

## **Ringa Mountain Farm, Shangri-la,**

### **Project Description**

- Objective: Seeking assistance or partnership with an experienced Rammed Earth builder or Engineer experienced in RE construction to help with training village community in stabilised and insulated rammed earth.
- Project Time Period: Between March 2012-June 2012
- Project Location: Hongpo Village, Jiantang Zheng, Shangrila County, Diqing Tibetan Prefecture, Yunnan Province 674400 China
- Architects: Architects Rudanko + Kankkunen Ltd, Helsinki, Finland
- Project Managers: Lobsang Geleg (Venerable)  
Yeshe Gyetsa (Mr)
- More Details: [www.ringafarm.shutterfly.com](http://www.ringafarm.shutterfly.com) (Photo, Video sharing site)
- Contact Person: Yeshe Gyetsa (Mr.) Email: [gangkarling@yahoo.com](mailto:gangkarling@yahoo.com)  
Telephone: +41 793629853 (CH)

### **Background on Ringa Village**

Ringa Valley, is a beautiful rural area of Dechen Tibetan Autonomous Prefecture in Yunnan, about 20 km to the east of the Prefecture's capital, Zhongdian, renamed "Shangri-la" in December 2002.

The valley is surrounded by sacred mountains each shrouded with history and lore, and are considered powerful protectors (shidag) of the community, their way of life. Chief among them is the sacred Ringa mountain whose attributes were so great that a Buddhist sage of more than a thousand years sanctified it and chose it as the site for the sacred Ringa Temple (Buddha of the Five Directions). To this day, the belief goes, a pilgrimage to Lhasa cannot be complete without first visiting Ringa which is holds the "key" to the holy cathedral of Jokhang in Lhasa. A deep reverence for the sacred and the mundane coexist side by side among Ringa's people.

The physical remoteness of the valley and the people's focus on subsistence with nature may have enforced a closely knit community absorbed in tradition, religion and heritage. The valley consists of six hamlets (namely: Dhara, Dzomogu, Genong, Lengdho, Serya and Kogu) spread out almost symmetrically like a Mandala around the valley, with about 150 households who lead a life of highland-farming combined with livestock herding. Highland crops barley, buckwheat, potatoes and yams make up the main crops which are mainly for self-consumption, while the revered Yak is a source of warmth, dairy and labour. A few new cash crops including rapeseed are now cultivated but the essential lifestyle is of subsistence.

Since the early 1990's, lumber, matsutake mushrooms, caterpillar fungus all of which grow naturally and in abundance in the highlands, have become the main cash generator for the rural families. More recently, since the renaming of Gyalthang to Shangri-la, tourism has slowly made inroads into the Ringa economy. Given the locals' education and skill levels, the only tourism opportunities open to them at this point are as trail guides and pony ride wranglers.

### **Project Summary**

The Ringa Mountain Farm (RMF) project proposes to create an eco farm in an idyllic location in Ringa to help spur its economy in a new and sustainable direction. The project will draw heavily from its unique highland rural culture and lifestyle and will target international visitors and expatriates in China who seek authentic Tibet experiences.

Nestling on an secluded meadow in the backdrop of an idyllic mountain village endowed with mountains, rivers, rich flora and fauna, and an equally rich Buddhist history and lore, the facility proposes to become a model of sustainable tourism practice in rural mountainous regions.

By providing food and lodging, culture and an endless variety of outdoor activities to small and select visitor groups such as families, friends, colleagues or special interest groups (not exceeding 20 persons), RMF seeks a gradual shift for the village community, from an environment and resource-based existence to one that is

more tourism and service-oriented. This approach not only helps protect the forests resources, but also elevates the role of rural mountain culture and mountain habitat as a conservatory for income generation and sustainable livelihoods. By building on the cultural heritage and indigenous knowledge of the community, RMF proposes on-the-job training and workshops to equip them with new skills so they can add an economic value to their livelihood without abandoning their traditional culture or beliefs.

