

A new iteration of the
permaculture design system...

TOWARDS PERMACULTURE 3.0

EVERY SO OFTEN, good ideas need refreshing, renewing, reinterpreting for contemporary times. This keeps them relevant, alive and useful.

The world has changed substantially since the permaculture design system was unleashed at the end of the 1970s. Societies, economies and the

human environment are not as they were. Something has changed. Now is different.

Is it time, then, for a new version of the permaculture design system so that it can continue to offer the solutions we need?

This paper says yes, it is...



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A new permaculture for a changed world

THE WORLD WE LIVE IN NOW is not the world permaculture was born into. Nor is it the world in which permaculture spent its adolescence and in which it grew to maturity. Things have changed and we need to engage the world as it is now, and that might mean doing what we do a little differently.

Permaculture is said to use nature as an inspiration for its works. Nature's patterns and structures are therefore a model for the way that permaculture designers think about things.

Permaculture evolves too

Evolution is one of these patterns of nature. It is a temporal pattern that shapes the lifeforms around us and that shapes us — humanity. This implies that it must be one of those properties of nature that we, as permaculture designers, reflect in our design.

(permaculture)... has to compete for attention in the public marketplace for ideas and that, today, is a crowded and busy marketplace...

It makes sense that not only ought we consider evolution — how things change over time — in our design work, we need to apply it to the permaculture design systems as a whole and realise that it, too, changes.

Organisms, technology and ideas themselves demonstrate evolution in that they change to maintain what in evolutionary studies is called 'fitness for purpose'. Permaculture practitioners would do well, I believe, to understand that permaculture, in order to adapt to changing world conditions and to maintain its fitness for purpose, must change too. Just as nature discards old forms no longer the best fit for purpose in a changing environment, so too must permaculture discard the old and less effective and adopt new, timely ideas and practices.

Permaculture needs to change to adapt to contemporary conditions so as to remain relevant. It has to compete for attention in the public marketplace for ideas and that, today, is a crowded and busy marketplace.

To do this requires adaptation — evolution, that is.

Motivation

My motivation for proposing a Permaculture Version 3.0 is to see the permaculture design system upgraded so as to position it as an intellectual and practical technology that can be safely adopted by individuals, communities, local government and other institutions.

My background for making the proposals in this publication come from my experience in permaculture. I did my permaculture design course (PDC — led by permaculture educator, Robyn Francis) in 1985 and followed this with experience in community organisations, international development NGOs, social enterprise and local government, in addition to teaching the PDC as a member of the Sydney permaculture teaching team through the 1990s.

This has brought close contact with local government staff, with social enterprise specialising in food distribution, with community-based organisations and with a national food sovereignty educational and advocacy team.

For one of those social enterprises, Sydney Food Connect, I operated a weekly City Cousin depot where members collected their box of fresh, organic food produced for the most part by Sydney region farmers. A good thing about Sydney Food Connect was that it was the creation of a graduate of the Permaculture Design Course, and the good news for me was that he was a graduate of one of our own Urban Permaculture Design Courses. Oooby (Out Of Our Own Back Yards), another community-supported agriculture enterprise, took over Sydney Food Connect's operation when the director had to move on.

I've had the good fortune to work with PDC graduates on a project steering committee. They work in architecture, landscape architecture and in sustainability education roles in both business and local government, and they have integrated permaculture's ethics,

principles and concepts into their working lives. Their work creates the credibility that permaculture needs in mainstream society because it is visible to the public and local government and because people regularly make use of it. Their work normalises permaculture.

That's not to say that other permaculture individuals, associations and educators do not similarly contribute to the design system's good image, however for the most part their contribution is as a voluntary community activity. This is valuable, of course, because it is activity of this type that sustains permaculture as a popular practice.

Over the years I have gained insight into how permaculture is perceived by those outside of it and how permaculture practitioners see themselves and their roles. Often, there's a disconnect.

With the availability of Accredited Permaculture Training (APT) — what is in effect nationally recognised workplace education — developing permaculture as a livelihood option becomes important, and to do this the credibility and reputation of the design system count for much. This makes improving the perception of permaculture among professionals and government a necessary component of a proposed new iteration of the permaculture design system—Permaculture Version 3.0.

In my work in local government and elsewhere, I have found that permaculture people and ideas have been absent when they should have been present. Good ideas, what you would expect from permaculture people, have come from those with no links to the design system at all. Perhaps this demonstrates how what once was cutting-edge thinking has been mainstreamed.

Leading questions

Someone who has had much to do with the permaculture design system asked whether permaculture has lost its innovative edge because much of the permaculture conversation is about topics, ideas and technologies that are today mainstream.

If contemporary permaculture practice does not engage with the big issues facing us today there is a chance that person's question could be answered in the affirmative.

What he asked was whether permaculture had become stale, its ideas and practices no longer on the social cutting edge from where those that are successful spin in towards social acceptance and adoption.

A need to monitor and evaluate

It is difficult to track the evolution of permaculture and the roles it fills in society because there is no substantive practice of monitoring and evaluation within the design system through which we can track progress, redress difficulties and build a picture of the design system at any time. The closest we have come to this was a survey conducted by Permaculture Australia in 2014.

Coming from an international development consultancy background where monitoring and evaluation are part of the normal project cycle, this seems an omission that could stymie organisational learning. Sure, there is opinion but in my experience the opinion of permaculture practitioners usually claims that the design system is moving forward in great bounds, yet those opinions are seldom based on objective data.

Ideas absorbed

Another comment, from an educator, was that much of what is taught in permaculture and what were once its innovative ideas are now taught in tertiary environmental management and science courses.

It's that mainstreaming process again, ideas spinning in from the innovative edge to the mainstream core as described by Roger's Ideas Diffusion model. What this means for permaculture educators is that PDC participants are now likely to be better educated and more critical of what they learn in a design course.

Challenges

An influence on thinking about a new iteration of the permaculture design system comes from the periodic resurfacing of a long-running conversation within the permaculture education milieu — whether the Permaculture Design Course remains fit for purpose and whether permaculture education needs a more diversified, nuanced approach to educating people to act in a world substantially different to that for which the PDC was originally devised.

Then there was the question and the challenge several years ago that came from social entrepreneur, Mitra Aadrón, who said that permaculture, though a good idea, would have to scale-up its work to remain relevant to the realities of contemporary times. He challenged permaculture people to do this. Unfortunately, none accepted his challenge. It was Mitra's work that gave his proposal credibility and relevance.

Yet another factor influencing the idea for a new version of permaculture has been watching it become a respectable term in a still far too small number of city councils. This is an uncommon phenomenon and it is the work of a very small cadre of permaculture educated and motivated people gaining positions in council. As one put it: “Five years ago I couldn’t have used the word ‘permaculture’ in my work. Now I can. That’s change, but it’s still not true in most councils”.

In another example of permaculture becoming institutionally acceptable, in Randwick, in Sydney’s Eastern Suburbs, council sustainability educator, Fiona Campbell, was able to use state government grant funds to create the Permaculture Interpretive Garden, a hybrid public park and council education facility, and to retrofit for energy and water efficiency a community centre, install sustainability educational features and offer courses in community resilience.

I have seen this partial acceptance of permaculture in a sector I once worked in — international development. There, some years ago, I witnessed a government adviser assuring a meeting that permaculture “has no place in overseas development assistance”. I also saw permaculture ideas become part of the work of a small number of agencies. The adviser saw permaculture as a largely derivative approach based in other, established approaches to farming systems and, thus, offering nothing new or of value.

A question of credibility

Permaculture’s absence from important work roused my curiosity as to why this is so.

The answer has to do with the perceived credibility and the niche in society occupied by the design system. Frequently, local government and design professionals see permaculture as an amateur, garden-oriented practice lacking the rigour and structure of professional work. They see it as poorly finished and ignoring landuse planning and regulatory criteria. The idea of it as a design system integrating the elements of resilient living has been lacking. I put this down, in part, to the absence of resiliency as a criteria in their work.

Likewise, local government sustainability educators might on occasion pay lip service to permaculture but commonly have a very limited concept of the design system and its potential role in society, and the opportunities it would offer to their work. Most seem

to perceive it as a way to make mulched gardens. Educators commonly focus on sustainability areas like energy, water, waste and transport, and a few have adopted food security and food production. Sustainability education is an influential profession that has perhaps been inadequately targeted by permaculture organisations and educators.

A question of perceptions

Permaculture is frequently missing in public affairs and advocacy around sustainability and urban issues. Educators and practitioners talk about urban food security or food sovereignty but there are few permaculture people active in the work of organisations such as the food sovereignty and food security alliances around the country.

Contributing to this is what I see as a disconnect between the hands-on growing of food and the big picture need to see that farming in Australia has a good future and that all have adequate access to nutritious food and can exercise their freedom of choice in selecting the type of food they prefer.

An outcome of this is that those active in advocacy and educational organisations can see permaculture as only a minor player without much to contribute. It is seen as a small scale approach to food security, valuable, but not addressing the food security and food sovereignty of those who cannot grow some of what they eat. That is an economic and policy question and permaculture can sometimes be seen as not addressing those types of trends that are so critical to our fair food future.

Needed: a better definition of doing

I understand that there’s a philosophy of ‘doing’ that remains influential within permaculture, however this philosophy is often narrowly interpreted as doing physical things like making a vegetable garden.

‘Making’ is very important because it is how we bring good ideas into existence, however the definition of making needs to be broadened to working with the brain as well as the hands and to working in advocacy. The reality is that it is the intellectual work that usually sets the parameters of the possible and shapes our future.

What I have left unexplored here are the myriad positive influences in which I have seen permaculture work well.

Iteration not revision

In proposing a new version of the permaculture design system I propose an iteration, not something completely new that would replace that existing. Some of the ideas I propose already exist here and there and could be built upon.

Evolution requires provocation to work, whether that provocation is a changing climatic system forcing adaptation by plants, animals and people or whether it is competitive pressures within the public marketplace for ideas forcing organisations to adapt to changing social, environmental and economic circumstances.

Adaption to change — it should come naturally to permaculture because change is what the design system is all about.

Permaculture... an ethical design tool, creating sustainability through the integration of diversity, stability and resilience in ecologically sound, economically viable human environments respecting the whole of creation.

...Dawn Shiner



Australian permaculture practitioners at Australasian Permaculture Convergence 11 in Turangi, New Zealand.

Permaculture College Australia's Robyn Francis is at left in the striped top. In the yellow top is Permaculture Macarthur's Sue Mossman. Annaliese Horden, from northern NSW, holds the sign at right of photo while sustainability educator, Fiona Campbell, peers from behind her. Transition Bondi's Lance Lieber looks over shoulders at centre rear. The author is at left of frame.

A new version of Permaculture? Why?

IT'S GETTING ON FOR 40 YEARS since permaculture was born with the publication of the book, *Permaculture One*¹, in 1978. The work of the permaculture design system's originators, Bill Mollison and David Holmgren, the book conceptualised a new world view and a solution to the social, environmental and economic concerns of the time.

Permaculture, as broadly described in *Permaculture One* and, the following year, *Permaculture Two*², seemed to offer a way forward, a new way to think about what was happening and how we could best react to that through a design-based approach. It reframed the opposition of the lobby groups of the time as a constructive and proactive approach to creating what it was we wanted to see.

Over succeeding years the permaculture idea spread worldwide and, like plants and animals do, it speciated. It evolved into different lines of thought, focusing on different themes in different places at different times. Today, permaculture is a diverse practice in city and country.

Even though the focus and practice of permaculture has changed over time, there is a notion that after nearly four decades the design system could do with a makeover... not to change its core ethics, principles and concepts but to update and reiterate it for the contemporary world and to change how it is conceptualised, taught and implemented.

Making more of the design system

I think David Holmgren summed up permaculture's success when he said that the design system has evolved mainly as technology of the household and voluntary community sector.

Having now attained a level of public acceptance, forward thinking permaculture practitioners want to make more of the design system and to take it into the domains of social institutions and workplace situations. If we are to do this then we have to strengthen permaculture's credibility by upgrading its standards of practice so that it becomes acceptable to decision makers working in those domains.

1 1978; Mollison B, Holmgren D; *Permaculture One*, Tagari Publishers, Tasmania.

2 1979, Mollison B ; *Permaculture Two*, Tagari Publishers, Tasmania.

This is something that was reinforced for me as a staff member of a city council. There, in local government, I found that design professionals and decision makers remained largely ignorant of permaculture even though sustainability educators working in councils occasionally offered workshops in it.

A new iteration

To state it briefly, a new iteration of permaculture may be timely because:

- the world has changed substantially from the time of permaculture's birth (taken as the year of publication of *Permaculture One* in 1978) and the formulation of the Permaculture Design Course in the early years of the following decade; there are newer priorities in sustainability, much research, development and deployment of sustainability technologies and there are people educated at tertiary level now making careers in sustainable development and sustainability education; all of this affects permaculture's future
- the sustainability movement has diversified and today ideas and organisations compete for people's time and effort
- there is now an acceptance that humanity and the Earth are entering a new epoch popularly known as the Anthropocene (the Age of Humanity) and that this is the result of the Great Acceleration in resource extraction and consumption, waste production, atmospheric heating, oceanic acidification, native and agricultural biodiversity decline, science and technological knowledge, communications, international travel, urban and economic growth, all of which started the acceleration in the mid-1950s and that continues today
- humanity's influence on earth systems such as atmosphere, oceans, soils and land, wildlife populations, landuse and more are regarded as being of the same order of magnitude as a force of nature; this means that humanity now substantially influences the earth system that we have evolved with and that made possible the diversity of human cultures and civilisations.

Adapting to the Great Acceleration

It is the momentum of the Great Acceleration into the Anthropocene that throws up the challenge to permaculture.

The naming of a new epoch, even if only unofficially at the time of writing (geologists and others are deliberating it) is both a challenge and an opportunity for permaculture.

It is a challenge because it poses issues of global scale that permaculture, primarily acting locally through small projects, might find difficulty in providing scaled-up solutions to that can be widely adopted.

It is an opportunity because the naming of a new epoch throws open our minds to the scale of the human enterprise and its influence, and encourages us to rethink what we believe and what we do. In that questioning may be new avenues for permaculture in developing new solutions that can be multiplied through adoption and adaptation by people elsewhere.

Permaculture needs to come to terms with these and other trends by broadening its ambit and engaging with compatible organisations, and by adopting for its own benefit new ideas and approaches, some of which you will find in the following pages.



A new vision — Permaculture version 3.0

LET'S THINK about the evolution of the permaculture design system as consisting of three phases.

I use a 'version' numbering convention, brought over from digital culture, as it is nowadays common and is used to identify new versions of a technology (here defining permaculture as an intellectual and practical technology).

Permaculture 1.0

We can think of the first phase—Permaculture Version 1.0—starting with the publication of *Permaculture One* in 1978 and going forward into the first half of the 1980s.

Permaculture Version 1.0, then, can be envisioned as spanning the years from 1978 through to around 1985 and being made up of the innovators and the first batch of people attracted to the design system

Looked at in terms of Everett Rogers Diffusion of Innovation³ model, we see the idea starting with permaculture's inventors — David Holmgren and Bill Mollison — then spreading to the first coterie of recruits who, through a variety of means got to hear of permaculture, thought it a good idea and wanted to be part of it. They attended the first of the permaculture design courses then went on to teach the course.

Permaculture Version 1.0, then, can be envisioned as spanning the years from 1978 through to around 1985 and being made up of the innovators and the first batch of people attracted to the design system — the first of the early adopters. We can see this as permaculture's birth and early childhood.

³ The model describes how ideas and products are initially developed by innovators, taken up by a small number of early adopters, then—if successful—by an early then a late majority. They then go into decline or, perhaps, revival in an iterated form.

Permaculture 2.0

Permaculture Version 2.0 spans the years from the mid-1980s, when that first batch of recruits went out to spread the word through their own courses, and on to the present day. It can be seen as permaculture's childhood and early adulthood.

Over those years the design system grew, went along different paths for a time and attracted a larger following. In terms of the Diffusion of Ideas model, those years saw permaculture spread from the early adopters into the early mass adoption phase.

The period also brought new ideas into permaculture and some became part of the PDC offerings of educators. Permaculture practice diversified as educators and practitioners set off down new roads like permaculture in international development, permaculture in schools, ecovillage development and others.

It was mainstream media that played an important role in the latter period of Permaculture 2.0, from the late-1980s, on through the 1990s and on to today. So too did permaculture's own media. Print magazines like *Permaculture International Journal*, *Permaculture Edge* and local permaculture newsletters like *Permaculture Sydney's Winds of Change* spread news of the design system in the 1990s.

Permaculture 3.0

How, when and if permaculture begins its journey into Permaculture Version 3.0 remains to be seen. What would this phase bring to the evolution of the design system?

First, it would accompany the movement of permaculture into a later stage of mass adoption. It would hopefully see greater acceptance of permaculture as a design system among professionals such as urban planners, land managers, social planners and those working in local government.

But what would it take for permaculture to achieve this penetration? What within the design system would have to change? What new things would have to come into it?

Making it happen

After nearly 40 years, it's time for permaculture to establish minimum standards for its work in public places, to demonstrate that it is a type of whole systems design (to borrow a term from Buckminster Fuller), that it is not merely a type of organic gardening, and to influence decision makers through good examples.

There's another reason to think about a Permaculture Version 3.0 and it's to do with the design system evolving from a popular towards a quasi-professional practice for some of its practitioners at least. What is slowly nudging permaculture in this direction is the Accredited Permaculture Training (APT), the higher level certificate courses and diploma.

APT is permaculture's own attempt at a system's upgrade and recognises that the Permaculture Design Course (PDC) lacks sufficient rigour, content and duration to qualify as workplace training. The PDC remains as an informal qualification for those who want to practice the design system at the home or minor community level and is a requirement for APT, which takes several years study to attain. APT's certificate three, four and diploma courses offer qualifications akin to those of TAFE courses.

