Even though they built a new house above ground, the family prefers to stay in their underground house during summer and winter. The thermal mass of dugout helps keeps it cool in summertime and warm during the cold period. This home is split: modern rooms above ground and traditional living below ground.
Content

4 Project Details

6 Summary of the Work and its Significance, Originality, and Rigour

14 Originality

18 Rigour

42 Significance

44 Dissemination and Evidence of Peer Review

53 Bibliography
Left: ‘Dwelling below, fields upstairs’ from Bernard Rudofsky’s *Architecture Without Architects*: dug-out houses near Xi’an China in the 1960’s. The dug-out houses are one of the four typologies studied as part of the research.

Right: Aerial view of a village of dug-out houses, 2018. The above ground architectural adaptations and additions to the traditional form reflect new ways of living.
Project Details

Submitting Author
Sony Devabhaktuni

Title
Renovation Toolbox: Strategies for adapting vernacular architecture in rural China

Project Dates
September 2017 - ongoing

Project Team
John C.F. Lin (Principal Investigator)
Research Assistants: Eva Herunter, Rebekka Hirschberg, Bo Yee Lau, Chengwei Xia

Output
Design Research, diverse outputs (exhibition, conference talk, magazine article, book)
An aerial view taken with a drone mounted camera of Church House, (see pp 20-23) one of five dug-out houses documented for the project. The image shows the central garden that welcomes guests in the reprogrammed tourist hotel.
Summary of the Work and its Significance, Originality, and Rigour

In rural China an informal wave of building catalysed by economic and social transformation has rendered some villages unrecognisable. This building boom has created densities more often found in urban areas. At the same time, the rapid transformation of rural villages has generated some remarkable hybrid experiments where rural builders use generic construction methods to adapt traditional vernacular typologies that have existed for hundreds of years.

Where prevalent approaches to traditional typologies in rural China call either for their preservation as heritage or for their destruction based on perceived
Above: Background research identified nine house typologies where adaptations by self-builders were prevalent. The project focuses on three of these typologies plus the Tibetan “glass houses” of Yunnan province.
obsolescence, the Vernacular Toolbox project looks closely at how self-builders transform their rural dwellings to identify innovative design responses that negotiate between traditional housing forms and the changing conditions of the rural village. The work presents these intelligent solutions after a survey of typologies from four regions of rural China.

This survey began with the observation and cataloguing of housing in villages clustered in each of the regions. From this initial survey, promising case-studies were identified and documented using photographs, axonometric drawings and interviews with the villagers living in these hybrid experiments. The research situates their self-built design solutions within the context of larger
human narratives, thereby challenging ossified understandings of vernacular architecture that treat historical and cultural tradition as static. Although there have been numerous studies of each of the specific typologies, and research more generally on rural housing in China, the work is the first to identify the adaptation of these typologies as worth of study. The significance of the work lies in this discursive re-articulation of traditional understandings of the vernacular and in its capacity to be a guide to local builders and policymakers to think differently about rural architecture and development more broadly.

The work was funded by the University Grants Committee of the Hong Kong SAR government and
has been disseminated at the Venice International Biennial as part of the Japan Pavilion exhibition ‘Architectural Ethnography’; at conferences including an interdisciplinary symposium on Vernacular Architecture organized by the Frei Universität Berlin; and in an interview about the research published in Chinese and English. A book-length work based on the research has been accepted for publication by ORO/Applied Research + Design Publishing.
An interior view of Slope House, (see pp 24-27) one of five wooden Dong houses documented for the project. The image shows the ground floor brick and concrete addition that acts as a retaining wall for the sloped site.
Above: the four distant regions with the identified case studies.
Facing page: axonometric drawings of the twenty houses.
13
Originality

The research proposes an alternative model for thinking about vernacular architecture and rural development in China. It is based on four well-known typological case studies that have all been the subject of extensive research on their respective vernacular traditions: from construction techniques, to cultural identity and environmental responsiveness.

