

## **Permaculture – using nature to deal with change**

The EFG welcomed Gerry Aiken this week to talk about permaculture and its application to social structures. After commenting that, as an academic, he would be talking theories rather than practicalities, Gerry began by explaining the usual meaning of permaculture – a system of agriculture or gardening which allows nature to do its work with minimum human intervention. It started in Australia during the oil crisis in the 1970s as a way of growing food without using oil-based fertilisers, and goes a step further than organic or sustainable farming by using principles and patterns that are inherent in nature. As an ethical framework and a model of how nature works, it can be extended to social structures as well. The 12 principles set out in David Holmgren's book on permaculture (see sheet attached to this report) provide further explanation. There are various communities worldwide, such as transition towns, which seek to live by these principles. In Luxembourg transition town Beckerich, the Centre for Ecological Learning Luxembourg (CELL) and its vegetable-growing offshoot, TERRA, are the best but not the only examples.

To explain the characteristics of nature that permaculture focuses on, Gerry talked us through a key figure-eight diagram (see Fig. 2 on the attached sheet). This can be applied to any natural system, for instance a forest. Starting in the lower right-hand corner, 'release' represents a natural disaster or shock, such as a forest fire, which destroys much of the forest and leaves a chaotic situation. Gradually, in the next, 'reorganisation', phase, what is left of the forest begins to regrow, maybe new species come in, attracted by the less shady conditions, and stores of nutrients and minerals are built up, producing a more diverse, more complete ecosystem. Then comes 'exploitation', bottom left, a period of rapid growth, leading to 'conservation', top right, where the trees have reached their maximum height and other organisms have fulfilled their potential, and the forest stays pretty much the same, until the next fire, hurricane, outbreak of disease etc throws it into chaos again. These four phases do not necessarily all take the same amount of time; 'conservation' can last a relatively long time. The diagram is a figure of eight rather than a line or a circle because it does not represent the myth of continual progress, since the death/chaos phase is necessary, and it is not a recurring cycle like the seasons, because each time the forest regrows it will be different – with different species, or maybe more dead wood.

Opinions differ as to the amount of human intervention that is permissible or desirable. Some argue that people are animals and have a place as an active part of the system, and there are marginal areas where nothing would grow without human intervention. However, permaculture thinking holds that if the conservation phase is sustained artificially by human intervention, when the disaster phase eventually comes the shock will be so devastating that regrowth may be impossible – represented by the x and the broken ribbon on the left of the diagram.

Figure 1 on the sheet shows another way of representing this process, as applied to a social structure. The diagram is descriptive of a natural process, but can be used

prescriptively in the design of farms, gardens or social structures according to permaculture principles. The release/collapse phase is just as important as the growth phase and is reminiscent of the Biblical message that the old self has to die to enable the new one to emerge. Communities of people can go through the same natural phases as the forest, often described as 'storming, forming, norming, performing', e.g. a disaster such as a conflict destroys an existing social structure, then the structure is re-formed, new ways of living and interacting are developed, and finally the aims of that community are achieved and it continues to function well, until the next crisis.

Permaculture aims to work with this natural process and design ways to manage it so that the structure can be sustained through chaos and crises and then regrow. Asked for a specific instance of how this might work in a social setting, Gerry took the Anglican Church of Luxembourg as an example: at the moment it is in a high-functioning 'conservation' phase; when our Chaplain Chris Lyon retires, this might well cause some level of chaos; but if this necessary chaos is carefully managed, the church can re-form and grow and again reach a high level of performance. It is impossible to sustain the 'conservation' phase forever. The only constant factor is a continuing state of flux and evolution. And in general, the 'shock' or crisis often comes from a totally unexpected direction – even from within the community, since any social group may contain destructive elements.

It is important for communities to build resilience so that they are able to reform and regenerate after a crisis. Human beings have the advantage over, for instance, forest-dwelling organisms, as they are able to design scenarios that promote sustainability. Transition towns such as Totnes in the UK and Beckerich in Luxembourg have organised their communities along the 12 permaculture principles, focusing on local economic issues to make the community more resilient because less reliant on long supply chains and an oil-based economy. Coincidentally, the way transition towns are organised, based on natural permaculture principles, is very similar to the way churches are organised with local parishes. But transition towns have not been around long enough to demonstrate whether permaculture principles build in sufficient resilience to withstand major shocks.

Gerry concluded by commenting that the views of permaculture practitioners are analagous with Kierkegaard's distinction between objective and subjective truth. Nature exists as an objective truth, but for permaculturists the important thing is the way people relate to that truth – by seeking to realign themselves and their designs (for gardens, buildings, social arrangements, etc) with nature's objective laws and principles.

## **Bibliography**

David Holmgren, *Permaculture: Principles and Pathways Beyond Sustainability*

Rob Hopkins, *The Transition Companion: making your community more resilient in uncertain times*