Adaptation now

There's an idea occasionally encountered that permaculture has become complacent, that educators are content to teach what they have always taught. But, as already said, there is a lot of competition in the

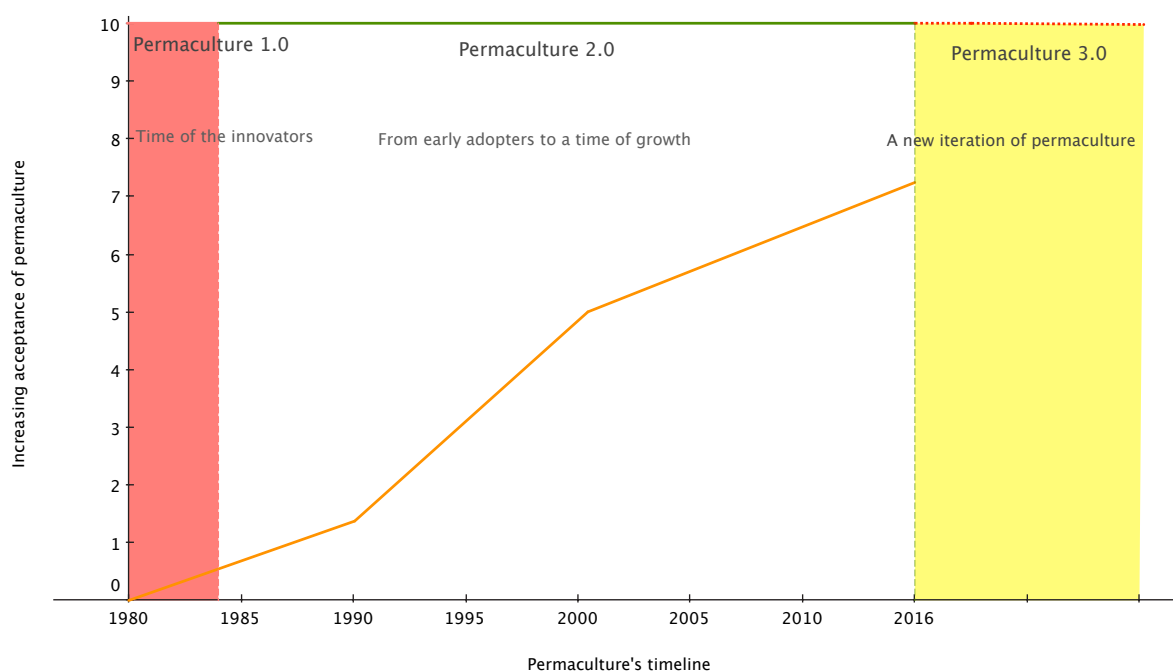
public marketplace for sustainability ideas today and if permaculture doesn't adapt and change, then it could become the loser.

Through its history permaculture has been an early adopter of good ideas such as energy efficient building design, home food gardening, water harvesting, community trading systems, ecovillage development and all of the others, but many of these ideas have now flowed past permaculture into other areas of professional and popular practice. What was once linked to permaculture has become decoupled and taken up by other innovators.

I've spoken to permaculture practitioners, those working as community volunteers as well as those using permaculture ideas professionally, and, added to my own observations of permaculture over time, I've come up with a set of ideas that I think permaculture could consider adopting to achieve greater credibility and to grow its numbers as it morphs into its new form of Permaculture Version 3.0.

As I said earlier, this does not imply that we throw permaculture as it is out of the window for there is much there that is successful and positive that we can build upon. What I am proposing is something like a mashup of the existing and the new so that we end up with an adaptable, diversified and agile design system with an active and clever social movement around it.

With that, let's look at some of the ideas for a new version of the permaculture design system — Permaculture Version 3.0.



The evolution of permaculture

Element 1: Permaculture is a platform

IN PERMACULTURE VERSION 3.0, permaculture becomes a platform.

Just as the smartphone or the iPad are platforms of hardware and software upon which independent developers create functionality with apps, so permaculture becomes a platform of ethics, principles and methodologies upon which its practitioners develop their own applications of the permaculture design system.

Doing this is not new. When Bill Mollison and David Holmgren cast the permaculture idea out into the public realm, innovative people picked it up and started inventing applications with it. Today, those applications include the popular mutual assistance scheme, PermaBlitz; educational gardens in schools; community economic systems like LETS (Local Exchange and Trading System); community education; different approaches to growing food; sustainable agriculture and more.

Not all of these are permaculture inventions, but that's alright because permaculture takes good ideas from many sources and repurposes them for use in the design system — it is a synthesis of ideas brought together into a cohesive system of design. Taking and building-on is a valid practice in the development of new ideas — we build on what has been done before.

Building on the platform

In Permaculture Version 3.0, we take the good work already done and build upon it.

Our aim is to tune permaculture as a platform, to clearly define its principles and methodologies and establish minimum standards for permaculture work so as developers or permaculture practitioners can build new and useful things on the platform.

This publication defines some of the characteristics of permaculture as a platform. It proposes new ideas that would enhance the design system and that would uplift permaculture's reputation and standards so as to legitimise it further as a technology for sustainable and convivial living.

The reputation economy

A writer on the sociology of digital culture wrote that we now live in a 'reputation economy'. He was saying that people decide to adopt or not adopt something based on what others say about it. Thus, online, the 'comments' entries on web pages, reader's reviews on Amazon.com and other online book sellers. What is said on social media matters much, especially for businesses seeking our patronage and organisations our support. Money remains a currency, only now it has been joined by reputation, and there is a clear link between the two.

As a contender in a competitive and increasingly crowded public marketplace for ideas and attention, a marketplace where the reputation economy is at work, were permaculture to lift its game and so increase its attractiveness it could go far, further than it already has. That's why building its reputation by consciously adopting the role of platform for the independent development of useful applications is important. Viewed this way, permaculture becomes an open source of good ideas and techniques.

The platform

What makes up permaculture as a platform?

Here we're talking about the basics of the design system and maybe some add-ons:

- the **three ethics** of permaculture, which are about the mutuality of providing the needs of people and natural systems and enlisting cooperation and sharing in doing this
- the different **sets of principles** that are applied in permaculture and from which particular principles are selected as guides to the work in hand
- the **principle of cooperation** or collaboration in providing assistance to people developing applications of permaculture design; this is bound to the permaculture ethic about sharing of resources, information and knowledge and implies that permaculture is an open system whose contents all can access
- **design thinking**, that follows from permaculture being a system of design and which is a basic skill in permaculture

- **thinking in terms of systems** rather than seeing components as stand-alone things unconnected to each other or to their larger context, such as a neighbourhood, city or society; realising that changes to one part of a system are likely to have an influence, good or bad, elsewhere in the system.

There would be more that we could add, however these few are critical elements of permaculture design. It's the ethics that are the reference for assessing whether something purporting to be an application based on the permaculture platform really is permaculture.

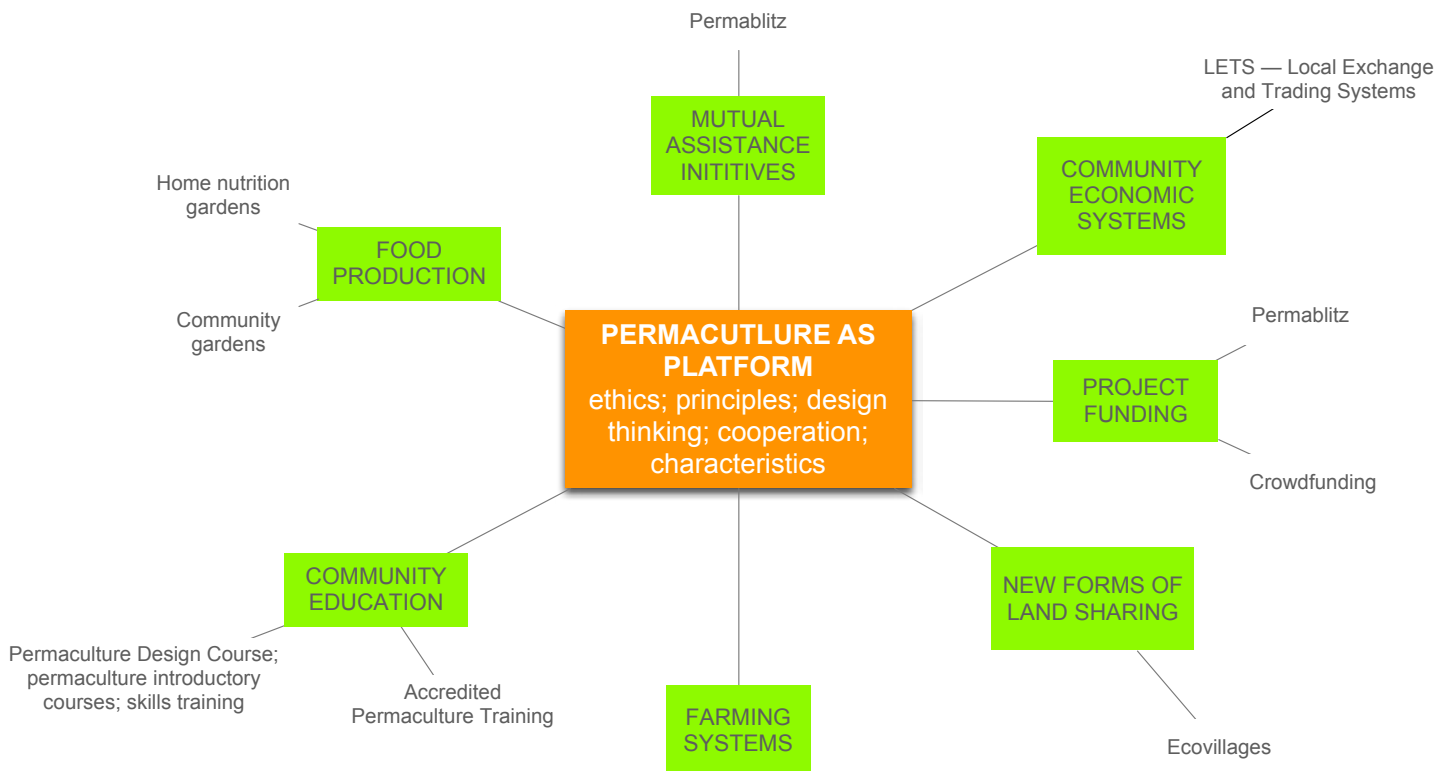
To enhance its role as a platform upon which good and useful ideas are developed, permaculture requires two things:

1. **An open knowledge base** — a how-to, shared database of knowledge regarding approaches, methods and technologies. At present this is scattered in printed books, over the internet and in the heads of its practitioners. While it may be too late to bring it together in a single site, the multiple locations that make up this collective knowledge

base could be curated on a single site that links to these multiple sources. It would be like a shared knowledge network, a Wikipedia of permaculture. Part of the knowledge base would be a space for the exploration of ideas and concepts and a place where people could ask for help in solving problems and for design solutions.

2. **A means of collaboration**—which is, at present, perpetuated through regional networks of permaculture practitioners but which could be expanded, perhaps in the form of a catalog of projects and initiatives and the means to link to them, to allied organisations and sources of funding.

Withing the Permaculture Version 3.0 context, the core elements of the permaculture design system become a base for people to adapt to their local needs in developing applications of permaculture ideas, whether those applications are community gardens, community economic systems, the formation of community organisations, planning for sustainable development at the level of the urban precinct, social enterprise or something completely new.



Permaculture as a platform for the development of applications.

Element 2: Replace ‘sustainability’ with ‘resiliency’

THERE IS GROWING CONSENSUS that the terms ‘sustainability’ and ‘sustainable development’ are becoming tired and their meaning diluted by overuse. The terms now have too many definitions and so are less effective at getting across their messages. The concept, the mental model people build of sustainability, is itself out of date. A new term is needed to replace it.

One of the popular conceptions of sustainability is that it posits an operating space for humanity between boundaries, either side of which systems become unsustainable. That is, it is an operating space for humanity, a more or less stable zone.

Sustainability — a dated concept?

When the notion of sustainable development was developed by the Brundtland Commission on environment and development in 1985, the idea of a stable and safe operating space for humanity was valid. Whether it is so now is a topic of discussion among those who study earth systems.

They point to the conditions of the Holocene epoch that began around 12,000 years ago at the end of the Pleistocene ice age as humanity’s only safe operating space. The climatic conditions of the Holocene, with its warm summers and mild winters, its reliable rainfall and wet and dry seasons, gave rise first to the Agricultural Revolution around 10-12,000 years ago, to the empires of the ancient world such as classical Greece, imperial Rome, the cultures of middle and south America and the empires of more recent times. It gave rise to the Industrial Revolution then, in the 1950s, launched industrial societies on the Great Acceleration and into the Digital Revolution.

The Acceleration

The Great Acceleration started in the mid-1950s and brought an acceleration in the extraction and use of oil fuels, nuclear fuels, minerals, fisheries, fresh water use.

From its accelerating scientific discoveries came new technologies; international air travel; the expanding fields of medicine and bioscience; genetic manipulation for medicine and cropping; space exploration and space technologies; digital communication and the global information system we know as the internet.

The Great Acceleration also brought us global warming and oceanic acidification; a population that started as three billion in the mid-1950s, increased to seven billion today and is on its way to 9-10 billion by mid-century; a global urbanisation that could see three-quarters of humanity living in cities by 2050; a growing number of megacities home to 10 million and more; conflict between new, emerging digital industries and those of the previous age; a wealth divide between populations in all countries; roboticisation of the workforce — first industrial jobs replaced by industrial robots and now middle class jobs being replaced by software; a global economy; economic fluctuations and uncertainty; the science-denial movement; a reticence about the rate of change and the future for some, while others welcomed it; and the human dominance of the planet.

Today, the Great Acceleration continues and it is now our home. Humanity’s influence is now akin to a force of nature in its effects on the biophysical environment. The Great Acceleration forms the environments in which we live as it speeds us, according to a substantial and growing body of scientific opinion, into this new epoch — the Anthropocene — the Age of Humanity.

The Great Acceleration had led us across some of the planetary boundaries and we are close to others. Those boundaries that enclose humanity’s safe operating space that emerged during the Holocene include boundaries of atmosphere and oceans, biodiversity, fresh water reserves, atmospheric aerosol loading, fisheries, cropping area and landuse among others. Crossing the boundaries takes us into unknown territory from which it may not be possible to return. The earth system might flip from the stable state of the Holocene into the new, uncharted stable state of the Anthropocene.

There may be no more or less stable operating space for humanity at all because of the extent of the changes humanity is making to the biophysical environment. This suggests that the existing model of sustainability fluctuating within a safe operating zone of those planetary boundaries cannot be achieved. Change in earth systems is now the emerging condition, and adaptation rather than seeking a perhaps non-existing stable and sustainable operating zone is necessary.

If the popular notion of sustainability is no longer relevant to a world beset by climatic, environmental, economic, social and earth system change, then perhaps the term should be replaced. The term 'resiliency' best describes our goals now, not some possibly-unachievable 'sustainability', but systems, institutions, industries and landuses that can resist, adapt, fluctuate and reconfigure when pressures from outside the system impact them. Resilient systems are dynamic rather than being some more or less stable state within planetary boundaries.

'Resilient systems' is a useful term for permaculture because it offers us more options, more manoeuvre-room than those that postulate a stable, sustainable state. It is a term already used by permaculture's companion idea, Transition Towns. Permaculture's principles seem more suited to the design of resilient systems because permaculture is a system of design that is about development rather than retaining things as they are.

Linked closely with resilient systems is personal resilience, which is about physical and mental health and the ability to respond creatively to life changes the result of personal, psychological, economic or environmental origin. That's where permaculture's second ethic of care of people assumes a role in the resilient systems set up by permaculture practitioners.

Permaculture 3.0, then, recognises that we live amid the Great Acceleration. It recognises that the works of humanity now dominate earth systems and influence them deeply. This latest iteration of the permaculture design system proposes that we use our knowledge, skills and resources to carve out a resilient operating space for humanity in the Anthropocene.

Permaculture 3.0 sees the Anthropocene and a new framework through which to think and act in the emerging world.



Above: Social business and social enterprises can deliver goods and services directly to those who need them. They are often set up to deliver some social goal through their small business structure. Affordable Organics was a small ethical business started by Tsung Xu (left).

Below: Permaculture practitioner, Virginia Littlejohn, irrigates vegetables during a course on food sovereignty and food security, core components of urban resilience.



Element 3: Position permaculture as a design system

NAMES ARE IMPORTANT because they come to symbolise an idea or practice. The words we use positions an idea in the public imagination and create a sense of what it is. So, in a Permaculture Version 3.0 context, we name permaculture as a system of design and use those words to describe it. It was as a system of design that permaculture was originally framed by its creators, David Holmgren and Bill Mollison.

Using such a term is likely to lead to questions to clarify what we mean, and it is here that we have the opportunity to develop a brief elevator speech describing the permaculture design system. An elevator speech is a general description designed to be delivered in the 20 seconds or so of an elevator journey between floors. An elevator speech describes what/how/where/why/who.

Whole systems design

It was Buckminster Fuller,⁴ the mid-Twentieth Century polymath, who gave us the term ‘whole systems design’. Fuller is noted for his popularising of the geodesic dome, the Dymaxion house and car and many other technological innovations. He was a major influence on the innovative edge of the 1970s generation, of what was called ‘alternative’ culture, the social milieu from which permaculture partly emerged.

Although not all who contributed to permaculture belonged to that alternative culture of its birth time, as someone who was part of that culture I see a continuity of its core beliefs and approaches in permaculture even today, particularly around social justice, technology and experimental ways of living.

I think it’s a reasonable proposition that permaculture is a later implementation of Fuller’s concept. At its birth, David Holmgren and Bill Mollison described permaculture as a system of design that included all of the elements required for the ongoing habitation of the Earth in a way that offered a modest prosperity for all, a prosperity based not on the accumulation of material things but on an experience of life shared with others.

A social technology

As an approach to whole systems design, permaculture’s focus has been the design of sustainable human habitat inclusive of dwellings, water, energy, food and local economic systems.

From its earliest days the design system proposed that permaculture is essentially a social technology⁵ and to implement it its practitioners would have to move beyond the energy/water/materials/food efficient home and out into their communities. Why? Because no matter how effective a household is at all of those things, it remains an island unless connected to others who can be inspired by it and copy what it has done.

In recent years there has been the realisation that you need ways of working creatively with people, as individuals or in groups, to introduce whole system design. This has highlighted the need for practitioners to develop skills in these areas, and this implies a knowledge of people’s readiness for change and how change can be incubated.

Robina McCurdy, Robin Clayfield and Fiona Campbell have provided training in the skills of permaculture as a social technology, what has become described as ‘social permaculture’.

What has taken the focus off this whole systems approach and skewed public understanding of what permaculture actually is has been the concentration on food growing in home and, more recently, community gardens. All too often I come across people whose misunderstanding of permaculture is that it is a type of organic gardening that uses heavily mulched, no-dig gardens made over layers of newspaper and that scatters plants throughout the garden.

It’s like Bill Mollison wrote — it is sometimes better to buy your potatoes from someone who has grown them ethically than to attempt to grow your own. That way, you can focus on permaculture as resilient design for contemporary living, not merely as a method of gardening.

⁴ More on Buckminster Fuller:

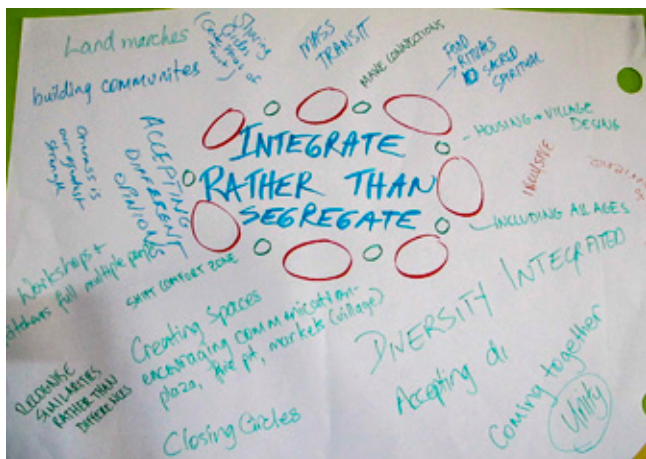
http://en.wikipedia.org/wiki/Buckminster_Fuller

⁵ ‘Technology’ understood as a structured approach to some end that can include not only hardware and software but ways of working with people to achieve an end. Thus, ‘social permaculture’ becomes an integrated, interacting set of techniques to achieve some social goal.