The RMF experience for visitors will start with lodging in environmentally-friendly farm houses built with reclaimed lumber and other local and natural materials, and a fusion of traditional rammed earth architecture with modern functionality and performance and new ideas of sustainability. RMF has brought together a young, an adventurous award-winning design team from Helsinki (Architects Rudanko + Kankkunen Ltd.) to help bring the project to life, and will mobilise local builders and carpenters for intensive workshops, training so building standards can be raised with traditional Tibetan construction. The result will be more functional, energy efficient farm houses that are more affordable, comfortable, healthy and more durable in the harsh Himalayan climate. With a combination of the reclaimed timber and earth, and downsizing the houses, we envision each RMF farm lodge to consume only a quarter of the forest resources that is used in traditional homes.

RMF will also be a centre of cultural and outdoor activities for visitors with a wide range of backgrounds and interests and physical conditions. While RMF offers its guests an ideal place to rest in total seclusion and harmony with nature, we will also offer walking nature and cultural tours around the Ringa valley and surrounding hamlets. Pony treks in the valley will also be offered. An inventory of possible hikes to sacred hills, nomad camps, lakes, the hot springs and nature walks for day trips of different lengths and physical demands will be done with local village input so visitors can experience nature and culture within the ethos of a small rural community thereby adding to the depth and authenticity of the experience. For those who want to see more of the region, we will look to Khampa Caravan [www.khampacaravan.com](http://www.khampacaravan.com) (founded by Yeshe Gyetsa) for support.

Local foods will be the highlight at the RMF and will be processed from the

local produce of farmers from the valley or within the county. RMF will work with a network of farmers to grow and collect a variety of organic produce so some level of value-added processing and packaging can take place within the region. Highland barley, buckwheat, corn, rapeseed can be all be developed into a small line of organic value-added products, and livestock farmers can also be trained and supported in small-scale yak cheese production for tourists. Fruit growers can also be supported for simple value-added products such as dried fruits and rapeseed or walnuts can be distilled for various oils. These value-added activities can be applied to a whole variety of locally grown produce, and will train and engage local farmers and growers so they are able to move up in the value-added chain. A big part of RMF's engagement will be working and training farmers and growers to encourage entrepreneurship and enterprise.

RMF will help promote this line of organic specialty products under RMF brand beginning with the tourism towns of Gyalthang, Lijiang and Dali. An inhouse restaurant at RMF offering local Tibetan farm-style foods will also serve as an outlet for these specialty food products. The restaurant will cater to guests staying at RMF and will also service small groups of who are taking up accomodation elsewhere in town. Small groups from local community will also be served and the restaurant will also host and offer farm-style catering for select events such as meetings or conferences dedicated education, conservation and environment. A farm-store at RMF will promote some of the farm products and will also carry other local handicrafts from Gyalthang's artisans who work with wood, clay, metal, and wool.

RMF seeks to aggregate a wide ranging selection of intangible and tangible material assets that will represent the Gyalthang's Tibetan culture in the most authentic and holistic way. As is the case with the built environment, RMF will be focused on long term sustainability as a guiding principle in all operations and activities. With support from NGO's and volunteers, RMF aims to raise the standards in quality and service by introducing new value-added practice and solutions to existing and traditional norms and culture. Success will be long journey and can only be reached by intensive and lengthy training periods, trial-and-error, supervision and management of local personnel, over countless seasons and over years. As a local enterprise with Buddhist roots, RMF is proud to be taking a lead in this effort towards

sustainable community development and progress in rural Tibetan areas.

### **RMF Founders and Owners**

RMF project founder and owners Venerable Lobsang Geleg and Mr. Yeshi Gyetsa come from Gyalthang but with starkly contrasting backgrounds. They are connected by family with Ringa village and community and also a common mission to bring about a measure of progress to their community.

