

PERMACULTURE AND ORGANIC GARDENING IN SHEFFIELD

SOME ASPECTS OF PERMACULTURE IN RELATION TO ORGANIC GARDENING IN SHEFFIELD.

Talk for Sheffield Organic Gardeners, 1994.

My personal experience began 5 years ago when I started an allotment in an attempt to grow as much organic food as possible with the meagre resources available to me. Since then, I've been on a quest for organic matter which has convinced me that the resources to feed the soil are plentiful and all around us. This year, I've been cultivating 6 allotments. Our society has ignored and wasted the resources we can use to feed the soil because of the distorting, short term values of an economic system based on the fossil fuel subsidy. Inorganic energy pays for our civilisation's luxuries and excesses.

Permaculture seems to offer an antidote to the imbalances of economics; stressing the eco-logic of resource cycles, a sense of permanence to provide an optimistic vision of the future and a sense of place, emphasising continuity rather than a transient world-view.

But surely this is nothing new? In fact Permaculture represents continuous trends of sustainability and natural logic which we can trace throughout history. The economics of wars and empires may have dominated and shaped history, but they were notable exceptions in a world where the majority of people have always depended on archaic, indigenous patterns of long-term crop-growing in balance with their environment.

Permaculture is especially necessary now because it is now recognised that the effects of militaristic science are destructive and catastrophic when they're mechanistically applied to natural ecosystems. At this point in time, Permaculture is more possible than ever before because we now have the chance to create a **synthesis** between the tried and tested methods of alternative countercultures and the inorganic mainstream which has run out of ideas. We can also now take advantage of recent advances in computing and biotechnology to meet actual, everyday human needs.

For me, gardening and especially organics are at the heart of Permaculture because they answer the question "*what can I do to help, here and now?*" by suggesting local and immediate solutions to global problems which affect us all. By gardening organically, we gain a full understanding of how whole systems work, rather than the simplistic and reductionist quick-fixes offered by the chemical industry. In this way, we can learn to work in harmony with environmental conditions rather than fighting an uphill battle to try and overcome the forces of nature.

In my experience of gardening, I've discovered that many of the common-sense **principles** stated explicitly by Permaculture are very useful. For instance, **STACKING** is simply the idea of arranging layers of tall and shorter plants to increase the yield from a piece of land. Another obvious concept - **maximum surface area** - is the principle that smaller particles are more effective than larger ones. For example, a small lump of potash rock could have many thousands of times more surface area if it is ground into powder, and will thus be much more readily available in the soil.

I especially like the Permaculture ideas based on **Feng Shui**, the ancient Chinese study of landscape, which involves noting and meditating on all the influences affecting a gardening site, such as wind and water flows and its aspect in relation to sunlight and cloud cover in different seasons.

Common sense ideas such as these can help us to develop our **intuition** and build up our sense of **folk - wisdom**, allowing us to recognise and flow with changing patterns instead of trying to impose preconceived plans where they're inappropriate.

For us as gardeners, permaculture can also be a way of applying organic principles in wider contexts and to a greater degree. The insights and understanding we've gained through gardening can be applied to improve other systems and aspects of our lives. In a society which is cut off from nature, gardening can provide a solid basis of timeless values and reconnect us to the natural world.

For instance, if you imagine where all the crops you grow came from, you will realise how **multi-cultural** and **international** your garden is. The DNA in your potatoes wouldn't be the same if it hadn't been cultivated for generations in the Andes. Your sweet corn and squashes are the descendants of crops grown by North American Indians. You are sharing these experiences with millions of gardeners all around the world. Even in this age of virtual reality and the rock'n'roll president, the link between horticulture and culture in a broad sense is still strong. Over the past twenty years, I think the organic movement has established a **consensus** among the general public that organic values and techniques are preferable to the agrochemical monocropping that has turned so many of the fields and gardens of England into sterile deserts. It is obvious that organics offers sane alternatives and solutions to the problems of degraded food cycles and polluted waste streams.

However, the vested interests that control agribusiness and marketing have done everything possible to stifle and distort the organic message. Meanwhile, governments have done little or nothing to encourage the supply of healthy organic food. This means that organic food has remained expensive and often the only way to get hold of an organic supply of things like hops or tobacco is to grow them yourself. It is vital that governments and corporations change their attitudes to organics if general permaculture is to become possible.

Sheffield may not seem like the ideal place to start, but the history of the city offers a couple of reassuring examples of permaculture at work. When skilled craftsmen began to be attracted here by high wages in the heavy industries, the original pattern of development was that each family occupied a plot of land to grow their own food, on which housing was later self-built. Before rail transport arrived in 1876, it would have been almost impossible to support the growing population without home-grown food. In 1934, during the Great Depression, Sheffield was the centre of the **Allotments for the Unemployed** scheme, which provided tools, seed and fertiliser to over 100,000 of the jobless. This not only provided food and recreation for penniless families, but also work for toolmakers and seedsmen.