So, it becomes necessary to define permaculture in terms of whole systems design, as a comprehensive strategy for resilient living with primarily a communal focus and inclusive of the effective design and retrofit of affordable dwellings, water, energy, food and local economic, infrastructure and governance systems.

More precisely, I see permaculture as a use of systems thinking and design principles...

...David Holmgren, Pathways to Sustainability



Element 4: Avoid technophobia

TECHNOLOGY is a tool. It's a very influential tool and has been so since humanity's earliest times. From the first stone tools to the multipurpose mobile phone, technology is a continuum that is inseparable from us — humanity. There is no way to think of humanity's evolution without its technology for ours is a technological species. As Kevin Kelly writes in *What Technology Wants*⁶, it's as if technology follows an evolution very similar to that of a biological organism.

Technology co-evolved with humanity. It was and remains a two-way arrangement — we shaped technology and it shaped us. Paleoanthropologists — those who study ancient humans and their tools — say the use of technology, particularly for hunting, might even have played a role in shaping our brains.

There is a practice in the present that looks in the rear view mirror and believes life was better in the technological past. Some things undoubtedly were better, but a lot were not. Much of that view and the belief in a better-world-now-gone is an example of conformational bias, of seeing what you want to see while ignoring contradictory information.

If I can be allowed the self-indulgence of using myself as an example, I recall from my childhood the slower pace and the comparative easiness of life, of long term childhood friendships with settled families and the sense of safety when kids could roam their neighbourhoods freely. Later, there was the ability to go out and easily find a job.

But I don't yearn for a time when children suffered from polio, whooping cough and measles. Nor the uncertainty of living through the Cold War, nor the dominance of the big religions and how their parishioners disliked each other, nor the worldview propagated through my school years.

But, I did like it when I came into contact with that cohort attempting to build a better, alternative society, their experiments in building and what we now know as

6 What Technology Wants. Kevin Kelly; Viking.

From Amazon.com: Kelly explores the "technium," his term for the globalized, interconnected stage of technological development. Arguing that the processes creating the technium are akin to those of biological evolution, Kelly devotes the opening sections of his exposition to that analogy, maintaining that the technium exhibits a similar tendency toward self-organizing complexity.

renewable energy. And... the arrival of computing in the 1970s and being swept up and becoming an early adopter in the personal computing revolution and the early internet. Later, there was permaculture with its systematisation of ideas for a better way to live.

Through these influences I learned about Schumacher's ideas on intermediate or appropriate technology and how tech could be used for social good. I learned to avoid techno-boosterism and technological determinism, knowing that tech, society, economy and environment are all part of a system, a socio-technology.

Technology and permaculture

Sometimes in permaculture, more so in the past than the present, there has been a discernible reticence around modern technology, sometimes even a technophobia. That shouldn't be hard to understand because it reflects society as a whole. People seem to either fear our technological future and seek to avoid it, retreating at times to the technologies of yesterday, or to grasp it and run with it fearlessly, though not necessarily without reservations. These attitudes feed the precautionary and the proactive approaches to technology.

I'm not arguing against retaining old technologies and their accompanying skills. Just as book publishing leaves a long tail of older publications for which there is a continuing low level of demand, so in technological evolution there is old tech with its own skill sets that are no longer in common use but are practiced by people as an interest or because they prefer to work with them. Think horse-drawn plows, blacksmithing, food preserving.

To permaculture, communications technology has brought knowledge of their fellow travellers in distant places, of far-away projects, the means to fund their ideas, to garner support to deflect the machination of government or corporation, to design new landscapes, to sell books and magazines, to collaborate and share solutions, to meet fellow minds in the realm of the physically-detached digital world and to make good things. Technologies improve permaculture practice.

The tech of Permaculture 3.0

And, so, in Permaculture 3.0 we again apply those ideas first expounded to a readership hungry for new ways — the principles, that is, of appropriate tech — technology appropriate in scale, cost, maintainability, ungradability, environmental, economic and social impact.

We don't refuse high-tech just as we don't eschew low-tech and its sometimes usefulness. It's as Fritz Schumacher said (he wrote the classic, still-in-print, *Small Is Beautiful—Economics as if People Mattered*) — appropriate technology is technology's 'middle way' between hi-tech and traditional tech. It avoids the negative impacts of some types of hi-tech while improving on the efficiency of traditional and low-tech.

What this appropriate technology is depends on what we are trying to do, who we are trying to do it with and to what end.

In Permaculture Version 3.0 we know that technology is humanity's inseparable travelling companion and we don't discard the advantages technology offers in the emerging world of the Anthropocene. Ours' is a continuing co-evolution.



Effective and efficient...appropriate technology cooks dinner at a Hawkesbury Earthcare Centre open day at Richmond, NSW.

Element 5: Adopt systems thinking

BUCKY FULLER is credited with inventing the geodesic dome, although author and publisher at Shelter Publications, Lloyd Kahn, says it was actually invented in Europe earlier in the century. Fuller, however, popularised the domes and could do so because a new generation was about in the 1970s that was open to innovative ideas and just happened to be looking for new ways of living which the domes seemed to hold promise of as affordable, DIY accommodation. In doing this they became something of an icon of that social movement. Fuller produced designs such as the Dymaxion house which was quite revolutionary for the time, as well as other design works.

Thinking in systems

Fuller talked of whole systems design... it's a nice term because it encapsulates in a big-picture way what permaculture is about. As a big picture term it begs more detailed definition and permaculture designer-practitioners already have a collection of those. It leads to another definition of the permaculture design system approach and I will get to that shortly, but let's stay with Fuller's idea for awhile.

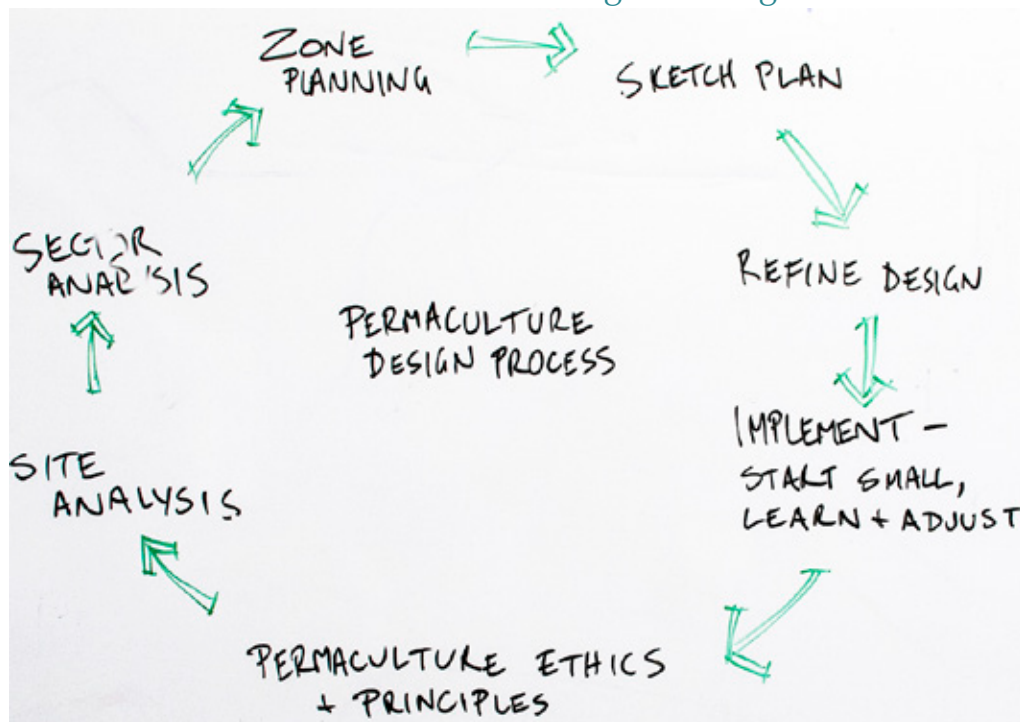
Fuller's term — whole systems design — seems to have presaged the development of systems thinking later in the Twentieth Century. That came mid-century,

initially through cybernetics, the study of feedback and control in systems, and was associated with the early development of computer science. Cybernetics brought new insights and new ideas on how the world might work. Feeding into that later in the century was complexity science, the study of dynamic, complex systems (think of the weather, economies, ant colonies, societies etc) which included the subset of chaos theory.

All that science was very well, but many people struggle to make sense of new ideas that offer alternative explanations of natural and human phenomena. So, to put complexity and systems theory to practical use in the workaday world, an aerospace engineer who also studied philosophy, Peter Senge, coined the term 'systems thinking' to describe how these new ideas emerging from cutting edge science could be put to use by people and business.

Peter put his ideas down in 1990 in what I recall as a book of dauntingly dense type, *The Fifth Discipline: The art and practice of the learning organisation*, which was reprinted in 1996 because it attracted quite a lot of interest, especially in the corporate world. He went in to become senior lecturer at the System Dynamics Group at MIT Sloan School of Management and co-faculty at the New England Complex Systems Institute.

Design thinking



Design thinking includes the principles of:

- adopt and adapt, of taking something that already exists and making it better
- making constructive connections between the elements of design, the parts.

Let's explore these by looking at something beyond permaculture's borders but that will be familiar to many.

The error of simply copying but not adapting was exemplified by Microsoft when some years ago it put on the market the Zune MP3 player. There was nothing technically wrong with this device yet it was not a success. Zunes have long ago gone extinct.

Technology writers say that Microsoft merely attempted to copy Apple's successful iPod rather than use it as inspiration to create something truly new and innovative that did something not currently done well by other devices. Microsoft chose the lazy, unimaginative route and attempted to offer something already being done better by someone else. This was not design thinking.

Apple's was. They reimagined something already on the market and made it better — they adopted and adapted. Then they started to make connections between the elements by combining their iPod hardware and software into an ecosystem with iTunes, where music could easily be purchased, podcasts were made available and an acceptable digital rights regime created to make it all possible.

Apple succeeded because the company made connections between the parts and sold the device as an easy to use package. When the iPod was incorporated into the iPhone, it became a platform on which developers could build new applications of use to buyers.

How do we adopt and adapt this process, this systems approach, in permaculture?

Tweaking the possible

The philosophy of continual improvement is part of systems thinking and, rather than the status of 'if it's not broken don't fix it', it is a fitting approach for permaculture. Here, we're talking about evolution.

Permaculture is supposed to take nature as a model for its work. Nature continually evolves by producing improved iterations of an idea so that lifeforms adapt to changing environmental circumstances. If they don't, extinction follows.

It's the same with ideas like permaculture which must continually tweak and improve what it does. Sometimes, it has to jettison what no longer works, what is out of date because circumstances have changed, and replace it with something new and effective. The philosophy of continual improvement, then, is built into permaculture if it really does take nature's patterns and structures as its model.

This type of approach would produce churn in permaculture, however that is best accepted as a normal condition of adaptation.

Design thinking - a model

How to apply design thinking in our work? There's probably many ways, but here's an approach to design thinking that passes through seven sequential phases:

Define: what are we trying to do? What is the problem or design challenge? What do we want to end up with?

Stephen Covey, the author of the influential and still-in-print *The Seven Habits of Highly Effective People* and *First Things First* suggests as one of those seven habits that we "begin with the end in mind". I think this is good advice and it will be a rather basic concept to any who have worked in project management where goal definition is a starting point of planning.

Research: What is the history and social/economic/environmental/political/regulatory context of the challenge? What solutions have been tried and what was their result? Who are the stakeholders? What is that they want?

Do not underestimate the importance of context and history.

Context is about understanding those structures, physical and non-physical, in which your project or work is embedded. Included in context is:

- physical—the landform, climate, weather patterns, animal and human communities, urban and natural environments
- regulatory—state and local government regulation that would have a bearing on your project or work, including necessary permissions and conditions and worksafe regulations on the use of volunteers, paid staff and how work is carried out
- budgetary—all projects have budgets and these form a boundary around what you can achieve; some things will be affordable while others,

desirable they might be, will fall outside the budgetary boundary

- maintenance—our projects are eventually handed over to their users, so developing their capacity to maintain them by training people in the necessary skills, monitoring and, sometimes, by identifying funding sources will be necessary.

Understanding history is important as it could disclose what has been tried and didn't work, what did work, and what was tried and didn't work but that might work were it tried again in new circumstances. History can also disclose the connections between things and how these have affected the project.

Ideate: Brainstorm to generate ideas but don't get stuck down in analysis. That comes after brainstorming when you apply the reality filter to the ideas generated.

Prototype: Select an idea and put it through the reality filter of viability, organisational capacity to build and manage, affordability, acceptability etc.

Next comes the rapid prototyping stage and its purpose is to make the thing, trial the idea, monitor it and derive learning from it about what works and what does not.

From that, we tweak and change to improve effectiveness—we define effectiveness as achieving what you set out to do.

If we have a new but largely untried idea in permaculture we might trial it with a small application or, if it is something to do with landuse, in a small area to see how it works and if there are any unanticipated outputs.

Implement: The learnings of the prototype stage are applied as design modifications, as tweaks or, perhaps, as a complete redesign or even a discard and restart. Now trialed successfully, the model is ready for deployment and can be rolled out for replication and adaptation.

Monitoring and evaluation: Implementations of the idea are monitored to assess their performance and to continue implementing the philosophy of continual improvement.

At chosen periods — maybe six monthly or annually — the project is evaluated and learnings documented.

Element 6: Move beyond 'peasant permaculture'

ASK A LAYPERSON WHO KNOWS OF PERMACULTURE and you are likely to get a response that says something about gardening, about growing food. Permaculture practitioners have been so successful at focusing on food growing that it has become synonymous with the design system.

Permaculture is sometimes perceived as a way to make heavily-mulched gardens with layers of newspaper and without digging.

This is good and bad. It is good because food is a basic human need and its production is increasingly important in a world that will be home to more than nine billion people by mid-century, all of them needing to be fed. It is bad because growing food is only one component of the permaculture design system, a single component that has disproportionately grabbed most of the attention.

Peasant permaculture

This term comes from an experienced permaculture practitioner who coined it in proposing permaculture practitioners take a broader view than home gardening and become involved in work in their communities and catchments⁷. He was likening permaculture focused solely on gardening and food production to the life of peasants whose main concern is feeding their families and the greater part of whose time is spent in growing the food they eat.

Growing food is important but there is more to life and to permaculture. As Bill suggested, sometimes it is better to support farmers in the region than to try to make and maintain a garden when you are time poor or when you don't have access to adequate land.

Access to land for home gardening is an issue in parts of our larger cities where medium density living is the norm. It's today's reality that a growing number of people prefer apartment living and have no access to land for a garden. If they do, then it's only in planting containers on their apartment balcony or a tiny, perhaps shaded courtyard, or perhaps their apartment building has a flat roof they can use for container gardening.

⁷ A catchment is the drainage basin of a river or stream consisting of the geographical region where rainfall flows into creeks that become tributaries of rivers, and the lands through which rivers flow into the sea or into lakes. The catchment is a larger scale geographic division suitable for landuse planning.

Community gardens are an option and, fortunately, there is space for them in the suburbs. In the inner urban areas, however, competition for public land is fierce and community garden proposals come up against opposition. When they do go ahead, they may be quite small. Taken with other demands on a limited supply of urban open space, there is limited potential for community gardens to feed a great many people.

Focus on food to be relevant

If permaculture is to be relevant to urban people, specially those without a home garden, then it has to offer solutions other than growing your own food. It could encourage that practice where people have access to land but it should also take a broader approach to engaging people around their food supply. How? By educating them about the urban food supply chain.⁸

Permaculture already puts much focus on farming despite the reality that most people doing a Permaculture Design Course live in cities and have little intention of taking up a farming career. Where they do, that should be encouraged because the average age of Australian farmers is something like 55 to and fewer young people see farming as a livelihood. That has implications for Australia's future food supply, where it comes from, who produces it and how. Encouraging farming livelihoods is a good thing in permaculture and it complements the advocacy work of organisations like the Australian Food Sovereignty Alliance⁹.

Were permaculture educators and advocates to focus more on the urban food supply chain they could educate people about where and how to identify points of intervention—such as do-it-yourself food systems like food co-operatives, organic buyers' groups and community supported agriculture.

8 The urban food supply chain describes the journey taken by our food from farm, to food processing and on to distribution through retailers, food cooperatives, community supported agriculture and other connections with eaters.

Food waste is sometimes added as a component of the urban food supply chain as this is a considerable volume of food that goes either to landfill or that is converted into garden fertiliser via composting.

9 <http://www.australianfoodsovereigntyalliance.org>

Putting home gardening in its urban context

David Holmgren's apt description is of home gardening as 'garden agriculture'. Here, permaculture can be seen as a victim of its own success magnified through television gardening programs and gardening magazines.

Whereas it was a good idea when permaculture was unleashed on the world, when it acknowledged home food growing as an idea in revival¹⁰ (though it had been a tradition in Australia over previous generations), today the practice of home and community food production rests within the broader concepts of food security¹¹ and food sovereignty¹². These concepts would provide the context for food production in Permaculture Version 3.0.

Linking permaculture gardening to broader contexts like food security and food sovereignty repositions it as an educational strategy in Permaculture 3.0.

Garden as springboard

A good point about teaching people to grow their commonly-eaten foods to supplement their food purchases is that they become acquainted with what is a basic life skill and they get to participate in a practice with a 10,000 year history.

That done, the educator then has the opportunity to extrapolate the experience into an understanding of the urban food supply, the principles of regenerative agriculture and of food sovereignty.

In Permaculture version 3.0, teaching how to grow food is put into its broader context of the urban food supply chain, food sovereignty and food security, as well as introducing the important role of urban fringe market gardens and of broadacre farming in feeding our cities.

10 Home organic gardening was undergoing a revival in the more developed nation such as the USA and Australia when permaculture was first articulated and had been doing so for at least a decade. This was the time when organic food became the focus of a social movement.

11 Food security is the availability, year round, of a sufficient quality of good food that would support an active lifestyle.

12 Food sovereignty is the freedom to choose the types of food, produced and distributed by means the eater prefers to support. It also includes the right of farmers to use agricultural systems of their choice except where those choices affect impinge on the freedom or markets of other farmers by negatively affecting their crops.

Element 7: Make knowledge open source

OPEN SOURCE is the ideal arrangement through which to implement permaculture's Third Ethic — the sharing of surplus. It also enacts the permaculture principle of cooperation rather than competition, of using rather than hoarding.

The open source philosophy quickly spread from its origins in shared software development to wider applications, overcoming the limitations of propriety ownership and copyright to open up opportunities for collaborative work. The Creative Commons licencing system offers a range of licences to open works to creative reuse.

