

Hometown Glory Series II

H O M E

家·乡

By Long Xiao

Bachelor of Engineering in Architecture, South China Agricultural University, 2013

Submitted in partial fulfillment of the requirements for the degree of Master of Architecture
in

The Faculty of Graduate Studies,
School of Architecture and Landscape Architecture, Architecture Program

Advisor / Chair:

Leslie Van Duzer, Professor, Architecture, SALA

Committee Members:

Tijana Vujosevic, Assistant Professor, Architecture, SALA

Bao Jing, Architect, NAAB

GPI Mentor:

Matthew Soules, Associate Professor, Architecture, SALA



ABSTRACT | 摘要

Tradition is the cultural essence of a specific region kept after being passed and refined from generation to generation. Its durability and consistency in confronting the test of history and time indicate its precious value. When embedded into the architecture, it shapes architecture into various types. With a long history of agriculture and broad geography, China has retained a wide variety of rural home typologies, which have become one of the most valuable architectural heritages. The massive migration from the rural area to city centers started with the economic reform in the 1980s has brought heavy burdens to the inheritance of the countryside house typologies. Like many preservations and regeneration efforts that have taken place in recent years in China, this thesis positions itself as an exploration on preserving the traditional spirit that a house becomes a home with a spatial relationship connecting all the families in the Sichuan rural house typology. Meanwhile, as the first wave of migrated rural returning to their ancestral homes with new lifestyle and living needs, figuring out incorporating and adapting to the current situation.

TABLE OF CONTENTS | 目录

Abstract	ii
Table of contents	iii
List of figures	iv
Acknowledgments	vi
Thesis statement	vii
Dedication	viii
Chapter 1: The context 背景	
- Leaving and returning	1
- The house, the home	1
Chapter 2 : The situation 现状	
- Attempts	7
- Precedent study 1	11
- Precedent study 2	14
Chapter 3: The site 基地与传统	
- The province	17
- The village	17
- The site	17
- The 'homes'	22
Chapter 4: The new home 方案设计	
- Occupants	31
- Programs	31
- Site plan	38
- Floorplan	38
- Structure	60
- Materials	60
Bibliography	66
Appendix A	68
Appendix B	70

LIST OF FIGURES | 图像索引

Chapter 1: The context | 背景

Figure 1 - The traditional understanding of 'home' in Chinese.	2-3
Figure 2 - Various rural home typologies over China I.	4
Figure 3 - Various rural home typologies over China II.	5

Chapter 2 : The movement | 现状

Figure 4 - The Nanjing Museum's traditional style and reinforced structure.	8
Figure 5 - SCA's proposals for the Sunac Guangzhou Grand Theatre similarize artifact and silk.	8
Figure 6 - Precedent Study 1: Wencun regeneration - Wang Shu, 2012.	12-13
Figure 7 - Precedent Study 2: Deep ³ Courtyard - Atelier Lai, 2015.	15

Chapter 3: The site | 基地与传统

Figure 8 - Sichuan Province, rural migration, 1985 - 2005.	18-19
Figure 9 - Village map & Road networking.	20-21
Figure 10 - Current site plan with conditions: the road, the trees and the pond.	23
Figure 11 - Local home typology: growing pattern with family size.	24-25
Figure 12 - Local home typology: program organization.	26-27
Figure 13 - Local home typology: spatial hierarchy.	28-29

Chapter 4: The new home | 方案设计

Figure 14 - Family tree & Long term residents vs. guests.	32-33
Figure 15 - Programs in current house.	34-35
Figure 16 - Expected programs in the new house.	36-37
Figure 17 - New home: axonometric view.	40-41
Figure 18 - New home: site plan.	42-43
Figure 19 - Current home vs. the new home: site plan.	44-45
Figure 20 - New home: floorplan.	46-47
Figure 21 - Current home vs new home: size.	48-49
Figure 22 - New home: programs.	50-51
Figure 23 - New home: programs organizations.	52-53
Figure 24 - New home: spatial hierarchy.	54-55
Figure 25 - New home: spatial hierarchy: moment 1.	56
Figure 26 - New home: spatial hierarchy: moment 2.	57
Figure 27 - New home: spatial hierarchy: moment 3.	58
Figure 28 - New home: spatial hierarchy: moment 4.	59
Figure 29 - New home: Structure.	62-63
Figure 30 - New home: materials	64-65

LIST OF FIGURES | 图像索引

Appendix A

Figure 31 - Section 1

68-69

Appendix B

Figure 32 - Section 2

70-71

ACKNOELEDGEMENTS | 致谢

I would take this opportunity to personally thank and acknowledge the support of the following people for their assistance throughout this project:

the GP chair, my mentor, my friend Leslie Van Duzer, committee member Jing Bao and Tijana Vujosevic, the GPI instructor Matthew Soules, teaching assistants Halley Sveinson and Heesuk Lee;

external support from faculty members including John Bass, AnnaLisa Meyboom and other guest reviewers.

my family members including father, Lijun Xiao, mother, Guoqiong Yuan, and brother, Senlin Xiao;

my roommate Windy Wang, friends Noah Cai, Bennett Oh, Cicily Du, Kieran and classmates for their accompany, care and support;

This thesis book owes a tremendous amount of gratitude to all those who contributed their time, energy to listen and give advice.

Thank you.

THESIS STATEMENT | 主旨

This thesis proposes a Chinese rural house regeneration in the Sichuan Province in which preservation and innovation efforts are taken in responding to local housing traditions and incoming living needs of the returning population.

A gift dedicated to the place where I proudly call 'Home'.

Chapter 1 | The Context

*Leaving and retraining
The house, the home*



Leaving and returning

In the 1980s, China had an economic reform that helped open up the markets. Because of that, rural villagers from all around China started gathering towards urban centers looking for economic opportunities leading to this increasing numbers of migrant rural workers that reached 300 million by 2019.

Every year, millions of these migrant workers return to their rural ancestral homes to spent time with their families during meaningful festivals as one of the core Chinese traditions. It goes beyond just being homesick. It is a different take on the sense of family and the meaning of home. Besides the idea that where your family is is your home, there is a stronger focus on inheriting the family roots in China. The Chinese character JIA, which means family or home, originated from illustrating a house that enshrines ancestors and preserves the family roots. (Fig 1)

After spending their working age in cities, now the first wave of these rural migrants has a strong tendency to return to their ancestral homes upon their retirement.

The house, the home

Before the massive migration took place, many rural homes were consistently inherited and regenerated within a family over time. Because of the broad geography in China, there is a wide variety in the actual physical manifestations of these rural home typologies, which has become one of the most valuable architectural heritages in China. (Fig 2&3) These heritages are now confronting many challenges brought by the movement of the rural people. Thus there is an eager need for preservation and regeneration efforts.

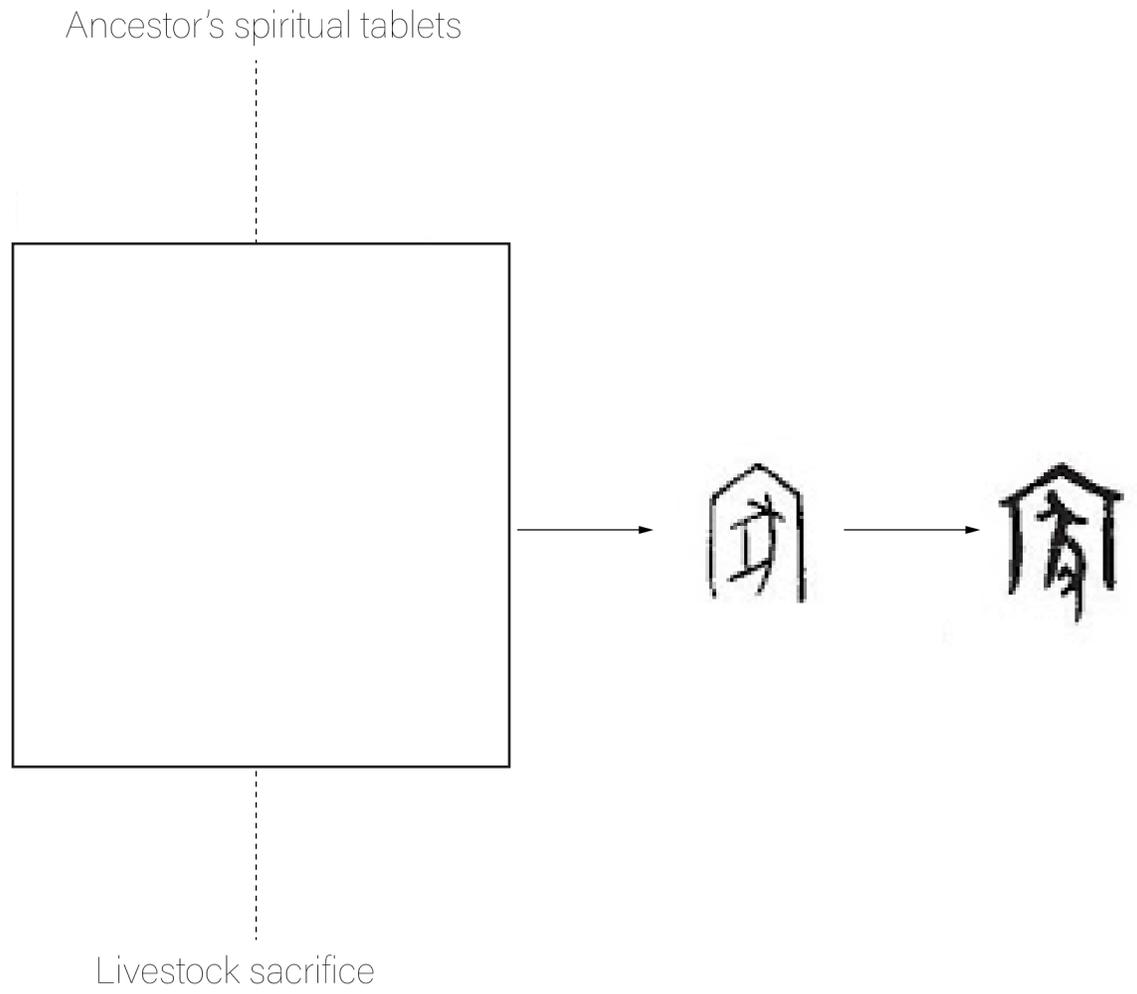
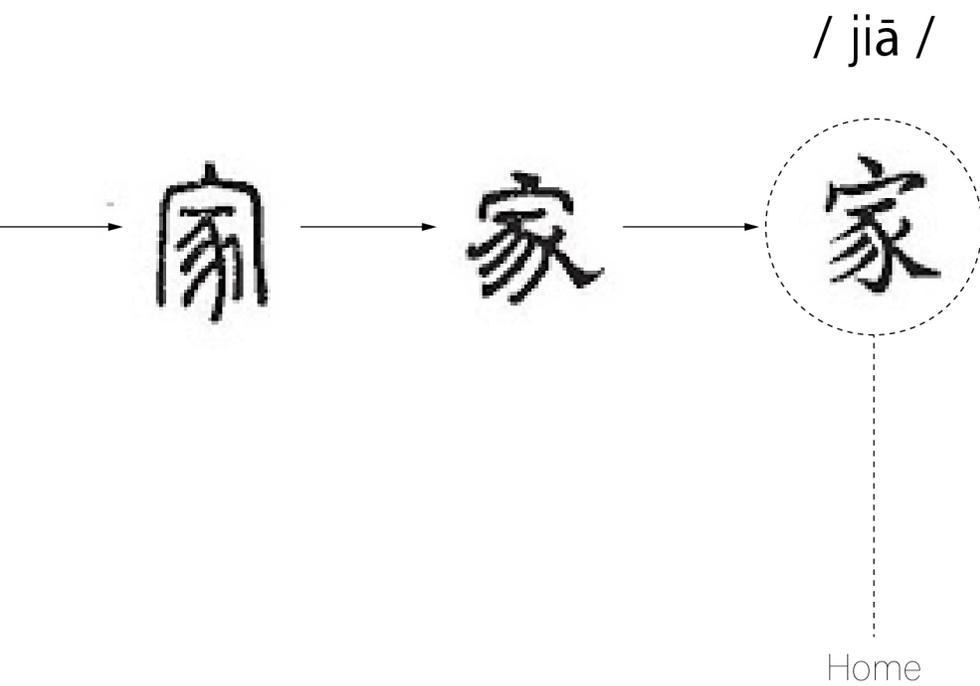


Figure 1 - The traditional unde



Understanding of 'home' in Chinese.

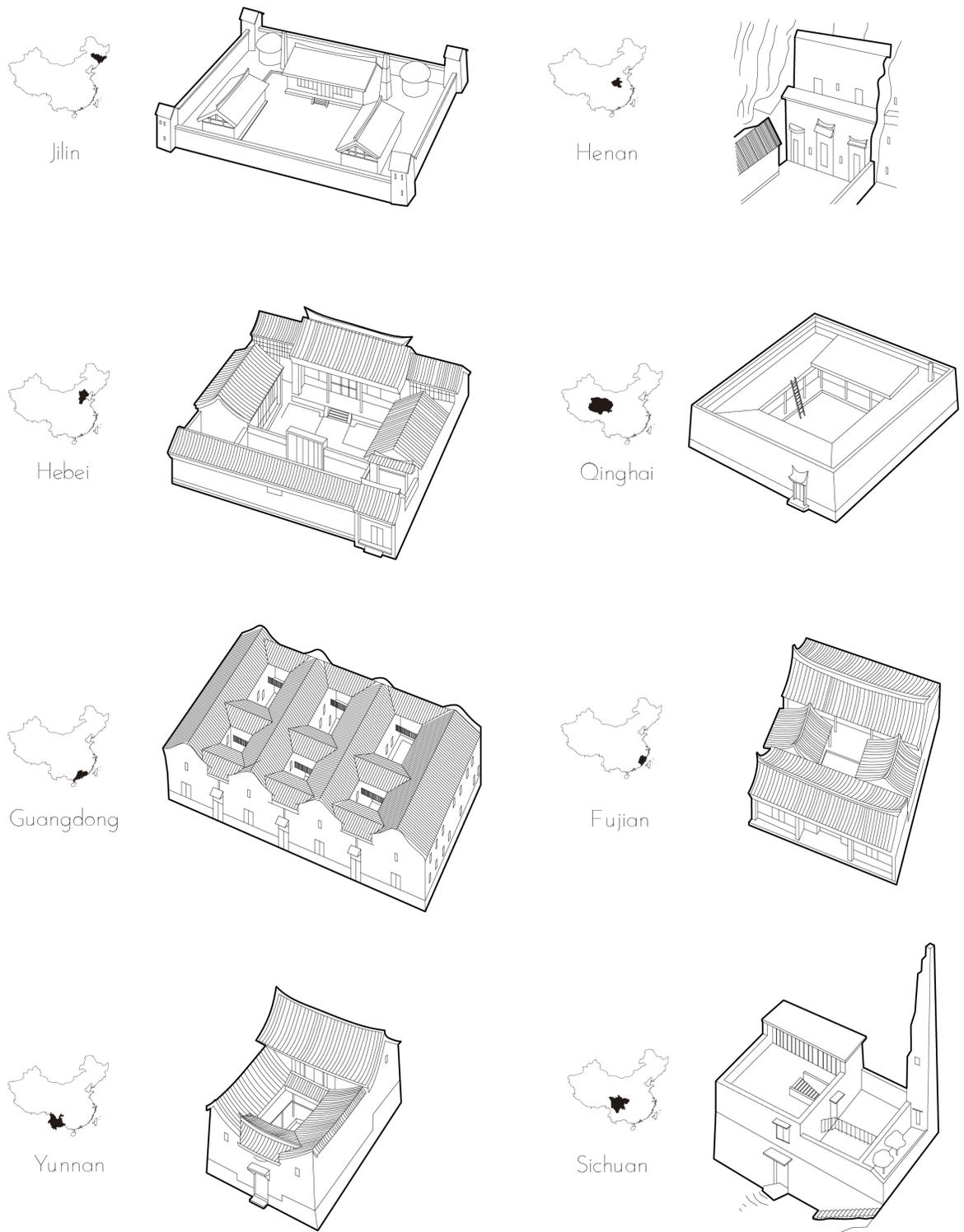


Figure 2 - Various rural home typologies over China I

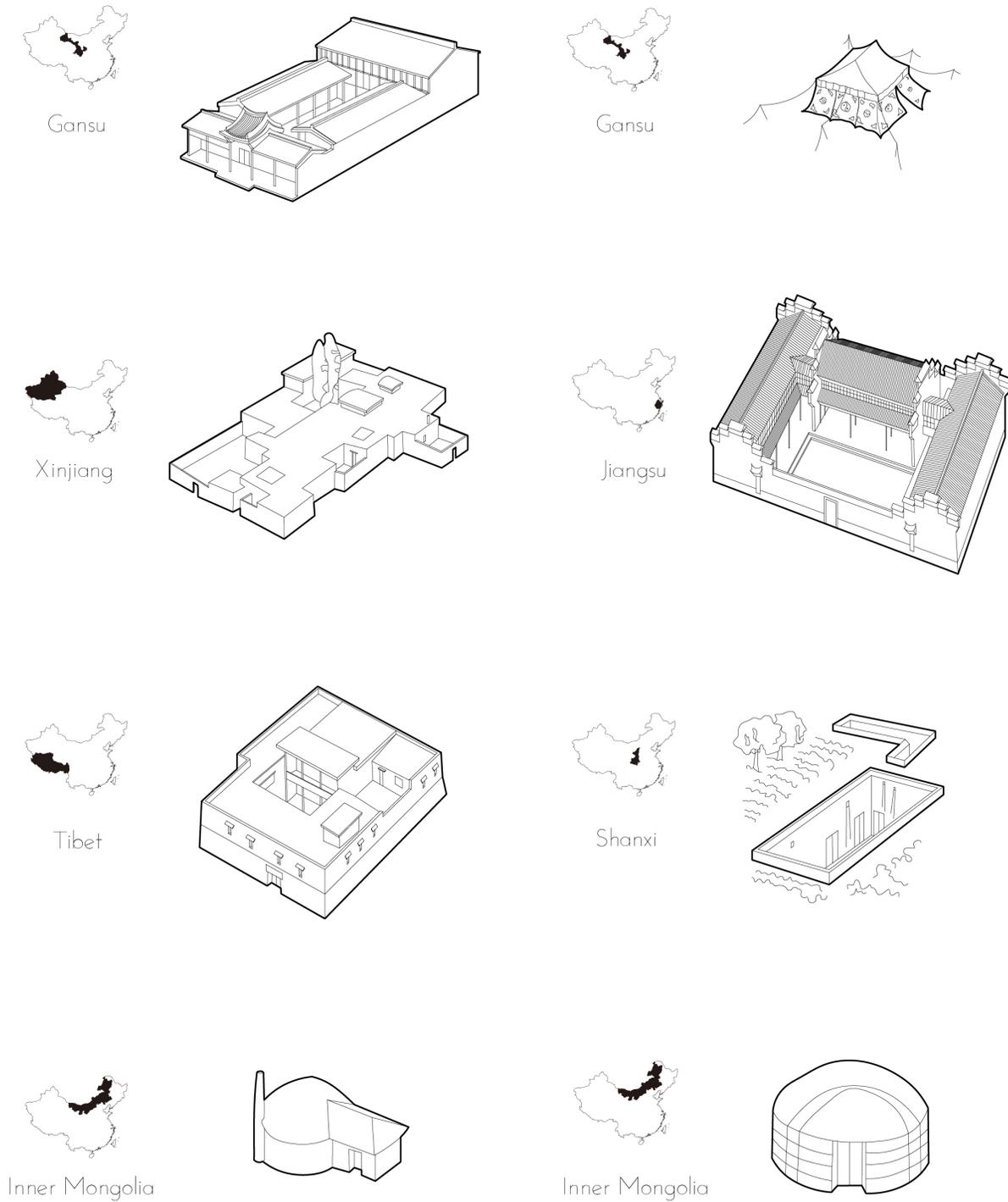
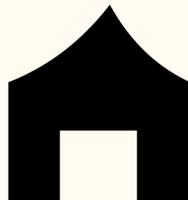


Figure 3 - Various rural home typologies over China II

Chapter 2 | The Situation

Attempts
Precedent study 1
Precedent study 2



Attempts

The discussion on the preservation and continuation of Chinese architectural traditions had existed in history. Tracing back to the 1930s, a group of patriotic scholars, who had returned to China after studying modernist architectural theory overseas, attempted to preserve and perpetuate traditional Chinese architecture from both practical and theoretical approaches. Liang Sicheng returned to China in receiving his Master of Architecture degree from the University of Pennsylvania and founded the first modern architecture school in Nanjing, China's capital city then. This establishment initiated China's institutional system of contemporary architecture. Later on, from World War II to the Cultural Revolution, Liang spent years travelling around China, documenting many traditional Chinese buildings. He edited a collection of these ancient architectures book named 'Tu Xiang Zhong Guo Jian Zhu Shi,' which is now an invaluable resource for researching traditional Chinese architecture. Other patriotic architects who returned to China at the same time also explored the potential of modernizing Chinese architecture in their design practice. Supported by the national government, many projects appeared to show traditional identity and advanced technology simultaneously. One of the most representative projects is the Nanjing Museum, a typical example of combining traditional architectural elements with industrial construction techniques.

