture, there are not many residents of this ethnic group in the capital city, Yining City. Since they are nomadic people. They usually live in the grasslands and other suburbs, and their houses are wooden houses and yurts.



Figure 35. Han houses in Yining City, Source: Photo by the author



Figure 36. Kazakhs living on the grassland, Source: The movie "My Altay"



Figure 37. Kazakh eating habits, Source: from the Internet



Figure 38. Kazakh yurt, Source: from the Internet.

Conclusion

Yining City, located at a crucial point on the ancient Silk Road, has been a meeting place for Eastern and Western cultures. In this region, local culture blends with steppe culture, migratory culture, Central Plains culture, and various external influences. Historical figures such as Genghis Khan and Qiu Chuji passed through here and praised the local people's skill and agricultural abilities. The confluence of so many cultures has brought about a variety of religions, including Shamanism, Zoroastrianism, Manichaeism, Buddhism, Taoism, Nestorianism, and Islam. The intersection and integration of these cultures were not simple; they involved upheavals and overlaps. However, the phenomenon of cultural fusion has crystallized into a collective wisdom within the settlements, which is also reflected in the urban fabric of the city.

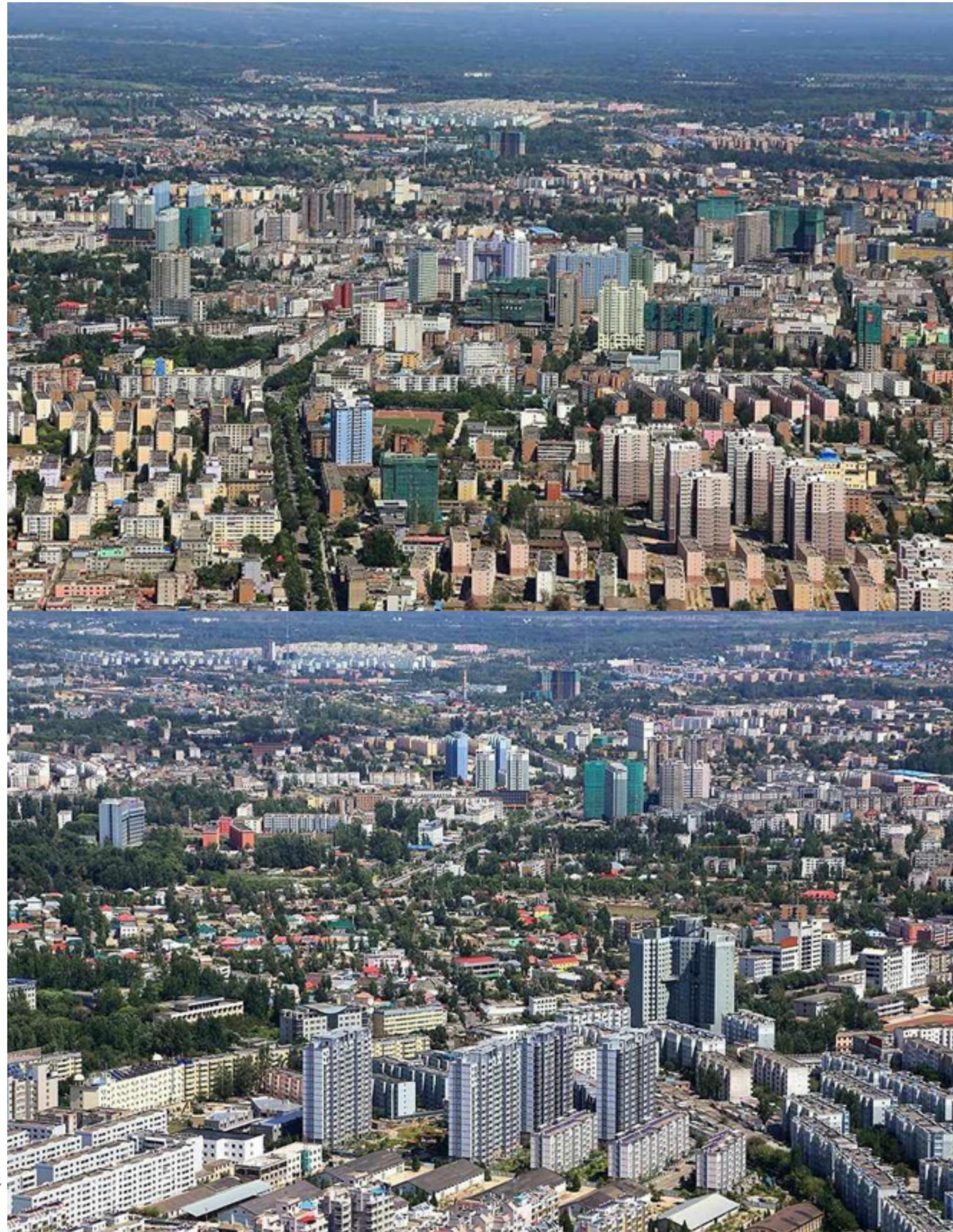
Regarding ethnic residential habits, Yining City's ethnic residential patterns have evolved from ethnic clustering to gradual integration. In the 1980s, due to social and economic limitations, the Uyghurs, Han Chinese, Hui, and Kazakhs exhibited a large-scale clustering with smaller scattered settlements. Uyghurs often lived around their mosques, forming partially concentrated areas, with many courtyards having histories spanning several centuries. Han Chinese tended to be more dispersed but also had some concentrated areas, such as "Han Street." The Hui, similar to the Uyghurs, formed residential areas around mosques. The Kazakhs, primarily engaged in pastoralism, were mostly scattered in the pastoral areas of the Ili River Basin, with relatively few residing in the city center.

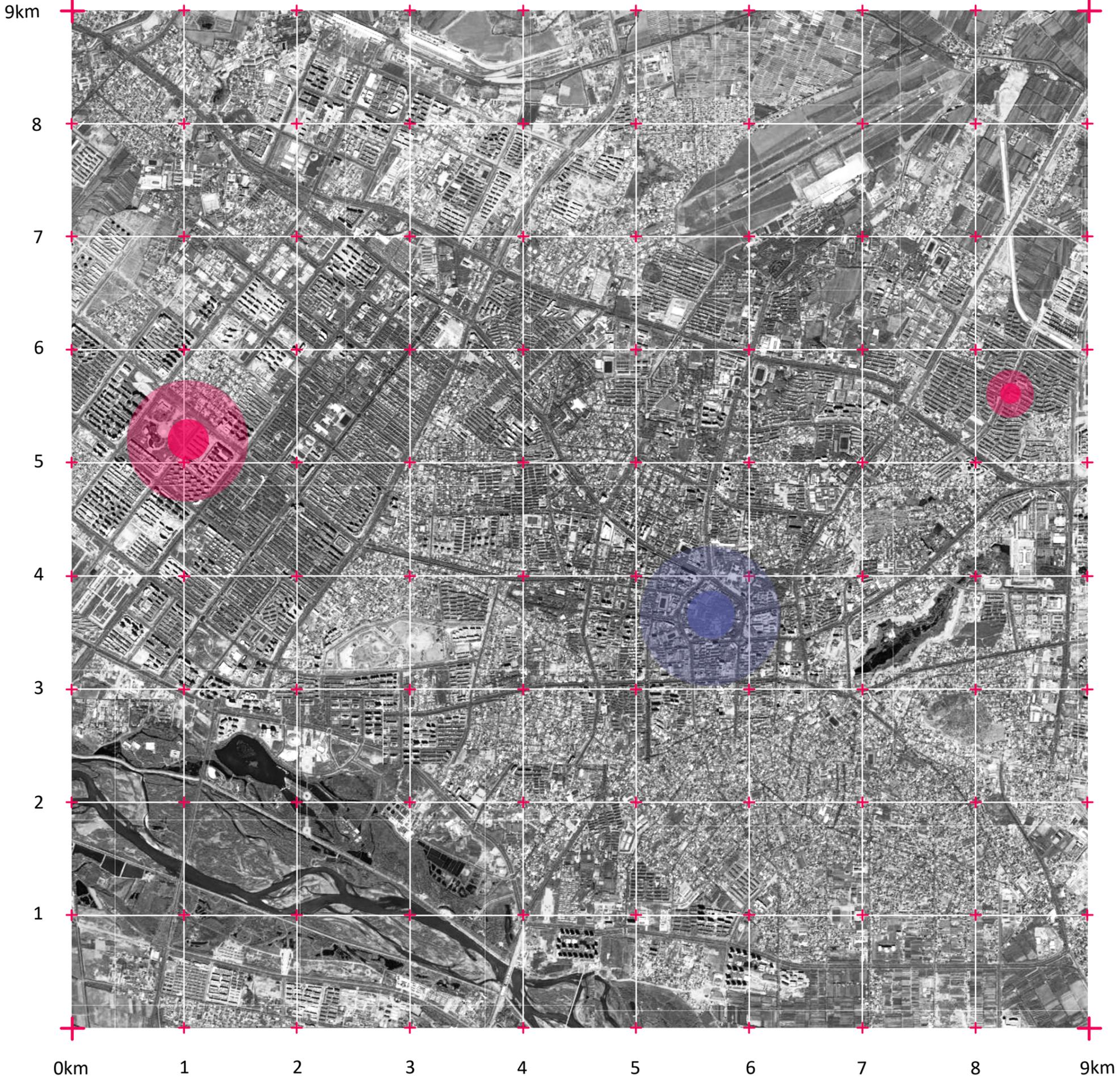
In the 1990s, with economic and social development, the residential patterns in Yining City gradually shifted from relative segregation to mixed settlements. The number of concentrated ethnic areas decreased, and the degree of ethnic integration increased. Observing the architectural styles of the streets and alleys reveals the characteristics of ethnic residence and traces of cultural fusion during this period.



Figure 39. Kazakh people dancing in the square.

Chapter II : Urban Contect





1. Yining Mapping

With one center and multiple points, after the construction in the 1960s and 1970s, the boundary of Yining city expanded again. Although the road skeleton continued to extend outside the city, the core of the city was still concentrated in the old city.

After the founding of the People's Republic of China, Yining City, as one of the first three cities established in Xinjiang, experienced rapid development. Its long history and diverse culture have together shaped a unique settlement pattern within the Xinjiang region. Overall, during the historical period of low productivity, the natural evolution of the environment constrained the relationship between settlement spaces and human activities. People gradually avoided less favorable areas and worked to improve the site landscape, making the settlement's residential form the most direct manifestation of people's experiences, worship, aggregation, and order.

The new and traditional districts of Yining City blend irregularly, with the traditional old district exhibiting a unique central point surrounded by three peripheral areas throughout the city, while the new district displays a multi-centered, scattered pattern from the outside. The old district lacks a unified planning model, with road patterns largely formed spontaneously, whereas the new district clearly shows signs of "planned design."

- New District Center*
- Traditional District Center*

Figure 41. Satellite image of Yining

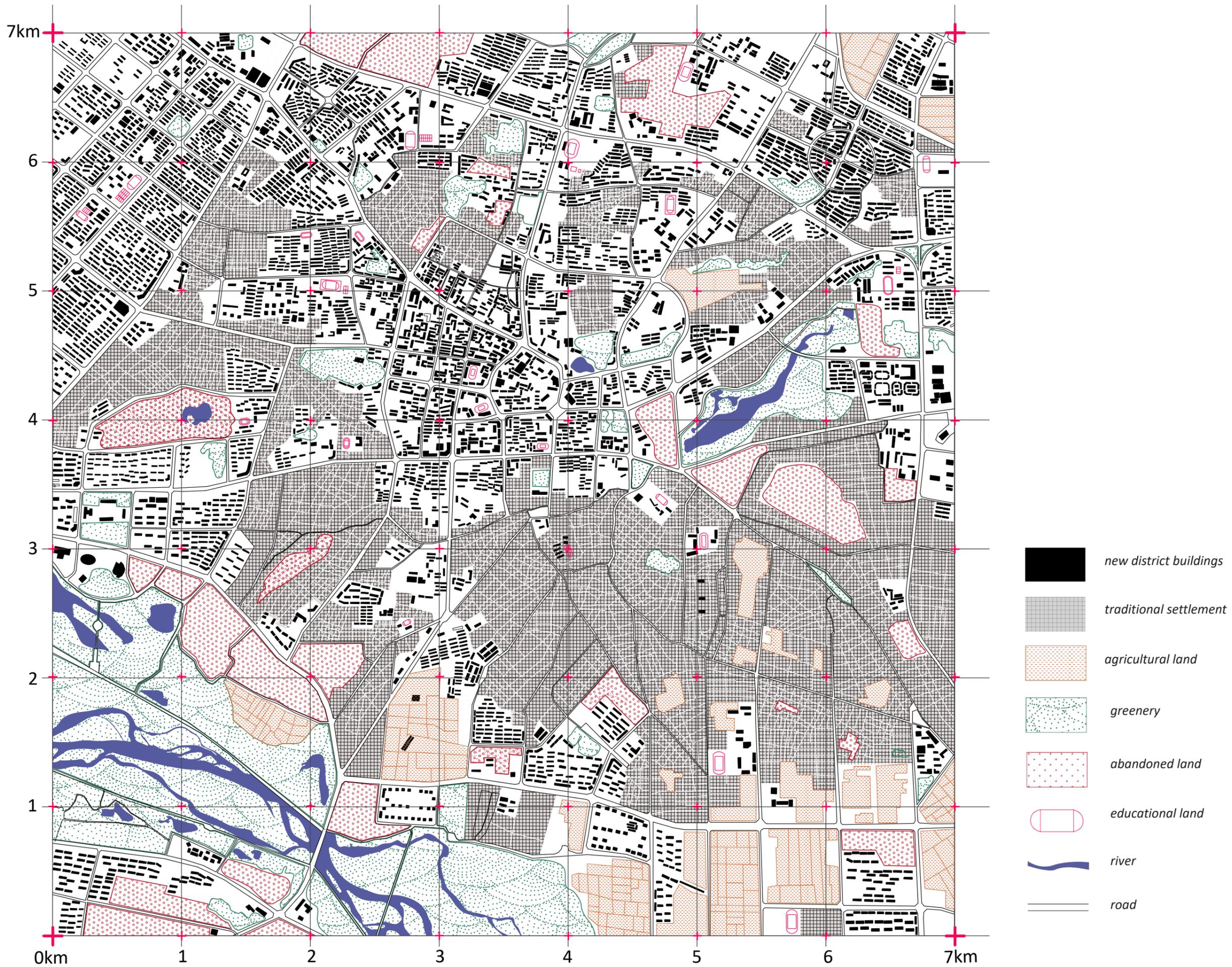


Figure 42. Mapping of Yining

2. Development in Four Periods

In the roughly 250 years since the Qing Dynasty established the city in 1762, the urban spatial development of Yining has been shaped by significant shifts in political power and profound changes in the national social system. This evolution can be divided into two major eras: before and after liberation. Throughout these periods, natural forces, political dynamics, economic factors, and cultural influences have profoundly impacted the city's spatial development. Based on the historical context and urban spatial development characteristics, Yining City's spatial evolution is categorized into four stages:

Qing Dynasty (1762-1851) – Point Formation Period: This period is characterized by the initial layout of the city, reflecting traditional Chinese military defensive principles with a grid-like road network and central cross-shaped axes. Russian Occupation and Republic of China (1851-1949) – Axial Expansion Period: During this era, the city expanded beyond its original walls, exhibiting a more complex spatial structure with a continuation of the cross-shaped layout and emerging multi-zone patterns. Early Liberation Period (1949-1992) – Inward Infilling Period: This stage saw a stabilization of the urban structure, with the continuation of previous spatial features and the introduction of new elements influenced by socialist planning and Soviet urban design.

1) Qing Dynasty : Point formation period

During the Qing Dynasty, the spatial pattern of the three cities of Yining was based on the idea of city construction in the Central Plains. It followed the structural form of traditional Chinese military defense cities and adopted a grid-like road network pattern. The main roads intersected in a cross, and the important functions of the city were located at the intersection of the cross axis. In terms of space, Huining City had the largest average unit area, and Xichun City had the smallest average unit area. In terms of function, there were mainly administration, military, religion, education, commerce and residence. In addition, it also included industrial production land and storage land.

The role of spatial context formation during this period, at the natural environment level, the relatively superior natural geographical conditions are the basis and foundation for the evolution of Yining's urban spatial context, and are also the primary condition for the emergence and development of Yining culture; at the political power level, the defense needs of royal rule are an important reason why the nine cities of Yili and the three cities of Yining became military cities; at the cultural power level, my country's traditional urban spatial thought system has created Yining's historical urban spatial pattern, shaped the source of the city and guided the city's development and construction during the long feudal society.

2) Tsarist Russia occupation and the Republic of China period : Axial expansion period

During the Russian occupation and the Republic of China, the city broke through the restrictions of the original city walls and developed outward. The urban spatial pattern of this period showed the characteristics of the continuation of the cross structure, the initial formation of multiple districts, and the distribution of multiple points in one center. During this period, due to the gradual transformation of the urban social economy and culture, the use function of the land gradually changed to modern.