The research takes a different approach to these cases arguing that they need not be considered not only for their relation to the past, but also in terms of how inhabitants use and adapt them today. These adaptations are all the more prevalent in recent decades due to the rapid transformation of the countryside.
While there is a strong contemporary interest in building in rural China, much design work uses traditional vernacular architecture as inspiration for new constructions, or proposes contemporary interventions into traditional fabric. These approaches to rural architecture coexist with a more general trend toward either the restoration or razing of traditional dwellings.

In distinction to these trends, the research proposes that through an understanding of changes made by inhabitants themselves it is possible to articulate alternative approaches to rural development both in terms of policy and design.
Research Questions

• How do inhabitants of rural dwellings adapt their homes for changes in contemporary living?
• How are these adaptations responsive to the rich vernacular traditions represented by the dwellings that they alter?
• Through documentation comprising both traditional forms of architectural representation and narrative interviews, is it possible to construct an understanding of how these alterations respond to societal changes in rural China?
• Through this understanding, is it possible to guide designers and policy makers in developing models for rural development that values adaptation?
An aerial view taken with a drone mounted camera of Plug In House, (see pp 28-31) one of five collective *tulou* dwellings documented for the project. The image shows how families plug in additional volumes into their section of the collective *tulou* to accommodate new ways of living.
The ongoing research of adaptations to vernacular house typologies is carried out through the documentation of case-studies in four regions in China. These regions are diverse climatically, culturally and in their distance to urban centres; the case-study typologies themselves reflect this diversity.

For each typology, approximately 30 individual houses were photographed and catalogued. Of these initial houses, five for each typological case-study (a total of 20 houses) were drawn in axonometric projection and surveyed to prepare plan drawings. Interviews conducted with the homeowners dealt with the history of the family, of their relation to the village, their contemporary
situation and adaptations made to the house.

The axonometric drawing of each house is named and described in order to identify the strategy of the local builder. The axonometric is used to provide an objective representation of the dwelling; details, materiality and hierarchies are used to narrate the relation between the traditional typology and the adaptation.

Plan drawings provide additional information about how the contemporary adaptation transforms interior space. Interviews are transcribed, translated and edited into first-person accounts of the family’s relation to the dwelling, both in terms of the specific adaptations they have made and the larger changes that have transformed their relation to village life.
CHURCH HOUSE.
QU VILLAGE, SHANXI PROVINCE

After renovation, this family established a chapel in one of the central rooms of their underground house. A cross projects from the ground marking the small, hidden church. As fewer dugouts are being used for residential purposes, this house proposes on a new communal program that takes advantage of the privacy offered by the sunken courtyard.
Programmatic adaptation was prevalent in the dug-out houses of Shanxi province. Government subsidies encouraging residents to transform once abandoned houses into restaurants or hostels followed the listing of dug-out houses as UNESCO World Heritage sites. Programmatic adaptation often led to the introduction of comforts that were previously unknown, including ventilation, piped water, heating and toilets. This example comprises an exemplary mixture of programs, bringing together tourists visiting from urban areas and members of local community for weekly religious services which are tolerated by authorities.

Also, as part of the renovation, we added ventilation pipes. The traditional courtyard rooms weren’t ventilated properly. We used a tool called “Luoyang Chan” to dig a hole on the level above to pass the pipe in. Whenever the door opens, it ventilates.

A long time ago, all the courtyards were constructed by the family members themselves. Sometimes it also involved neighbours’ help, and you return the favour when the neighbours dig out their courtyards. People would first dig out the square shaped main YaoDong and move in.

There’s one characteristic of Yaodong that you need to be aware of: when the rooms and the courtyard are occupied daily by the residents, it remains in its state almost effortlessly. When it’s not occupied and left empty, it decays very fast.

We designed the renovations ourselves, but we hired people for construction. We couldn’t do it ourselves as it requires professional skills. But the government encouraged every family in the village to initiate renovations to their courtyards. This was after the World Heritage listing. The first batch of renovating families received 28,000 Yuan. Quite a few families didn’t participate in that first batch since the subsidy wouldn’t cover the renovation cost completely. Our family was one of the second batch when the government subsidy was raised to 42,000 Yuan. The total cost of the renovation was over 200,000 Yuan.