Nanjing Museum's forms, decorations and tones follow the traditional ancient Chinese architecture that shows its regional identity as a cultural building. As a building for exhibition, however, it has a reinforced concrete structure. This constructive method provides great flexibility in manipulating the interior programs for displaying. (Fig 4) The 'keep skin and replace bones' design strategy has become a classic one in modernizing Chinese architectural traditions and has continued to inspire contemporary Chinese architects. Some recent architectural projects in China claim to be responsive to the traditional culture with a richer interpretation of conventional elements and images in terms of form and space. Their design approach does not break away from this classic 'keep skin and replace bones' type. In addition to this classical approach, two main design approaches have emerged with China's

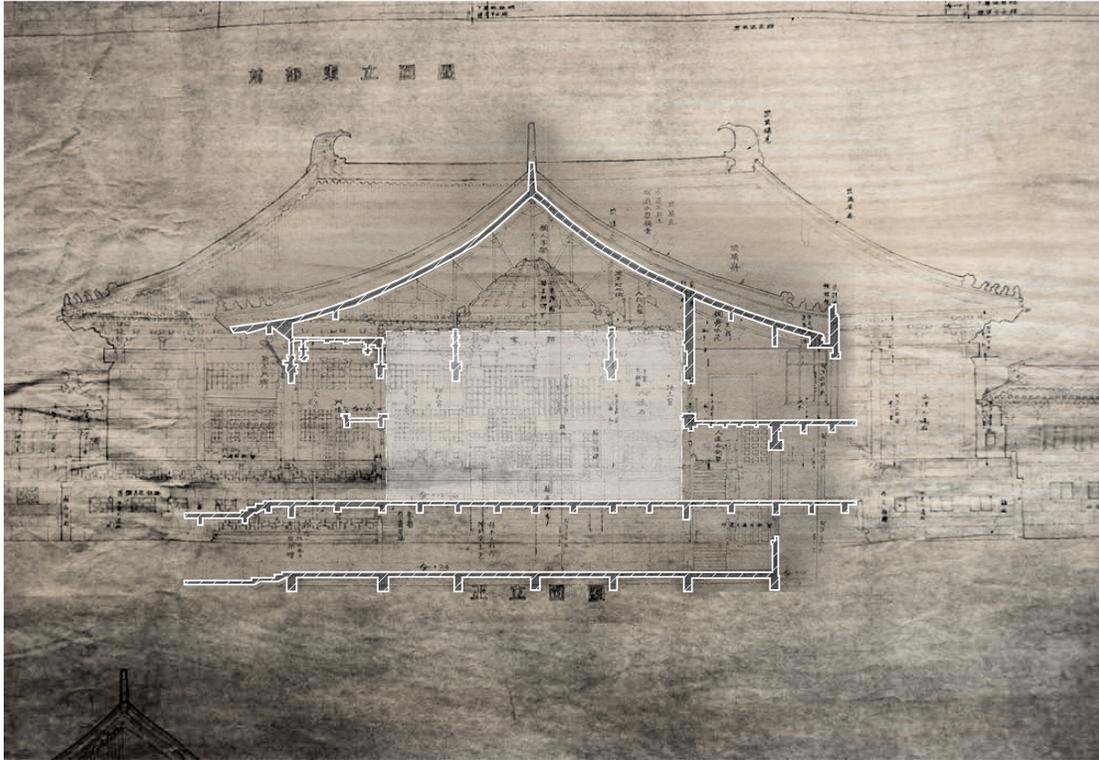


Figure 4 - The Nanjing Museum's traditional style and reinforced stucture

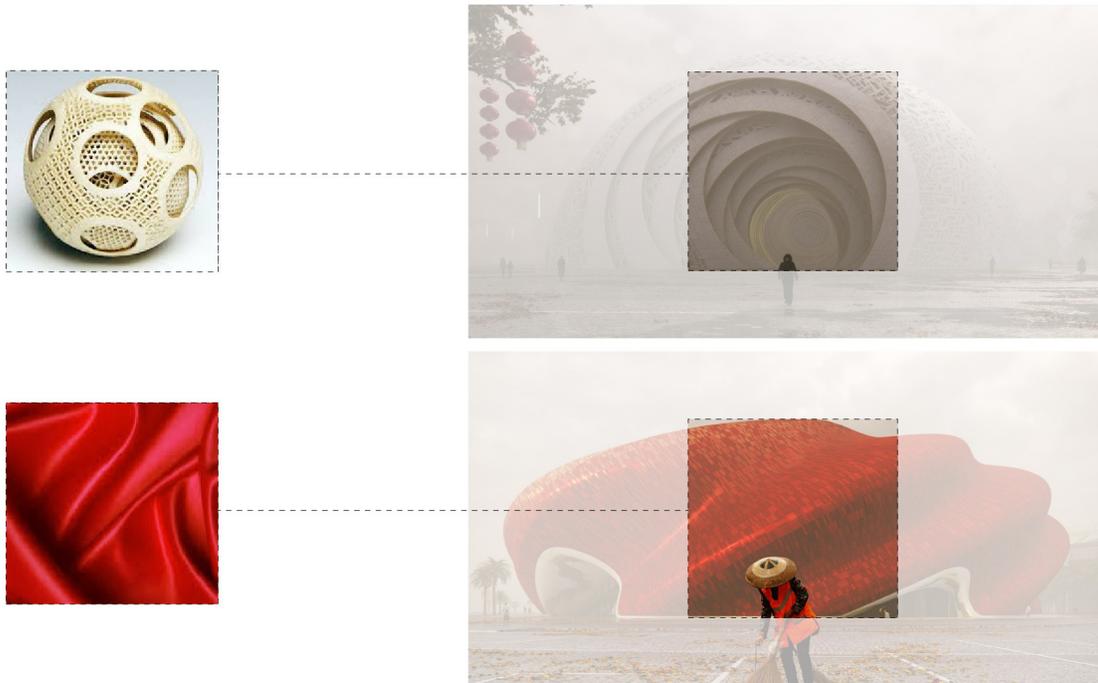


Figure 5 - SCA's proposals for the Sunac Guangzhou Grand Theatre similarize artifact and silk.

recent advancement, modernizing Chinese architectural traditions from various perspectives. One is metaphoric, and another one is experimentative.

In recent years overseas architects have had an increasing number of opportunities to design architecture in China. Some of them have tried to have their projects being responsive to traditional Chinese culture. However, their designs interpret a formal or visual symbolizing traditional handicrafts, artifacts, cultural imagery, and even the geo-environment. One representative example of this is the Sunac Guangzhou Grand Theatre designed by the British architectural firm SCA. During the design stage, the architects proposed two versions of the project. In the first version, the so-called Puzzle Ball Theatre is a very visual simulation of a puzzle ball, a traditional Chinese hand-carved artwork. In the second version, the architect attempted to design a soft curvilinear form with red skins to echo China's Silk Road history. Yet, the city Guangzhou, where this theatre locates itself, has little to do with the Silk Road history. (Fig 5) This interpretation of Chinese tradition in terms of visual symbolism is controversial in China. Symbolism exists in traditional Chinese culture, but there are often very abstract and deep thoughts hidden behind it. The abstraction of symbolism exists in Chinese architecture the same way. Take the Forbidden City in Beijing as an example: the highly symmetrical layout and the soaring roof that symbolizes supremacy. This metaphor is similar to the Western Gothic churches that were visually stretching their elevation to indicate proximity to God. The cultural barriers narrow overseas architects to abstract and grasp the accurate idea of symbolism in traditional Chinese culture that their 'tradition responsive' work often appears intuitive and superficial.

Whether they are symbolic in responding to traditions or redefined modern Chinese urban landscape with a radical design concept, international architects' practice in China enriches the contemporary Chinese architectural typology and living environment in the city areas. It is appropriately reflecting on modern Chinese society. However, it does not apply to the rural soon-to-be-developed regions with various vernacular cultures. It requires in-depth research and a proper understanding of their locality to inherit their traditions when planning and designing the buildings in these villages.

On the other hand, native Chinese architects, influenced by various experimental theories, have begun to experimentally explore the possibilities of inheriting local traditions in their projects. These experimentative design methodologies fall outside of a specific method type with its various iterations because of being open to uncertainties. On top of that, these experiments observe traditions and localities from a broader range of perspectives, breaking away the limitation of the classic 'keep skin and remove bones' design approach—for example, some focus on researching vernacular materials. Wang Shu, the first Chinese architect winning the Pritzker Prize, is famous for his 'poetic' recycling of traditional native materials. He had a deep dive into studying conventional local materials and craftsmanship before creatively using them to design new buildings in the countryside. (Fig 7-8) Yung Ho Chang, another 'Avant-guard' contemporary Chinese architect, embeds his experimentation in context by exploring the interrelationship between architecture, art and daily life. Other architects have had their investigation from the perspective of regional ecologies and geo-landscapes.

More contemporary Chinese architects have begun to adopt experimental design approaches to respond to the traditions, producing an increasing number of inspiring ideas and precedents. The architectural diversity deriving from various experimentations is convincingly responsive to various Chinese regional traditions and geo-landscapes. Thus it holds great potential for the upcoming development of China's rural areas.

Based on the above analysis of the various methodologies of developing architectural traditions and the thesis's topic, there are two selected precedent studies in this chapter as follows. The first one is Wangshu's regeneration of the Wencun Village, and another one is Chang's the Book-Bike Store. They have something in common: they are both experimental projects attempting to preserve architecture's traditional value in contemporary Chinese context based on deep site research. However, their difference lies in the threshold and execution perspective of their experiments. These studies include a detailed project description followed by a critical conclusion of the methods in researching traditions and experimentation. The conclusion will guide the research on the locality and tradition of the site in the next chapter. It will also provoke the experimentations in GP2.

Precedent Study 1

Project: Wencun Village Regeneration
Architect: Amateur Architect Studio
Location: Fuyang, Zhejiang Province, China
Date: 2016

This renovation project is one of Wang Shu's most representative experimental projects exploring the ways of preserving locality and tradition in architecture. Given that the thesis's topic is highly similar to Wang Shu's ideas and practice, it is worth taking it as a case study for in-depth analysis. The motivation for choosing this village, acquiring this renovation project, negotiating with various actors during the design process, and traditional local materials in interpreting contemporary design language are all very informative. The poetic use of local materials in the modern context is the key to Wang Shu's exploration and definition of localism. (Fig 6)

The selection of Wencun for an experimental renovation was a precondition that Pritzker Prize-winning architect Wang Shu imposed when he commissioned to design the Fuyang Museum of Culture and Art by the local government. In the immediate aftermath of his Pritzker Prize and inundated with commissions, most of which he turned down in favour of focusing on the massive countryside. It is his long-standing intention to explore the possibility of perpetuating traditional architectural essence and defining the regionality of contemporary Chinese architecture in the Jiangnan area of China, which he believes is not applicable in modern cities. Wang Shu and Lu Wenyu (co-founder of the amateur architecture studio) do not limit their intention in this one village. They hope that through this renovation, the Wencun will inspire others to learn about the renovation and cultural preservation when traditional architectural culture and locality are increasingly disappearing from many villages, thus triggering massive architectural, cultural preservation in China.



An over view of Wencun. Photo source : Shi Zheng

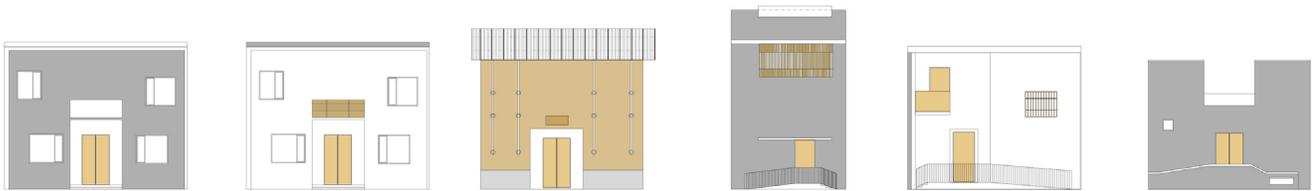
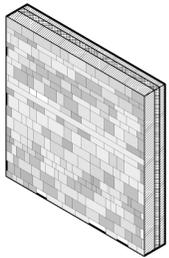
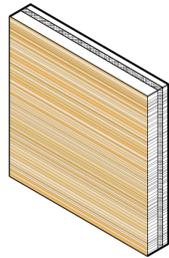


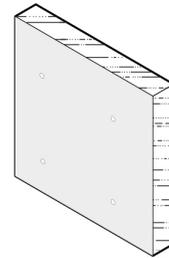
Figure 6 - Precedent Study 1: Wencun



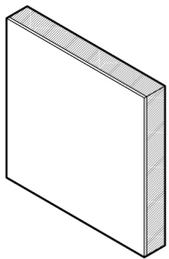
Stone brick



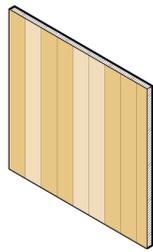
Condensed bamboo strips



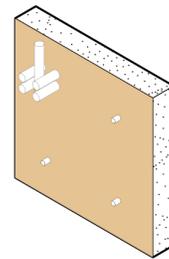
Reinforced concrete



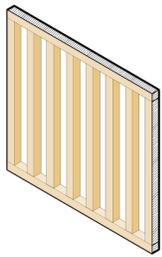
White plaster



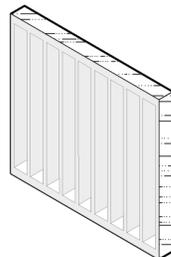
Light wood panels



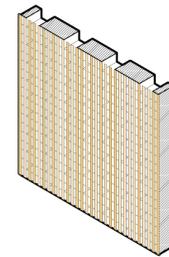
Condensed clay



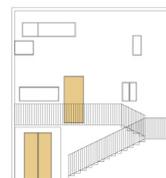
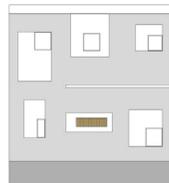
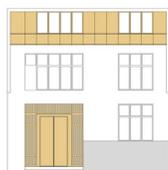
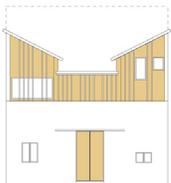
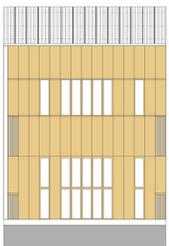
Light wood stripes



Concrete stripes



Weaving bamboo



Precedent Study 2

Project: Deep³ Courtyard
Architect: Atelier Lai
Location: South of the Yangtze River
Date: 2015

This project is a residential project built in response to life back in the countryside. This project is located in the south region of the Yangtze River where the traditional Chinese garden house was nurtured - the residential building is highly integrated with the gardens. There is the attempt to feature modern construction techniques and living comforts, meanwhile, inherit the local residential spirit: live with nature and agriculture. Thus, in a long and narrow site, the architects have elongated the flow, view and time through spatial transitions and progressions, resulting in a spatial order that creates a sequence of well-interplayed gardens and rooms. The building typology derives from the 'pavilions' in the local traditional garden house. The structure is steel, which, like the traditional timber structure, is a rod stresses system. The large overhanging roof integrates the building boundaries into the courtyard. Therefore, a courtyard with a hierarchy of three levels of depth is created for the residents, echoing the local residential traditions. (Fig 7)

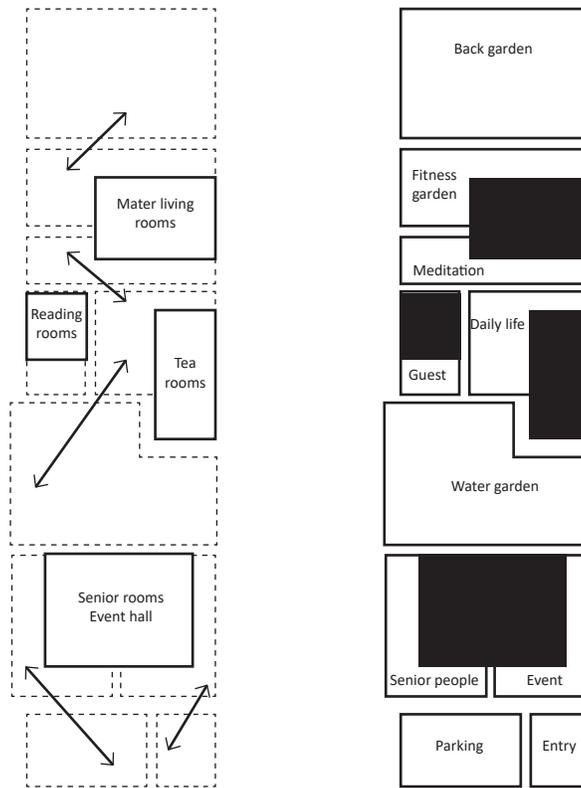
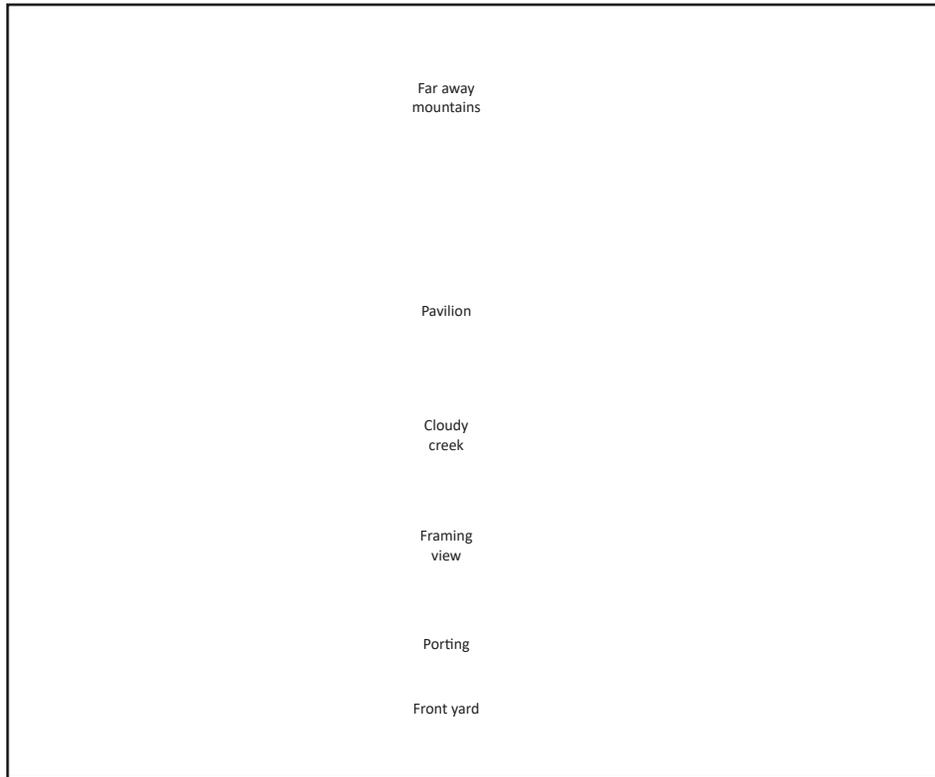


Figure 7 - Precedent Study 2: Deep³ Courtyard-Atelier Lai, 2015

Chapter 3 | The Site

The province
The village
The site
The 'home's



Given all that context, this thesis proposes a house regeneration for my family at a countryside village in the Sichuan province, China.

The Province

Szechuan, an agricultural province in southwest China, is home to numerous rural migration workers (Fig 8). The local rural 'homes' have almost stagnated in growth and renewal due to severe population loss over the past decades but now in urgent need of regeneration confronting the potential returning populations.