The evolution of the urban spatial context during this period, in terms of politics, the decline of the Qing Dynasty and the replacement of the regime by the invasion of Tsarist Russia led to major changes in the original social ideology and urban spatial context; in terms of economy.

The invasion of Tsarist Russia led to the prosperity of Ningyuan City's commerce, and urban development gradually broke through the urban structure of the Qing Dynasty with military defense space as the core. The economy became the dominant factor in the evolution of urban spatial context; in terms of culture, the entry of multiple cultures into Yining brought about changes and reintegration of spatial context elements. The mutual integration of traditional culture and the mutual complementation of new culture became the main characteristics of cultural reorganization during this period.

3) The early liberation period: Inward filling period

From the founding of the People's Republic of China to before the reform and opening up, the urban structure did not change much compared with the previous period. The main structural features were the continuation of the cross axis, the initial formation of the ring-shaped radial structure, and the distribution of multiple points in one center.

In the evolution of spatial context during this period, in terms of politics, a series of national policies were important factors in the continuation or discontinuation of urban spatial context. The original urban spatial order collapsed and a new urban spatial order was implanted; in terms of economic power, China entered the socialist planned economy period, and the state adopted the policy of focusing on and advancing economic construction in a planned manner. The economy of Yining City was also fully restored, and a large number of urban spatial context elements were updated; in terms of culture, urban construction fully absorbed the urban planning ideas of the former Soviet Union, and the original and should have continued to develop contextual characteristics of the city either stagnated, disappeared, or discontinued during this stage.

4) After the reform and opening up: Axial spread period.

After the reform and opening up, Yining expanded more rapidly than any previous period, and the urban spatial structure has undergone major changes. The main structural features can be summarized as the continuation of the cross axis, the expansion of the circular radial structure, and the distribution of one center, one core and multiple points. In terms of urban spatial context, the speed of renewal has accelerated, and the elements retained in previous periods have gradually decreased. At the same time, many elements have been rebuilt on the original site because the original buildings cannot adapt to modern use functions, which to a certain extent maintains a high degree of inheritance.

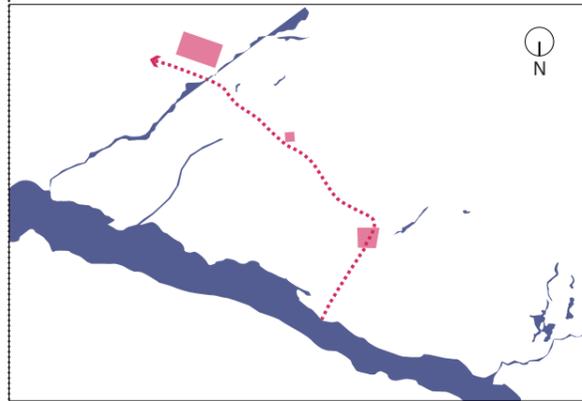
In the evolution of spatial context during this period, in terms of political power, Yining has formulated multiple versions of the city master plan and other relevant plans, management regulations and other laws, regulations and policy documents to protect and inherit the context within the historical city; in terms of economic power, China's economy has gradually transformed from a planned economy to a market economy, and the impact of the economy on urban space has gradually increased. The transformation and development of urban spatial context is also quietly underway; in terms of culture, due to the nationwide construction boom, the growing market demand has caused people to have no time to take care of the traditional context of the city, and the construction behavior seems confused and disorderly.

Timeline of The City Development

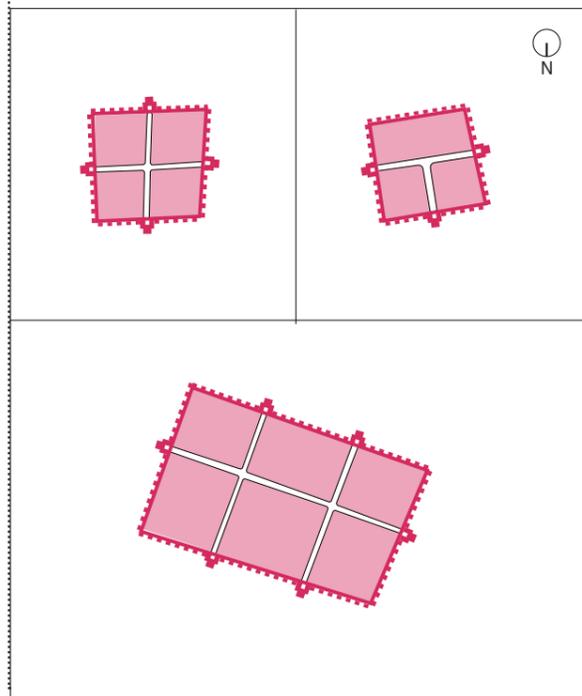
1762-1851

Qin Dynasty
Point formation period

Urban Growth Boundary

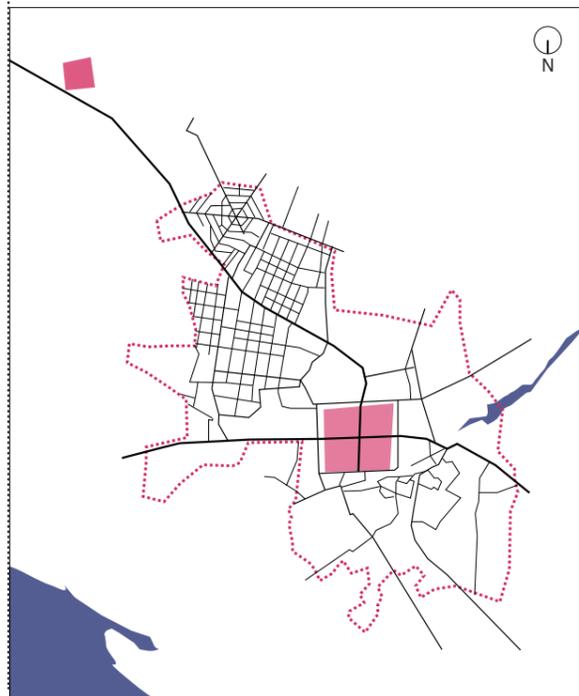
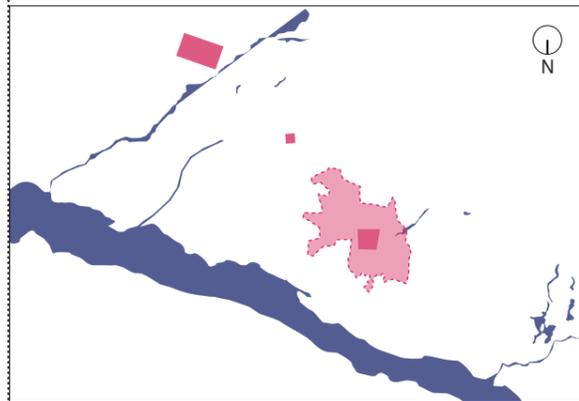


Urban Road Development



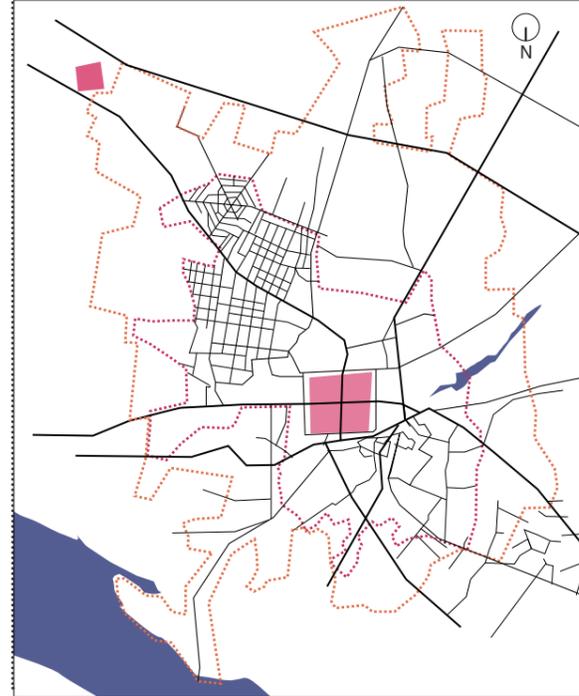
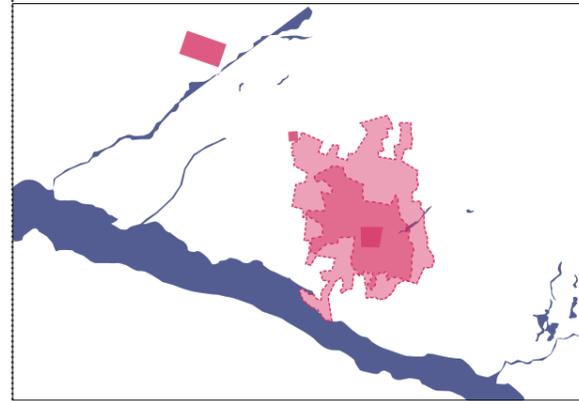
1851-1949

Republic of China
Axial expansion period



1949 - 1992

After the founding of the
People's Republic of China
Inward filling period



1992 to present

After China's reform and
opening up
Axial spread period.

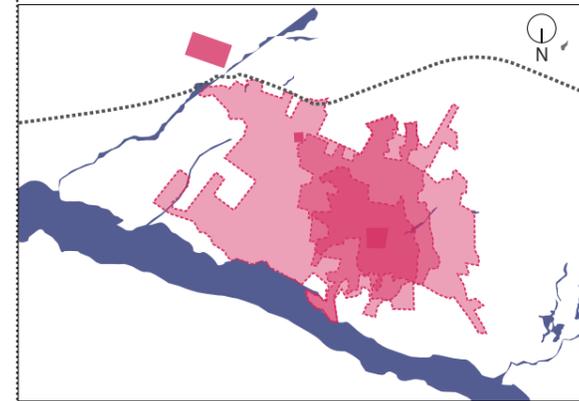


Figure 43. Yining City Expansion Process, Source: Drawn based on the current status map of Yining City (1871, 1953, 1988, 2014)

Chapter III : Contradictions in Urban Development

"Rescuing the masterpieces of Oriental urban design is an urgent task. Rediscovering the lost aesthetics of Eastern cities involves more than just preserving historical sites; it also means celebrating and enhancing the inherent treasures of these cities. This includes uncovering, studying, refining, and creatively reimagining their unique qualities."

— Liangyong Wu



Figure 44. People sit on the street in Yining

1. How do they coexist?

Contradictions

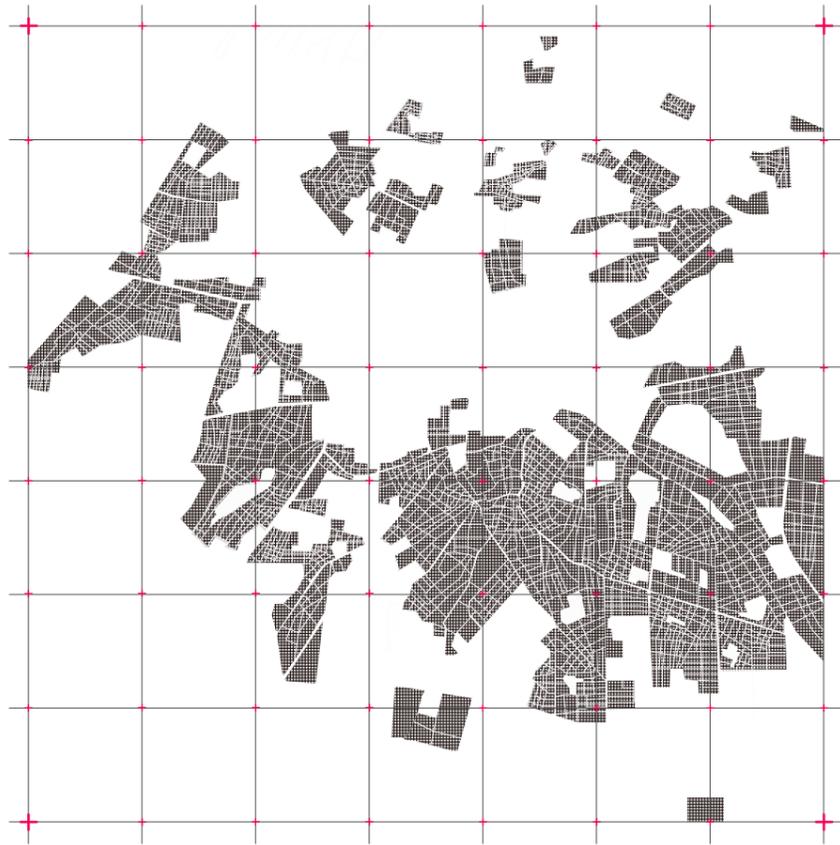
Nowadays, Xinjiang is developing rapidly. Many traditional settlements are abandoned because they cannot meet the requirements of contemporary residence. The economic burden of settlement construction has increased. The wanton plagiarism has seriously damaged the relationship between human settlement and environment. A large amount of construction waste, energy waste, malicious land development, and the serious problem of wanton demand for water, soil and forest resources have aggravated the ecological crisis in Xinjiang.

When studying and analyzing the construction of traditional urban settlement residential buildings, many practical problems were found: the development of traditional urban settlements in this area to this day is due to the limitation of regional resources and spatial structure on the one hand; on the other hand, the construction of residential buildings in settlement space presents a strong spontaneity, a mixed development situation with certain concepts and guidance. A realistic problem facing today is how to achieve "modern architecture regionalization and local architecture modernization". ,

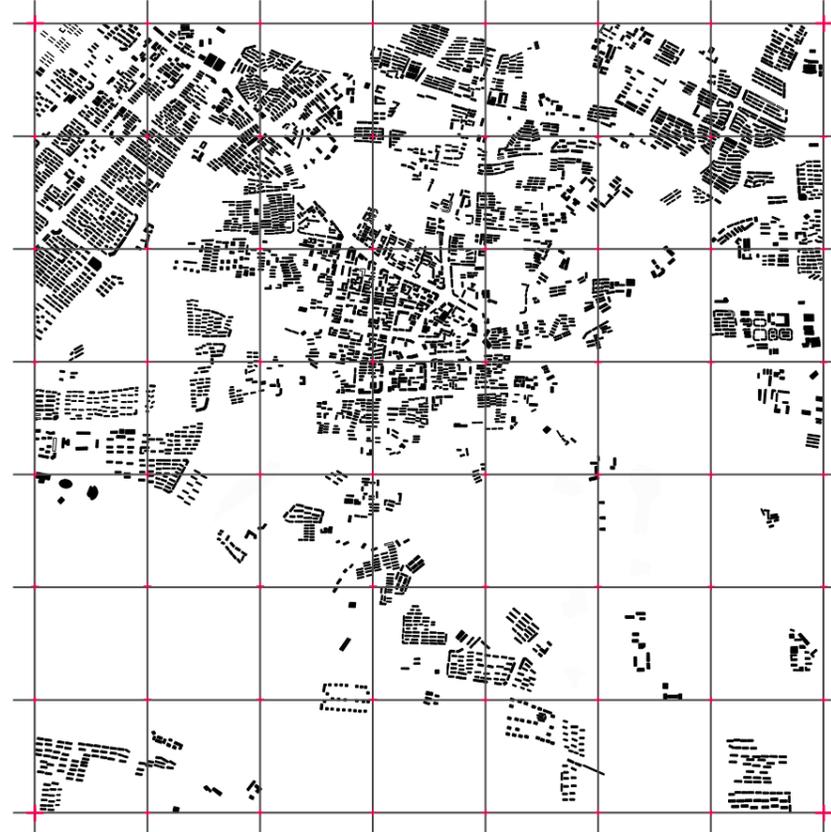
Contradictions existing in contemporary cities: chaos and crisis in traditional blocks, rapid urban development without much consideration of traditional settlement construction, low-level renovation, demolition and reconstruction of existing buildings in settlements; lack of planning and design for new buildings, resulting in a conflict between new settlements and traditional settlements, thus stopped the healthy development of city. Addressing these contradictions requires a balanced approach that integrates modern development practices with respect for traditional architecture, ensuring that growth is both sustainable and culturally sensitive.



