



The climate in the Nuremberg Prisma

applies in both places. In Nuremberg, for example, five waterfalls pout down at the same time into a set of residential and commercial premises that have been designed with a great deal of variety, using an entirely new design approach. In the 'Prisma' – 'Prism' – as the complex is called, removing boundaries was the key issue. Rainwater is of crucial importance here. All the water that falls on to the roofs flows through various cleaning phases into a tank with a capacity of just under 300 cubic metres, and is pumped from there into two circulating systems. Surplus water seeps into the ground under the underground car park. The first circulating system is used to supply the plants in the greenhouse, which extends over four storeys. South American vegetation grows in one section, Australian in the other, and both in a landscape of water-courses and ponds. These conservatories face south and south-west, and are part of the passive solar energy use concept.

High temperatures in the summer at least created a need for a second circulating system. Here the pump dispatches water to six water walls, which has a number of positive effects. Even if you have never visited Fallingwater you know how the sound affects you. You breathe more deeply than you have for a long time, each individual alveolus seems to come to life. The effect of the water-walls is like that of waterfalls because the hydro-physical processes are the same: the water pulls air down with it, creating a light wind. In Nuremberg, water falls between two walls each 5 metres high, which forces air out at the bottom. This stream of water pulls in air through a slit in the wall, cleans it and cools it – at least in summer. In winter the water, which is at a minimum of 18 degrees, warms up the cool outside air. This positive effect on air temperature and humidity is associated with a visual one. This air-conditioning system, based on readily understandable prem-



Exterior vents supply the waterwalls with fresh air which is drawn down by the falling water, like in a natural waterfall, which is then filtered, moistened and blown out by the water into the interior at a wind speed of 3 m/sec. The system cools the building in the summer and heats it in the winter.



The greenhouse as a pleasant climate in the city centre. Water-walls and luxuriant vegetation create a healthy atmosphere and a flood of light.