

KUNI Radio Series “Unplugged”
Show #43: Earth Homes

From the Center for Energy & Environmental Education at the University of Northern Iowa, this is Pat Higby with a series of programs on Iowa Public Radio KUNI to help you save energy.

If you're a baby-boomer, you are probably having feelings of déjà vu about the current energy crisis. Although you **are** reaching an age where your mind could begin to wander, that isn't the case on this topic! We have been down this road before, back in the seventies. Then, as now, the price of energy skyrocketed, and people were looking for new ways to save money on their utility bills.

Now, in the next millennium, we again need to reduce our energy costs. Fortunately, we don't have to re-invent the wheel. We can take advantage of technologies that have been refined over the last twenty-five years. Earth-sheltered homes are one example of this. The idea is pretty simple, you want to take advantage of the 50 to 55 degree Fahrenheit temperature of the earth that is four feet below the surface. You don't have to bury the whole house, but you do need enough of it in contact with the earth to moderate the indoor temperature. You must also insulate the exposed portion, and use high quality windows and window coverings.

Some of those early homes had a few problems, many of which were related to poor air circulation. These included moisture, mold, and a dark, cave-like ambience. Technologies such as tubular skylights and air exchangers have overcome many of these troubles. Earth sheltered home designers also learned from experience how much of the home must be buried, and how much can be exposed, resulting in Earth Homes with more windows and natural lighting.

During the National Solar Tour on October 7th a Terra-Dome Home will be open for you to visit in Cedar Falls. It was built in 1980, and you can ask the owner questions about his experiences living there for the past 25 years. His home features a very open floor plan made possible by a modular construction using vertical walls and a domed ceiling. It has an exposed south side that also allows passive solar heating.

Information about this site and others in Iowa are available on the American Solar Energy Society website at www.nationalsolartour.org. If you forget the website address, just type “National Solar Tour” into your search engine, and it will find it for you! Or you can call me at 319-273-6012 for more information.

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