Traditional Districts



New Districts



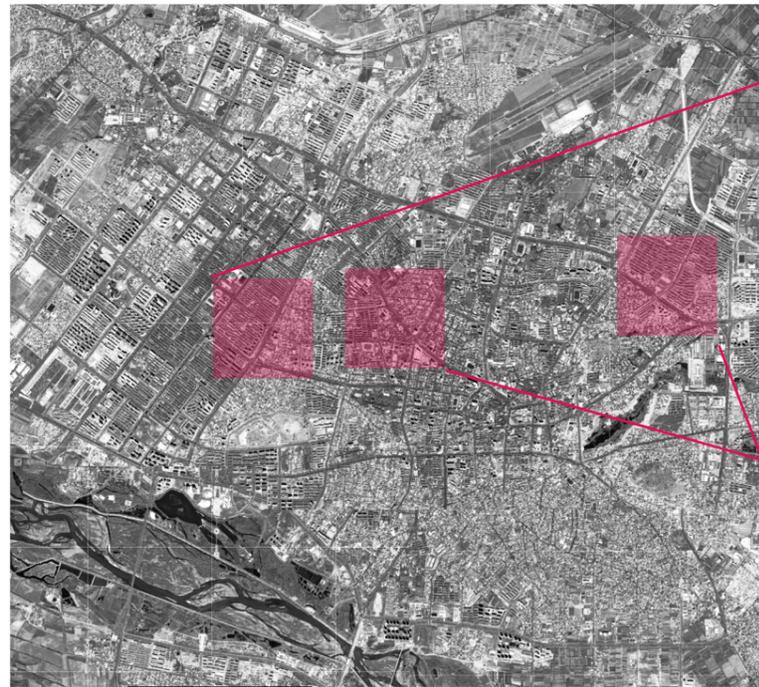
Road System



Figure 46. Mapping of Yining , Source: Based on Google Maps

Typical Urban Pattern Cases

Cases in Yining



Satellite imagery



A



B

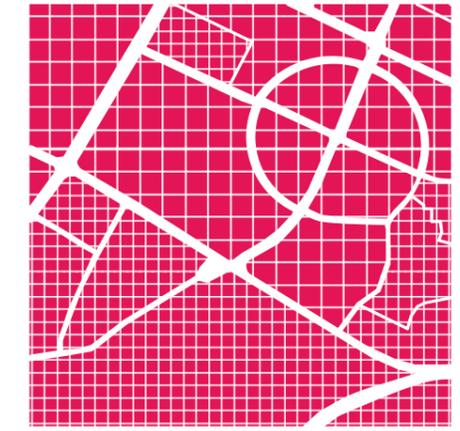
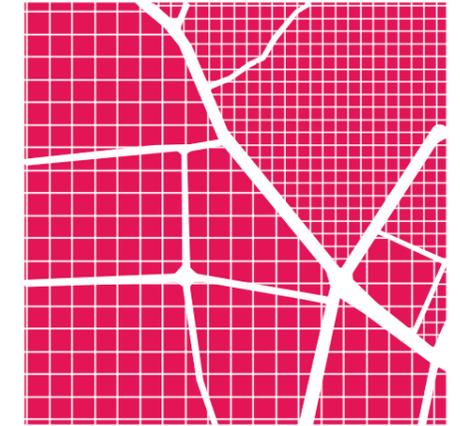
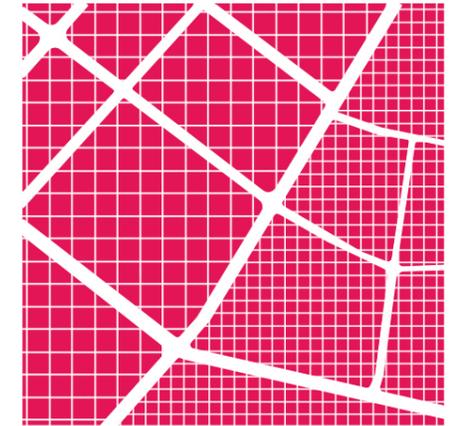


C

Road scale



Building density

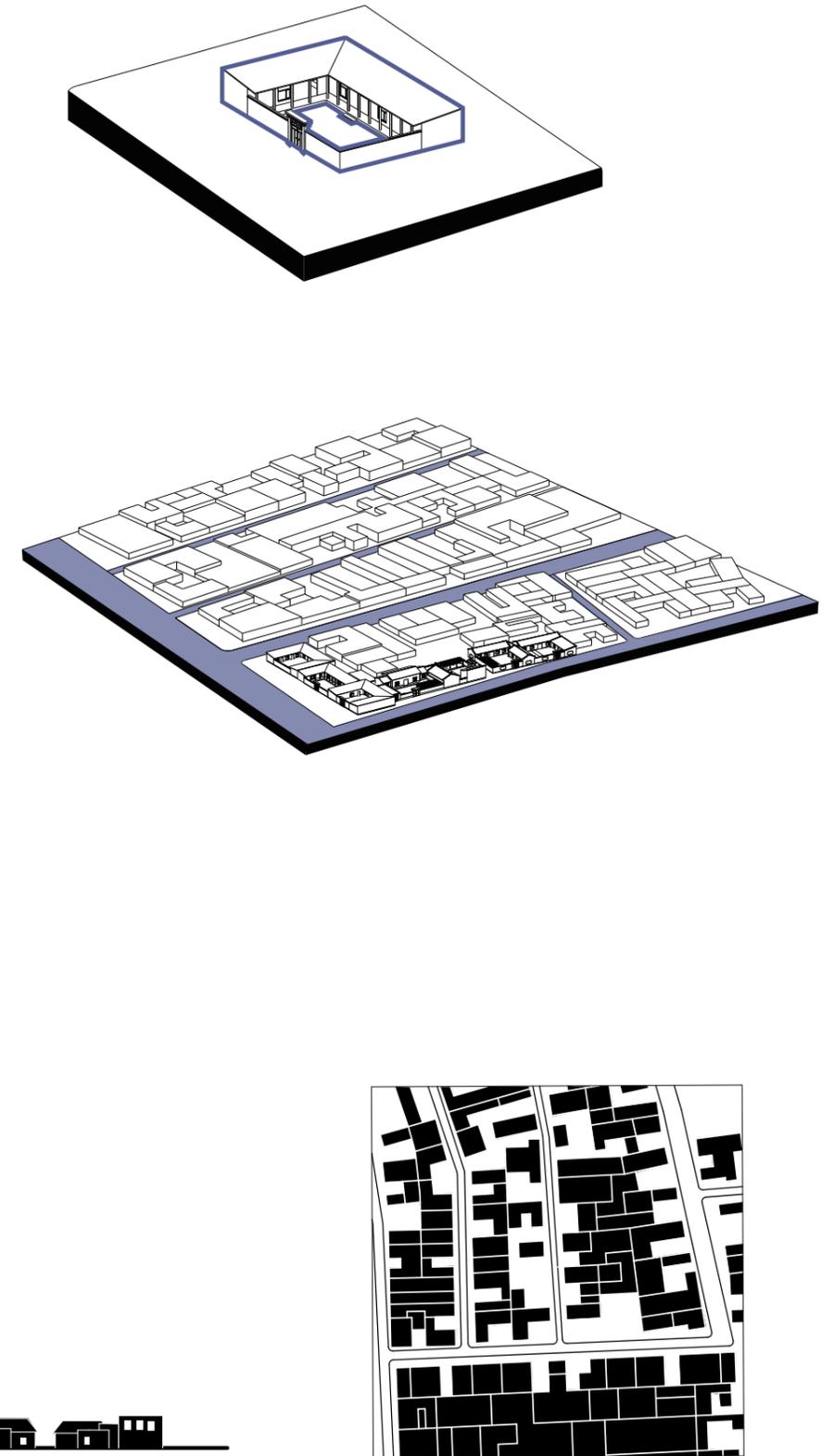
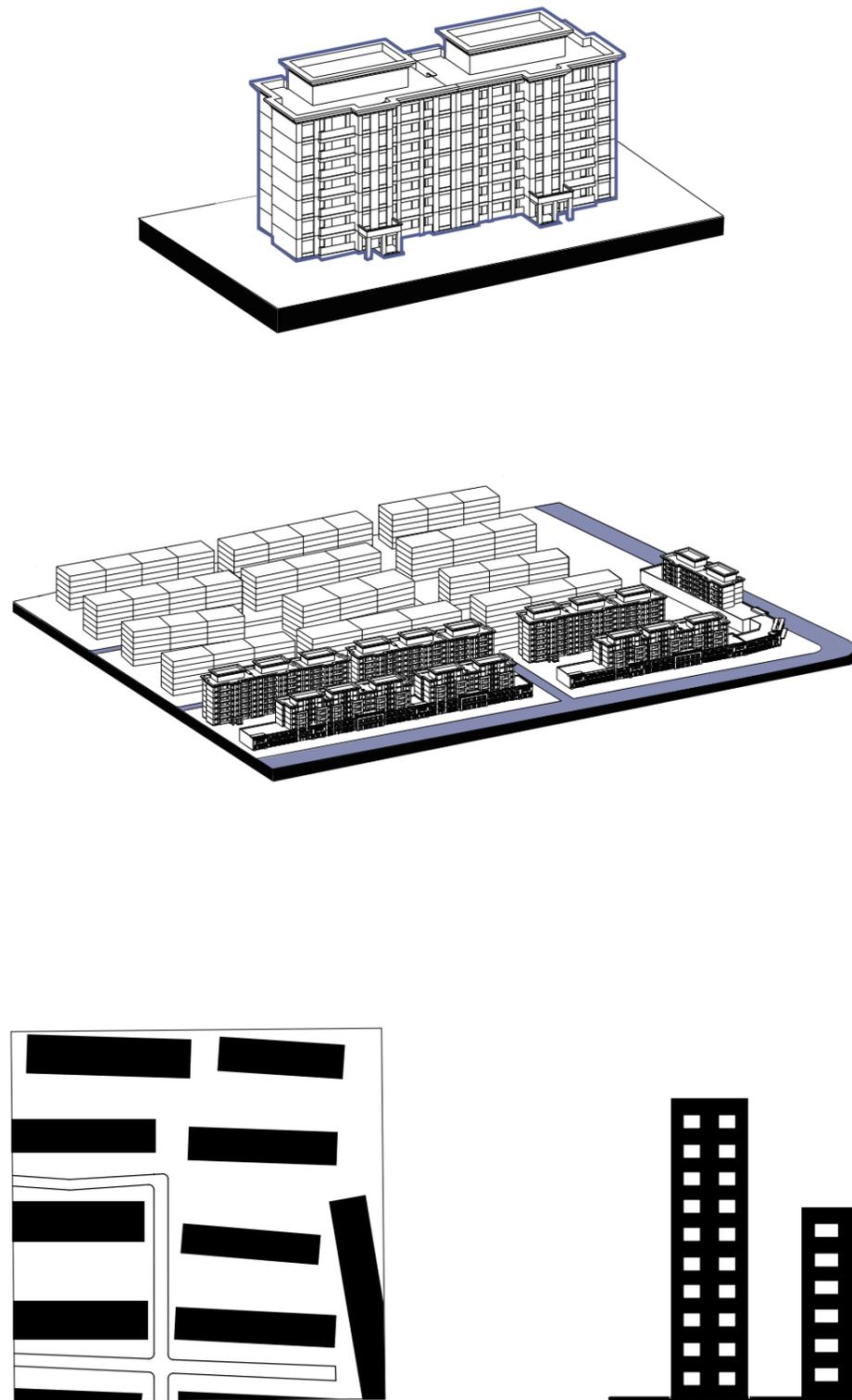


In the urban fabric of Yining City, selecting three representative examples—Cases A, B, and C—reveals a striking contrast between traditional and contemporary urban areas. Each of these cases provides a clear illustration of how traditional neighborhoods and new developments intersect, showcasing significant differences in building density and road dimensions. The juxtaposition of these three cases underscores a significant spatial and aesthetic divide within the city. Traditional and modern neighborhoods are often separated by a metaphorical "invisible wall," highlighting the complexities of urban evolution and the difficulties in harmonizing different planning philosophies.

Figure 47. Typical Urban Pattern Cases

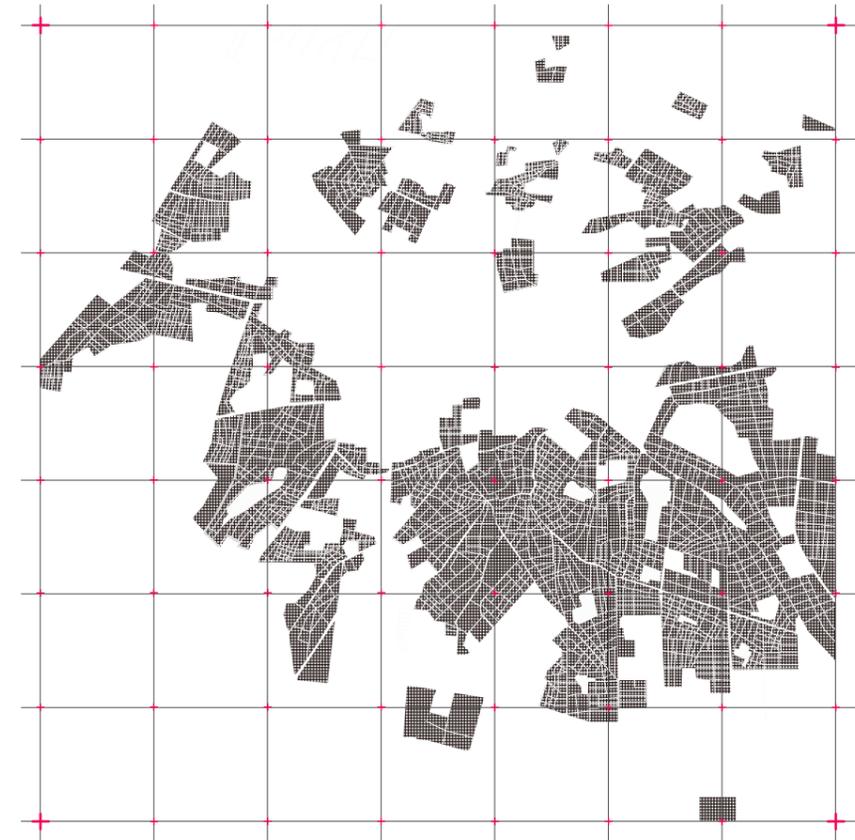
New District

Traditional District



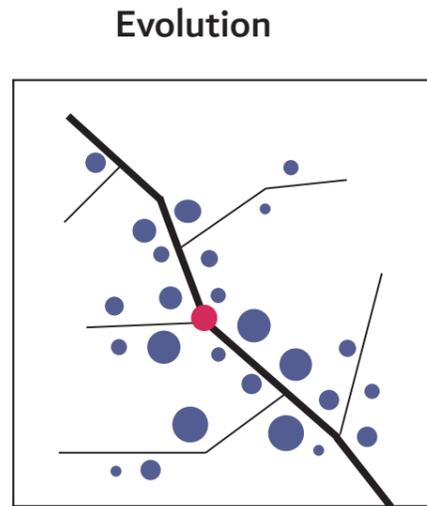
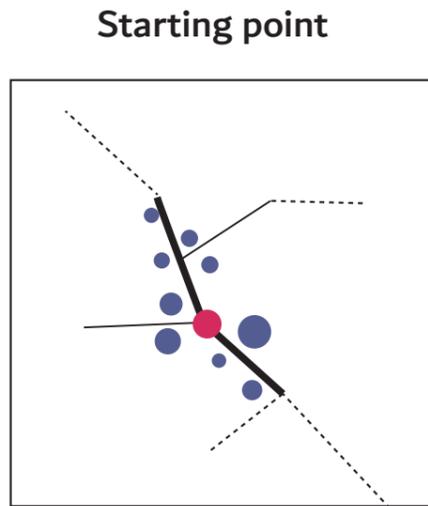
2. Traditional District

The traditional districts of Yining City are characterized by diverse residential settlements, shaped by various factors. Some neighborhoods have adapted to local conditions, while others have been influenced by environmental factors, religious practices, and policy constraints. Over time, these influences have contributed to the development of a varied and comprehensive settlement system. The orderly arrangement and unique structural composition of these settlements reflect the distinctive features and cultural heritage of local architecture. The layout of historical neighborhoods is composed of numerous elements, including different street spaces, node spaces, and the external texture and materiality of local buildings. The clear spatial forms observed in Yining's historical districts have evolved through a combination of spontaneous development and planned guidance. Residents have integrated their lifestyles, cultural concepts, and environmental modifications into these neighborhoods, learning from each other and balancing commonalities with differences. This process has ultimately led to the current settlement patterns and overall urban development model.

