

**THE HELLIOTROPE[®]
AS HOTEL**



Heliotropic plants have flowers or leaves that turn following the course of the sun. Solar architect Rolf Disch's Heliotrope can also do precisely that.

Why a pivotal hotel? This uniquely designed rotating building gives the townscape a clear profile and sets an example throughout the country. It offers an exclusive ambience not to mention a unique spatial experience for guests. By absorbing a maximum amount of solar energy the Heliotrope saves energy and additional expenses.

The architecturally striking and award-winning edifice has now been built three times. Serving as an exclusive residential house, a spectacular visitors' center for the fittings manufacturer hansgrohe as well as a dental engineering laboratory.

The Heliotrope as it has been realized serves as a prototype and model for projects of much greater dimensions. For the basic concept of the rotating „tree house“ is variable – meaning it can conceivably be used in a great deal of different ways. Several plans and concepts for Heliotrope hotels have been drawn up. These can be realized flexibly on a larger scale by opting for a wider girth or greater height.



The Heliotrope in Freiburg



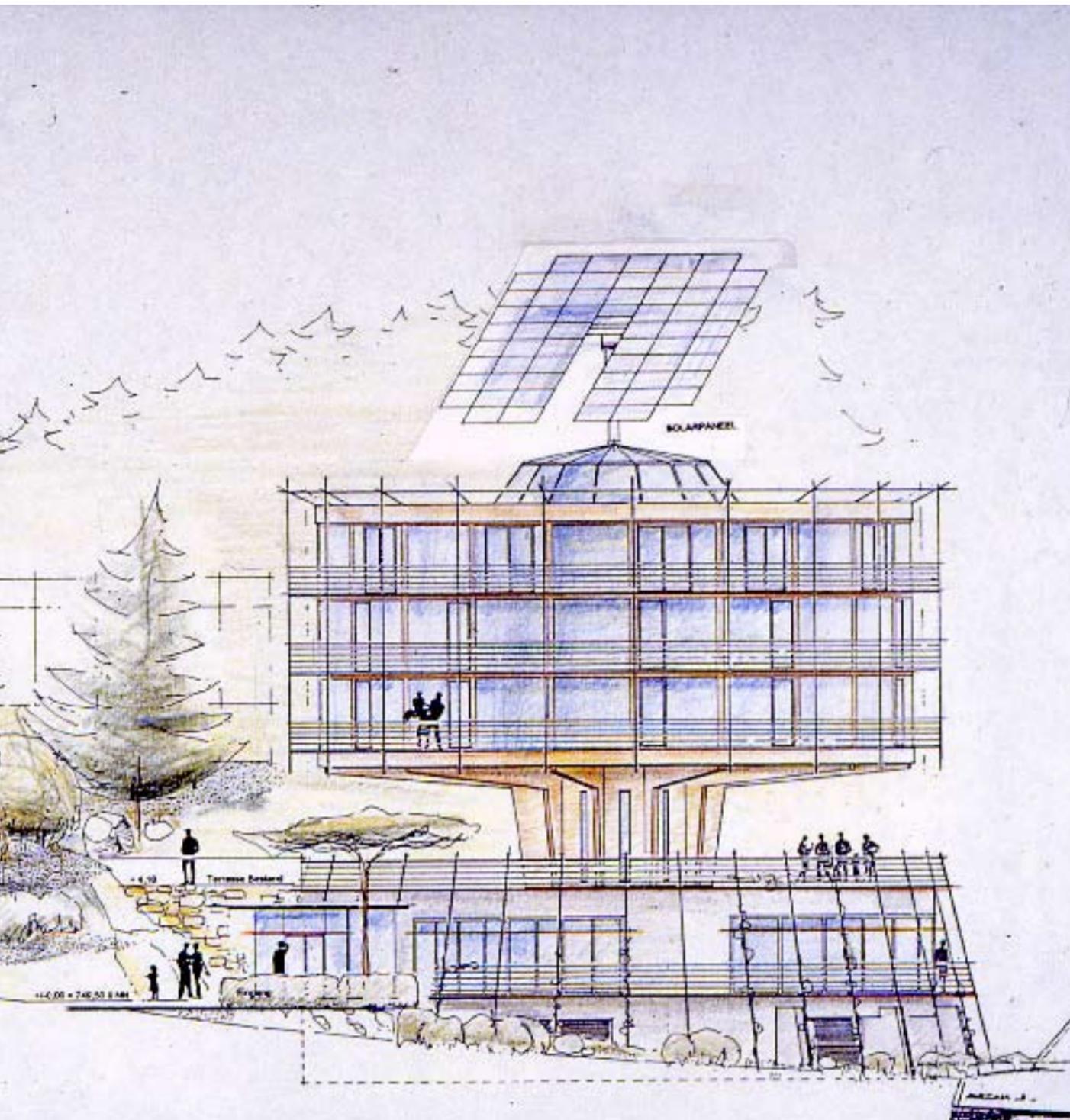
The hansgrohe Heliotrope in Offenburg

The hotel rooms are set behind the open façade of special glass encircling the center of the building. The rotation allows fascinating views that are forever changing, if gradually, during the course of the day. This gives each room the same marvelous value – certainly an unforgettable experience for the hotel guests.



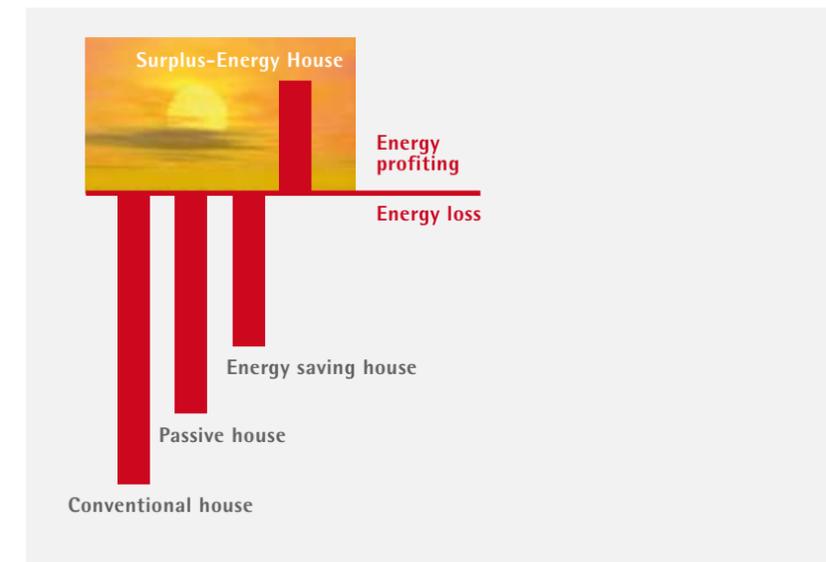
The Heliotrope in Freiburg

