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Celebrating the Harvest and Reimagining the Yield

Andrew Zions Abrams, Joanna Crowson and Jorge Gallardo

continue their fascinating series exploring the wider context of permaculture beyond the garden and into the expanded horizons of life and society

It's the autumn equinox and standing up at Almenara looking down over our land towards the Atlantic Ocean, the earth looks barren and dry. All over the northern hemisphere, the harvest is in, and thoughts turn to the traditional harvest festival, which has a place in just about every culture. It's time to give thanks for what we've received as we wait for the first rains to come, to fill the swales and green the land again. This is the time of year that we find ourselves wandering around the place cheering on the trees planted last winter – the ones that have survived their first summer on the moisture stored in the swales, and what little irrigation we can give them... Come on! You can do it! Nearly there now! Hip, hip, hooray! It sometimes feels a little silly, but this is the only additional form of support we can offer these struggling living beings as we all wait for the rain to come.

The secret to a happy life is gratitude – not something that depends on your circumstances but rather an attitude to be developed and reinforced. So, we've gathered around the Life Cairn to celebrate the equinox and to give thanks for the harvest. We think back to earlier ceremonies held this past year, back to when we were planting seeds, figuratively and literally. What intentions did we set? What seeds did we sow? Which came to fruition? Which withered away? We reflect on the gifts of the year – including the things we didn't ask for but received, whether appreciated or problematic; the crops that surprised in the garden: the projects that we have celebrated or shelved. Then we expand our view to reflect on our harvest as a society, including of course climate change, biodiversity loss, war, hunger and pollution. We reap what we sow, individually and collectively, and sometimes the harvest can be bitter and hard to bear. Best to acknowledge it so we can see where change is needed and get on with it.

Does Permaculture already Have Most of the Answers?

Permaculture occupies a space that stands outside the mainstream, and it can sometimes be seen as an impractical and unscientific world of mulch, urban food grown in containers and untidy, unproductive gardens. But we believe that as a design process, it provides the perfect pair of glasses through which to look at the world and to build solutions from an ethical and principled foundation, in collaboration with nature. Permaculture's ethics and principles can have far-reaching impact in every area of life, and since 2011, we've been working with a small group of fellow permaculture practitioners to share knowledge locally here in southern Spain, reaching out to all kinds of people, as well as including it as a thread in our Erasmus+ courses, retreats and events, and the work we're starting with schools.

As a society, we're currently collectively harvesting the inevitable results of our dominant worldview and mindset, and this can lead to feelings of fear, anger and hopelessness. Our work with Joanna Macy's Work That Reconnects has shown us the value of facing these feelings – the Honouring Our Pain stage of her methodology – in order to spark our commitment to working collectively to reimagine a

regenerative future. And here, permaculture can offer an approach to imagining and designing our way out of the ecological crisis, and the permaculture principles can shine a torch into the corners of the mind, to illuminate the habitual thoughts and assumptions that are the results of the colonial and capitalist worldview on how we think.

Most readers will know that permaculture was the result of the collaboration between two Australian men: Bill Mollison and David Holmgren. After their collaboration had concluded, they continued working to refine the ideas and principles behind permaculture in their own ways, presenting them in different publications. Holmgren came up with 12 principles that he described in his book *Permaculture: Principles and Pathways Beyond Sustainability*, and these have the virtue of being easy to remember (no small thing when you're trying to decolonise your brain). Mollison's list is described over two books (*Introduction to Permaculture* and *Permaculture: A Designer's Manual*), and it is longer, more descriptive and less easy to remember, but the two approaches complement each other beautifully. And Mollison's sub-list of attitudinal principles really describes the mental decolonisation process we so urgently need.¹