While Geleg is senior monk at Sumtsenling Monastery, the biggest monastery in Diqing Prefecture, he is also an important leader and voice in the Ringa community affairs. Gyetsa, meanwhile, as founder of Khampa Caravan, an eco travel company has played an important role in bringing new ideas and new initiatives into Ringa. Together, and, with the support of the Ringa Village Committee (Chinese... Hongpo Village Committee), they founded the Ringa Community Nursery, website [www.ringa-kindy.org](http://www.ringa-kindy.org) which provides free education and child-care for Ringa's 58 pre-school age children.

Ringa Mountain Farm is also an initiative conceived by these two exemplary individuals and supported by the Ringa Village Committee, and seeks to lift their community out of the passive form of existence or dependence with nature into a more proactive level with new skills and know-how so they can lead more sustainable livelihoods in the new economy and move away from the dependence on natural resources such as forests.

RMF is an enterprise that will have to be profitable in order to sustain its activities and services and provide training and employment to the rural families it aims to target. With its connection to the travel sector, and what should eventually be a premium offering for visitors in Ringa, RMF hopes to become a profitable operation by 2015. The two main objectives of the project are to be able to support the turnover with continued training and employment of locals and, continued addition and diversification to the line of farm products at RMF. The other key objective is to be able to reinvest a major part of the profits towards the education of Ringa's children and to sustain the Ringa Community Nursery.