The central column and the rotary mechanism are positioned on and above the ground story, this possibly providing an area for the hotel restaurant. The roof garden is another attraction of the Heliotrope, from which the surrounding vista of countryside and townscape and of course the elegant technique of the „sun sail“ – the large photovoltaic “antenna” – can be enjoyed. This space can ideally be utilized by a café or an outside restaurant. The circulation in the building is provided inside the central supporting column, which can, of course, be constructed earthquake proof.



The Heliotrope-Hotel Wartenstein

The Heliotrope offers exclusive opportunities that cater to all the needs of a hotel. Architecturally, the cylindrical structure of the building can become a special landmark for the city and region – indeed, it will



Primary energy consumption / generation in comparison
(Heating, wash water heating und electricity)

be recognized not only nationwide but internationally. Yet it is not only aesthetically concise and memorable but also stands as a symbol for the efforts devoted to climate protection in building construction.

The Heliotrope's eco-balance has set a new standard globally. It was the first building in the world to produce more energy than is consumed on its inside: Powered by 100 percent renewable energies, emission-free, CO₂-neutral.

While in other cases (depending on the local development status) 50 percent of national energy usage flows into building construction and the living in those buildings, the Heliotrope, by contrast, provides new opportunities for climate protection and resource conservation. This enables a near-complete avoidance of constantly and rapidly growing energy costs.

When it comes to the Heliotrope's energy balance, it is by far the most efficient building design on the worldwide market. For instance, the Heliotrope in Freiburg produces fivefold the energy it requires.



