The Mt.Tron Mail

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Mt.Tron seen from Alvdal with the river Glomma in front, 17th November 2006. Photo: BP.

Mt.Tron University of Peace

A humaniversity for universal harmony

Detailed project description

(Continuation from no. 1, 2 and 3 earlier this year, where background, foundation, conditions and goal for the project were described in no. 1 and 2. Here it continues with description of the concrete preliminary project, which started in the previous issue).

DESCRIPTION OF THE PRELIMINARY PROJECT

Functions and Space (Cont.)

Entry "towers"

From the entry hall there is also access to the two "towers". The one to the left contains a couple of public toilets and open stairs up and down. The gently curved stairs down give access to wardrobes and more toilets and also to the public archives. The stairs up lead to a technical room with observation equipment on the 2nd floor and to the telescope room itself on the 3rd floor. The telescope is a 16" Meade SCT (or equivalent) telescope equipped with an electronic AP6 CCD-digital (or equivalent) camera. The telescope will be used by a permanent, local group of students and other interested people, and it can be worked by remote control via the Internet. At the ground floor the left tower also contains a kiosk to serve both long term and day guests.

The tower to the right contains one single, three storey high, square room which is the foyer to the assembly hall. From the balcony at the second floor one looks down both into the foyer and into the assembly hall. Two large windows at 3rd floor level give daylight to the space.

Eastern wing

Apart from the two towers this wing is one storey with slating ceiling and articulated constructions. The northern part is the dining hall seating 180 people. The southern part is the kitchen with an extension functioning as a greenhouse/bio shelter. The southern slanted wall of the greenhouse is all glass and the kitchen gets its primary daylight through a glass wall towards the greenhouse. From the dining room there is a panoramic view over the mountain ranges to the east and a large glass wall towards the gallery connects the space with the courtyard. The dining space is subdivided by means of the exposed constructions and their supports into smaller units of space each holding18 seats. This is to make the hall more intimate to smaller groups and single persons. There are buffet tables along the centre. Doors from each dining unit open to the gallery.

Southern wing
This wing in one storey with slanted roof contains purely service functions with no guest areas. To the west is a garage for a couple of cars/snowmobiles and snow scooters. In the middle is the goods entrance for service personnel and delivery. Stairs and elevator give access to storerooms in the basement. Kitchen functions such as scullery and bakery are located here in connection with other secondary kitchen facilities. The gallery in this wing is open to all as a bypass.

Assembly hall
This two-storey hall is square with double symmetry. It is entered from the foyer tower along a diagonal. The central main space is octagonal, has a flat floor and is covered by an eight sided, low pyramid. The hall seats about 450 people in a conventional lecture arrangement. Mobile platforms and pull-out stepped podiums allow for a multitude of arrangements. A central skylight underlines the multi-purpose character of the space. Three minor two-storey halls at the corners can be closed off for separate use independently of the main hall for exhibitions, seminars, banquets etc. They each have a different view towards the surrounding mountains. They can also be used as extensions of the central space. When the central space is used for a separate function the minor halls can be reached via the second floor "bridges" connecting the closed spaces used for service functions. These spaces serve at first floor as storage for chairs, tables, platforms and podiums and as access spaces for the minor halls. On second floor they contain rooms for video projection, audio equipment, computers, steering devices for artificial lighting etc. The "bridges" are faced with clear glass on both sides so that daylight enters the central space via the minor halls. When any of the halls need darkness the light is regulated with Venetian blinds. From the minor halls sliding doors open to triangular outdoor terraces for people to draw some fresh air and enjoy the view.

Northern wing
This wing is conceived as one single large, three-storey space. It is covered by a slanting roof meeting the built up rock foundation in a curve. Daylight pours in from the south through the glass wall towards the courtyard filtered through solar cells embedded in the glass. The lower, northern part of the space is lit by a row of six large skylights placed level with the roof. Open balconies in the second and third floor serve as a library while the living room for guests with mainly groups of sofas and armchairs is the dominating function at ground floor. A huge open fireplace also serves as an important member of the main construction. The western part of the space at ground floor can be shut off from the living room by sliding walls to be used for seminars or even small conferences. Open stairs lead to the library at second floor with 900 metres of shelf space, librarians' desk, reading places for research, a department for periodicals with armchairs and a space for computers. This floor can also be reached from the gallery in the West wing. The stairs continue to a newspaper-/ TV room at third floor with large sofas and a magnificent view over the mountain ranges towards the east and south. The news room can also be reached from the west wing gallery.