ARCHITECTS  
RUDANKO +  
KANKKUNEN

## RINGA MOUNTAIN FARM

Architectural Design, Oct 2011



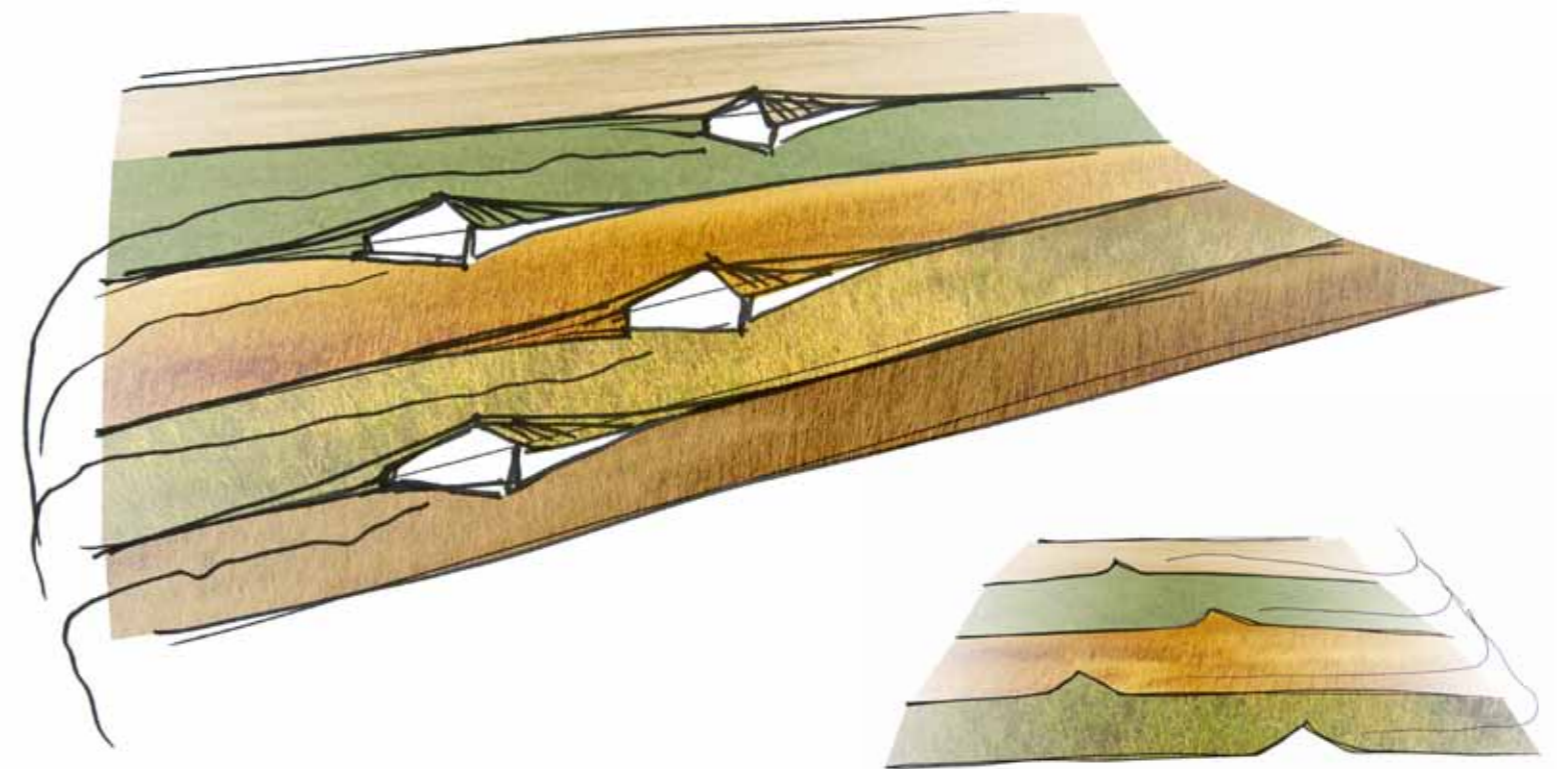


## ARCHITECTURAL IDEA

The architecture of Ringa Mountain Farm's eco lodges is based on the idea of connecting the lodges to the site's nature and finding the lodges' identity through the farming activity. The design merges harmoniously with the site and has an earthy, organic feel.

Lodges are built low in order to merge with the slope. Each lodge is placed on its own strip of land that grows a characteristic crop or plant. All plants have their own characteristic color: they range from golden barley to lilac irises. Thus the strips of land form a beautiful composition, slightly reminiscent of the stripes in the Buddhist flag. The lodges gain their identity from the crop that is grown around them, and each lodge can be named after the surrounding crop.

The layout allows for a lot of privacy, as all of the lodges open southwards towards the temple and the beautiful valley scenery. Seen from above, the lodges below are hidden in the slope. Only their triangular rooftops are seen so that they look like nomadic tents or small hill peaks scattered along the slope. If desired, the roofs can be built with vegetation or a natural material such as stone to merge the lodges completely with the landscape.



Conceptual sketches: view from the valley and view from the top of the slope.



Inspiration images for the design.



## BUILDING DESIGN

The Ringa Mountain Farm site is located on a south-west slope overlooking the village. The site will accommodate four to five small lodges and a reception building. The buildings introduce a fresh application of traditional Tibetan architecture with today's sustainability standards.

The eco lodges' architecture optimizes solar gains in the Gyalthang climate, which has extreme shifts in temperature combined with very good sun exposure. The majority of windows are located on the long south wall to allow sun into the lodge. The passive solar systems works in conjunction with thermal mass, which has a high capacity of absorbing and storing heat. In this case, earth is used as thermal mass: the lodge is partly built into the slope on its northern sides, and an earthen core stores heat inside the lodge.

The lodge is a two-storey rammed earth structure, that is supported by a recycled wooden frame. The lodge opens towards the south-west, which is the direction of the valley scenery. Living areas are located on the south side to benefit from the solar heat and the views. When entering the lodge, the visitors first come to the common spaces on the ground floor, from where they can ascend to the private bedrooms on the top floor. An open floor plan allows the collected solar heat to circulate freely through natural convection. In the heart of the lodge, a thermal mass core surrounds the stairway. The earthen core stores solar heat and distributes it during the nights. A fireplace is also joint to the thermal core so that its heat will also be stored and distributed evenly.



The lodge seems to emerge from the ground, opening towards the south.