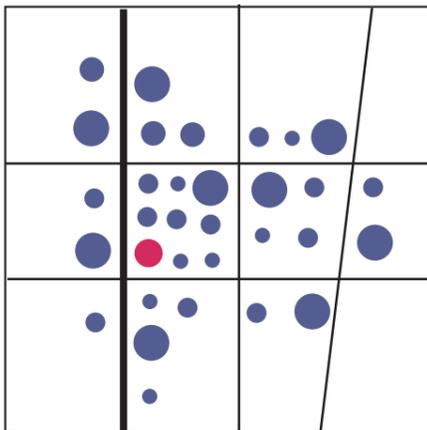
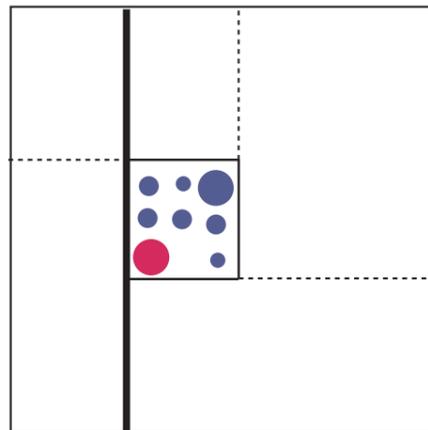


Typical Cases of Traditional District

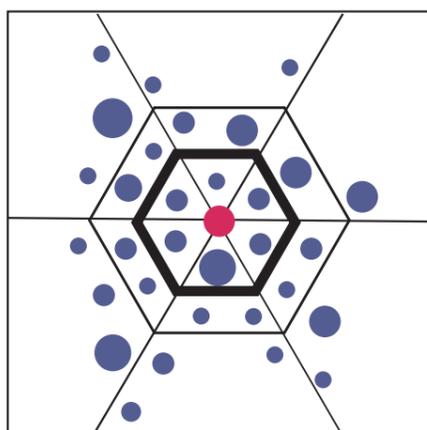
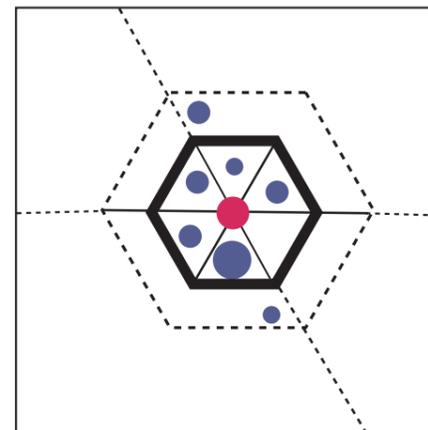
A Spontaneous Growth Pattern



B Grid Growth Pattern



C Circular Growth Pattern



The traditional district can be classified into three typical patterns:

Case A: Spontaneous Growth

A Main Route Branching into Irregular Paths
In these settlements, a primary route often extends into irregular smaller paths. Initially, these areas exhibit a band-like extension, with various branching methods creating different planar forms and organizational structures. This development adheres to the fundamental characteristics of the natural geographical environment, resulting in minimal disruption or alteration of the natural landscape. The overall pattern and interconnections within the settlement are particularly prominent, evolving and arranging based on this foundation.

Spontaneous settlements also display a variety of detailed treatments and flexible forms, showcasing numerous adaptive building styles. This is especially evident in special areas such as squares, religious sites, street corners, and the ends of alleys, where the design aligns well with the functional needs of the urban settlement. The approach of not enforcing strict uniformity in form enriches the urban spatial morphology and positively influences the diversity of settlement patterns. Over time, the main street, acting as the "main trunk," serves as the "main trunk," with "branches" gradually extending and developing from this trunk, shaping the spatial pattern oriented along the streets and alleys.

Case B: Grid Growth Pattern

The orthogonal grid pattern, commonly seen in urban planning, is also present in the traditional districts of Yining. The urban grid structure resulting from the angular relationship between streets represents an evolution for organically grown urban textures. This design avoids the issues of dead-end streets and enhances urban efficiency through its extensive connectivity and the inclusion of public spaces at street corners. This planning model, with its focus on accessibility and efficiency, is one of the closest historical street patterns to the modern district layout.

Case C: Circular Growth Pattern

This outward-radiating street plan centers around a main square at the intersection of streets, extending outward in six directions. The central square is a circular street corner, surrounded by residential buildings, religious sites, and the square itself. The spatial extension follows the direction of expansion, forming a hexagonal shape that is twice as large. Each area within this hexagon features a trapezoidal layout, resembling a spider web structure. The six fan-shaped regions radiate outward from the central node, which includes the square, shops, and a mosque, while the remaining parts primarily consist of residential buildings. This layout, which has been remarkably well-preserved, resembles the construction method of the Bagua (Eight Trigrams) and is designed to minimize external disturbances. The intersections of major and cross streets within this layout are designed to reduce interference from outside, offering a sense of security with a horizon that seems endless.

Unlike other traditional urban settlements, this one was created during the Republic of China period with a clear construction purpose and was planned and designed by German engineer Vassily. Such historical evolution is rare in Chinese history. The clear design concept of this street block makes it unique in Yining.

Road Mode of Traditional District

The traditional districts feature four typical street forms, composed of combinations of courtyards, street-side canals, driveways, sidewalks, and street trees. These elements enrich the street space, making the living environment more comfortable and natural.

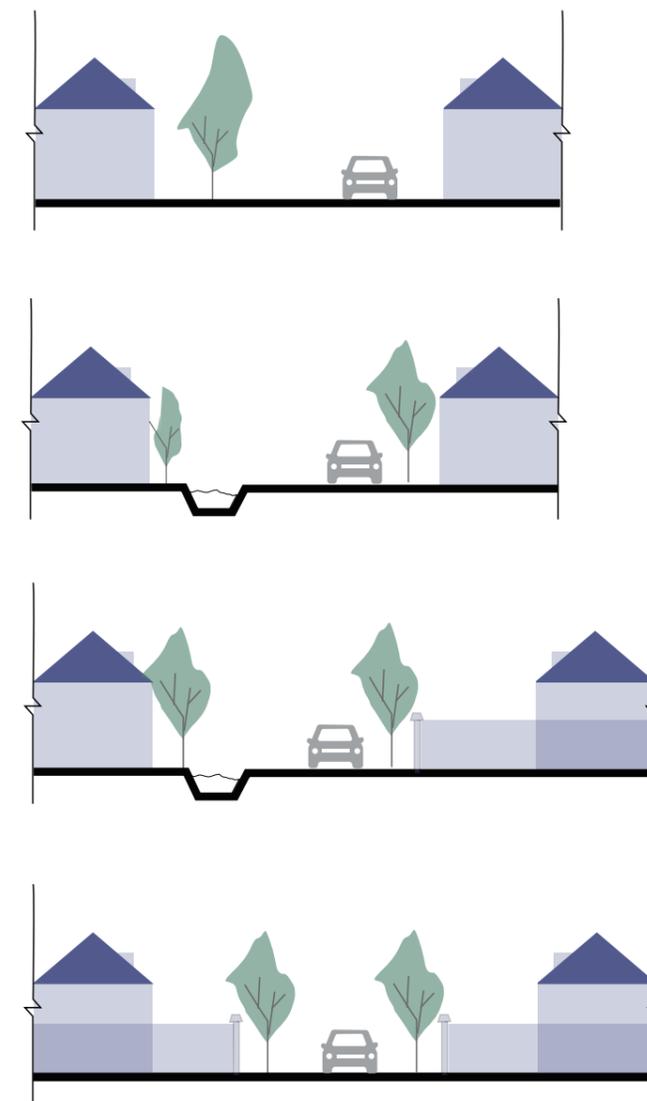


Figure 50. Road Mode of Traditional District

3. Uyghur Traditional House

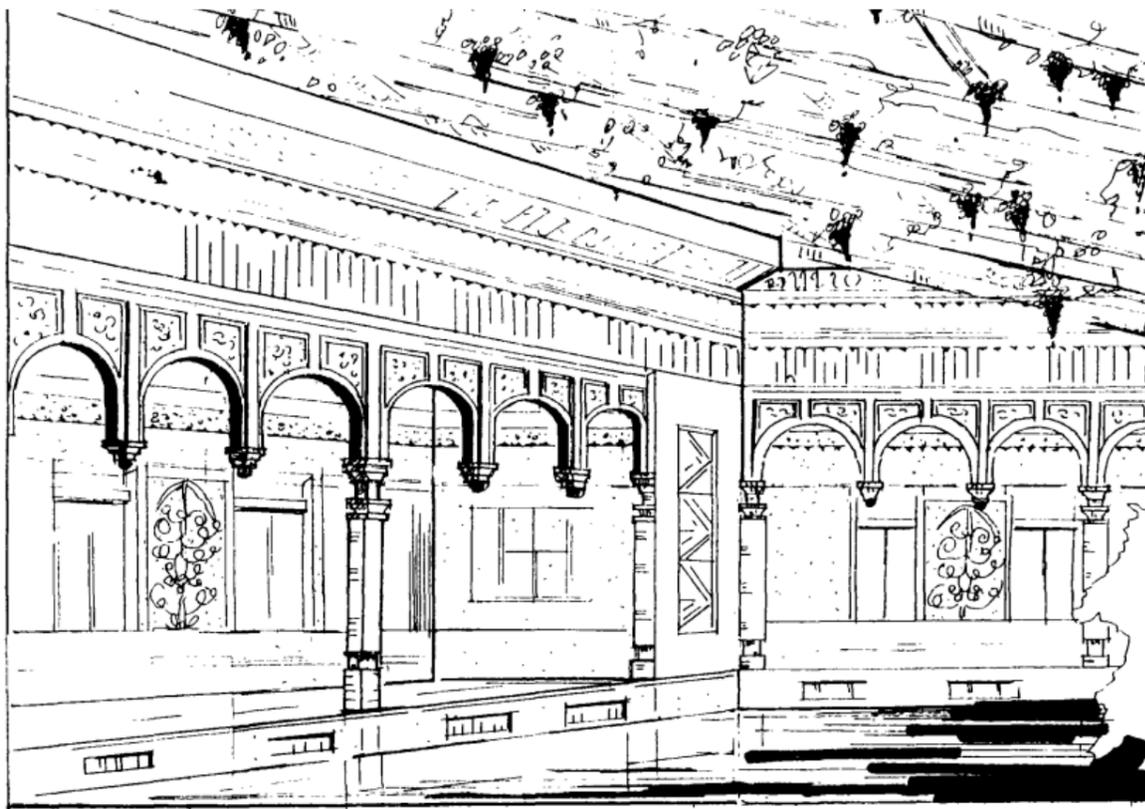


Figure 51. Courtyard

In Uyghur residential architecture, the courtyard is a crucial element. Influenced by the small-scale farming economy, the self-sufficient lifestyle is often reflected within courtyard spaces. Since these courtyards are typically shared by family members with close kinship ties, they create a sense of familial space, becoming the core "soul" that fosters a strong sense of place and belonging.

Residential Behavior and Central Circulation System

The courtyard has always served as a multifunctional "generator" of daily activities. Residents organize essential routines such as housework, cooking, dining, and summer night rest around this central space. The Uyghur community, with its preference for outdoor living for much of the year, considers courtyards, pergolas, eaved corridors, and raised platforms as their primary living areas. Moreover, the courtyard's layout is further shaped by customs, beliefs, and rituals. For instance, female family members perform worship ceremonies under the eaved corridors, while neighbors and family gather under the grape trellis to celebrate the harvest. Traditional Uyghur weddings are also held in these courtyards, with relatives and friends seated under the eaves, dancing energetically to the music.

This arrangement makes the courtyard the "power core" of both family and social interaction, creating a comprehensive internal circulation system that efficiently organizes airflow, landscaping, lighting, and human movement. It seamlessly coordinates the spatial experience with various levels of communal and individual activities.

In Yining City, the Uyghur community continues to uphold these traditional living habits. Many families, often with four generations living together, share a single courtyard space, interconnected by grape trellises, walkways, and outdoor kitchens. The planting of flower beds and fruit trees around the courtyard enhances the greening of the surrounding streets and alleys, adding variety and vitality to the urban landscape.

Courtyard Types

Due to the vast expanse of Xinjiang, Uyghur courtyards across different regions exhibit distinct styles influenced by the local climate and environment. In areas with ample land or milder climates, courtyards often feature eaved corridors and elevated structures. For instance, the eaved-corridor style courtyard, commonly found in Yining, is a response to the constraints of limited building space. In regions with higher residential density and harsher conditions, such as strong winds and sandstorms, courtyards tend to be semi-enclosed or fully enclosed (known as Aywan), as seen in the traditional homes of Turpan and the old city of Kashgar. These enclosed courtyards are an adaptation to the local climate and density, resulting in spaces that are more inward-focused and protected.

In Yining, most residential courtyards are located on the south side of the buildings, allowing the living spaces to face the sun and enjoy open areas with pleasant views. The courtyard serves as the first transitional layer from outdoor to indoor space, mediating the sensory experience—visually, acoustically, and in every other aspect. These courtyards emphasize an organic layout, often featuring grape trellises and other shade-providing structures to enhance comfort and usability.

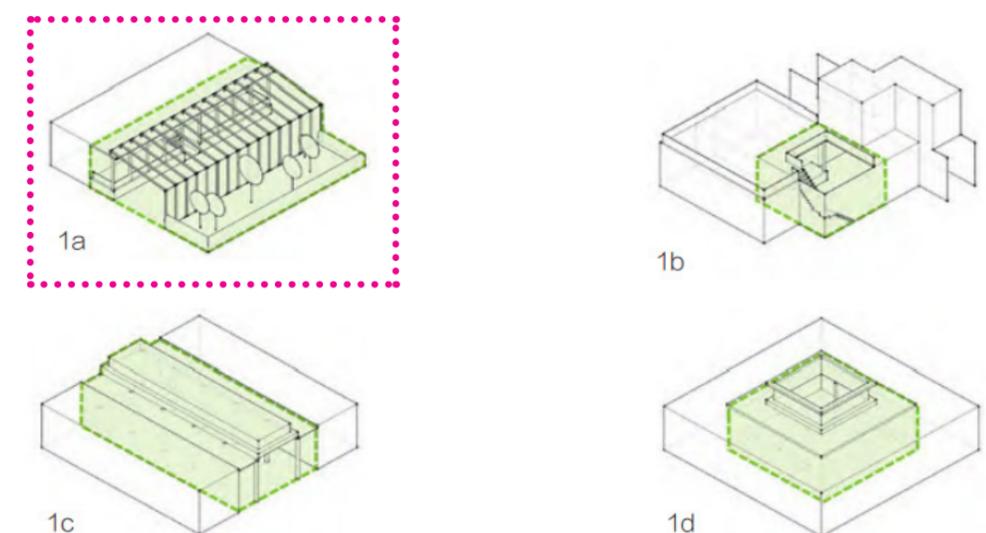


Figure 52. Diagram of a typical courtyard space in a Uyghur dwelling, Source : Guo Jiaoni., Zhao Weifeng., & Liu Xiaohu. (2022). *Living Customs and Residential Space: Interpretation of the Uyghur Ethnic Group Dwellings in Xinjiang from the Perspective of Folk Culture*.

Uyghur Houses Pattern Evolution

The building unit in the residential courtyard is the living space in the residential courtyard, and it is the place where people interact most every day. From the traditional residential houses currently preserved, it can be seen that the existing residential houses in Yining City are unique buildings formed after improvement and reference. At the beginning of construction, the economic level of residents was relatively poor, and there was no mainstream construction technology. They could build according to their own experience, but mainly used wooden frames and rammed earth walls as the main construction mode.

1. As people gradually changed from nomadic life to settled life, they first imitated the construction of wooden houses and built a one-bedroom house. Later, as their children were born one after another, they would build another one next to this one-bedroom house. When their daughters got married, they would continue to build another one. If there were certain means of production and sundries that needed to be piled up, they would build another small house. This linear model of single and modular one by one was the earliest residential building.

2. With the gradual improvement of people's living standards and the continuous innovation of construction technology, brick and wood structures became the main construction materials of the era. At this time, many ethnic groups lived together to form a large scale. Everyone discussed and imitated each other. In terms of terrain and moisture and mildew prevention of houses, they all adopted the construction of platforms. The height was not high and the highest would not exceed 30 cm. As the area of the platform was expanded, the flying kitchen that had always been outdoors was also moved to the platform, but it still maintained an open treatment.

3. With the gradual improvement of construction technology, the internal scale of residential buildings has doubled. At this time, most of the single buildings are one-story. Due to the limitations of construction technology, the roof is tilted backward to ensure the dryness of the ground in front of the house. At this time, the residential buildings gradually formed a long pattern, and there was space for the layout of functionality and furniture, forming a hall, master bedroom, second bedroom, kitchen, storage, etc. Due to the troubles of rainy and snowy weather and the strong radiation factors brought by direct sunlight, the eaves gradually extended outward to form corridors, and the roofs of residential buildings at this time took the form of pointed roofs. Due to the appearance of corridors, the area of the platform increased, and columns appeared at the junction of the eaves and the platform.



