A PROPOSAL FOR A NEW SCHOOL
FOR THE VILLAGE OF JHONG, NEPAL

- empowering local people by providing a better education which is more suited to a rapidly changing economy
- supporting a local culture by preserving traditional knowledge and customs
- minimising the environmental and visual impact in a fragile area
- promoting an environmentally friendly vernacular architecture

photo by Birgitta Aichstill

prepared by Beatrix Kovacs, 2014

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Contents

for more information:
http://sangyemenlaschool.org/

1. Introduction










During my career break from architecture, I volunteered in the Tibetan Medicine School of the village Jharkot (Nepal) in April-May 2011.

I taught Art in the morning and English in the afternoon, but soon extended this with extra time spent helping out with the children's self-study, playing games during the breaks, watching their morning and evening prayers and reading them bed-time stories.

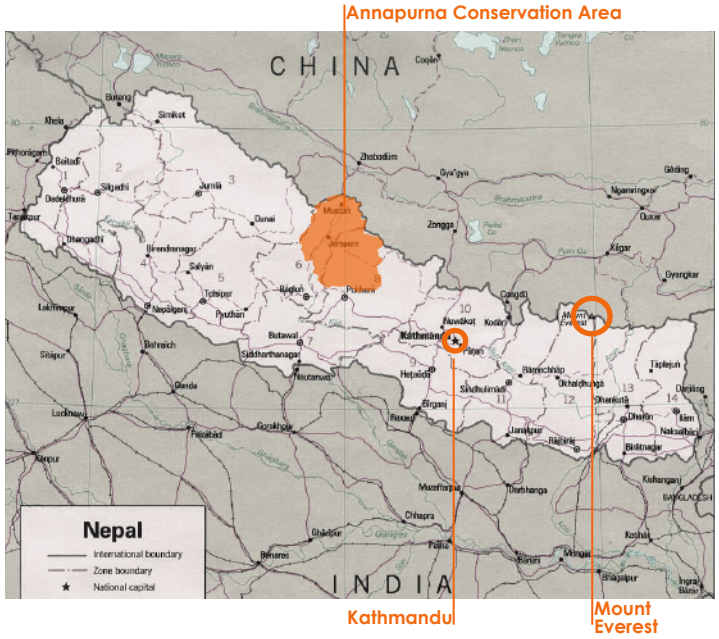
They showed me the best places to view the valley, took me to the archery competitions and introduced me to their local religious events. They really looked after me like a sister.

Despite the closeness, I was a demanding teacher, I flooded them with homework, but they never complained. Moreover, they said: 'That's OK Miss B! You can give us even more if you want, we will do it!' And they did!
They really treasured being able to study. They were so aware that this was their big opportunity to improve their lives. Being children they were naughty sometimes, but there were nonetheless kind, lively happy kids with a highly developed social awareness and sense of community.

I heard from the school manager that many children had to be turned away mainly due to the lack of space. They couldn't possibly accommodate any more students and their existing accommodation is not all that comfortable. The school had plans and dreams of new bigger premises, as an architect I have been focusing on designing educational buildings since 2002 and was in the ideal position to assist them.

Let me take you through our proposal.

2. Location

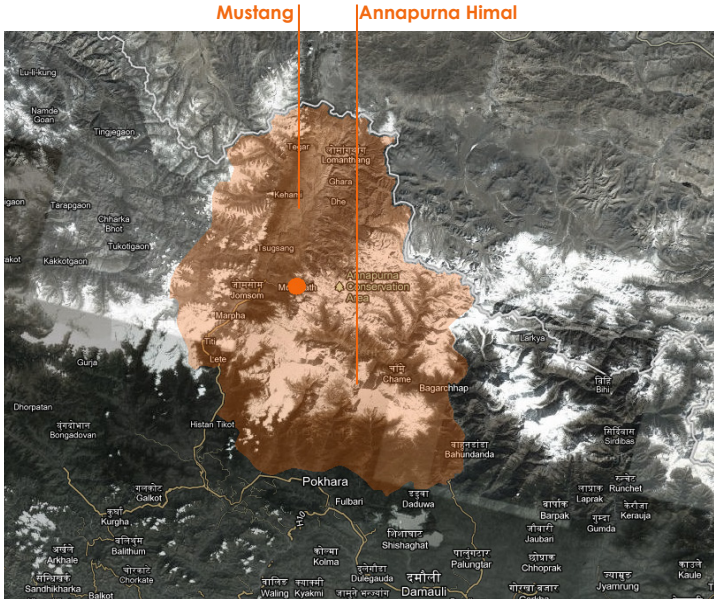


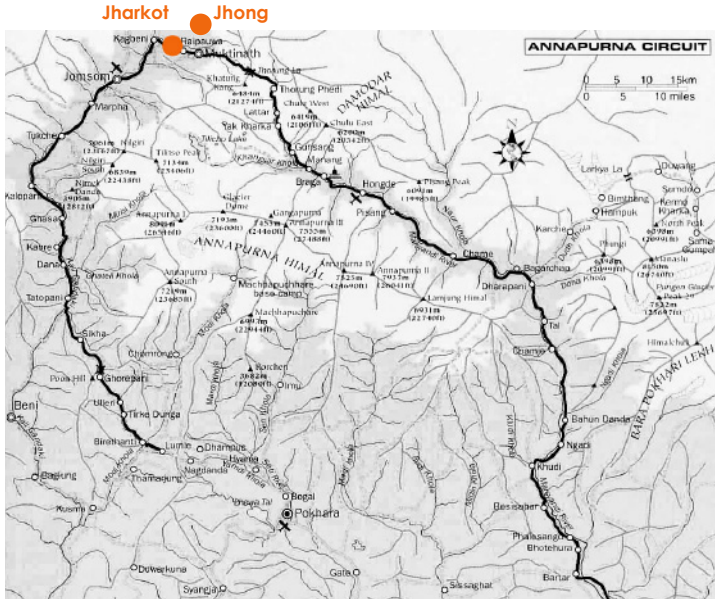
The village, called Jharkot is located in central Nepal, in the Annapurna Conservation Area. South of Mustang, just behind the Annapurna Himal. It is at 3500m height.

There are two popular treks in the Annapurna Conservation area: the Annapurna Base Camp trek (7-10 days, max elevation: 4130m) and the Annapurna Circuit trek (16-21 days, max elevation 5416m).
The circuit has been considered one of the world's greatest treks. It reveals itself gradually, climbing through subtropical scenery to a Tibetan-influenced valley and then over the high Thorung La to the Kali Gandaki Valley, a desert-like Trans-Himalayan region that was once a vital corridor to Tibet.
Most people trek the circuit anti-clockwise to avoid the harder ascent of the Thorung La from the west side.

Jharkot is on the circuit trek, the second village after the breathtaking, but harsh Thorung pass (5416m).

Coordinates: Latitude: 28.817; Longitude: 83. 852





3. Culture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One of the most important pilgrimage sites of Nepal is at Muktinath which is about 40 min walk away from Jharkot, just below the high Thorong pass.
It is a sacred place for Buddhists and Hindus, shared in harmony by these devotees of two major world religions.

The focal point of the complex is the pool fed by the108 waterspouts, it combines Buddhist elements (108 is a sacred number in Tibetan Buddhism) with Hindu elements (the temple and the pool for pilgrims to bathe). All elements (earth, air, holy water and fire) are represented and their auspicious combination is responsible for the religious importance of the site.


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Other important places nearby: the red-walled Gargen Chhyoling Nunnery; the Chhyonkhar Gompa, an atmospheric 200-year-old Tantric monastery of 25 monks; or the 16th-century Sakyapa-school Chode Shedrup Choephel Ling Monastery in Jhong (the former capital of the region).

Everywhere you go, you can hear people whispering the Tibetan mantra to themselves: Om Mani Padme Hum. It seems so magical.


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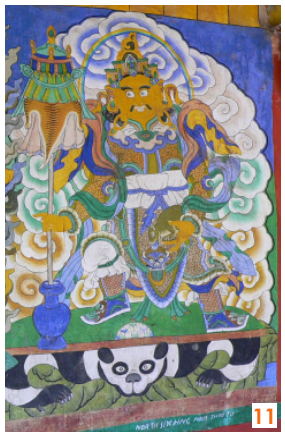
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1-2. Jharkot Gompa (monastery)
3. Tibetan prayer flags at Thorung La (pass) at 5416m
4. Tibetan style praying wheels
5. Local woman is making dried goat cheese
6. Local woman is weaving, to make the famous Tibetan apron
7. The Annapurna Conservation Area Project archery competition in Jharkot
8-10. The May festival, during which 6 villages receive blessing
11. Wall painting at the entrance of the Jharkot Gompa

blue- space
white- air
red- fire
green- water
yellow- earth

4. Local architecture


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The structure of the villages reflects centuries of organic growth. The buildings are flat roofed, of a mud and stone construction, strengthened by timber beamed floors and roofs. Crafted timber windows, doors and 'staircases' are carved out of one big piece of timber.

Houses are made mainly from rammed earth, but adobe bricks can be seen occasionally. Rough local stones are often used on the outside wall at ground floor level.

The colours you will notice are terracotta, white, blue and the natural colour of the mud.


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Local materials: timber, stone and mud.
The timber is mostly from poplar trees which are rapid growing but relatively short-lived. Poplar wood is lighter and more porous than hardwood, it is however flexible and durable. The wood doesn't split easily. It is mainly sold as an inexpensive timber, but also widely used for manufacturing paper.


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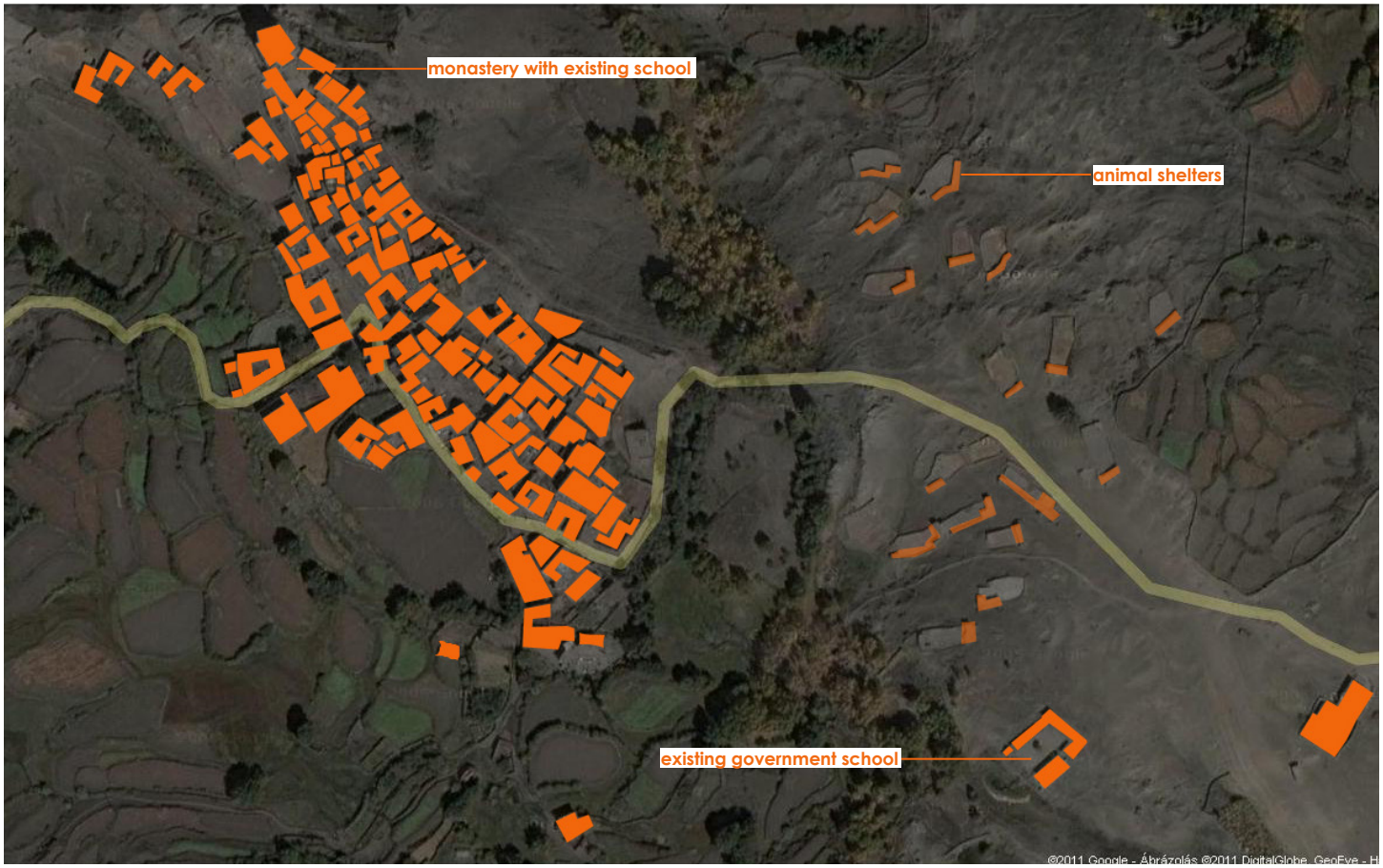
1. A two storey house in Jharkot, rammed earth with stone outer skin at ground floor level. The shutter's of the rammed earth can be noticed very clearly.
2. The interlinked flat roof mud houses of jharkot.
3. Detail of the Jharkot Gompa (Monastery)'s portico
4. A passageway under a house in Jharkot, rammed earth, stones and timber.
5. A courtyard in Jharkot, poplar tree beams, rammed earth and adobe bricks
6. Stone footpath in Jharkot
7. An animal shelter outside of the village, timber, mud and stone
8. Detail of a timber window in Jharkot
9. 'Staircase' detail from the village Jhong. It is carved out from one log
10. Chortens in Jharkot front of adobe brick wall
11. Painted house (rammed earth) in the village Chhyonkhar

5. Existing school site



Many locals believe that the village Jharkot was established about 550 - 650 years ago. It is an impressive fortress-like village ('kot' means fort in Nepali).
You can follow the kora path around the monastery for views across the valley to the abandoned Buddhist caves of Myabrak, or to the east you can see the villages of Jhong, Purang and Chhyonkhar.