Treating knowledge, techniques and information developed by individuals and organisations within permaculture as the open source, collective property of the permaculture movement for the free use of all would avoid clashes over intellectual property and would enable the free access to knowledge by all who could make good use of it.

This would not stop people publishing books and writing about permaculture as these would be expressions of ideas that are automatically protected by copyright in Australia (Copyright Act 1968). These could be distributed via a Creative Commons licence while the creators retain copyright. Making resources open source would prevent people trying to claim ownership rights over ideas in permaculture. Ideas need to be patented.

Permaculture is a socially progressive movement and making its collective knowledge base open source would be part of the new iteration of the permaculture design system that is Permaculture Version 3.0.

Element 8: Introduce permaculture to placemaking

THE CHALLENGE was this: how to combine a public park and council educational facility on a large area of lawn studded with a few young tea trees.

A placemaking approach was adopted to do this and local people and the local permaculture association were invited to participate. A participatory site analysis was organised that included the landscape architect who would design the facility. People discussed what they would like on the site. Eventually, the park/educational garden was built and opened to the public. This is how a bland lawn was turned into a multiple-use park/educational park via a placemaking process.

From 'space' to 'place'

In Permaculture 3.0, placemaking becomes part of the design system's basic toolkit.

Let's define placemaking:

Placemaking is a participatory process that engages citizens in the conceptualisation, design and creation of multiple-use urban places.

Placemaking turns a poorly used 'space' into an attractive 'place' that feels comfortable and that becomes a destination in the local area, offering a variety of uses. The practice consists of a variable set of techniques to create a place that is safe and attractive to people, a place where they like to spend time, take their families and friends and engage in the different activities possible there. Placemaking is not site design in the conventional sense. Placemaking is social because it necessarily engages people. When practiced by permaculture designers, placemaking forms part of what we call 'social permaculture'; essentially, it's social design—design for and by those who are interested in participating. Placemaking begins and ends with people. It is not a designer-led process, rather a process led someone with a knowledge of placemaking to draw ideas on design and use from participants. The role of the designer is to

draw up plans, ideally after ideas have been tried out temporarily.

Participation is not consultation

To design and offer people a choice between already-drawn-up concept plans for an area is consultation, not participation. Participation starts not with the question about choosing the design you like from those offered, but with the question about whether you want a new design at all and, if it is wanted, then how would people use the space to turn it into a place.

What does this suggest about the permaculture design process as placemaking? It says that it is primarily a social activity. It is participant, not designer-led.

Placemaking is concerned with multifunctional public places. Occasionally from the mouths of permaculturists you hear the proposal that all open space, all city parks, should be cultivated as city farms and community gardens. We did that in World War Two and called them Gardens for Victory because the nation had to become more self-sufficient in food. Then, at a time of national emergency, it was a proper thing to do and would still be so in dealing with any future emergency that threatened the urban food supply.

But that is not a solution for the resilient city because city parks fulfil multiple roles other than food

production, roles that are important to the wellbeing and mental health of citizens. Those roles can include food production in community gardens and edible landscapes, as has been done in some locations.

In Permaculture Version 3.0, city parks are recognised as sites of multiple use—for active and passive recreation, children’s play, socialising, solitude, picnicing, community gardening and so on. As already mentioned, city parks are necessary to the mental health of city people—they are places for passive or active recreation where people can unwind and destress from a hard week at work or other trying circumstances.

Creating third places

It was Ray Oldenburg who defined the ‘third place’ concept in his book, *Great Good Places*¹³. Since then, the idea has become a component within the practice of placemaking.

Oldenburg defined three types of place:

- **first places** are those where we spend most of our time; this usually means in the home
- **second places** are where we spend a lot of time but usually less than in the home—the workplace
- **third places** are venues where people gather socially; they are economical to visit, work best

13 Oldenburg, Ray, 1991; *Great Good Places*; Paragon House, NY. Third edition, 1999, Marlowe and Company, NY.



Questions answered during placemaking at the Barrett House community centre, Randwick NSW.

where accessible by public transport or are located within walking or cycling distance and where people feel safe, spend time and can meet with others.

...tactical urbanism, the small, local actions that accumulate to contribute to a sustainable urbanism...

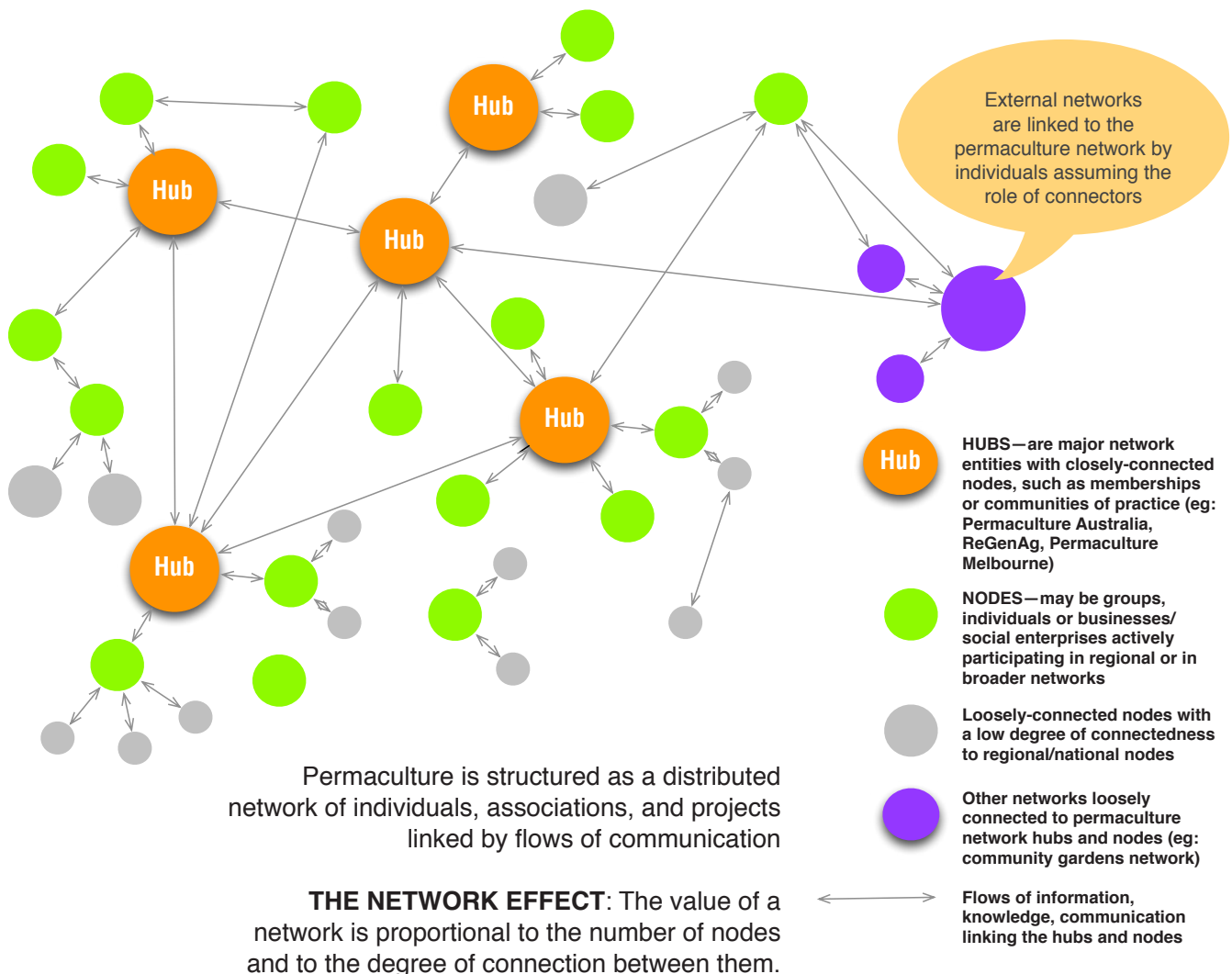
Why are third places of interest to designers taking a Permaculture Version 3.0 approach to community development? Because they are important to the conviviality of our cities and towns and because they are necessary to the social cooperation that permaculture values. The opportunities they offer in both social and site design can become a component

in tactical urbanism, the small, local actions that accumulate to contribute to a sustainable urbanism.

Third places might be an outside place such as a community garden. They can also be inside places such as cafes and public bars, libraries, hair dressers and even the local park. They must be accessible, safe and inviting to spend time in and offer the opportunity for conversation and engagement with people.

Third places anchor people in their neighbourhoods. They are places to go outside the house with no greater intention than sitting back, reading a book, watching people or meeting and talking with others. In a Permaculture 3.0 context, they are important because they facilitate those conversations that lead to good ideas that in turn lead to figuring out how to make constructive things happen.

Designing the opportunity for third places is a worthy component of Permaculture 3.0, and is made possible through the adoption of a placemaking approach.



Element 9: Strengthen the networked structure

IN PERMACULTURE VERSION 3.0, we would reinforce the networked structure of the national permaculture milieu and improve the flow of communication between its hubs and nodes.

Permaculture in Australia has evolved as a nationally distributed network consisting of nodes made up of individual permaculture practitioners or small groups, and hubs, which are nodes with many sub-nodes connected to them such that they form a cluster of connections. Examples are the regional permaculture associations with their own network of members, or prominent permaculture educators with their networks of past students.

Initially, this geographically distributed network was linked by the print publication, *Permaculture International Journal*, until it ceased publication in June 2000. After that, it became linked first through websites during the Web 1.0 era and then social media with the arrival of Web 2.0 technologies. Today, the conversation around permaculture takes place mainly on social media and it is this that accounts for much of the information flow between nodes and for the organisation of events like permaculture convergences.

Permaculture self-organisation

Permaculture's social media presence provides an example of self-organisation. When the software became available, permaculture practitioners started using it and the number of permaculture-related social media entities grew quickly. That number continues to grow.

We can compare the shape of this network to that when *Permaculture International Journal* was the primary means by which far-flung permaculture practitioners kept in touch with what was going on. Then, the network was centralised as a hub-and-spokes model with the *Journal* sitting centre place. Now, with multiple sources of information, flows of communication are diverse and the network has decentralised into a model where sources are distributed. Social media has effectively globalised the permaculture network.

The Network Effect

Those nodes exhibit what in network studies is known as 'preferential attachment' in which people link to those hubs that are already well-linked. This makes those hubs more dominant and increases their value as a means to communicate. It is an example of the Network Effect: the value of a network is proportional to the number of nodes and the degree of connection between them.

Communication between nodes is facilitated by connectors, people who form loose links between hubs and nodes and who connect the permaculture network to other networks, facilitating a two-way flow of information, knowledge and ideas. This occurs mainly through permaculture's social media channels.

The advantage of a distributed network is that it is resilient. A certain number of nodes and hubs can be lost without collapsing the network, which reconfigures to cope. For example, a regional permaculture association with a large membership might disband but the more active members may remain active within the larger, distributed permaculture network as nodes, even though their hub has dissolved.

Online permaculture social networks supplement the periodic, in-person get-togethers, the permaculture convergences. The existence of an adaptive, decentralised national network is a distinct advantage in engaging in collaborative work at scale and for this reason its strengthening is a necessity in Permaculture 3.0.

Element 10: Build a community of practice

PERMACULTURE EVOLVED as the practice of individuals, voluntary community associations and a limited number of small businesses and sole traders operating for the most part in the areas where they live. The exception was where permaculture educators and designers travelled to work temporarily in other places.

In Permaculture 3.0 we would ask whether the practice of permaculture could be improved by the sharing of knowledge, information, experience and other learning through a community of practice.

Learning together

A community of practice:

- provides a means of freely and openly sharing information and knowledge among participants so that they can improve their work
- is an organisation, formal or informal, that has learning and mutual assistance as its main purpose and that has processes of review, monitoring and evaluation to harvest knowledge from experience; it is a learning organisation
- may also deliberate on policy, practice and other things that affect the design system.

A community of practice could facilitate the collaborative setting of standards for permaculture work in public places.

Communication at its core

Regular and focused communication lies at the core of any community of practice.

Enacting the permaculture principle of cooperation rather than competition, a community of practice would link participants through online media (and print if needed and affordable) and, perhaps, in-person meetings, probably during permaculture convergences.

Starting-up

Getting started with a permaculture community of practice would be a fine project for a specialist team within a national permaculture organisation.

Such a community would be one of the structures that, in Permaculture Version 3.0, binds together the design system's more focused practitioners and that seeks to improve the practice of permaculture and the quality of its product, and that influences the evolution or the design system as a whole.



Element 11: Set standards for permaculture work

A FEW YEARS AGO I took an interstate visitor, a permaculture practitioner and community garden consultant on a tour of community gardens. She was impressed with most of what she saw, however when we stopped by a self-described 'permaculture' community garden we were confronted with materials scattered higgeldy-piggeldy throughout the site. It was not a good impression and it suggested poor site management and little regard for the impression that the garden's neighbours might get. I don't think my visitor was all that impressed.

A similar impression of the standard of permaculture work came by way of unsolicited feedback following a Sustainable House Day—when private homes are opened to the public to demonstrate sustainable technologies and design. A visitor said how she was disappointed with a self-described 'permaculture' house and garden because it was messy and disorganised and didn't have the visual appeal of other homes on display.

These are examples supporting my contention that negotiating and adopting of a set of minimum standards for permaculture work carried out in public places—and in private places periodically opened to the public—would improve the public standing of permaculture, especially among those in professions such as landscape and garden design and in local government.

Those of us who have been around the design system awhile will be familiar with the criticism that permaculture makes 'messy gardens' and that permaculture work is poorly finished. Unfortunately, it's sometimes true.

Providing quality assurance

A set of voluntary standards would provide quality assurance for people commissioning permaculture design and construction and for those organisations and individuals seeking voluntary assistance from permaculture practitioners. It would provide them with information on what to expect.

They generally have no idea that permaculture graduates are legally liable for the works they design and build and for the consequences of the advice they give

This would avoid the situation in which people fresh from doing a PDC—and not having spent time acquiring the experience that a permaculture designer-practitioner should have before they offer assistance or educational services (assuming they lack those skills before starting their PDC)—go out full of confidence that they are somehow qualified to offer advice. I have seen this happen and it made a poor impression on those resourcing the project.

Is it the reality that design course graduates learn little of how design professionals work, or of the legislative and regulatory requirements around design and construction, drainage, consultation or safe workplace practices? Thus, they leave themselves open to criticism of poor practice and poor finish that reflects on permaculture in general and diminishes its reputation. They generally have no idea that permaculture graduates are legally liable for the works they design and build and for the consequences of the advice they give. They are often ignorant that, in NSW at least, the volunteers they might work with on projects are legally regarded as workers with all of the worksafe responsibilities that incurs.

Local government is risk adverse and will require unsafe works in public places to be remediated. This I saw happen in regard to public safety and quality of finish as well as with public health with community groups, while working in local government.

The value of standards

A set of standards or code of permaculture practice for works in public places could:

- set minimum quality and performance criteria in regard to design, construction and finish; fitness for purpose would presumably be a criteria
- apply only to permaculture works in public places and on private property periodically opened to public visitation
- not apply to projects in private places not regularly opened to public visitation
- apply to both design, construction, handover (and any necessary training) and to participatory/consultative process with clients and project stakeholders
- be developed and managed by a focused, self-organising team within a national permaculture organisation (a model is the Accredited Permaculture Training and Permafund teams within Permaculture Australia that are largely self-managing within the overall ethics and goals of the national organisation)
- be developed by a diverse team including people from any national organisation hosting the standards, permaculture designers and educators, professional designers working with permaculture concepts and ideas (such as architects, landscape

architects, qualified garden designers, community workers etc) and a communications specialist

- be actively promoted so as to eventually become a de-facto set of standards; although applying to projects in the places stipulated above, the standards could become a reference for permaculture projects elsewhere than public places
- be revisited from time to time for review, amendment and updating.

Standards, or a code of practice, would need be stated in general terms given the diversity of ways in which permaculture is applied.

In the context of Permaculture 3.0 a permaculture code of practice/set of standards would be a systems upgrade of the permaculture design system.

**Community of practice...
groups of people who
share a concern or passion
for something they do and
learn how to do it better as
they interact regularly...**

...Lave and Wenger 1991



Element 12: Adopt a science-based approach

SCIENCE IS THE BASIS of our culture and the scientific method remains our best tool for understanding the universe and for making decisions and creating permaculture designs that are more likely to work.

We live immersed in the works of science and the practical application of its principles — technology. Humanity and technology have co-evolved, from the early stone and wood tools of our many millennia as hunters and gatherers, through the agricultural implements of the Agricultural Revolution and its later development, through to the machinery of the Industrial Revolution and on to the tools and technologies of digital culture, technology has accompanied us on our journey and has enabled our species to become what it is.

Science is the only proven and reliable tool we have to verify the truth value of what we believe or think. There are other ways, however most use assumption, personal attitude and preferred, often passed-down beliefs and are therefore based on having faith that something is true rather than being able to prove to ourselves that there is a high probability that it is.

It — science — is also the most useful way to do permaculture design and to discover what works and what doesn't. Applying its principles, we are better placed to enact the Pareto Principle of focusing on those 20 percent of ideas that produce the 80 percent of results, rather than the other way around.

Permaculture already uses scientific knowledge such as integrated pest management, approaches to landuse design and the design and construction of energy efficient buildings and renewable energy systems.

It also uses folklore at times. This is sometimes the observational evidence that, for example, food growers have made over time. It's a good idea to verify this with our own experiments, observations and measurements and to document and publish them so that others can benefit.

Best of all, nobody need be a scientist to use the scientific method. It is a technology (I use that term in its broadest sense of a physical or mental tool or technique for doing something, a socio-technology) that is open to all. The scientific approach is a way of assessing

what we and others do so that we can adopt the most effective approach.

Using the tools bequeathed to us by the Enlightenment like analysis and reason we are better able, both in life and in our work as permaculture practitioners, to navigate the claims and counterclaims, the truths and falsehoods, the superstitions — those irrational beliefs coming from ignorance or fear — the assumptions and suppositions, the deliberate attempts to misguide/misinform/lie/inveigle found both online and in the 3D world (the Enlightenment spanned the period from the 1650s to the 1780s in which cultural and intellectual forces in Western Europe emphasized reason, analysis and individualism rather than traditional lines of authority [Wikipedia]).

The method

The scientific approach or method offers a structure for ascribing truth value to something.

It's properties include:

- a basis in evidence — what we observe and measure and what we deduct from our observation
- emphasis on experiment and the reproduction of experimental results by others; reproducible results can be verified by many — this is why the idea of scientific consensus is important—it avoids the pitfalls of faulty experiments and misinterpretation, unintentional or deliberate, of results
- it gives us the freedom to change our minds when presented with new evidence rather than clinging dogmatically to things we want to be true.

The scientific approach follows a general pattern:

- it starts with asking a question; the question may be based on observation or on conjecture, or on a claim that something is true
- it then makes its own conjecture or hypothesis; will doing something have some effect? (making a prediction to test); is the conjecture or the claim likely to be true?
- it tests the conjecture or claim by doing things that are likely to show whether it is true, false, or a partial or contingent truth; this is the experimental part

- then comes analysis; what do the results of testing the conjecture or claim show?; how true is it?

