

Herten's Green Culture Center

The air inside the lavishly equipped round glass cultural center and library in Herten is fresh and humid. You instinctively want to take a deep breath, absorbing its purity - feeling like you've just walked into a health center. All this in Herten, an industrial town situated North of the Ruhr, an industrial area that is definitely not renowned for the quality of its air!

Planting makes perfect



The difference in Herten's cultural center is the planting, which was planned from the outset. Plants were used not only for decoration, but more importantly to improve the air quality.

Research has proved that plants absorb toxins produced by modern furnishing materials. In addition to this, the carbon dioxide gases exhaled by people in the library are filtered into the center of the building, where the plants absorb this and produce oxygenated air, which is then filtered back into the reading rooms. No wonder the air seems pure!

Architect, Dieter Schempp responsible for the design of the building, felt it was his responsibility to plan and build in the interest of the people. The intention, according to Schempp, was to create a building in which people felt comfortable.

A remarkable sound

Green concert halls are uncommon and round buildings are renowned for their poor acoustics. However, in this building the combination of plants and glass has proved a success; additional alterations have not been necessary to improve the acoustic quality of the room, as the leaves of the plants break and reflect the sound waves. The acoustic quality here is so good that last year the WDR (West German Broadcasting Station) used this room for broadcasting.

The glasshouse was the concept of the local tradesman Ludwig Schweisfurth. About 15 years ago, he conceived the idea to build a communication center under glass and invested 1 million marks in the venture.

Former mayor, Willi Wessel, also shared Schweisfurth's vision, however the project was not realized for a further 10 years. During that time, intensive discussions and planning took place, including funding of some 20 million Marks from the government and 6 million Marks from a local authority.

Solar architecture - culture and plants

The Tübinger planning group LOG ID found the Herten project to be a challenge. They wanted to prove that solar power not only saves energy and fuel, but is a modern technology, which has numerous other possibilities, for example providing people with a pleasant environment.

Architect Dieter Schempp and the planning group were not primarily concerned with creating a 'zero energy' building for technology's sake, on the contrary, they felt it was their responsibility to plan and build in the interest of the people. They wanted to build a building, which made people feel comfortable, and using plants and the natural solar energy were obvious methods of achieving this aim.

The concept for the glasshouse was based on an ecological idea - a recognized system which uses plants, sunlight and localized heating - through which energy costs were reduced by 50 per cent.

Perfect climate

Due to its glass construction, all four floors of Herten's library offer its visitors a bright and comfortable atmosphere to read in. It's a pleasure to join fellow book lovers in the inner balcony of the glasshouse and enjoy the climate.

Temperatures inside the library can reach 22°C in winter and 30°C in summer and are controlled by opening and closing doors and ventilation flaps. Reactions of both visitors and staff confirm just how well this project has worked; they say the atmosphere is very pleasant.

Plants: introduced from the start

Plants play an essential part in the 'green solar architecture'. From the beginning, plants were on the agenda and have been carefully selected for this particular building costing around 189,700 D.M. (over £60,000).

According to Schempp, the light conditions of the glasshouse are perfect for sustaining tropical and subtropical plants. It is essential to

select the correct plants in the initial planning stages. The architects of Tübingen have found a solution to this problem. For the past 25 years they have worked together with the botanical garden's manager.

On the balconies of each level of the gallery in the glass hall, stainless steel receptacles have been lavishly planted with hanging plants, dwarf shrubs and ground cover plants. When any of the 500 or so annual events takes place, the audience is seated in the gallery where, they are able to view the vast array of planting, from dizzy heights.

The sunny sides of the glasshouse are mainly planted with small leafed, variegated grey/silver varieties that need a great deal of light and can flourish without being protected from direct sunlight. The darker and bright green leafed plants such as the Eucalyptus sideroxylon, Grevillea robusta (Australian silver oak) and the Oreopanax nymphaefolia from Guatemala are situated overlooking the library, lobby and bistro.

Plant care is the responsibility of the city gardeners. Every fortnight they collect dead and faded leaves and trim the plants if necessary. The glasshouse has its own automatic irrigation system, so it doesn't take long for the gardeners to complete their work.

City in radical change

The cultural center, known as the glasshouse, is just one example of the dynamic structural changes that are taking place in Herten. The city, once Europe's largest mining town, faced another radical change when the Ewald Hugo pit closed in April 2000 - it was the end of an era for Herten.

A positive response

The architecturally impressive city library and cultural center situated in the center of the town, provides the citizens with a cultural meeting place and a wide variety of events. However, the city's reaction to the cultural center has been very controversial.

"Nobody wanted it" said the architect Dieter Schemmp. As far as the population is concerned, it was love at third sight.

The chef of the bistro explained that the architectural style of the glasshouse was far from classical and far too modern; five to six years ahead of it's time. However, during the last five years public opinion has changed.

So all's well that ends well and today the glass library and cultural center is approved of and supported by the inhabitants of the city and beyond.