



David Holmgren (born 1955) is an ecologist, ecological design engineer and writer. He is perhaps most well known as co-originator of the **permaculture** concept with **Bill Mollison**

. Through the spread of permaculture around the world, his environmental principles have exerted a global influence.

// Life and work

Holmgren was born in the state of Western Australia. He studied at the College of Advanced Education in Hobart, Tasmania, where in 1972 he met **Bill Mollison**, who was then a lecturer at the University of Tasmania. The two found they shared a strong interest in the relationship between human and natural systems. Their wide-ranging conversations and gardening experiences encouraged Holmgren to write the manuscript that was to be published in 1978 as ***Permaculture One***

.

'I wrote the manuscript, which was based partly on our constant discussions and on our

practical working together in the garden and on our visits to other sites in Tasmania... I used this manuscript as my primary reference for my thesis, which I submitted and was passed in 1976.'

[1]

The book was a mixture of insights relating to agriculture, landscape architecture and ecology. The relationships between these disciplines were elaborated into a novel design system termed *permaculture*

. Although the title clearly owes something to Russell Smith's

Tree Crops: A Permanent Agriculture

(first published 1929), Holmgren's chief theoretical inspiration was the energy dynamics of American ecologist Howard T. Odum (

Environment, Power and Society

, 1971). The same book was promoted by David M. Scienceman as a platform for a scientific political party.



According to Holmgren,

'The word permaculture was coined by Bill Mollison and myself in the mid-1970s to describe an "integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man". A more current definition of permaculture, which reflects the expansion of focus implicit in *Permaculture One*, is "Consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fibre and energy for provision of local needs". People, their buildings and the ways they organise themselves are

central to permaculture. Thus the permaculture vision of permanent (sustainable) agriculture has evolved into one of permanent (sustainable) culture.'

[2]

Permaculture One was far more successful than anticipated, as it seemed to meet a need of the emerging environmentalist counterculture looking for something positive and substantial to align with. It was published in five languages, but is now out of print and of mainly historical value, having been superseded and refined in later works.

While Bill Mollison travelled the world teaching and promoting permaculture, Holmgren was more circumspect about the potential of permaculture to live up to the promises sometimes made about it. He concentrated his efforts on testing and refining his brainchild, first on his mother's property in southern New South Wales (*Permaculture in the Bush*, 1985; 1993), then at his own property,

Melliodora, Hepburn Permaculture Gardens

,

[3]

at Hepburn Springs, Victoria, which he developed with his partner, Su Dennett (*Melliodora, Hepburn Permaculture Gardens - Ten Years of Sustainable Living*, 1996a; Payne, 2003).

Starting in 1993, Holmgren has taught permaculture design courses at his Hepburn home, and has also acted through his company Holmgren Design Services as consultant for a large number of projects, examples of which can be found in the report *Trees on Treeless Plains: Revegetation Manual for the Volcanic Landscapes of Central Victoria* (1994).

A recent major project has been the **Fryers Forest eco-village**, which aims to create a model of sustainable housing and financially viable sustainable forest management, on a site near Castlemaine, Victoria

[4].

Permaculture: Principles and Pathways beyond Sustainability

The publication in December 2002 of a new major work on permaculture, saw a deeper and more accessible systematization of the principles of permaculture refined by Holmgren over

more than 25 years of practice. The book, ***Permaculture: Principles and Pathways beyond Sustainability*** (2002a), is dedicated to Howard T. Odum, who died two months before its publication, and it owes much to Odum's vision of a world in energy transition (Odum and Odum, 2001).

'Principles and Pathways' offers twelve key permaculture design principles, each explained in separate chapters. This fills a conceptual gap that has been evident from permaculture's inception. It is likely to be seen as a major landmark in the permaculture literature, especially as the seminal work, Bill Mollison's ***Permaculture: A Designer's Manual*** (1988) was published fifteen years previously and has never been revised.

Holmgren has had a long-standing interest in the use of non-native 'invasive' plants, for food and fibre, but more controversially for ecological restoration and **'ecosynthesis'**. This interest in recombinant ecosystems or **'weedsapces'** is partly inspired by a 1979 visit to New Zealand and interactions with New Zealand ecologist Haikai Tane (1995).

