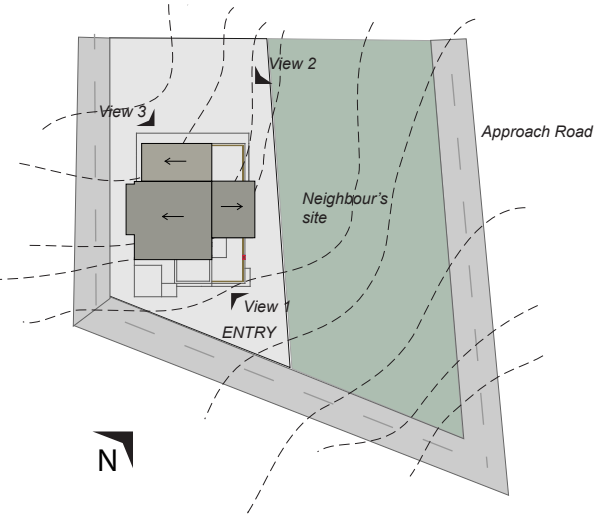
A DYNAMIC PAVILLION SET IN NATURE

Team - Design Praxis: Shivendu Jauhari, Neha Saxena, C S Raut (Client)



The lack of a definite front and back to the house bothers a few visitors. But which exactly would be regarded as the front elevation? The elevation you see while approaching the house from the access road or the elevation you see while entering the main gate or the one you see as you walk along the side lane or the one you see while lazying around in the back garden. The building is so designed as to act as a Pavilion, an object in a field of space. In future also the house shall remain open on all sides. The only possibilities of it getting blocked are from the north-eastern side, but thats if the neighbour decides to build a two-storey house.

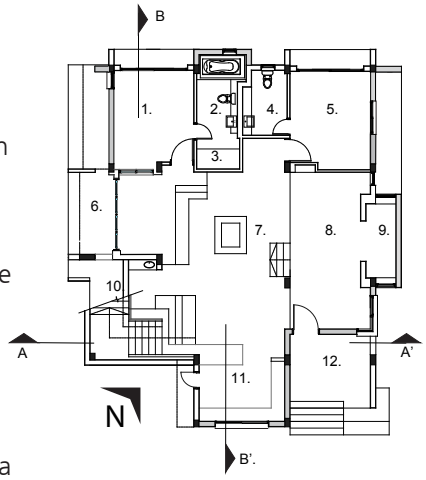
View one : Entrance

View two : From Aproach Road

Site

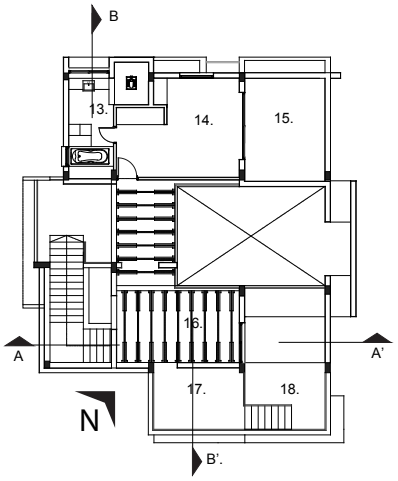
Building's Dynamic Juxtapositioning in Nature

Building that interacts with the surrounds in a dynamic way is hard to come by. Doing justice to the site is a task in itself that needs to be done with great care and caution. A sloping site, offers great potential to the architect interms of views and division of spaces using different levels. That aspect of the site has been utilized to maximum potential. The positioning of windows and sliding doors offer great views of the hilly terrain. The ground floor is fragmented into different levels, with living, dining area and the back veranda at different levels within the ground floor. Even on the first floor level the views of the city glittering away at night



Ground Floor Plan

1. Bedroom one
2. Bathroom one
3. Wardrobe
4. Bathroom two
5. Bedroom two
6. Stone Garden
7. Living Space
8. Drawing Room
9. Pooja Enclove
10. Store under stairs
11. Kitchen
12. Front Veranda
13. Master Bathroom
14. Master Bedroom
15. Terrace
16. Music Room
17. Terrace two
18. Terrace three



First Floor Plan

Client

His Awareness, Involvement and Constructive Criticism.

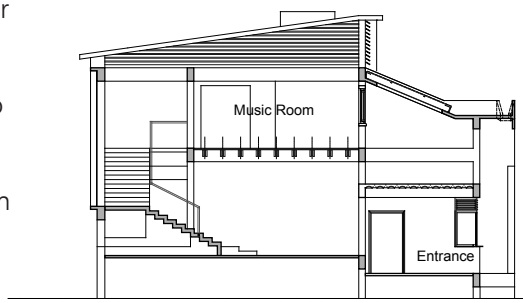
An aware and conscious client is every designer's dream come true. Somebody who complements and not contradicts, offers his suggestions instead of dictating his terms is a joy to work with.