## CONSTRUCTION

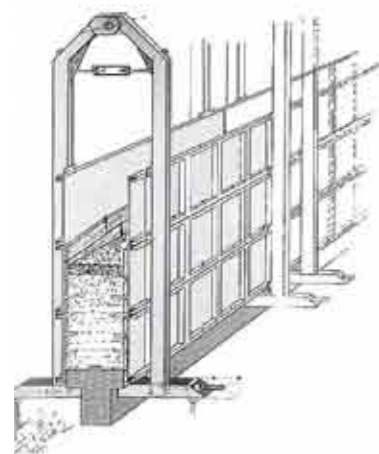
Ringa Mountain Farm's eco lodges will be built out of rammed earth. Rammed earth is an old, resource-saving building technique traditionally used in Gyalthang. Using rammed earth saves transportation costs of building materials and honors the long tradition of Tibetan building. Earth construction is also very appropriate to the Gyalthang climate where thermal mass is needed to balance temperature differences. The construction employs many local builders and strengthens the sense of community as the construction is a joint effort.

The speciality of rammed earth building in Gyalthang is that the rammed earth walls are not load-bearing. They are just an isolating shell for a wooden structure. This double-structure technique consumes a lot of wood and space, but is said to be strong against earthquakes. The necessity of a double-structure should be examined with an engineering partner:

### STRENGTH ENHANCEMENTS

In case the double structure is given up, the strength of the earth walls might need to be enhanced in order for them to become load-bearing. They can be strengthened by adding reinforcement or increasing density. The most stability will be gained by adding steel rebar both vertically and horizontally. It will be examined with the engineer partner whether this is necessary for the lodges. Another option is to stabilize the earth mass by adding cement into the mixture, which is not a primary option as the local soil is very clayey. Adding cement would also require adding more sand. Density of the walls can be enhanced by using machines for packing the earth, but in that case the participation of community members in packing the earth would be diminished. It might be that none

of these measures are needed in Gyalthang, but they should be examined in order to revive the rammed earth culture in Gyalthang. The challenge is to make earth building in Tibet more environmental-friendly, more durable, more comfortable and thus more popular.