In Jharkot you can find the famous Sakya Jharkot Gompa (Monastery), the Tibetan Medical Institute, a government school, a very small hospital, a post office and about 5-6 different hotels of various sizes.

The population is approximately 450 people.

Economics: Tourism mainly benefits the hotel owners, especially in Ranipauwa. Most villagers practise a primitive system of farming in a low quality, small area of land, hardly producing enough for their own needs (barley, buckwheat, potato and seasonal vegetable). Due to recent access to a road, some people have started to cultivate more apple, potato and poplar trees because of their high demand in the lower towns.

Approximately 20% of the population is involved in livestock farming, another 20% are involved in winter garment sales in India (North/Eastern part of India).
An interesting statistics showed that about 70 - 80 % of the families have someone working abroad (America, Japan, India and Europe) to financially aid their family.

The Medicine school's ultimate aim is to preserve Tibetan medicine and culture by offering an alternative education to the government school. Currently they can only grant scholarship to 21 students and many children had to be turned away due to lack of space. With a larger, and more purpose built school they could almost triple the numbers of students.

6. Existing school building


western eleavtion


girls' dormitory


the only classroom

The existing Medicine school is located at the North West of the village sharing a courtyard with the Monastery. The school was opened at the beginning of the 1990's and was run by an old traditional doctor. Between 2001-2006 it was supported by Eco Himal and since 2007 an Austrian and a German organisation provide enough funding to keep the school going. For more info: www.schule-macht-schule.at.

The village premises are only used from April till mid November, the winter school is usually arranged in the big town, Pokhara at a much lower elevation.

The school shares a courtyard with the monastery, but it is an entirely separate institution. The two storey school contains 21 students with 2 or 3 teachers and a cook. The lower level is partly in the ground and consists of 3 dormitory rooms. There is only one classroom and an incomplete washroom. The rooms are small and cold, only have windows to the west and children often share beds with very limited storage space. The courtyard level has a warm east walkway, a dormitory and the prayer room. The prayer room is used for self-study, praying. classes and senior dining. There is a tiny store with the cook's bed, then the only functioning toilet/ shower room and the kitchen.

During cold days we held classes in the kitchen, the only place that was slightly warmer as a result of the cooking. All spaces are used beyond their capacity, and there is no option to expand.


the Gompa with monks' accommodation


monks' accommodation & public tap


pray room

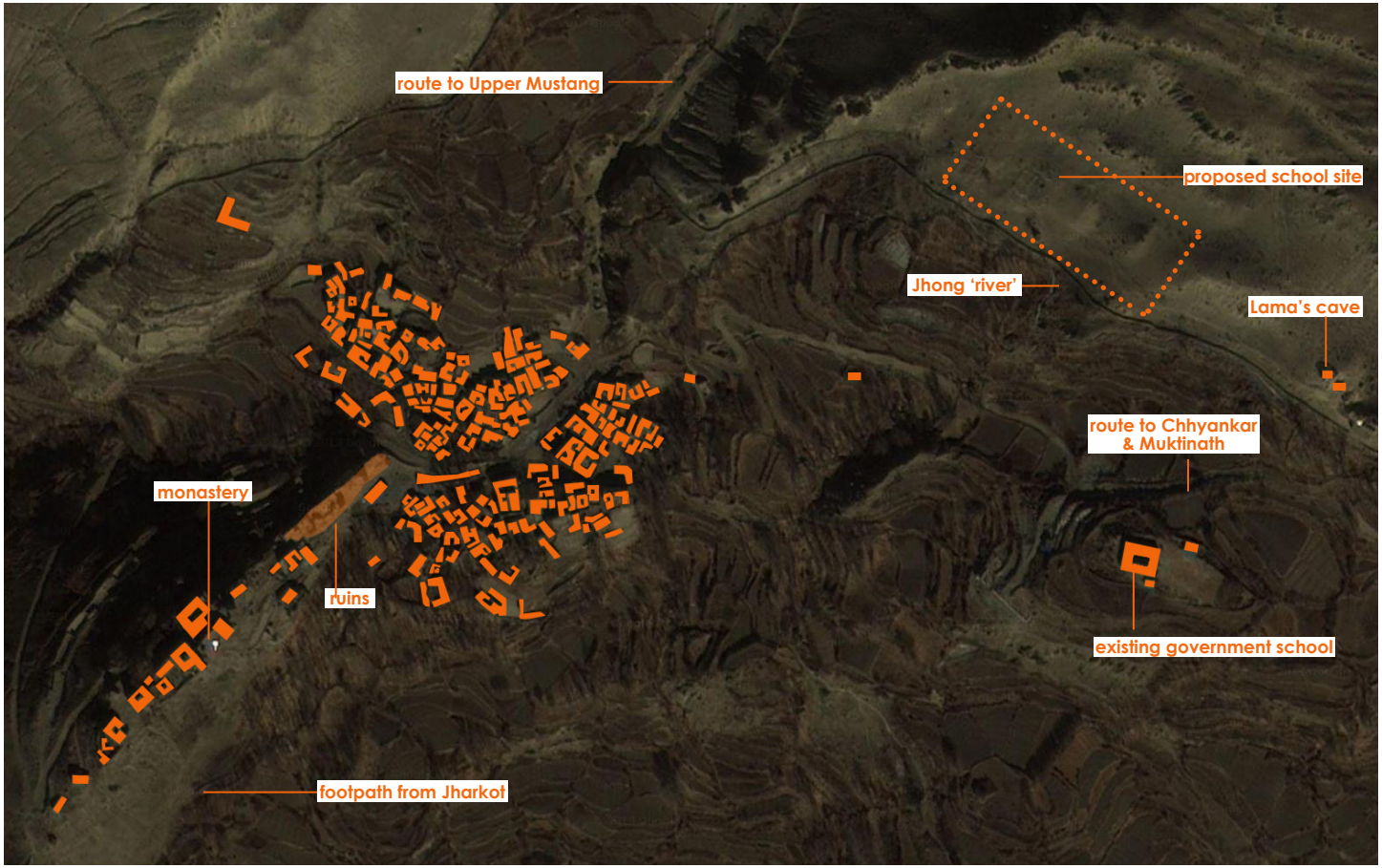

public tap and main entrance to the courtyard


office and Tibetan Medicine display room


water tank with solar panels
doctor's room and pray room


lower level corridor

7. Proposed site



Many locals believe that the village Jhong (or Dzong: the word means 'fortress') was established about 550 - 650 years ago. It is situated at the foot of a steep ridge, which is crowned by the impressive ruins of the old fortress, where the local king once resided. Aside of the fortress you can find the still very lively and beautiful old monastery with its Sakya gompa (buddhist temple), which is one of the oldest, largest and most devotedly cared for in the region.

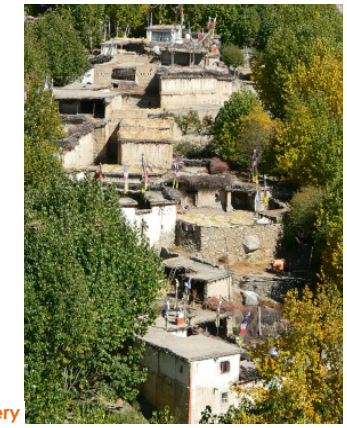
The monastery provides incredible views across the valley to the villages of Kingar, Jharkot and Purang as well as to the pilgrimage site of Muktinath and its hotel settlement of Ranipowa.

The Dhaulagiri and Nilgiri mountain ranges tower high above the area. To the East is the Thorung La pass, the highest point of the Annapurna circuit (5416m).

In Jhong you can also find a small state school, a health post and 3 guesthouses of basic standard.

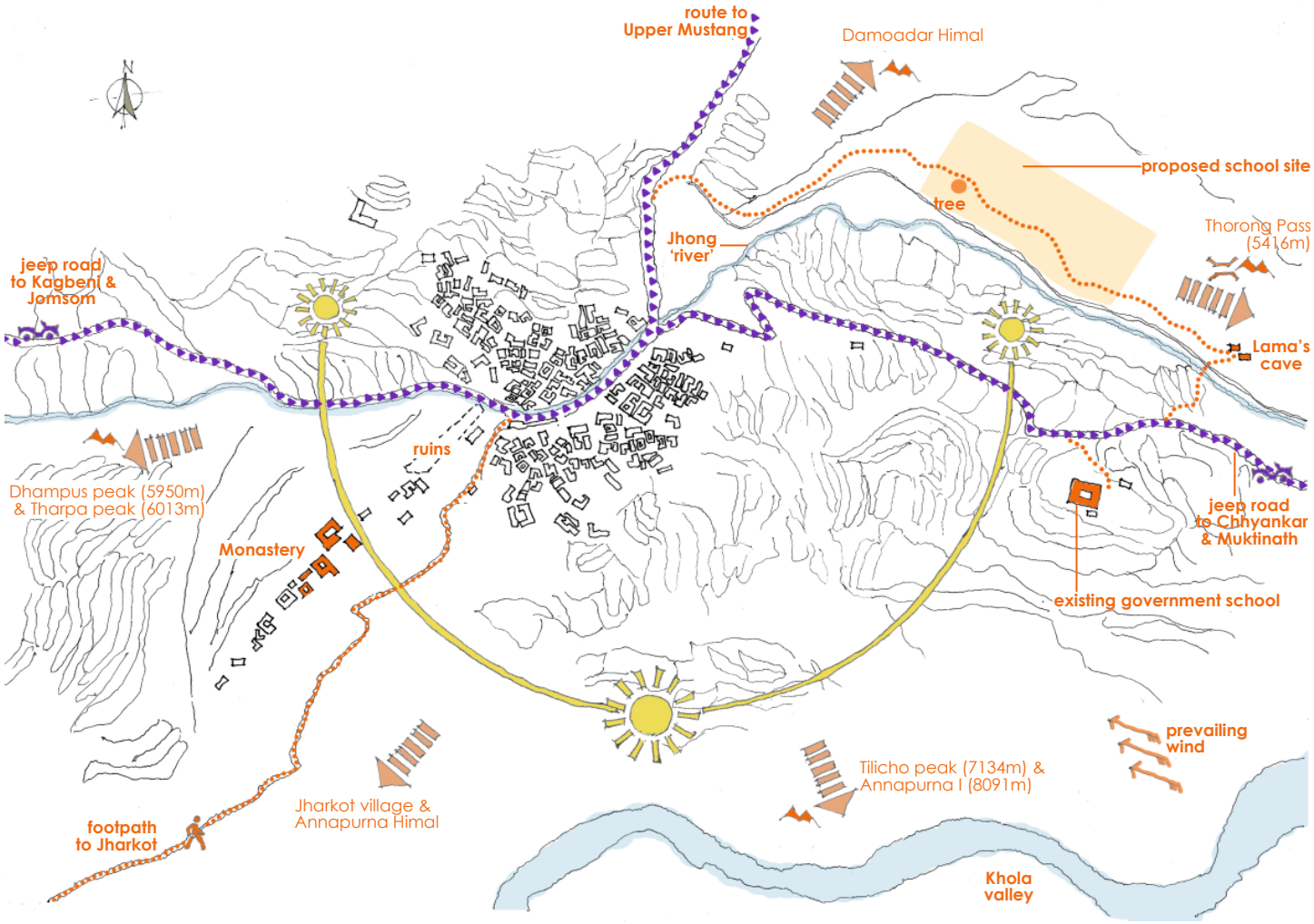
The population is approximately 300 people.

