

Making Ripples

Building a Dream: Earthbag Homes

by Amanda Bancroft

Admit it – at some point, you fantasized about living in a sandcastle you made on the beach as a kid. Or maybe you created a snow fortress and huddled inside, pretending to survive the elements. Perhaps you dream of building a home that’s not only fantastical, but functional! There are many kinds of homes, both fictional and real, which live in harmony with nature while fully supporting human life – no freezing winters, no suffocating summers.

I’ve seen elaborate treehouses, straw bale homes, earth ships made of tires and recycled bottles, cob castles, dome homes, hobbit holes and yurts. From this buffet of home building selections, my husband and I chose the earthbag model.

The *what* model? Earthbag – discarded burlap, polypropylene, or other sturdy bags filled with locally found materials (earth, sand, etc) and stacked on top of each other to form the walls, doorways, and windows. The bags are held together using barbed wire, and the entire structure is covered with plaster or another type of earthen, low-cost material. The home we plan to build will be 678 square feet, which includes a loft above the ground floor.

Once finished, our earthbag home (with its design by architect Owen Geiger) will have been inspired by hobbit holes with their rounded doors and windows, the Berenstain Bears with their good use of compact vertical space, The Swiss Family Robinson with their crafty engineering, and The Secret World of Arrietty with their resourceful and creative use of found objects. Certainly a fantastical dream, but are earthbag homes practical and safe?

We wanted something reliable, cheap, and easy to build with our own hands. Earthbag structures can be built for around \$10,000 in just a few months, depending on the design and how many people are building it. We didn’t want something experimental, though there are plenty of opportunities to experiment with earthbag building. We just wanted a home that would take care of us and the planet, too. Since earthbags have been used by the military, by NASA, and by humanitarian workers protecting refugees of natural disasters, the earthbag model is recognized for its safety and strength. You don’t need to have special skills to learn how to build an earthbag home.

These homes are resistant to natural disasters like fire, tornadoes, flooding, and earthquakes. As a bonus, an earthbag house is designed to self-regulate internal temperatures to be comfortable even in extreme heat, and there is no utility bill if we utilize alternative energies and passive solar. These structures won’t attract pests, and are non-toxic. By following the recommended guidelines for building in our climate (adding a roof to protect against rain), as well as features that make these homes disaster resistant – like round or polygonal shapes – an earthbag home is almost indestructible. It alleviates at least *some* of the worries of living with climate change and unpredictable weather!

Ripples is a blog connecting people to resources on sustainable living while chronicling their off-grid journey and supporting the work of non-profit organizations. Read more on this topic and others at www.RipplesBlog.org.