Thinking More Deeply about Harvest

Let's go back to our theme of harvest. Mollison's associated principle states that the yield of a system is only limited by our information and imagination. Holmgren's related principle is simple: Obtain a yield. On a most basic level, we all need to eat, and someone has to produce our food. To take a look at the input and output of calories in intensive agriculture, it has been shown that in the USA in 1940 the ratio of calories invested in fossil fuels to calories obtained from food was 1:2.3; by 1974 this was approximately 1:1. Now it is 3:1 – we input more calories through the use of fossil fuels than we obtain from the food we produce.² The conventional system is not sustainable, and yet this is still the source of most of the world's food, including ours at Catalina (we're nowhere near self-sufficient and right now this isn't even one of our aims). In permaculture gatherings in our local community it's not unusual to hear long debates about issues such as the use of non-native trees to accelerate reforestation in a changing climate, or different ways of managing irrigation, but there is almost no discussion around how to produce food. This means we run the risk of seeming not to engage with the real-world problems and concerns of the farming community and the Earth's poor. If we really want to change the sort of collective harvest we are bringing home in terms of the polycrisis, then we permaculture practitioners clearly must scale up how we address food production and food sovereignty. But it's also

true that our yield should not be measured only in terms of food for human consumption.

Catalina's Mandala Garden

At Catalina we created a mandala garden in 2020, and when we are not taking visitors on a guided tour of our rainwater harvesting landscape, we turn to the mandala garden as a teaching tool. For years, we've been inspired by Linda Woodrow's mandala garden design, as outlined in her book *The Permaculture Home Garden*. Over many years of reworking the design, Linda has utilised a 'chicken dome' type of chicken tractor, which rotates around six circular beds, arranged in a circle around a pond in the central bed. There are also fruit trees, compost piles and even chicken fodder incorporated in this design. In 2020, working alongside a renowned Spanish land artist, Lucia Loren, we created a combined project incorporating her ephemeral land art installation called the 'Cycle of Living Soil' with a mandala garden. Together we built a toroidal sculpture which surrounds the central pond, woven out of branches, a support for climbing legumes. We also created a syntropic circle around the mandala with over 90 trees, half of which are nitrogen-fixing, the other half drought-resistant fruit trees, as a part of this installation. Finally, using locally-harvested bamboo interweaved with branches, we built the chicken dome for this system, designed to house 12 chickens.



Creating the toroid and the chicken dome for the mandala garden.

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ABOVE Lucia Loren's toroidal ephemeral sculpture as a centerpiece in the mandala garden



ABOVE RIGHT The mandala in full swing a few months after its creation: Toroid and chicken dome

The mandala garden is not a conventional, intensive food producing system, and if we were to measure it in those terms it would flag up some dubious numbers. However, it's beautiful, and it fascinates visitors. Even so, we are extending our design to grow some food crops in more conventional layouts, because it is incredibly difficult to manage optimum timings in such a complex growing environment. We're lucky because we have space to experiment with both approaches and, meanwhile, it's a wonderful place to do an observation exercise focused on some of the permaculture principles, because so much is going on there.

Reimagining the Harvest by Exploring Yield

If we return to Mollison's principle, it becomes clear that the first step required is to define harvest. As Mollison says, imagination is the only limit to identifying the yield produced. If we move beyond the anthropocentric, dominant understanding of production, here are some observations that expand the idea of what we harvest in of our mandala garden:

- We can think beyond food for us and for the wider human community, and value the food made available to other living beings.
- We can identify specific ecosystem services, such as the mitigation of climate change through the sequestration of CO₂, and adaptation to offset temperature rise through its influence on the local microclimate.
- We can think about its aesthetic value – its beauty, its

deeper meaning through its connection with art, and so on...

- We have noticed its power of replication, through encouraging others to implement the principles of the permaculture toolkit – which is so much easier if the benefits can be seen. In this way, a teaching space could be seen as a yield.
- The design also provides positive feedback into the system – as time goes by it shows increased complexity and abundance.
- It is a beautiful space: It is decorative but provides a range of foods and services beyond what can be achieved in a purely decorative garden.
- If time is factored in, the net value is increased by the obtaining of several harvests over the year, and by growing several crops simultaneously in the same space (e.g. the three sisters guild), and by the ongoing, long-term production of some crops after the immediate production and harvesting of others.
- The complexity of the mandala garden provides us with a particularly radical yield – we are all suffering the results of the dominant capitalist ideology that leads us to view relationships through the 'glasses of competition'. But in a rich space like the mandala garden, many different relationships exist, and when we start to look for examples of collaboration we can support, rather than competition we aim to eliminate, we can take some important steps to decolonise our thinking.