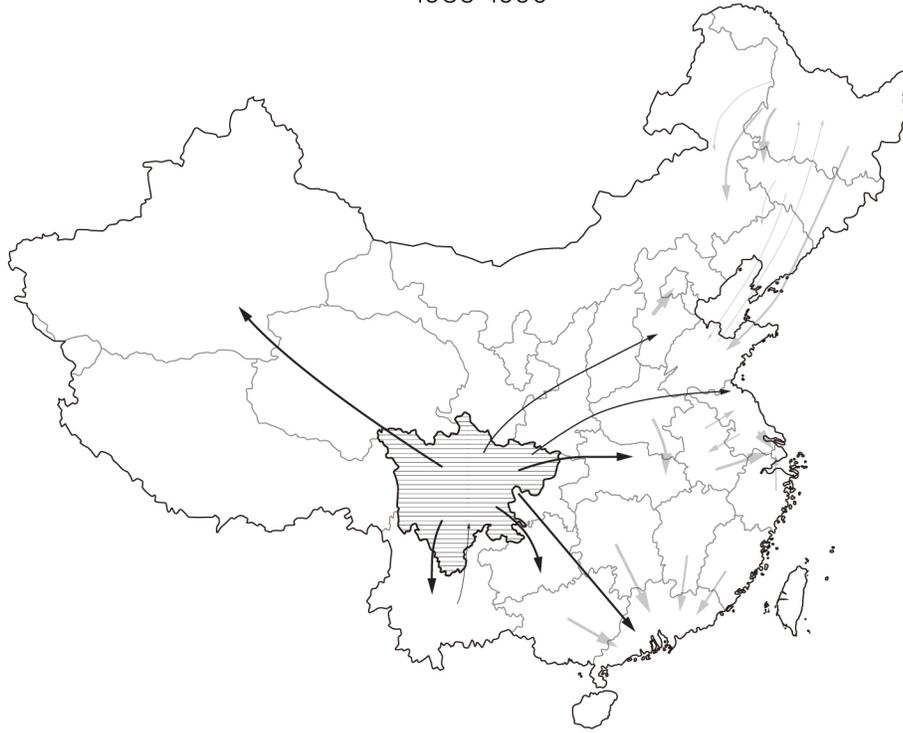
The Village

The village sits on a plain area where there is a hierarchy of the major highway, the main streets, and the village road. But in their actual functionality, the existence of the village road has a great impact on the villagers' everyday living cutting through the three communities - Anle, Shaozi and Guolin in the village. Then the main street connects the village to the outside environment. The highway built very recently seems to be the largest structure passing through the village but has no intersection with villagers' actual daily living. The site is in a neighbourhood which belongs to the middle one community - Shaozi. (Fig 9)

The site in the neighbourhood

Zoom into the neighbourhood, houses, including our current house on the site, are clustered along the village road while each one is oriented following the farmlands' shape. Each house tends to step back to the road, creating a welcoming front yard facing the village road. This front yard is semi-open with a low fencing wall. Thus, there is this unique interplay between the residents and the road. They are inhabiting the road and taking it as part of their living environment. It smartly fixed the absence of public spaces in local communities. (Fig 10)

1985-1990



1995-2000



Figure 8 - Sichuan Province,

1990-1995

Rural migrant volume

50K

100K

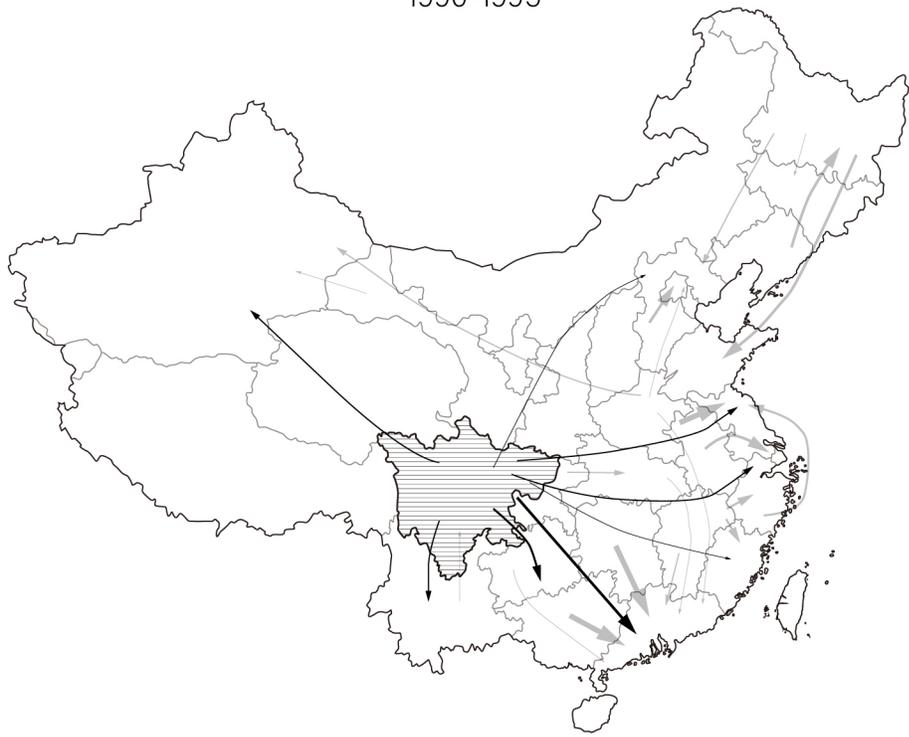
200K

500K

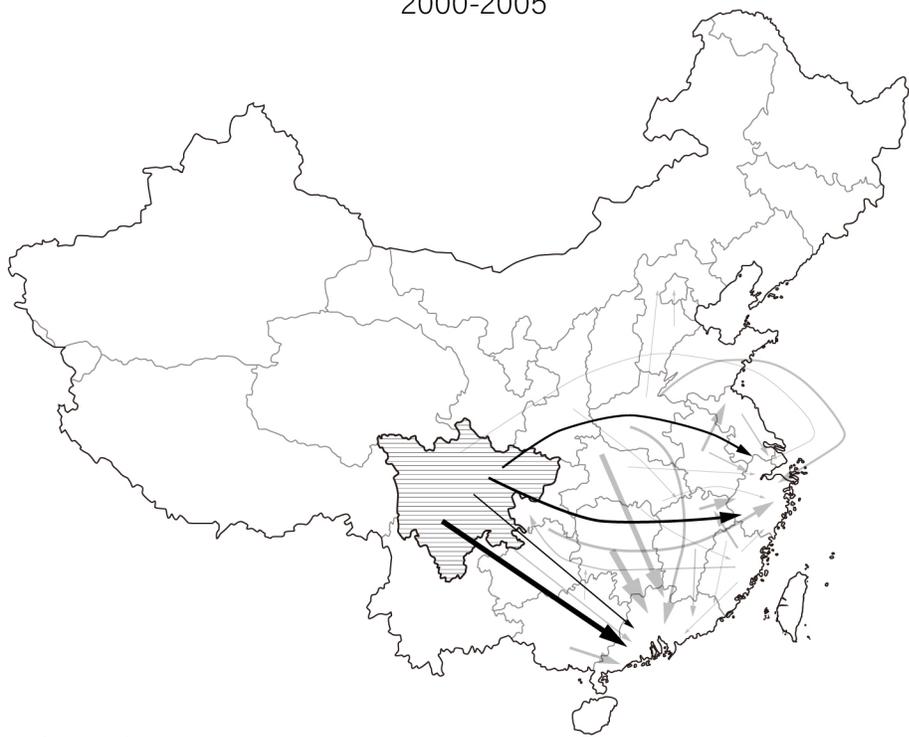
1M

2M

3M



2000-2005



rural migration, 1985 - 2005



Fig 9 - Village map 8



& Road networking

As a local traditional belief that tree flourishing means family prosperity, our family planted plenty of trees around the current house. But these trees are functioning very well in providing privacy, shading and energy resources like firewood. Besides, there is a pond in the front yard which connects to the irrigation channel. It is a unique site condition that other houses in the neighbourhood do not have. (Fig 10)

The 'home's

Rural houses in these plain areas have formed a very local typology that can be seen as a spatial reflection of the idea of a large family that is brought together by a shared family root and ancestral background.

The size of the houses grows in a certain pattern. (Fig 11) It multiplies a modular living unit in which a shared space connects two bedrooms in the way that they are aligned on the axis with the rule that the more powerful families occupy the central units. This is because, in traditional life, the strongest families are responsible for taking care of the youth and the elders, when their living unit is in the middle, they can always keep an eye on the other units so to take measurements when there is a need for help. The service rooms such as the bathroom, washroom, kitchen, dining are usually transitions between the living units. In this way, they are convenient to be shared by all family members. The other communal programs in this housing typology such as storage, reading room, livestock room are further away at the front part of the house. They enclose the courtyard and become the transition between the private residential zone and the outside environment. All the rooms are connected with an open-air walkway covered with an overhanging roof due to allowing cross ventilation for the rooms in responding to the local humid climate. As the size gets larger, it appears to have an enclosed courtyard that can be functional as a patio, drying ground and so on. (Fig 12) This house, then becomes the carrier of a home with a highly symmetric spatial configuration, creating a rich hierarchy where there are several moments aligned with the axis. It is because under the surveillance that everyone is exposed to others that tightens the family together and creating a strong sense of belonging. (Fig 13)



Figure 10 - Current site plan with conditions: the road, the trees and the pond.

Genreation

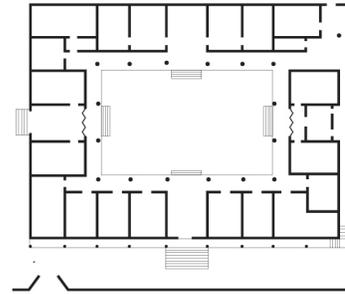
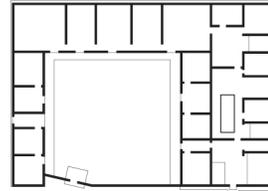
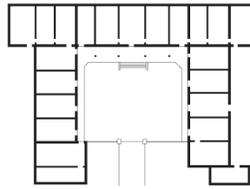
2

2

2-3

2-3

3



3

5

6

6

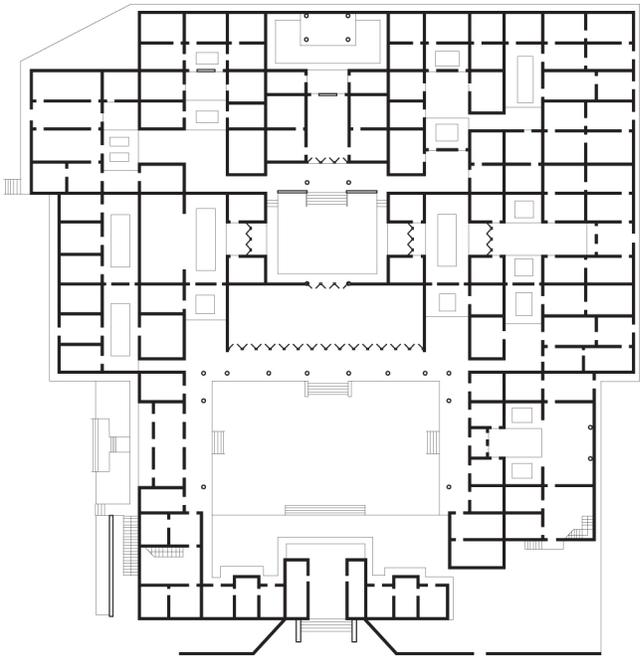
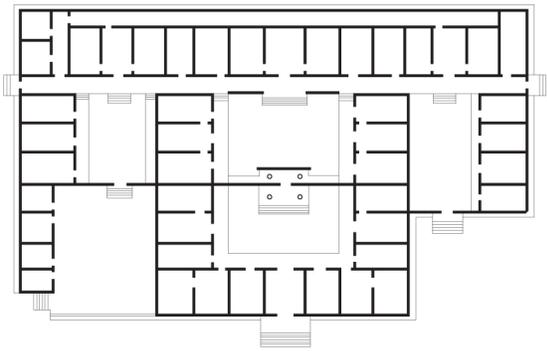
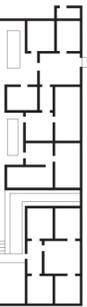
8-10

Family size

Figure 11 - Local home typology:

4

4-5



14

>25

growing pattern with family size.



Figure 12 - Local home type



logy: program organization.

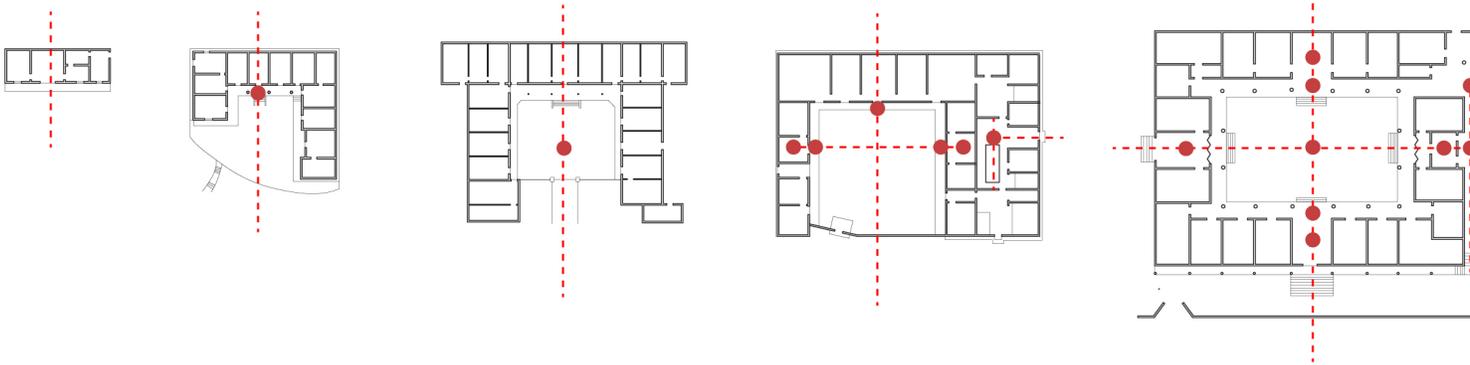
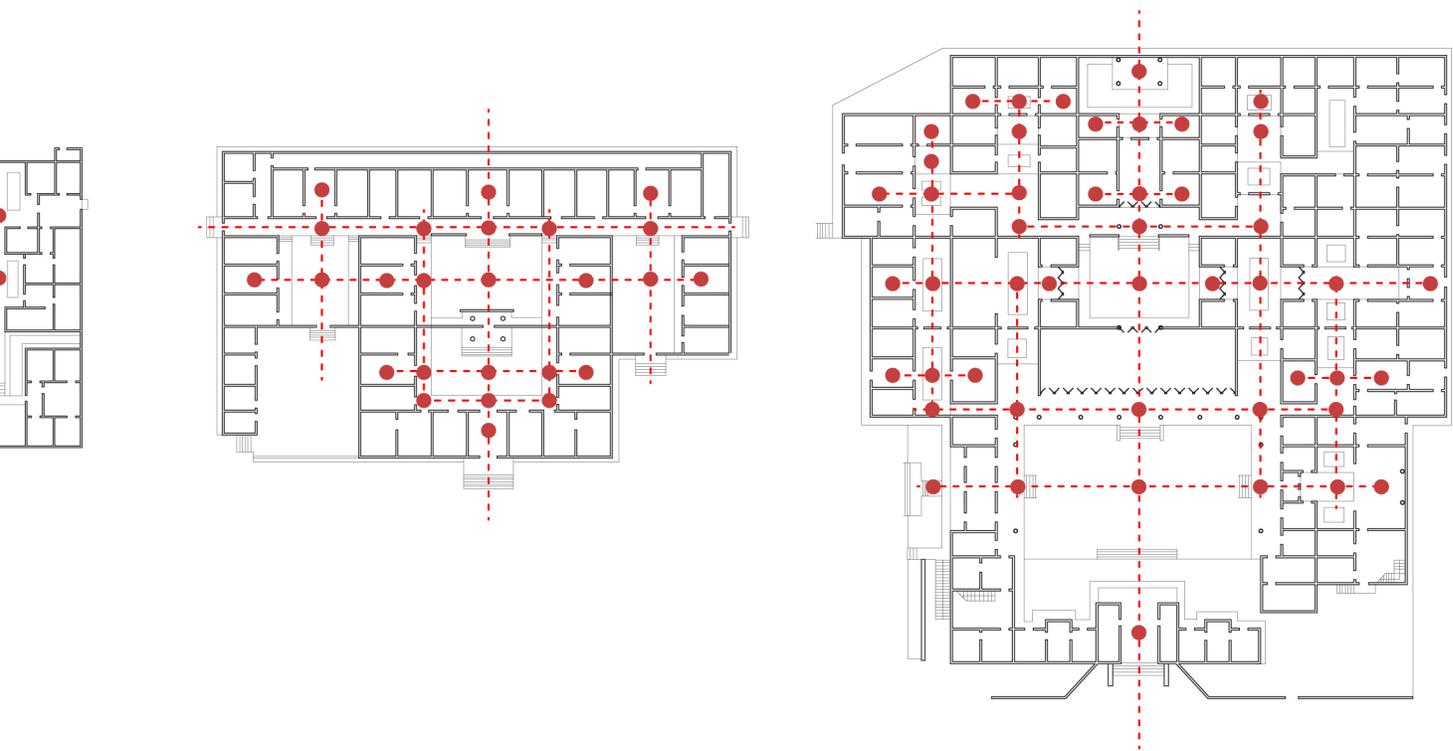


Fig 13 - Local home type



ology: spatial hierarchy.

Chapter 4 | The new home

Occupants

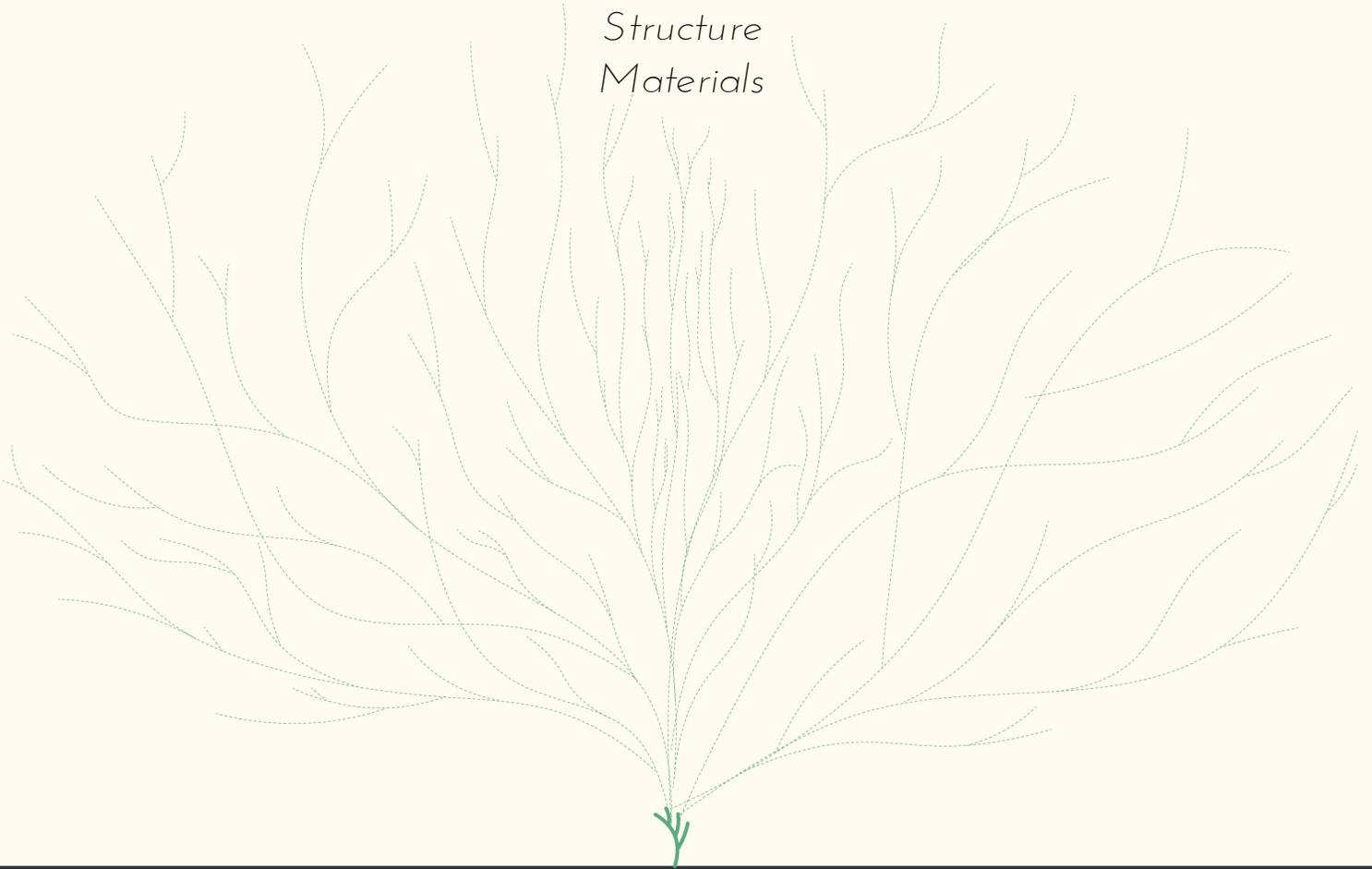
Programs

Site plan

Floorplan

Structure

Materials



Occupants

As in a local traditional local family, my grandfather inherited the land and the home from my great grandparents, then he lives and farms in the village for his whole life with my grandma. My father's generation grew up in this house before they joined the migration wave heading the cities for economic opportunities. Then for my generation, I have a brother and five cousins. We all enjoyed our childhood living with our grandparents in the village before we all left for higher education or work. My father has been longing to move back to live with his parents in our home upon his retirement. My uncle tends to join return later. My two cousins who are now working and living in a nearby city will visit back frequently. The rest of us are currently far away from home so we will be short-term visitors. (Fig 14) Up to now, although this is an ancestral home that my dad's generation and my generation all grew up in alongside my grandparents, at any point in time, only two generations were living here, either my dad and his parents, or my generation with my grandparents. That said my dad and my generation never lived in this house at the same time. Now as my dad, my uncle and my cousins all want to move back. For the first time, in my family, the house needs to accommodate three generations, which according to the cultural tradition of my hometown is a good benchmark to rebuild our house to expand to accommodate more people. Thus the project is the timely house regeneration for my family.