We can apply this both to develop and test new ideas and to assess existing ideas and claims.

The scientific method is a body of techniques for investigating phenomena, acquiring new knowledge, or correcting and integrating previous knowledge. To be termed scientific, a method of inquiry is commonly based on empirical or measurable evidence subject to specific principles of reasoning.

http://en.m.wikipedia.org/wiki/Scientific_method

What to apply: Precautionary or proactive?

At some time this approach might present us, as permaculture designers, with the choice of applying one of two principles: the Precautionary Principle or the Proactive Principle.

- the Precautionary Principle might be implemented when something like a technology or an element in permaculture design is likely to have unmanageable impacts that would be so severe they threaten the integrity of natural, economic or social systems
- the Proactive Principle could be enacted where a technology or permaculture design element has an unknown potential to disrupt those things we want to retain, or is believed to offer a less severe potential to do damage; in this situation the design element goes ahead and is monitored closely

so as to intervene to remove, adapt or redeploy the element elsewhere, where it is likely to do less damage and to improve its performance and reduce its potential to do harm

- in making a decision on which principle to apply, we need distinguish between risk and uncertainty:
 - risk is a linear phenomenon in which we can foresee the consequences of our actions and can design to reduce them; it is a causal arrangement where we can see that if we take some action then there is a likelihood that foreseeable consequences may follow
 - uncertainty is a property of complex systems and recognises that the outcome of the interaction of many factors is unpredictable (economies, societies, traffic networks, communications systems are all complex systems).

A social aberration: the anti-science movement

There's another reason for permaculture designers to adopt a more rigorous, science-based approach to their beliefs and works. It is to counter the rise of the anti-science movement and to keep it out of the permaculture design system.

In a science-based civilisation an anti-science attitude is counterproductive — educationally, socially, economically and culturally. It is socially divisive.

We see this anti-science attitude in a range of fields:

- uneducated/ignorant politicians working against the development of new ideas, technologies and markets and introducing policy to protect old industries and markets rather than seeing the new as the natural evolution of industry and economies
- anthropomorphic climate change deniers creating barriers to adaption to the anticipated impacts of a warming climate
- fundamentalist religious interests trying to push their beliefs onto others and promoting untestable claims as truths rather than as beliefs
- an anti-vaccination movement now implicated in the reappearance of old diseases that were almost eradicated
- dodgy claims about the benefits of particular diets and foods, often promoted by marketers, to people looking for quick-fix solutions without applying

the skepticism necessary to competently navigate vying claims about foods

- the perpetuation of beliefs, assumptions and attitudes that are abetted by bad newspaper and TV journalism that publishes sensationalist and sometimes misleading stories (such as New Age beliefs and practices, food fads, various diets)
- the creation of unsubstantiated moral panics around a whole range of things (such as wind turbines, vaccination and so on) and the creation of folk-devils around particular groups (eg. ethnic and religious groups) or individuals, often by people and organisations, including governments, to forward their own agenda.

Permaculture practitioners would do well to distance themselves from the anti-science movement if they wish to retain credibility among the intelligent public.

Citizen science

Citizen science engages people without scientific training in the scientific enterprise in a range of fields stemming from the use of home computers to assist NASA analyse data coming from its planetary probes to making bird counts.

Here, I think, there may be a role for permaculture practitioners in making their own scientific experiments based on the scientific method. These need be documented and published so they are of value to others and contribute to permaculture's body of knowledge.

Free to believe

Democracies do not tell citizens what to believe. People are free to believe what they want, even irrational beliefs and conspiracy theories. Yes, industries will spring up to exploit shonky beliefs, but that's what happens in an open society. If they are fraudulent then it is the business of citizens to complain, of the media to expose and of government and the legal system to intervene in.

Beliefs that are victimless are best left to run their course. Prohibition doesn't work — it just drives those things underground. If you are not happy to coexist with them then the best way to counter them is through a healthy, skeptical attitude that repeatedly asks for evidence of their claims.

The necessity of skepticism

Educating people to develop an open, questioning, evidence-demanding and healthy skepticism that questions things is one solution to anti-science attitudes and agendas. Skepticism is a positive attribute because it is open to evidence. Cynicism is negative because it is closed.

Skeptics simply ask for evidence about claims and remain open to the possibility that they might be true or false. They are ready to change their minds when the preponderance of evidence demands it. With all the claims and counterclaims surrounding us today, questioning — skepticism — is a good idea for permaculture practitioners to adopt.

For permaculture to endure, it is the scientific approach that serves it most effectively. Promoting an idea works best when you can show evidence why it really works. Doing that is part of Permaculture 3.0.

"One of the reflex responses to technology's problems is prohibition. That is, certain kinds of technology such as nuclear power, genetically modified foods, etc, technologies with obvious detrimental effects, should be managed by prohibiting their use outside certain confines.

"Along the same lines is the axiom that there are certain ideas that we shouldn't even have — directions of research that we should prohibit outright and certain technologies that should never be unleashed outside of the lab, or even in the lab.

"A counter theory posits that prohibitions don't work and that we can't manage technology by forbidding its use. Instead, we have to manage technologies by replacement, displacement, fine tuning — by moving a technology into another role without eliminating it."

...Kevin Kelly, founding executive editor of *Wired* magazine, former editor/publisher of *the Whole Earth Review*, writer, photographer, conservationist, student of Asian and digital culture (Wikipedia).

Element 13: Adopt a social entrepreneurial approach

PERMACULTURE INVENTOR, Bill Mollison, pointed out years ago the vulnerability of relying on grants to do important work. Grants, he and others have said, eventually run out. Unless the funding has been used to set up a structure that can continue after the cessation of funding, the project is unlikely to continue as the work of managing it and could be beyond the capacity of an unfunded organisation.

Grants, however, remain the primary source of funds for permaculture projects in public places and they are the means by which government funds trickle down to community organisations.

Grants: the alternatives

If grant reliance is so vulnerable, then what is the solution? For some with the mindset, determination and skills it is to adopt the social entrepreneurial approach.

The social entrepreneur sets up a small business to self-finance projects and to address social need. A social entrepreneur can also be a grant-seeker, knowing that some kinds of work are only supportable through grant funding, that there are not market solutions to every need. Above all, the social entrepreneur seeks innovative solutions to social needs and it is often those social needs that are the goals of the social enterprise.

A social enterprise is usually a small, not-for-profit business to channel funds to some social goal. They might work for an agency of some kind or they might practice their social entrepreneurship as a part-time thing, working with community organisations towards some goal.

The role reaches out to make things happen. It is, in essence, proactive and values driven.

Other models

An associated model is the for-profit 'social business' that generates profit and apportions some of that to social projects. It may be an NGO that the social entrepreneur works through.

Where possible, where there's wriggle room, government staff could adopt the role of 'civic entrepreneur', not to build things themselves but to clear the way for citizens to create things for themselves. This is the role social entrepreneur educator, Ernesto Sirrolli, suggests I adopt when I worked in local government, as I had responsibility for enabling communities to start community food and community garden projects.

Permaculture for social entrepreneurs

We have had and still have social entrepreneurs in permaculture. They were perhaps more common when permaculture was young, during its formative decade of the 1980s. Why then? I don't know. Perhaps there were fewer grants available at the time, so other means of funding had to be found. My gut feeling about this is that permaculture appealed to a different type of person then.

Not everyone is suited to the role of social entrepreneur but what is important is familiarising people with it in the hope that it will inspire some to action.

In a Permaculture 3.0 approach, the idea could be one of those explored as a means to achieving some social end in a revised, revived and renovated Permaculture Design Course.

Element 14: Develop partnerships and collaborations

COOPERATION is one of the basic principles of the permaculture design system. The principle proposes that cooperating yields better results than competing.

Compared to the years immediately following its birth, permaculture today faces more intensive competition for people's attention. A consequence of this has been the emergence of a diversity of community-based groups and small businesses focused on particular elements of sustainability.

We can see that the marketplace for ideas and for offering training around them has become more competitive. For permaculture to survive in this environment it needs to cooperate with compatible organisations.

Collaborations

Partnerships and collaborations multiply the work of any single organisation and thus offer the means to further the spread of good ideas and to get people's attention. Cooperation is an approach to meeting limited sets of goals for different organisations that choose to work together.

This can be done by organisations agreeing to cooperate and share advocacy and education for those things they

agree on, and setting aside those they disagree on. They do not drop points in disagreement, they simply choose to ignore them because combining programs on points of agreement multiplies the work of cooperating groups.

When permaculture educators/advocates/groups collaborate on programs with other organisations, they embed themselves in the broader mesh of sustainability organisations. This is a way to get around the perception that permaculture organisations sometimes have a go-it-alone approach that insists everything be labelled as permaculture.

Extending the weave

Through collaboration, we extend the weave of the sustainability network because two or more organisations cooperating or forming an alliance can gain a deeper and more distant reach than any of those organisations acting alone.

Within a context of Permaculture 3.0, individual permaculture organisations would do better by casting off their isolation and seeking partnerships and collaborations. They would seek to lock step with others so all could march forward in unison, achieving their own goals as they achieve those of the collective group.



Element 15: Introduce a culture of evaluation

EVALUATION is a means to learn from our experience, especially when engaged in project work. It has had too little application in permaculture.

Evaluation and monitoring are:

- a means of learning from what we do
- a means of implementing the philosophy of continual improvement.

How to evaluate

There's evaluation and there's monitoring. They go together.

Monitoring of projects can be done at regular, fixed intervals—such as quarterly—or when a particular chunk of work is complete. Evaluation can be done at longer intervals, such as annually and after the completion and handover of a project. It is a more intensive, more detailed process than monitoring.

Monitoring may take the form of a review of work done during the last chunk to be completed. It will classically produce a narrative report looking at what was done, the quality or usability of that work and whether there was sufficient time to complete it. It assesses blockages and forecasts any likely to be met during the next work chunk. A financial report in the form of a balance sheet provides an idea of how the budget is going and whether adjustments are necessary.

In the Agile Planning approach used in software development and now being adapted to other fields, there are daily stand-ups and weekly meetings following a 'sprint' of work that fulfil the monitoring function. A community organisation or consultancy would modify this meeting schedule to suit their own.

Community permaculture associations and permaculture educators will be unlikely to be able to fund an external evaluation of their work. All that can be reasonably done, then, is to seek feedback both verbally and anonymously on courses and work. Conducting an annual evaluation of how past students and participants have changed how they live and what they do would further provide useful feedback. Anonymised, publishing

the results of evaluations would provide a service to the permaculture design system and the social movement around it. Doing that could be part of Permaculture 3.0 proposals such as setting up a community of practice and establishing standards for permaculture works.

What to evaluate?

What do we evaluate in our projects and courses?

Evaluating against project objectives is a necessary part of the process and it is done far more in-depth than periodic monitoring. It is the objective part of evaluation and it is measurable and quantifiable.

There is a more subjective evaluation process that complements the objective and that I recommend as part of any project structure in permaculture or NGO work adopting the Permaculture 3.0 model. It assesses less quantifiable factors and it includes asking a number of evaluation questions about:

- **relevance** — has the project proven relevant to the needs it set out to address? Were there more important, higher priority needs that should have been addressed instead?
- **effectiveness** — did the project achieve what it set out to do?
- **efficiency** — were project resources (funds, time, knowledge, skills, equipment, consumables, communication, collaboration etc) used well?
- **impact** — what has been the impact of the project on its participants. Has it affected their lives? Has it had any social/economic/health/environmental impact? Where these positive, negative or neutral impacts and upon whom did they impact? Did impacts affect social or political relationships in any way?
- **sustainability** — has the project proven sustainable within the skills/knowledge/budget/organisational capacity of its user group? (assuming it was meant to continue after the project period ended)
- **progress** — has the project succeeded in achieving the original objectives or have these changed? Is the program design relevant to its goals?.

No time to monitor? No learning

If we don't make the time to monitor and evaluate our work, our's will never become a learning organisation. The concept of the learning organisation was popularised by Peter Senge in his 1990 book *The Fifth Discipline: The Art and Practice of the Learning Organization*. Senge was writing mainly for a corporate readership, however the principles can be adapted to small business, social enterprise, voluntary community groups and even to the work of individuals.

Monitoring and evaluation can only improve the work of permaculture associations and practitioners, and that is why it, and becoming a learning organisation, is a part of Permaculture Version 3.0.

It's a way of lifting the permaculture game and gaining greater credibility and a better reputation for the design system.



Element 16: Adopt sustainability education criteria

SUSTAINABILITY EDUCATION is now a specialist field informed by new research feeding in new approaches. At its best, it is marked by the adoption of new ideas, educational and communications techniques.

Sustainability education, or a few call it, community resilience education, is now a recognised livelihood. Some educators work as educational consultants to business and some local governments now employ sustainability educators. Here, though, educators are often employed to work solely within one application of sustainability education such as waste reduction, reducing water or energy consumption, bushland management or transport. Few positions cater for a more comprehensive approach to resilience/ sustainability that would integrate those areas and blend them with others such as stimulating local economies and food security and sovereignty.

A way in for the permaculture educated with some specialised knowledge is to be contracted by a council to provide specific educational services. Those doing the hiring for this part-time work are likely to want to see evidence that the applicant actually possesses a high degree of specialised knowledge and the means to pass it on. Sometimes, councils hire people without adequate experience and this can backfire when erroneous information is given and when workshop participants make known deficiencies in educators' knowledge. It pays to remember that there are people out there with a high degree of knowledge who will let council know that their educator is not up to the task.

Sustainability education has been developing as a field of employment and as an activity of voluntary community groups. It has its own body of knowledge.

Adopting approaches developed within sustainability education would update permaculture education and align it with contemporary thinking, making it more effective.

Adopting the knowledge

Permaculture educators would improve their work by focusing on behaviour change in the education they offer and less on the passing on of information. The old 'talk-at' lecture style of presentation, sometimes called the 'empty vessel' methodology because it treats people as empty vessels that the educator pours knowledge into, has long ago had its day.

Research discloses that information provision and awareness raising alone do not lead to personal or social change.

What does this mean for educators adopting a Permaculture Version 3.0 approach?

First, it means doing away with the practice of the 'download dump' approach to education where an educator stands before a class and dumps knowledge onto them. That's tired and it's certainly expired as an approach. It is history. Past. Gone.

We know that people have different ways of learning that span listening, watching, discussing and doing, so the capable educator uses some if not all of these techniques.

The other thing they do is to first of all assess their students' readiness for change. This covers the range from:

- those uninterested in change (these recalcitrants are unlikely to become students)
- those collecting ideas and information for a possible change in future, though as yet having no commitment to change
- those on the verge of change who require a gentle nudge to push them into change mode
- those who have made change in their lives and who attend courses and workshops to build on their knowledge, reinforce their new direction and to meet others on the path.

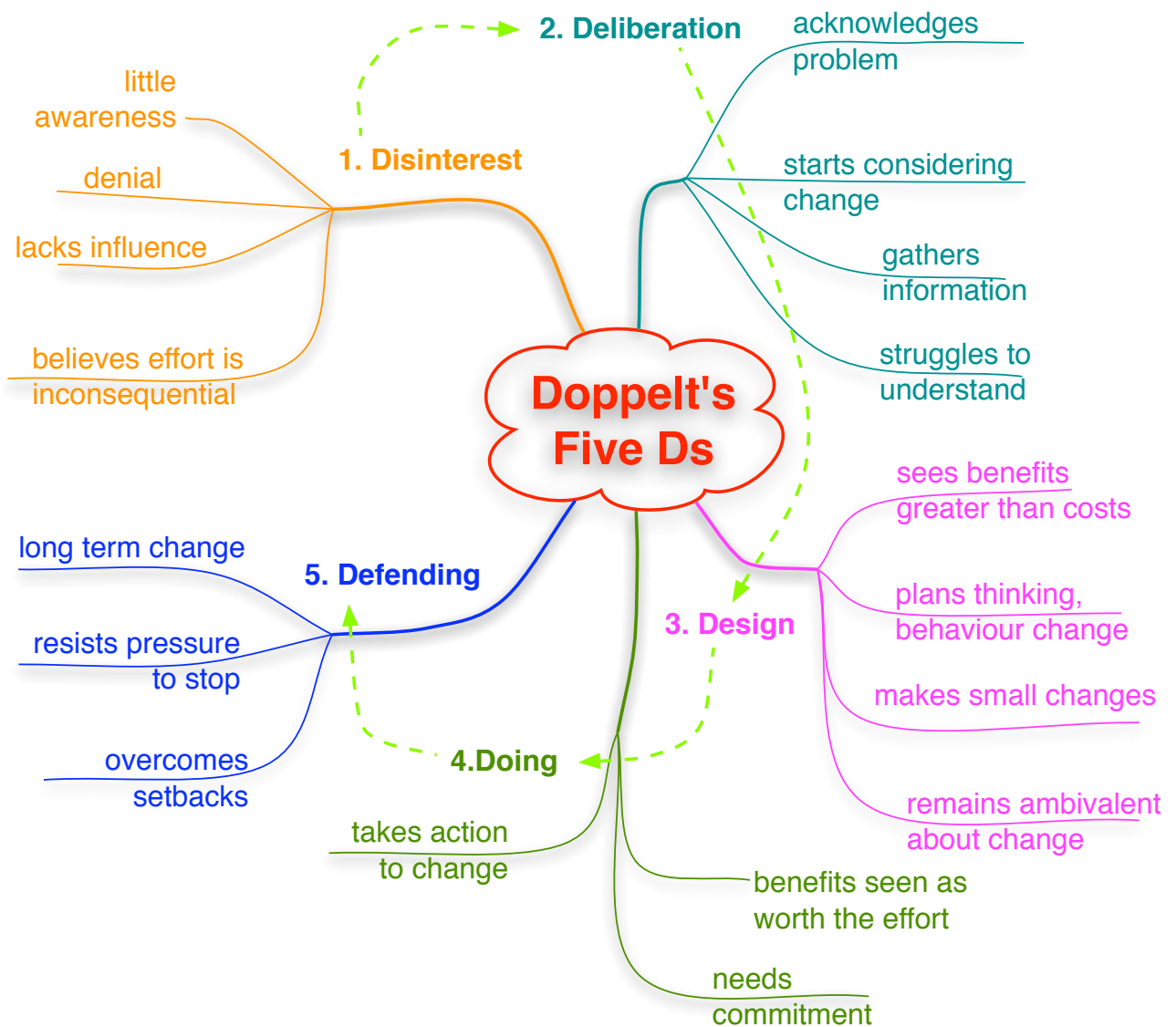
This typology was researched and developed by James Prochaska in the health field and later interpreted for sustainability education by Bob Doppelt¹⁴.

14 2008, Doppelt B, *The Power of Sustainable Thinking*; Earthscan UK.

It's about social learning

The focus in Permaculture 3.0 is on social learning, on enlisting students with experience and knowledge in peer-to-peer education in workshops, courses and activities.

