



Our Underground Home

We have lived and worked in our underground home for over eleven years. Our home is a work in progress, like most people's homes. There is always a "to do" list. We said we would put our home on our website when it was done. The flexibility of this type of design means that our home changes as our needs change. It also means that it will never be done.

We offer the following photos and descriptions of life underground. It is our hope that we will one day be asked to design other underground homes. It's such a wonderful way to live.

Summer



Northwest



South

Winter



Northwest



South

Our home's story: Ray and GL Wheeler designed and built the home in the late 1970s in the midst of the energy crisis. Ray was an innovative industrial designer who had worked for IBM, General Electric and Honeywell before throwing over corporate life to work on his own. GL, both student and teacher of graphic arts at Rhode Island School of Design, shared her husband's love of tinkering. She loved working with finishes and color. They sent their concept to Malcolm Wells for his advice. As is says on his website: "Mac is arguably the father of modern earth-sheltered architecture. He did more to promote gentle building, energy conservation, and treading lightly on this earth, than any other proponent of geotecture, terratecture, or whatever you want to call earth-sheltered architecture." Ray produced the drawings for our home which he called the Lazy-A. He sold plans in a variety of sizes in the Whole Earth Catalogue. Ray passed away in the 1990s. GL sold the house to us in 1999. It had been too much for her to keep up in her later years and much was needed. We renovated 80% of the house and have chipped away at the last 20% ever since, changing it as desired.

People often assume that underground houses are dark. In truth, we have more light than most above ground homes. Our home is triangular with 110' of south-facing sliding doors as the hypotenuse. Our living, dining and bedroom spaces are all on the south side. Each bedroom has 15' of glass doors which face 56 acres of private woodlands. Ray, the son of a Chatham fisherman, designed a solar shade system using pipes holding a brightly colored sail to cut out the summer sun.



Our main entrance and garage doors are on the northwest side of the house. Most of the west wall is bermed, adored with our terraced flower beds which hold my favorite flowers, roses and daisies. Our roof, north and east walls are completely underground. We have an 8' x 32' clerestory which brings light into our entry, breakfast nook, kitchen and David's office. The only spaces without natural light are our bathrooms, wine making, workout, pantry, laundry, storage, and mechanical spaces. We had a great dark room before it was taken over for wine and beer making.



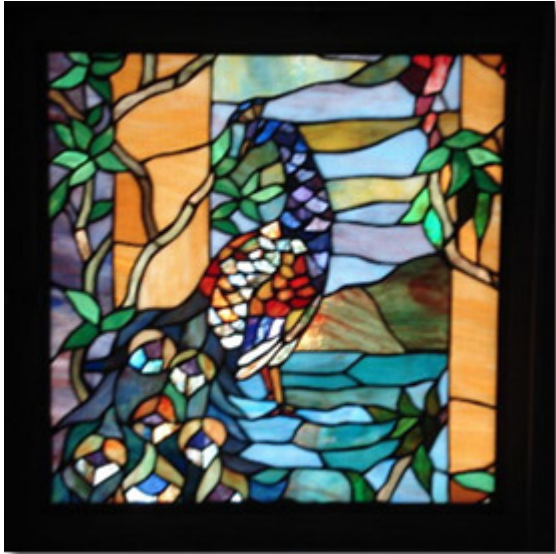
front berm



berm wall and den window

We have one window. This pretty stained glass awning window brings light and fresh air into our den.

One reason that our home will never be done is the infinite flexibility of a home built of steel and concrete. It was originally designed as a home for two hard-working retired people. We moved in when our sons were 7 and 11. They were too young to be completely solo with the parents on the opposite side of the house. They felt too old to share. We designed a play room and a shared bedroom with a partial height divider to provide the opportunity for whispered night time conversations while providing some privacy. They wanted their own spaces in their teen years. We created two private bedrooms and a shared den complete with a rock climbing wall. We added the stained glass window to bring in light and air while maintaining the darker environment suited to watching movies and playing video games. The stained glass window also provides privacy and hides a sometimes messy space from public view.



There so many advantages to underground living that we can never list them all. Our home isn't seen from the street, which gives us privacy. The ambient temperature underground is 55 degrees which means that we start from a warmer temperature during the heating season and maintain a cooler temperature in the summer. Our home will be 74 degrees on a sunny 10 degree winter day. We can open sliders and walk around in tee shirts. Visitors try to leave without their coats. When it's 90 degrees, we stay at 72 by closing our doors in the early morning. Our garage is underground except for the side with the doors. It is over sized. With the insulating properties of the earth around it, it's warm enough to use as both wine cellar and work shop.

We can paint the entire exterior of our home in three hours, including clean up, though I confess that window washing is a bear with 33 glass panels! That's 66 surfaces. We replaced all of the sliders in 2008 and completely reinsulated the south wall.

Renovations



crew



south side open



doors arrive



Duke supervises construction

We have wing walls that wrap in on the south side which provide a gentler climate. We planted a fig tree there that is descended from the family tree brought from Italy in the 1940s.

We have close contact with nature. A moose once wandered around to the south side and jumped a foot when saw us eating breakfast. Deer walk on our house to get to the apple tree. The porcupine does too, much to our dismay. We've seen foxes, coyote, turkeys, an eagle and lots of birds.

Underground homes are easy to heat, easy to cool, feel sheltered, quiet, strengthen the connection with outdoors and tread lightly on the Earth.

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Archived 03/23/2019

https://web.archive.org/web/20190323113405/http://www.windyhillassociates.com/underground_home.htm