After the renovations, the families were encouraged by the government to use the courtyards as accommodations or restaurants for the tourists. Among the 115 renovated courtyards, 10 became places for tourism related services. However, half of them are already shut down because of poor income. We are one of five still providing accommodations for the tourists.
Facing page: Google earth images of surveyed Dong villages, all within the same river valley.

Above: Schematic drawing showing new generic constructions in traditional Dong village.
In the Slope House, the family erected a new concrete volume that encircles the house without touching it. This ring of space contains a kitchen and bathroom while retaining the slope at the back of the house and providing two generous terraces to its front. The interior levels of the new addition are aligned with those of the original house, maintaining views in both directions of the valley. A house for service encases a house for living.
The wooden houses of the Dong and Miao peoples in the valleys and hills of south central China comprise a rich tradition of building in wood. The tectonic adaptations that take place when families expand their homes comprise concrete frame and brick infill assemblages grafted onto original wooden structures, often leading to innovative negotiations between the two building systems. The Slope House uses the addition to resolve two issues common to Dong houses: the instability of the slope and a desire to move kitchens and toilets outside of the wooden home. As more and more families adapt their homes, carpenters with inherited knowledge are developing new sets of skills that make possible the material negotiation.

The timber and the salary for workers get more expensive. That's why many people are now building brick houses. The cost of a brick house is lower. For timber houses, the timber structure is not that expensive, but the restoration and decoration cost much. It will also take longer time to build.

The timber house is not resistant for fire and floods. It is also difficult for installing electricity and sound insulation. The brick and concrete house can provide better facilities. When you build in this way, it looks like a timber house from the outside. In this way we can preserve the ethnic culture and style.

Nowadays, whether to conduct the rituals or not does not matter that much. We don't believe in those superstitions any more. We can still do that since some people in the countryside still haven't changed those old beliefs. This is for the sense of security. For the rituals, they need to (把脉) ba mai. When erecting the frames, there is also some ritual for the sense of security. Nowadays, we have scaffoldings with steel frames and other equipment for security. [...] While erecting the frame, we need to kill a chicken and get the water. Why killing a chicken? This is because the blood from killing the chicken can dispel the evil spirits. [...] For us, our own house is a sacred place. We hope it can be very clean. Therefore we use chicken blood to dispel evil things so that the house can become a peaceful place. Then the descendants can also thrive.
Facing page: Google earth images of surveyed villages.
Above: Schematic drawing showing several tulou grouped together with newer constructions filling the space between them.
The co-owner’s varying fortunes made it possible for only one family to extend their unit. They wanted to remain part of the traditional collective structure while also having a bigger, modern house. Their generic concrete village house is four stories high, plugged into and growing out of the traditional *tulou*. 
**Tulou** are found in Fujian province near Xiamen in south-eastern China and were originally designed to house up to 20 related families in one structure. Each family occupied a vertical slice of the *tulou* with cooking taking place in the courtyard. With their massive earthen walls and introverted character, *tulou* originally served as defensive dwellings. Today adaptations in collectivity find families conceiving new ways to continue living together while transforming their homes to accommodate for contemporary desires. The Plug-In House is typical of adaptations that open the *tulou* outwards, while providing additional living space. This radical re-articulation of the *tulou*’s very nature could be understood as a deformation of the typology or as an evolution into a new model for collective living.

*Here the area used to be filled with tulou, but no one lives in them anymore. It is a pity how they are all vacant now. So we decided to stay and build the additional structure. There are three families living in this tulou. The other two families began their renovations a few years after us.*

*All the rooms are very messy. I put everything in the rooms, including logs and what not. It is not as neat and clear as the city-side. There is no such thing like bedroom, living room, sitting room. When we first lived here there was electricity but only on the outside of the tulou; now it comes inside too. The kitchen is inside also.*

*For growing things, I have a small vegetable garden that is for us. And then by the bridge, there is a small store. It is not quite new, but it sells cigarettes and alcohol and groceries like salt, sugar and soy sauce. Things like that. It is near the new village which was built on farmland around seven to ten years ago.*