Figure 53. Uyghur flying kitchens

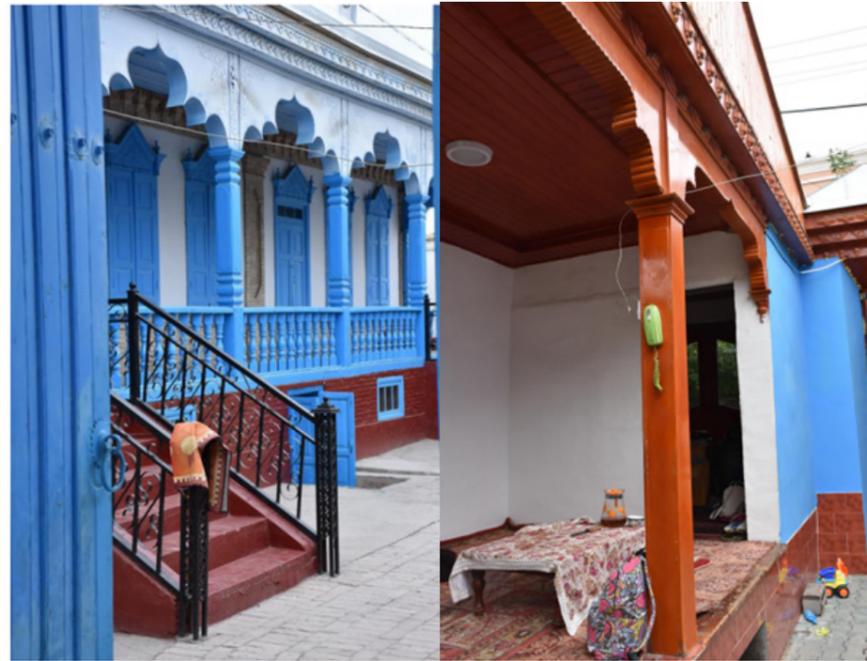


Figure 54. Uyghur outdoor corridor

4. As the communication and reference between residents become more and more common, and as the residents have more and more needs for their own lives, a single form of residence cannot meet people's needs. Auxiliary buildings such as storage space at home are gradually combined with residential units to form an "L"-shaped residential form, arranging the basic functions of the family on the terrace. At this time, the corridor also changes with the exterior eaves of the building, connecting all the rooms in the family to form a gray space that runs through. Such corridor space has gradually formed the characteristics of the region, and the roof has also changed into an angled sloping roof. The entrance door and windows have also been further developed, with clearer functionality, many metal components added, and a variety of decorative techniques.



Figure 55. Uyghurs dancing in the courtyard

5. With the huge population growth in Yining City, the Russians migrated to the city on a large scale. With the increase of population, residents began to expand their living space. Due to the rapid development of economy and construction technology, solid building materials such as bricks and cement have appeared. People gradually planned their living space to form spatial corridors connected to each other, and formed connecting tools in the form of channels, which increased the spatial levels of single buildings and formed a cluster type.

Uyghur Houses Pattern Evolution Stages

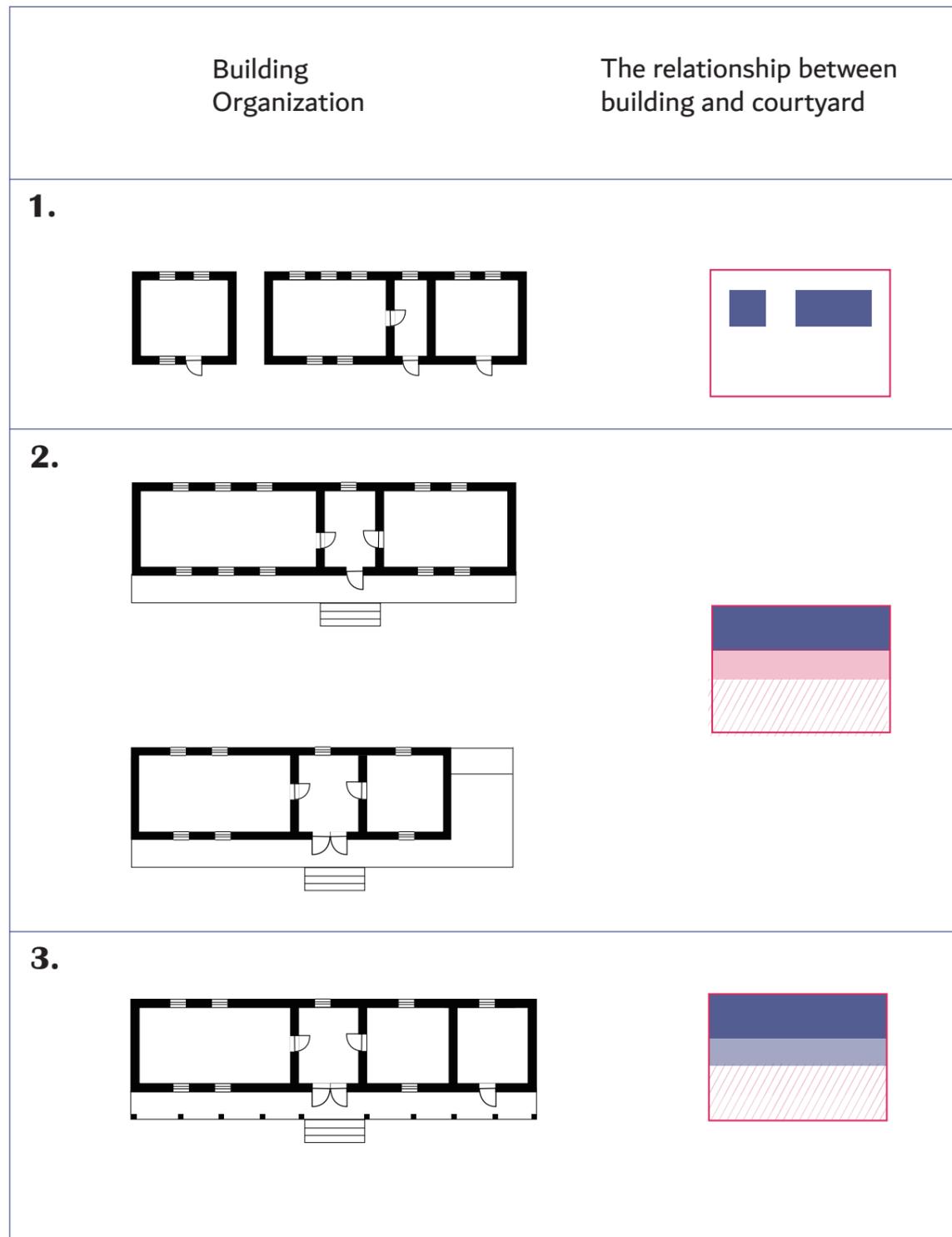
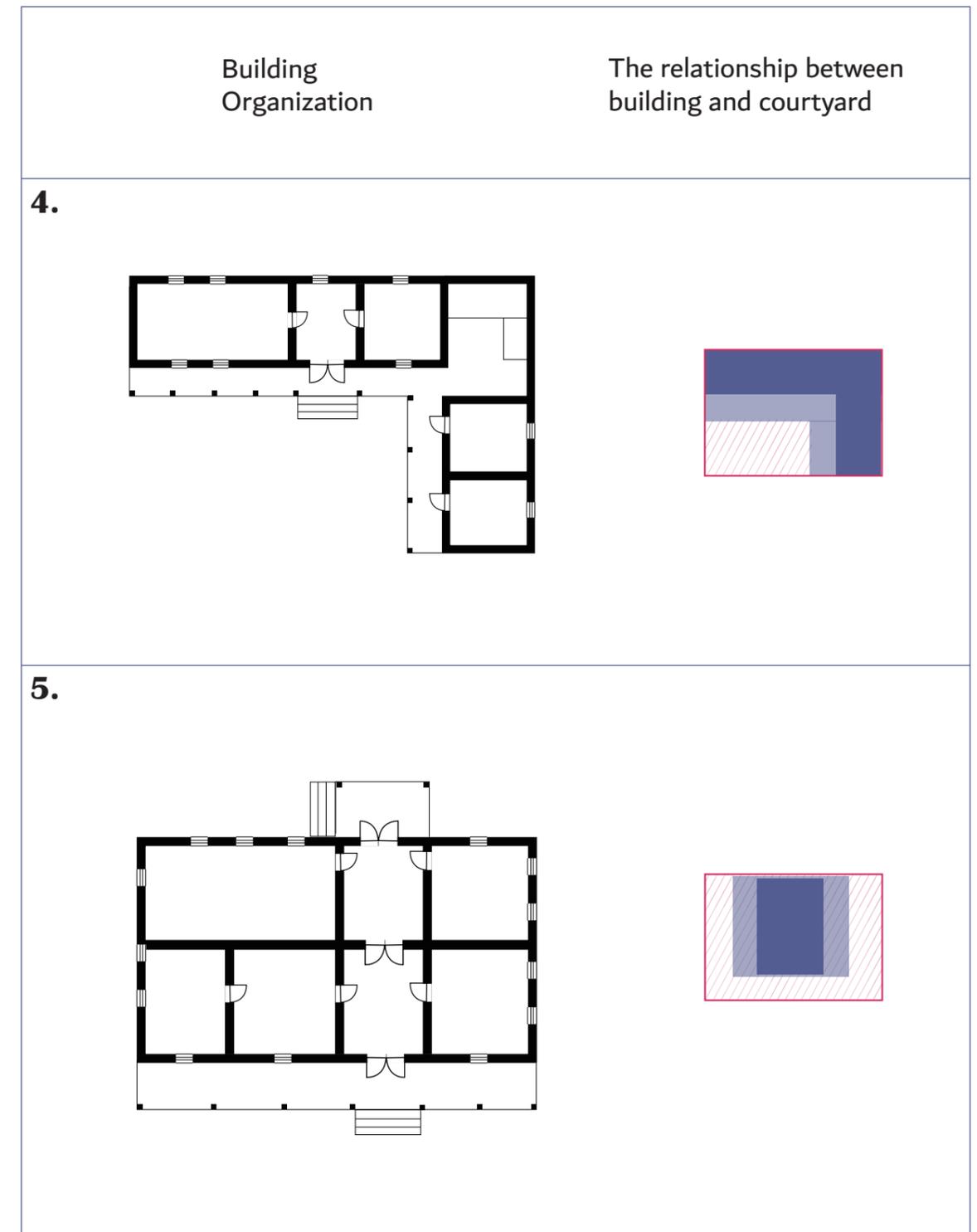
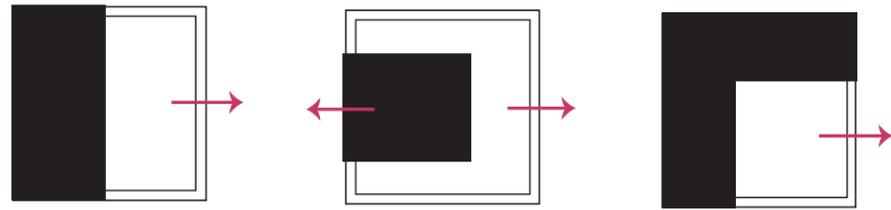


Figure 56. Diagram of Uyghur houses pattern evolution stages



Housing Typology

House Unit Type



House Combination

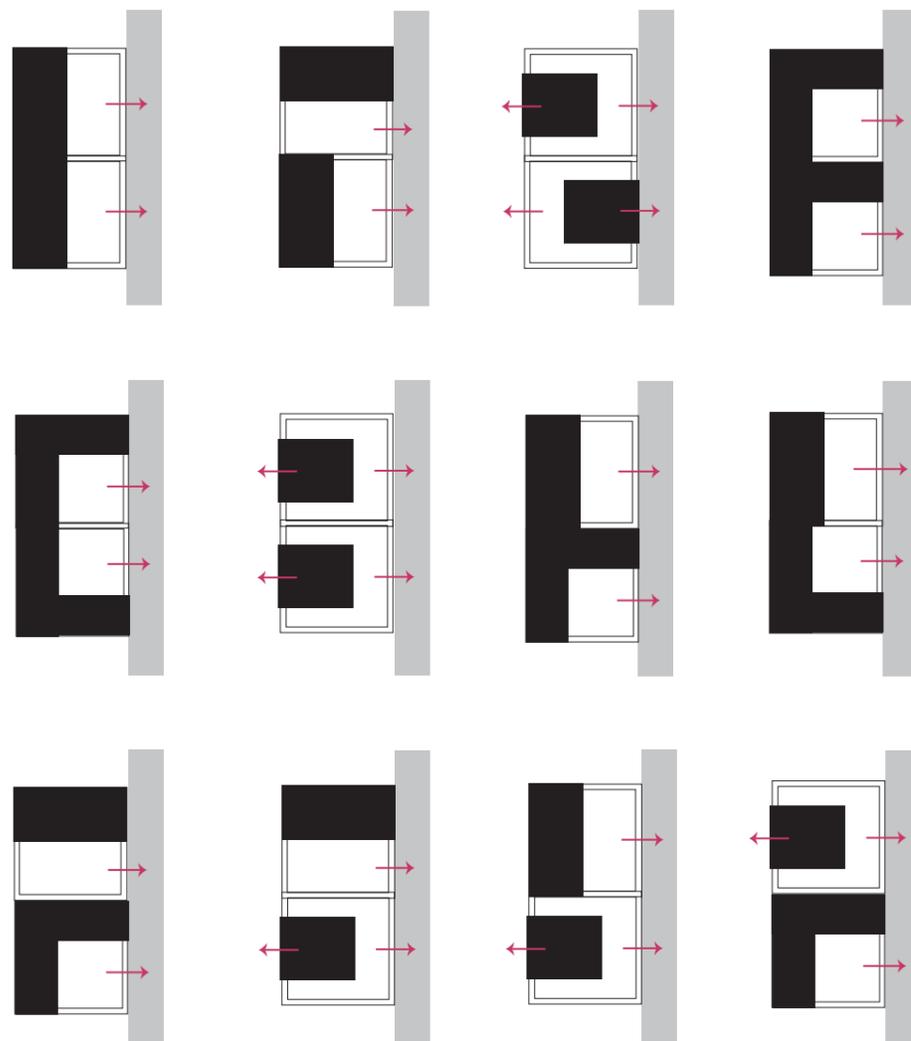
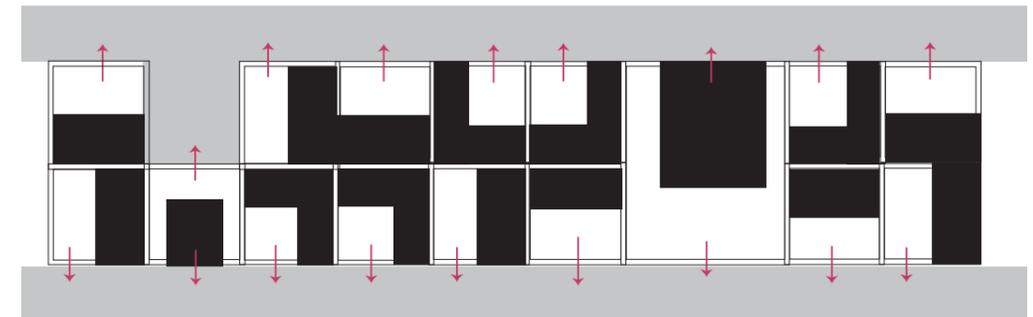


Figure 57. Uyghur house typology

Block Combination



The diverse relationships between building and courtyards have created a wide range of residential possibilities. By arranging and combining various individual housing units, a richer typology of combinations has emerged. These diverse clusters, when further assembled, form complex, unpredictable, and intriguing neighborhoods. It is under these typological conditions that such rich traditional neighborhoods have been created, enhancing the potential for varied human activities within these spatial configurations.

GATE
The boundary between the street and home

In the introverted courtyard houses of the Uyghurs, the main door is the only entrance and exit connecting the home to the outside world. As an intermediary between the streets and the home, it is both a public element in the street and a private element in the family. Uyghur houses use the entrance door as the activity boundary of gender division to prevent outside vision from prying into the interior of the house.

Under traditional concepts, most of the activities of women are limited to the interior space of the house, and their social activities are limited to chatting with neighbors at the door. Therefore, benches or earthen ridges are often set up at the door of Uyghur houses, where they greet each other and share information. Local women can sit at the door to do handicrafts or hold their children to watch the passers-by. Strangers passing by will not look into the courtyard casually. They judge whether it is appropriate to visit by observing the opening state of the main door. This clear spatial definition is intended to emphasize the protection of privacy.

Similarly, Uyghur houses divide visitors into male and female visitors and arrange them in different guest rooms, which also explains why there are multiple guest rooms in a house at the same time. This series of spaces symbolizes and controls the spatial sequence from public space to semi-public space, semi-private space, and private space, and gives clear signals of ownership, territory, and behavioral changes. These "reserved signals" serve as standards for daily behavior, dress, and conversation under social norms. This clearly defined "normative behavioral environment" provides a continuous sense of security for people in the group, which not only reflects its social nature, but also protects the privacy of individuals.

