Case Study
Chyan Bath House

Cornwall Sustainable Building Guide

Scale of development

Small

Type of development

Single Dwelling

Sustainability features

- Design
- Energy
- Biodiversity
- Water Conservation
- Water treatment & discharge
- Health & Wellbeing
- Materials
- Pollution
- Community

Features

- ❖ *Earthship* design

- ❖ Utilises, among other reclaimed materials, car tyres and timber

- ❖ Bathing is "zero carbon"

Introduction

Built on rural farmland in Penryn, the Chyan Community Field is being continually developed into a local hub for the community to utilise. It features on site areas such as outdoor classrooms and allotments for growing vegetables. The bath house was built to produce zero carbon bathing; rainwater is gathered from the roof of an adjoining collector building.

Construction and Materials

The design is circular in plan with walls formed of reclaimed car tyres and rammed earth (*Earthship* design). Incorporating steel reinforcement, the building on the whole uses predominantly reclaimed materials. Timber makes up the roof structure and decking, with turf being placed above to allow maximum rainwater collection.

Energy Efficient Design and Technology

The shower and bath system are effectively zero carbon, utilising water from the roof collection and heated using "home-made" solar collectors. The space is heated through a woodburning stove and hence the building does not require any gas or electricity connection.

The waste water from the showers and bathing facilities is drained into a pond outside the building, passes through a willow plantation and out into a soakway.

The Chyan Community

The Chyan Community is based in a 2.2 acre field in Penryn. It is inhabited by a number of people and families believing in sustainable living. The site is used to involve the local community and to encourage them to develop their own permaculture projects.

There are events held throughout the year where people are introduced to ways of living off the land. The field now incorporates two wind turbines, generating energy for the community.