

Building with Pallets and other Recycled Waste Materials

by Rob Gourdie, Earthship NZ

Often books about environmentally sustainable design & building techniques are either well meaning geek monologues or green-washed books by celebrity architects that sit on coffee tables, inside opulent McMansions in gated suburbs.

So open the window and let the fresh air in with Mark Fielding's recently published eBook "[Building with Pallets and other Recycled Waste Materials](#)".

Mark Fielding is a New Zealand 'Licensed Building Practitioner' with over 35 years experience, who runs an architectural design business building environmentally sustainable homes. But actually Fielding is clearly much more than that. He is a visionary, a perfectionist, a scientist and a questioner of conventional wisdom. The 146 page pallet building compendium is comprehensive and follows the latest New Zealand building regulations. The global appeal and applicability of this book is clear from the perspective of one who has previously had to comply with codes in the UK as well as NZ.

Fielding brings much needed professional and practical credibility to the recycled/free building sector. Indeed the first time I ever met the author, he regaled me with his pallet building solution and showed me pictures of him measuring displacement under load of his unique pallet-joining solution. 'This is no mung bean-eating dreamer!' I thought to myself (with some relief; whilst aware that the world still needs it contemplative consumers of *vigna radiata* seeds). The desire of Fielding; to produce a book complete with pages of A3 technical drawings that you could hand to any builder, is because he completely subscribes to his alternative building solution not just having good 'green' credentials, but also providing a practical and affordable housing solution. Fielding's warmth and genuine concern is evident when he talks of the travesty of families sleeping in unsafe and unhealthy houses, with all the social issues that lead from it. With a conventional building sector that is all about profit margins, whilst thousands of discarded pallets and other waste lies about, free for the taking; surely there must be something that can be done? With that in mind, this book is as much a subtle manifesto as it is an instruction manual.



Fielding measuring displacement under load.

The book tackles building an achievable single room dwelling that could be used as a sleepout, office or studio. By keeping the design under 10m² it legally avoids the need for planning permission in most countries. The design itself meets the performance requirements of the NZ building code and Fielding is seeking a class approval for all instances of the design in New Zealand in due course (making it plain sailing for all who follow in his wake), allowing more elaborate designs and further uses of the dwellings to follow. His explanation of statutory requirements is refreshingly simple to understand and he does not see the building code as the 'enemy', urging renegade builders not to cut corners on his design even if they building 'under the radar'.

Followed to the letter, it equips the eco-builder with not just the knowledge, but the resources and references needed to complete the journey with a (NZ) legal, functional and elegant dwelling. There are no 'wait for the next volume in the series' or 'to properly understand it come on our workshop' scam going on here. Fielding has poured everything you need into one book, including links to suppliers of recommended components. Even covering the merits of a dozen

beers for keeping your supplier of free building materials on side!
He has promised to keep improving and expanding his pallet-building catalogue and subsequent publications will hopefully follow this one.

It can be dangerous to assert that a book covers 'everything you need to know', but with this book running the breadth of subjects from sourcing materials and fastenings, through to clay paints, interior decorating and the physics of dynamic pressure - I would wager the claim. Indeed its a lot to take in and the novice builder might quickly find themselves overwhelmed and thinking there is too much to stay on top of. Despair not. As a closet experimenter of pallet building myself, anyone with a few basic tools who is prepared to assist local businesses with their stacks of abandoned pallets, can have lots of fun; this book puts good design and building practice within your grasp and saves a lot of swearing (aka trial & error).

The use of pallets as a contemporary building material isn't without its critics; pallets are typically heat treated and not designed for handling damp conditions or infestation. However Fielding addresses this and with appropriate weatherproof cladding and good ground clearance he believes it is not a barrier to confidently using this abundant free resource. [His first prototype included pre-positioned moisture probes to feed his scientific need for empirical data]. It is also fair to say that preparing pallets for use as modular walls, is slightly fiddly. However this is an economic equation where access to conventional building materials determines the level of effort you are prepared to put into free materials to convert them for your use. I admit I have it good, but I am equally confident that Mark Fielding with his reluctance for the status quo, will continue to bring his fresh thinking to his designs.

At US\$19.95 this eBook is a great investment and a subscription to a new way of housing the planet.