

"FAILURE IS THE COMPOST OF SUCCESS": The Centre for Alternative Technology

by Peter Harper

In 2008 fifty thousand visitors from all over the globe made the journey up the water-powered funicular railway to the Centre for Alternative Technology (CAT). Located near Machynlleth in the very center of Wales, CAT has been a haven for green thinking and sustainable design over the last three decades. In the past it attracted the tuned-in, the passionate, and the curious. Now, with climate change a front-page newspaper story and sustainability an element of everyday life, CAT has become a hub for environmental communication, research, and development.

I have been living and working at CAT myself for more than twenty-five years as a gardener, teacher, and researcher, and I am still surprised by what this once-tiny organization has managed to achieve. It is one of the few places in the world to offer comprehensive opportunities for environmental education at all levels, from the primary school curriculum to detailed postgraduate study. CAT covers pretty well any sustainable practice you can think of, from building a rammed-earth house to solar water-heating, from installing a composting toilet to growing

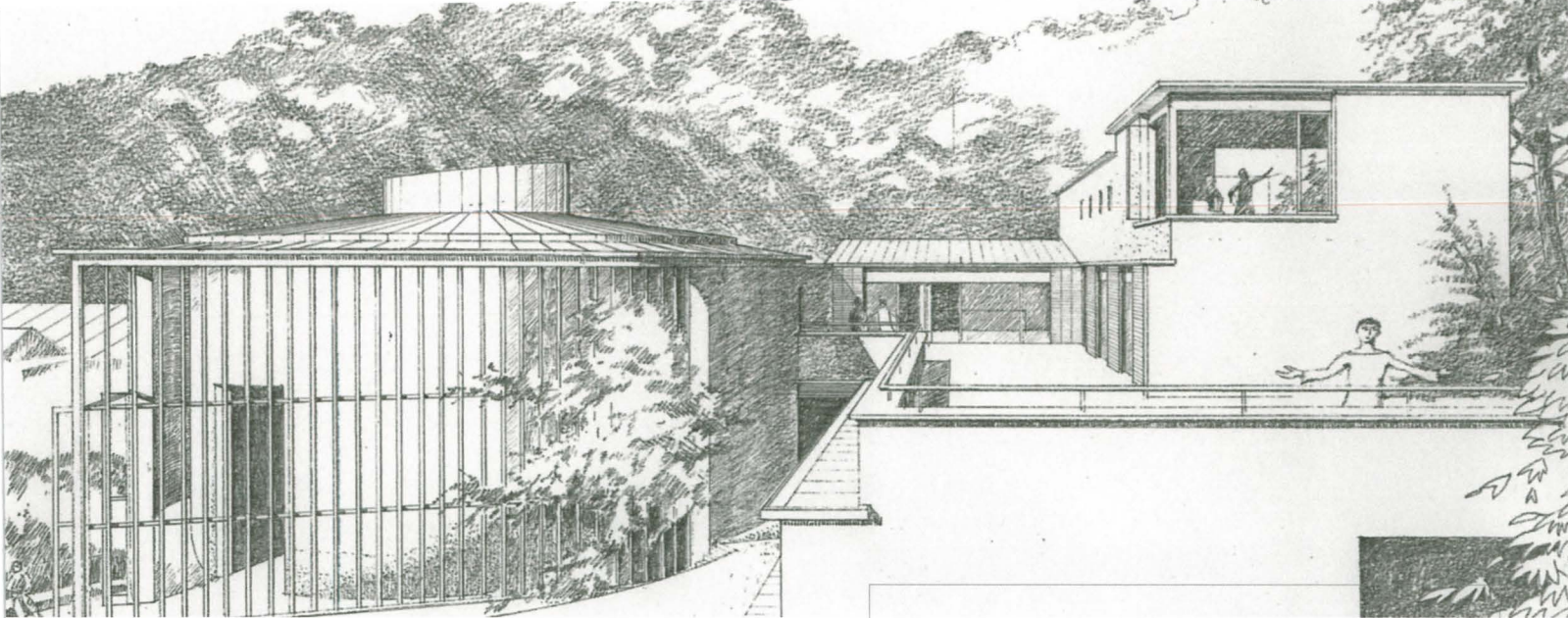
organic fruits and vegetables. Its programs and influence have slowly spread beyond the forty-acre complex, fostering green enterprises across the UK, and pioneering innovative programs with universities around the world.

