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Integrating Permaculture and Holistic Management

by Aspen Edge



Ten years' ago we bought Semilla Besada, a 30 acre (12 hectare) farm at 4,2565 ft (1,300m) in the Sierra Nevada Natural Park in southern Spain. The landscape is commonly described as maquis/garigue characterized by the presence of woody aromatic perennials and indigenous oaks. Temperatures can fall to -15C and rise to 40C. Although there are four distinct seasons, there is low year-round humidity and a summer drought which can last for six months.

When we came we brought with us a lifetime of growing our own food, and four years' experience of Permaculture Design. This was augmented by a two month stay at Crystal Waters Permaculture Village in Australia, where we were able to see first-hand the application of this 'natural system' design framework. This environmental knowledge was also supported by experience in administration, systems design and accountancy. We added to these skills, our enthusiasm and our passion about creating a more sustainable life for ourselves and the planet.

However, after four years of trying to establish a biodiverse, complex natural system, which also provided a year round net yield, we had to acknowledge we were beat!

Barking up the wrong tree

We had inherited 200 drip-irrigated mixed fruit and nut trees, under which annual grasses and plants flowered in the spring, with a reprise in the autumn if there was early rain. Conventionally when summer began, the annual plants would have been ploughed into the ground, leaving it bare under the trees for the duration of the summer drought. This did not seem best practice, so after a year of observing our landscape and its climatic conditions, we created a design for a multi-stacking system of vegetation that simulated a temperate forest or a tropical jungle. We built on the existing infrastructure and planted edible trees, shrubs, vines, and ground cover. To conserve moisture and cover bare ground, we mulched underneath with dead plant material.



Four years on, far from a complex, multi-stacking sward of vegetation, we had even less biodiversity and increased bare ground. Indigenous perennial aromatic plants proliferated, and those that were established were not thriving. The numerous annual flowers and grasses, which were part of the original landscape, were smothered by our mulching and no longer appeared. The perennial grasses, despite cutting, were dying out. Nothing was performing in the way that we had expected from our previous experience. We simply could not work out why. Clearly, there was something missing from our understanding.

In addition, we had lost three years' of the time that we had bought ourselves at the outset. We had planned on a 10 year start-up period and had allocated our capital to cover living and development expenses over that time. However, unexpected expenses and circumstances had eroded that nest egg, leaving us with even less time in which to develop a sustainable livelihood.

Different strokes



Serendipitous circumstances brought to our attention the work of Allan Savory, and the concept of 'brittleness'. As we looked with 'new eyes' at our land, we saw the stark difference between the temperate climate to which we were used, and the Mediterranean climate in which we now worked. We began to understand how differently these two ecosystems had evolved, and how we could now re-work our design in tune with this natural system.

Our temperate Permaculture eyes had seen what they expected to see: a dry landscape that needed to have water conservation, ground cover and soil building techniques applied in a way that mimicked nature. Our Permaculture mind applied those techniques which, if applied in a temperate or tropical environment, would build soil and conserve water. We had not appreciated the extent to which every landscape evolves differently. We had not known the pivotal importance of the implication of brittleness to the correct selection of land-use techniques.

In this area of low year-round humidity, dead plant material did not break down readily. It simply oxidized on the soil surface. Even worse, such surface material became a fire risk. We discovered that, nature had another way of building soil. In a dryland environment, she did this most effectively through the gut of a grazing animal, provided its management mimicked the natural process that had evolved here.

Creating synergy

It was easy at this stage to see Holistic Management as the better tool. Permaculture, as we understood it, had not served us well. However, as we gained experience we learnt that the two frameworks complemented, rather than competed with, each other. It was important to select what was most effective from both systems, and not reject out-of-hand one or the other. So began a six year process of integrating the two frameworks to create an even more holistic management of Semilla Besada.

From the simplest perspective, we saw Holistic Management as an holistic decision-making framework which, worked consistently for triple-bottom-line sustainability in line with an holisticgoal: Permaculture as a holistic design framework which, mimicked natural systems to provide food, fibre and energy for local needs. They had much in common. They shared similar ethics, such as care for the planet and care for people. They shared, certain principles, such as holism and sustainability.

They had, however, evolved in different environments: Permaculture, in small-scale, intensive land-use in temperate and tropical regions; Holistic Management, in large-scale, grazing-animal-based land-use in dryland regions. They are different types of 'organisations': Permaculture is a movement of individuals, where there is no top-down regulation or uniformity of product or

presentation; Holistic Management is a regulated body of knowledge and practice, supported by individuals, where there is consistency of product and presentation.