This is not teacher-centred learning. The teacher is coordinator and principle educator, however much focus is put on students developing ideas and solutions corroboratively. It is like discovery learning, together.



Bob Doppelt devised a set of five stages involved in behavioural change around sustainability.

Understanding useful models like this could only improve permaculture's contribution to sustainability education and ease the adoption of its ideas.

Element 17: Diversify and adapt the PDC

EDUCATIONALLY, ONE SIZE does not fit all. One course cannot cater to all circumstances and all student needs. We need adaptable permaculture design courses for the different applications of permaculture.

The Permaculture 3.0 model would see design courses specialised to metropolitan cities, smaller centres and rural areas, including farming and market gardening, and to the needs of NGOs working in international development, among others. They would all include an agreed set of core content, then provide additional specific content tailored to the geographic/demographic/application they cater to.

This is happening to a limited extent but not always as iterations of the permaculture design course.

Doing this would increase permaculture education's fitness for purpose and make it more applicable to those with more focused needs.

A long-running conversation

Proposing diversity in the design course has been a controversial conversation within permaculture circles.

Some want to keep the course developed by the Permaculture Institute and which uses the chapters of Bill Mollison's 1988 book, *Permaculture — A designer's Manual* as a curriculum structure.

Others say that, like the natural systems that permaculture seeks to mimic, the PDC should evolve to adapt to changing conditions and exhibit diversity if it is to remain fit for purpose. They say the *Designer's Manual* has never been updated and that it was not written as a curriculum, that it serves better as a key text for students and that the world it was released into has changed profoundly. It is interesting that some educators have used Rosemary Morrow's *An Earthusers Guide to Permaculture* as a text rather than the *Designer's Manual*.

Diversifying the design course would require the collaboration of permaculture educators and practitioners to identify and retain core components of the design system. To these, specialised components would be added such as those relevant to farming, to life in a metropolitan city, to working with people in lesser developed countries.

Something of a challenge

Coming to agreement on the core components of permaculture to include as common curricula in the diversified Permaculture Design Course would likely be challenging, given the range of opinion and experience in permaculture.

It may be impossible. If so, that would leave open to individual educators the opportunity to develop their own course content and structure. This has already been done to some extent. Why it has been possible, and why it remains a possibility, is because there is no legal agreement of what constitutes the content of a design course.

Soon after permaculture education was first offered, the Permaculture Institute, then the dominant organisation in the emerging permaculture design system, produced a simple and brief course curriculum. That was adopted by the limited number of educators at that time. Then, in 1988, *Permaculture — A Designer's Manual* was published and the Permaculture Institute decreed that it was henceforth the curriculum for all permaculture design courses. This too was accepted although I recall no negotiation or consultation with educators and practitioners about it. It was when larger numbers set up as educators that the idea of a diversity of design courses targeted to specific demographics and situations emerged.

With the controversy and argument that sometimes accompanies proposals for change in permaculture, with the absence of any nationally-recognised representative body or central authority for the design system, and without any ongoing discussion about change within the design system, I suspect that the adoption of a diversified approach to permaculture education will be driven by the individual initiative of educators.

This, then, is an idea for Permaculture 3.0.

National consultation has not been a permaculture strongpoint. I suspect that course diversification will come through the old permaculture process of just going out and doing something.

Modular Permaculture Design Courses

Core content

Permaculture ethics
Permaculture principles
Characteristics
History
Design thinking
etc...

Modular content

Permaculture education for:

- metropolitan cities
- regional cities & towns
- farming
- international development
- community development
- social applications
- etc...

What could be the content of a modularised Permaculture Design Course?
Modules could be added to the core content of the course to adapt it to particular applications.



Element 18: Adopt simple structures

COMMUNITY PERMACULTURE ASSOCIATIONS are voluntary organisations maintained through member's contributing their time, funds and energy. Because these are in limited supply, it makes sense for organisations to adopt the simplest structures that get the job done.

In its early days permaculture's structure was based on the knowledge and presence of permaculture co-creator, Bill Mollison. In little over half a decade the design system had morphed into an early version of the distributed network structure we find today. The nodes on that network are made up of individuals, small commercial entities such as professional permaculture educators and community-based associations.

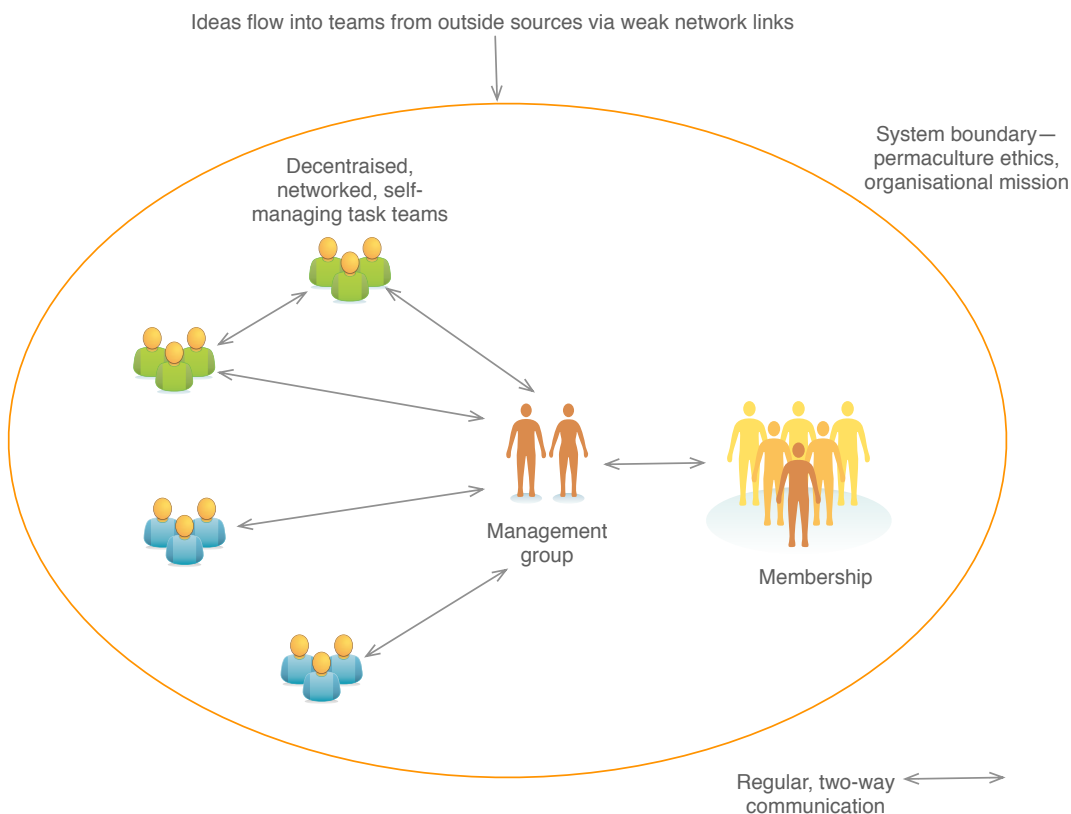
It is those community associations that bring individuals together for mutual learning and to work on projects in the areas where their members live. It is those same associations that are managed by volunteer contribution and it is this that has to be fit into life in between the demands of work, family, friends, study and all of those unexpected things that suddenly come up.

Volunteer time and resources, then, are in limited supply so it pays to enact the permaculture principle of making the least effort to achieve the greatest result. For associations and similar voluntary organisations, that means adopting the simplest effective structure to manage their affairs.

Sometimes we see ambitious permaculture associations adopting the role structure of business, corporations or government. Here, individuals fill formal roles in a hierarchy and all too often we end up with a command-and-control, or parent-child relationship between organisational leadership and members and a downwards, hierarchical flow of information and authority. The outcome of this arrangement is an artificial division between leadership and membership and a clumsy and excessively formal structure.

Time for the team

Where as the time of the old, formal organisational structure has expired, that of the team culture is inspired.



Operational model for larger scale permaculture organisation

Model for a larger community organisation whose operation is based on the activity of task groups.

In a Permaculture Version 3.0 model, old organisational hierarchies are desegregated and replaced by self-organising, self-managing task teams that are in frequent, two-way communication with an organisation's coordinating team. This coordinating team brings together the work of all the teams and ensures it is compatible with the organisation's strategy and with the ethics of the permaculture design system. It is simply one other team focused on administration and has no more authority than any other team. Likewise, the admin team looks after organisational finances, membership records, reporting and external relationships. Formal roles associated with the association structure or that of the company limited by guarantee belong in the admin team and can be circulated periodically.

An end to boring meetings

Formal, boring meetings have no place in a practice such as permaculture that purports to engage with new, convivial ways of doing things.

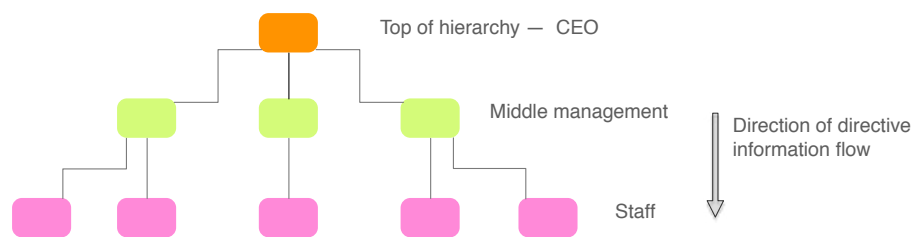
Meetings are necessary, however formal business should occupy the lesser part of the meeting and much time is better devoted to member's networking, trading goods (such as a 'swap' or 'take' table) and sharing food (food and something to drink are necessities at meetings).

Making decisions collegially

Because member engagement in the affairs of the permaculture organisation is essential, a better structure for meetings and their discussion and decision making is needed. There are models for this, such as sociocracy, and it would be a good idea to investigate them and adopt the simplest, least time consuming and most engaging of members.

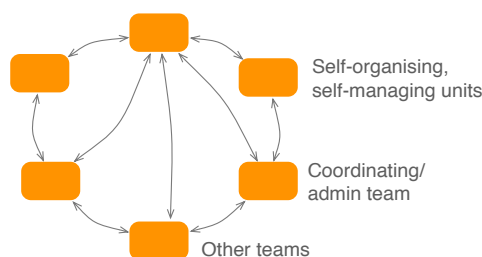
In taking on the tasks of management on behalf of the membership rather than seeking their cooperation, leadership engages in managerialism and, thus, offers nothing by way of a new, better model than that commonly found among big organisations. This is not what permaculture is about. At worst, it places too much work on individual role-occupants and risks member burnout and attrition.

In permaculture, the future belongs to smaller, agile organisations perhaps structured as network organisations (see diagram opposite) with a capacity or rapid response and adaptation. It is this that forms the organisational model in Permaculture Version 3.0.



The structure of the conventional hierarchy.

Government, corporations and many community organisations adopt the conventional hierarchy as a model through which to conduct their business.



An organisation structured as a network is based on self-generating, self-managing teams linked by frequent, multi-path information flows that create self-correcting feedback.

All nodes in the networked organisation have the same status and carry out specialised tasks coordinated by the coordinating/admin group

Element 19: Address contemporary lifestyles

PEOPLE COMPLAIN that modern life is complicated. The impression is that there has been an acceleration of personal life that has been with us for a few decades now. Compared to the lives of the 1950s generation this is true. What is certainly true is that there are new pressures today, pressures on families, financial pressures, pressures from work.

What could a Permaculture Version 3.0 do about this? Probably little at the societal scale as that would be beyond its capacity. Its point of intervention is more likely to be with the individual by offering ideas and examples of ways to reclaim time and life-space by first identifying those things that matter then strategising to enact them. This has much to do with personal values.

What concerns many people is reduced workplace security. That started with the automation of the workplace in the 1970s and continues today. Initially, it was working class jobs that were displaced by automation and, later, by industrial robots. Now, indications are that middle class jobs are soon to be affected. Writing in *Race Against the Machine*¹⁵, Erok Brynjolfsson (director of MIT's Centre for Digital Business and Technology and strategy consultant) and Andrew McAfee (principle research scientist at MIT's Centre for Digital Business) say that "The AI (artificial intelligence) revolution is doing to white collar jobs what robotics did to blue collar jobs", and that a trend is starting that is characterised by economic growth without employment growth. David Rowan, editor of Wired magazine UK¹⁶ put it this way:

“By some estimates, at the end of the century 70 percent of today’s occupations will have been rendered non-human. We’re facing some big ethical questions”.

15 2013, Brynjolfsson E, McAfee A; *Race Against the Machine*; Digital Frontier Press, Massachusetts.

16 *Wired*, the magazine of digital culture: <http://www.wired.co.uk>

These are serious trends that are likely to affect people attracted to permaculture and are worthy conversation topics for permaculture associations.

Reclaim time

Time poverty — that's the term given to the chronic lack of time experienced by many urban people for anything but the essentials of life. It's a brake on participation in community activities as well as on home life and interpersonal relations. It's also a brake on participation in permaculture groups and their activities.

How we address time poverty in permaculture 3.0 is something worth discussing. Perhaps the first step is to suggest that, for those who want to reclaim some of their time, change is possible but it will require effort to make happen.

What causes time poverty? We have any number of labour saving devices at work and in the home, so where is the extra time liberated by these? Filled up with other stuff, probably. Managing our time is less a technological task than one of personal values, priorities and planning.

Workplace demands can be a time thief. I'm not talking about those who find such fulfilment in their work that they willingly put in long hours, but those who would rather spend time with family, friends, hobbies or just blobbing out instead of attending to work brought home or done in the office after sensible workers have gone home. It's no secret that the average working week in Australia has lengthened over the past couple decades.

Ubiquitous communications—what has become known as the 'always on' or '24 x 7' culture—has made its own contribution to time poverty, especially where employers supply mobile phones and tablets and workers feel an obligation to check their calls and emails after working hours. While some of us need to be contactable by our workplace seven days a week, others might find a kind of existential liberation by making use of the off switch and voluntarily cutting communications with the workplace until next working day.

Reclaiming personal time is more than time management. That's about making the most effective use of time in and out of the workplace and there are

a number of popular systems that help you do that, such as Stephen Covey's *First Things First*, Dave Allen's *Getting Things Done* and Leo Babuata's *Zen To Done*. Time management is a good idea, but reclaiming time steps back to more fundamental questions about personal priorities and values. It asks whether we should bother doing something at all.

As I've said, discussing time poverty would be a good first step to reclaiming personal time in a Permaculture 3.0 context. Maybe a clue on how to do that comes from the late 1990s when Noel Winterburn was running his Conversations for the Twenty-First Century in Sydney. One of the most popular meet-ups was that called to discuss time poverty. Noel planned to hold that session in the living room of his apartment, however when more than 100 people registered to attend he had to hire a hall. What did this signify? It suggested that modern lifestyles were perhaps less fulfilling than people imagined they might be, and they wanted to talk about it with others to get a few clues on how to make changes.

There's nothing like a good example, and for permaculture practitioners planning to subvert the dominant time paradigm, telling stories of people who have succeeded can be stimulating.

The affordability of accommodation

Life in the big cities can be expensive, especially when it comes to rental accommodation and to buying a dwelling. In some places younger people who once would have bought a home have given up on the idea entirely.

Dealing with this is usually beyond the capacity of community permaculture associations, however Permaculture 3.0 could see the setting up of discussion space and educational sessions to learn about and assess options for affordable accommodation. Like reclaiming time, this could offer something of practical value to people and attract them to permaculture by increasing its utility value.

Some of the options have been absorbed into the permaculture body of knowledge from outside of the design system. Co-housing, which originated in Scandinavia and has seen a modest take-up here is an option worth considering. Essentially, co-housing is a form of urban land and goods sharing, usually taking

the form of medium density dwellings with costly items like washing machines shared in a communal laundry, and a common building where meals are sometimes cooked and shared. Because land is held in common with freehold title to a small parcel where the dwelling is built, costs are lower. It takes some organising, however the fact that others have successfully trod that path before makes it easier for those that follow. Co-housing makes for more compact developments, making it particularly applicable to city living.

There are other models of shared accommodation. Selli-Hoo is a nearly 40 year old shared house in Adelaide occupied by owner-occupiers with a couple rooms left for renters. It's perhaps the longest-running share house in Australia and remains a viable abode for those fortunate enough to live there. How would that model be tweaked for modern times?

Another model worth pursuing was pioneered by members of the Institute for Cultural Affairs in the late 1980s in Marrickville in Sydney's Inner West. There, members bought an entire three storey, red brick walk-up apartment building and kept one of the apartments as common meeting and social space. Rather than a community of dwellings scattered across the landscape, their's was a vertical community and an appropriate model for dense urban living.

Then there is the model that permaculture practitioners developed and that has since left its permaculture nursery for life in society. Here I am talking about the rural ecovillage.

The precedent to the ecovillages of today are the intentional communities, the multiple occupancies set up in rural areas as new ways of living by participants of the alternative culture of the late-1960s to the early 1980s. The aforementioned cohousing model can be seen as an urban expression of the ecovillage scaled according to the land values and space limitations of cities.

What we would do in a Permaculture 3.0 context is to explore these options, what changes of mindset would be necessary to start or join one and how it might be financed and managed.

Reducing social isolation

In the cities we're surrounded by crowds, yet what many people experience is isolation amid many.

To address this, Permaculture 3.0 practitioners could organise not only the educational events permaculture associations are known for but social events such as shared meals, video screenings and other social activity. The key is conviviality, inclusion and a welcoming ambience. Developing those third places mentioned earlier would be an appropriate strategy.

A valid focus?

Addressing contemporary urban lifestyle deficiencies is not something that permaculture design has focused on so much in the past, but it would be something that becomes a focus within Permaculture 3.0. Why? Because permaculture is whole systems design and the lifestyles people lead, the limitations those lifestyles place on personal time and expenditure and on the opportunities gained or lost are part of the whole system of people's lives.

If permaculture cannot help people address these issues in contemporary living it risks being overlooked and sells itself short as a tool for social transformation. As they said back in the sixties: 'the personal is the political.'



The Randwick Sustainability Hub, a scaling-up of permaculture showing the grid-interactive photovoltaic array on the roof, which is supplemented by a grid-connected wind turbine.

Element 20: Scale-up permaculture

A SOCIAL ENTREPRENEUR once said to me that permaculture would go further than it has were it to figure out how to scale-up its work.

In his work creating a solar technology bulk buying scheme for households this is exactly what he had done. Through the economies of bulk buying he and his colleagues had made solar technology accessible to householders by making it cheaper and by offering purchase and installation as a package.

His criticism that permaculture has not moved far beyond the home and its garden was not completely true but is worth considering. Why, his question went, thirty years after it was set upon the world, had permaculture not had wider impact and created larger scale opportunities? Why permaculture does not have greater cache among political and other decision makers has been asked by quite a number of its practitioners and by people from outside of permaculture.

Scaling-up permaculture projects—taking them beyond the home—is demanding of time and requires access to specialist knowledge and skills.