The economics and demographics are the same as the existing site.



village from the Monastery

8. Site analysis



1. Site location

The site is situated just above the village, very near to the Lama's cave, and just below a cliff wall. The rocks on the site show signs of rockfall. It will need further investigation to establish possible options to minimize the risk.

There are many poplar trees around the man-made water course just below the boundary wall.

2. Sun path, views, North and wind direction

The site is very sunny till late afternoon, with probably the best view of the valley, overlooking the Annapurna Range. North and South is shown on the diagram. It is not sheltered from the wind and especially in the afternoons can be blowy.

3. Site approach

vehicular access:

There is no direct access to the site, but there is a jeep road very close by, and the connecting footpath can be widened for construction.

The road between Kagbeni and Muktinath is not as popular as the jeep road on the other side of the Khola valley. There is jeep transport from 8am till 4pm between Muktinath and Jomsom.

pedestrian access:

There are several routes from the village, the most popular one is highlighted.


Jhong Monastery


approach from jeep road


tree on site


Lama's cave


site approach

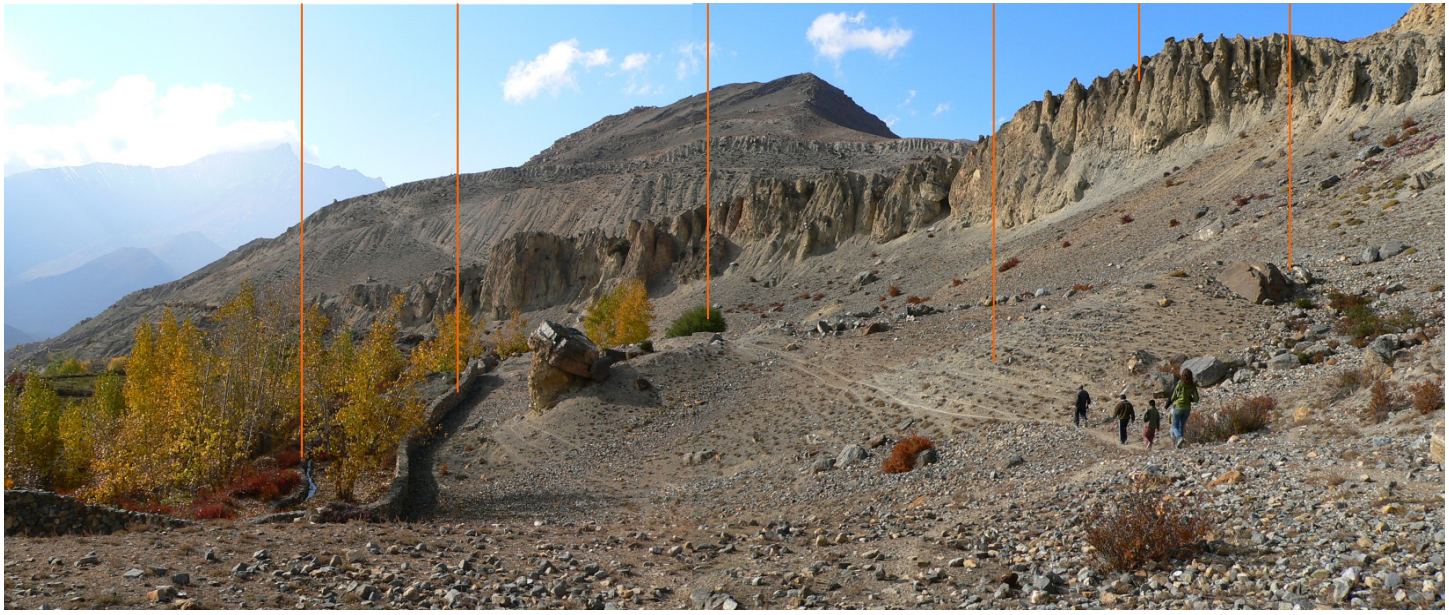

stone 'boundary wall' & water course

9. Site photos

1. view of Jhong from Jhong Monastery

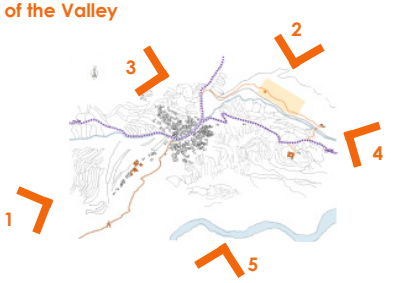
2. view from the cliff above proposed site

3. view from footpath from village



4.view from Lama's cave approaching site

5. view of site from other side of the Valley



10. Site context

grow your own

1. typical Nepali landscape
2. apple orchard in Jharkot
3. village terraces in Muktinath valley

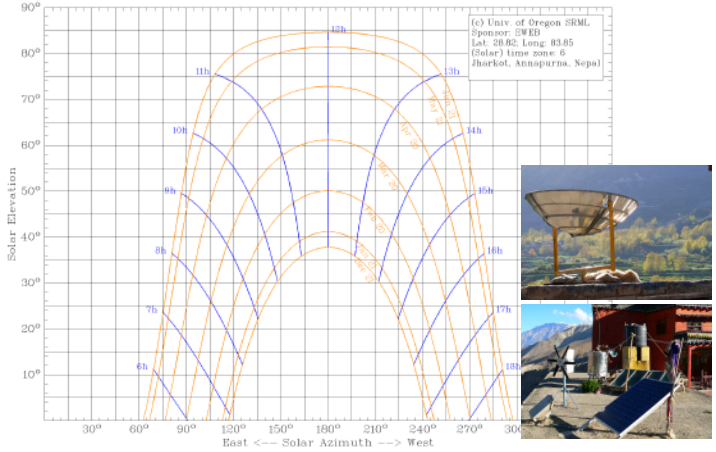
outdoor living - resting and learning

4. typical stony landscape texture of the Himalaya
5. typical entrance and meeting point of a Nepali house
6. Greek amphitheatre

shelter - wind and sun

7. typical sight of Tibetan flags
8. porch of Jharkot gompa
9. playing cards in the shaded windproof porch

solar energy



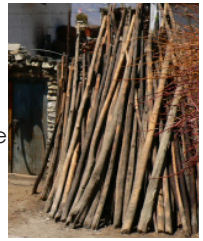
local materials

stone

(rocks and scree) used for retaining wall, outer leaf of the wall with mud, pavement etc
rarely interlaced with timber (left)

popler tree

fastest growing, but relatively short lived trees, 'harvested' more than once.

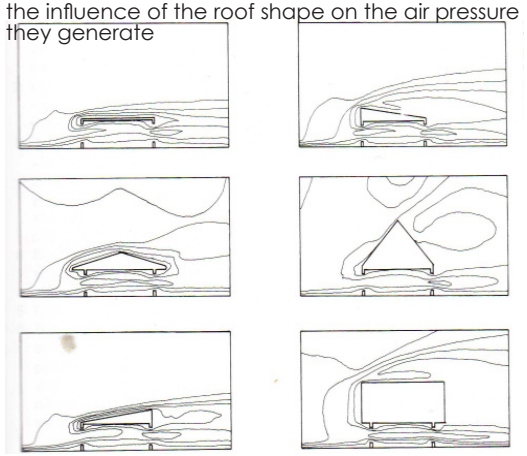


mud

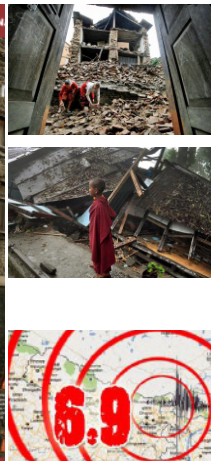
rammed earth and adobe brick constructions

flat roof - windscaping

the influence of the roof shape on the air pressure they generate



Earthquake resistance



Date (YYYYMMDD)	Time (UTC) (NST = UTC + 5:45:00.00)	Latitude	Longitude	Magnitude (ML)	Epicentre
2011/08/19	01:52:09.83	29.70	81.34	4.9	Kangargoth, Bajhang,
2011/08/22	14:51:14.27	28.29	83.96	4.0	Lahachok, Kaski
2011/08/25	08:01:53.89	28.15	82.53	4.4	Khara, Rolpa
2011/08/27	07:51:16.93	26.94	86.60	5.0	Udayapuradhi, Udayapur
2011/09/18	12:40:51.64	27.78	88.32	6.8	Border between Taplejung & Sikkim

11. Key design issues

1. Use of the solar energy

There is no other means to heat the building other than the sun (Trombe wall and sunspace). There are no trees that can be used as fuel, no gas or coal or anything else available. I have seen the people using an iron pot with yak and horse dung for heating. The climate is very harsh and desert-like. It is very cold, windy and arid.
Frequent and intense sunshine means a passive solar house could make the building usable most of the winter.

2. Flat roof construction

The site is very windy and so the shape of the roof is important. The higher the roof the greater the positive pressure on its windward side and the greater the negative pressure on its leeward side. It is this negative pressure that typically rips roofs off buildings.
The roof is generally constructed with timber rafters spaced at short intervals with wooded flats to cover the gap, over which a layer of mud is spread. This type of roofing also offers better performance during an earthquake as it prevents the collapse of the entire roof and only portions of it are damaged.

3. Using local materials

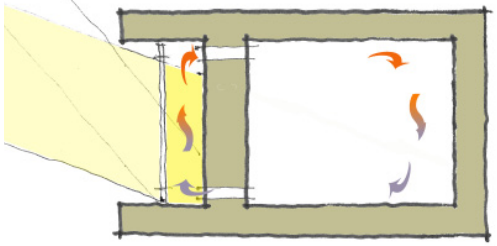
It would be very important to promote the idea of using local materials and labours as opposed to most of the new constructions in the region - multi storey concrete framed, which are out of scale and context. We need to create a school that fits in its surroundings sympathetically, appreciating the ancient culture and the beautiful landscape with those amazing mud houses.

4. Earth quake resistance

Nepal is a highly seismic region, lying above the collisions of the Indian and Eurasian plates that created the Himalayas. Over the recent centuries, major earthquakes have hit the Kathmandu Valley every 75 years on average.
The last major Himalayan earthquake occurred in September 2011 in Sikkim, East Nepal (ML 6.9).

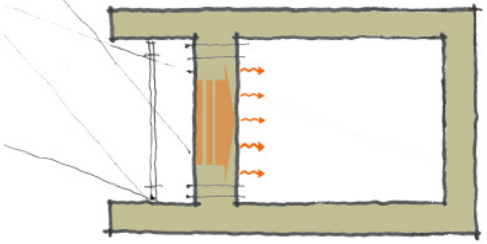
12. Solar energy

Trombe wall DAY time winter



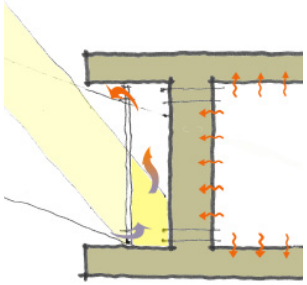
Through the glass, the sun heats up the air and the mass of the wall. Heat absorption works better if the wall is painted a dark colour.
There are two controllable vents at high and low levels to allow convective heat transfer during the day. The air circulates through the building as the hotter air rises and the cooler, heavier air sinks.

Trombe wall NIGHT time winter



After sunset, the stored heat is slowly transferring through the wall into the room for about 6-10 hours, depending on the thickness and thermal characteristics of the wall. The wall should be built from high thermal mass material - i.e stone, brick, concrete, masonry, ceramic tile etc..- that can store heat during the sunny hours.
The glazing on the external face reduces heat loss to the outside.

Trombe wall DAY time summer



In the summer, the wall is shaded and the process is reversed. The vents in the wall are shut but the high and low level vents in the glazing are open. The air movement will have a cooling effect while the wall absorbs the heat from the room.

Trombe wall

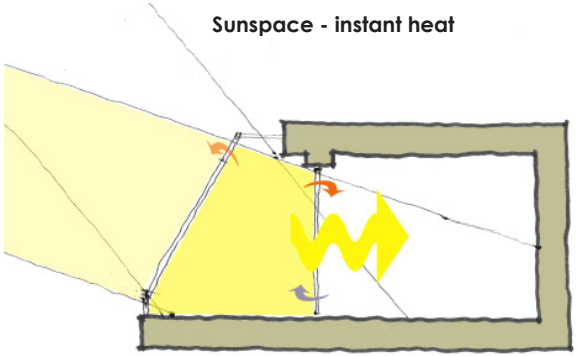
A thick wall is designed to absorb the sun's energy during the day and radiate heat evenly during the night or the first overcast day in winter. It is a passive form of heating. As there are no moving parts, it is therefore low maintenance.
Glass lets through the optical energy from the sun. The wall radiates in the infrared, which does not pass through glass. The infrared radiant energy is very pleasant to the human body.