*I am sixty-seven years old and my husband is seventy something. I grew up in Fuzhou (福州), and my husband grew up here. His parents moved here when he was young and bought this land. He grew up in this tulou. Later I moved in. His parents lived in a circular tulou (Yuan Lou 圓樓) in the village. Later, he moved to this rectangular tulou (Fang Lou 方樓) because there wasn’t enough space for the three brothers to live all together, so I decided to buy my own land and live here. Before my sons and grandchildren all grew up here. They are teenagers now, my grandchildren. But they grew up here. Their parents had to work, so they were unable to take care of them. And they could go to the elementary and high schools that are here. But in the end, they had rather poor grades. Now that they are going to school in the city, they are ranked in the top ten. Schools are better in the city.*
Facing page: Google earth images showing surveyed area which includes the city of Shangri-la (Xianggelila) and its surroundings.

Above: Schematic drawing showing the diverse disposition of “glass houses” used to enclose courtyards of traditional dwellings.
HALF AND HALF HOUSE.
SHANGRIILA (XIANGGELILA), YUNNAN PROVINCE

The owners moved their traditional house from another village to the current site. On the new site, they only reassembled half of the original mud and wood house, while completing the remainder in glass and steel. Slender columns support a transparent box that comprises half of the first floor. The glass volume lets in the strong winter sun, heating the interior space and insulating the other half of the house. In the summer, the glass panels open allowing for ventilation. By combining half a traditional and half a modern house, the owners create a new environmental prototype.
The extreme climate of Shangrila, situated within the Diqing Tibetan Autonomous Prefecture, has led residents to transform their earthen and wood structures using readily available glass and steel technology. The proliferation of ‘glass house’ additions to the original structure, comprising the enclosure of once exterior courtyards has made these spaces, previously used to house animals, wood and farming equipment, a new kind of domestic interior that is able to be lived in throughout the year. This climatic adaptation represents both a response to new ways of living and the availability and proliferation of new building technologies within the provincial region.

Before the upper floor was for storage of fodder for the cows, and people lived on the middle floor. The lower floor was for the livestock. Now it is more comfortable. Everything is different. The storage is all outside and the house is only for living.

We moved the wood from the previous home up on the mountain. It was four columns (deep) before but after we moved them here and rebuilt the new one, we used only three. [...] We were not able to move the mud wall so we had to rebuild it. We didn’t build the mud wall in the front.

The facade of the house should face to south. And the main gate should face to west or south side. They can not be the east or north side. The main door and the inner doors should not align with each other. They should be a little off and shift.

We don’t care about eating, but we care about clothing and housing. We emphasize most on houses. Our life goal is to build a house like palace. If can’t, we want to build a comfortable house. We have to die in a good house. This is the Tibetan understanding of life. The Han people cannot have simple food, but we eat really simple.
Case-studies were also drawn in plan, where possible including furniture and objects belonging to residents.

Above and facing page: a selection of plans of the twenty houses.
Key Design Methods

- Field-work in four regions in China where the identified case-study typologies are prevalent and the identification and photographic documentation of examples of adapted houses for further study.
- Documentation of adapted houses through axonometric projection that brings forward details, materiality and hierarchies to narrate a relation between vernacular tradition and contemporary adaptation.
- Survey adapted houses in order to construct plans that show the internal spatial impact of the adaptations.
- Interview house residents to understand the history of adaptations and the changes in household and village life that informs this history.

List of interviews

underground house
01 Qu Village, Li YanHua, Street-front House Resident 1, 2018/06/03
02 Qu Village, Street-front House Resident 2, 2018/06/04
03 Qu Village, Church House Resident 1, 2018/06/03

wooden house
01 Zhaitou Village, Wu Huanying 2018/07/19
02 Gaoyin Village, Wu Bangyao, 2018/07/20
03 Zhaitou Village, Half-buried House Resident 1, 2017/11/20
04 Gaojin Village, Yang Yingqi, 2018/07/18
05 Gaojin Village, Yang Zairen, 2018/07/19
06 Gaojin Village, Yang Zaiwei, 2018/07/20
07 Gaojin Village, Yang Zaiwei (son), Yang Yinggang (father), 2018/07/20
08 Gaojin Village, Driver Chen 2018/07/20