Photos © Andrew Zionts Abrams

'Catalina' is a land-based project located on 13 hectares of land on a hillside in the region of La Janda in southern Spain. The project is named in homage to a local 15th-century woman landowner, and the focus is on exploring different forms of community life and collaboration with nature, based on the principles of permaculture, and developing specific practices in relation to the location and condition of the land. A number of groups, volunteers and specialists have been working on the project since 2014, led by Andrew Zionts Abrams. The work has involved restoring the functionality of the ecosystem by creating a zero-runoff water retention landscape, reforestation, and experimenting with regenerative agriculture and care for the soil, as well as connecting to the community of life using tools from deep ecology and sociocracy. The shared aspiration is to move beyond the idea of sustainability as sustaining a given situation over time (including what may be an impoverished and degraded landscape and/or community), instead aspiring to create a local version of a regenerative culture, as defined by Daniel Wahl in his book *Designing Regenerative Cultures* (2016):

"A regenerative human culture is healthy, resilient and adaptable; it cares for the planet and it cares for life in the awareness that this is the most effective way to create a thriving future for all."

For more information about our project, visit www.almenara.online

Using Permaculture Principles to Go Beyond the Obvious

We've mentioned that we use the mandala garden as an informal teaching space, both with newcomers to permaculture and with our local permaculture group. As permaculture practitioners, we find it is useful to revisit permaculture principles regularly and make space to explore them in depth. Learning is never final, but rather a process that is ongoing and complemented by experience, and new connections are made each time we explore a principle more deeply. But perhaps even more importantly, in our exploration of how to best resist the insidious, dominant worldview that is damaging our planet, we have identified the need to make regular efforts to decolonise our thinking, to liberate our minds from habitual and impoverished assumptions about what is really happening around us.

With this in mind, we'd like to share a simple exercise we use with groups. You can easily adapt it to do it on your own or with other permaculture practitioners as a kind of brainstorm. First, choose three or four principles and present them briefly, giving a clear example of each principle in action. We usually work with the following four, as expressed by Holmgren: Obtain a yield; Use and value renewable resources and services; Integrate rather than segregate; Use and value diversity. Next, send your students or interested visitors into any richly planted and designed food garden in pairs to look for examples of the principles in action. You'll need to remind them to watch where they step, because the activity can be very absorbing! Give them an agreed period of time, at least 15 minutes if you want them to go beyond the obvious. Then gather your group together to share the observations. If this is a teaching exercise, make sure you have a good crib sheet ready to supplement their discoveries with your own thoughts.

¹ Work with nature rather than against.

The problem is the solution.

Make the least change for the greatest possible effect.

The yield of a system is theoretically unlimited (or only limited by the imagination and information of the designer).

Everything gardens (or modifies its environment).

² www.mepartnership.org/counting-calories-in-agriculture

More on yields:

'The Civet's Tale' PM106

'Measuring the Infinite' PM91



Andrew Zionts Abrams has a background in fine arts, industrial design, permaculture and yoga. He has been implementing a rainwater retention and reforestation design on his farm since 2014, sharing the work and his passion and knowledge with volunteers and friends.

Joanna Crowson discovered her passion for permaculture in 1993 when she and her family bought land and started creating Casa Gaia in Cádiz. She works as a translator, educator and writer, focusing on creating regenerative cultures through reconnecting to the earth.

Jorge Gallardo, co-founder and coordinator of the cooperative Be.Time SCA, created in April 2017, works as a cultural mediator in a small town south of Cádiz, developing projects for the regeneration of species and landscapes and mobilising civil commitment in the protection of the commons.

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