Sun space

This is a solar collector facing the sun to capture natural light and the sun's heat energy. On sunny days it collects solar energy that can be transferred to the house. At night and during cold days it acts as a buffer, reducing heat loss.

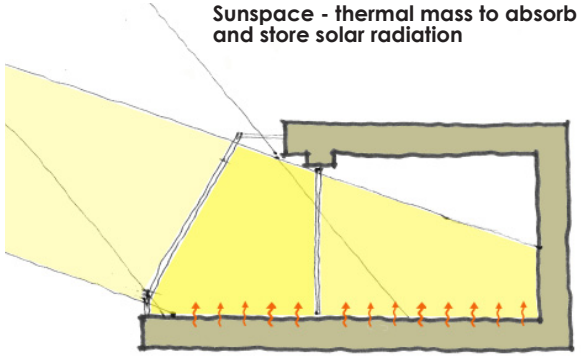
If summertime overheating is an issue, the above process can be reversed by night-time cooling. The basic concept of the night time ventilation is to cool the building structure overnight in order to provide a heat sink during the occupancy period.

Sunspace - instant heat



An attached sunspace pre-warms the ventilation air for the parent house. It delivers heat to the adjacent building spaces by natural convection through openings (doors, windows or special vents) in the common wall.
Operable windows or vents are necessary to release excessive heat during the summer and sometimes, in the winter.

Sunspace - thermal mass to absorb and store solar radiation



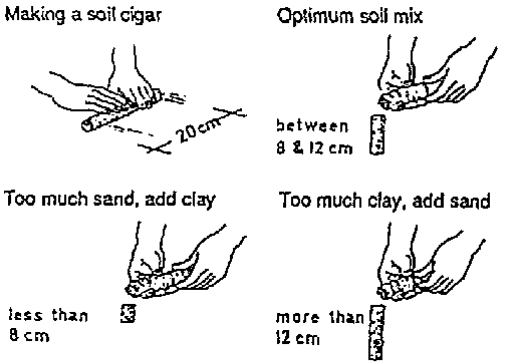
The sunspace performs a passive solar heating function by not only transmitting solar radiation through its glazing but absorbing it on its interior surfaces.
Thermal mass helps to reduce interior temperature swings and delay the release of solar energy into occupied spaces.

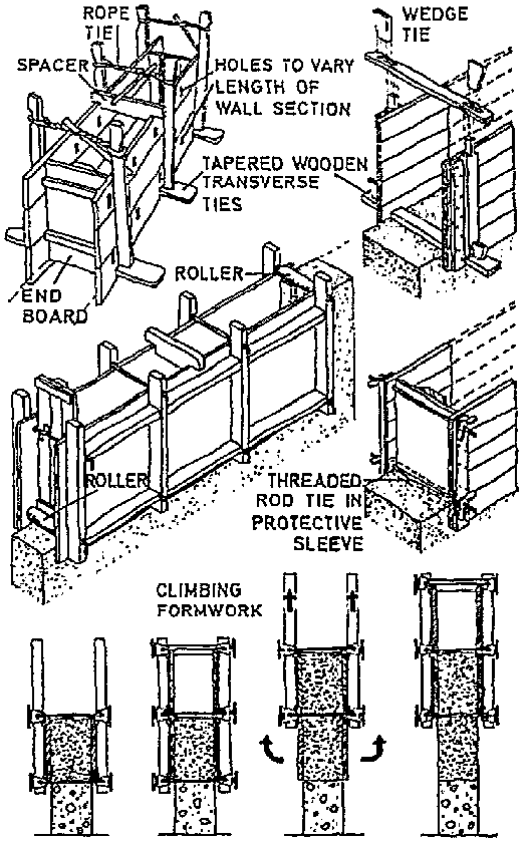
The original Trombe house, France

Monastery in North India, using Trombe wall

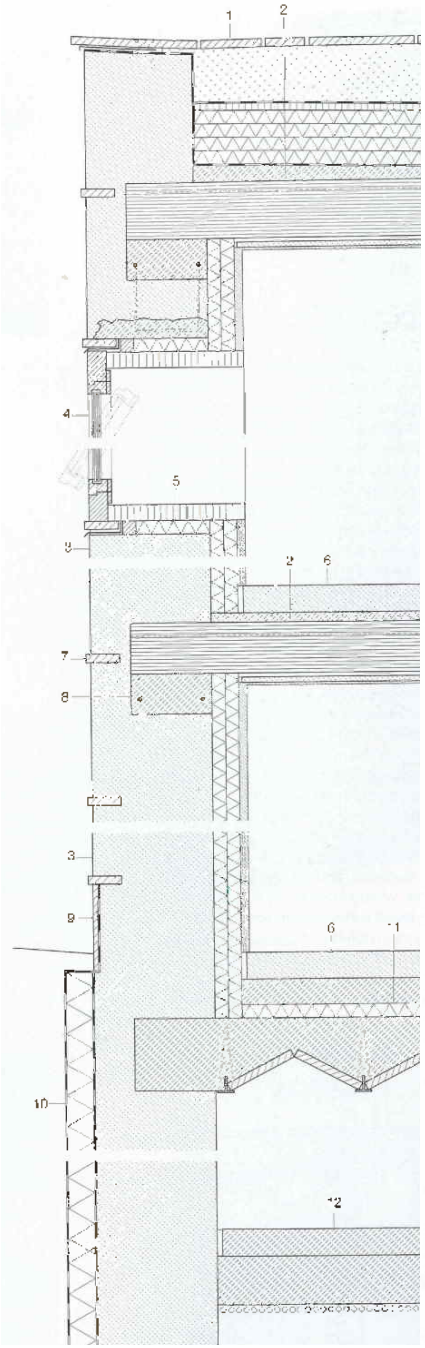
13. Construction

Rammed Earth constructions around the village



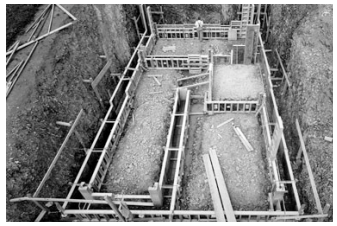


Rammed Earth constructions in Europe

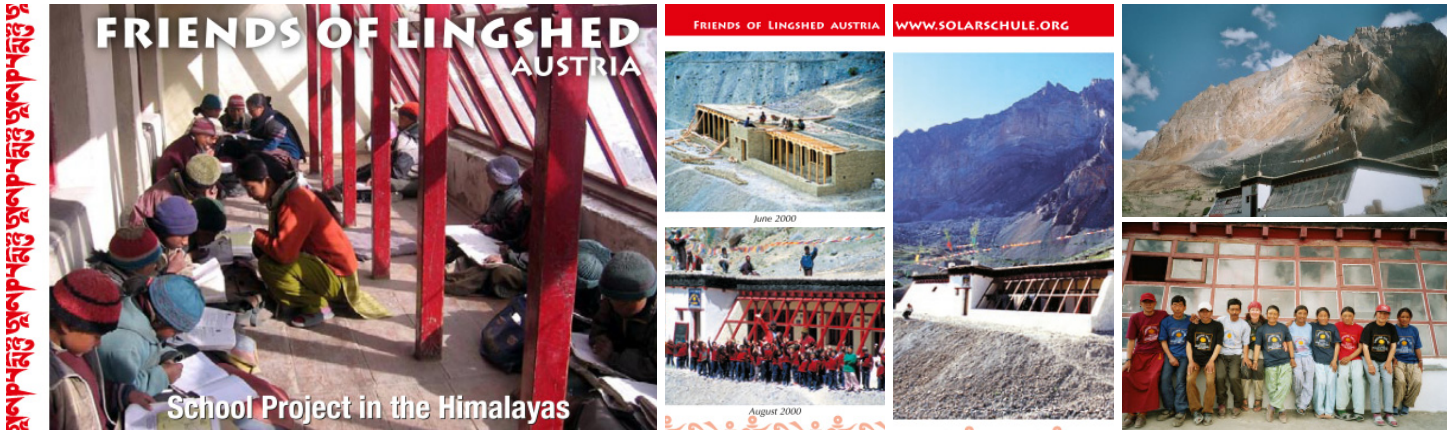


Rauch House (Austria)

roof construction:
40 mm mud brick,
fired crushed lava fill
8x 4mm bituminous sheeting
27 mm lumber-core plywood (3 ply)
4x 50 mm reed-mat thermal insulation
4 mm bituminous sealing layer
cork-loam mixture to falls
2 180 mm solid log floor
levelling
25 mm loam board
5 mm loam rendering
3 wall construction:
450 mm rammed earth
2x 50 mm reed-mat as thermal insulation
30 mm loam rendering with wall heating
(roughcast: corn caster, finishing loam caster with marble dust)
4 oak window, exterior architrave, internal, double glazing
5 27 mm softwood lumber-core plywood (3-ply) multi-layered casein infill, sanded and waxed
6 floor construction:
100 mm rammed-earth floor, with vegetable-based hot wax, cork-grass-loam mixture as levelling
7 250/120/30 mm mud brick as erosion protection, fired
8 300/150 mm brass-lime concrete under with stair reinforcement
9 400 - 600/300/40 mm mud brick as spray-water protector, fired
11 wall construction in cellar:
2x 4 mm bituminous sheeting
150 mm foam glass
4 mm bituminous sheeting
50 mm reed mat insulation
60/60 mm steel T-sections
grass lime-mortar with
30 mm composite filler system of mud bricks, fired
12 floor construction in cellar:
100 mm clay floor, trowelled
cork-grass-loam mixture,
capillary breaking,
crushed-rock fill



14. School examples

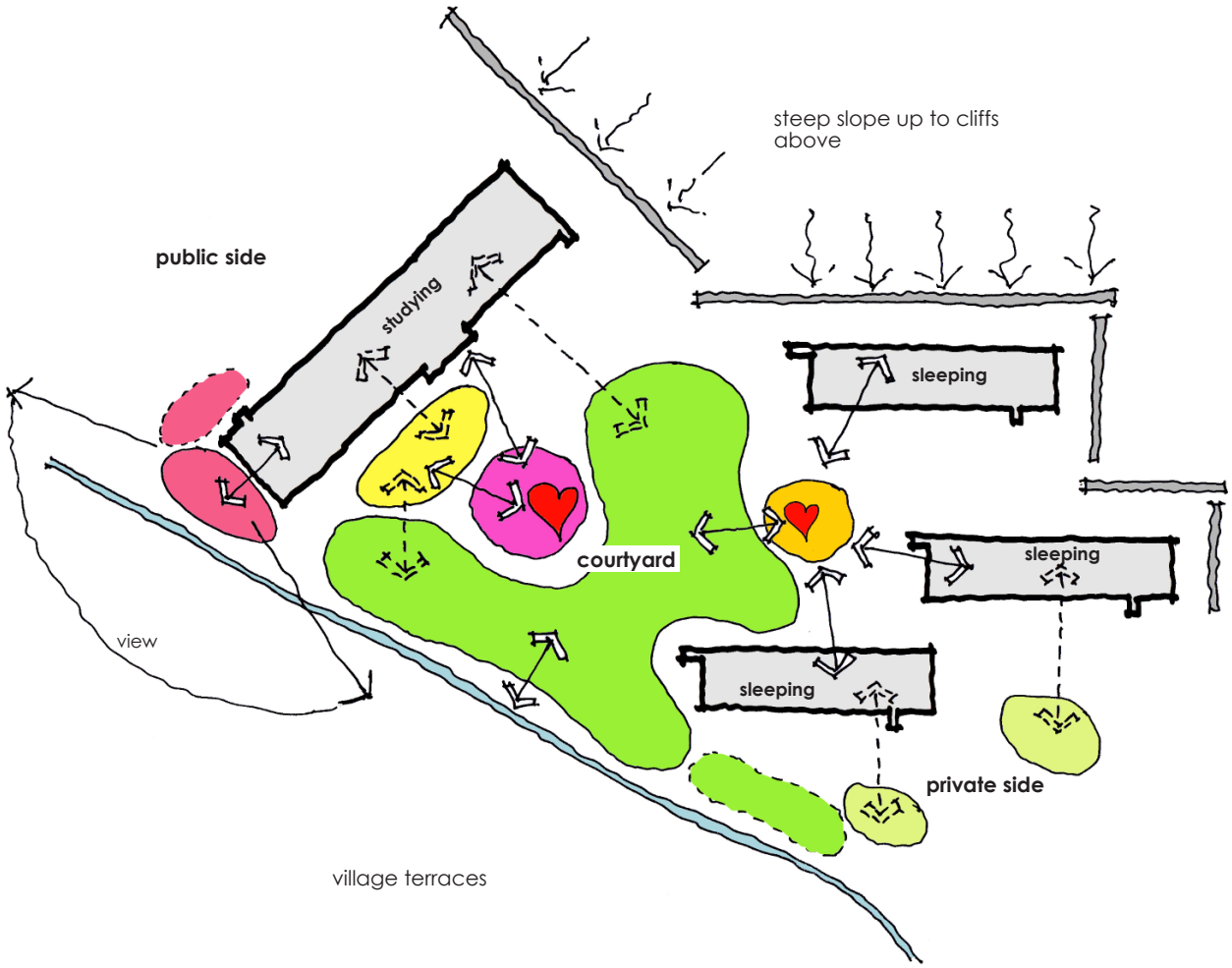


Lingshed Solar School - www.lingshed.org
Location: Lingshed (4000 m), one of the most remote parts of Ladakh (northern India). Between November and March the village is completely isolated from the outside world when snow covers the passes.
It was built as a traditional mud building. Before the school was built it had been impossible to provide schooling during the winter months, but now both children and teachers are enjoying and benefiting from the warm rooms in winter. Completed in 2000.