I have experienced this in working with groups to set up community gardens, which in themselves are a small scale example of scaling-up, and on the Permaculture Interpretive Garden and community centre retrofit project in Randwick, which combined the design of a community resilience/sustainability education centre, construction and the creation of a public park/food gardening education facility. It was obtaining a grant and situating the project within the local government framework that enabled this scaling-up of permaculture to happen there.

Community organisations, even with funding, are hard pressed to engage in scaling-up of this type when the design, the work and the project management are done voluntarily. For any substantial work funding needs be of sufficient scale to employ a project manager and skilled workers with the community organisation taking an overall management role. This supports the inclusion of basic project management in permaculture education.

Scaled-up

Walk the paths and between the fruit trees at Northey Street City Farm in Brisbane and you pass through an example of scaled-up permaculture. Northey Street has funding for paid staff, a capacity for raising its own funds and a substantial volunteer corps. It offers the permaculture design course an income-earner and social development technology, positioning it as a social enterprise. The work of developing the city farm was carried out over a timespan of years.

Although it was not positioned as a permaculture project, Food Connect Sydney was compatible with the design system, its ethics and principles and was started by a graduate of the permaculture design course who made use of the social enterprise model, a model appropriate to any scaling-up effort. It was self-funding. Similar is the food co-operative and food garden known as The Source, in Hobart, Tasmania, and, now in Sydney, the community supported agriculture scheme, Ooooby (Out Of Our Own back Yards).

Both Food Connect, in Brisbane and when it operated in Sydney, scaled-up access to good food produced for the most part by small to medium-scale farmers in the near-Sydney region and within the Brisbane food bowl. In doing this, these enterprises created employment in the community resilience/food sovereignty sector and contributed to their regional food economies.

These are examples of scaled-up projects carried out by people with permaculture backgrounds.

What it implies for a Permaculture Version 3.0 is that we may need to scale-up by taking a social entrepreneurial approach, perhaps starting with grant funding and using that, where it is sufficient, to install the infrastructure that allows projects to become self-supporting. The other implication is that, in a Permaculture 3.0 context, there would be a need is to become adept at writing grant applications. Crowdfunding may another means of raising the funds to get a project up and running and there are now a number of crowdfunding facilities online. For voluntary groups wishing to get things done,

there is often little choice other than grant funding because few have the skills and motivation to go to the trouble of setting up a social enterprise or small business to accomplish their goals.

However it is funded, the idea of scaling-up permaculture applications seems a good one. Applying permaculture design in the setting of the private home can go only so far to setting examples — valuable that they are — but scaling-up permaculture projects in publicly-accessible places would do much to popularise and demonstrate the design system in action.



Community composting, like this public compost bin at the front of an apartment block in Waverley, in Sydney's Eastern Suburbs, is a modest example of scaling-up to the precinct level.

Peeking under the lid is sustainability educator, Sarah van Erp.

Element 21: Introduce greater focus on people skills

SKILLS in working with groups is necessary to carrying out projects in permaculture.

It's arguable that permaculture's weakest element has been in working with people, yet the ability to work constructively with others is the glue that binds project teams and that make projects work. At worst, a lack of groupwork or people skills, whatever you want to call it, is the reasons that projects fail.

There's probably too little time in the Permaculture Design Course to introduce those skills. The courses are crammed full as they are, with perhaps too little time already spent on existing topics to do them proper justice.

This leaves specialised courses and workshops the only option through which permaculture practitioners can boost their people and group skills, and enrolling in them requires that the practitioner become aware of their limitations and makes time available to attend. For some years a small number of educators, mainly New Zealander, Robina McCurdy, Robin Clayfield from Crystal Waters in Queensland and Fiona Campbell in Sydney have been offering workshops and courses based around people and community leadership skills.

The development of group skills is something that permaculture practitioners could imbibe from the international development industry. There, the acquisition of those skills has come through the necessity of working with people of different cultural, educational and language abilities. The result has been the loose codification of a body of experience, knowledge and practice such as Participatory Learning and Action, Participatory Technology Development With Farmers and other skill sets for working with communities.

Learning from this industry would greatly benefit permaculture and its work in the world. Forming links with international development practitioners skilled in these areas could be a feature of Permaculture 3.0 were organisational effectiveness to become a part of this new model.

Element 22: Develop project skills

PERMACULTURE VERSION 3.0 places greater focus on the acquisition and development of project planning and management skills. Project planning and management — PPM in the jargon — is the skillset that enables individuals and groups to achieve what they set out to do.

In the past there has been discussion over elements of PPM such as how do you transfer the skills necessary to sustain a permaculture system to clients of your design service once the designer finishes their assignment. Doing that is one of the end elements of PPM and forms part of the designer's withdrawal strategy from the project at handover.

Planning the agile way

A modification of the Agile Planning methodology may be the PPM approach for Permaculture 3.0. Unlike the more conventional and sometimes complicated and bureaucratic approaches to PPM, Agile Planning:

- is based on the work of small teams in frequent communication; there are no team managers, merely coordinators who are ordinary team members whose specialised function is to make it easy for team members to do their work

- works towards project goals through 'sprints' or workchunks determined by the teams and that span limited periods; the sprints add incremental value to the project by producing iterations of the work that accumulate towards a finished product but that, because of frequent communication, have the capacity to rapidly detect and rectify faults
- involve the client as team member.

Agile Planning is the methodology of choice for implementing the philosophy of continual improvement. It could also be adapted to the pace of work of voluntary community groups.

Another positive is that for projects to do with installing a landscape or similar physical design, the agile approach would be amenable to the modular development approach of starting small (with the first work chunk or sprint), consolidating your work in that chunk (thus completing a functional iteration of the project) and progressing in additional small sprints from the edge of your consolidated work (this producing a succession of usable and completed sprints).

The agile project planning and management approach, borrowed and adapted from software development, would be one more tool that Permaculture Version 3.0 adopts from outside the design system to improve its what it does.



The Permaculture Interpretive Garden, part of which is seen in the photo, is a local government project, part of the retrofit of Randwick Community Centre, and is a scaling-up of permaculture design calling upon project management skills.

Element 23: Focus more on medium density living

MEDIUM DENSITY DEVELOPMENT is becoming the dominant form in larger cities — the places where most Australians live.

Medium density, especially apartment and townhouse living:

- is frequently the housing of choice as people can live close to their work, sometimes within walking or cycling distance
- is more affordable to first home buyers
- avoids the responsibilities of having a garden that residents might not want one
- suits an ageing population
- can place a large number of people within close walking proximity to public transport
- brings a critical mass of numbers that can support small, specialised businesses, thus it is good for building local economies.

For permaculture practitioners in larger cities to ignore medium density solutions is to ignore a large and growing portion of the Australian population and to render permaculture of limited value to them.

A smorgasbord of approaches

Permaculture practitioners could do well to acknowledge that the era of the traditional Australian quarter-acre block is gone. Even in the suburbs, infill housing is reducing the open space available to householders. In the newer outer suburbs and the exurbs—the residential urban fringe developments and the satellite suburbs of the metropolis—detached housing sometimes comes with home garden space little larger than that found in the old, inner urban core.

In a Permaculture Version 3.0, the development of workable and affordable solutions for our medium density cities would focus on:

- energy and water efficient apartment design
- waste reduction, reuse and management solutions
- providing adequate, multiple-use public open space in neighbourhoods
- effective public transport
- personal mobility routes of safe, shared transit for bicycles, skateboard commuters and electric

scooters of all types including those used for personal mobility by disabled people

- designing apartments with useable roof space for recreation, social uses, solar energy arrays and gardens
- due to space limitations on domestic food production, a community and neighbourhood approach to food sovereignty that includes community gardens in multiuse public open space and locations for food co-operatives, community supported agriculture schemes, organic buyers groups and farmers' markets
- the incorporation of workplaces, coworking facilities¹⁷ and small to medium businesses within urban development
- developing third places in neighbourhoods—economic-to-visit facilities, close by, where people can gather and meet (the 'first' place is the household, 'second' place the workplace, the 'third' place are cafes, parks, village greens and the like¹⁸).

Something else that a Permaculture Version 3.0 approach to medium density living would adopt is precinct, rather than household level planning. Particularly in the older core areas of large cities, space is limited and this places limitations on what householders can do about installing renewable energy and water storage in their own homes. Taking a precinct or neighbourhood scale approach to developing solutions can be more economic, efficient and effective.

Permaculture 3.0, without abandoning a focus on rural and suburban development, would also focus on developing solutions to resilient, medium density living as this is the shape of our urban future.

¹⁷ Coworking brings together people who work alone into a shared space with shared facilities where they can cooperate and assist each other when needed. Coworking is sometimes called a 'jelly'. Shared resources could include high speed broadband, kitchen, printers, 3D printing.

¹⁸ The idea of third places was developed by Ray Oldenburg and has since found a home in the placemaking methodology of participatory community development. Oldenburg described third places in his book: 1989, Oldenburg, R: *The Great Good Place*; Marlow and Company, NY.

Element 24: Create a strong urban focus

MUCH OF the design system's development has concentrated on its rural application. There are examples of permaculture applied to farmland management on the broadacre scale and these sometimes combine ideas developed outside the permaculture milieu such as Keyline water management, Alan Savory's Holistic Management and Joel Salatin's method of the rotational grazing of chooks. This is proper for a system that is itself a synthesis of ideas from different sources brought together as a coherent system of design.

At the scale of the city fringe market garden there remains work to be done, but even here there are examples such as the mixed farm operated by the Brookmans north of Adelaide—The Food Forest¹⁹.

A rural focus is important because the cities rely on farming for their sustenance, as they have throughout history.

19 The Food Forest at Gawler, South Australia:
<http://www.foodforest.com.au>

An urban culture

The reality is that most of us—most of the world now—live in cities. So while maintaining a permaculture design focus on farmland makes sense because farms feed the cities, it also makes sense to devote a greater portion permaculture designers' time and effort to making our cities better places to live because, worldwide, the cities are the home of humanity.

What we need in Permaculture 3.0 is a cohesive body of knowledge around the application of permaculture ideas and principles in urban settings. That includes regional cities and towns, although how those ideas and principles are applied in these variable urban settings will necessarily differ.

Australia is a highly urbanised country and permaculture has had an urban component ever since the design system came into being, but in recent times this has not been developed as much as it could have been as a cohesive catalog of approaches and techniques.



Even the permaculture design courses billed as ‘urban permaculture courses’ can fall short of their aim as they sometimes retain much of the rural content of the conventional design course rather than developing a curriculum geared towards life in metropolitan cities.

Urban courses must be specialised

Urban permaculture training would benefit by including:

- how to grow food and raise poultry in small home and community gardens
- an understanding of community food systems such as community supported agriculture, food co-ops and organic food buying groups, specially now that a growing number of people live in apartments and lack food-growing space
- how to work creatively with others — group decision making, community democracy and other skills for collaborative work; cooperation with others is a key element of urban life
- an understanding of local government and its potential for cooperation with citizens
- an understanding of placemaking for working with communities
- and much more.

Markets form part of a strong urban culture. They are an example of tactical urbanism—small, local initiatives that accumulate to become trends and solutions within a resilient urbanism.



Tactical urbanism

To practice permaculture in public places in the cities is to practice tactical urbanism.

Tactical urbanism: small scale, local initiatives taken by people in communities to improve the places they live; tactical urbanism builds resilient urbanism.

Tactical urbanism is also known as ‘urban acupuncture’. Wikipedia sums it up:

Urban acupuncture “eschews massive urban renewal projects in favour of a more localised and community approach that, in an era of constrained budgets and limited resources, could democratically and cheaply offer a respite to urban dwellers.”

The notion behind tactical urbanism/urban acupuncture is that making small changes in the neighbourhood contributes to the greater wellbeing through the ripple effect as the benefits of the changes improve local conditions.

Tactical urbanism generally excludes works in the home or home garden. Its focus is on the public domain—the parks, streets, footpaths, commercial and municipal buildings, institutional land and other areas accessible to the public. It engages in small works that contribute to neighbourhood revitalisation and encourages citizen engagement with public space in their area. Like any permaculture project in a public place, the practice of

tactical urbanism is participatory and stems from local demand.

You can see that some permaculture works already do this, such as the development of community food gardens in public parks. What has been missing has been a context within which to place these works so as to create the awareness that they are less one-off initiatives and more part of a cohesive practice. This done, it becomes possible to start the work of defining strategy and tactics for permaculture designer-practitioners to engage in the practice.

Essentially, this is the work of Permaculture Version 3.0 in the city and it is connected with the practice of placemaking, which we looked at earlier.

Within Permaculture 3.0, building a resilient urbanism is the proper frame of reference for the practice of permaculture in cities. To be successful, permaculture would aim to create convivial cities that are places of opportunity.

Cities are not farms although food has traditionally been produced within the city and on its urban/rural fringe. Cities are also places of economic and political decision making and administration, places that people come to for education and seeing opportunity. They are places where culture, the ways in which societies do things, is passed on. Essentially, cities are about exchange.

Cities are social venues where initiatives are negotiated with others and, if something is planned in public space, negotiation with local government. This alone necessitates an understanding of the role of local governance and the development of social and people skills a necessity in education for urban permaculture.

In Permaculture 3.0, permaculture in cities is seen as essentially a social activity because cities are essentially social places where cooperation is a necessity for doing most things.

Urban permaculture and education for the practice of permaculture in cities within a Permaculture 3.0 mindset would reflect the essential elements of the city—the food system, economic initiatives (think co-ops, community trading systems etc), politics, water supply and waste management, transport and culture. This would align with permaculture's self-definition as a comprehensive system of design.

Element 25: Move beyond the designer-led approach

THE ROLE OF THE PERMACULTURE DESIGNER has held a central place in permaculture, but when we consider the new, revitalised model of Permaculture 3.0, we have to ask whether this is now the right approach.

The centrality of the designer is an idea permaculture inherited from the design professions. It is essentially a service model—people want to do something so they hire someone to provide the service for them.

Conventionally in permaculture, a designer comes in, talks with people about their needs and produces design options for them. This is a top-down approach.

Putting design last

Design should not come first. It comes last.

Producing a design drawing on paper or screen is the end product of an intensive period of needs clarification, land capability assessment (assuming it is land and not an economic or social initiative the permaculture designer is assisting with), legal and regulatory (usually local government) considerations, available funding and trying things out.

The problem with designs and masterplans is that they lead to construction after which the design is set in concrete, foregoing the try-it-and-see approach that can precede the production of a final design. There is much to be said for a period of installing only simple, easily removable components of design. That gives us time to see what works well or what doesn't and to shuffle things around. When we've done that we're ready for the final design on paper or screen.

In Permaculture 3.0, the design process uses a placemaking approach of starting with the idea, then working with the group to define its needs, trying out ideas in a temporary way where possible and only then producing a final design to guide future implementation. This is the user-led, not the designer-led approach.

Element 26: Adopt the collaborative economy

THE COLLABORATIVE ECONOMY includes the various tools and equipment sharing schemes, crowdfunding, cashless community trading such as LETS (Local Exchange and Trading Systems), goods distribution such as Freecycle and all of the others that offer an alternative to buying and that substitute access for ownership.

Some of these are community-operated schemes. Others operate as social enterprises while others are membership-based enterprises that include monetary transactions, such as the various car sharing schemes.

Permaculture didn't invent LETS (credit for that goes to Canadian, Michael Linton, who lived in Sydney for some time during the 1990s) but it was instrumental in promoting it through the PDC and through permaculture community groups when it appeared in that decade. LETS later took on a life of its own as an independent initiative as did other ideas that started or were practiced in permaculture.

Adopting these collaborative economy enterprises is one way for permaculture practitioners to educate people in means of obtaining goods and services other than through the mainstream, monetarised economy. It disintermediates the obtaining of those things from the middlemen who control access.

The collaborative, sometimes called the 'sharing' economy can be a means through which to implement permaculture's Third Ethic of sharing resources. The collaborative economy is one of those invisible or soft systems in permaculture.

In having the potential to make goods and services available to people with limited cash reserves and for its potential to create positive social connection, the collaborative economy is a necessary part of Permaculture Version 3.0.



Collaborative economy educator and online systems developer, Annette Loudon, lays down the rules for a community swap at Randwick Community Centre in Sydney. The swap diverts useful products from landfill and extends their useful life.

Element 27: Towards a social permaculture

SOCIAL PERMACULTURE is about people and the relationships between them, between people and organisations, people and governance. It is an integral element within a Permaculture 3.0.

If tools and building design, garden and farm design, energy and water harvesting and storage are some of the 'visible systems' that make up the permaculture design system — what we can call 'hard systems' — then social permaculture is made up of relationships, methods of decision making and governance, organisational structures and the intellectual, conceptual and social constructs through which people come together, cooperate in planning and collaborate in making the things that we need to live and to create opportunity in society.

The 'invisible systems', the 'soft systems', bring together the ideas, skills and know-how to create that which people need to live lives of modest prosperity. Social permaculture is the glue, the sticky matrix in which our hard systems are embedded.

With more than nine billion people on the planet by the middle of this century, with the growing population of lesser-developed regions mainly in poorly serviced spontaneous settlements around big cities, focusing on providing basic needs becomes the key to a minimum standard of living for all and for the creation of opportunity.

This takes organisation, and organisation is the job of social permaculture. It's about the opportunity to make a livelihood, to improve the quality of life, of getting an education, to obtain a minimum of the goods and technologies that can improve the experience of life... and the opportunity to contribute to the wider society.

Social permaculture is people-centred. It brings together the thinking, the creative skills and knowledge of people in ways to give them some degree of influence on the shape of, and the opportunities that develop in, the places where they live.

To do this, people must be free to act to change their circumstances and to build something better. Social permaculture acknowledges that this freedom for individuals and their organisations, freedom that does

not negatively affect the human and civil rights of others, is a basic human need and that the best way we have found to enact it is through democracy. Not simply the representative democracy of the electoral cycle in which new governmental management teams are elected for a few years, but the deeper civil forms of democracy that offer the opportunity for participation in decision making. Thus, a social permaculture supports and educates on the forms and values of freedom and democracy. Social permaculture is socially libertarian.

A focus for a social permaculture

All new ideas build on the work done before them. Permaculture need be no different and it unashamedly adopts from other disciplines, other schools of thought. It is, according to its inventors, a synthesis of ideas and practices rather than a completely original body of work.

Thus, when we describe what a social permaculture would focus on, we could say that it focuses on strategies and tactics to procure the first and second order of human needs as described by psychologist, Abraham Maslow. The first order needs are the basic physiological requirements of life: nutritious food, clean water, shelter, affordable energy, clothing appropriate to climate, health and personal security. Without these, no further personal or social development is possible. Without them, life is a struggle for survival.