Programs

The current house was built about 30 years ago before my generation was born. It offers basic living spaces for my grandparents and my father's generation, including four bedrooms, a washroom, a laundry, a shower room, a kitchen, a dining room and many agriculture rooms. (Fig 15) For the new home, there is a large increase in providing more living spaces such as private bedrooms and enough service rooms and communal spaces. On top of that, for the convenience of my grandfather's role as the community's coordinator, we consider include a public event hall in our house to serve the neighbourhood. (Fig 16)

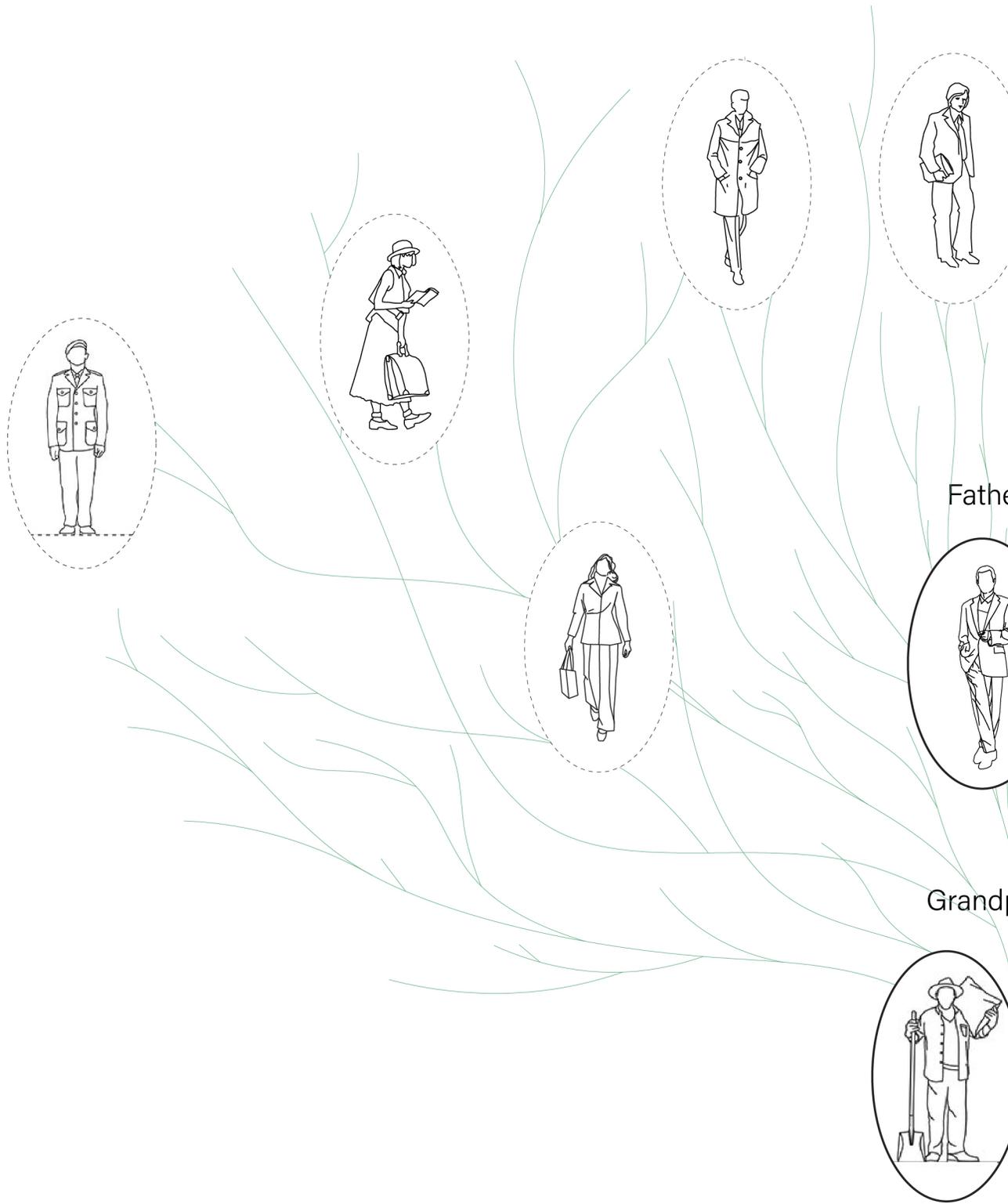
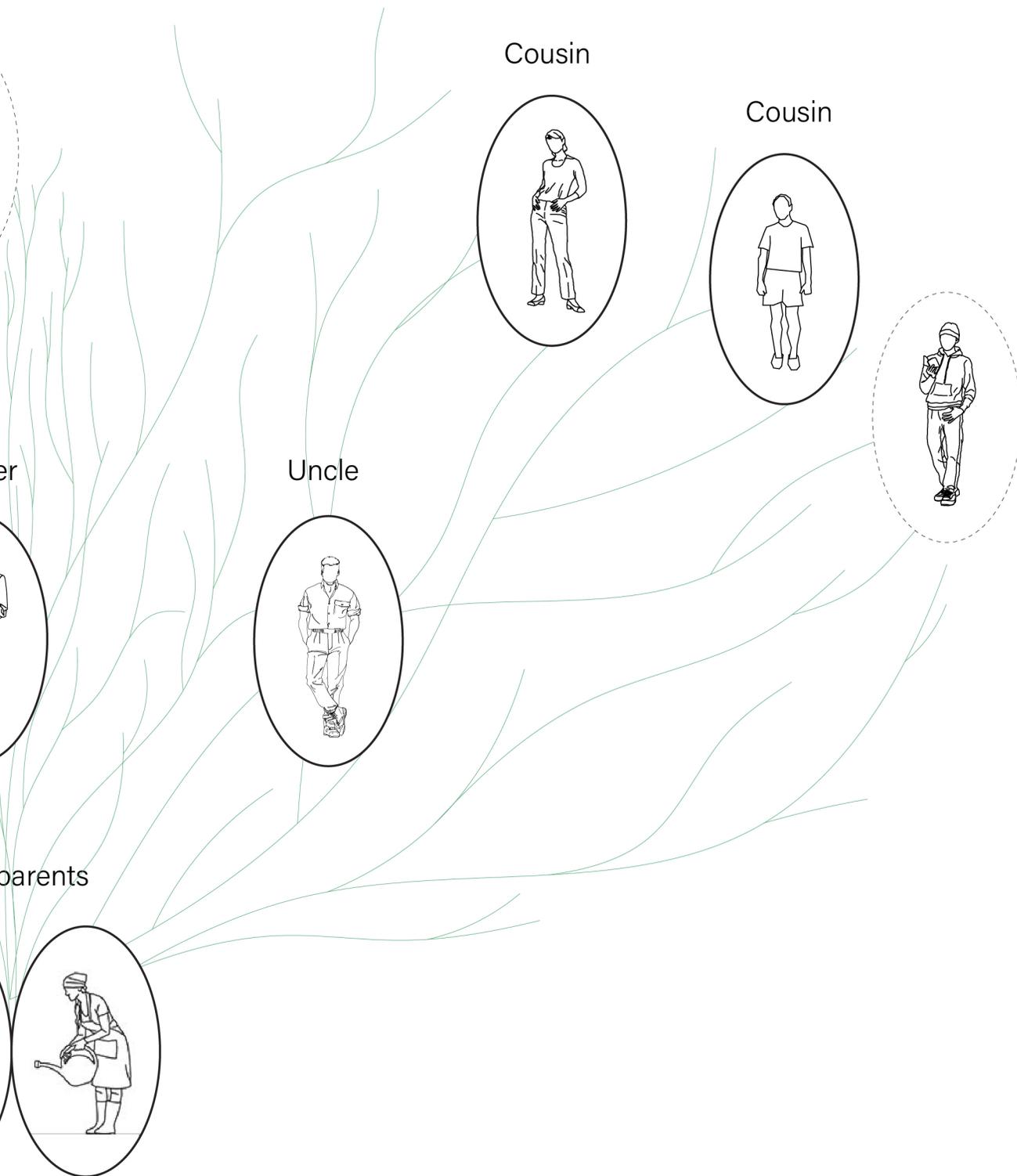
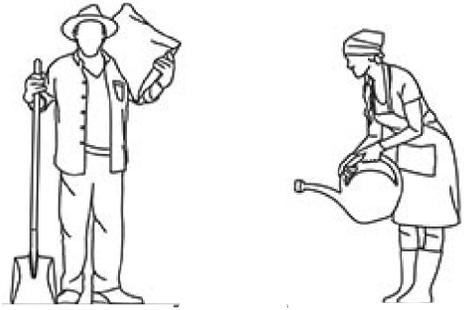


Figure 14 - Family tree & Lor



long term residents vs. guests.

Primary residents



Private

Shared by two



Shared

Communal



Figure 15 - Program



s in current house.

Primary residents



Private



Shared by two



Share by three



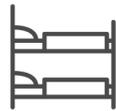
Communal



Shared by all guests



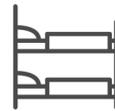
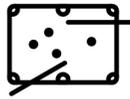
Shared by two



Visitors



Figure 16 - Expected program



grams in the new house.

Site plan

The regeneration proposal follows the site constraints strictly. (Fig 18) From the site plan, the new house expands the current building into the farmland to occupy the farmland because of the local land use policy. The building is laid out in a way creating an open intersection with the village road, continuing the welcoming locality in the neighbourhood. Major trees on-site are also maintained. The pond is expanded and incorporated into the front yard, now having better communication with the building. (Fig 19)

Floorplan

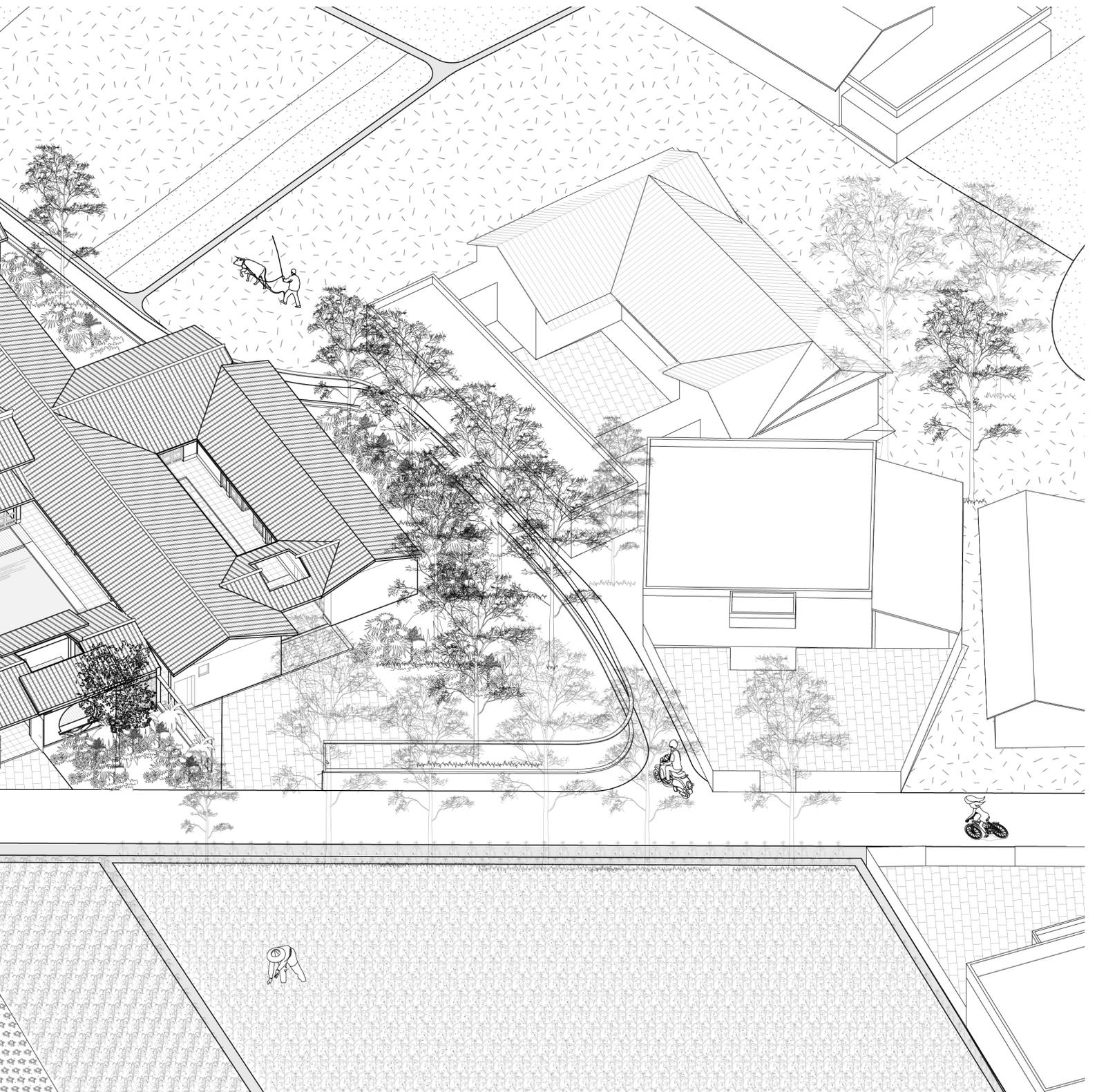
The floorplan design is largely based on the analysis of the traditional local house typology. First of all, the size of the current house and the new house can be plugged into the traditional typology from two generations with five family members to three or four generations with more than ten family members. (Fig 21) Regarding programs, there are three zones in the new house - the public zone, the residents' zone and the guests' zone. (Fig 22) The living unit inherits the traditional idea that two bedrooms share one room and all the units are aligned with the axes. So my father and my uncle's bedroom are on the middle axis of the house where they share the big living room for family gatherings. There are a tiny storage room and a light kitchen included in the living room. The ancestral memorial hall is at the back of the living room. On both sides of this major unit, there are two smaller living units, one for my grandparents, another one for my returning cousins. Further to the front, there are two more units for guests. The service rooms remain to be the transitioning rooms between living units but were better defined with smaller sizes and more quantities so they are shared by fewer people and easier to access. The communal rooms include more programs for daily life and less for agriculture. There is a good opportunity to test how these communal rooms can be effectively used for all the potential occupants - the residents, the guests and the neighbourhoods. All the communal rooms are incorporated into one wing that transitions from the public plaza to the house inside. On the plaza, there is an entry for the event hall with two washrooms and storage spaces incorporated.

The event hall has operable sliding doors that enable the event hall to be fully open and extend the event space to the plaza. There is a kitchen that supports both the event hall and the family's dining room. A preparing room is placed between the dining and the kitchen which becomes a functional transition announcing the entering to the private realm. Next to the dining, there are three rooms- a tearoom, a reading room and a card room for the residents. A fitness room connects the residents' rooms with the guests' rooms. It also includes a laundry and a bathroom for the guests. All the rooms are connected by open-air walkways, allowing cross ventilation into every room. Doing so, three courtyards formed - a major one for the residents, a smaller one for guests, an open one for the public. The pond in the front yard well divided the public realm and the private realm. Eventually, all the programs are organized in the house with a clear zoning and many transition rooms. (Fig 23)

The overall space inherited the hierarchy in the traditional typology which holds several moments aligned on axes along with the movement inside the house. (Fig 24) For example, when entering the house, you turn right, you are firstly aligned with an axis heading to the guests' zone. (Fig 25) Moving forward, when you reach the planter, you rotate your body to the left, you find yourself aligned with the main axis. (Fig 26) Keep moving forward, when you reach the corridor, you turn right, then you find yourself is aligned with the window at the end of the corridor. (Fig 27) Further moving forward, when reaching the guests living space, you are again, aligned with another axis in the guest zone. (Fig 28) Those moments take place again and again in the house, forming a strong spatial hierarchy.



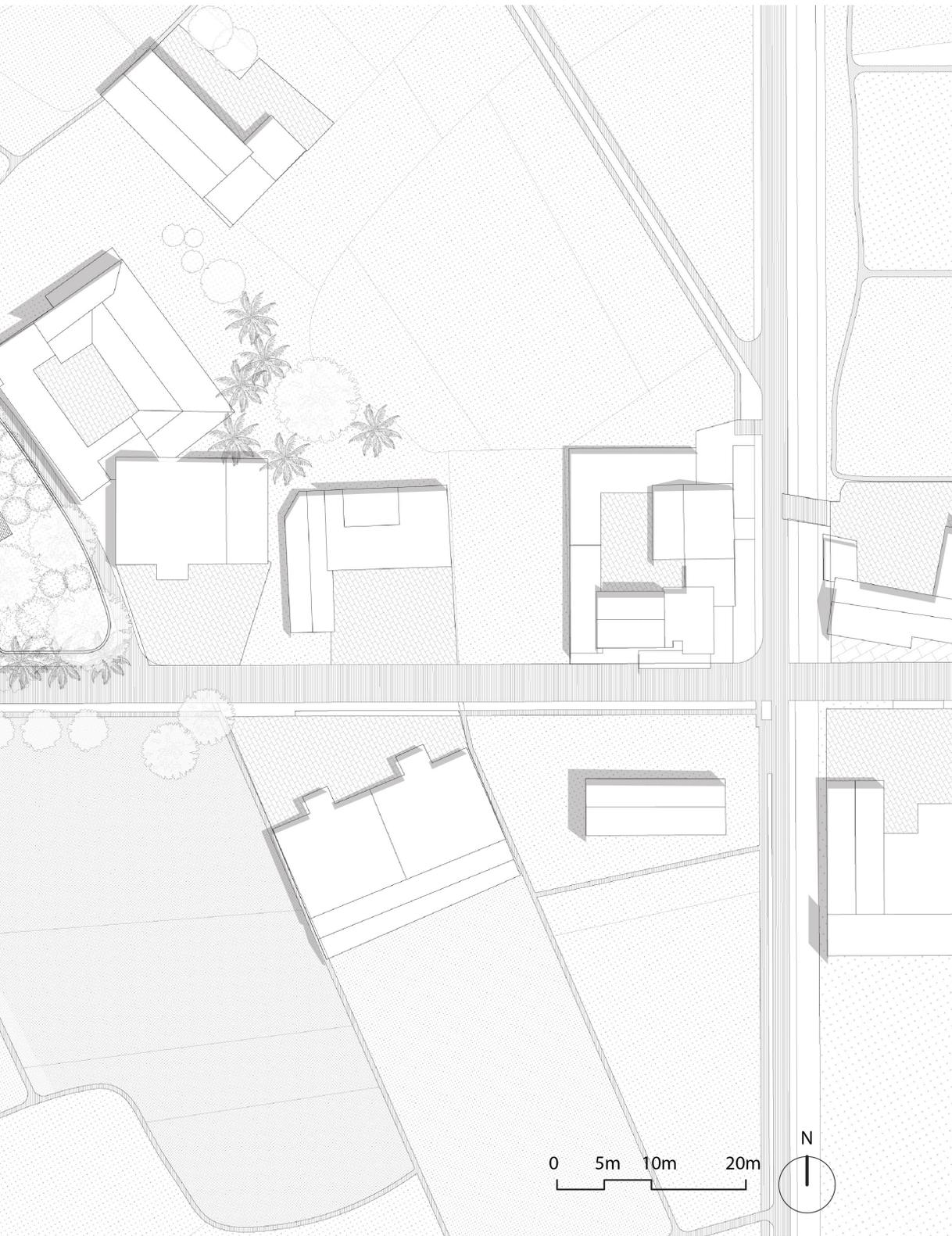
Figure 17 - New home



axometric view.

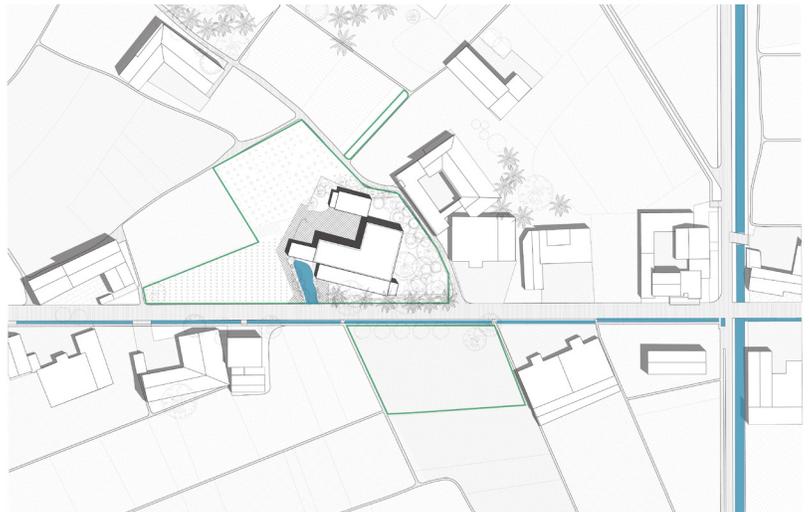
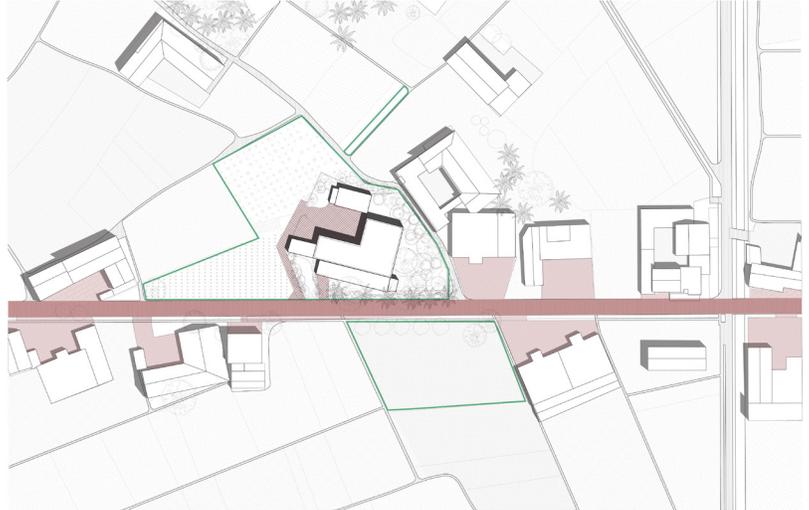


Figure 18 - New



home: site plan.

Before



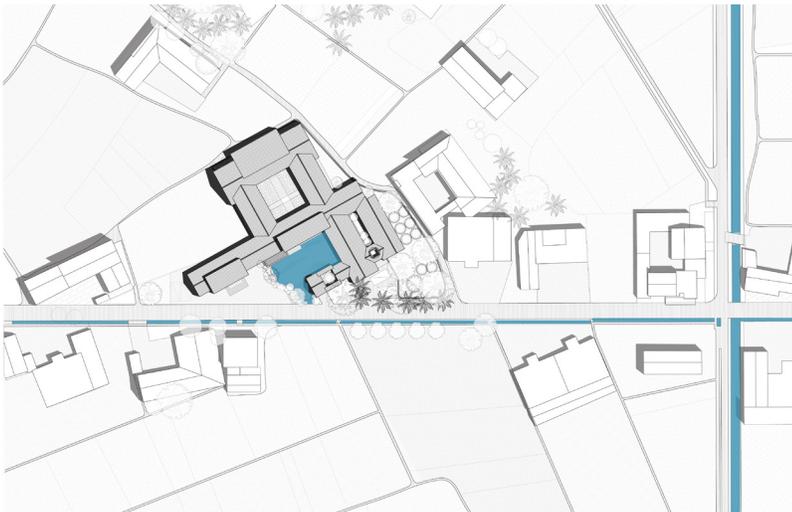
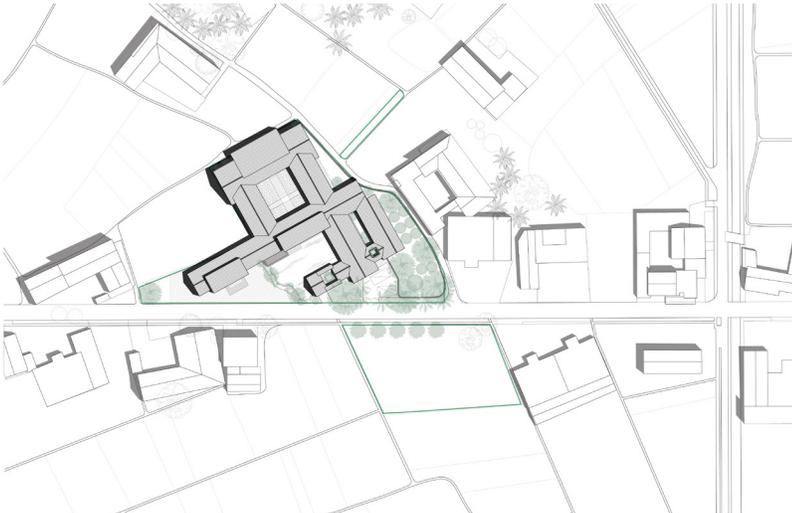
Ro

Tre

Po

Figure 19 - Current home vs

After



s. the new home: site plan.