Surya School - www.suryaschool.org
Location: Kargyak (4200m) Zanskar range North India
The project provided a basic education for eighty children in Kargyak and surrounding villages. The special construction of the building uses solar light and provides the house with comfortable temperature of a minimal 15°C. It is designed as a passive house (heat is generated by sun). The front of the building is south facing and absorbs a certain amount of heat throughout the year. The "Trombe Wall" design provides warm air circulation throughout the structure.
Materials used: mud, clay, wood, stone, straw, yakzee, sand, glass and water. Completed in 2009.

Druk White Lotus School - www. dwls.org
Location: Shey (the ancient capital of Ladakh), about 30 minutes' drive up the Indus Valley from the main town of Leh, North India.
In 2009 more than 550 students enrolled in eleven year groups, from Nursery through to Middle School Class 8. Around one-third of the students live on the campus. The sustainable design includes: passive solar heating. seismic design & safety, ventilation improved pit latrines and gravity feed water system. The teaching spaces has an optimal 30° south-east orientation, with fully glazed solar façades. The residences are oriented due south, and use Trombe Walls.

15. Site strategy



1 porch
public entrance and community meeting space with unlimited view
inviting entrance to the main study block including the office and the treatment area

2 stage
lively public space at the centre of the site
gathering space for events and performances, part of outdoor learning

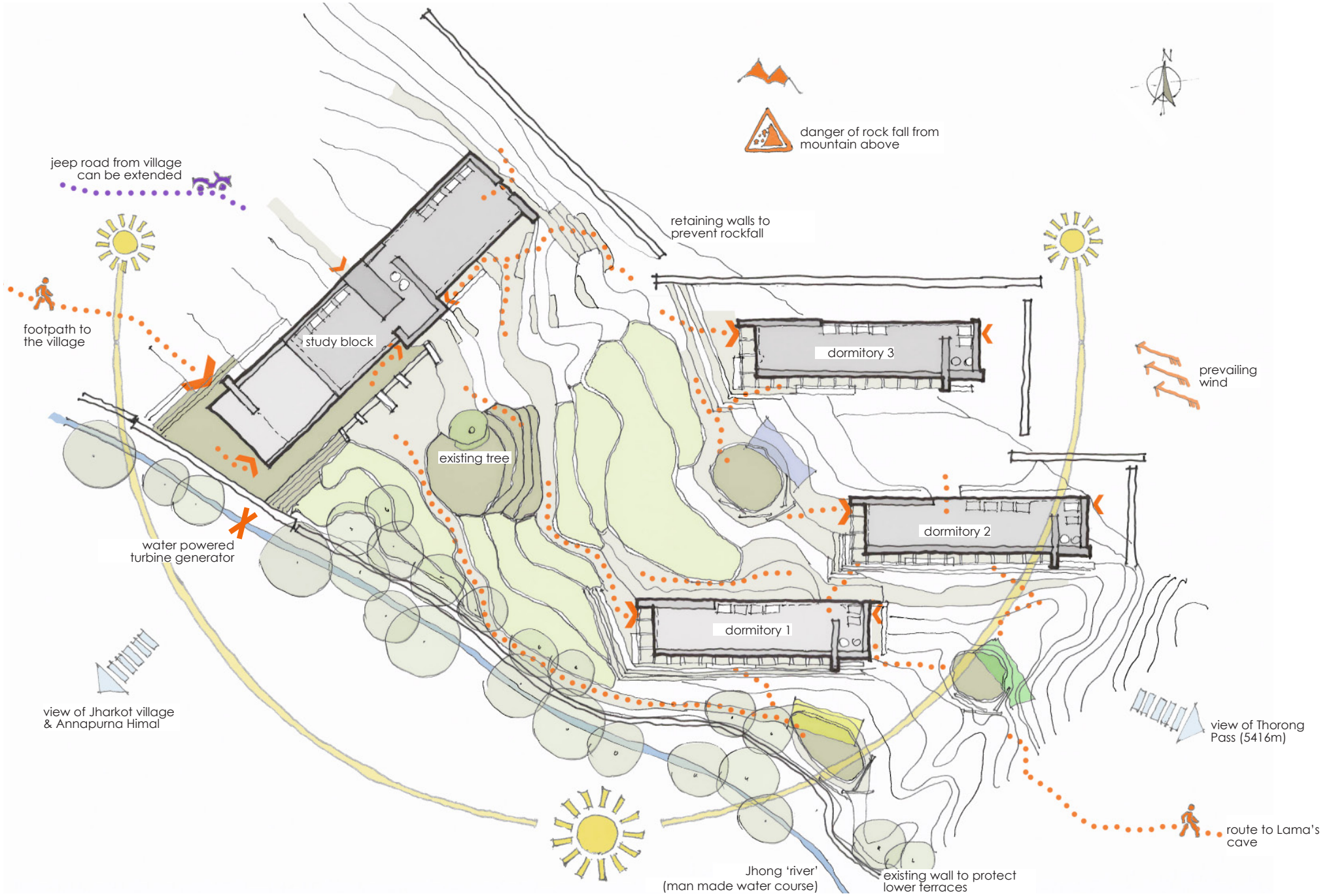
3 learning
different size outdoor seating with visual connection to main study areas and stage

4 social gathering
partly shaded central meeting place at the heart of the sleeping accommodation, central communal area to socialise

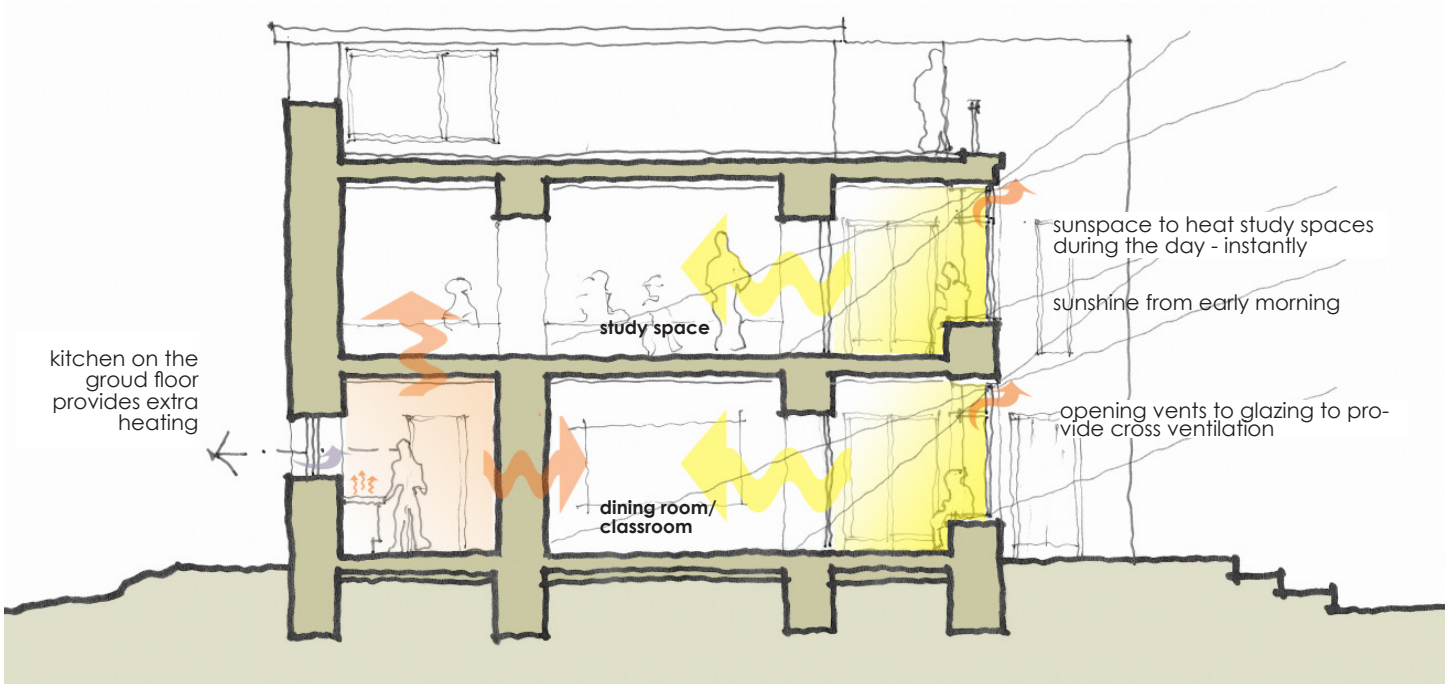
5 relaxing
partly shaded private space
low maintenance growing area - orchard, informal outdoor learning

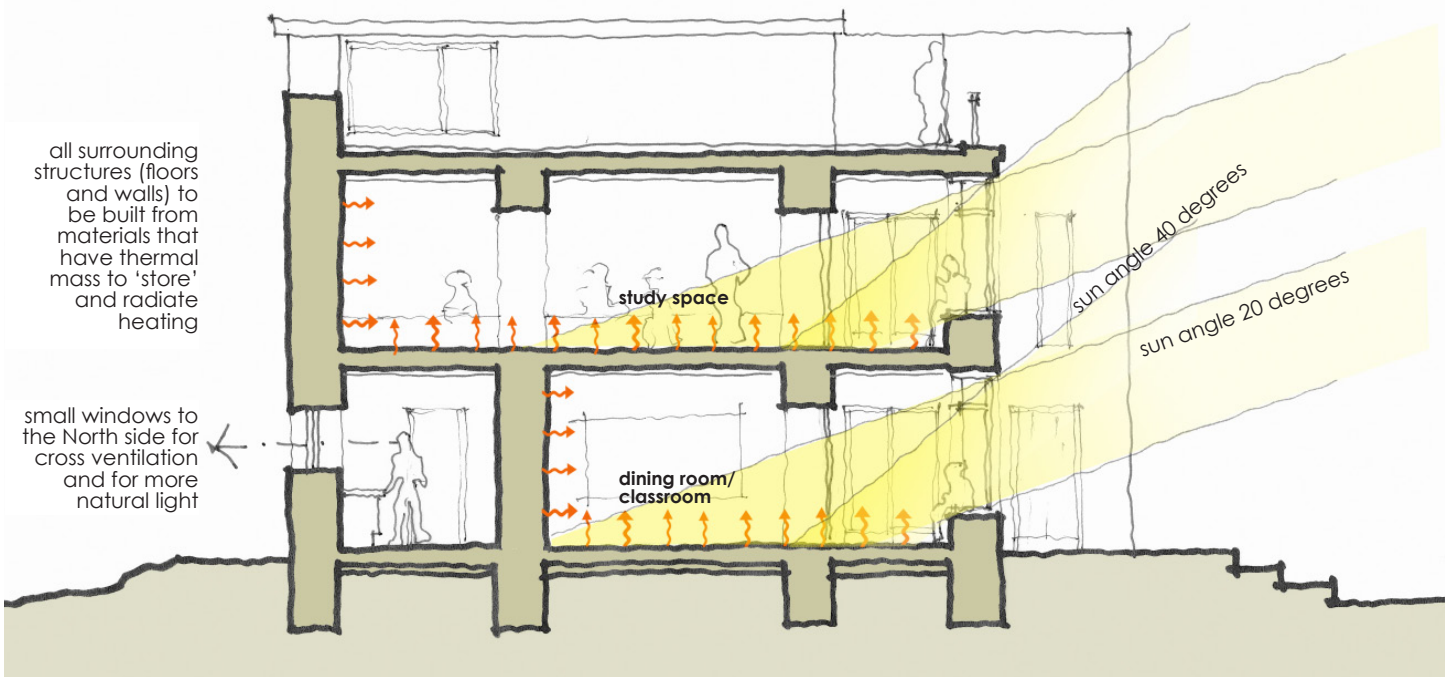
6 growing
following the local terraces pattern, vegetable 'garden' to produce own food
learning activity space, visual link to the study areas
recycling the waste from the toilets and the compost from the kitchen

16. Site plan



17. Study block





One study block is proposed and most classrooms will be multiple purpose rooms to maximise the use of the space. Classrooms will be used in non-teaching periods for dining, praying, self-study and library activities etc.