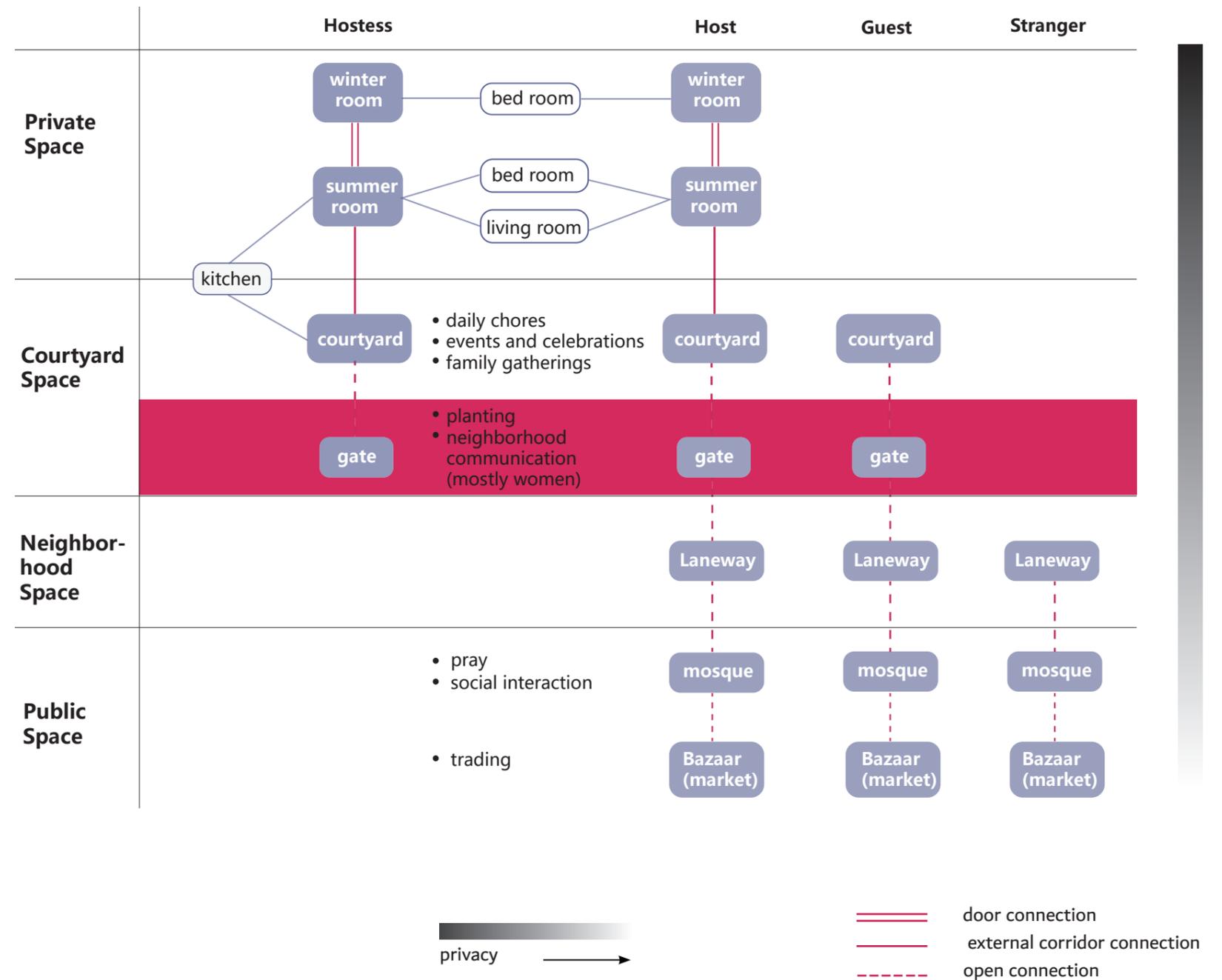


Figure 58. Functional Space and Behavioral Activities of Uyghur Traditional Houses

Gate Space

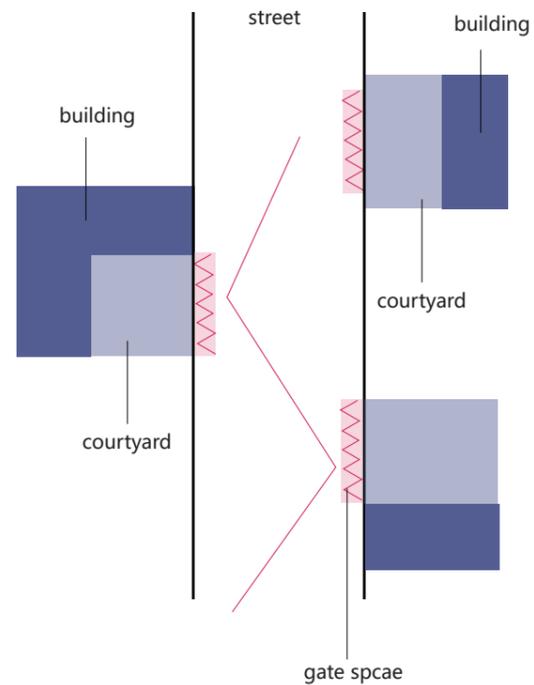


Figure 59. Diagram of gate place

In addition to the courtyard, traditional residential buildings have another feature: the gate. Built in a prominent position along the street in the front yard, it is the dividing line for residents to enter private living places from public areas such as streets and alleys, and can be regarded as a critical point. Residents often devote a lot of manpower and material resources to this critical point, and build the gate head very beautifully and appropriately. The gate head creates the intersection of the public environment and the private environment. This intersection enhances the spatial connectivity inside and outside the door, and also creates a place for residents to relax and rest and a good environment for interpersonal communication.



Four main focuses of door design:

A. Greenery

just like the extension of the courtyard planting area, various types of vegetation are planted at the door, which can not only show the aesthetic orientation of the residents but also add beauty to the social space.

B. Seat

The most distinctive feature is that almost every door is combined with a pillar to make a high platform for sitting. The methods of this platform vary. Some are square, some are slightly tilted, and the sizes are different. The large one can sit two people side by side. The small one is about one person wide. It is only enough for people to lean on and support. Some owners who are particular about it also inlay wooden boards to keep out the cold. In addition to the door pillars as benches, in order to make up for the lack of pillar benches, some residents also build a long bench next to the tree or canal outside the door. The owner of the house, whether it is the elderly, housewives or children, always sits on this special stool at the door for a while every day to watch the beautiful scenery along the street and listen to social dynamics and market trends. It can also be used as a small break to adjust the fatigue of housework. You can chat or gossip with neighbors and acquaintances here to relieve the loneliness of home life. It has opened up a place where you can interact with the society without any time constraints.

C. Grape Trellis

A trellis is combined with a pavilion to form a gray space. Such a trellis can be used for climbing vines such as creepers and grapes to form a space with walls and roofs. Seats are placed below for people to rest and cool off. It is also a place to receive and chat with the surrounding residents.

D. Mini Market Shelves

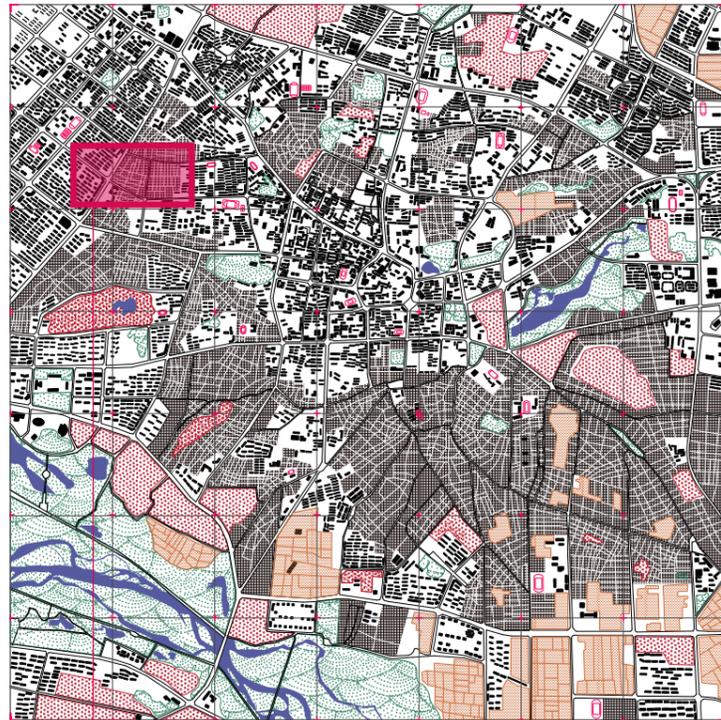
Due to the limited service facilities in most traditional neighborhoods, the close relationship between neighbors, and similar lifestyles, diets, and living habits, a barter lifestyle has emerged. There are also some family workshops or



Figure 60. Photos of gate in Yining

Chapter IV :

Project



site



Figure 61. Uighur old man and child

1. Site Analysis

Site Fabric

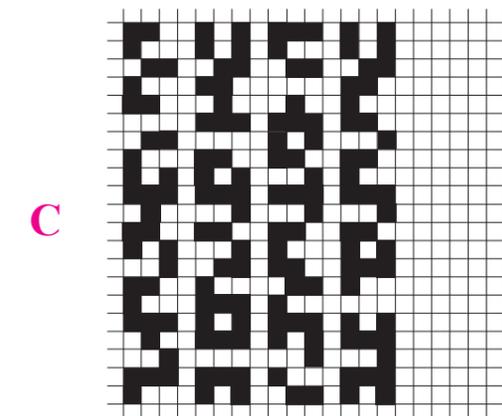
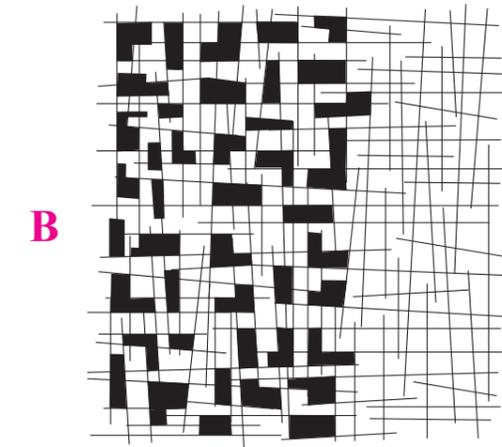
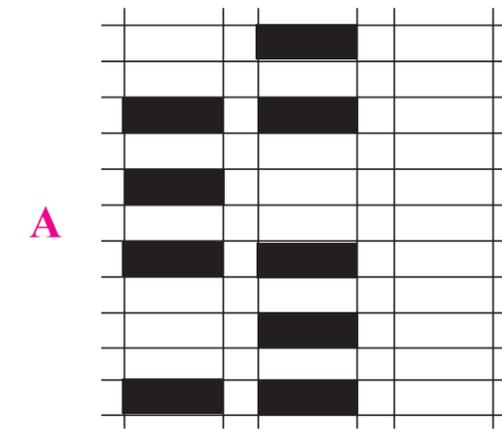


Figure 62. Urban fabric typology

The site selection includes three types of site textures, representing different stages of urban spatial evolution.

Block A represents the new neighborhood, characterized by an orderly and repetitive spatial pattern, with larger and taller buildings, greater distances between structures, and a grid-like road network that is well-connected. Block B represents the traditional old neighborhood, where the road and building textures have developed more spontaneously. The buildings are smaller, with closer relationships between individual structures, and the lack of planning often results in dead-end streets, making transportation less convenient. Block C represents the evolution of the new neighborhood, where smaller buildings are still prevalent, but the texture has developed a more regular grid-like pattern, indicating an effort to evolve the urban space into a more refined, orderly, and rhythmic system.

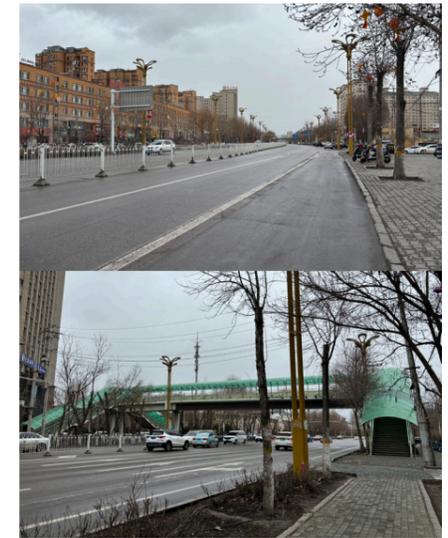
Road Grade



Figure 63. Grade of roads in the site

-  First-level road
-  Second-level Road
-  Third-level road

First-level Road



Second-level Road



Third-level Road



Building Height



Figure 64. Height of buildings in the site

-  1-2 floors
-  3-5 floors
-  ≥ 6 floors

Figure 65. Photos of roads in the site

Abandonment and Greening Land Use



- Greenery
- Abandoned land

Figure 66. Abandonment and greening land use in the site

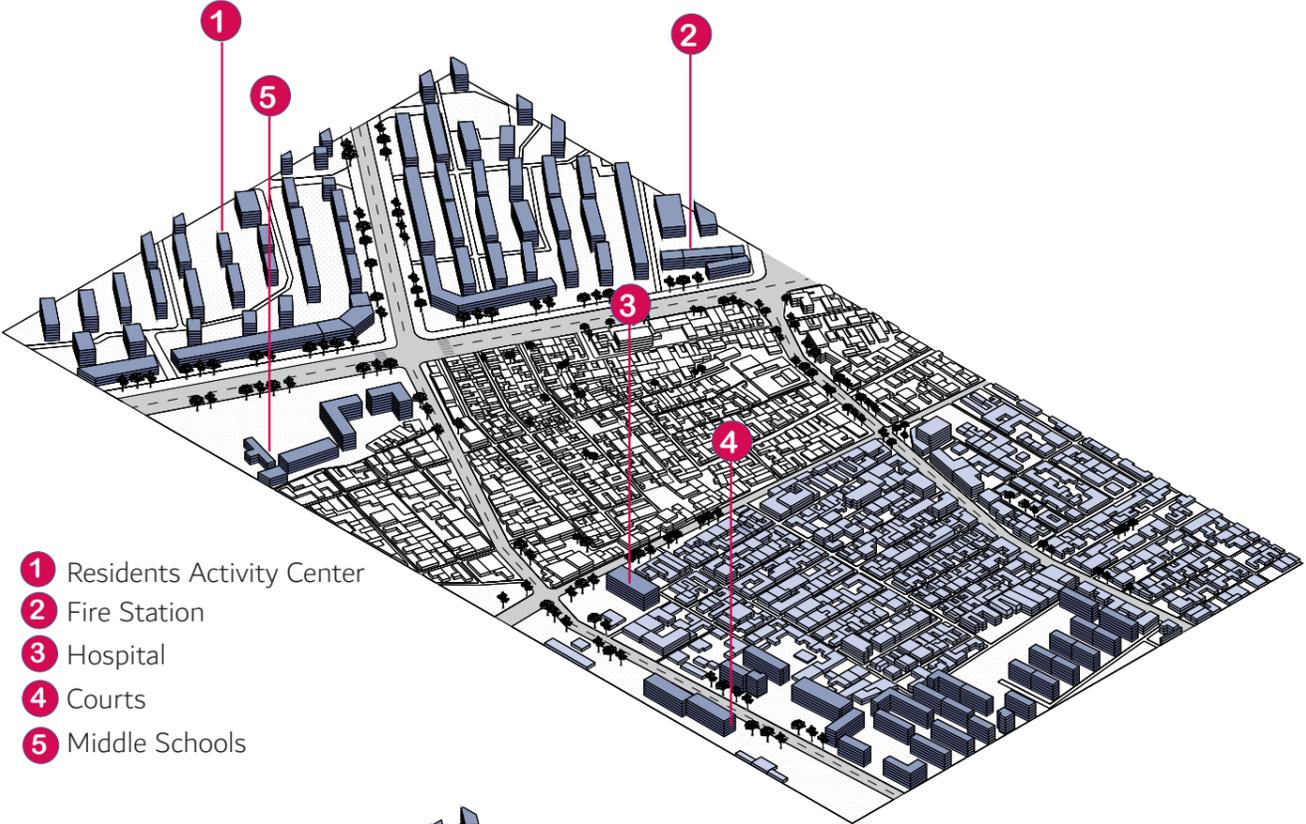
Commercial and Other Public Buildings



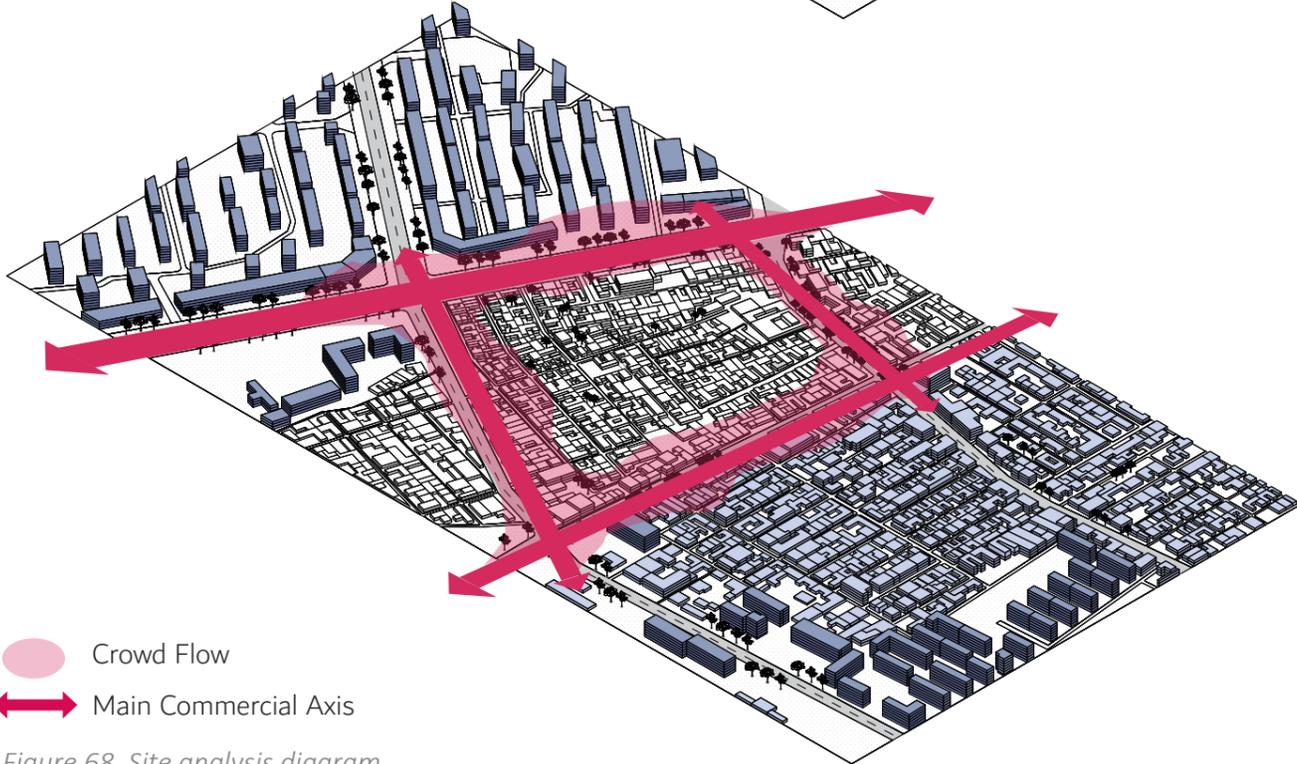
- Residential buildings
- Commercial buildings
- Other buildings

89 Figure 67. Commercial and other public buildings in the site

Site Analysis Diagram



- 1 Residents Activity Center
- 2 Fire Station
- 3 Hospital
- 4 Courts
- 5 Middle Schools



-  Crowd Flow
-  Main Commercial Axis

Figure 68. Site analysis diagram

The project site lacks basic infrastructure and commercial layout. Residents in the center of the block have to walk a long distance to access public service facilities. The primary commercial axis surrounds the site but does not penetrate it. This old, closed-off neighborhood also hinders communication between other urban areas. Limited space conditions and road scales have also drained the vitality from the site. Restoring urban vibrancy to this neighborhood has become the main goal of the project.