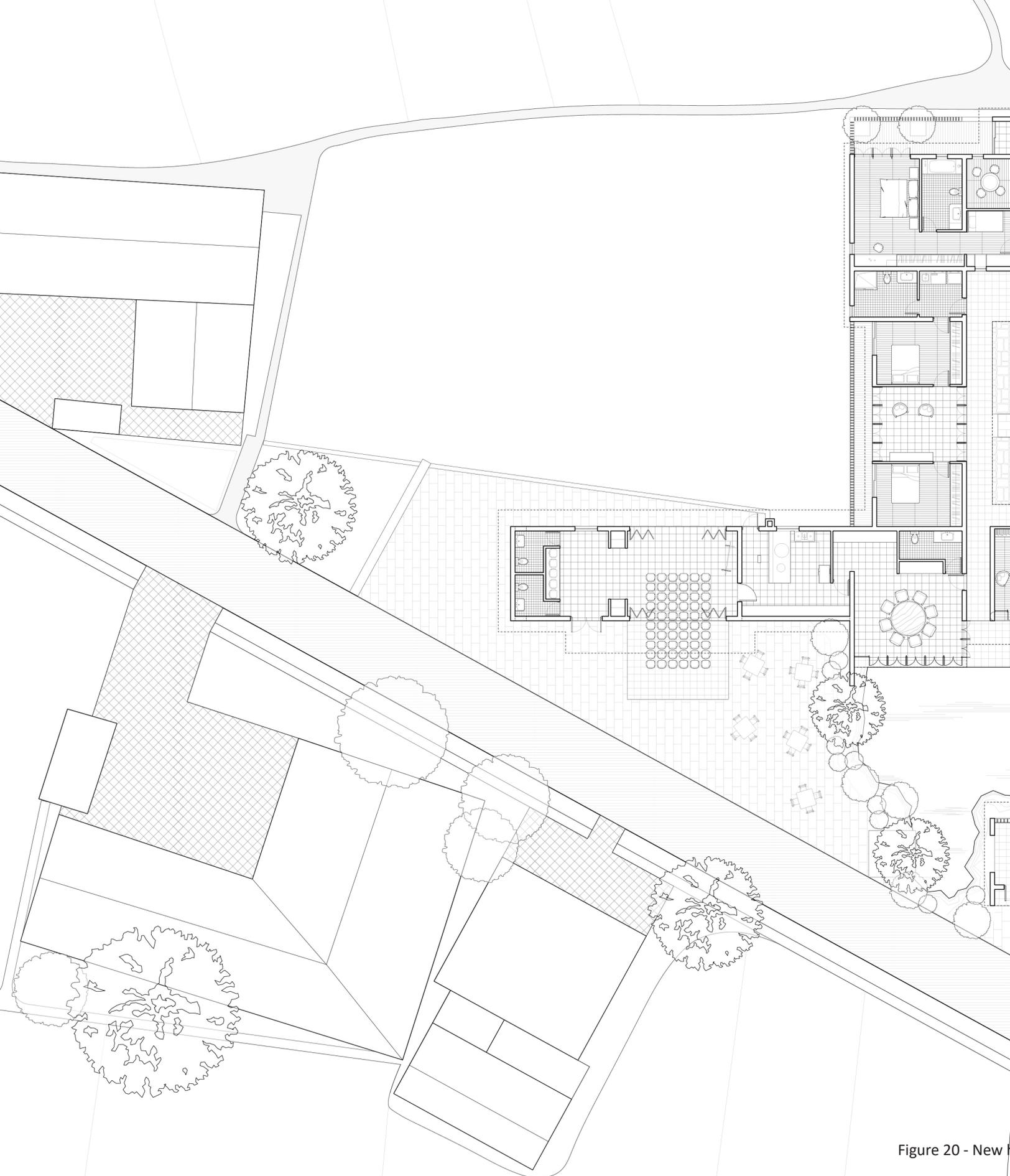
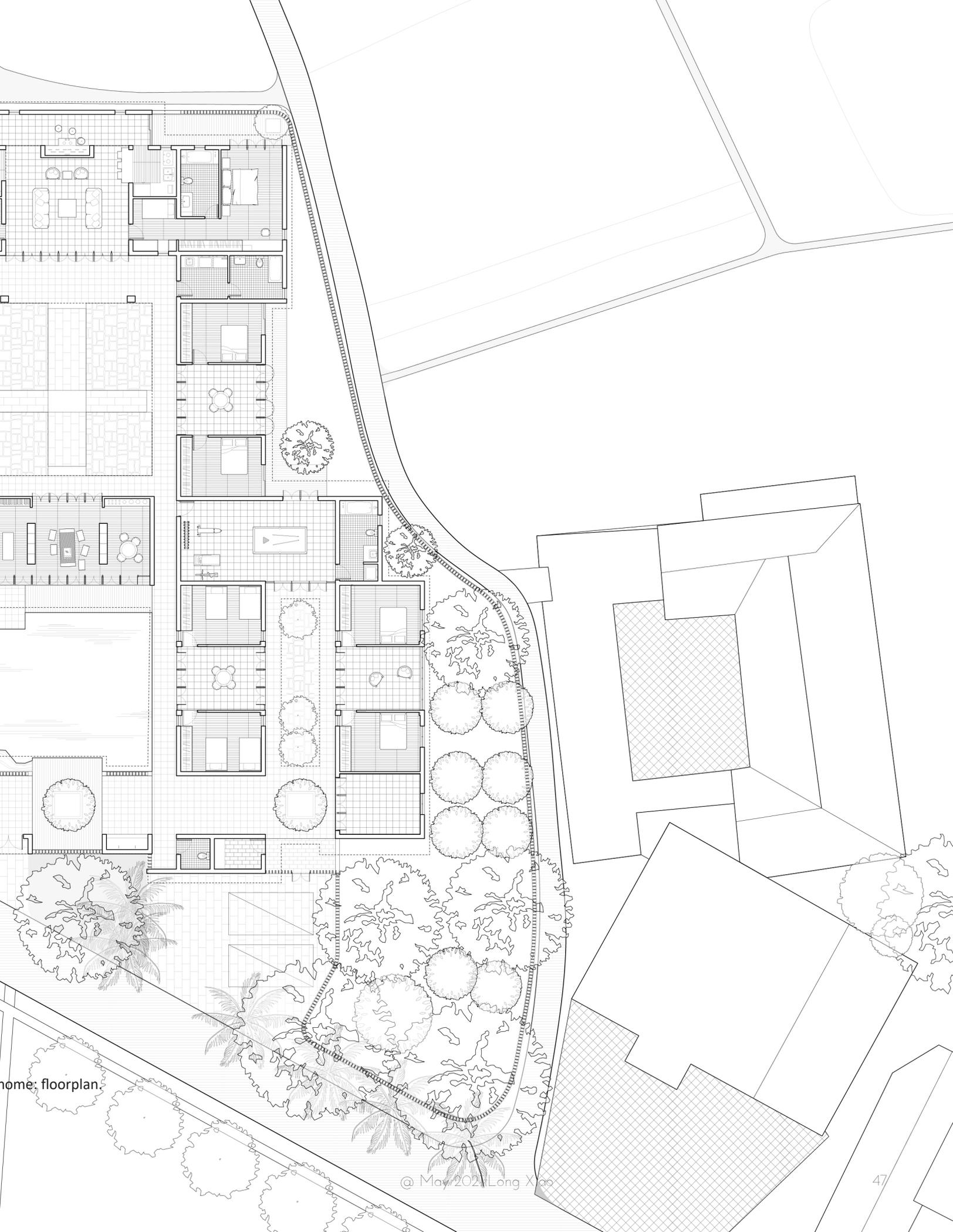
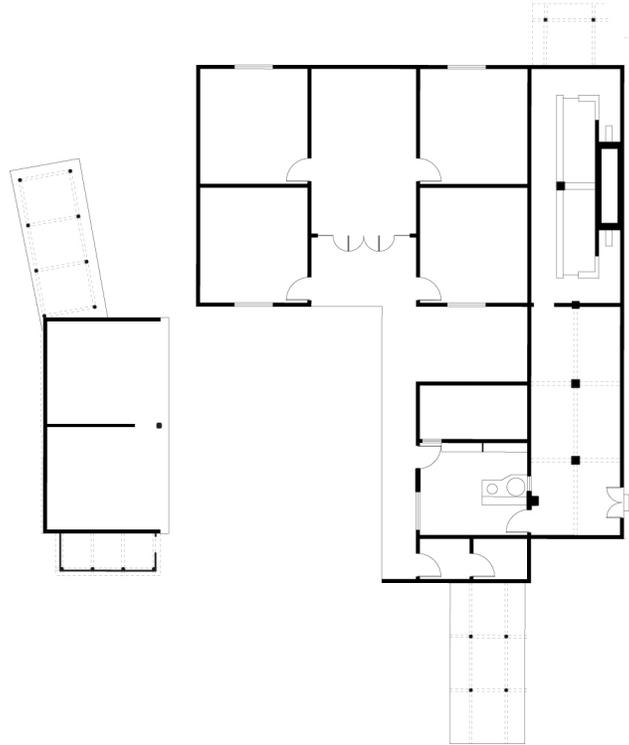


Figure 20 - New



home; floorplan.

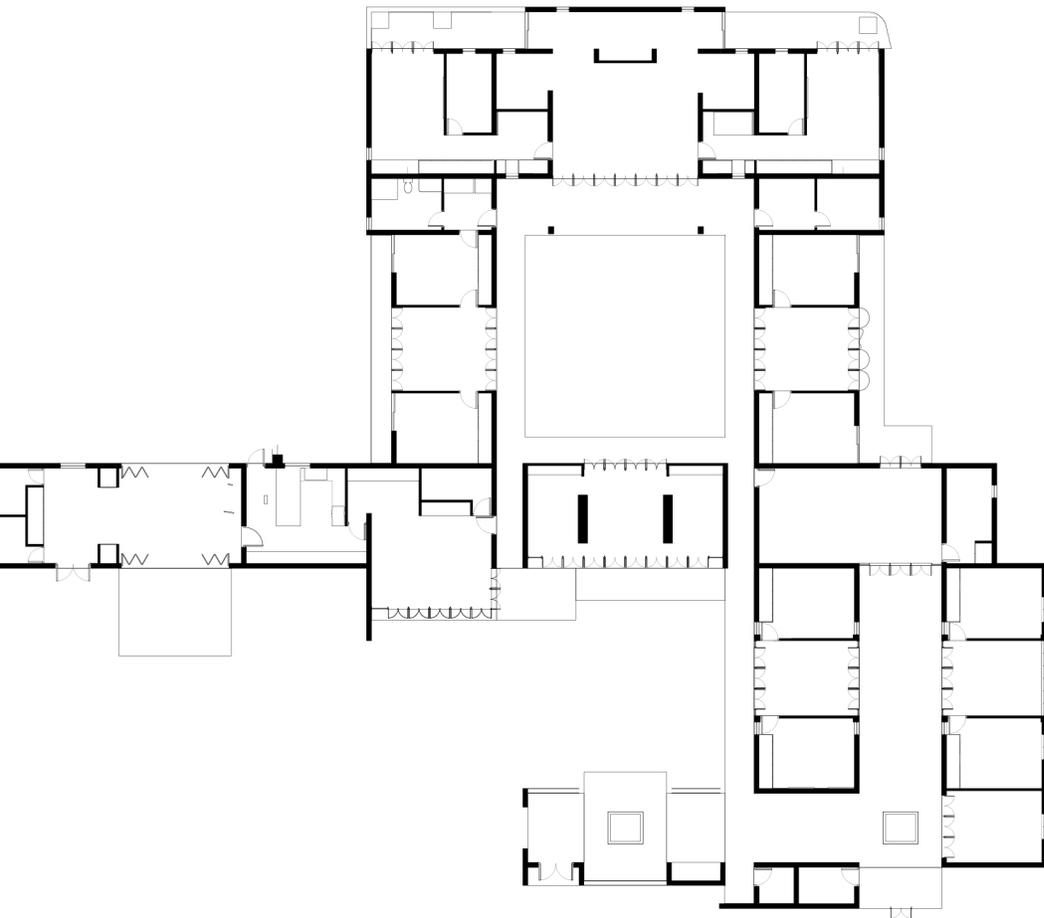
Current home



Family size	5
Generation	2

Figure 21- Current home

Proposed home



14

3-4

ne vs new home: size.

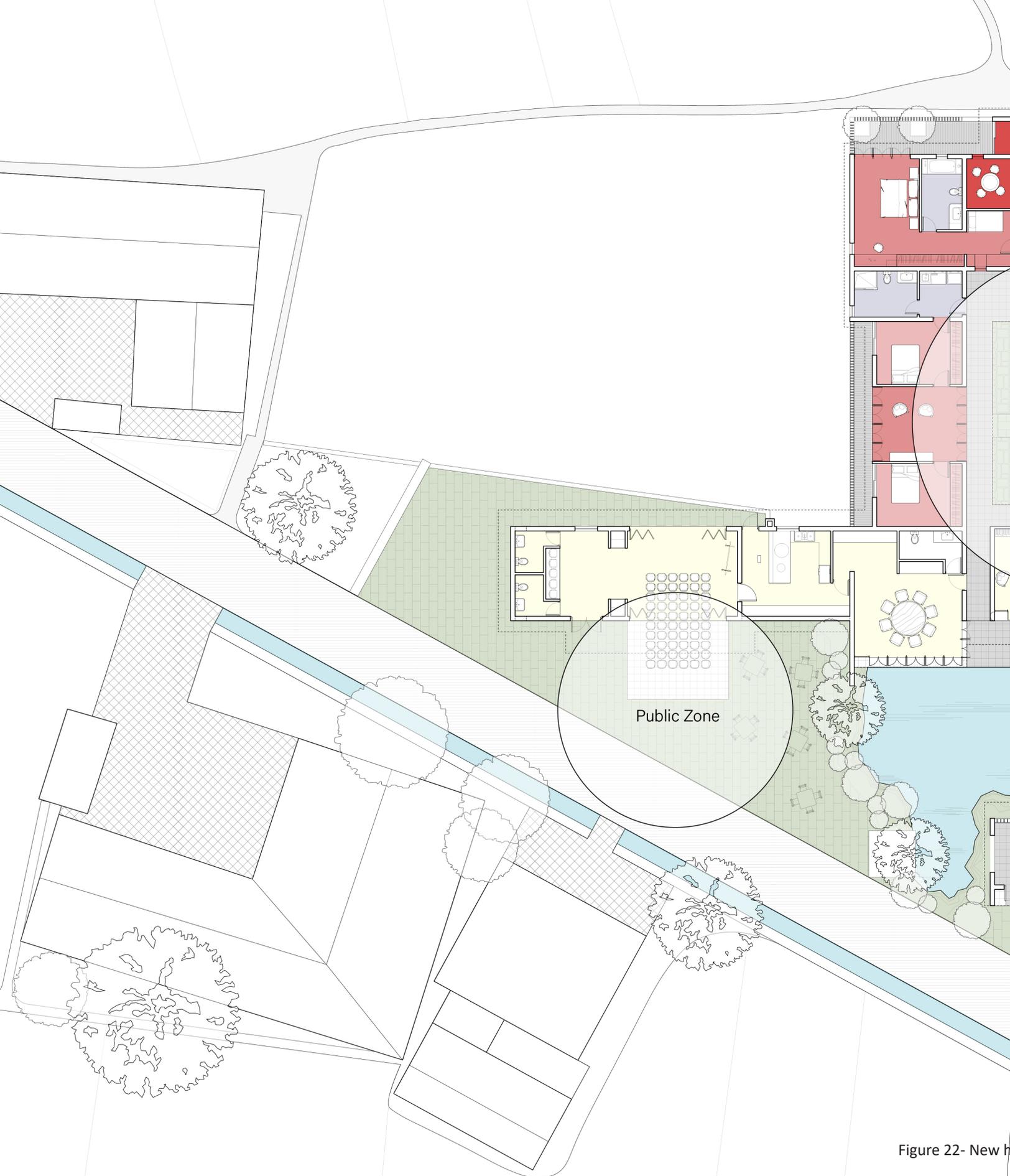
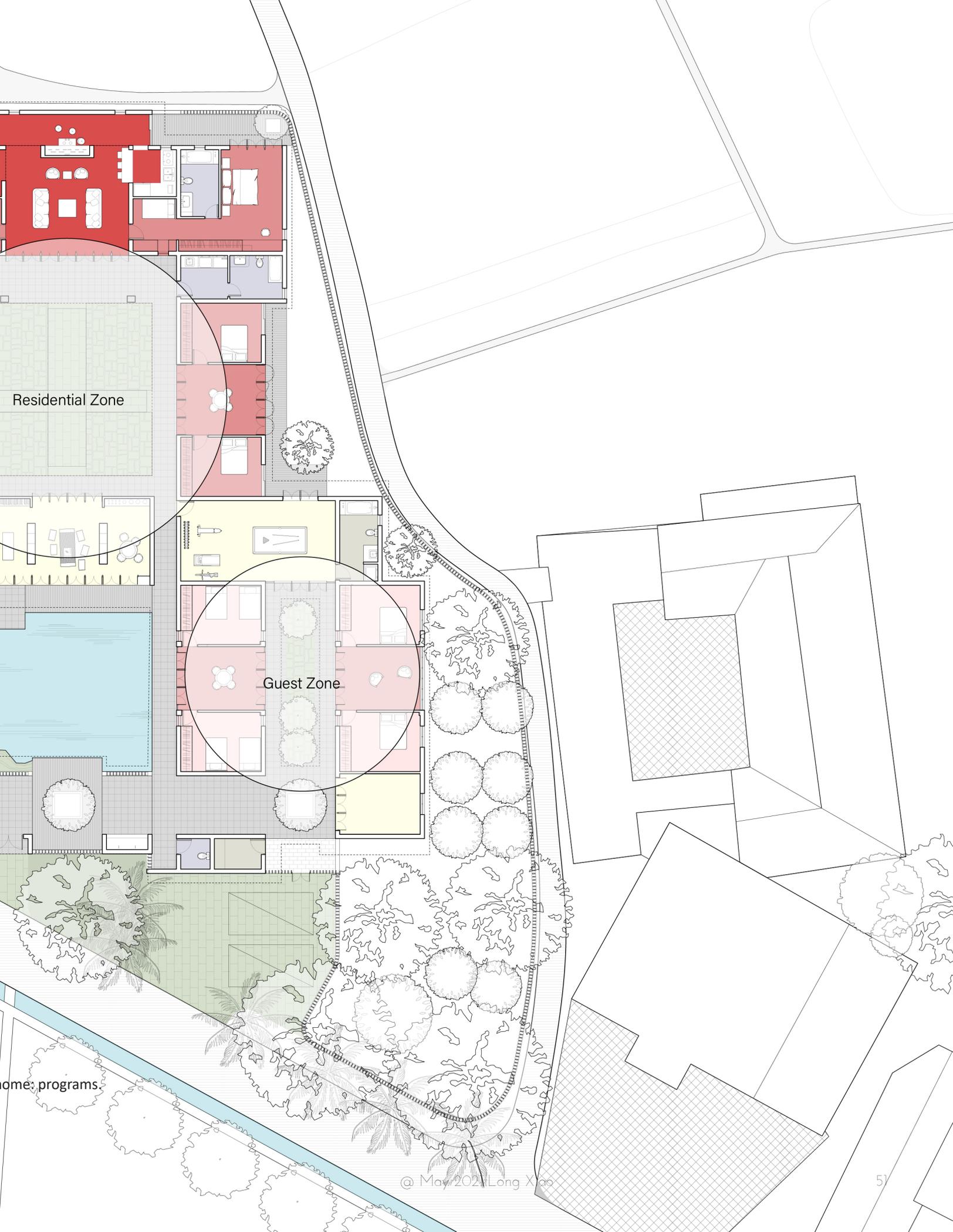