Key design issues:

heating from early morning - the building is orientated to south-east, about 30 degrees off true south in order to catch the morning sun and provide instant heating from the start of the day. direct sunlight is utilised until the thermal mass can take over.

thermal mass - maximize internal exposed thermal mass, so the heat from the solar energy can be stored in the floors and walls. this would dampen down daily temperature fluctuations and provide radiant surfaces that warm in winter and cool in summer.

insulation - outside walls and roof should be well insulated to retain heating.

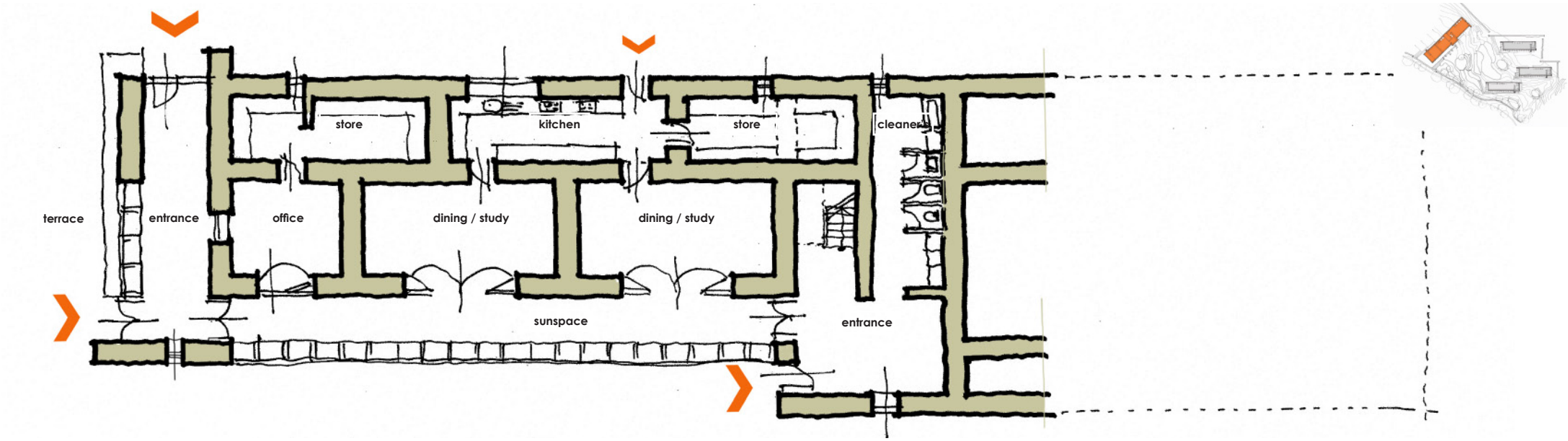
natural light - it is important to create an inspiring learning environment and there is plenty of natural light within the building to minimize electric light usage.

visual connection to outdoor learning spaces - it is necessary to keep strong relationship between learning spaces to encourage interaction.

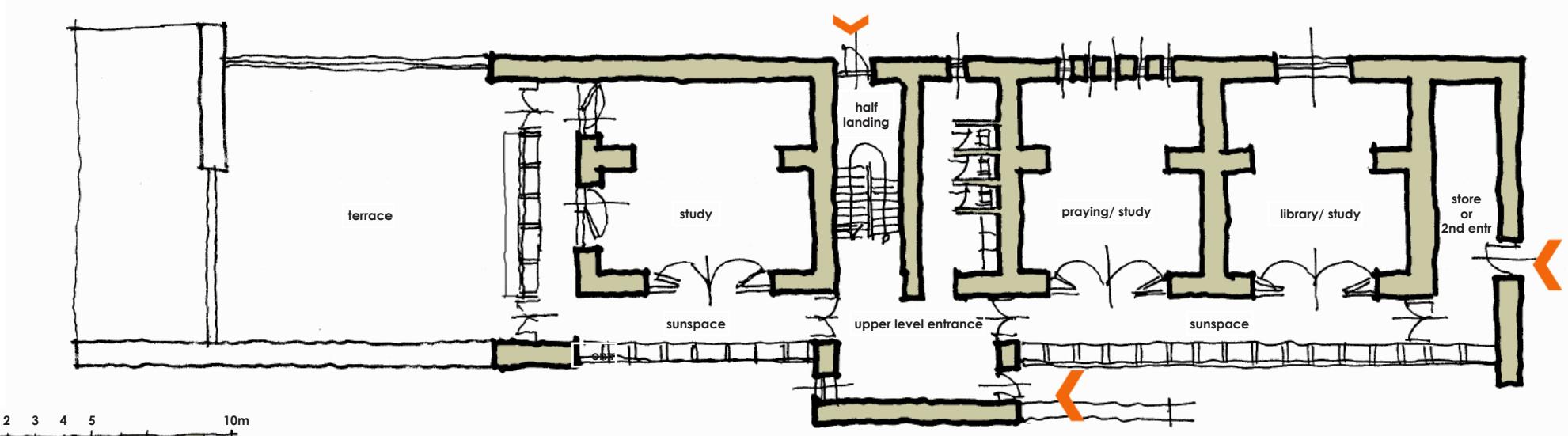
cross ventialtion - to deal with possible summer overheating and the relatively large occupancy. There are small windows to the back and opening vents to the sunspace glazing. the lobbies can also be opened up to flush air through at the back of the glazing.

air lock lobbies - to protect sunspace from heat loss while entering the building.