collective house
01 the doctor’s wife Su Yufen 2018/06/15
02 Li Yunlan 2018/06/14
03 Taillian Village You Tianlong 2018/06/15

seasonal house
01 Songstam, double glass house Resident, 2018/11
03 Songstam Village, half and half house resident, 2018/11
04 Dukezong, one roof two houses, 2018/11
05 Songstam, roof guest house, 2018/11
06 Songstam, house with concrete foundation and glass storage room, 2018/11
07 Songstam, house with facade, box, motif, 2018/11
08 Zuogua, house with four glass boxes, 2018/11
09 Songstam, large glass box, 2018/11
10 Dukezong, house with round and straight roof, 2018/11
11 Zuogua, house in house, 2018/11
Renovation Toolbox: Strategies for adapting vernacular architecture in rural China
Sample Questionnaire:

A. PERSONAL
1. Name 姓名:
2. Age 年龄:
3. Family members 家庭成员:
4. Family tree (diagram) 家谱（图表）

B. ECONOMY
1. What are your sources of income? 您的收入来源是什么?
2. Does any family member work in the nearest city, outside the province or in another country? 您有家庭成员在最近的城市、外省或者外国工作吗?
3. If yes, how do these family members contribute to the household? 若有，这些家庭成员怎么给家里做贡献?
4. If yes, how do these family members maintain contact with the household? 若有，这些家庭成员怎么跟家里保持联系?

D. HISTORY OF THE HOUSE
1. How long have you been living in this house? 您在这座房子里住了多久了?
2. How has it changed over the years? 这些年来，它发生了怎样的改变?
3. What is your future plan for your house? 您的房子的未来计划是什么?

F. HISTORY OF THE FAMILY
1. Who have you been living here with? 您和谁一起住过这里?
2. How and why has it changed since you moved into the house? 自从您搬来这座房子，它发生了怎样的变化？为什么会有这些变化?
3. How have the needs of your family changed over the years? 这些年来，您家庭的需要发生了怎样的变化?
4. How has it influenced the size of your house? 它对您房子的大小产生了怎样的影响?
5. How has it influenced the usage of your house? 它对您房子的使用状况产生了怎样的影响?
6. What are your needs today? Does your house fulfill them? 您今天的需要是什么？您的房子满足这些需要吗?

G. LARGER COMMUNITY AND TRANSFORMATION
1. How long have you been living in this village? What do you like about living here? 您在这个村里住了多久了？您喜欢住在这里的哪些方面?
2. What have been the significant changes to the area in terms of infrastructure or new buildings? 这个区域在基础设施和新的建设方面发生的重要变化是什么?
3. What are the new businesses starting in the area? 这个区域有新的商业产生吗?
4. Have new people migrated to the area – if so where have they come from? Which area do they settle? 有新的人移居到这里吗？——如有，他们是从哪里来的？他们定居在哪里?
5. How have new government development policies affected the area? 新政策对这个区域有怎样的影响?
6. What do you think about the changes happening in the village? 您对于这些发生在村里变化有什么看法?
7. What do you think about the changes happening in China? 您对于发生在中国的变化有什么看法?

The sample questionnaire for the interviews with the house owners in English and Chinese.
Interview with Yang Yunfan, the owner

November 20, 2017
Zhaitou Village, Maogong County, Guizhou

I farm with my husband. We plant rice, raise pigs, chickens and ducks. Before we had more than a hundred ducks. But then, the ducks died. Now only 20 of them remain.

I have been living in the house for 25 years, since I got married. I was 21 when I got married. But I was also born here in the village. Only at 21, we married. My husband is from another clan.