2. Strategy

By opening a vibrant street within the site and updating the "gate spaces" along the street, modular street-side facilities can be integrated according to demand. This approach creates a gap in the project block, allowing urban vitality to permeate the area and simultaneously improving urban traffic efficiency. This street not only serves the traditional neighborhood but also bridges the gap between the traditional and new neighborhoods, aiming to facilitate spatial interaction between the two.



Figure 69. Project strategy analysis diagram

Site Status

The street contains two abandoned sites: one is used as an unorganized dump, while the other serves as a temporary parking area. The street is narrow, and due to the lack of dedicated parking spaces, vehicles are often parked along the curb, which obstructs traffic and detracts from the city's appearance. Additionally, the street leads to two larger roads at either end, creating a sense of discord. Properly widening the street and increasing open public spaces could help alleviate this conflict.

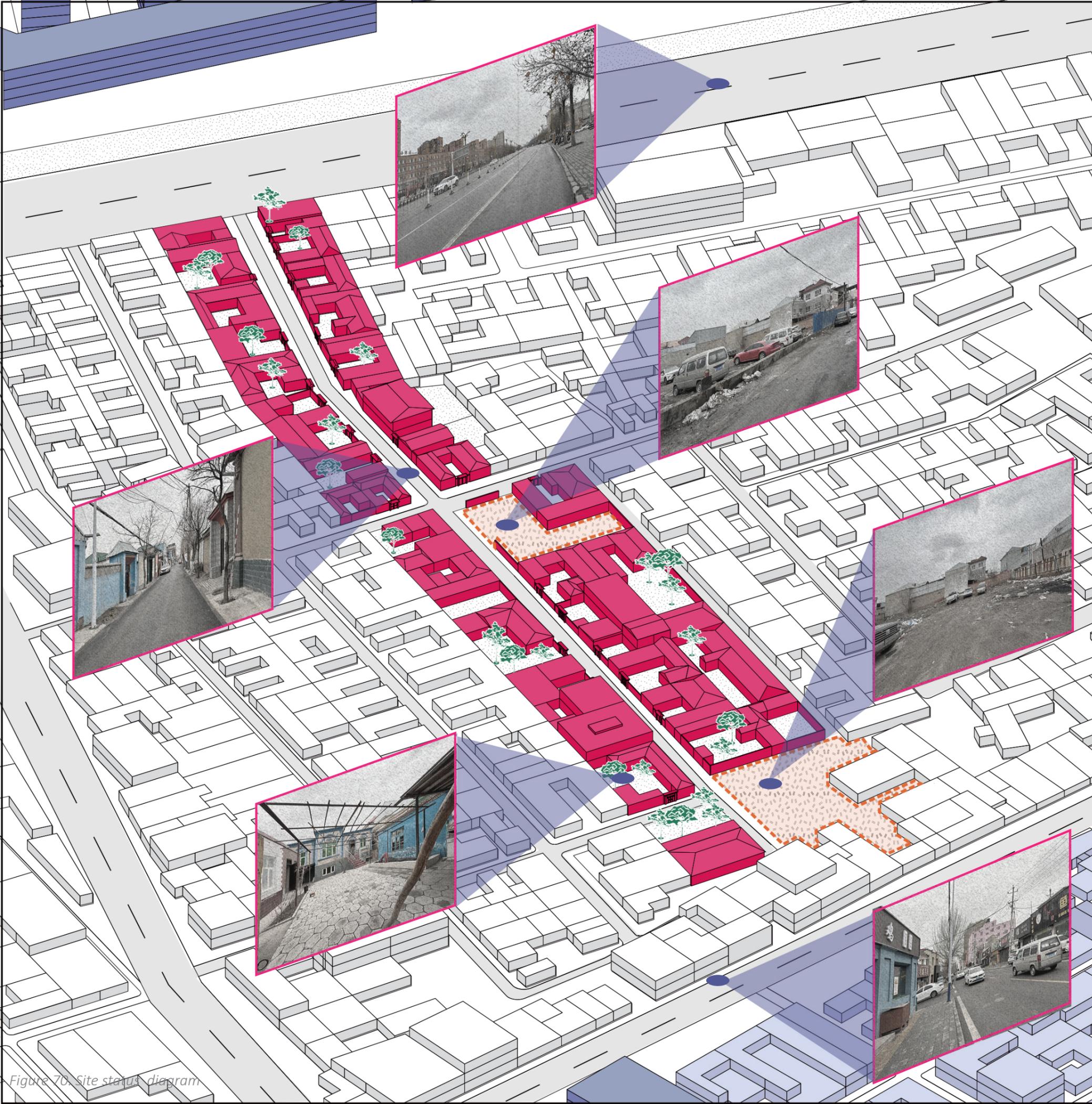


Figure 70. Site status diagram

3. Intervention

Street Facade Composition

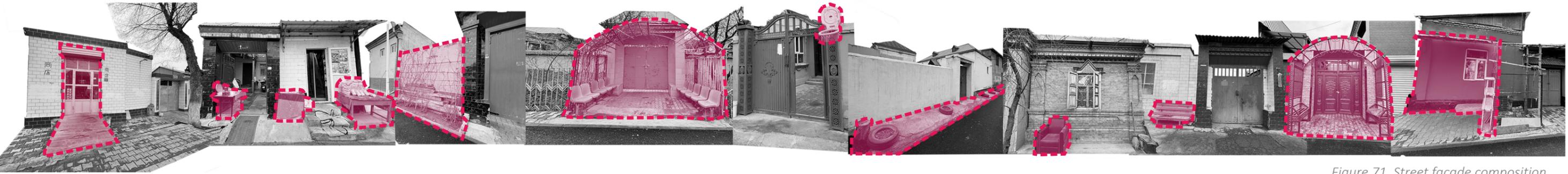


Figure 71. Street facade composition

Street Plan after Design

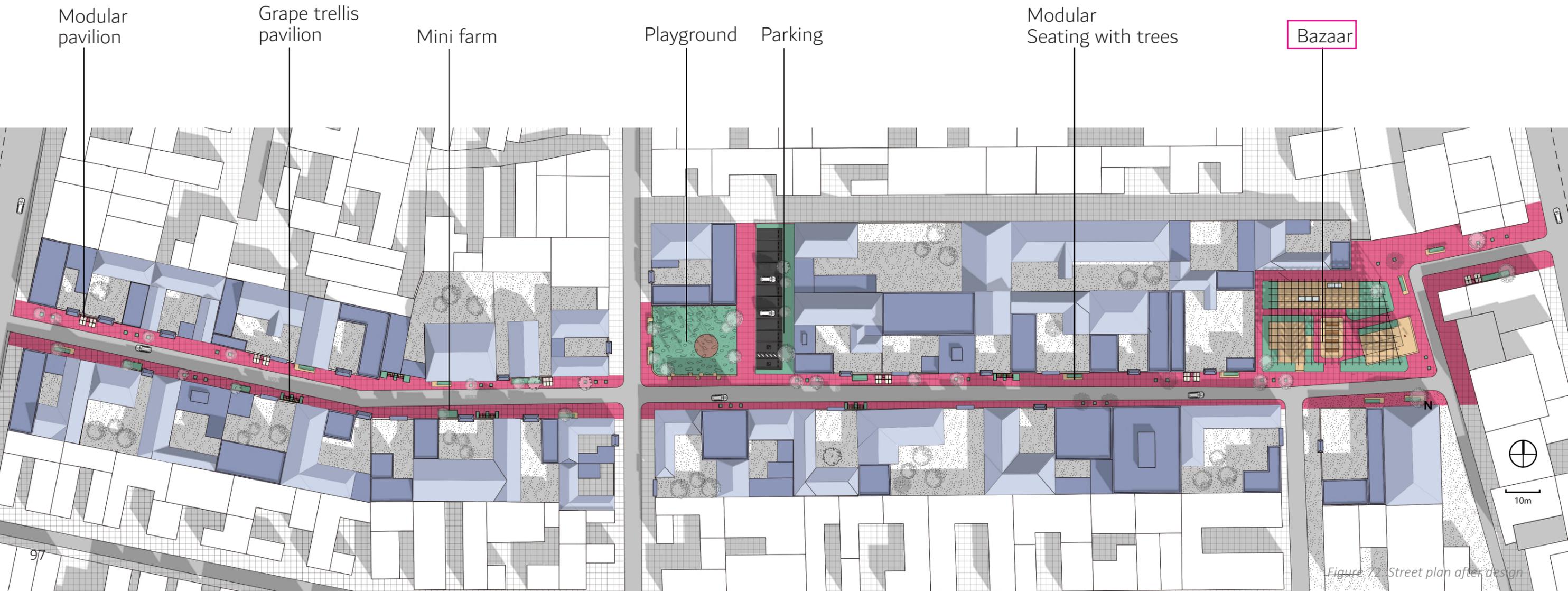


Figure 72. Street plan after design

Street rendering

Modular pavilions updates the urban atmosphere, unifies the street facade, and also meets the daily communication and activities between neighbors.

Figure 73. Street rendering



Axometric Drawing of The Street

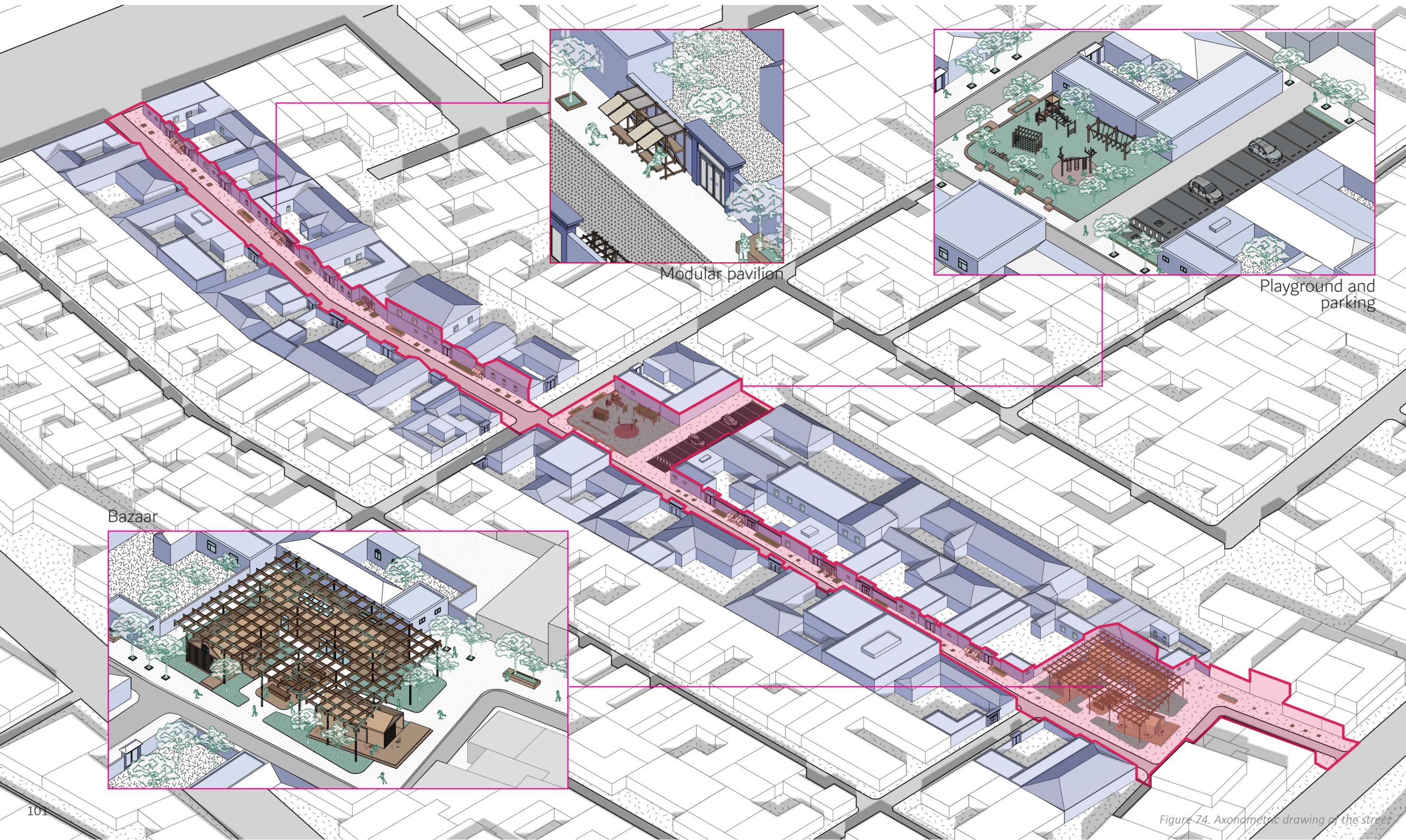
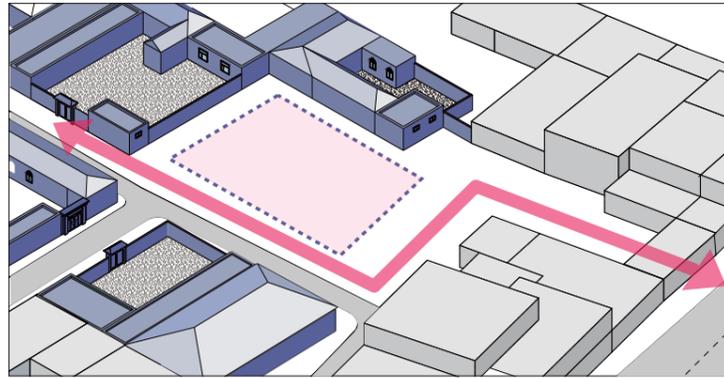


Figure 75. Bazaar facade rendering

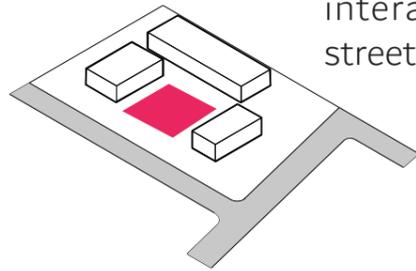


Design Process Analysis

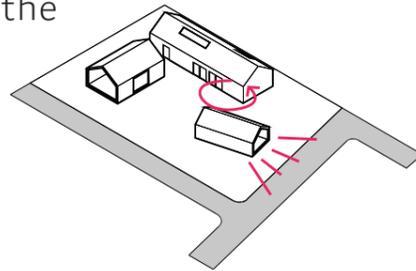
- 1**
Connecting roads and opening up the blocks



