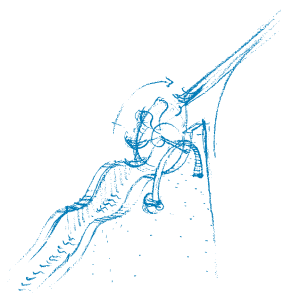


Wind- and water-wheel in Owingen

The fact that rain is necessary but can be abominable often makes people feel that it never comes at precisely the right time. We feel similarly about wind, unless we are wanting to go sailing or fly a kite. Children usually see this differently. Wind and weather mean change to them. A lot of things emerge or start to move that weren't there before, or were standing still.

Herbert Dreiseitl wanted to make something positive of wet and stormy weather with his rainwater-wind device in Owingen, a small town in the hinterland of Lake Constance. The artwork has been at the extended primary and secondary school since the year 2000. As so often in his work, this object is based not just artistic, but also functional and even ecological. For technical or even financial reasons a decentralized, open rainwater concept was chosen, in which the lesser part of the water seeps away in a part of the building that is an attractive area in its own right.

The greater part seeps away outside in a system of hollows and trenches. But before the water turns the playing-field into a temporary pond, it sets a wind- and water-wheel installation in motion. Two wheels, each with two rotor blades and a water-wheel with six blue scoops turn when they are affected by wind or water from a roof area of 360 square metres. The three wheels are mounted on an axle with free bearings which in its turn is supported on an undulating concrete wall. At the highest point of the wall is a metal gutter that catches water from the roof and takes it to the scoops on the water-wheel from there it flows along an open gutter in the wall into a trench that in its turn takes the water under a path to the infiltration swale. But this undulating wall can only be a plaything to a certain extent. To protect the children from mechanical injuries from the wheels, a sheet of blue metal keeps the urge to climb within limits.

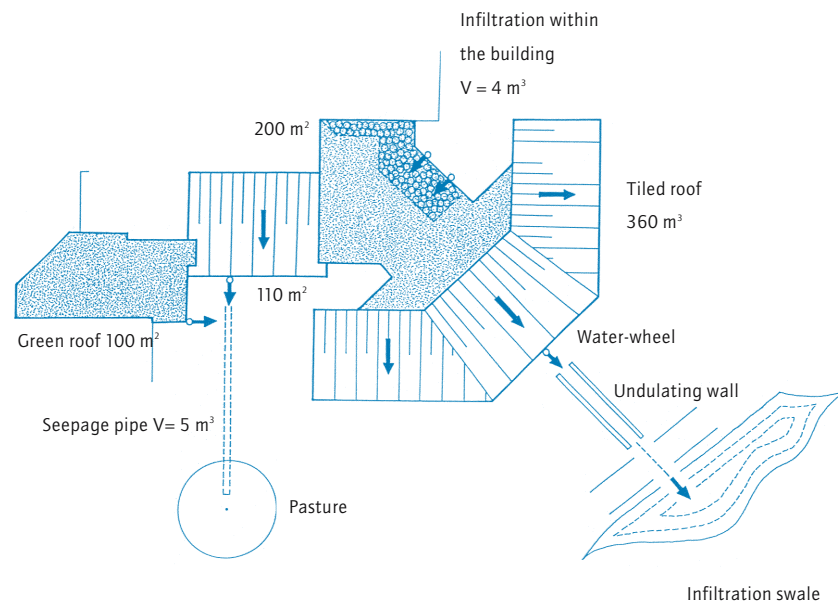


Water from the roof flows through a channel to a wind- and water-wheel, where it sets the wheels in motion.

The undulating wall with a rainwater channel is also suitable for play.



General plan of the drainage project for the new school wing. The majority of the water from the roof seeps into waiting layers of moraine gravel. Seepage pipes and basin and a trench under the building are used to retain the rainwater.



Valuable rainwater is fed directly into the natural cycle via the wall into the wind and water artwork, via a wall gutter and infiltration swale into highly permeable layers of moraine gravel.