FACT FILE :

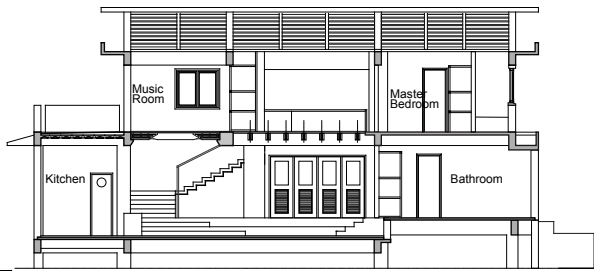
Client :	C. S. Raut
Built up Area :	272.55 sq. meters
Year of Construction :	2009 (ongoing)
Design team:	Shivendu Jauhari
	Neha Saxena
	C. S. Raut
Structural Consultant:	Y. S. Sane

View three : From the Garden

Right from the conception of the project, the client was actively involved in how the project would shape up. Whether it was his willingness to try out unconventional construction techniques or his commitment to green modes of living, he was always
an active participant in the design and construction process. The building is a clear reflection of his mind, spirit and soul.



Section A - A'



Section B - B'

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Materials & Techniques

Energy, Water & Materials

Energy Conservation:

1. Natural Ventilation: The double volume acts as a heat buffer. The rising hot air gets blown away through the louvers on the front elevation. This greatly reduces dependence on artificial methods of cooling. The house utilises the natural flow of wind on the site to cool the house. Ample fenestration on the windward and leeward sides aidsin cross-ventillation.

2. Natural Daylighting: Abundance of openings on the south side and the glass panels on the roof allow ample natural light to filter through into the house. The rooms don't need any artificial lighting during the day. This further aids in cost saving and energy conservation.

3. Solar Water Heater: Provison is made for the PV Panels to be added in future on the roof

Water Conservation

Rainwater runoff from the roof is collected at an underground tank with a capacity of 20,000 lites. At the time of design, the site did not not have municipal supply lines of water laid down. The designer had to provide for enough water storage such that the household could manage its activities using rainwater from each monsoon. There is an overhead tank situated in the loft space (capacity 1000 l).

Material Conservation

1. Rat Trap Bond: This arrangement of bricks uses only 75% of bricks used in a standard wall of the same length and height. The exposed brick wall is laid using the rat-trap bond.

2. Filler Slab: For roofs which are simply supported, the upper part of the slab is subjected to compressive forces and the lower part of the slab experiences tensile forces. Concrete performs well under compression and steel bears the load due to tension. Thus, the lower region of the slab doesn't need any concrete except for holding the steel together. In a RCC slab a lot of concrete is wasted and it needs extra reinforcement due to extra load of the concrete.This can be replaced by low-cost and light weight filler materials. These filler materials reduce the dead weight as well as the cost of the slab to 25%.

Timber (recycled timber from the ship-wreck):
All the timber was fetched from the ship wreckers at Alang (Gujarat). The doors were recycled and adjusted to suit the new dimensions.The louvres, door frames and the window frames are made out of this timber.
Timber used:
Red Pine
White pine
Chil

Stone Masonry
Black : Basalt (locally available)
White : Limestone (Belgaum)
Floor tiles : Kota (green)
Kadappa (grey-black)
Tandoor (bluish)
Wall Clad : Slate

Brickwork:
Exposed brickwork was done on some external walls (using Rat-Trap bond) and the feature wall in the living room.

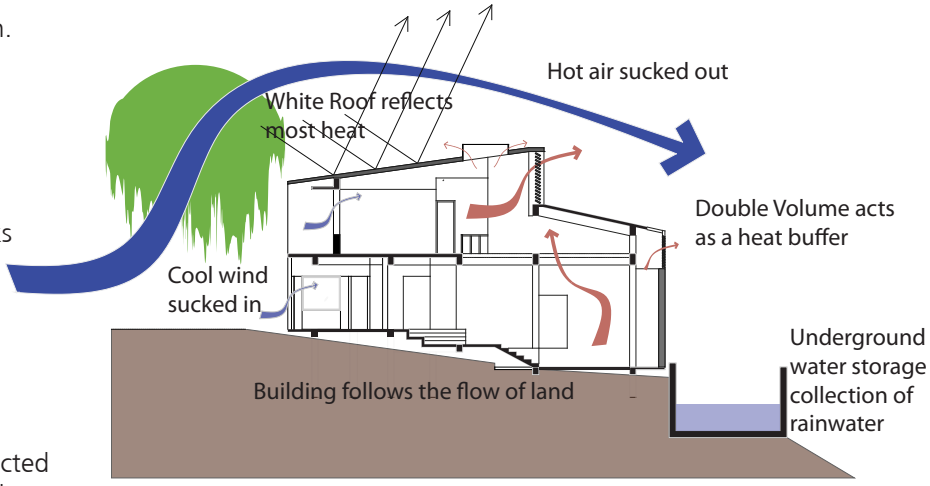
Glass:
toughened glass is used as skylights in the central core establishing that connection to the sky

Roof Sheeting:
Steel sheeting is used instead of fibre cement (ecologically harmful)

Stairs leading to the level above

Bedroom Entrance and Pooja enclove

Central Core of the House



Filler Slab from the inside

Rat-Trap bond in exposed bricks