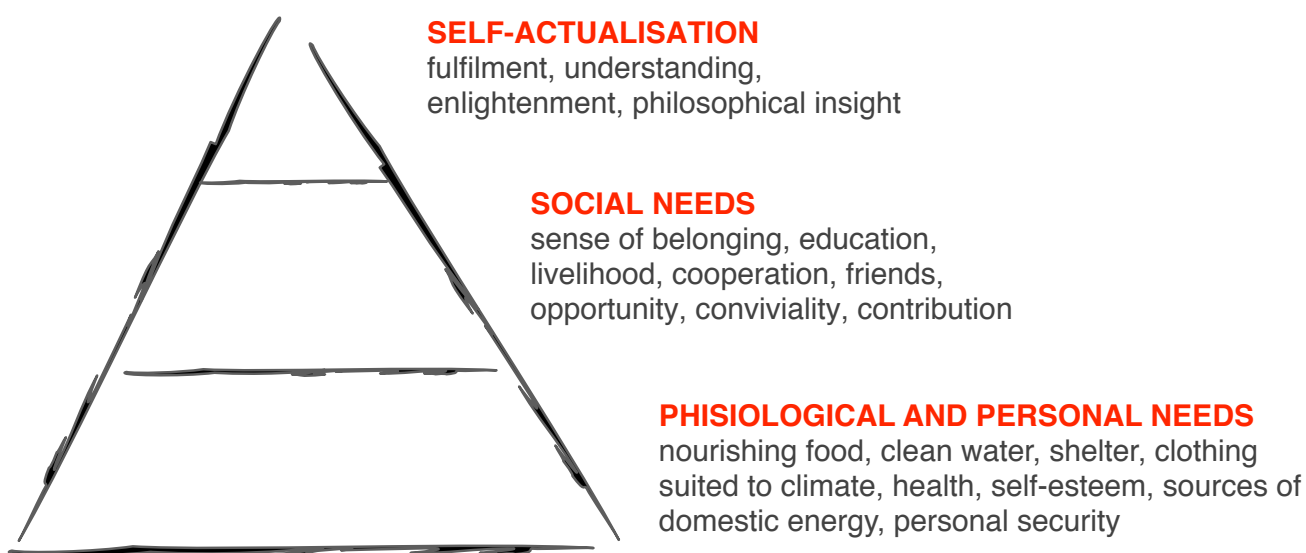
Second order needs are essentially social needs: opportunity, access to education, access to communication, conviviality, cooperation, livelihood and so on.

We can see that Maslow's first order needs mostly equate to permaculture's visible systems, its hard systems of physical things. His second order, which are mostly invisible or soft systems, become available through establishing social, economic and governance systems. Attaining the second order category requires social organisation and this is the business of a social permaculture.

A complete approach to living

Social permaculture seeks to improve the lives of individuals and families (however you define them) and to make a modest prosperity attainable. It serves both the individual and that mesh of relationships, practices and shared values we call society. It seeks cooperation and mutual benefit through thoughtful planning, decision making, problem solving and organisational governance.

How would a social permaculture suggest individuals live in their society? Let's borrow from beyond the leaky margins of permaculture, from the creativity of author and organisational educator, Edward de Bono. He wrote that to live a fulfilling life connected to a society, five



Abraham Maslow's hierarchy
of human needs...
an interpretation

Social permaculture focuses on Maslow's physiological and personal needs as well as on the social needs.

things are needed, each an analogy to the fingers of the hand:

- the thumb makes the human hand a tool for manipulating its environment, for doing things. It represents **effectiveness** — achieving what we set out to do
- the index finger is our pointing finger. It indicates **direction**, the way we should go
- the second and longest finger signals the importance of **respect**, the way we behave towards others; this reflects our values and feelings
- the third finger might be less-noticed but like the **self-improvement** it signifies it should be always-present
- the little finger reminds us that we can **contribute** even in small ways... it's about those little contributions we make, how we enact permaculture's Third Ethic of sharing, the contributions that build into larger changes.

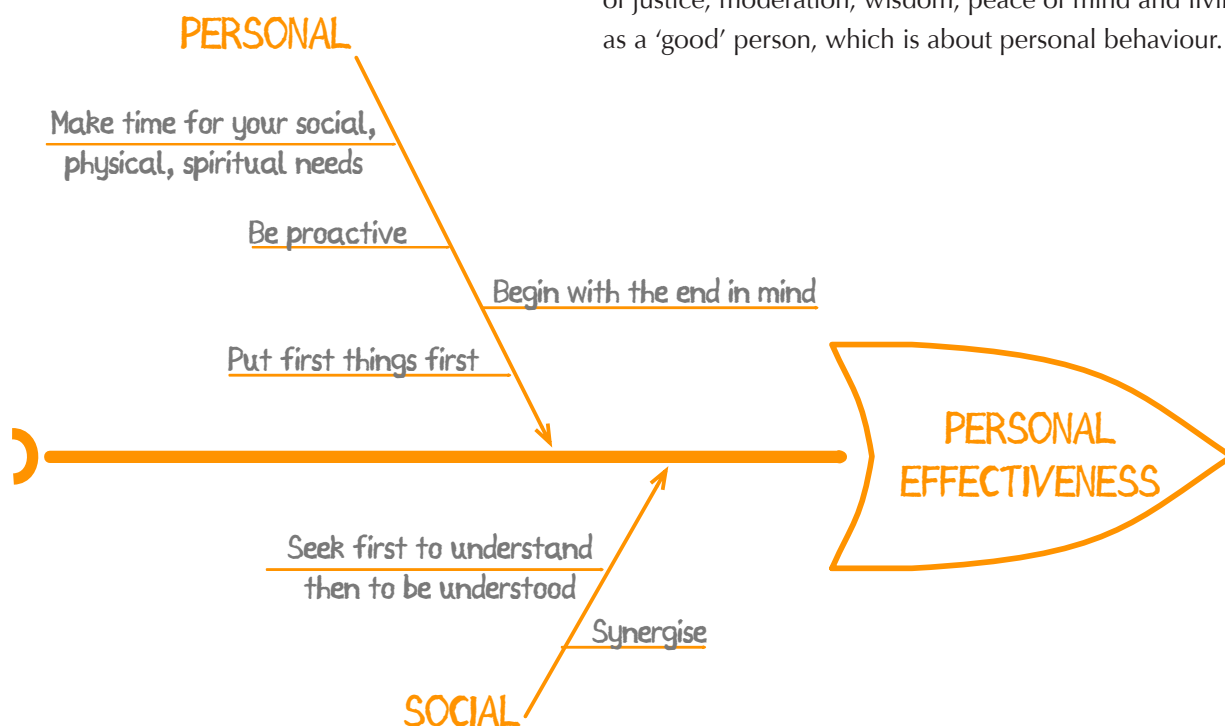
This isn't a bad list for a social permaculture to adopt as it proposes both individual and social development. It links the individual to the society through contribution. And contribution, we in permaculture know, is what Bill Mollison and David Holmgren called permaculture's

Third Ethic — that of sharing knowledge and information, skills and funds and those other things we have the capacity to share when we have set up our own system of support. The purpose of sharing these things is to assist others to meet their own needs.

We can look further back for clues about how to live and we can think about how we incorporate these ideas in a social permaculture — the permaculture of human relationships. In ancient Greece the philosopher Epicurus (2341-2271BP) proposed living a happy, tranquil life characterized by freedom from fear, an absence of pain, limiting your wants and by living a self-reliant life surrounded by friends. Epicurus said that there must be trust between friends, and friends should treat each other as well as they treat themselves.

Epicurus' message has been distorted to imply enjoying an excess of luxury and indulgence, food and drink. He did say we should enjoy ourselves but his lifestyle was communal, social and materially minimalist — it was about enjoyment of life and freedom, with a focus on friends and conviviality. That's not a bad goal for a social permaculture.

We can look to the Stoic philosophers for inspiration, too, and their values that include rationality, courage, a sense of justice, moderation, wisdom, peace of mind and living as a 'good' person, which is about personal behaviour.



Stephen Covey's personal and social thinking strategy for personal effectiveness

Source: *The Seven Habits of Highly Effective People*

We can look back to Guatama Buddha (around 2500 BP) and his idea of living a ‘middle way’ between poverty and excess, neither self-denial nor self-indulgence. It’s about having enough, neither the deprivation of poverty nor the excess of riches. It’s what I call a ‘modest prosperity’ and, like the ideas of Epicurus and the Stoics, I think this middle way is a good place for a social permaculture to live.

One of the contemporary guides to practicing a social permaculture comes from the author and business educator, Stephen Covey, and appeared in his popular book, *The Seven Habits of Highly Effective People*²⁰.

Covey’s is a values-based, no-quick-fix approach to personal and interpersonal effectiveness. He outlines seven habits.

Personal:

- **be proactive** — think and act ahead
- **begin with the end in mind** — have a sense of direction and destination so you can move purposefully towards it
- **put first things first** — act on the most important things first; prioritise your needs
- **self-improvement** — make time for your

²⁰ 1990, Covey S; *The Seven Habits of Highly Effective People*; Information Australia, Melbourne.

own learning, physical, social and spiritual (psychological and philosophical) needs.

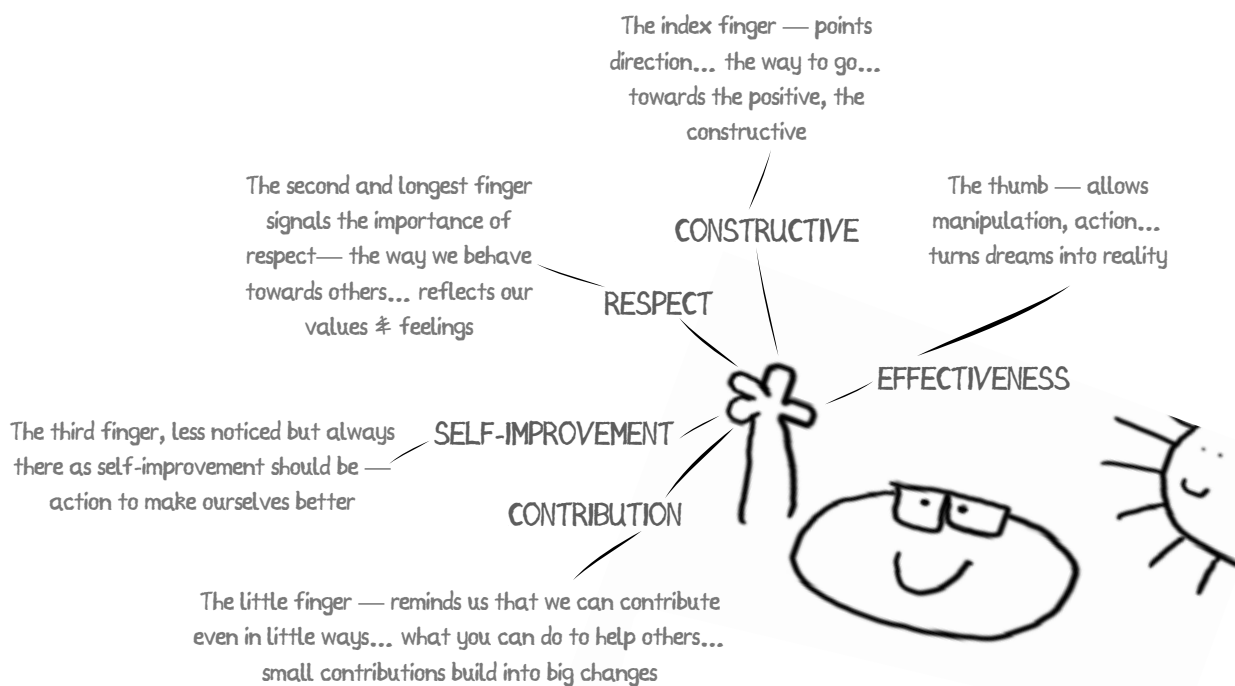
Interpersonal:

- **seek first to understand then to be understood** — listen before speaking or offering advice; understand where the other person is coming from, their perception and needs
- **synergise** — this is the habit of cooperation, of collaboration, of joining with others to make your collective work more than you could have achieved alone; this is the way to create a better outcome.

Putting the social into permaculture

To be truly social, permaculture needs adopt participatory practices when working with people. Participation goes beyond consultation, though consultation retains a useful role in some circumstances. Consultation asks people to select from choices already made by a leadership group or a planner rather than to help develop those choices. Although it can be used appropriately it also fits the top-down approach and can sometimes be seen as elitist.

PLA — participatory Learning and Action (earlier called PRA — Participatory Rural Appraisal or PA — Participatory Appraisal) is an approach used by



The five principles of the positive revolution

Edward de Bono’s five-finger principles for ordinary people, “people who can make a difference bit-by-bit.”
 “The weapons of the positive revolution are simple human perceptions”

international development agencies in working with communities and it contains a wealth of useful ideas. PLA is something that a social permaculture would do well to adopt as methodology. Likewise, the skills of facilitating groups, collaborative planning and decision making, conflict resolution, deliberative democracy and PTD (Participatory Technology Development, an approach used primarily in rural development with farmers to trial, choose and adopt improved practices).

In summary, the practice of social permaculture is open and democratic, participatory and inclusive. It draws on the work of psychologists and philosophers, community builders and educators. It seeks to build the invisible, social ties that bind groups of people in improving their lives and that of the society they are embedded in.

Without social permaculture the design system is an unintegrated collection of things, tools, technologies and practices. It is social permaculture that brings these together into a cohesive system of design for resilient human settlements. Social permaculture is a necessary part of a Permaculture Version 3.0.



A poster at APC 11, Turangi, New Zealand, 2012.

Element 28: Work with those who want to learn and work where it counts

Work with those who want to learn

THERE'S AN OLD CLICHÉ about 'preaching to the converted' that suggests educating those already active in something is a waste of time. It's wrong.

It's wrong because it is not based on an understanding of how people learn and how ideas spread through societies. Those 'same old faces' that turn up are often the people who go out to spread the word and inspire others. Rather than a waste of time, further educating the 'converted' is more of an educational exercise to improve the knowledge and skills of people who will be or who already are the influencers.

These are the people who want to learn and, as they say in the Open Space facilitation process, those people who turn up are the right people.

In further educating the 'already converted' it is useful to introduce them to effective means of communicating good ideas so that they can better exert their influence.

Work where it counts

What counts depends on your attitudes, beliefs, values, skills and where and with whom you do your permaculture work.

Working where it counts — the area you choose to apply your permaculture skills — can mean responding to local needs or, at the opposite end of the spectrum, working in advocacy or at the national or global level. All are valid.

Perhaps you choose to apply your knowledge and skills in community development, food production or distribution, education, media or in advocating for better corporate or government policy and practice — there are many areas of action open to permaculture practitioners and, as I said above, all are equally valid. This means that those engaged in projects in the physical realm must not simply claim that their work is 'productive' and that in the intellectual, advocacy or media realm is not so. Such a distinction is not relevant today.

Wherever permaculture practitioners choose to deploy their knowledge and skills, what is important is that they have the experience to bring a level of competency, that they have the people skills that enables proper participation and collaboration and that they work where it counts.

In Permaculture Version 3.0 we look for where we can best make a contribution and work where it counts. There, we seek ways to work with those who want to learn, for these are the changemakers.



Permaculture and garden educator, Michelle Margolis (left), works with a James Street Reserve community gardener to process the coffee crop and prepare the berries for fermenting and, finally, for drinking the beverage.

Working with those who want to learn is not only instructive, It's good fun, too.

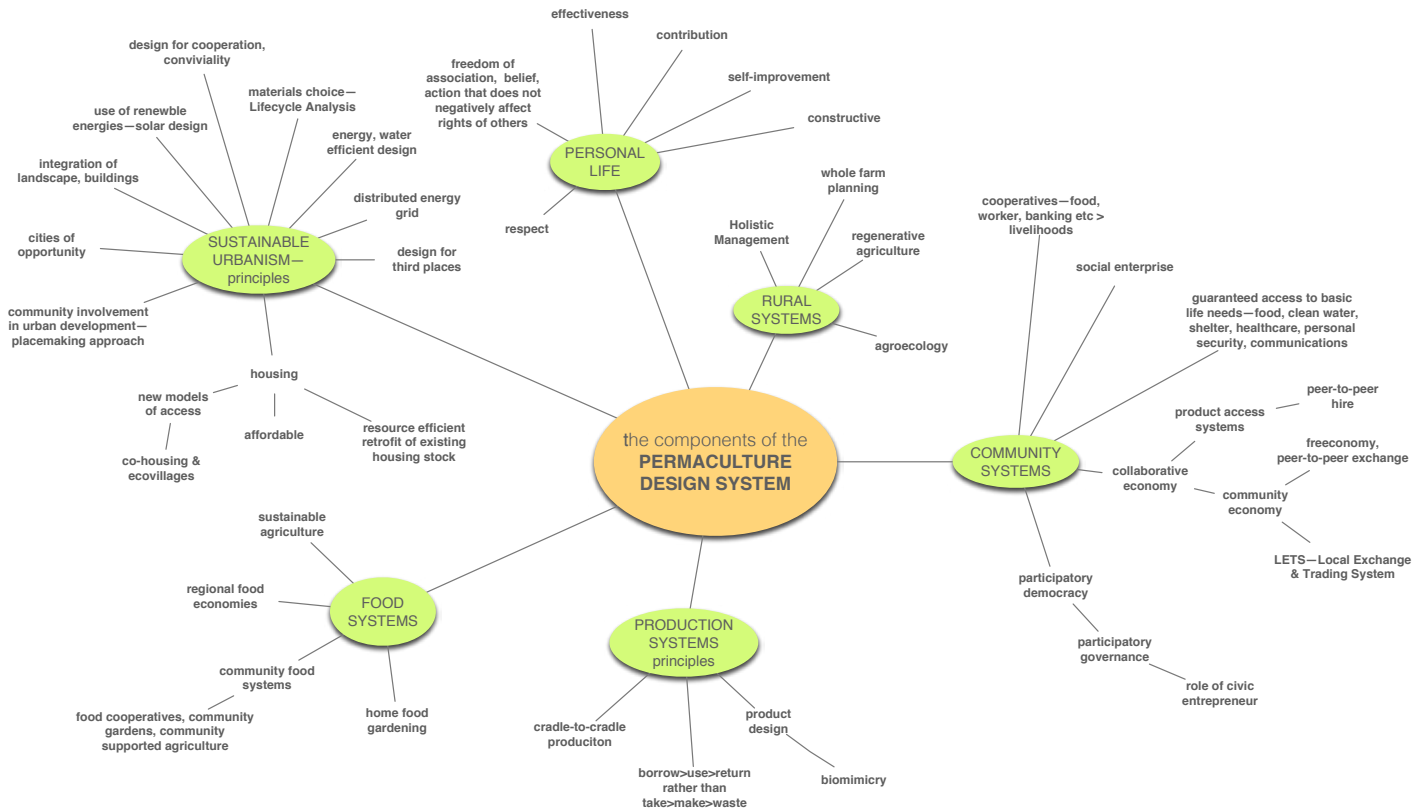


Conviviality is an antidote to social isolation and to the stresses of contemporary living. Informal gatherings of friends and colleagues, like this one of colleagues in the Australian Food Sovereignty Alliance, bring people together in a friendly atmosphere where they get to know each others and, as a result, can better work together. Conviviality should be a frequent practice and a design criteria in permaculture.

Organisations ignore the social element at their peril.

Conceptual map of the permaculture design system...

A set of interacting components producing combined outcomes greater than any of the components by themselves.



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