Figure 22- New h

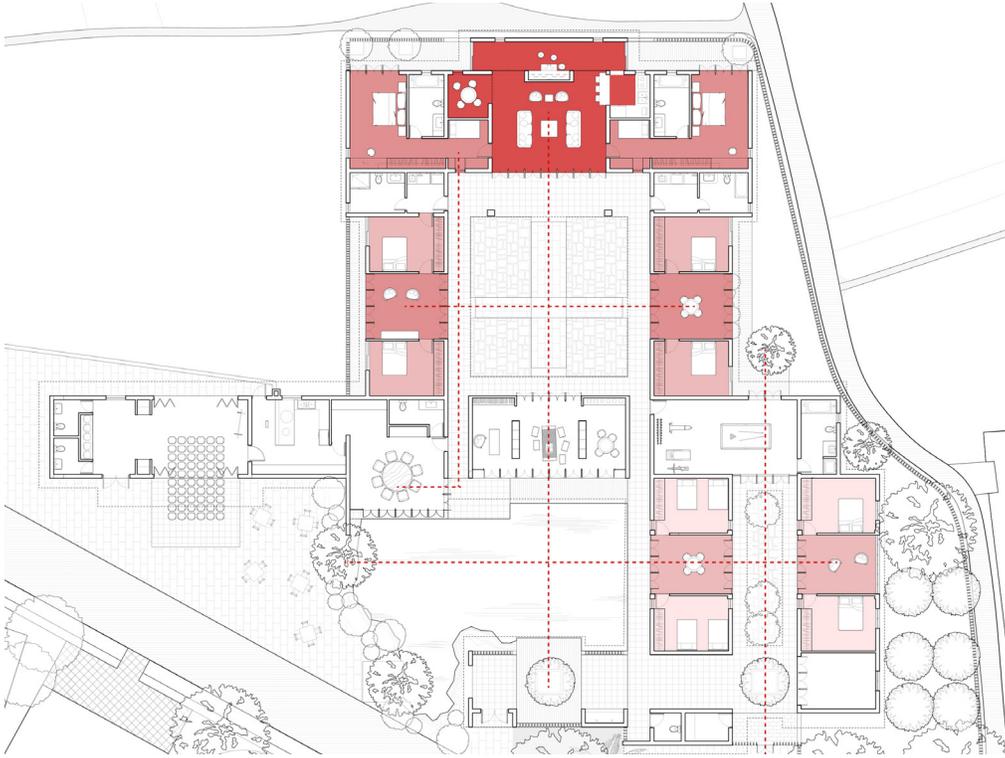


Residential Zone

Guest Zone

Home Programs

Modular living unit



Service rooms

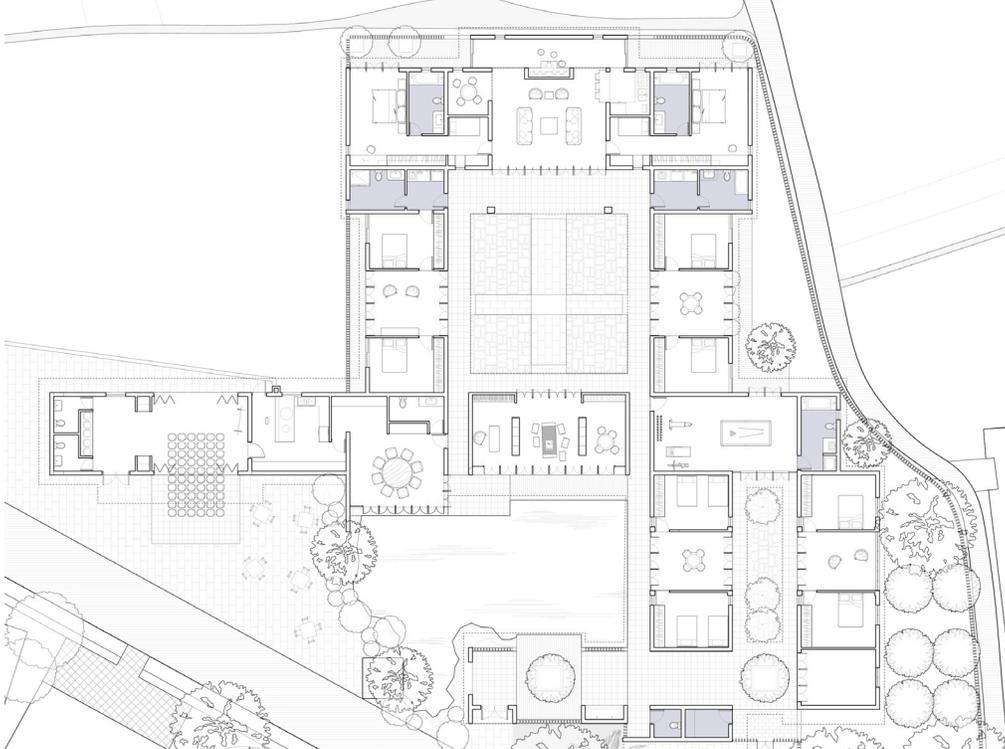
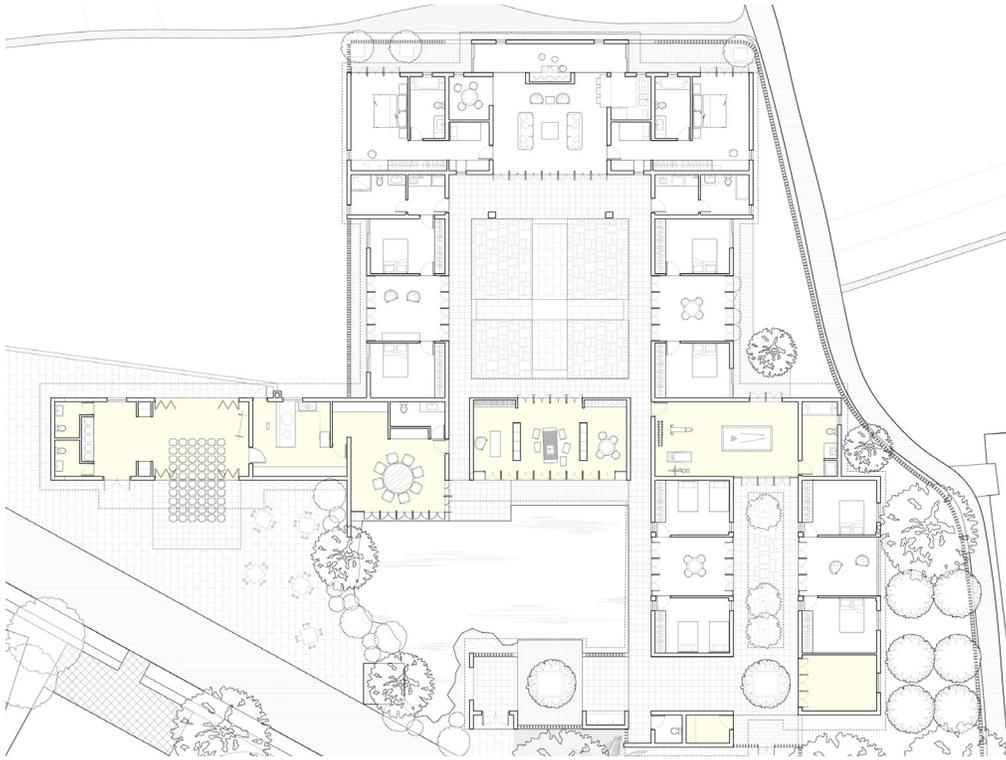
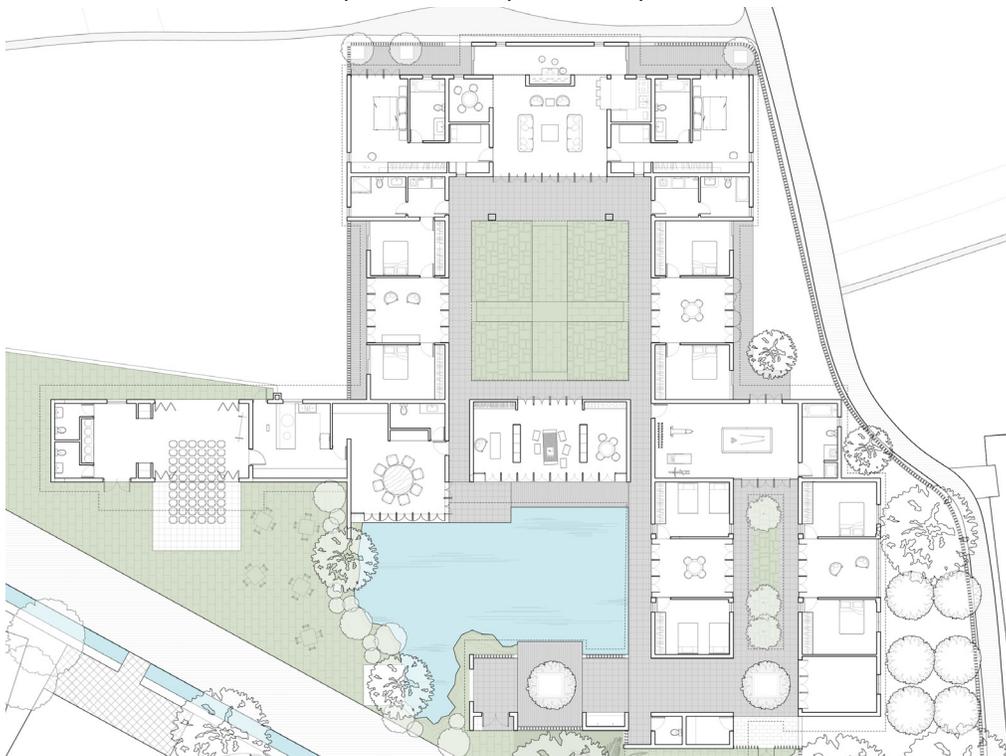


Figure 23- New home: p

Communal rooms



Open-air walkways and courtyards



programs organizations.

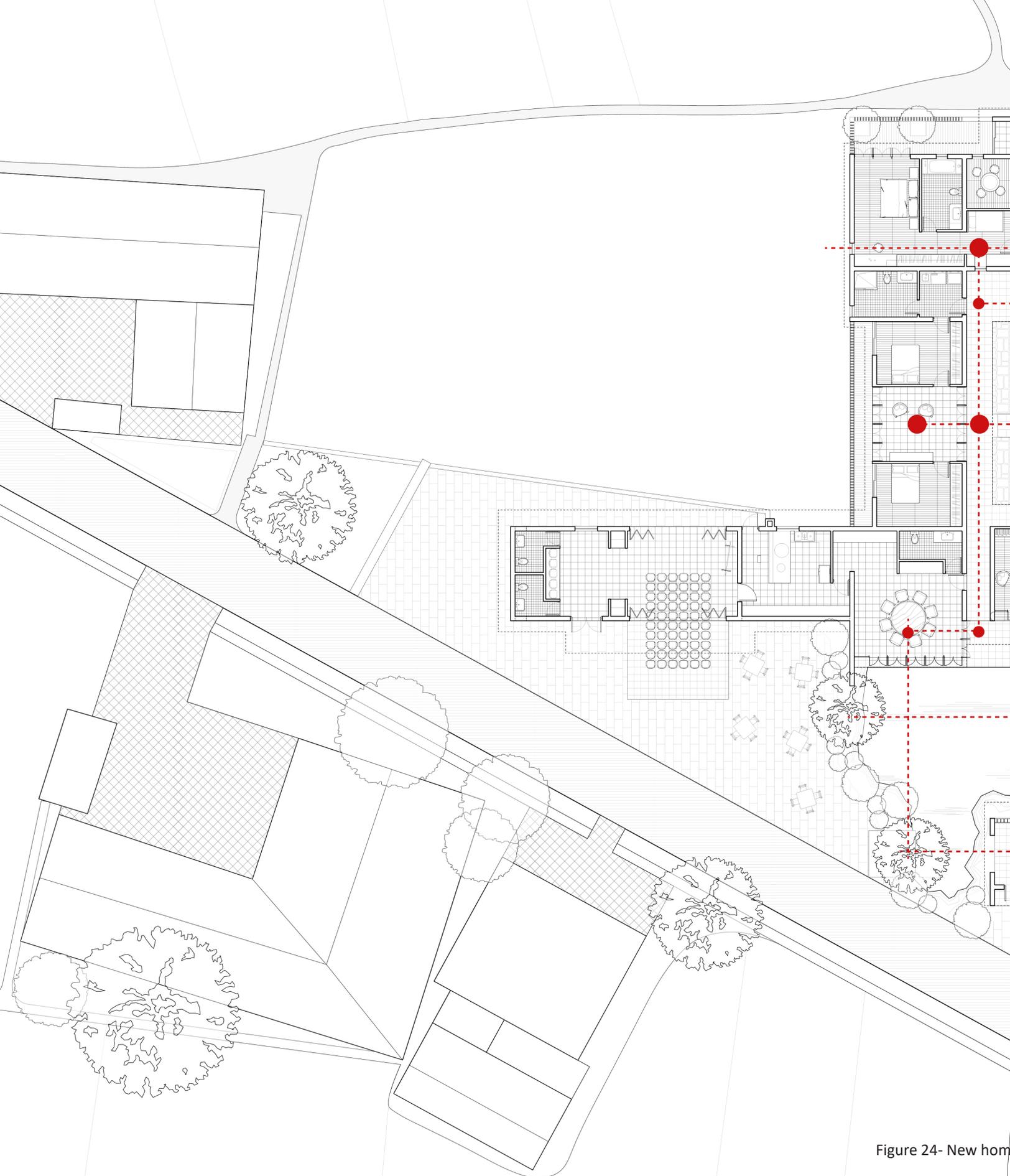


Figure 24- New home



...e: spatial hierarchy.

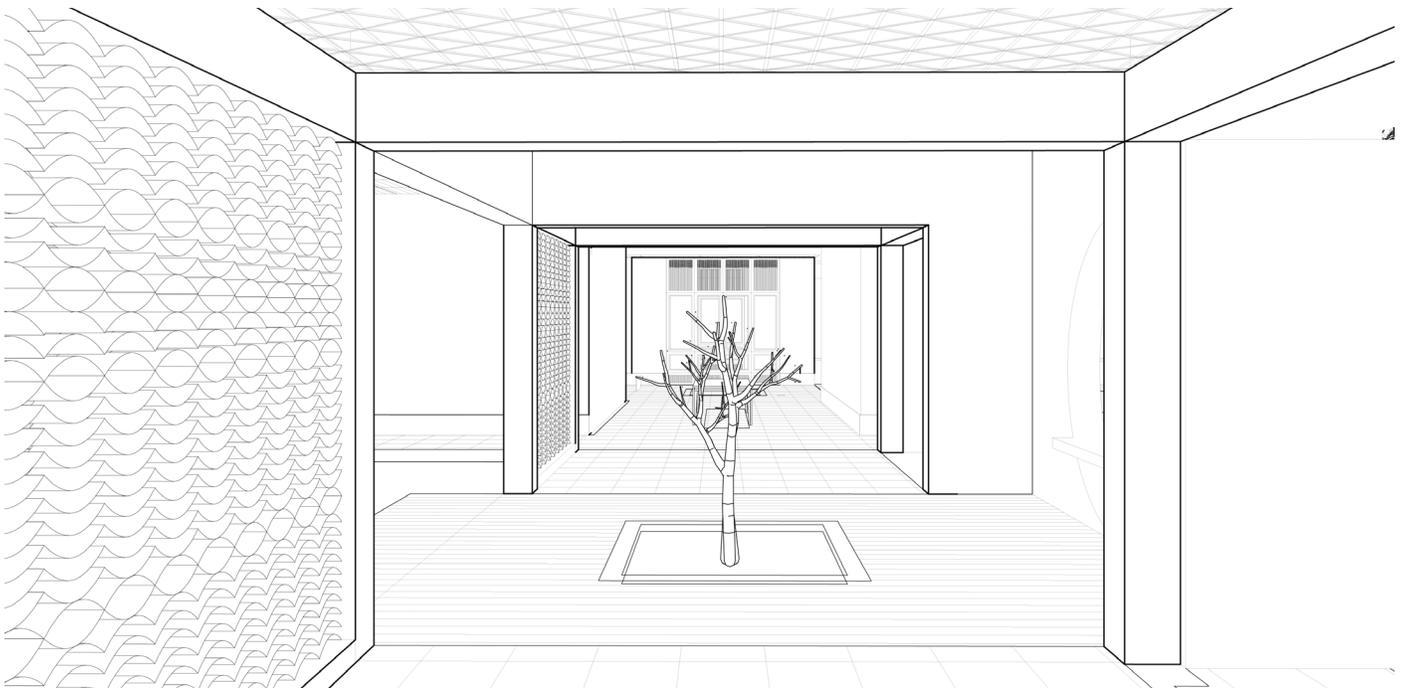
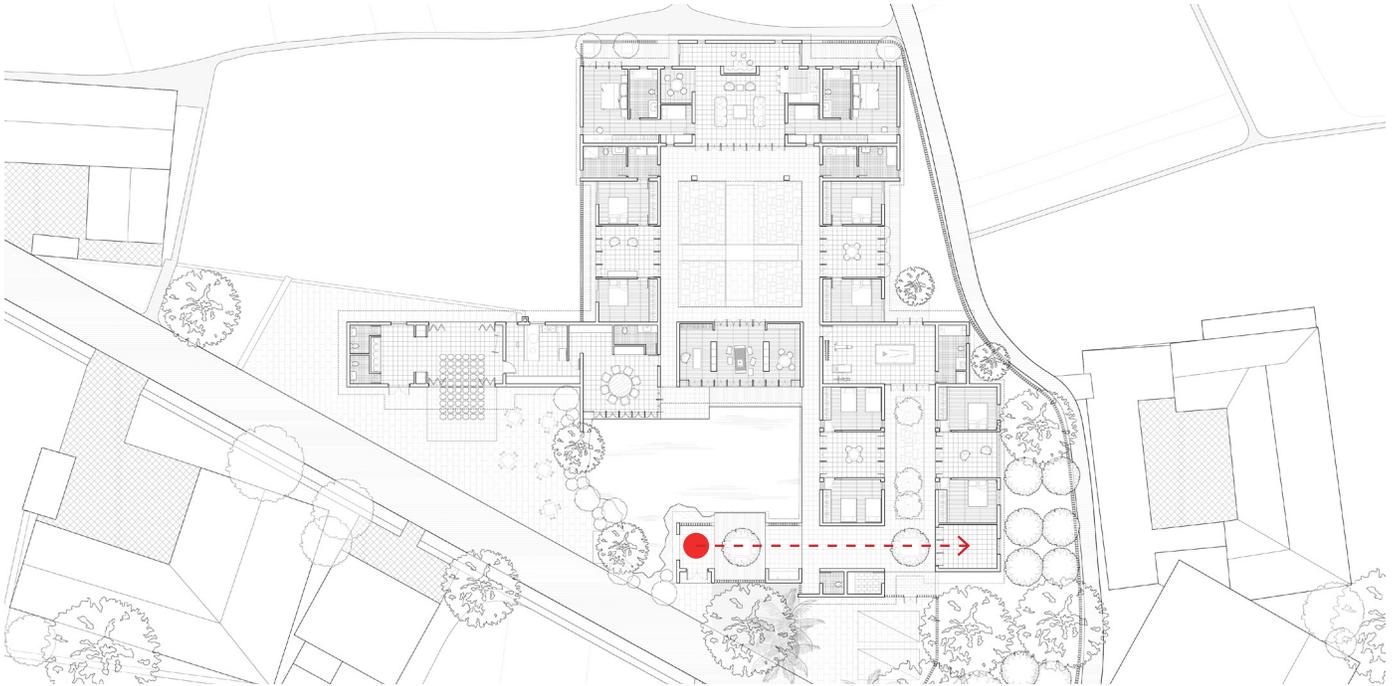