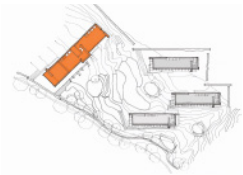
18. Study block plans



Lower floor plan

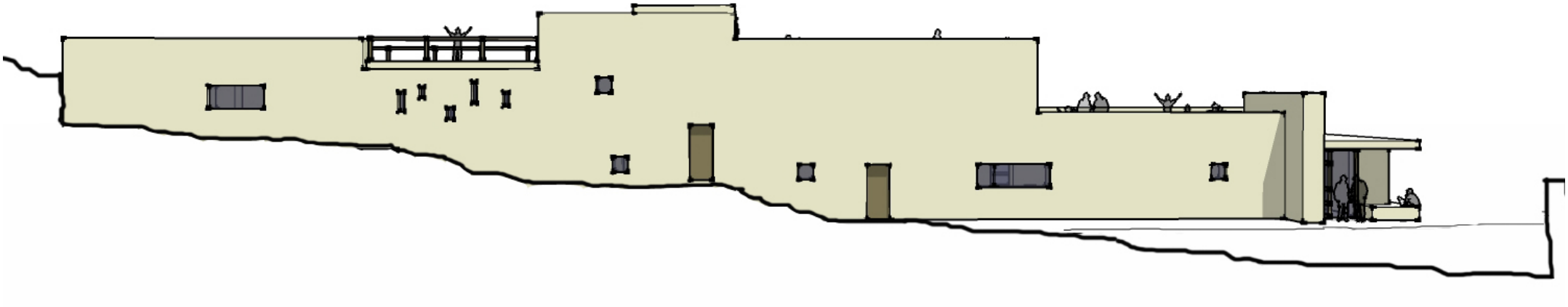


Upper floor plan

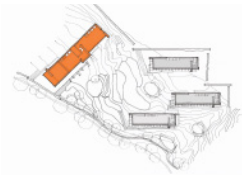


19. Study block

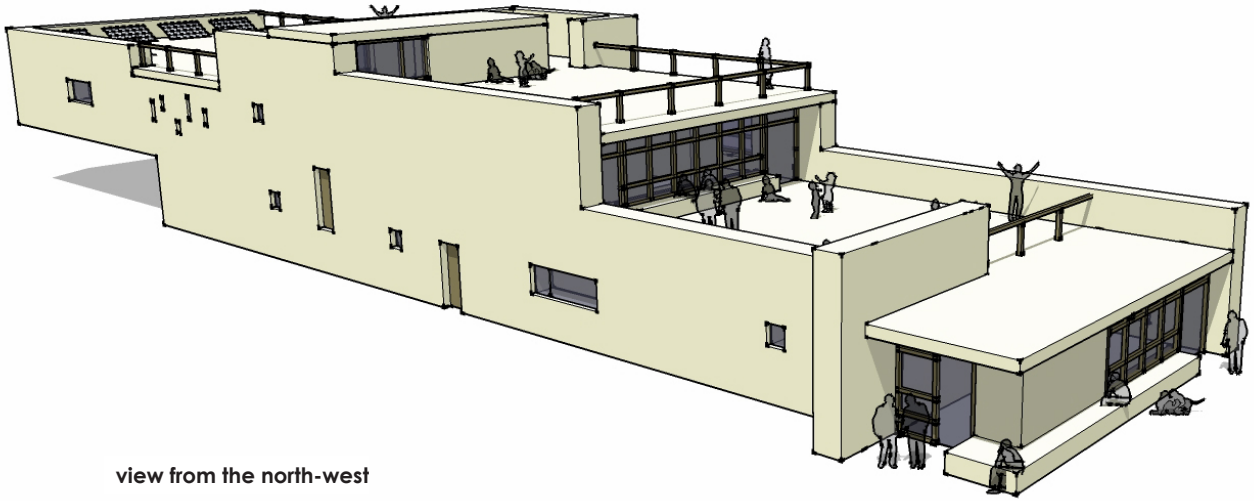
South - East elevation



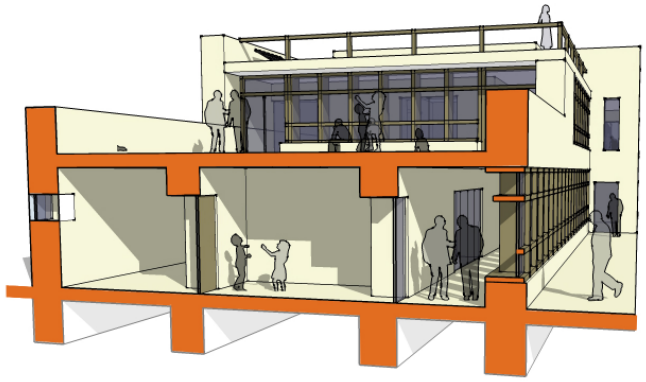
North - West elevation



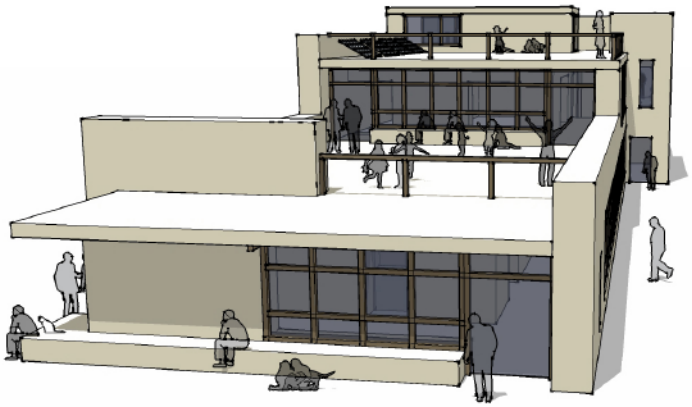
20. Study block



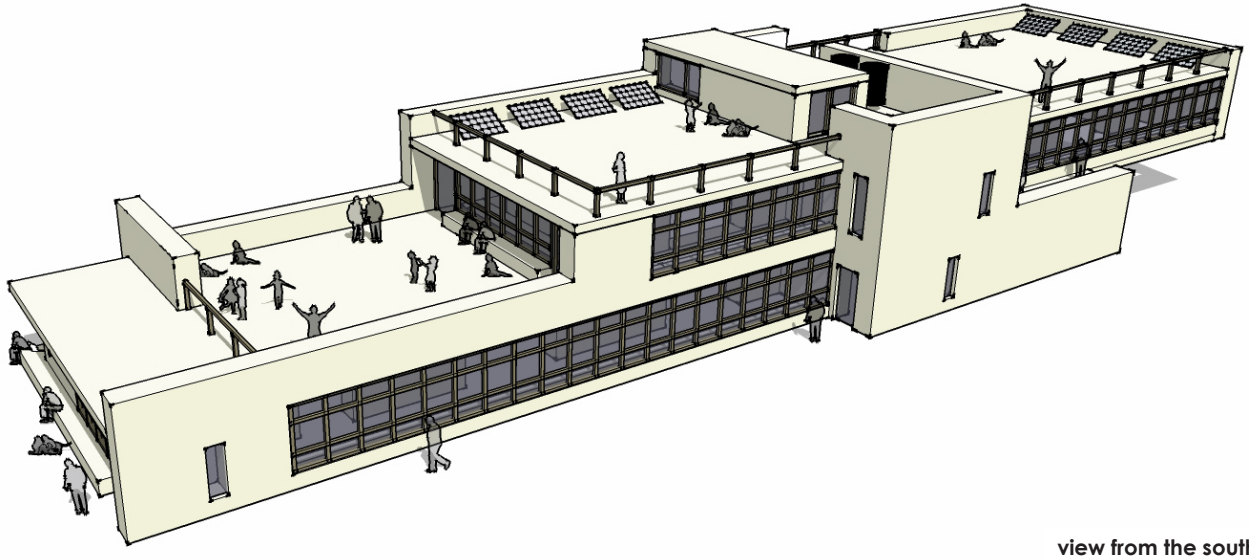
view from the north-west



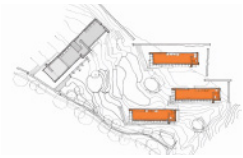
section through terrace



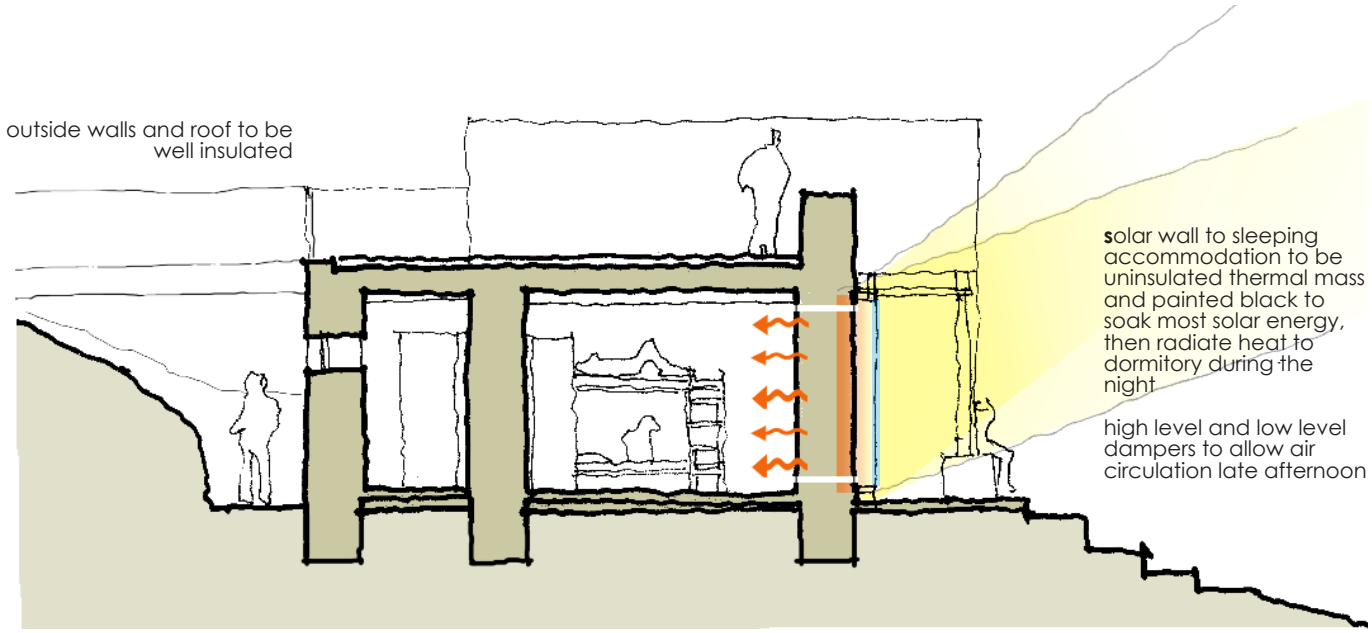
view from the south-west (main entrance 'porch')



view from the south-east



21. Dormitory block



Three dormitory blocks are proposed. Two of these are mainly for students, the third one is mainly for staff and guests. The design criteria for all blocks is the same, but the internal room configurations may vary.

Key design issues:

heating during the night - the building is used mostly during the night, from late afternoon to early morning. we need heating during the night, so the building is orientated to south to maximise solar gain during the day.

thermal mass - maximize internal exposed thermal mass (floors and walls), so the heat from the sun energy can be stored. the solar wall is painted black to maximize solar energy intake and radiate heat to dormitories during the night.

insulation - outside walls and roof should be well insulated to maximize winter heating.

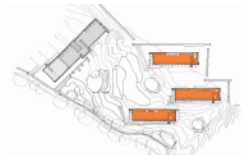
ventilation - it is essential to be able to ventilate the sleeping accommodation and provide views out to the south. there are small windows to the corridor and opening vents to the solar wall. the lobbies can also be opened up to flush air through.

shading - summer temperatures can be very high and would require some treatment - pergola to the south that can take fast growing climbing plants.

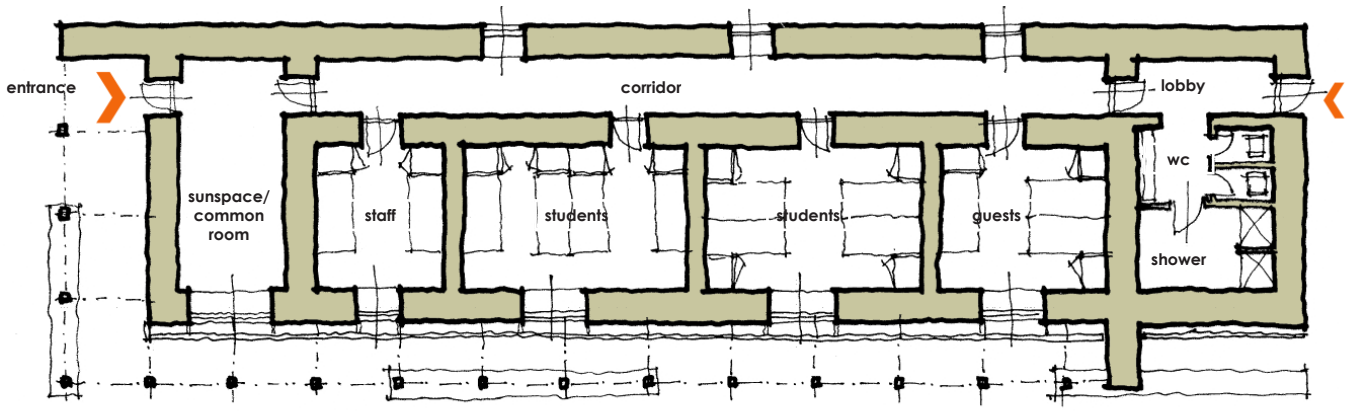
comfortable room layout - the solar wall should not be populated to allow free heat transfer. beds are not directly positioned to the walls. there are tall cupboards between the beds and the corridor wall to provide sufficient storage

washroom and toilet facilities - there is one shower and two toilets with washtroughs (continuous wash basin) water tanks and solar panels directly above on the roof. the black metal wall to the front of the toilets provides a natural stack vent for waste storage underneath.

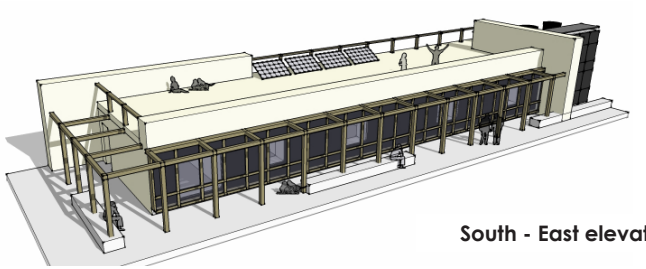
air locks - there are lobbies provided to both entrances to minimize heat loss while entering the building.



