

Sunday, 13 June 2010

Some Thoughts on Earthships

By Chillumjon (a blogger in the UK)

I have just done a three day course on building Earthships at the Brighton Earthship.

For those unfamiliar with Earthships, they are the brainchild of American Architect, Michael Reynolds; the author of several books on the Earthship concept, and star of the recent film 'Garbage Warrior'. They are designed to be self-sufficient and off grid, passive solar homes that maintain constant temperature year round without bills, they are made from reclaimed materials (such as Earth Rammed Tyres and bottle walls) and harvest their own water supply and solar power and can be adaptable to any climate on Earth, apparently. They are therefore some kind of super-house that you'd have to be a complete idiot to not want! They really are brilliant. It all sounds too good to be true, and yet with a little understanding of the principles and systems with which they are designed it seems really do-able, especially as more and more people seem to be living in them.

What I have learned over the last few days is that things are not that simple. The devil is in the detail and despite the ready availability of blueprints and plans, as well as the possibility of hiring the inventors services on these builds; its just not there yet. The idea needs to be developed further; lots further.

The Brighton Earthship was designed by Michael Reynolds himself and it is an incredible structure. It is beautiful to look at, its location is outstanding and the people involved in the project are fantastic. It is well worth a visit and compared to many other buildings its eco-credentials look pretty damn good but it was not by any means a cheap build and mistakes have been made. That in itself is no bad thing because lessons have been learned and continue to be.

The failure to insulate under the floor (on Reynolds insistence that it was unnecessary) was the result of the success of this strategy in New Mexico. Unfortunately temperature analysis of the Brighton Earthship has demonstrated that the lower ground temperatures in England cause an uninsulated floor to act like a bottomless drain on the internal heat rather than a store for it. The team have learned from this, but it is a mistake that could have been avoided had other advice been heeded.

Hindsight is a wonderful thing but what struck me was that a lot of people worked very hard and contributed to this project which for Reynolds was an experiment that he got paid for and left behind; one in which he ignored advice from local architects who were familiar with the climate. His struggles to get permission to build experimental houses in the US have no doubt forced him to rigidify his thinking and stick to his guns but the result is that when one of his Earthships does not work or disagrees with his assesment of something, he is all to quick, it seems, to dismiss the client as 'bitching and moaning' for not having realised how experimental their home would be,

or just not seeing things as clearly as him. I had got the distinct impression from Earthship.org that these buildings were experimental in the sense of non-conventional (but reliable) rather than in the sense of 'could blow up in your face' (though not literally! - please don't sue, Mike, I'm a huge fan!). All credit to Mike Reynolds; these homes perform well in New Mexico and are a truly remarkable work of genius, but in Europe there is an enormous gamble in building an Earthship and there will continue to be until there have been more experiments and mistakes.

Any sustainable housing is bound to be experimental and this is because we don't know how to do it. we're going to make mistakes as we learn but learn we will, as long as we can keep an open mind and listen to other people, rather than dogmatically sticking to our own view we can evolve much faster. There are now European architects taking an interest in the Earthship concept and developing it for use in Northern European climates. Mike Reynolds is on a mission. I guess his failure to heed the warnings of others is because in his haste to save the planet he doesn't feel there is time for him to mess around with checking whether or not something will work in one place just because it did in another. His vision has to be bigger than that, there is a whole planet to save after all and because of the urgency of this mission as he sees it he doesn't perhaps consider the personal impact his mistakes can have. but they need to practice a bit too and learn more about the way these remarkable buildings work. Many Earthship builds in Europe are taking the form of community centers rather than homes and so the research goes on without so many people feeling like their self-build was a disaster. The technology isn't ready yet though. Its not a cheap alternative home (about £1200 sq metre after buying land) and despite its many good qualities it is a massive gamble and not always easy to put mistakes right.

I guess i went to the course thinking i could have an affordable home this way and be set up for life (this is what an Earthship is meant to be) and i came away realising that there is a long way to go before that is assured. Rather than rushing out to get my own land and start ramming tyres, I think it is far better to be cautious. A better approach for anyone interested is to get involved in projects such as those community builds. Its far better to learn by volunteering on a EU funded project or similar, before you spend £250,000 of your own money on a home before you know if its going to work.

Of course no experiment is a failure if you learn from it; so in that sense the Brighton Earthship has been a resounding success. Architects are looking at it and working out how to make it work better in our climate and they are going to get better at designing them. What this will require is the work of many minds, working well together for shared goals; not a lone dogmatic voice in the wilderness, who has had to become deaf to criticism. Earthships can be bought prepacked from Earthship Bioteecture and assembled by their crack teams, but what is far more important is that the design is adapted. We don't need a divine revelation from somewhere in the desert. We need to get together and, inspired by his example, work out how it can be done better. The world does not need one Mike Reynolds. It needs thousands *like* him, who are better at listening to dissenting voices and adapting to their concerns, because the task with which Earthshippers worldwide are faced can only be easier with more people giving it their best. Architects who can 'play well with others' will not dismiss criticism as whining and will find better ways of doing things all the time. Not simply pretend that there are no problems and encourage people to risk everything they can afford for something that money cannot yet buy.

These passive solar homes may be our last best hope as a species but it is naive to believe that one man has all the answers. People who have stuck their neck out to develop the next generation of euro-earthships are paving the way for those of us who dream of a comfortable sustainable life off-grid and they are going to need a lot of help ramming those tyres. These projects offer chances for European earthshippers to learn, where the Taos project has already packaged it before its ready for general release. My own opinion is that by helping out on these community earthships we are going to learn a lot of lessons that will make the prospect of a cheap self-built earthship much less of a gamble when the kinks have been ironed out and the power of these projects to bring people together is truly inspiring in this individualised age. Get involved; but don't build your own just yet; unless you can afford to experiment. By helping others you learn the skills you need, for free. You create something that enhances the locality on many levels and you provide 'example' buildings that will teach thousands of others both 'how to do it' and 'how it can be done better' at no expense to yourself other than time. A first time builder will save themselves hundreds of thousands of pounds through merely giving a little time and being patient enough to wait till a few more builds have tried and failed.

Evolution does require mistakes, as Reynolds claims, but his mistakes have been paid for by others in some cases. By coming together to work on these projects we spread the cost of failure and share the lessons so that instead of securing our own substandard Earthship and dropping off the map, we instead do as Jerry Garcia once suggested and 'think about finding ways of moving the whole human race forward a step or two' rather than greedily looking out for our own place in the sun. The advantage of waiting and helping out on others building sites is that your home, when you eventually get around to it, ends up being much better for being built on the successes *and* failures of the projects currently underway. The Earthship concept still has a way to go in many climates and it is not as reliable as some anecdotal evidence would suggest. Unless you can afford to risk building a solar house that might not work, just wait a while and see how other Earthship builds are progressing by joining in and getting your hands dirty. There are a lot of very bright minds working on developing sustainable technologies and by getting involved you are going to be so much better off than trying to buy a home and ending up paying for a failed experiment.