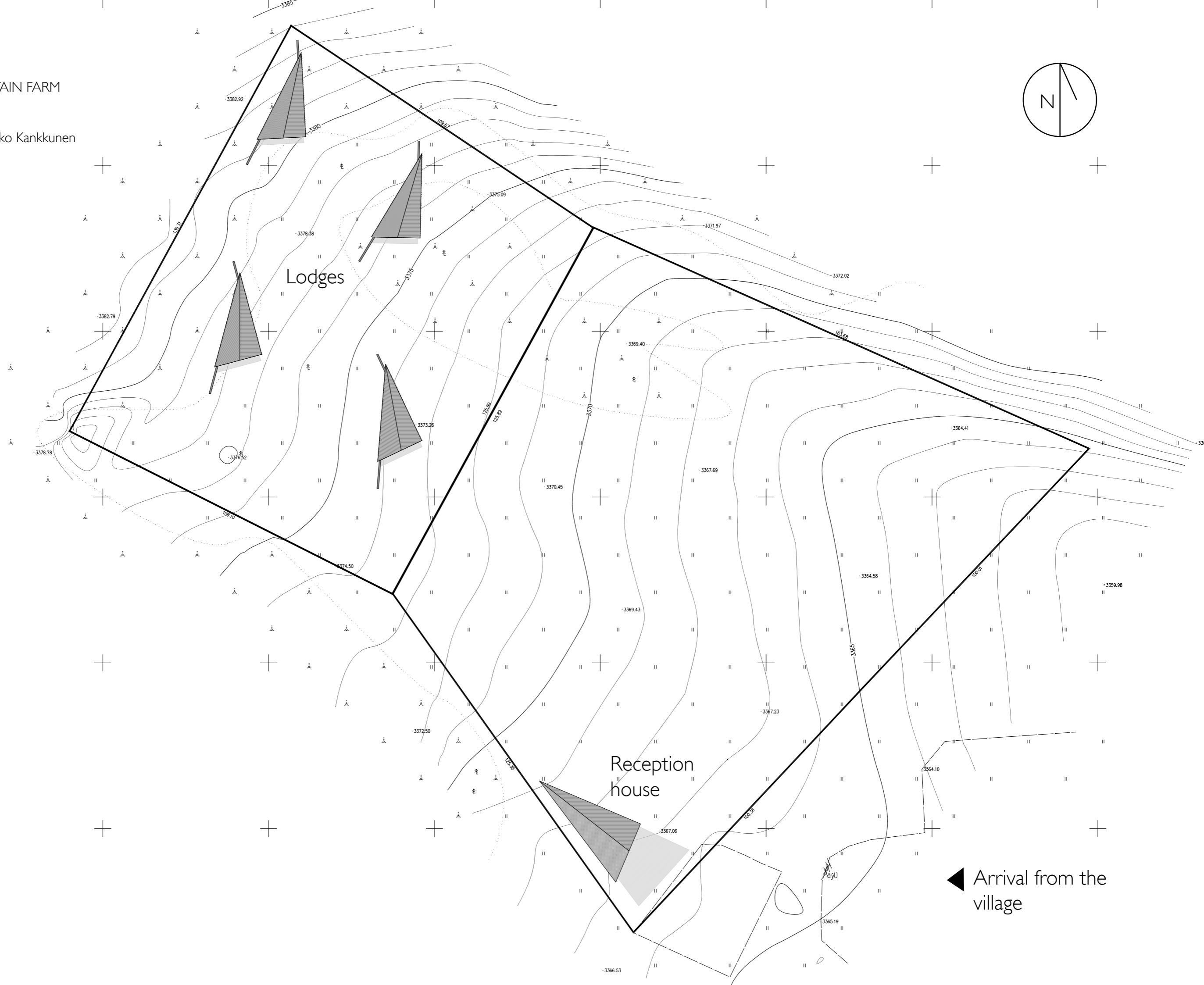
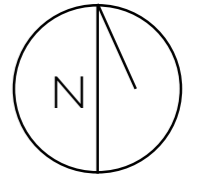


Rammed earth diagram  
(image: Martin Rauch)



