

Breathing space

No more headaches, fatigue and general office bitchiness. Inventor Wolfgang Amelung cures the sick building *By Veronica Cusack*

A

N EMBARRASSED guinea hen takes wounded, one-legged hops across the stone floor of Wolfgang Amelung's Downsview office. Its goal is a small water-drenched copse, home to terrapin and koi, whose branches weave across the dim ceiling. The air is warm, tasting of green and damp and the faintest hint of ammonia.

Amelung's sturdy frame has, for two hours, perched uncertainly on a small iron garden chair. His quiet monotone never once signals his emotions; only soft, tired eyes reflect the mood swings from enthusiasm to regret to annoyance to awe. "Last night I was watching *Babylon 5* and there was an organic spaceship in it, a living, thinking being. I've always known there is no other way to travel in space. The things I am doing are the first step in that direction. I always thought I was different, maybe from another planet. But my ideas have at last arrived."

AT THE NEW CLUB MONACO headquarters on King Street West, Amelung's ideas are made manifest. In the central atrium, hundreds upon hundreds of plants—mosses, ferns, orchids, water lilies—in a million shades of green, rise from a teeming aquarium or grimp across thirty-five feet of lava rock, up toward the distant skylight. Fish, amphibians, mollusks and insects live within the complex ecosystem. Natural sunlight reels across the surface of the water and limns the blossoms. At night, tree frogs bark their cries into Club Monaco's stark white walls.

This sensual machine is a complex filter, a beautiful, scientifically proven method of dealing with poor air quality. The detritus of modern business—formaldehyde, toluene, trichloroethylene—is imprisoned within our grimly sealed buildings and blamed for reduced concentration, fatigue, headaches, sinus complaints and general office bitchiness.

The problem is traditionally dealt with through increased ventilation—which results in increased energy costs. The technology invented by Amelung, reports University of Guelph horticultural science professor Mike Dixon, "can achieve the same quality of indoor atmosphere as the most sophisticated air-handling system."

Dixon knows of what he speaks. He headed up a recently completed three-year study of Amelung's creation, known as the Breathing Wall. His test subject is housed in a boardroom on the ground floor of Simcoe Street's Canada Life building. "There was no scientific information to back up the claims made by Amelung's company," he says. "We conducted tests to quantify the efficacy of the wall in enhancing indoor air quality." It performed splendidly.

Amelung's patented system has fans drawing air through the water that continually flows over the moss-covered lava rock. Pollutants enter the water. The complex ecosystem, from the microbiological to the higher plant life, then begins the process of degrading the garbage. Shallow bogs and deep-water zones, canopy and planted land, ensure that specific plants and creatures exist within specific habitats. Different groups of organisms eat different compounds.

"As it becomes more experienced, it becomes more efficient," pronounces Alan Darlington, PhD, expert in pollutants and in the interaction between plants and the atmosphere. Shave a little from his thirty-nine years, and in his crisp white shirt, mellowed denim and blond Vandyke, Darlington, who conducts the day-to-day experiments at Canada Life, could be a well-educated Monegasque. "Challenge the system for a week with toluene," he says, "and the removal rate is better at the end of that time than at the beginning. Age brings wisdom. It is reacting to its environment. That is the beauty of diversity."





At Club Monaco's head office: Amelung (front) created a lush ecosystem—the complex, beautiful Breathing Wall—that rises from an aquarium to cover thirty-five feet of lava rock. Says Club president Joe Mimran (back): “All of our needs and the design fit together perfectly”