We created a check-list of what we saw as the strengths and weaknesses of both frameworks. The table below summarizes this process.

Permaculture		Holistic Management	
Strength	Weakness	Strength	Weakness
Ethics (sustainable people, planet, profit)		Ethics (triple-bottom-line sustainability)	
	Principles (unclear and limited to design concepts)	Principles (holism, sustainability, responsibility, accountability, awareness, process, change)	
	No holistic goal to drive overall vision	Holistic goal	
	No routine testing for sustainability and movement towards vision	Testing Questions	
	No holistic financial planning	Holistic Financial Planning	
	No life/project planning		No life/project planning
	No holistic grazing planning	Holistic Grazing Planning	
Landscape design – wider application (multi-dimensional, diversity, yield, holism, input/output ratios, small-scale, wild soil, energy, zoning, location, sectoring, elevation)			Land Plan (limited application and perspectives)
	No formal biological monitoring (so difficult to quantify progress)	Biological Monitoring (rangeland, cropland)	
	No formal feedback loop (so difficult to monitor, control and replan)	Feedback Loop	
	No capacity to use framework for diagnosis of problems	Framework can be used as a diagnostic tool	

What we discovered was that Permaculture was particularly strong in design perspectives, but had no structured holistic framework for formulating clear outcomes or planning, monitoring and controlling those outcomes. Nor was it possible to use the Permaculture framework as a diagnostic tool or check that our actions were always leading us towards the outcomes we wanted.

Creating a more powerful management tool

Through our analysis of what Permaculture and Holistic Management were to us, we created a synthesized form of management. Holistic Management gave us a way of clearly defining what holistic outcomes we were working towards from the biggest vision to the daily objectives. It enabled us to plan what we needed to do to achieve these outcomes, and how to go about it. It also ensured that every decision we made was leading us towards a sustainable future, and when we ran into problems, we could use the same framework to discover what we needed to do next. In addition Holistic Financial Planning had enabled us to regain the three years of financial time that we had lost, and extend that period by another two years!



However, when it came to designing the 30 acres (16 hectares) of landscape and accommodation, Permaculture came into its own, with the added Holistic Management insight of the implications of brittleness. Semilla Besada is not a production farm, and relies on a very diverse portfolio of activities to build the environmental infrastructure and sustain the people that live on it. Using the technique of zoning, we were able to determine what activities should be located where. When selecting animals, trees and plants, we ensured that each would generate

more than one product. We were aware of our dependence on non-renewable resources and on goods and services which we could not provide for ourselves and used the insights from Permaculture to create a more sustainable design.

One such use of this synthesis is how we create 'closed' systems. For example, we generate tree prunings, which in many countries are simply burned, creating a 'waste'. We, however, initially feed them to the sheep and rabbits. When the leaves and bark have been stripped, we then shred (chip) the branches. The resultant product is used as bedding in the sheep and chicken housing. When the housing is cleaned, the mixed contents are composted. This is then used to fertilise vegetable- and tree-growing areas. Any branches that are too large for the shredder (chipper) are cut and stored for firewood. No waste has been produced, and the output of one element of the system provides the input for the next. This design concept is from Permaculture thinking.

Determining whether this activity is in line with the quality of life we are creating and is triple-bottom-line sustainable (particularly in using fossil fuel for the shredder (chipper)) is the preserve of Holistic Management. So too, is the planning of how and when the process takes places, whether it continues to leads towards the desired outcome and what to do if changing circumstances require us to re-think this process

With Holistic Management providing the structure for management and Permaculture the framework for sustainable design, we were able to be far more effective in moving Semilla Besada towards the outcomes we wanted.

Next Steps in Permaculture

Books

Permaculture, Principles and Pathways Beyond Sustainability, by David Holmgren

The Earth Care Manual, a Permaculture Handbook for Britain and other Temperate Climates, by Patrick Whitefield

The Earth User's Guide to Permaculture by Rosemary Morrow

Organisations

Permaculture Research Institute Australia www.permaculture.org.au

Permaculture Research Institute USA www.permacultureusa.org

Permaculture Association (Britain) www.permaculture.org.uk

These organisations can point you in the direction of local groups and design courses.

Magazines

Permaculture Magazine www.permaculture.co.uk

Permaculture Activist www.permacultureactivist.net

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