

THE GREEN PAGE

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News and information from the Hebden Bridge Alternative Technology Centre

ROUNDHOUSE TAKES SHAPE



Thanks to a lot of hard work by the owners of Primrose Garden and volunteers from the ATC, the round house has evolved in the last two months from a blue tent-like structure into a turf roofed beauty that snuggles effortlessly into its surrounds. The next stage in this project is the installation of doors, windows, and mosaic floor, followed by the planting of woodland natives on the turf roof.

If you would like to know more, or are interested in helping with the project, the ATC's Garden Club meets every Friday morning and on the first Saturday of each month. Contact Susy (01422 842121) for more details.

Room 101: Silk Nicky Headon

The production of just one gram of woven silk involves the death of at least 15 silk moths. And what a death...these moths are either boiled, steamed alive, dried in an oven, electrocuted or subjected to microwaves whilst in their cocoons that they have created to supposedly protect themselves from predators whilst they mature into butterflies or moths. The manufacture of a silk sari will involve the death of approximately 50,000 silk moths. This is factory farming at its worst.

Unfortunately silk production has increased by almost 100% over the last 30 years. China and Japan are the world's main silk producers but India also still produces over 14,000 tonnes of silk a year...this mass destruction of butter-

fly lives cannot be justified. The most common species of silkworm used in silk production no longer exists in the wild.

During silk production some moths are allowed to mature in order to create new mating parents but in the process to obtain fine silk threads the wings of these moths are cut off during mating to prevent contact and contamination. Once these moths have laid their eggs they are also killed prematurely since they can only reproduce once in their lifetimes. (The process of identifying and isolating diseased moths consists of cutting off the moth's tail to examine it under a microscope.)

Silk oil and silk powder made from dead silk moths are used by the cosmetic industry in

skin and hair moisturising and conditioning products including some hair mousses, face powders, eye shadows and even some soaps. Silk must be avoided in all of its guises. Fabrics from many plant fibres are able to produce alternatives to silk, and the fibres from pineapples produce a material that is as silky as anything that traditional silk can muster! The Oxford University Spinox project has also created a machine which mimics the way that spiders and silk worms spin their thread. By using a combination of artificial proteins and natural silk-like proteins, obtained from wheat or rice grains, a durable synthetic silk has been created.

Silk, your time is up! Room 101 awaits...

BEYOND THE VALLEY

Wind ahoy!

Wind turbines installed off the coast of Britain will undoubtedly make a vital contribution to our country's long-term secure energy supply, even according to the government! Seven projects, including those at Rhyl Flats in North Wales, Barrow in Cumbria, Kentish Flats, North Kent, and the Robin Rigg project in Solway Firth, have already received planning approval and will provide about 1.5% of Britain's total power demands. Two further projects off the Norfolk coast and at North Hoyle on the Welsh coast were approved in October last year. Construction work has recently begun at North Hoyle. Offshore wind farms are expected to generate 4% of Britain's energy production by 2010.

The tide has turned

The world's first permanent installation to generate electricity from the movement of offshore tides has been installed at Lynmouth in Devon. An underwater turbine is rotated gently (about once every three seconds so as not to endanger marine life) by the flows of the tide and has an output of 300kW. It should produce enough electricity for approximately 200 homes and will be fed directly into the National Grid. The relative reliability of tidal flows affords tidal power a potential advantage over other renewable energies and this project has been funded in part by the Department Of Trade and Industry and the European Commission's Energy Programme.

Getting to work on Eigg

Residents of Eigg, who took ownership of their Scottish island in 1997, have taken another step forward in their development of a self-sustaining community with the establishment of a small scale hydro-electric system. 5 households that form a settlement at Kildonnán on the east of the island now receive their electricity supply from the scheme that is powered by a nearby burn and was installed by the Isle Of Eigg Trust. This community previously relied on imported oil for their old diesel generators. The Trust is attempting to adopt similar sized schemes using a combination of solar, wind and hydro power at other locations on the island.

Cardboard school

Cardboard panels and tubes within the roof, walls and load bearing structure are an integral part of a new building that houses an After School Club at Westborough School, near Southend in Essex. This low cost, low impact building is made from 90% recycled materials and will be 90% recyclable at the end of its life. The project has received support from the DETR and meets all fire regulations. Dense, solid cardboard burns slowly, through charring on the surface, and does not encourage rapid flame spread. All cladding materials are also fire proof. A recycled plastic membrane protects the structure from water penetration and a "breather" membrane allows unwanted vapour to escape from the building.

It's leaf mould time

Leaf composting is recycling at its very best and it's just about time to start sweeping up those fallen leaves, make a heap and begin creating next year's soil conditioner or potting compost. If the collected leaves are dry they should be watered to aid their decomposition and if the heap appears to be drying out more water should be added. It does take approximately 18 months to produce a compost from leaves but it is an excellent product, very rich in minerals and far superior to peat.

WHAT ON EARTH IS?... a heat pump

A heat pump can provide a hot water supply and heat a home in one of the most energy efficient and environmentally friendly methods. There are about 1 million domestic heat pumps working throughout the world and installations are increasing within the United Kingdom. One in every four houses in Switzerland has a ground source heat pump.