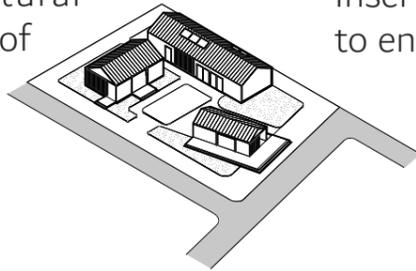
- 2**
Buildings enclose the courtyard



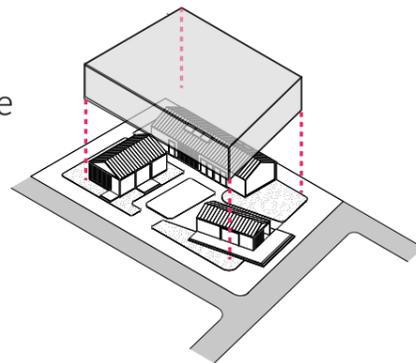
- 3**
Twisting unit to interact with the street



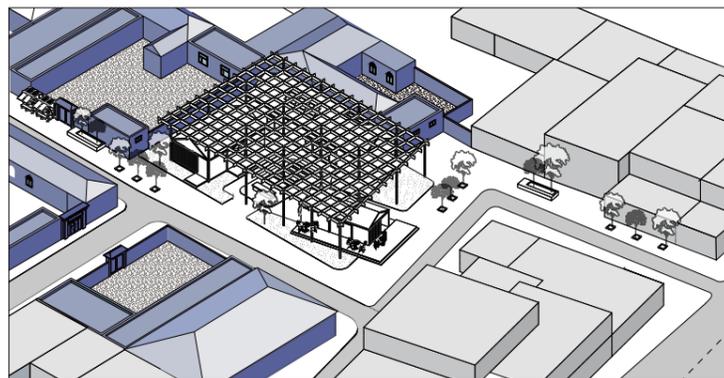
- 4**
Local architectural gene: sloping roof



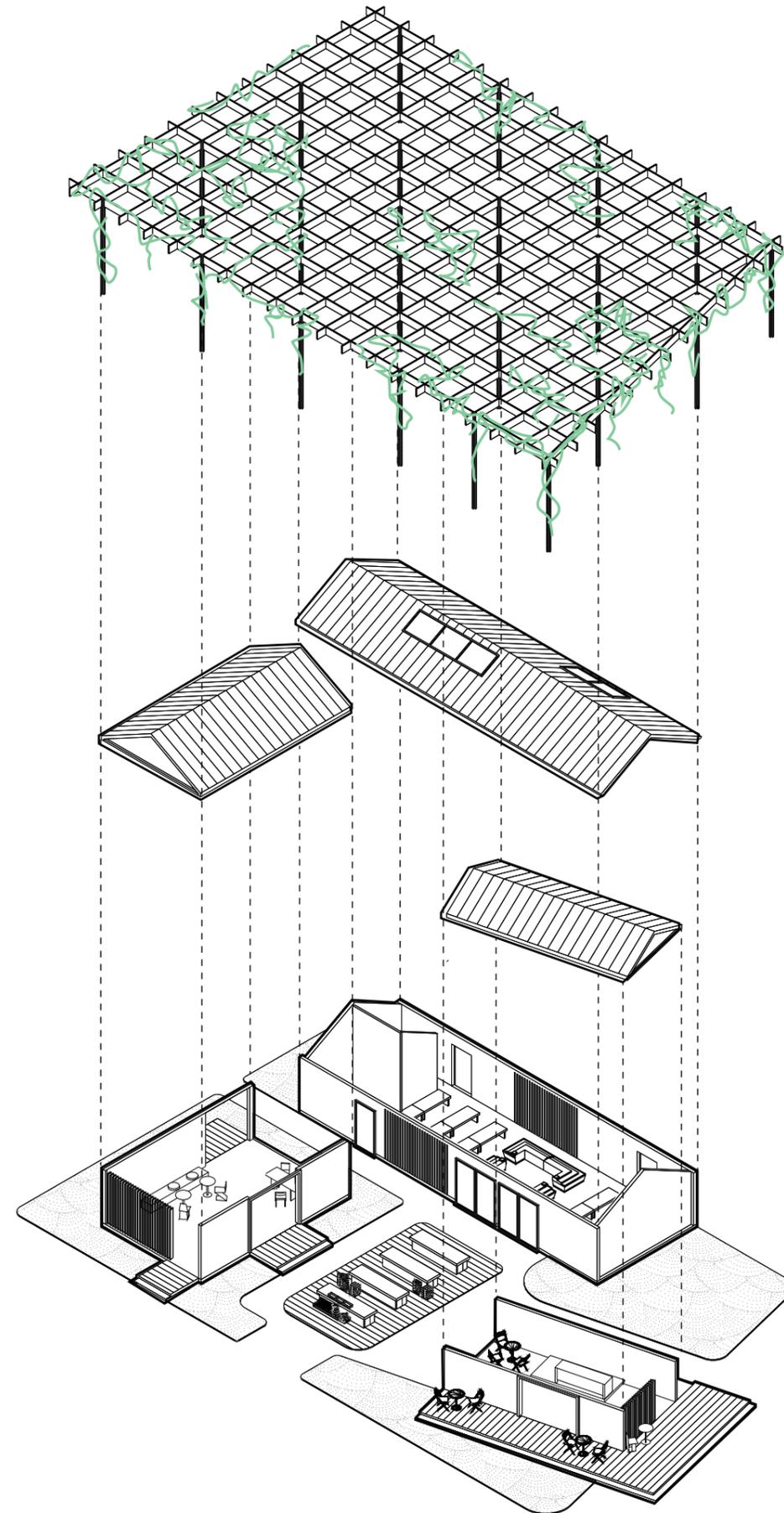
- 5**
Inserting a ceiling to enrich the space



- 4**
Wooden structure frame, adding local grape trellis elements



Building Structure



- Wooden frame structure as grape trellis

- Wooden sloping roof with skylight

- Building interior and courtyard space

Bazaar Plan



site

The plan shows that the main space of the bazaar is the outdoor space in the central square and a closed market space. In addition, there are two semi-open activity rooms, which can be used as both a cafe and a community activity room, where residents can spontaneously organize activities.

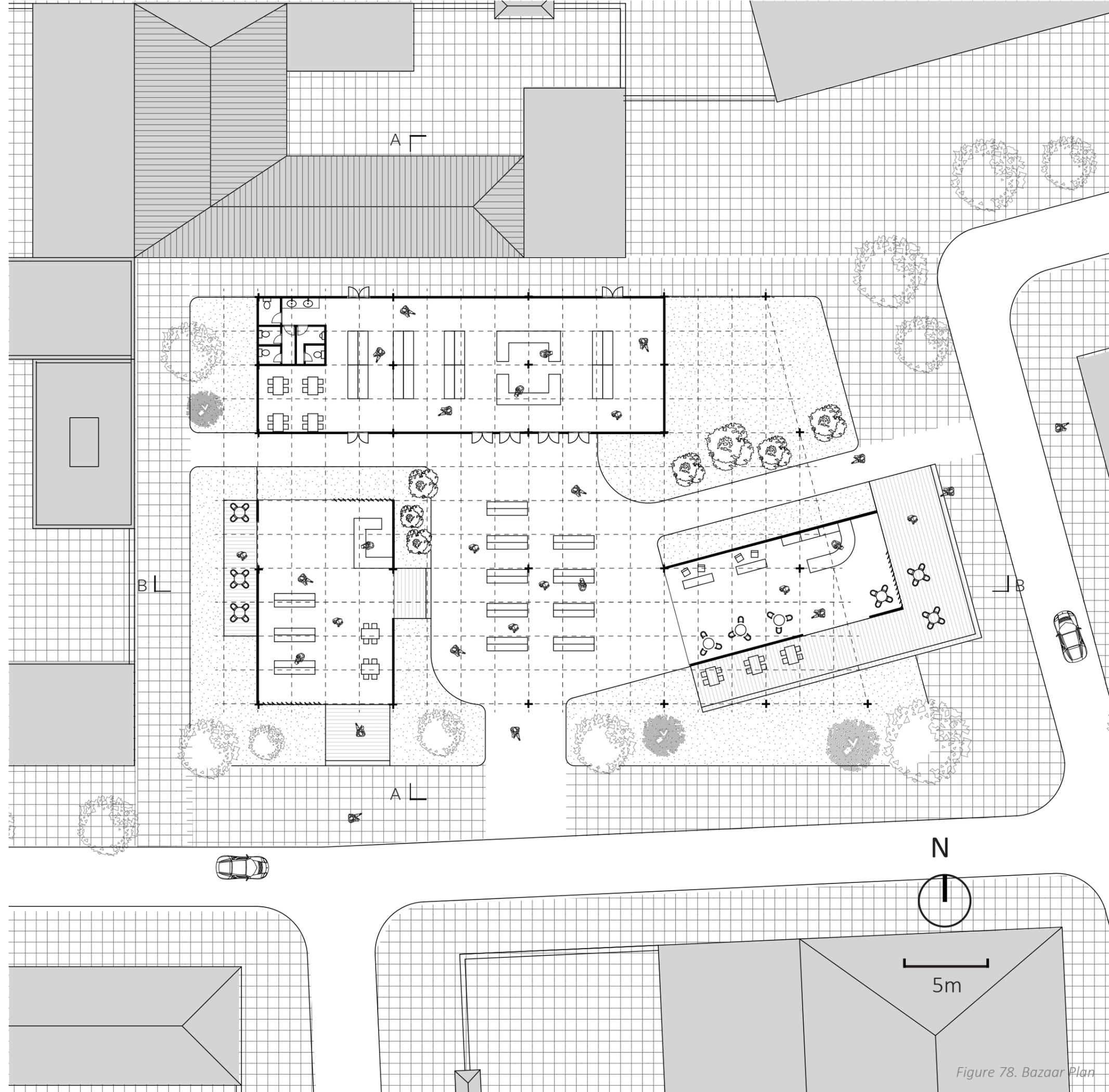
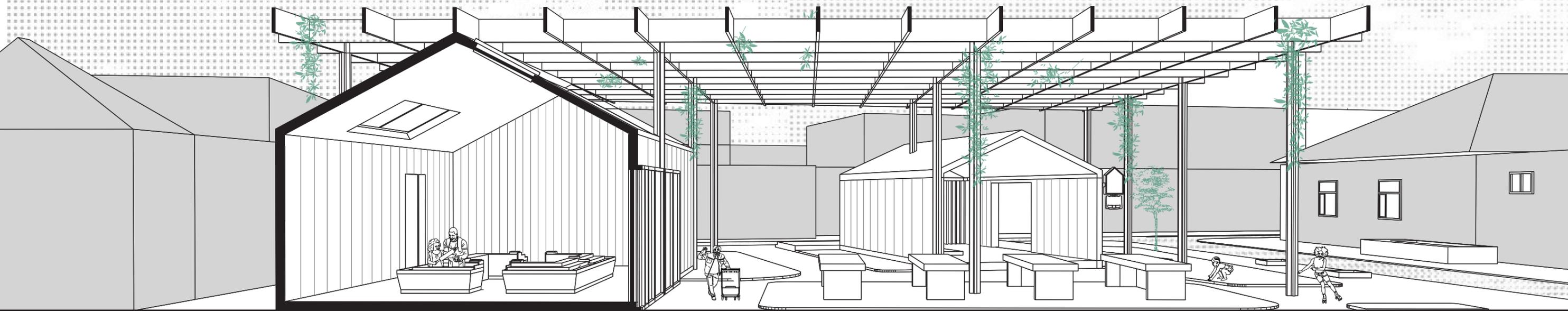


Figure 78. Bazaar Plan

SECTION A-A



SECTION B-B



Figure 80. Bazaar Interior Rendering



CONCLUSION

From the initial topic selection and field research to the final completion of the thesis, it felt like rediscovering the city that nurtured me. I also had various questions about the construction patterns in Yining's traditional urban settlements. Faced with the product of "small-scale peasant economy" farm courtyards in today's post-industrial era, what direction will their changes and development take? And how much meaningful inspiration can they provide for contemporary settlements? When dealing with such a construction pattern that has a clear vernacular context in a contemporary settlement, how should it be inherited and developed? In Yining's traditional urban settlements, I observed a deep understanding of local resources, functions, and the settlement community itself. I also saw that the current construction pattern is the most beautiful and charming way to showcase Yining's vernacular character.

From a cultural perspective, the construction pattern of Yining's traditional urban settlements represents a continuous development of the traditional residential style in the Ili region, contributing to the preservation of regional culture while also expanding local creative expression. This makes it highly valuable.

Urban memory, as the crystallization of collective human memory, is both a material object and reality, as well as a shared symbolic representation attached to this reality. It encapsulates the social group's memories of significant events, people, places, and scenarios in the city's history, carrying both diachronic and collective consensus. By exploring the current trend of homogenization in Yining's urban characteristics, I propose shaping the unique urban memory to extend the city's cultural context and regenerate these ancient traditional buildings.

As the Japanese architect Tadao Ando once said, "Passing on the memory of a place from the past to the present, and from the present to the future," studying architectural codes and urban memory is my way of ensuring a brighter future for my city.

Every time I step onto the land of Yining, the memories between me and this city will continue to inspire reflection on its impression, and this contemplation will go on...

BIBLIOGRAPHY

Halike, S., & Fan Junwei. (2020). The Regional Shape and Distribution of Eaves Corridor Space in Xinjiang Folk Houses. *New Architecture, Settlement and Architecture Research*.

Hou Keyuan. (2015). Yili Gurkha Paise Its Traditional Residential Architectural Features to Explore the Old Town. *China Academic Journal Electronic Publishing House*. <http://www.cnki.net>.

Wang ChunFang. (2013). To Study the Ethnic Traditional Culture Modernization in Xinjiang: Based on Cultural Communication Perspective. *China Academic Journal Electronic Publishing House*. <http://www.cnki.net>.

He Yimin. (2014). The Major Changes in Xinjiang Cities during the Past Hundred Years: Structure and Function. *Journal of Ethnology*, 2014.

Zhang Fuxing., & Xie Guipin. (2010). On the Cultural Diversity of Xinjiang. *Northwest University for Nationalities, Philosophy and Social Science*, 2010.

Zhang Zhiqing. (2013). Quantitative Research of Urban Spatial Morphology: A Case Study of the Main Urban Zone of Chongqing. *Geo-information Science*, 2013.

Cohen, B.(2004). Urban growth in developing countries: Urban Growth in Developing Countries: A Review of Current Trends and a Caution Regarding Existing Forecasts. *World Development*, 2004.

Liu Yanliang. (2008). Planning and Long-term Development Strategy Research: Xinjiang City Eleventh Five-Year. *Urumqi: Xinjiang People's Publishing House*, 2008.

Ardener, S. (1993). Women and Space: Ground Rules and Social Maps. *London, Routledge*, 1993.

Li Li. (2023). Analysis of Xinjiang Folk Houses. *China Academic Journal Electronic Publishing House*. <http://www.cnki.net>.

Yining Natural Resources Bureau. (2023). Territorial spatial master planning of Yining (2021-2035). <http://www.yining.gov.cn>.

Sadoughianzadeh, M. (2013). Gender Structure and Spatial Organization: Iranian Traditional Spaces. *Sage open*, <https://doi.org/10.1177/2158244013511258>.

Guo Jiaoni., Zhao Weifeng., & Liu Xiaohu. (2022). Living Customs and Residential Space: Interpretation of the Uygur Ethnic Group Dwellings in Xinjiang from the Perspective of Folk Culture. *New Architecture, Study on Settlements and Residences*, 2022.

Yasen, M., & Shen Yandong. (2020). On the Influence of Central Plains Culture on the Architecture of Xinjiang. *Academy of Fine Arts. Xinjiang Normal University, Urumqi Xinjiang*.

Sawuti, R., & Kasimu, A. (2015). Spatio-temporal Dynamic Characteristics of Major Cities Expansion in Xinjiang in 20 Years. *Institute of Geographic Science and Tourism, Urumqi*.

Liu Yaxuan., & Zhang Xiaolei. (2009). Urban Expansion and Morphological Changes of Oasis Cities in Xinjiang. *Journal of Soil and Water Conservation*, 2009.

Alimujiang, K., Tang Bing., & Anwer, M. (2012). Study on Spatio-temporal Dynamics of Urban Expansion in Five Central Asian Cities Based on Remote Sensing Data. *Human Geography*, 2012.

Wang Qian. (2017). Building Code and Urban Memory: Case Study of Urumqi. *China Academic Journal Electronic Publishing House*. <http://www.cnki.net>.

Lu Wenli. (2011). Multiculture of Yili Uygur Dwellings Art Research. *China Academic Journal Electronic Publishing House*. <http://www.cnki.net>.

Cao Xu, (2017). Study on the construction mode of traditional urban settlement in Yining, Xinjiang. *China Academic Journal Electronic Publishing House*. <http://www.cnki.net>.

Wan, Liangliang. (2018). Study on the Evolution Mechanism of Urban Spatial Context in Yining. *China Academic Journal Electronic Publishing House*. <http://www.cnki.net>.