Now, in post-industrial Sheffield, many allotments which were once so well cultivated are neglected and overgrown. Just a small fraction of the money wasted on Supertram or the World Student Games could have utterly transformed the city's **green infrastructure**. Organic matter is presently thought of as a problem, to be landfilled, incinerated or flushed away. It is obvious that the whole city needs re-designing using organic and permaculture principles. In Sheffield, each year, 30,000 metric tonnes of organic matter could be collected, composted and recycled into local soils. Not to mention the tonnes of fallen leaves which are swept up and then dumped each year.

In fact, Sheffield does have a plan for a composting plant which would cost an estimated £3,000,000 at current prices. However, this huge single investment would be planned, built and operated by developers and contractors from outside Sheffield and it will only process commercial and industrial-scale waste. Perhaps this will be better than nothing, if it happens, but it's not as good as many small, local **resource loops** returning benefits direct to the community.

One example of such resource loops is the ancient **Rights of Common** which permit local people to use the many and various products of common land, such as when we go out collecting bilberries or blackberries. This precedent could be a basis for re-designing local parkland, adding more practical benefits to the municipal-style pleasures they offer at present. A start has been made in this direction on the Ponderosa Open Space in Crookes Valley, where the local community has planted an orchard and begun coppicing, as well as planting 1,300 trees to increase the area of woodland and also the amount of oxygen available in the inner city.

On a completely different scale, the present infrastructure of Sheffield offers some intriguing opportunities for the application of permaculture design. For example, the **combined heat and power plant** at Bernard Road could be used to fuel acres of perspex green houses all the way down Attercliffe, with compost supplied by the Blackburn Meadows sewage plant. The idea of tropical fruit from Tinsley may sound a bit way out, but remember that the figs growing on the banks of the river Don used to fruit well when the industrial effluent kept them warm all year.

Next, I'd like to mention some of the fascinating facts and figures which have impressed me and reassure me that many of the positive principles of permaculture have already been applied and are happening across the world. I was amazed to learn from Lawrence Hill's book "*Fertility Farming*" that in 1980, **50%** of Britain's **sewage** was spread back on the land. I've also noticed that certain commercial potting composts smell suspiciously like treated sewage.

In **Russia**, under Communist rule, the small dachas and backyards consistently out-produced the huge state factory farms, keeping many city people alive. After the 1989 revolution, land was redistributed to anyone who could use it productively.

Many helpful scientific **innovations** have recently been developed and made widely available, such as satellite weather prediction and biosystems monitoring. Alternative technologies such as windmills and reedbeds are finally being accepted and funded. Scientists are now working on a process of extracting minerals from spoil heaps using weeds that are tolerant of toxic soils. Even the dreaded Common Agricultural Policy of the E.C. is encouraging some positive changes, such as the trial this year of hemp as a fibre crop, which is ironic since it was once illegal **not** to grow hemp in this country for the supply of rope to the navy.

In my own field of special interest, I have been reassured to discover that there are many splendid examples of large-scale composting going on all around the world. For example, there are now more than a hundred **municipal composting** plants in France. In Britain, local authorities are beginning to recognise the logic of composting. Successful schemes are running in Adur, West Sussex and at a ten acre plant in North London, among others. Even the financial institutions seem to approve of the idea - the Royal Bank of Scotland has been shredding and composting its used bank notes.

Having mentioned just a few of the hopeful innovations happening already, I'd like to finish by considering the social impact of seriously applying the principles of organic, permaculture gardening. For instance, if I could spend one week's average income (over £300 a week) on an allotment, I reckon I could produce a veritable **cornucopia**. Similarly, if only a fraction of the time, energy and money invested in **sports and leisure** activities could be re-directed into perma-gardening, a huge proportion of the population could become semi-self-sufficient overnight.

Personally, I think that access to organic gardening should be made available **on the N.H.S.** As preventative medicine or as therapeutic treatment, this would provide fresh air, exercise and recreation, as well as fresh and seasonal fruit and veg. You could even be helped to grow your own herbal cures.

Changes in **official attitudes and legislation** could help to unlock the productive potential of practical permaculture. Noble members of our society, such as the travellers and cannabis users could easily find

themselves in respected occupations if their interests were accepted and cultivated instead of being persecuted. Many of the millions of unemployed could be encouraged to occupy themselves in gardening, not as workfare, but for their own self respect and well-being. Even workers could benefit from ideas like job sharing or seasonal flexitime which would allow them to do more sane, humane work in their gardens. I'd like to end by mentioning my own favourite permaculture initiative - the idea of **cemetery orchards**, in which productive trees could be planted to recycle the body's nutrients into fruit and nuts for your grandchildren and your grandchildren's children.