Western wing
This wing is a narrow, "heavy" linear structure in three storeys which dominates the entire complex and acts as a sort of backbone onto which several other structures are "hung". Three galleries, one on each floor, the northern wing with gallery, the courtyard and the southern wing are all connected to its eastern side. Four three storey piers with guest rooms are attached to its western side while the southern end of the wing gives access to the five storey tower. The west wing is mainly occupied by guest rooms but at ground floor they are replaced by three seminar-/meeting rooms, a health clinic and service rooms. The main stairs and elevator are located in the west wing with easy access from the northern, main gallery. Secondary stairs in the southern end serve the internal communication as well as the tower.
From the two upper galleries there is a splendid view of the eastern mountain ranges. The gallery itself is wide enough to allow a few chairs to be brought here to relax and talk while enjoying the view or to meditate on the rising sun. The rooms have their own shower-/toilet unit and a French door opening to the view of the western mountains. The 8 rooms with ordinary double beds are located in this wing. The rest of the rooms are basically single rooms but with a second, optional bed folded against the wall as in a train sleeper.

Piers
The four piers are identical. The narrow shape with only rooms towards south is chosen to have all rooms lit by the sun and to avoid a central, dark corridor. The roof starts at ground level and curves over the top of the west wing. There are guest rooms on all three floors in addition to a single office space at ground floor in each pier. Some of the rooms have extra high and slanted ceilings due to the shape of the roof. In 8 of the rooms the ceiling is high enough to allow for a loft room with an extra bed. The pier has an internal backbone in the shape of a heavy rock wall which is the main structural element. On entering into privacy one penetrates the heavy wall and gets a feeling of extra protection. The outer wall of the rooms is slanted to allow for a French door towards southwest and the fine view. The view will be better than seems possible at first glance at the plans since one is looking over the curved roof of the neighbouring pier. A small square window secures privacy but also allows the early sun to enter.
The room is dominated by a wooden element containing the bathroom and an alcove with basically a single bed but also with an optional extra bed like in the west wing. Still another bed can be pulled out under the single bed to make a kind of a double bed. A writing table with a light chair and a shelf on the wall receives daylight from the left and an armchair is placed so that it points towards the view. A clothes cabinet at the end of the table delimitates an entry zone for over wear, boots, skis etc. Where there is a loft this has a bed, a clothes cabinet and a writing table towards the main room. The loft is entered by a ladder attached to the clothes cabinet in the entry zone.
The pier at ground floor ends in a storage room and an exit to the open space between the piers where the sun can be enjoyed for a few days a year. A low rock wall defines the border between the cultivated and the natural surroundings, and keeps the sheep out.

Tower
The tower is the culmination of the upward spiralling movement of the roves. In plan it reinforces the diagonal created by the assembly hall, the foyer tower and the courtyard. It is a square rock construction in four storeys topped with a very light construction covered by a double curved roof. The rock walls are only sparsely penetrated by windows giving light to the caretaker's spaces at ground floor and to flats for staff on the remaining floors. The top room is entirely glazed from floor to ceiling to celebrate the extraordinary view: undoubtedly the very best view in the country covering all the main central mountain ranges.
The multipurpose room has a 100 square metre free floor space with open view to all sides. Access is via spiral stairs from an ante room below. Furniture is limited to pillows.
There are three flats for couples and two flats for singles. Each flat has its own small kitchen corner, dining area, bathroom, entry zone and separate bedroom, in addition to a living room with two double French doors opening to gorgeous mountain views. The French doors can, at the sides exposed to wind, be protected by sliding shutters.

"The Peace Plateau" as seen from Sørkletten towards the peak. Illustration from the project description. Photo: BP.

Courtyard

The courtyard is in a way the most important space of all as it symbolizes the quiet void within around which all activity centres. Its paved surface has a depression in the middle forming a pool with no defined edges. In the pool a small hill covered with grass and flowers rising to about 2 metres marks the underground silence room. From the skylight on top of the hill water is running in a gutter to the pool. In the pool itself another triangular skylight lights the entrance door from the ante room to the silence hall. This ante room is reached from an extension of the northern gallery near the main stairs. Here, stairs descend into the ante room via a wide opening in the ground covered with a light glass construction extended from the gallery. Most of the courtyard is on solid ground and therefore permanent plants, even small trees, can grow there. Being screened from the cold western winds will makes this space a favourite place during breaks and a couple of benches along the edges provide rest for sun seekers taking the time to enjoy a cup of tea.

Silence hall

The silence hall is a circular space covered by a dome and sunk into the courtyard so that only part of the dome shows. The intention is to give the hall a cave-like feeling. Its walls are exposed rock and a bench formed from the rock is running along the perimeter of the space. Otherwise the space is empty with a flat floor covered with a carpet with a mandala design. The space is lighted by a circular skylight at the centre of the dome. The hall is entered from an oblong ante room narrowing to connect to the eastern side of the hall. This is done to minimise as much as possible any disturbance from the coming and going as normally people will be using the hall in an uncoordinated way. In the ante room users furnish themselves from shelves with pillows and shawls. The ante room is also accessible from the main stairs as well as from the elevator. The floor of the hall is lower than the average floor in the basement. The floor of the ante room is therefore slanting slightly, increasing the feeling of moving down into the earth.