Holmgren's refusal to toe the majority line on introduced and invasive species has led to some ill-informed criticism of permaculture in a debate which is very much alive in the Australian environmental movement^[5]. His recent comments on the value of willow (*Salix alba* × *fragilis*) in a Victorian stream corridor for beneficial sediment and phosphorus capture can be construed as 'heretical' in relation to official policy. Holmgren goes so far as to comment, 'The science of ecology provided the overwhelming evidence that everything is connected, so it is a great irony that conservation biology is now dominated by an orthodoxy that is blind to ecosynthesis as nature's way of weaving a new tapestry of life.'^[6] Holmgren has been developing these and other ideas into a new book, provisionally entitled 'Weeds or Wild Nature?'.^[6]

The acid test

Holmgren's development of a rural settlement is perhaps his most significant design and test of his Permaculture principles. The settlement, known as the Fryer's Forest Ecovillage, is near Castlemaine, in Central Victoria, Australia. Central features of the village design are, the integration of domestic forestry with selective thinning for fire-safety (The harvested wood provides energy for domestic wood stoves), and the integration of the Keyline Design system of water storage and transfer with the Village road network and residential home site location. The

water keyline storage system was the main design instrument for the regeneration of a landscape degraded by over 50 years of gold mining.

Despite the claims that permaculture provides sustainable solutions, there is currently no data available on the sustainability of the Fryers Forest settlement. Given the significance of water availability to the overall design, water levels may be one indicator of the success of the project. Due to an extremely long drought, the water levels are now very low. The extent of the drought may not have been possible to anticipate or design for, however this in itself may demonstrate a limitation of small scale designs.

Bibliography

- 1978 Mollison, Bill and David Holmgren. *Permaculture One: A Perennial Agriculture for Human Settlements*. Melbourne: Transworld.
- 1985 *Permaculture in the Bush*. Hepburn, Victoria: Holmgren Design Services.
- 1994 *Trees on the Treeless Plains: Revegetation Manual for Volcanic Landscapes of Central Victoria*. Hepburn, Victoria: Holmgren Design Services.
- 1995 'The Permaculture Movement and Education', in *Goldfields Permaculture and Landcarers*, 3, 14-16.
- 1996 a *Melliodora (Hepburn Permaculture Gardens): Ten Years of Sustainable Living*. Hepburn, Victoria: Holmgren Design Services.
- 1996 b 'Fryers Forest Village', in *Green Connections*, 2.2, 20-21.
- 1997 'Getting Started', in *Green Connections*, 10, 28-31.
- 2002 a *Permaculture: Principles and Pathways Beyond Sustainability*. Hepburn, Victoria: Holmgren Design Services.
- 2002 b *David Holmgren: Collected Writings 1978-2000*. [CD] Hepburn, Victoria: Holmgren Design Services.
- 2005 *Melliodora (Hepburn Permaculture Gardens): A Case Study in Cool Climate Permaculture 1985 - 2005* [eBook] Hepburn, Victoria: Holmgren Design Services.
- 2006 a *Trees on the Treeless Plains: Revegetation Manual for Volcanic Landscapes of Central Victoria*. [eBook] Hepburn, Victoria: Holmgren Design Services.
- 2006 b *David Holmgren: Collected Writings & Presentations 1978 - 2006* [eBook] Hepburn, Victoria: Holmgren Design Services.
- 2009 *Future Scenarios*. White River Junction, VT: Chelsea Green Publishing Company.

References

1. Mulligan and Hill, 2001:203
2. Holmgren, 2002a: xix
3. <http://www.holmgren.com.au/html/OurPlace/ourplace.html> Melliodora, Hepburn

Permaculture Gardens, at Hepburn Springs

4. Holmgren, 1996b
5. Low, 1998; Grayson, 2003
6. Holmgren, 2002a: 265

- Grayson, Russ (2003) 'Permaculture an agent of bio-invasion?'. *The Planet. The journal of Permaculture International Limited*, 6 (Autumn), 10-11.

- Low, Tim (1998) *Feral Future*. Melbourne: Viking Australia.
- Mollison, Bill (1988) *Permaculture: A Designer's Manual*. Tyalgum, NSW: Tagari

Publishing.

- Mulligan, Martin and Stuart Hill (2001) *Ecological Pioneers. A Social History of Australian Thought and Action*. Cambridge: Cambridge

University Press, 202-207.

- Odum, H.T. (1971) *Environment, Power and Society*. New York: John Wiley.
- Odum, H.T. and E.C. Odum (2001) *A Prosperous Way Down: Principles and Policies*.

New York: John Wiley.

- Payne, Steve (2003) 'The Good House Effect'. *The Organic Gardener*. Autumn. Ultimo, NSW: ABC Enterprises, 30-34.

- Smith, Russell (1977) *Tree Crops: A Permanent Agriculture*. Old Greenwich, MA: Devlin-Adair.

- Tane, Hakai (1995) *Ecography. Mapping and Modelling Landscape Ecosystems*. Canberra: The Murray-Darling Basin Commission.

External links

- <http://www.holmgren.com.au/>
- [Peak Oil and Permaculture: David Holmgren Video](#)
- [David Holmgren speaks with GPM's Julian Darley](#)
- [Retrofitting the Suburbs for Sustainability](#)
- [Permaculture principles](#)
- [David Holmgren tells Fran Molloy of Sydney Morning Herald about 'retrofitting the suburbs' for food production](#)