

Guest House, Solar Energy Centre Gurgaon

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Guest House, Solar Energy Centre. The first building to be put up in the Solar Energy Centre campus, this has an earth shelter cooling system. Solar water heaters have been integrated with the architectural design.

Although this was the first building to be completed in the campus of the Solar Energy Centre, it has been very sparingly put to use.

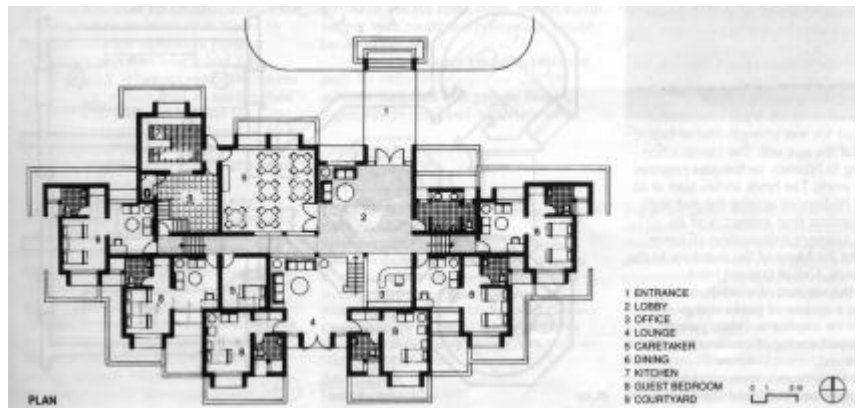
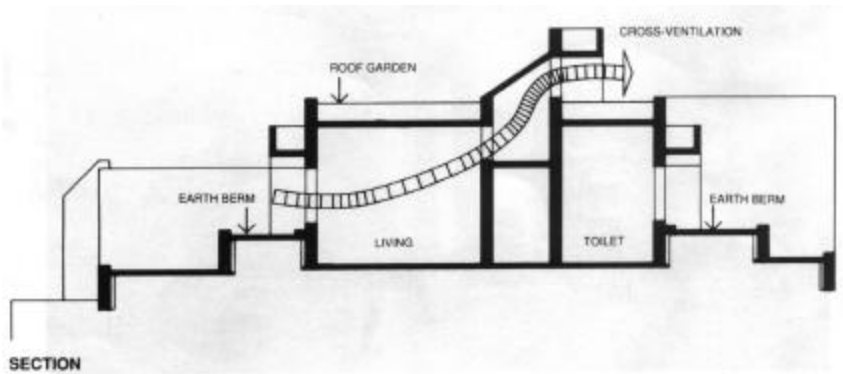
The building is on the south slope, facing an artificial water body. It has a white painted reflective finish on the exterior, and is oriented at 20° south-east. The main cooling system is that of an earth-shelter type, and guest rooms are practically sunk into the ground. The roof has a terrace garden which is watered during the summer months. A special section is used to ensure cross-ventilation in each guest room.

Winter heating is by direct sunlighting of the guest rooms. Each window is provided with an arched sunshade which allows winter sun to come in through the top part of the glazing. The windows have also been designed to reduce infiltration of outside air.

Solar water heaters provided in each toilet have been integrated with the architectural design. Back-up water heating is in the form of an on-line electric heater located inside the toilet, and not as a heating element built into the hot water tank, since the latter is wasteful of electrical energy. The placement of toilets in a visible location helps to facilitate monitoring of their state of disrepair (dust accumulation, leakage and breakages).

A sunny terrace for solar cooking has been provided near the kitchen.

Photographs by Vinod Gupta



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|-------------|-----------------|
| 1 ENTRANCE | 2 LOBBY |
| 3 OFFICE | 4 LOUNGE |
| 5 CARETAKER | 6 DINING |
| 7 KITCHEN | 8 GUEST BEDROOM |
| 9 COURTYARD | |