A heat pump works like a fridge in reverse. It can extract low temperature heat that is stored naturally in the earth, air or water and raise it to higher more useful temperatures. Whilst a conventional domestic heating boiler is about 70% efficient, and a condensing boiler manages approximately 85% efficiency a heat pump operates with an efficiency of at least 300%!

Heat pumps are very reliable, having few moving parts, and when used in the ground are very secure and generally not exposed to weathering. Heat pump systems have a long life expectancy, make very little noise, and do not require a lot of maintenance. They do not

require a flue, ventilation, boiler, fuel tank or combustion gases.

Heat pumps are particularly well suited to new buildings that incorporate high levels of insulation into their design. In a new, well insulated, medium sized building the cost of installing a heat pump system would be approximately £7,000. Running costs after installation compare favourably with oil and electricity powered systems and maintenance costs are minimal. Part funding for heat pump installations is available from the government's "Clear Skies" programme (for more information contact the helpline on 0870 2430 930).

For more information about how heat pumps work there is an interactive demonstration model in the Energy Room at the ATC. Information on the technical and financial implications of heat pumps can be obtained from the Yorkshire Renewable Energy Network co-ordinator, Barnaby Fryer (01422 846648).

Kill a Watt and save money

It is estimated that 10% of household energy is used and wasted by appliances on standby, and that around £12 billion worth of energy is squandered every year in Britain. According to government statistics that's almost a third of the total energy consumption of the country going to waste. By improving our energy efficiency we can reduce energy waste, save money and cut back on carbon dioxide emissions.

The average home produces 6 tonnes of carbon dioxide a year, the same as 34 buses, and yet the amount of heat lost in British homes due to poor insulation could heat about 5 million households a year!

We can all take steps to try to alleviate these depressing statistics. Everyone can improve their domestic energy efficiency. Up to 33% of heat loss in houses is through the walls and insulation can be a very cost effective means of saving energy. If your central heating and water-heating boiler is more than 15 years old

it will most probably be cost effective to replace it with an energy efficient model. Modern condensing boilers are the most energy efficient and will save you up to a third on your heating bills. Always look for the Energy Efficiency Recommended Logo when buying new electrical appliances. Stop draughts and heat escaping by filling gaps under skirting boards and insulating properly around doors and windows. By closing your curtains when it starts getting dark you will stop heat escaping and cut around £15 per year off your fuel bills. And of course make sure that no appliance is unnecessarily left on standby when it's not in use!

For a personal report on how much energy can be saved in your own home contact www.saveenergy.co.uk and take a virtual energy wastage tour. The Energy Efficiency Advice Centre (0800 512012) also offers free, impartial advice on how to make your home more energy efficient.

THE A-Z OF RECYCLING

RECYCLING WORKS

The Municipal Waste Recycling Bill, which states that the UK should recycle 50% of our waste mountain through doorstep collection by 2010, is currently being studied by the House Of Lords. With support from all political parties it is highly likely that this will become an Act of Parliament and law! It will require all local councils to deliver a doorstep collection scheme for recyclable waste. Surveys have shown that nine in ten people say that they would recycle more if it were easier (it doesn't come much easier than doorstep recycling) and yet Calderdale's very own Kerbside Recycling scheme is suffering a cash flow crisis and being threatened with closure! It's time for everyone to urge the local Council and FOSCA, our local waste disposers, to ensure that doorstep recycling, provided by a community, not for profit organisation expands throughout Calderdale. In the mean time let's move on with...

The R'S...reduce, re-use, repair, recycle!

Radiators- Old radiators can be used in the construction of basic solar water heating systems. Self-build courses are offered by Heeley City Farm, contact Nick Parsons (0114 2505108).

Rags- About 5% of all domestic waste consists of old clothing, fabric remnants and unwanted furnishings. There is however a thriving textile reclamation trade and reprocessing a tonne of rags uses considerably less energy than manufacturing a tonne of new fabrics. Kerbside (01422 881110) will collect all clean and dry clothes and paired shoes for recycling.

Rainwater- British gardens make up our biggest nature reserve and water butts to collect rainwater for watering during dry spells are an essential feature of any self-respecting garden.

Razors- Invest in a quality, long lasting shaver, help protect the environment and save yourself money! Never buy a disposable razor!

Reduce- Make a conscious effort to reduce unnecessary consumption, avoid overpackaged goods, and shop local!

Reed-bed systems- Chemical treatment of polluted water supplies is costly both financially and environmentally. Reed beds act as pollution filters and can extract toxic substances such as phenols, phosphates, and nitrates from water and even deal with harmful bacteria.

Refill- Eco-friendly washing up liquid, surface cleaners, fabric conditioner, toilet cleaner and washing powder can all be obtained as refills from the Green Shop!

Refrigerators- When you are replacing your fridge try to buy a low/no CFC, high energy efficient model and ensure that your old fridge is recycled safely (contact Calderdale's Recycling Officer on 01422 392385). Low income households throughout Calderdale can trade-in old, damaged and inefficient fridges using the Council's Fridge saver scheme (01422 392487).

Re-use- Avoid disposable products whenever possible, use local charity shops, re-label used envelopes, re-use carrier bags, and attempt to extend the life of all the products you purchase.