Before my husbands’ parents had an old house here. But it was taken apart long ago. They had four sons—my husband’s parents. They built this house for the eldest son and youngest son, my husband. They built another house for the middle sons. But before the second house, there was a time when all four brothers lived in this house. Two upstairs, two downstairs. It was crowded. But then, the second house was finished, and the middle brothers moved away. The oldest bought their rooms. Later, the oldest also moved out and we bought his rooms. It was then that my husband and I owned the whole house. In the end it was good, because we ourselves had three children. We needed all the space. Before, for some time, we were working in Shantou. I was working in a clothing factory and my husband in a bag factory. My husband’s parents looked after our three boys. But then my husband returned here to the village when his father, my father in law, was sick and could no longer work the fields. Three years ago, the old man died. I stayed in Shantou working in the factory for two more years while my husband farmed my father-in-law’s field. We needed the money to pay for the helpers to build a concrete granary. So, I stayed there.

That granary is one of the changes we made. But of course, the house has changed quite a bit. We made it bigger. We added the three-bay space at the back, the basement and also, as I said, the granary. The kitchen, we built ten years ago. Before there were two kitchens, when we shared the house. Our kitchen was at the side and my husband’s brother’s was at the back of the house. But anyway, both kitchens were attached to the house and we closed them with metal sheets. Then, as I said, my husband’s brother built a new house and moved. It was then that we took apart the old, attached kitchens. This made it possible to extend the house for a new kitchen and storage.

We built the shower room six or seven years ago, together with the granary. But still there is no water heater in the shower room. Before, we were washing in that dug-out space in the summer and then, in the winter, in the small yard. The toilet is outside of the house, on the hillside near the road.

Before we moved to Shantou, we did not have a gate. I was worried about safety when my husband left the village to work there. I thought it would be safer with a gate.

The basement we made three years ago. It took us a whole year. It was laborious. We excavated the earth with hoes and moved it out on our shoulders and then piled it here. Look, the ground in front of the backdoor was lower before, just like the other ground. Now it has been raised. We built the concrete and brick walls too. Before it was enclosed with iron sheets, like this. But it was not safe and needed to be changed annually.

Before there was a fire-place in the ground, and then we replaced it with the stove. It was a fire-place of yellow mud. It was enclosed with the iron sheets, like the old kitchens.

The granary was six to seven years ago. Since we were many people then—my husband and the three boys and me—we wanted to build a stove here on the ground floor and make a kitchen. But the work is not finished. Now, the room is used as storage. Before we were using the big granary on the outskirts of the village. That granary is public. It is shared by tens of families, each family having a small unit.

Here we have the custom of helping each other build houses. When building the
granary, there were people helping us. Two of them fell down and injured their ankles. They asked us for compensation. Because of this, my eldest son dropped out of school and went working, even though he was doing well in his studies. They asked us for a lot of money. We sent them to the hospital. The doctors said that they were fine. But still they said that they did not recover and asked for a lot of money.

My eldest son told me, “Mom, I don’t want to go to school anymore. I want to work and learn how to work.” His teacher called me on phone to ask about the situation. I told the teacher: “It is not that I do not want my kid to go to school. Such things happened to my family and my son is sympathetic toward his dad and mom. So, he decided to quit school and start working.”

Now my oldest son and my second son work as house decorators in Guangzhou. He sometimes sends money back. He will send one or two thousand yuan during the busy times: for example, during the rice harvest. The second one sends one or two thousand. But he is also busy learning. He is learning computer. But the fee of the program is 5,000RMB. Since we don’t have money to send to him, he attends the program with his own savings.

Sometimes when the work in the fields gets busy—for example the rice harvest—he will send one or two thousand to mom and dad to buy meat and oil. It is only recently that he left home along with my third son. He started working a few months earlier than the third. My third son is working in an electronics factory in Shenzhen. But it has only been several months. He is still asking me for money to pay the train tickets.

Sometimes we call on the telephone. No, wechat I don’t know how to use.

We don’t have money to renovate the house anymore. We don’t have money to build a new house in the fields near the main road. I don’t think we are capable of it now anyway. Others, they have built new homes in the fields near the road. They have moved down from the hillside. There are new houses everywhere now. It has grown. Some others bought new houses in the town. We were not able to do that and can only live on the hill.