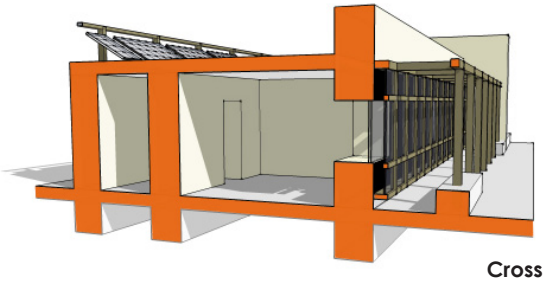
22. Dormitory block



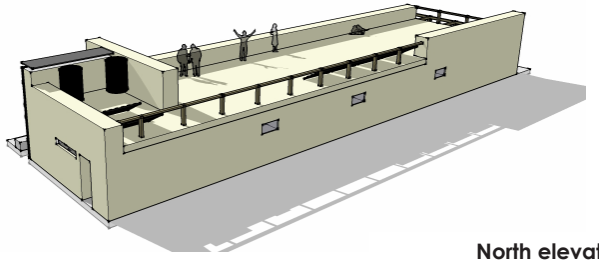
Floor plan



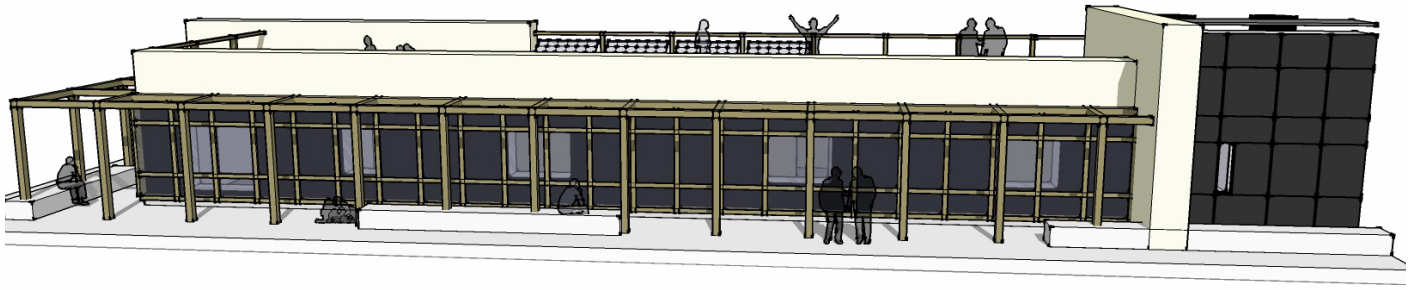
South - East elevation



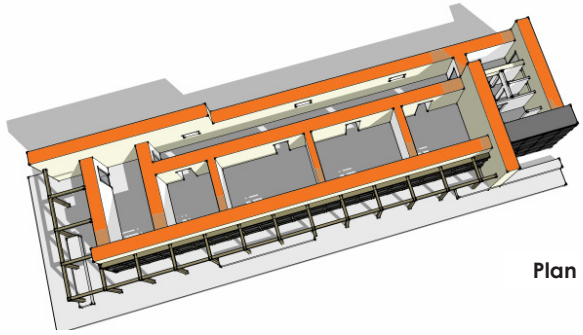
Cross Section



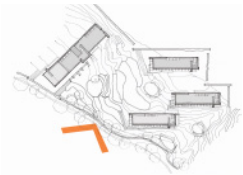
North elevation



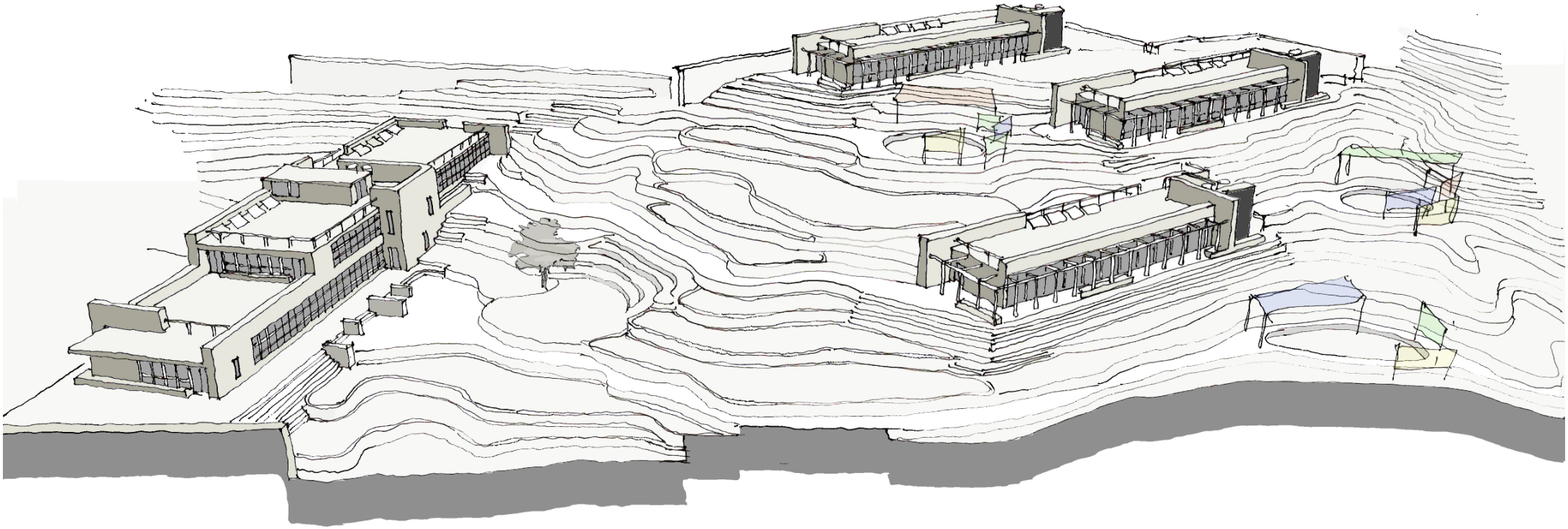
South Elevation

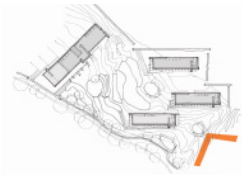


Plan Section

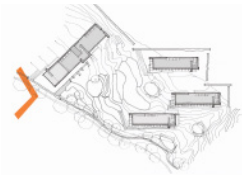


23. Site perspective 1

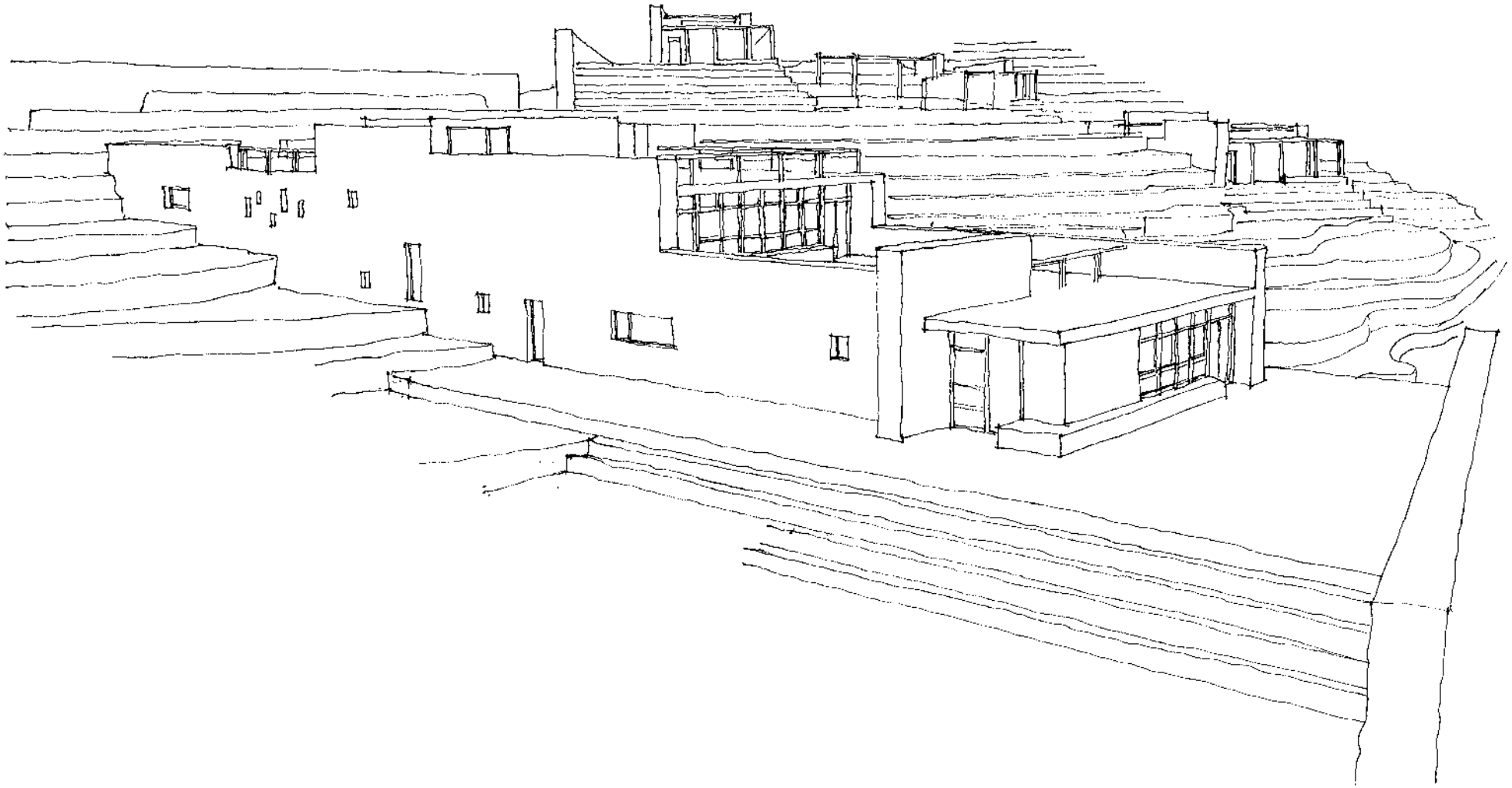




24. Site perspective 2



25. Site perspective 3



26. Suggested phasing

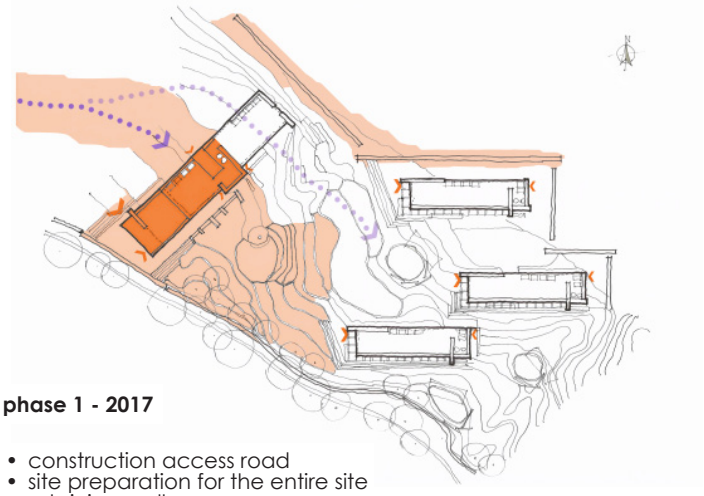
Target programme:

Each phase can be built in one season (April-October). The phases can be implemented in a parallel manner.

Funding is a critical factor in the timescale of the project. The physical construction can be completed in two or three seasons, with anticipated fundraising we believe the project would take five seasons to realise.

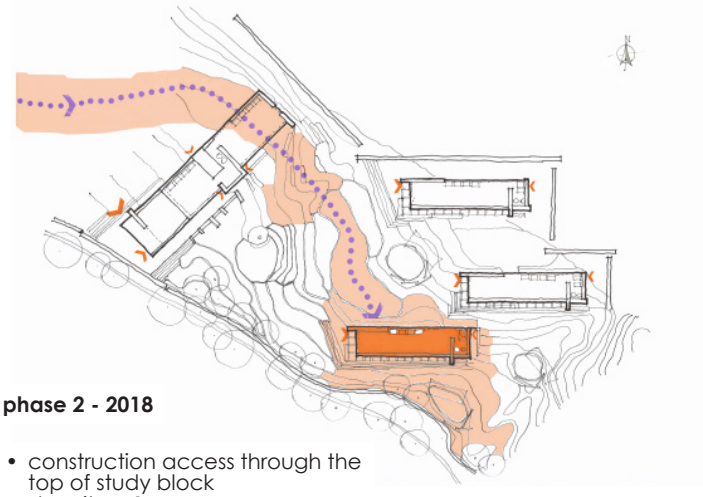
Phase one will consist of the school block in order to start providing education within a year of the project initiation.

Due to the site constraints, the majority of the site preparation work and the construction of the retaining walls will have to be included in phase one. This will be by far the largest phase.



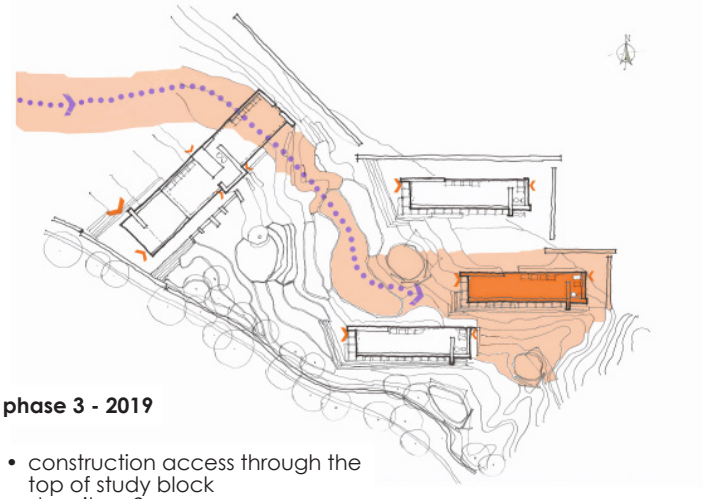
phase 1 - 2017

- construction access road
- site preparation for the entire site
- retaining walls
- 2/3 study building
- related landscaping



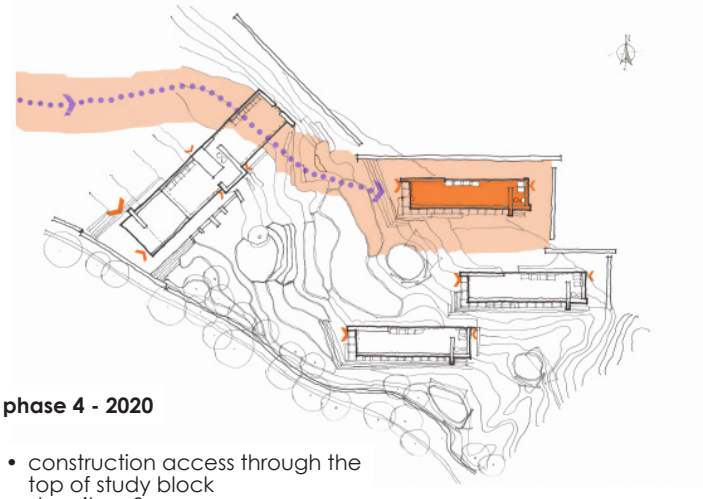
phase 2 - 2018

- construction access through the top of study block
- dormitory 1
- related landscaping



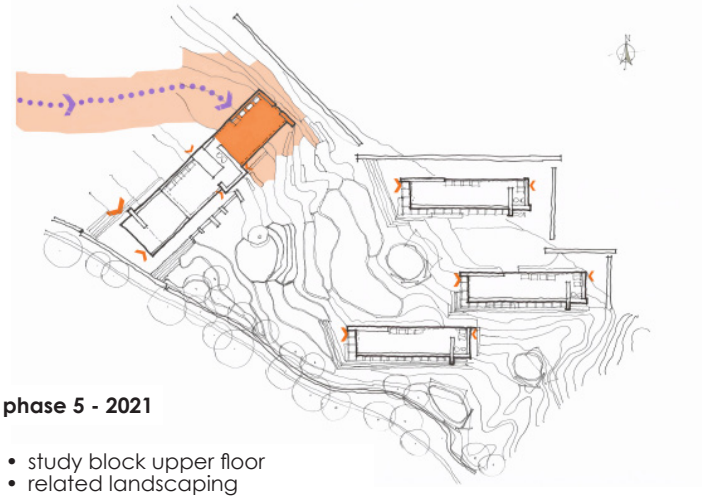
phase 3 - 2019

- construction access through the top of study block
- dormitory 2
- related landscaping



phase 4 - 2020

- construction access through the top of study block
- dormitory 3
- related landscaping



phase 5 - 2021

- study block upper floor
- related landscaping

27. Benefits

Vehicular access and electrical power are irreversibly changing the local economy. In order to take advantage of the booming tourist industry and supporting industries such as agriculture, a higher level of education is needed.

The local culture is supported by preserving traditional knowledge and customs that have been built up over many generations. The new school would have a resident 'amchi' (Tibetan medicine man) who would give the children the opportunity to learn the basics of Tibetan medicine - recognizing and collecting the plants that are used in the traditional healing practice. Children would also be taught the Tibetan and English languages as well as arts and crafts.

Education would be given equally to all children irrespective of sex and ethnicity.

The area is breathtakingly beautiful, relatively unspoilt and situated between some of the highest peaks of the world. Because the buildings are created from local materials and reference traditional styles of architecture, they would blend in well with the existing landscape.

Local labour will be used where possible in order to
1. support the local economy
2. train people in sustainable techniques.

This project will provide sustainable and vernacular buildings that are sympathetic to their environment. This would be opposed to the latest building trends of concrete frame structures that are unsafe, out of scale and out of context.