Figure 25 - New home: spatial hierarchy: moment 1

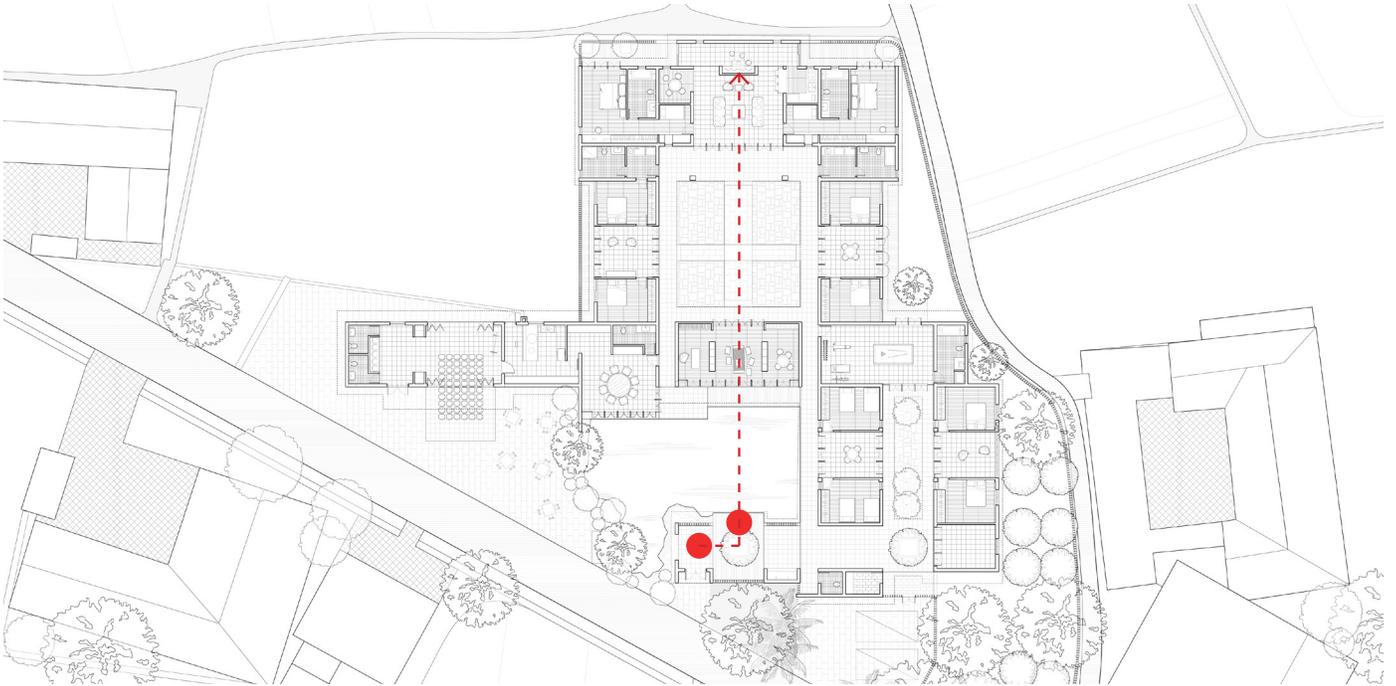


Figure 26 - New home: spatial hierarchy: moment 2

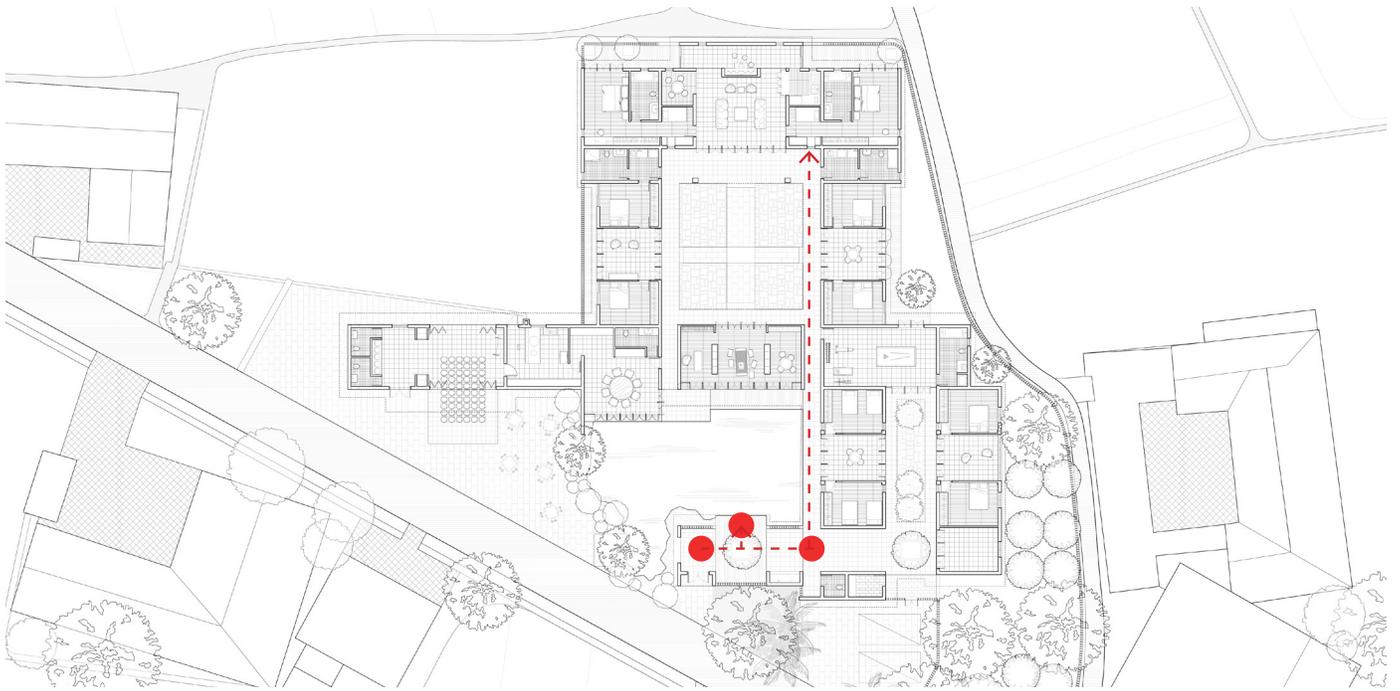


Figure 27 - New home: spatial hierarchy: moment 3

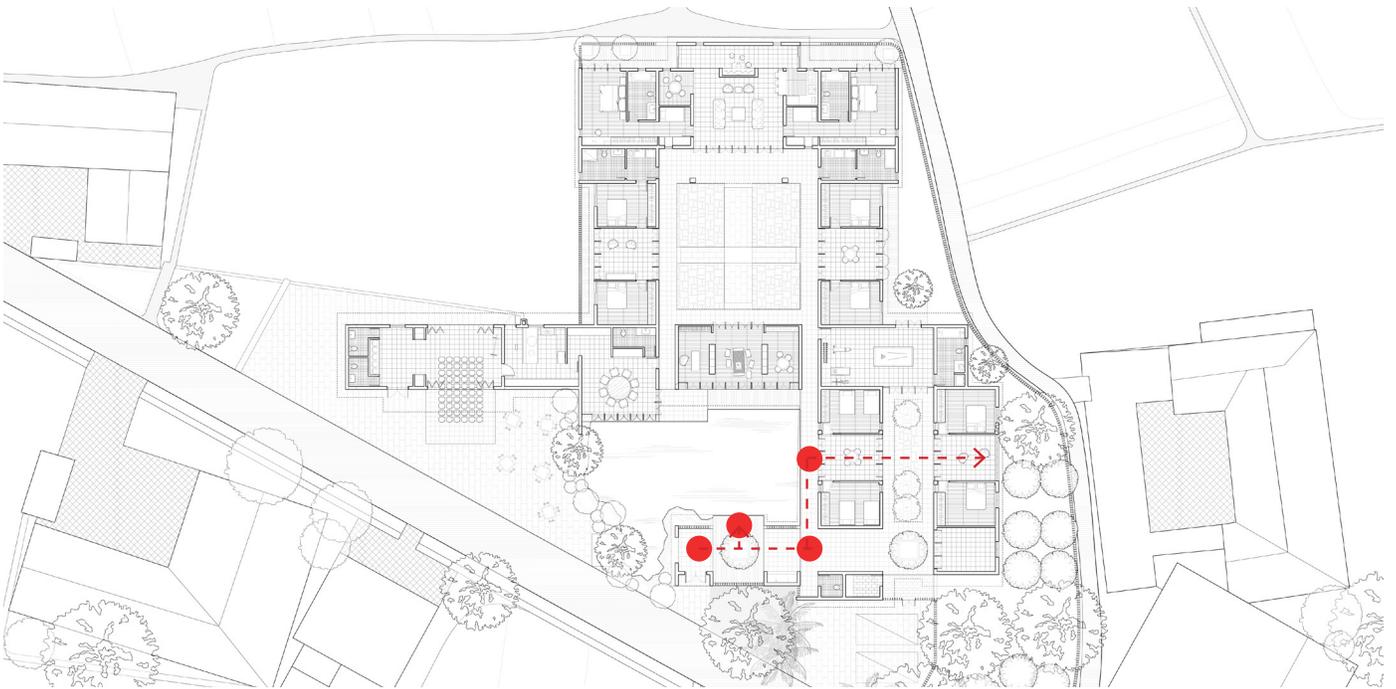


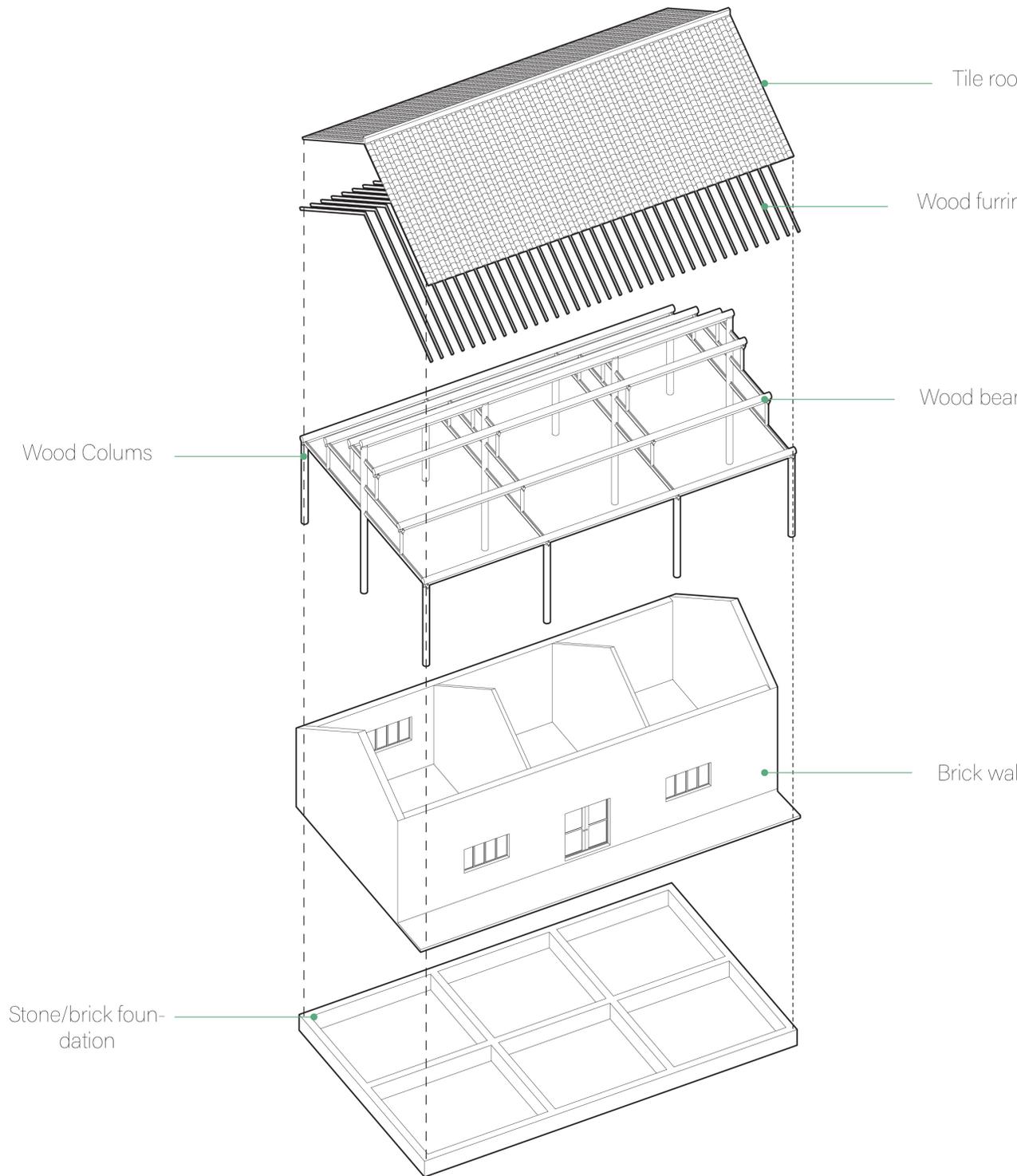
Figure 28 - New home: spatial hierarchy: moment 4

Structure

The traditional local houses feature wood as their main structure which required careful craftsmanship and numerous time to build. Due to the costliness, the traditional wood structure is replaced by reinforced concrete frame structure in recent constructions, which is considered to be more economical. However, the new structure system is neither environmentally friendly nor durable as many flat roofs leak due to the local construction techniques were not adequate for durability, especially in the humid local climate. The new house attempts to find a balance between economy, durability and environmental friendliness. Therefore, the proposed new house features a reinforced concrete gridding system structure with brick wall infill, a timber-framed sloping roof covered with tiles and additional insulation. (Fig 29)

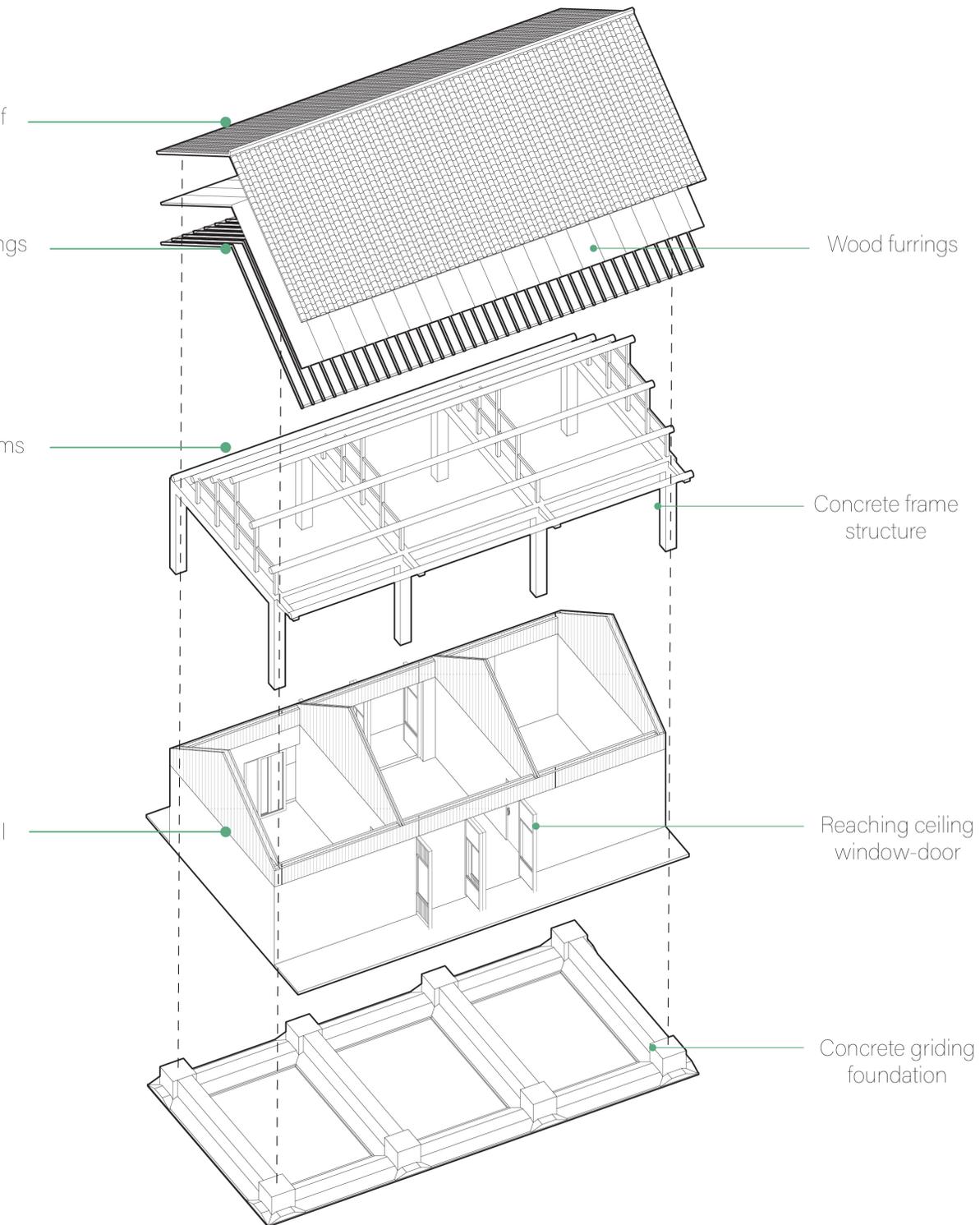
Materials

Regarding the choice of materials, the new house obeys the traditional construction spirit - using on-site materials. Bamboo, a major local material, is thus selected to be the main finish material for the floors, walls and ceilings. The use of materials is related to the openness of the space. For example, the floors in the public area are concrete but cast by bamboo slivers to resist the specks of dirt. The texture of the bamboo is preserved and carried over to the private spaces where the ground is floored with real bamboo sliver. Besides, all the materials is unified in dimension following the spatial consistency. (Fig 30)

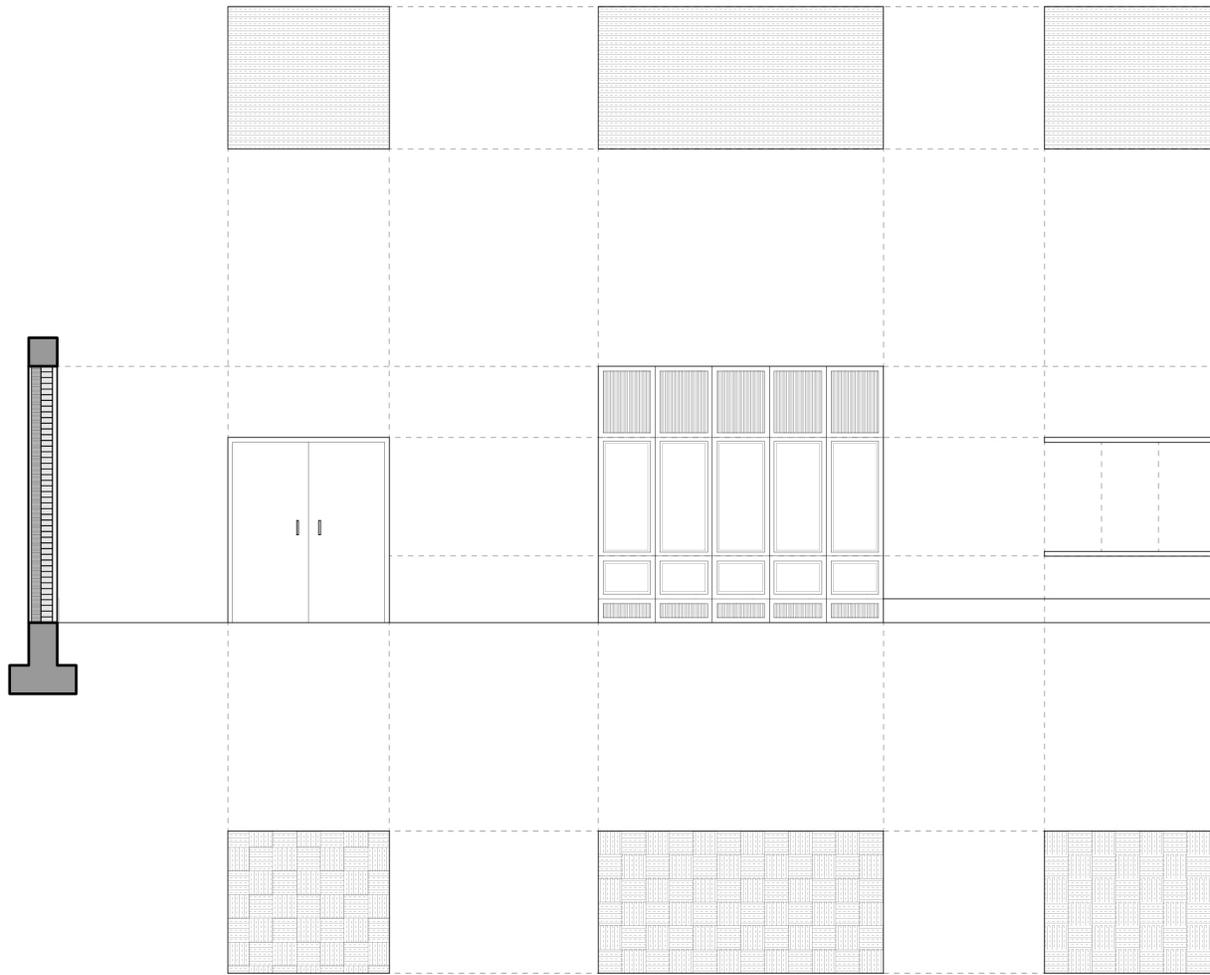


Traditional structure system

Figure 29 - New



New structure system

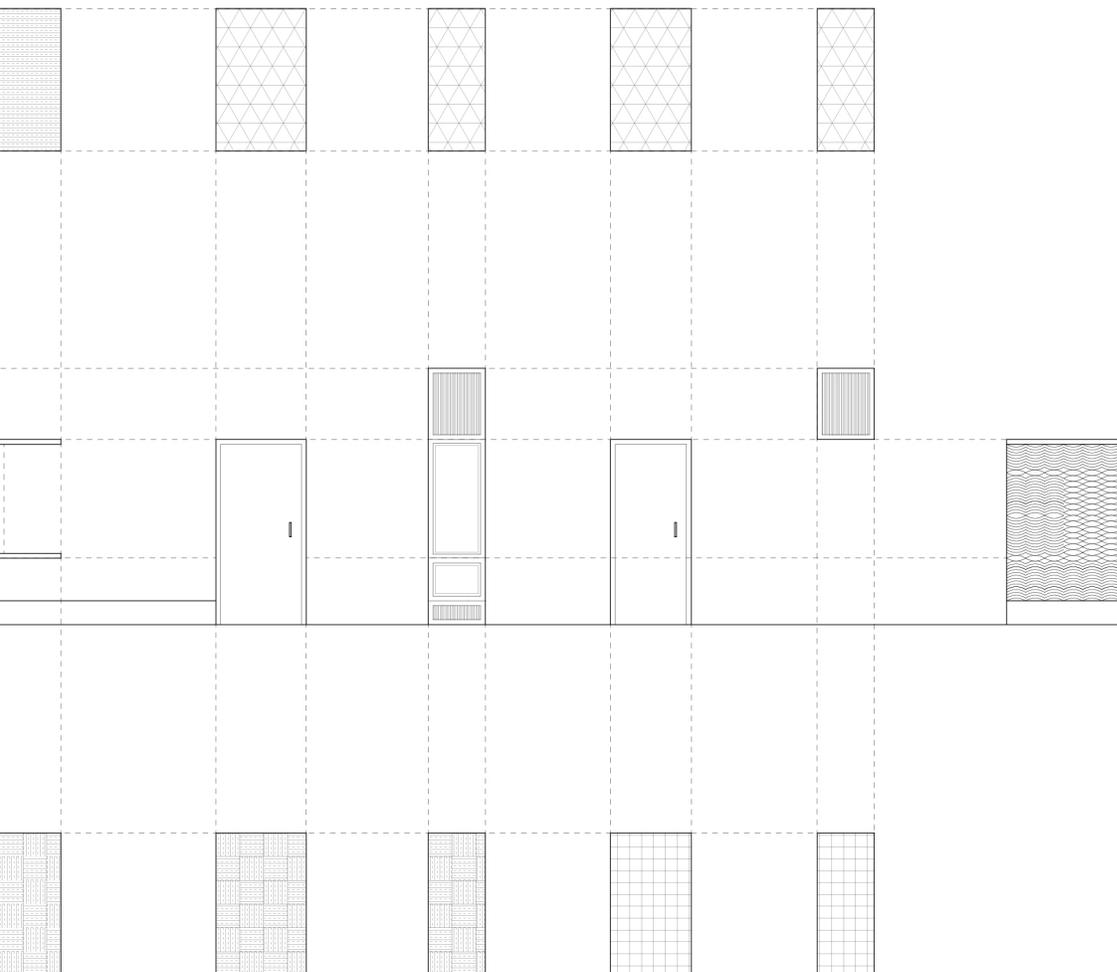


Entry

Shared room

Open walk

Figure 30 - New



way

Bedroom

Bathroom

home: materials

BIBLIOGRAPHY | 参考文献

- Boyer, M. Christine. "Aviation and the Aerial View: Le Corbusier's Spatial Transformations in the 1930s and 1940s." *Diacritics* 33, no. 3/4 (2003): 93-116.
- Chau, Hing-wah. 2015. "Xianfeng? Houfeng? Youfeng?-an Analysis of Selected Contemporary Chinese Architects, Yung Ho Chang, Liu Jiakun, and Wang Shu (1990s-2000s)." *Frontiers of Architectural Research* (2): 146-158.
- Chau, Hing-Wah. "Wang Shu's Design Practice and Ecological Phenomenology." *Arq* (London, England) 22, no. 4 (2018): 361-370.
- Chau, Hing-wah. "Conceptual Narratives of Yung Ho Chang's Cross-Cultural Practice." *Architecture and Culture* 2, no. 2 (2014): 205-212.
- Chan, Bernard. *New Architecture in China*. Merrell, London;New York;, 2005.
- Dong, Yiping. "Wencun Village, China, by Wang Shu and Lu Wenyu's Amateur Architecture Studio." *Architectural Review*. *The Architectural Review*, July 22, 2020. <https://www.architectural-review.com/today/wencun-village-china-by-wang-shu-and-lu-wenyus-amateur-architecture-studio>.
- Denison, Edward. "Shanghai: Multiple Modernities' Exemplar." In . 1st ed. Vol. 1, 257-291: Routledge, 2017.
- Delin Lai, "Idealizing a Chinese Style," *Journal of the Society of Architectural Historians* 73, no. 1 (2014): 331-362, doi:10.1525/jsah.2014.73.1.61.
- Feitelberg, Rosemary. "Rem Koolhaas Leads the Way into 'Countryside, the Future.'" *Wwd* (2020): 18-18.
- Frampton, Kenneth. "Kenneth Frampton On The Work of Wang Shu and Lu Wenyu," March 23, 2017. https://www.archdaily.com/867419/kenneth-frampton-on-the-work-of-wang-shu-and-lu-wenyu?utm_medium=email.
- Haiqing Li, *Zhongguo Jianzhu Xiandai Zhuanxing (A Structural Transformation into Modernity in Chinese Architecture)* (Nanjing: Dongnan Daxue Chubanshe, 2004), 132-3.
- Jodidio, Philip. *Cn: Architecture in China*. Taschen, Köln;Los Angeles;, 2007.
- Jürgen Osterhammel and Petersson P. Niels, "1880-1945: Global Capitalism and Global Crisis," in *Globalization: A Short History*, trans. Geyer Dona (Princeton: Princeton University Press, 2005), 81-112.
- Kai-shek Chiang, "'Zhongguo Zhi Mingyun' (China's Destiny)," in Chiang Kai-shek, *Jiang Zongtong Ji* (Collected Works of President Chiang) (Taipei: Guofang Yanjiu Yuan, 1961), 119-170.
- Li, Xingan. 2015. "Rural Depopulation in China: A Comparative Perspective." *RIMCIS : International and Multidisciplinary Journal of Social Sciences* 4 (2): 149-174.

