



*Proceedings of the Sixth International Permaculture Conference
September-October 1996, Perth, Western Australia*

© Copyright Permaculture Association of Western Australia Inc. and authors.

The Permaculture House: Principles and Examples of Organic Solar Architecture

Gary Dorn (Australia)

[Conference Report]

The basic ethic of Organic Solar Architecture is the integration of building energy and food systems. The process involves dialogue between the architect and the needs of the client, and development of key concepts – the process evolves holistically. If the client chooses to reflect deeply on all aspects of the project including personal needs etc., there can be great enhancement of the project, and the client's experience.

Gary suggests observation of the chosen site utilising permaculture principles. A particular building technique he favours is Straw Bale Construction; straw is easily available and environmentally ideal, fire retardant, highly insulating, aesthetically pleasing, and inexpensive. Use of recycled materials is suggested. The straw is rendered with lime and sand, or with cement, mud, etc added.

The cost of straw bale construction is approx. Aus\$300 per square metre instead of \$1000 to \$1500 per square metre for a traditional building. It can be constructed by the owner with ease, reducing costs.

There is a Straw Bale Construction Home Page on the Internet, consisting of around 1000 pages. It has been used throughout the world with success in countries such as England, France, Scandinavia, USA, Mexico, New Zealand, Mongolia; and all climates are suitable.

There has been some construction in Australia – some building authorities have had some reservations regarding approval, however these do not seem to be insurmountable.

Aspect and location are crucial, and Gary suggests using models of traditional Mediterranean and Eastern building styles to best work with our Australian climate, rather than the original British type dwellings widespread in Australia. Verandahs and clerestory windows used to channel light and heat in summer and winter placed in the appropriate direction can save energy and expense.

Now that effective solar energy equipment is accessible the building can be entirely sustainable. By building using the permaculture model, the home and user expend far less unnecessary energy.

Garry is known globally as Krakka, after his attendance at the last International Permaculture Conference in Copenhagen (IPC5). He now builds mainly Solar powered straw bale buildings and is beginning to get a reputation of being the permaculture architect. As someone who works only with permaculture clients, he is a must to see. His presentations are humorous, enlightening, full of information and reflect that he really cares about the earth, and positive sustainable living.