ROOF TOP OASIS REVISITED

We visited the Reading International Solidarity Centre (RISC) in PM35 and reported on their magnificent edible forest garden on the roof of the Centre. In this issue, Emma Cooper returns to see how this urban oasis is growing.

In 2001, the Reading International Solidarity Centre (RISC) had a leaking roof and a hole in its wallet. The need to attract funding sowed the seed of an inspiring idea, and the rooftop garden was born. Six years on and there’s a thriving forest garden reaching for the skies in the Reading city centre. Despite growing in only 30cm (1ft) of soil, even the trees in the garden are flourishing. The ‘Stella’ cherry is over 4.5m (15ft) tall, and has had the top taken out.

The cherries are a favourite with the local blackbird population, who look very well fed and manage to eat more of the fruit than the human visitors!

Also in the canopy layer is a very decorative medlar, *Mespilus germanica*. In May, the large, white flowers attract insects to the garden. The subsequent fruits are left on the tree until October and are then stored on straw to ‘blet’ until they are mostly rotten, at which point the softened pulp can be eaten with a spoon. According to Dave Richards from sector39, the garden co-ordinator, they taste like spiced fruit and can be used in sorbets and pies.

Dave’s tip for a ‘must-have’ plant for every garden is the crab apple (*Malus sylvestris*) ‘John Downie’, which is excellent as a pollinator for other apple varieties and also produces tasty fruits in its own right – far from being sour, they’re really sweet and can be turned into a delicious crab apple jelly.

Another of Dave’s favourites is the Chilean Guava, *Ugni molinae*, a good hedging plant from South America that also produces tasty berries in October. Once a favourite of Queen Victoria, they are no longer grown commercially but are easily raised from cuttings and well worth the trouble.

Above: The RISC roof garden is a popular educational resource. It contains over 160 types of plants, most of which were chosen for their multiple uses.
Other plants in the shrub layer include Japanese wine-berries, jostaberry and plenty of cordon fruits. Despite a drip irrigation system, the berries struggled in the dry conditions last year, but are always popular with visiting school groups.

The garden, designed to conserve water and soil with permanent ground cover, includes a very healthy and productive strawberry patch that belies the conventional advice that strawberry plants should be replaced every three years. Lemon balm and Welsh onions self-seed freely and pot marigolds bring a touch of colour in sunny spots. Climbing plants take full advantage of all the vertical spaces. The kiwis (Actinidia chinensis) have yet to fruit, but the golden hop is more productive and provides flowers for flavouring beer and calming sleep pillows as well as vines for basketry. On top of all that it’s also pretty and nicely scented.

The Three Rs
Green cone composters scattered around the garden demonstrate that waste reduction needn’t be a chore. These composters don’t need
emptying, and are left in place feeding the beds. Underplanted with nettles and comfrey, they form miniature fertility patches and liquid feeds are made to use elsewhere in the garden. The centre composts all of the vegetable waste from the café as well as paper towels and shredded paper from the offices. The circle is completed with garden produce – herbs and cut flowers – being used in the café.

Renewable energy is represented by a wind turbine and solar array, which provide enough energy to power the pump for the irrigation system. The garden harvests rainwater and currently has a 2,000 litre (440 gallon) tank for storage. Irrigation is done at night, to minimize evaporation, but in a dry summer there is still a need to use mains water. A much larger tank under the car park is on the wish list for when funds allow.

Even the hard landscaping is kind to the environment. Some of the stonework has had a very long working life indeed, having first been used in Reading Abbey. The hurdles are made from locally coppiced hazel and the decking from windblown oak.

**Diagonally top to bottom:**
(1) Strawberry tree in front of a woven fence panel. (2) Marigolds add a splash of colour. (3) An attractive and useful Medlar tree.

**Left:**
The maturity and diversity of the roof garden is clearly shown. The sheer scale of the planting makes it hard to believe this is on a flat roof.
**Seeds Of Knowledge**

The garden was designed to require very little in the way of maintenance, and, five years since it was planted, all that is required is a little weeding, pruning and harvesting. The main work in the garden now is education.

RISC is an educational charity, raising awareness of global issues and encouraging people to ‘think global, act local’. The garden has become a valuable educational resource – in a space only 30 x 6 m (98 x 20 ft), the roof garden contains over 160 types of plant. They were all chosen to have multiple uses and to illustrate how much we rely on plants, even in this modern age. All corners of the globe are represented, but the main body of plants come from temperate climates similar to our own – mainly North America and China.

Many plants tell a story. Popular with children is the Emmer wheat, an ancient variety close to the original wild ancestor. This grain sustained early Western civilisation and was brought to Britain by the Celts 6,000 years ago. Emmer wheat has hairy ears and hulled seeds that have been bred out of modern varieties, but there is still a niche market for the grain in Italy – for making specialist pastas.

The Incas used day lilies (*Hemerocallis*) as a carbohydrate source. They’re better known now for their sweet, edible flowers that makes a very impressive garnish for salads. The leaves were also traditionally used to weave espadrilles.

The toothache tree (*Zanthoxylum alatum planispinum*) has very aromatic foliage and produces little red peppercorns in autumn. These are one of the key ingredients in Chinese five spice flavouring and can also be used to flavour olive oil for salad dressing. Chewing them numbs the gums, hence the common name. However, harvesting the peppercorns can be very hazardous, because the plant has very long thorns. Pruning is not a job for the faint-hearted, but on the plus side the tree could be used for garden defence!

Not every plant here is edible – some are downright poisonous and included because they have medicinal uses. American pokeweed has leaves and berries that undermine the immune system. They can be eaten after processing, but pharmaceutical companies are also interested in them as a potential cure for AIDS.

The roof garden is living proof that temperate agro-forestry is possible, productive and attractive. Visitors always leave inspired and bursting with ideas to take home.

The RISC roof garden is open to the public for several weekends in 2007 under the National Gardens Schemes. Information about the open days, a list of the plants in the garden and pictures of the garden and its construction are all available from the website: www.risc.org.uk/garden

For more information on Dave Richards’ sector39 work see: www.sector39.co.uk

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