CAT started as a disused slate quarry, mined for a hundred years and left abandoned since 1950. "Recycling" it was the idea of Gerard Morgan-Grenville, a rather unlikely refugee from the upper echelons of British society. When he and his fellow pioneers arrived in the winter of early 1974, the quarry held only piles of shattered rock, rusting machinery, and ruined buildings. The group's first task was to create some shelter against the incessant rain. They hastily repaired one of the old slate-cutting sheds, which became a combined workshop, office, debating chamber, kitchen, dining room, lounge, dormitory, and late-night saloon. Day after day they worked on in the rain and mud, driven by stark 1970s visions of ecological heavens and hells.

Gradually, the project started taking shape, although it became increasingly clear that a simple, self-sufficient "eco-village" was not economically—or even physically—



Dignitaries ride the water-powered funicular railway at the Centre for Alternative Technology in 1992. Photo courtesy of Centre for Alternative Technology



sustainable. Their problems were compounded by a constant stream of visitors eager to hear about developments and future plans. In 1975, they decided to turn the situation into an opportunity by creating a permanent exhibition and opening the site to paying visitors. This provided income and a much more efficient platform for communicating ideas. Within three years the annual number of visitors had reached fifty thousand, and it remains there still.

Today, the site is dotted with spinning wind and hydro turbines, and covered with mature trees and rich, composted soil. CAT employs about 120 people with another 30 or so volunteers and seasonal help. It is much bigger than in the 1970s, and also more specialized and professionally focused. But we still maintain a very active democracy, with consensus-based decision-making, an elected management team, and a very flat wage structure. Nobody is paid more than double anybody else. In essence, the idealistic ethos has survived.

Our latest project is the Wales Institute for Sustainable Education (WISE), nearing completion on the CAT grounds. This 22,000-square-foot facility includes a 200-seat lecture hall, seminar rooms, workshops, laboratories, offices, refectory, and overnight accommodations for fifty students. It is constructed principally of low-carbon materials such as rammed earth, timber, and an innovative composite of hemp fiber and hydraulic lime. Pat Borer, one of the architects, is “confident that this will be the greenest public building in Wales, and we’ll be able to prove it. It will set standards for the next decade.”

WISE will teach plumbers how to install solar heating, architects how to design zero-energy buildings, and builders how to use innovative materials. Electricians will gain

The Wales Institute for Sustainable Education will be one of the greenest buildings in Wales when completed in 2010. Courtesy of Centre for Alternative Technology

knowledge about renewable energy systems and planners will discover strategies to reduce the impacts of new settlements. Everyone who attends WISE will learn how to live in a modern and environmentally responsible way.

From unpromising beginnings, through thirty-five years of constant experimentation, CAT has evolved dramatically. In some ways its most abundant product has been failure, but that failure is the compost of its success. Through a combination of vision, persistence, flexibility, mutual support, and technical skills—as well as luck—the Center has developed into a unique educational institution and a dynamo for the social and economic regeneration of its region; its original spirit is alive and well and living in Mid Wales.

Peter Harper is head of research and innovation at the Center for Alternative Technology, where he has worked for more than twenty-five years. He is also a visiting lecturer at universities and other institutions around the world. His interests have ranged widely, including energy policy, sustainable lifestyles, eco-villages, alternative sanitation, landscape design, organic horticulture, and composting (with which he is mildly obsessed).

Young visitors enjoy an interactive display on the grounds of the Centre for Alternative Technology. Photo courtesy of Centre for Alternative Technology