But, I like living on the hillside. It is close to our fields: to go to do farming or for planting vegetables, it is easy. I cook breakfast after getting up in the morning, and then cook food for pigs and then feed them. After that, I cook lunch and eat lunch. After a break, I go to the hill to our fields to do farming. At around five to six pm, I go back home and cook dinner. I watch television in the evening and go to bed after 9 pm.

For fuel we burn firewood. We don’t have a water system for the village. We get our water from a pump-well and then it is filtered. They have been talking about installing tap water since the year when my father-in-law died, and they have registered us and other families. They said they will send cement and sand for the construction of the ditch. The ditch was dug, but no cement or sand arrived.

When it rains, the water runs into the house through the ditch. Now they are installing internet wires near the main road: maybe for the businesses. They are doing “rural taobao”. It started this year. I don’t know much about it.

Maogong county government assigned a few people to stay in Zhaitou to watch over the area. They inspect issues such as the waste and the environment. I would prefer that there were no government policies. It is not so fair. The government has released poverty relief funding. Some families with pigs, chickens, ducks and oil got the funding. Some families who got funding have a car. Some have only one kid. We have three kids, and we do not have many fields. Only my husband and I have fields. The kids do not have fields. But we still do not qualify for the poverty relief funding. We won’t have enough food unless the kids work outside. The rice we harvest in a year is not enough. It will be finished in two or three months and then we need to buy rice. We are still contributing to the pension fund. It will be returned in our sixties.

But anyway, our place can never change. We are still farming. We will stay here for our lives.
Significance

The significance of the project lies in its potential to change thinking about vernacular dwelling and rural development in China, whether through design interventions or policy recommendations. Within architectural design, the project drawings, early versions of which were displayed in the Japan Pavilion of the 2018 Venice Biennial, have begun to generate a new understanding of the value of looking at the adaptations made to rural architecture and a re-examination of vernacular typologies that were thought to be well understood.

The project’s dissemination in interdisciplinary academic forums concerned with traditional dwelling and the vernacular more generally, has shown
how an architectural approach based on close observation can move beyond an object-oriented understanding toward a more complex narrative that links social and cultural transformation with material, tectonic and spatial changes.

Finally, the longer-term significance of the research is potentially to change how rural development is carried out both by individual architects and planners and through policy-making. If adaptations to traditional dwellings can be valued and nurtured in ways that allow them to perform in environmentally, socially and culturally sustainable ways, the rural countryside in China could avoid its current path toward either of two futures: restoration and commodification through tourism or effacement and banalisation through generic construction.
Dissemination and Evidence of Peer Review

Supported by a grant from the General Research Fund of the University Grants Committee of the Hong Kong SAR government, the research is currently outlining findings and working toward dissemination.

An early set of drawings comprising documentation of the four case studies was presented in the exhibition *Architectural Ethnography* at the Japan Pavilion of the 2018 Venice Biennial of Architecture. Curated by a team from the Swiss Federal Institute of Technology Zurich (ETHZ) that included Momoyo Kaijima of the Japanese architectural practice Atelier Bow-Wow, the exhibition comprised 42 innovative architectural drawing-projects from recognized
practices and academic research groups throughout the world. The drawings were chosen based on their capacity to use architectural representation to foreground issues typically outside of normative architectural concerns. Ten drawings from *Vernacular Toolbox* were included in the exhibition with the addition of a short text published in the accompanying catalogue. The exhibition also made available a pamphlet of material from the research that included drawings, photographs and a narrative interview. In her introduction to the catalogue for *Architectural Ethnography*, Kaijima writes that the *Vernacular Toolbox* “focuses on the ways buildings are transformed through adaptation or reconstruction, and uses this as a device for describing architecture’s wider
47

Draft layout for "As Found Houses. 20 Stories from Rural China" in Architectural Practice (Shanghai), August 30, 2019, ISSN 2096-6458.
relations to external social and economic growth...” and continues that the drawings “show how the changing states of architecture can serve as an index for the observation of life.” Case studies from Dong villages in south central China were also presented in April 2019 at the conference ‘Vernacular Architecture as frame of life in historic and ancient communities’ held at the Free University/Berlin in April 2019; the conference was an opportunity to present, in-depth, one of the case-studies of the research and to discuss the work in an interdisciplinary context bringing design disciplines together with researchers from the social sciences, arts and humanities.

