

"Expanding the Human Economy through Off-Planet Resources"

MOON MINERS' MANIFESTO



Forward to the TransOrbital Edition of MMM #1, December, 1986

There follows the introductory and only essay article in the first issue of Moon Miners Manifesto, December 1986, shortly after the founding in Milwaukee of what was then the Milwaukee Lunar Reclamation Society L5, a chapter of the L5 Society advocating settlements in space after the inspiration of Gerard K. O'Neill.

This piece is about the historical roots of the inspiration behind MMM. Herein lies the personal "eureka" that gave birth to the brainstorming chain of thought that continues throughout many articles in MMM through the present. It explains the third "M", "the Manifesto". For while many readers refer to MMM simply as "Moon Miners", to Peter Kokh, the emphasis has always been on the third M. To him, this newsletter is "The Manifesto." - Peter Kokh, March 9, 2004

"M" IS FOR "MOLE"

by Peter Kokh < KokhMMM@aol.com >

"M" is for "mole", which is what many people, even some prominent space advocates, think settlers of the Moon are going to be. Yes, lunar habitats and facilities will be covered by some 2-4 meters (6-13 feet) of lunar soil or "regolith." But, while such a shielding overburden is necessary for long-term protection from cosmic rays, solar flare outbursts, and the sun's ultraviolet rays, this does not mean that we "moon miners" can't take the glory and warmth of sunshine down below with us!

A year ago last Spring [May, 1985], following up on an ad in The Milwaukee Journal's Sunday Home Section, I went to see a marvelous place called "Terra Luxe" [Earth Light] in the Holy Hill area about twenty miles northwest of Milwaukee*. Here, architect-builder Gerald Keller (German for "cellar") had built a most unusual earth-sheltered or underground home.

Run-of-the-mill underground homes are covered by earth above and to the west, the north, and the east, while being open and exposed to the sun along the south through a long window wall. But Mr. Keller's large home (some 8,000 square feet) was totally underground except for the north-facing garage door. Yet the house was absolutely awash in sunlight, more so than any conventional above-ground house I had ever seen. Sunlight poured in through yard wide circular shafts spaced periodically through main room ceilings. These shafts were tiled with one inch wide mirror strips. Above on the surface, an angled cowl [1], also mirrored on the inside, followed the sun across the sky from sunup to sundown at the bidding of a computer program named "George" (undoubtedly of "let-George-do-it" fame).

And, even more amazingly, through an ingenious application of the periscope principle on the scale of picture windows, in every direction you could look straight ahead out onto the surrounding countryside, even though you were eight feet underground. I felt far less "shut in" than I do in my own Milwaukee bungalow.

Terra Luxe was built as an idea house and my tour cost \$4. This home would make an ideal group field trip tour, but unfortunately, some visitor found it too irresistible, and it is now privately owned.

Of course, Mr. Keller's ingenious ideas to bring down below both sunshine and view, would have to be adapted to lunar building conditions. But I have no doubt that they could be. Mr. Keller told me that he had drawn up plans and blueprints for a whole city using his principles. Someday, I'd like to see them. If the streets and byways of his city were similarly built*** in a sun-drenched pressurized underground conduit, so one could leave one's lunar home and go anywhere throughout the settlement without putting on a spacesuit, why, it would be better than living in the Milwaukee I love! - Peter Kokh, November, 1986.

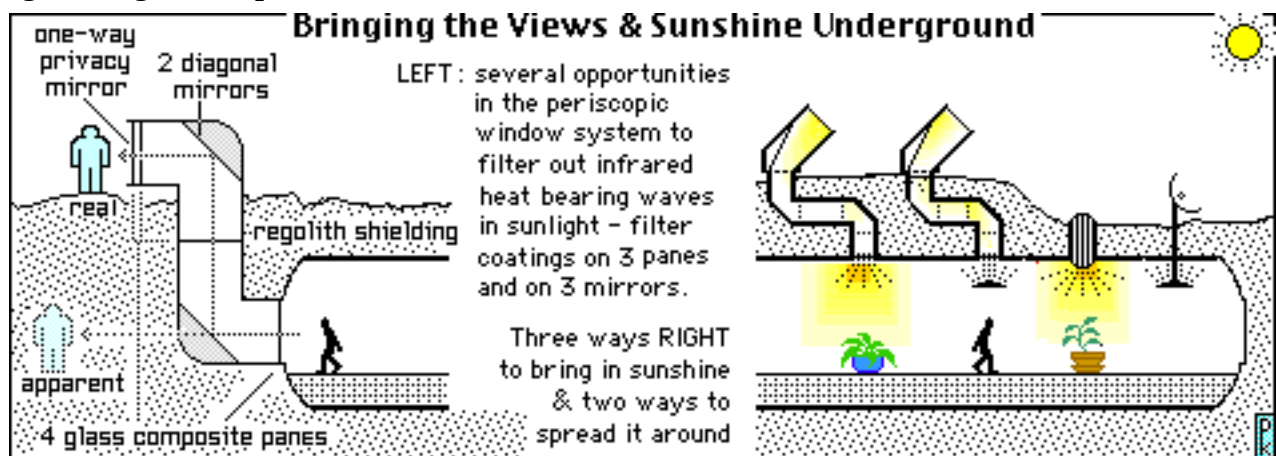
Photo of Exterior of Terra Luxe



Photo taken on the morning of October 15, 2002, more than 17 years later. Visible are the exterior panes of a trio of periscopic picture windows, and several modified skylights. The originals had mirrored cowls which followed the sun across the sky, resetting their position each night. More than eight feet of soil covers the home.

[1] There may have been subsequent problems either with the "heliostat" seals, the mechanical apparatus, or the computer controls, as these sun-following mirrored hoods have long since been replaced by fixed bubble dome covers.

Imagineering in the spirit of Terra Luxe



MMM serves the members of the Lunar Reclamation Society (NSS-Milwaukee), several other chapters of the National Space Society (NSS) and the Moon Society.