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A Participatory Approach to Designing School Grounds

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[Presentation Report]

Based on her experiences in schools in South Africa and New Zealand, Robyn indicated that there are two ways in which schools are approaching nature and conservation: a Western approach, which is generally environmental education, and an Indigenous approach, which is for basic needs such as food, water, etc. Recycling globally is the first step.

There is a government initiative in South Africa called 'The Feeding Scheme' which gives students sandwiches and a drink several times a week. With permaculture there is potential to enrich the programme to a deep level of nourishment.

An effective way to apply permaculture design is to give children a problem to solve, together with an introduction to permaculture principles. For example, at one school a herb garden is created, then a chicken house with a general forage system, and the eggs are used in the school canteen. There is a cow to milk and the proceeds of the garden all go to the canteen, to be prepared for the children. Recycled items are used – for example, orange/pumpkin mesh bags are cut up and sewn into shadecloth, and a four-way fireplace was built to enable a fire to burn whichever way the wind was blowing.

In Adelaide, a Mt Barker Waldorf School teaches gardening and landscaping with a permaculture emphasis in the curriculum. At first the student has their own small garden to tend, then a shared garden between 2 or 3 students. Following on they work in a group, then they produce commercially. Between the ages of 10 and 12 they grow market produce, and from 14 to 15 they learn landscape gardening, develop team projects; for example, growing herbs, then processing into oils, dried, cut, moving into the world of commercial enterprise. At the Mt. Barker school a shade house was created using brushwood from eucalypts. They also use worm farms.

When designing playground equipment permaculture is also important, often using recycled items. In Africa, seating was achieved using hessian bags, packed with

earth, then covered with cement; moreover, a whole series of learning situations developed from the seating requirements, such as the comfortable 'body' space needed by each person, handcraft and functionality. Swales are also developed.

One creative way in which the permaculture process became incorporated was an instance whereby a 9 year old in Australia wished to develop a BMX track, creating a whole permaculture site around it (as parental criteria required) showing that children are capable of designing in this way if supervised by an adult.

Some preparatory elements of the design process are:

- *Observation*: know the territory; a detailed study of the vegetation.
- *Interviewing*: students, and students interviewing each other regarding likes, dislikes, visions for the school – students chalk their wishes, needs on the pavement, etc.
- *Historical perspective*: interviewing older people about previous use of the land.
- Free-range wandering and observation.
- *Soil studies*: recording details on a chart.
- *Water harvesting*: experiment with topography, water flow.
- *Mapping on the ground*: use ash or sand to draw with, create a replica on the earth using recycled materials, then on paper.
- *Large scale*: use our bodies to look at sectors. Zoning using string – the connections between elements, employing a string game, then form guilds.
- Use of element cards on the ground – indicating how they work in reality.

Another way is to start with a 'problem tree' to look at causes and effects, noting how permaculture addresses the root of it. Before designing look at goals – use templates, build up collective goals based on values. Make a resource inventory – draw inputs and outputs on a chart, and future elements which are desired, then test future ideas. What aspects are possible to begin immediately?

Analysis of elements: input/output charts to check for viability.

Now all details can be transferred to the master copy – zones, sectors, waterflow, windbreaks etc placed on a map of the school grounds.

In a two week permaculture course the organization of design is taught: in week 1 permaculture principles and practical application, in week 2 the design process.

PRA (Participatory Rural/Rapid Appraisal) – Holistic Resource Management – goal setting is another teaching model, and some of these techniques are integrated by Robyn into her approach to permaculture design.

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courses in Aoteroa/NZ, Australia, Lesotho and South Africa, where she has complemented and refined the “Pattern System” approach for agricultural land, village and school design.