BIBLIOGRAPHY | 参考文献

Li Shiqiao, "Writing a Modern Chinese Architectural History: Liang Sicheng and Liang Qichao," *Journal of Architectural Education* 56, no. 1 (2002): 35-45, doi:10.1162/104648802321019155.

Li, W.L. and Li, Y. (1995), Special Characteristics of China's Interprovincial Migration. *Geographical Analysis*, 27: 137-151. <https://doi.org/10.1111/j.1538-4632.1995.tb00340.x>

Shanghai Past and Present: A Concise Socio-Economic History, 1842-2012. Vol. 2. Beaverton: Ringgold, Inc, 2015.

The Paper (Chinese newspaper). *Interview with Wang Shu: Village regeneration should preserve the true lifestyle (Xiangcun Gaizao Yinggai Yanxu Zhenshide Shenghuo Zhuangtai)*. Other, April 27, 2018. <http://www.zhuxuncn.com/articles/180448692.html>.

Tong Guo et al., "Integral Lifting and Seismic Isolation Retrofit of Great Hall of Nanjing Museum," *Journal of Performance of Constructed Facilities* 26, no. 5 (2012): 558-566, doi:10.1061/(asce)cf.1943-5509.0000273.

Wang, Shu. "Cities Should Learn from Villages." TED x Shanghai Lecture Series: Lecture presented at the TED x Shanghai Lecture series, May 7, 2016.

Wang, Qijun and Yuxiang Li. *Lao Fang Zi: Sichuan Min Ju*. Di 1 ban. ed. Nanjing Shi: Jiangsu mei shu chu ban she, 2000.

Youbin Hou, "Jindai Zhongguo Jianzhu" (Architecture in Early Modern China)," ed. Guxi Pan, in *Zhongguo Jianzhu Shi (A History of Chinese Architecture)* (Zhongguo Jianzhu Gongye Chubanshe, 2001), 366.

Zhu, Jianfei. *Architecture of Modern China: A Historical Critique*. Routledge, London;New York,, 2009;2008;2013.

Zhu, Jianfei. "THE ARCHITECT AND A NATIONALIST PROJECT Nanjing, 1925-37." In , 57-90: Routledge, 2009.

阮庆岳. "宅的建筑观——阅读张永和的《作文本》及《绘本非常建筑》." *Shi Jie Jian Zhu*, no. 10, 2017, pp. 16-19.

冉云飞. "叛逆的四川民居." *中国西部* no. 2 (2007): 198-199.

四川省勘察设计协会, 四川省建设委员会, and 四川省土木建筑学会. *四川民居*. 1st ed. 成都: 四川人民出版社, 2004.

杨帆 周波 陈一 李运璋. "中西文化交融下的民国时期四川民居探析——以井研县熊克武故居为例." *建筑与文化* no. 5 (2015): 208-211.

APPENDIX A | 附录

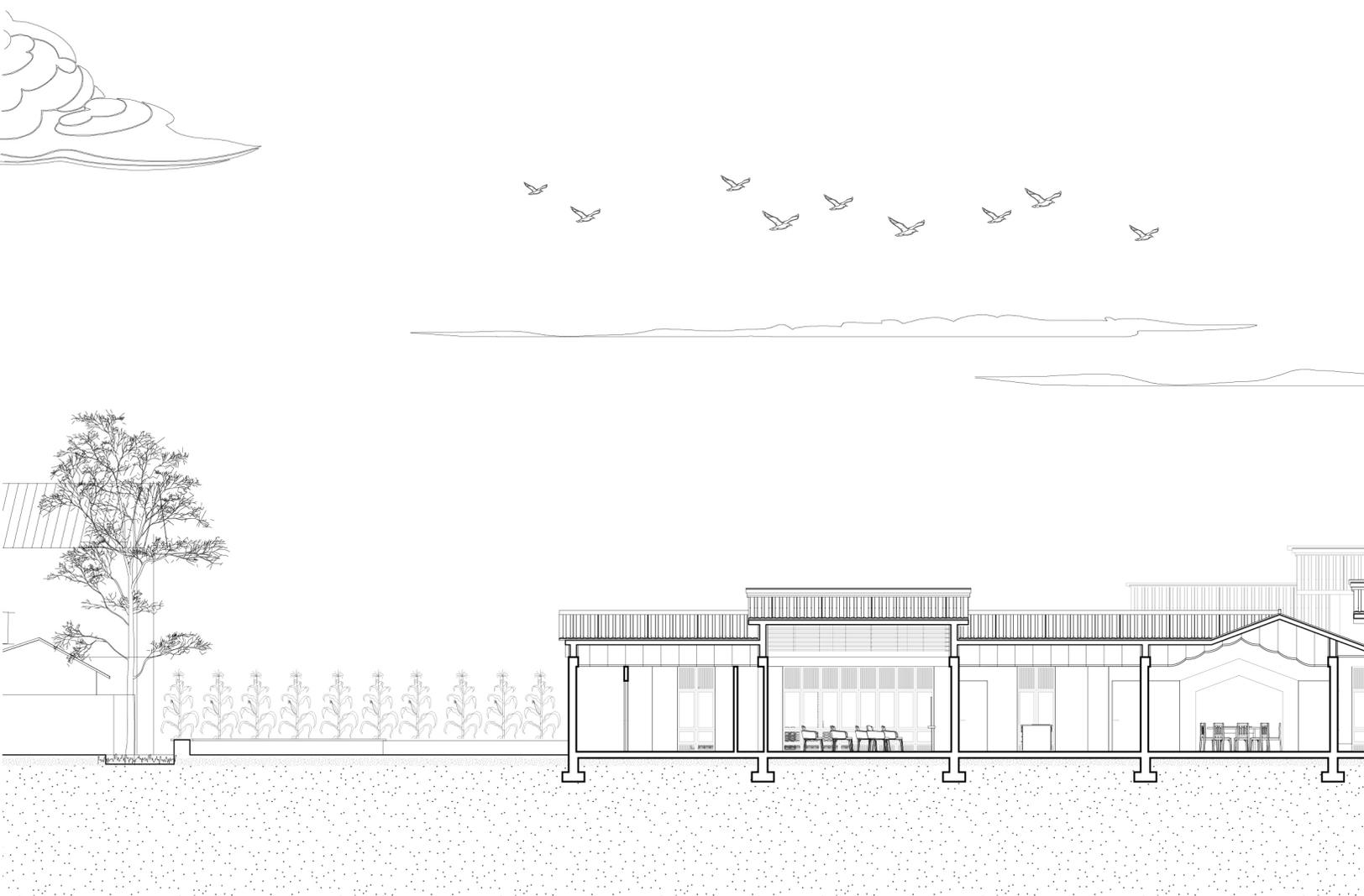
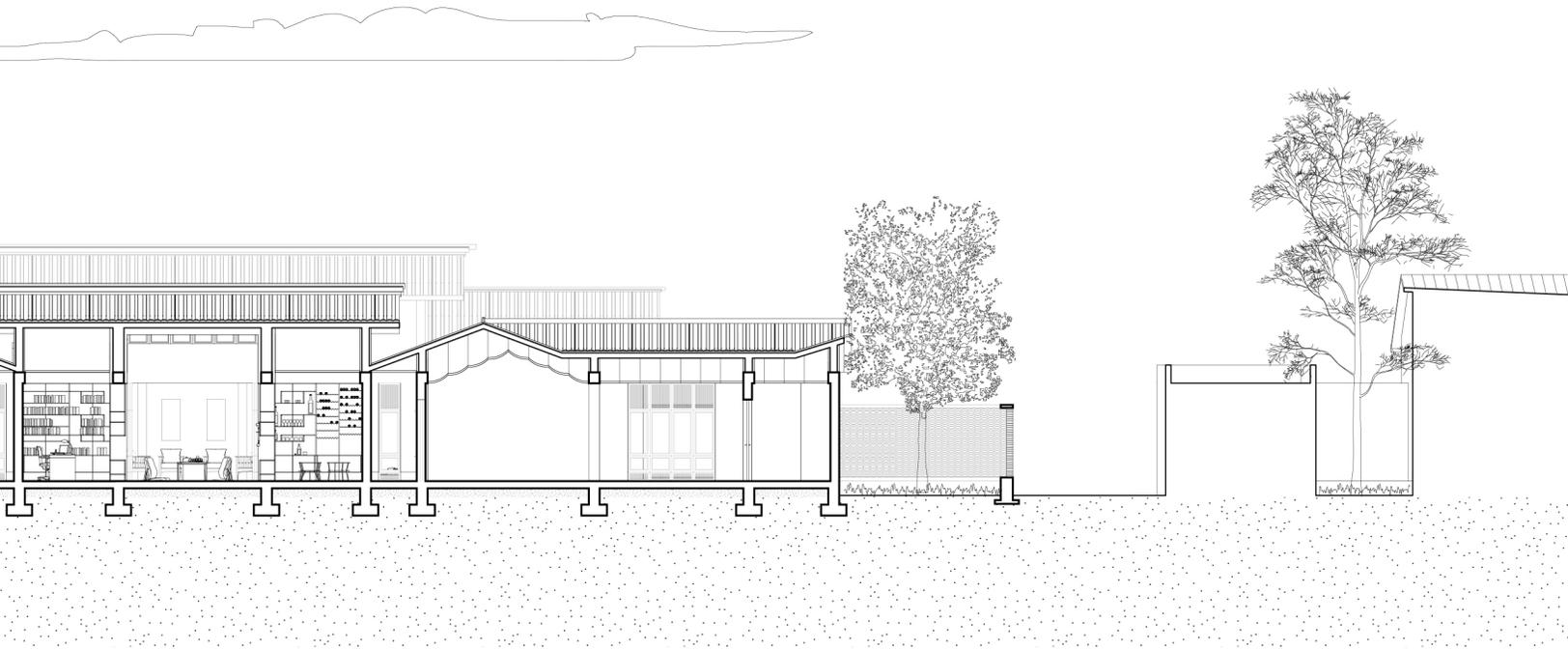
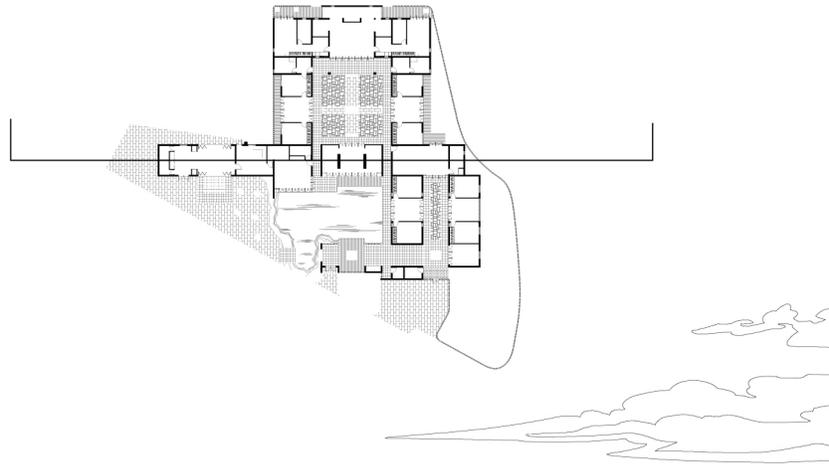


Figure 31 - New



home: section 1

APPENDIX B | 附录

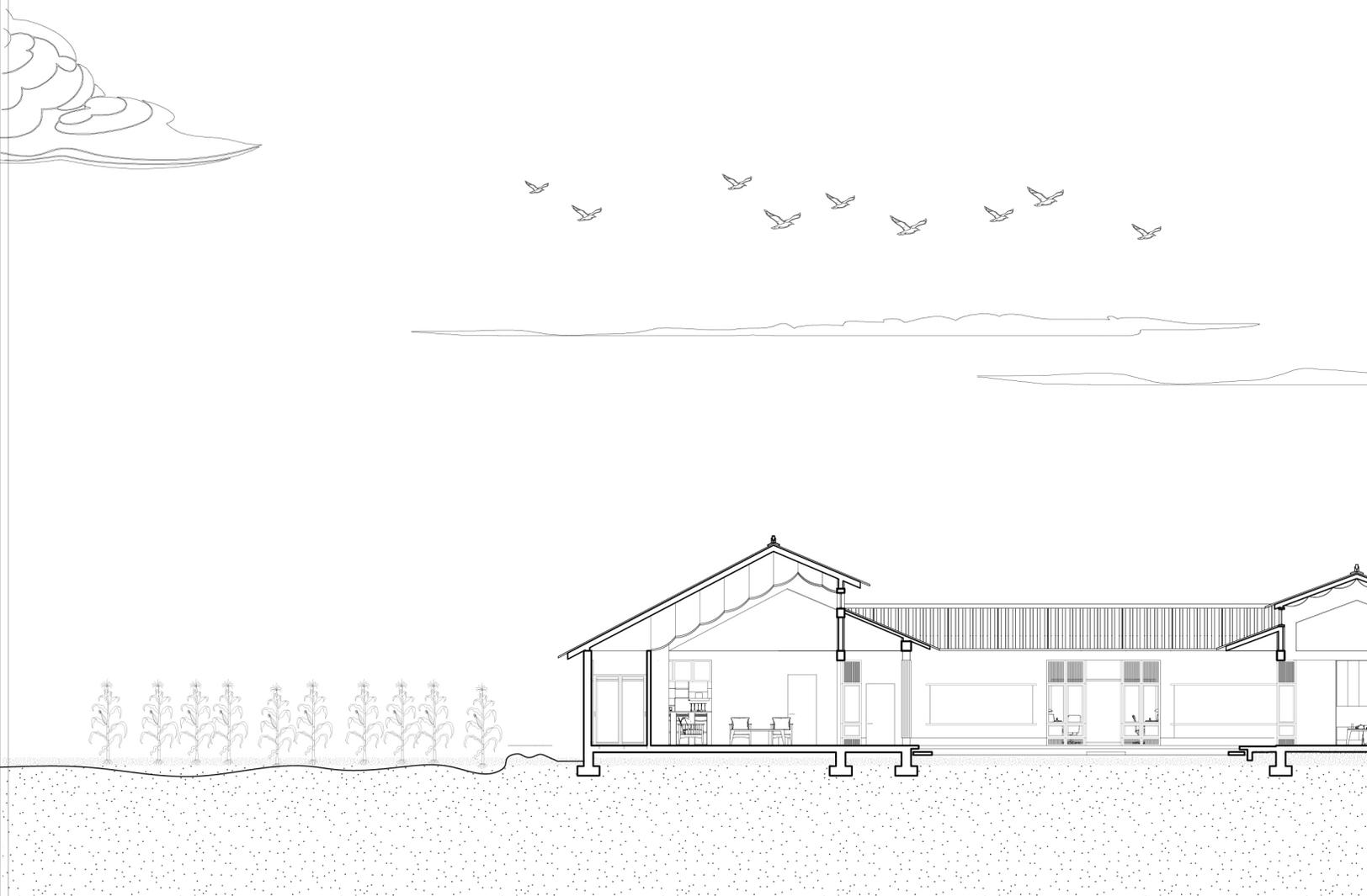
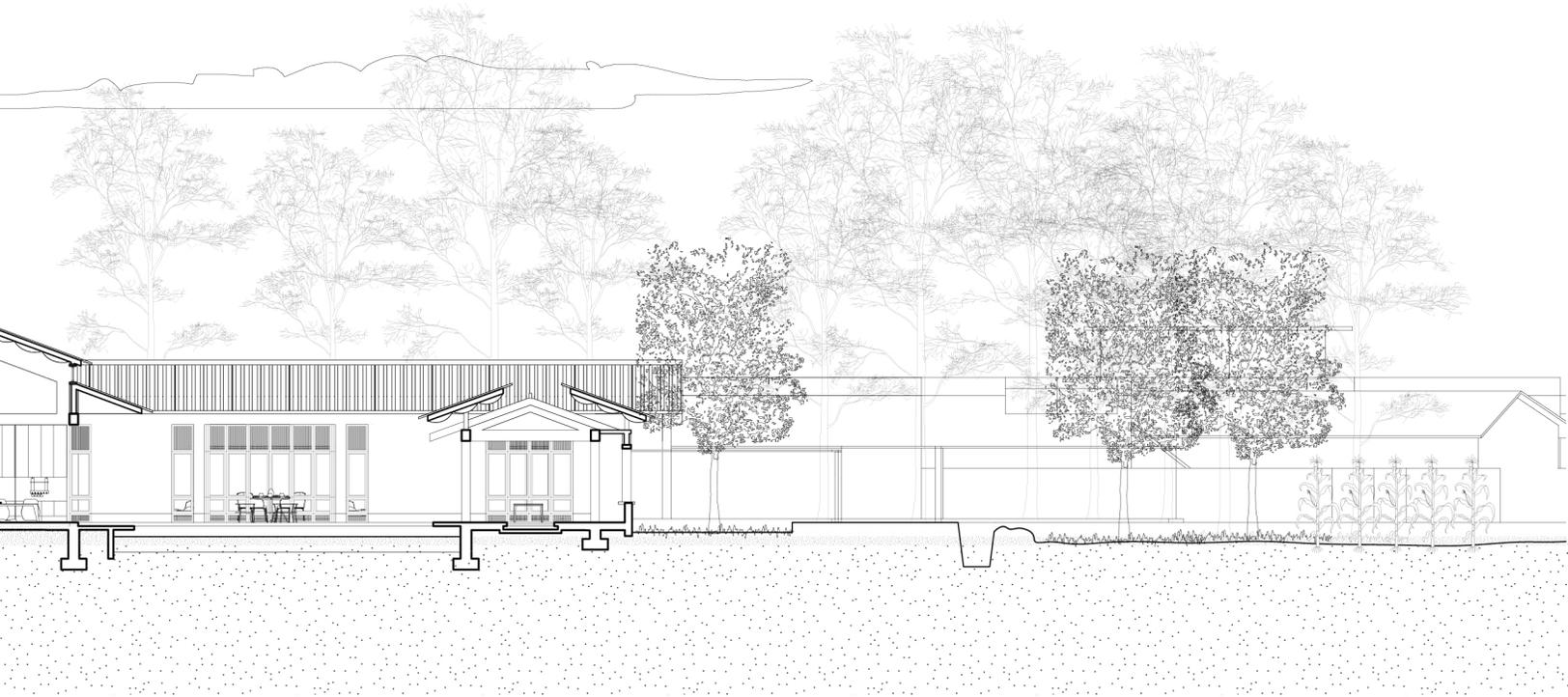
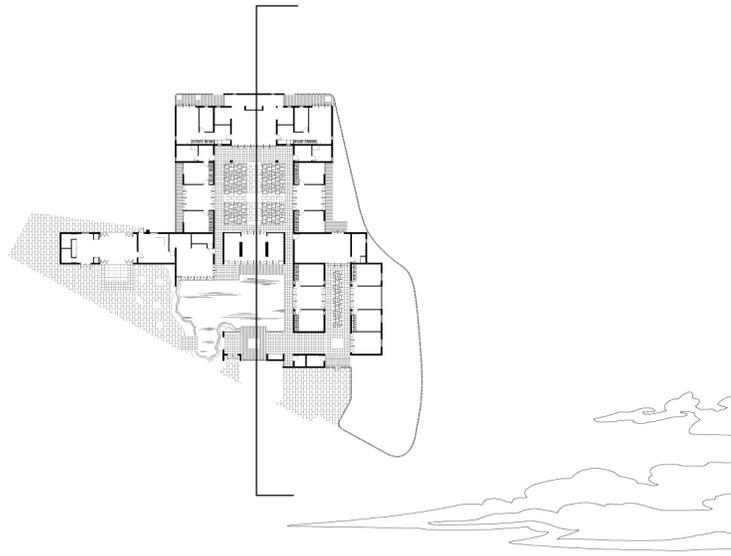


Figure 31 - New



home: section 2