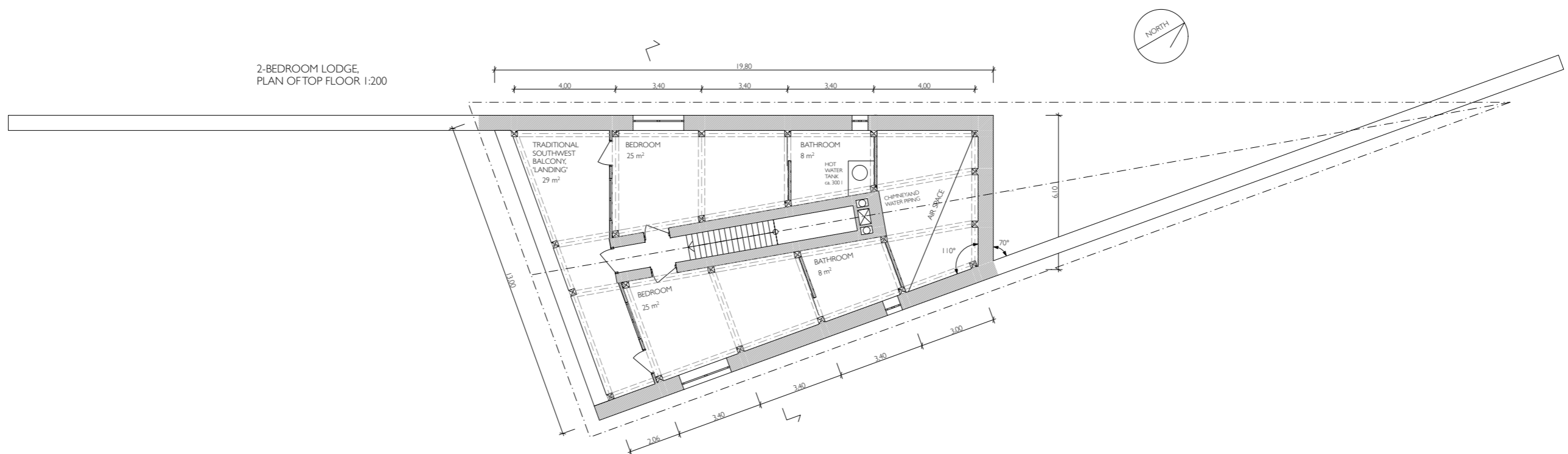
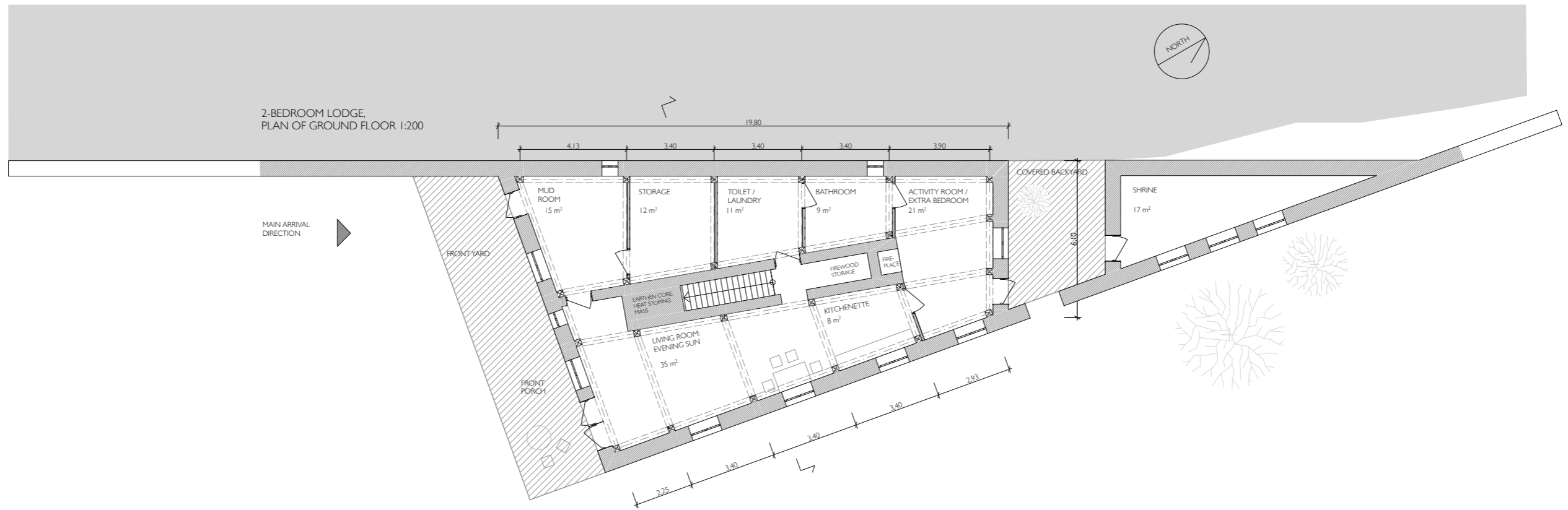
Rammed earth construction in Gyalthang (images: Yeshi Gyetsa)

RINGA MOUNTAIN FARM  
Site Plan 1:1000  
2011-10-25  
Architects Rudanko Kankkunen



▲ Arrival from the village

RINGA MOUNTAIN FARM  
 Floor plans of lodge  
 2011-10-25  
 Architects Rudanko Kankkunen





RINGA MOUNTAIN FARM  
View of Lodge  
2011-10-25  
Architects Rudanko Kankkunen