The PV Sun Sail of the Heliotrope

So exactly how does this work technically? On the building's rooftop a „sun sail“ is installed, namely a large photovoltaic system. It is automatically aligned

with the position of the sun and rotates independently. The circular balustrades house solar-thermal devices to provide heat and hot water. The triple-layer-



Solar-thermal collectors as balustrade

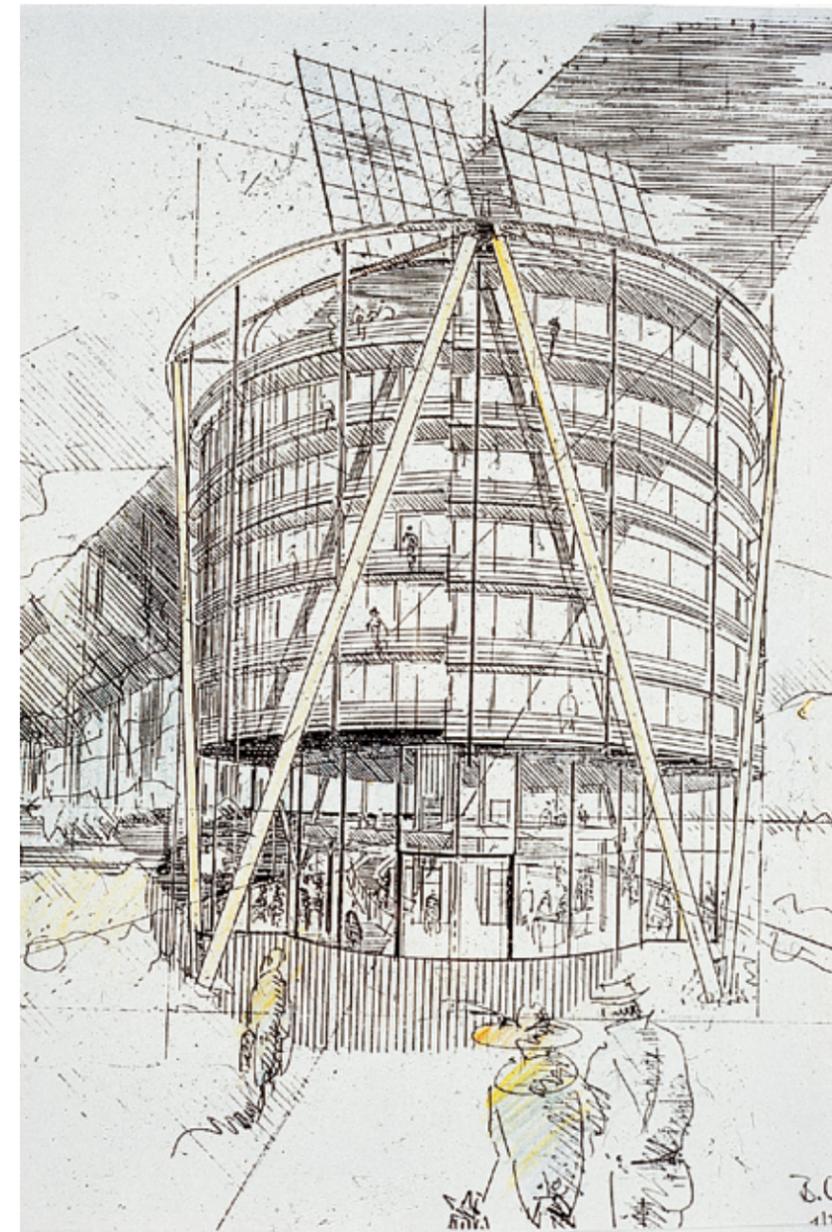
ered special glass passively aligns solar warmth. The insulation and sealing capture the gained energy within the house supported by the ventilation and heat-recovery system.

Environmentally friendly solutions for further cooling in summer and heating in winter can be planned individually. Depending on the location and dimensions of the hotel, additional heating is required, if at all, only on cold winter days. Energy-consuming

air conditioning is no longer necessary. The façade's intelligently designed technology provides cooling in summer and warmth in winter without any additional costs. Further plans can be made for an integrated ecological concept, for example for rainwater usage and preliminary gray water treatment etc.