Basement

A basement is excavated under all buildings except for the piers which only have culverts for technical installation. Some of the basement functions have already been described and apart from those most of the space is storage. However some specific functions shall be mentioned. The basement under the kitchen contains food stores and a plant for treatment of the biological kitchen waste. Under the northern end of the west wing washing and drying rooms are located and under the north wing is a sauna and steam bath facility with pools and showers. Under the rest of the north hall is a plant for biological sewage waste treatment. Sewage is here turned into a harmless dry product suitable as fertilizer. Under the assembly hall and foyer a group of rooms functions as more or less public archives of book collections, art and objects collected though donations from all over the world. At the centre the space is used for temporary and permanent exhibitions from the archives. An ante room holds computers, registers and tables for researchers.

Materials

The multiplicity of forms is counteracted by the consistent use of only a few simple materials. Rock walls anchor the buildings to the natural rock. The walls "grow" out of the ground and could basically stand by themselves. Their lightly slanted outer surfaces reinforce this anchoring to the ground and facilitate their construction. Ideally all the stone walls should have been built first as a framework seemingly cut out of the natural rock itself and then the lighter constructions added later. The intention is to create a clear feeling of the walls growing up from below and the rest of the building being lowered down to be supported by the "natural" walls. This means that the stone walls "grow" as high as needed in each case for support and fire protection.

The second material is wood. New research has opened up for wooden constructions even in apartment buildings. Once the fire protection is properly taken care of wood can be used in all constructions and the use of concrete and steel can be reduced to a minimum. Wood is also economically advantageous in this location with only a short period of road access as it secures a dry, fast building process with light elements (difficult transport).

The third material is glass. New types of glass with increased energy efficiency are constantly being developed. Large glass areas are therefore not necessarily a waste of energy. Glass with embedded solar cells is used in the large south wall in the north wing and probably also in the galleries of the west wing if feasible. Glass frames are made of wood with aluminium on the exposed outer surfaces.

The fourth material is the grass covered roves. These roves are traditional in Central Norway. They are beautiful and long lasting. The "grass" in this case is not ordinary lowland grass but a combination of the sparse vegetation on the plateau. The tower and the telescope cupola are clad with sheet metal. Interior floors in ground floor galleries, kitchen and service areas are all polished natural stone. All other floors are from wood. Interior walls are, where not stone, all panelled with wood, possibly painted.

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Equipment

All furniture is made of solid wood upholstered with textile. Carpets, apart from in the silence room, are only used in the living room and library. The guest rooms and staff flats will eventually have some small carpets. These are all specially designed for the Peace University and probably handmade in Tibet. Ceramic tableware, glasses, cutlery, tablecloths and furniture textiles are also specially designed and produced for the site by some of the many craft friends of the Peace University. Many kinds of art objects produced specially for this purpose by artist friends from all over the world are found both indoors and outside. Each guest room has a painting or other art object which can be exchanged by the guest from a store of art in the archives. The choice is made from a visual database between a wide range of art objects from Tibetan thangkas to modern photographs and posters.

Provisions

A natural water source emerges on the plateau close to the site at the foot of the mountain top. A small dam with a pump and an underground pipe will generate the necessary freshwater.
Electrical energy is provided for the existing technical installations on the mountain top. A line will have to be drawn from there. Eventually the Peace University should supply its own electricity from a wind generator located together with the other two technical installations on the summit.

External services

Extra hotel capacity, both large scale and private, in the valley is needed at times of big events with several hundred guests. Ecological grain, vegetables and egg production will naturally occupy farmers in the neighbourhood and the valley. Daily transport of external guests by bus, taxi and snowmobile will be a major undertaking. There will be a number of service jobs for local people at the Peace University buildings, for example cooking, cleaning and general maintenance.

CONCLUSION

The Mt. Tron Peace University as a living place

The activity level in the Mt.Tron Peace University will vary greatly. At times the place will bustle with activity with hundreds of people milling around, at times it will be very quiet with only a few residents absorbed in their own projects. The challenge for the architecture is to prepare the stimulating, human backdrop for both types of activity level. One the one hand, in a very practical sense all the spaces shall be shaped to handle masses of people communicating and relaxing in one type of space and then moving effortlessly to another type of space. One the other hand, any space shall also be inviting to a single person wanting to make use of its potential. The flow of movement shall be so natural that minimal directional signs are needed. This is achieved by the right use of dimension, proportion, texture and colour.

Architecture is the delightful play of light and shadow over surfaces of different materials and patterns. A natural use of materials where the properties of each material is well known and clearly exposed will quieten the mind. The right introduction in each space of abundant sunlight will give meaning to the space and connect to time and the outer world. How stimulating and uplifting are shafts of sunlight "wandering" through and articulating a space and its familiar surfaces, be it a room or an open landscape!

The basic intention behind the architecture of the Mt. Tron University of Peace is to create an environment, in this inhospitable but at the same time extremely uplifting environment, which is so functional, natural, beautiful and filled with light that, not only does it put minimal stress on the mind, but it also exposes the radiant beauty of all creation.