In September of 2019, an interview with the project’s principal investigator John Lin and the submitting author will be published in the Chinese and
English language architecture review, *Architectural Practice*, published from Shanghai. The interview provides an opportunity to disseminate the research to a wider general audience and to have an influence within the design community in China.

Finally, a contract for a book length publication based on the work has been signed with the peer-reviewed imprint of Oro Editions, Applied Research + Design Publishing. The book is scheduled for release in September 2020.
Publishing Agreement

This Agreement is made as of May 16, 2019 (“Effective Date”) between

John Lin and Sony Devabhaktuni (“Author”) located at The Department of Architecture, The University of Hong Kong, Knowles Building, 4/F, 414 Pokfulam Road, Hong Kong

and

ORO Group Ltd.’s imprint Applied Research and Design Publishing (“Publisher”), represented by Gordon Goff, located at 31 Commercial Blvd, Novato, CA 94949

For the publication of a work (the “Work”) tentatively entitled:

- As Found Houses (working title only)
- Trim size: 5.8” x 8.3” (Portrait) or 7” x 10” (Portrait)
- Extent: 200pp text + cover
- Illustrations: Throughout

Grant of Rights

1.1 Conditional upon Publisher fulfilling and continuing to fulfill its obligations hereunder, the Author grants to the Publisher the exclusive right to print, publish, advertise, promote, distribute (with full rights to sub-distribute), and sell the Work in book form throughout the world (the “Territory”) during the Term (outlined in 7.1). The Author grants to the Publisher the right to use the Author’s name, likeness, and biographical data in connection with the Work and the marketing and promotion of the Work with the written consent of the Author. Publisher’s use of the Work or components thereof is restricted solely to the rights set forth in the Agreement.

Representations and Warranties

2.1 The Author warrants that, to its knowledge, the Author is the sole proprietor of the Materials and/or has the right to use the Materials for the purpose of this agreement; that the materials contain no matter that is libelous, an invasion of privacy, or otherwise unlawful; that the Materials do not infringe on any copyright or proprietary right of any third party in the United States, and may be published or otherwise exploited as contemplated herein without violating the rights of any party in the United States.

2.2 Author will obtain and furnish to Publisher written permissions for all copyrighted material contained in the Work, and appropriate consents when necessary regarding privacy, confidential information and other related matters. The Publisher will provide “Grant of Rights” forms as needed.

2.3 The Author agrees to indemnify the Publisher against any legally enforceable claims, damages, and expenses arising from a breach of the foregoing warranties or the breach of any other provision of this Agreement, so long as Publisher/Designer has not contributed to or caused such breach. Publisher agrees to indemnify the Author against any claims, damages, and expenses
Related publications:


Conference talk by submitting author:

“Contemporary Transformations of Dong Houses in Rural China”, Vernacular Architecture as frame of life in historic and ancient communities, Freie Universität, Berlin, Germany, April 2019.

Funding Bodies:

Co-investigator for grant from the General Research Fund of the University Grants Committee, Government of Hong Kong SAR, September 2017 - August 2019.
Bibliography:


An interior view of Half and Half House, (see pp 32-35) one of five Tibetan houses documented for the project. The image shows the new glass addition that has been grafted to the original earthen wall structure providing a new spatial quality to the previously introverted dwellings.
Content:
© Sony Devabhaktuni
Graphic Design:
Milkxhake
The Department of Architecture educates students in an active culture of service, scholarship and invention. Uniquely situated at the crossroads of China and global influence, the Department takes the approach that design is best explored from a sophisticated understanding of both. With a multidisciplinary curriculum emphasizing technology, history and culture, students gain broad knowledge and skills in the management of the environmental, social, and aesthetic challenges of contemporary architectural practice. With opportunities for design workshops, international exchanges, and study travel, graduates of the Department of Architecture are well prepared for contribution to both international and local communities of architects and designers.