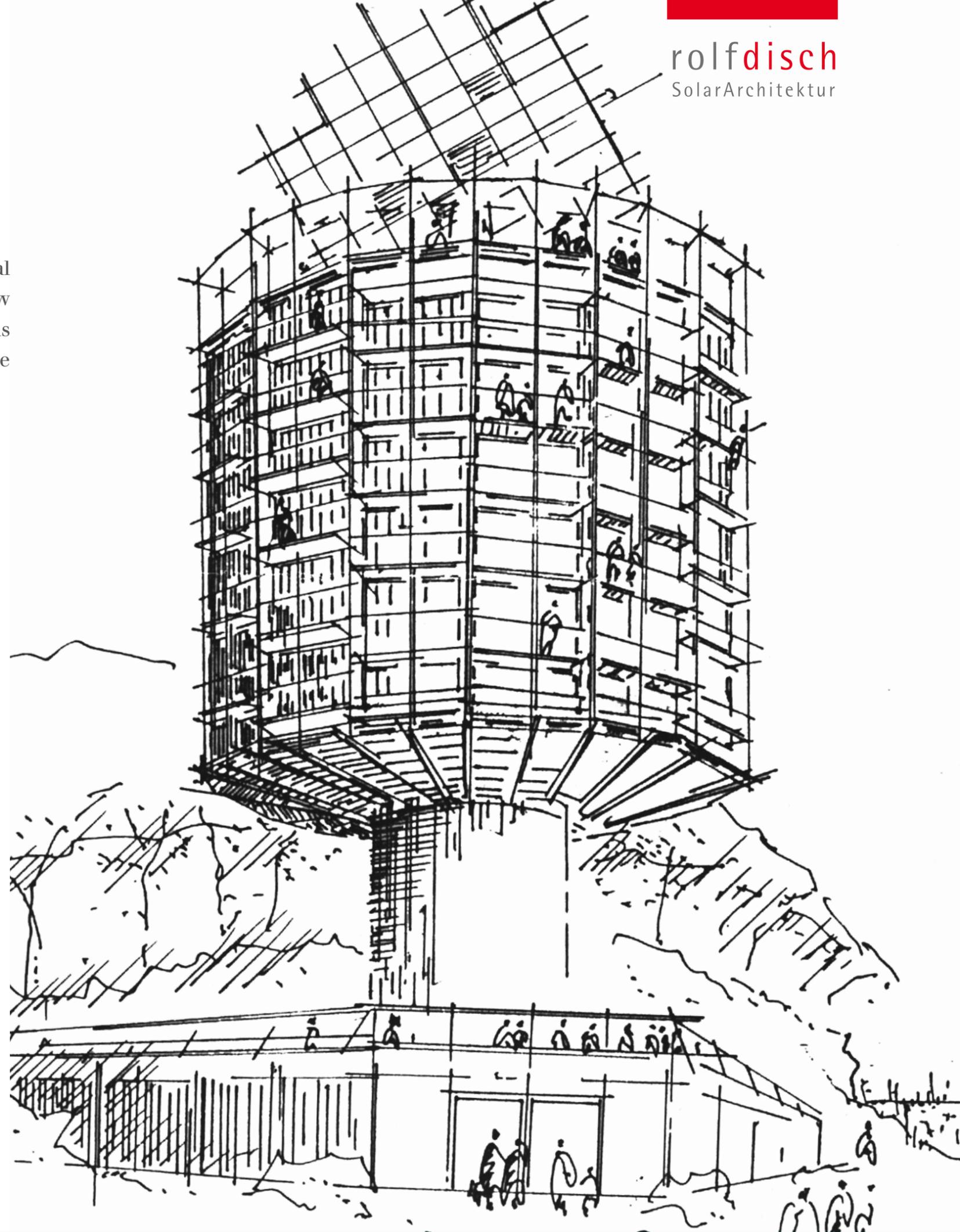
Rolf Disch SolarArchitecture have coined the trademark "Surplus-Energy House" for the Heliotrope and other building types with a positive energy balance. Whereas conventional buildings in the foreseeable future will no longer be affordable anywhere in the world due to exploding energy bills, energy-saving houses of different efficiency standards and passive houses are one step ahead. Nonetheless these houses still consume energy instead of producing it. This causes needless effort and wastes valuable resources, emitting greenhouse gas into the atmosphere. The passive house is not enough: With a Surplus-Energy House we arrive at a solar activation of our buildings.

With Surplus-Energy local authorities and private developers shoulder their responsibility for climate protection. They can seize the chance that lies in the advanced and fascinating technologies and place themselves at the forefront of a global trend that is



The Heliotrope -Hotel

moving us into the solar age. They make the local area more attractive for the citizens and also show guests an unforgettable experience. Their image is improved immensely through this world wide unique building.



*Heliotrope is, in a sense, a temple -
a place for the worship of both ancient
sunlight and groundbreaking design.*

„Azure“, May 2007

Rolf Disch

Heliotrope Hotel

**The most eminent edifice of your town –
For the protection of our climate**

The advantages

- Highest world-wide standard of sustainability
- Energy generation instead of mushrooming costs
- Award-winning, striking architecture.
- Flexible size, individual usage concept
- Unique panoramic view for all rooms
- Image benefits through ecologically minded and ambitiously aesthetic structure