

Sun fun:

Upland Hills experiments with solar energy projects

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After the oil runs out and the last chunk of coal gets burned, the place to be is the Upland Hills Environmental Awareness Center in Oxford, Mich.

If its workers are right, Upland Hills will continue humming along even if the lights start to dim for the rest of us.

At a lecture on energy and self sufficiency, Phil Moore of the Awareness Center said, "Technology alone won't help us out of the energy crisis. It will take a whole educational process to show people the delicate web of life we live in."

Moore spoke at a public lecture series on the topic, "Is Man an Endangered Species?" Since then, Moore has been busy preaching-through-participating his doctrine of energy awareness.

Moore said the practice is spreading among those attending the Upland Hills workshops, and it could soon spread to local businesses. Solar collectors are marketed to a limited extent, while at places like Upland Hills the research continues.

A GEODESIC dome classroom at the Upland Hills Farm School, located near the Awareness Center, was built by volunteer labor.

"It has a natural finish," Moore said, "which is very difficult to get on a dome. Most are finished in fiberglass, but ours is finished in cedar with four inches of urethane foam underneath, with air spaces in between. The dome saves energy through reduction of heat loss."

Upland Hills looks like a combination science fiction movie set and gigantic Tinker Toy set. Some projects are completed, some are waiting. Odds and ends of machine parts, bits

business

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(F1D)

of wood and metal, and lots of glass characterize the center.

"We have a solar still to make our own distilled water and this way we don't have to buy it. The solar still is always working. The pan is painted black and heats up, evaporating water right out of the air. It rises to the glass, then condenses to run down into a plastic jug."

Moore made the solar still himself, but children and volunteer weekend help combined on a solar cooker project. "We make grilled cheese sandwiches by wrapping the bread and cheese in tin foil and placing it right on the collector. We run soup through a pipe to heat it up."

The weekend mad scientists a la entrepreneurs are also working on something called a darwin hoop, or a vertical axis wind machine. Actually, it's a modified windmill which uses cast-off, vertically-cut oil drums to collect the wind. A generator on the bottom catches the energy, and less is lost than in conventional windmills that have the generator at the top.

THE UPLAND Hills school has so many collectors that on a bright and sunny day recently they had to be covered. "We really don't need all that energy," Moore said.

Like any good business, Upland Hills keeps its labor costs low. "A lot of people call with questions about our

center," Moore said. "We invite them out to take part. They can get here any time between 8 a.m. and 5 p.m. and volunteer their time. And we'll take them on a tour of the grounds."

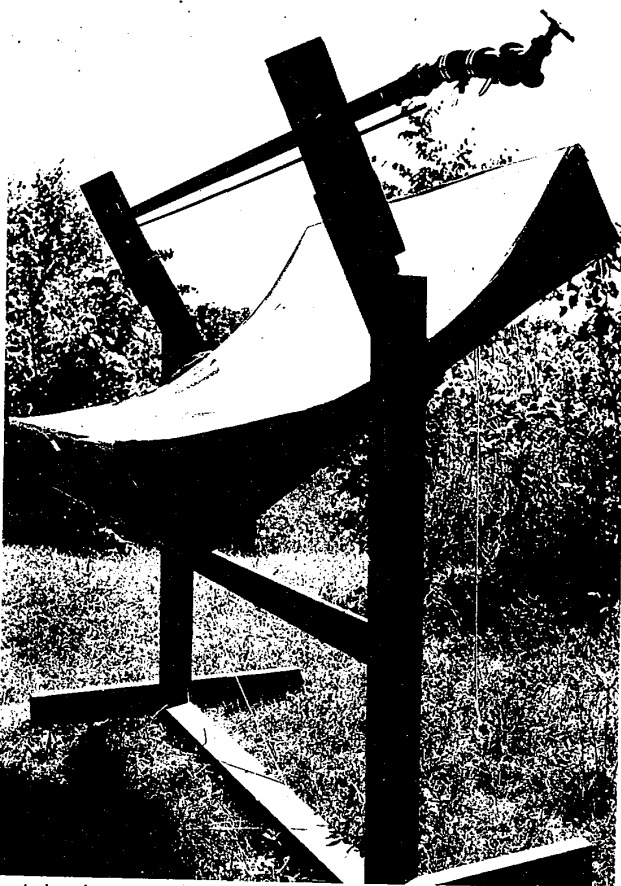
The Awareness Center itself is still under construction, built by volunteers who have learned the ropes from Upland Hills in the past. It may be finished as early as October.

Upland Hills hosts weekend workshops with admission \$20 per workshop. They continue through the end of August on topics such as windmill construction, energy storage from wind power, wood heating, care and use of fireplaces, home insulation, solar energy and even tips on construction of an energy-efficient home.

A three-weekend series on solar energy can be taken individually or combined for a \$35 fee. Weekend guests are invited to camp out on the grounds. The workshops are limited to 40 persons.

The school and Awareness Center are at 2875 Indian Lake Road in Oxford. The telephone number is 628-5116.

"Our information is free to our neighbors," Moore said. "A lot of people drop by to see what we've been up to, and we exchange ideas. Some people are really starting to do some serious work."



A solar cooker prepares grilled cheese sandwiches and even heats soup for Upland Hills energy planners.

Lampers take work seriously

Putting on a right shade

By SUSAN TAUBER

Lamp shades are unobtrusive parts of a room's decor. As long as they fit the lamp properly, are the right size and color, no one really notices them. But when something about the shade isn't right, it's as obvious as a crooked picture on a wall.

With fewer stores stocking the wide variety of lamp shades, it's more difficult for consumers to buy what they want when original lamp shades become shabby. And because of the many variations, they have just as hard a time deciding which lamp shade to buy.

Tim Beuthien and Andre Peneau are in business to help people get the right shades. Beuthien, owner and operator of Village Lamp Shop, and his apprentice Peneau, are lamp connoisseurs. They know the importance of matching the right shade with a lamp. If the right shade isn't available, they'll make one for their customer.

"There are three popular styles of lamp shades right now," said Beuthien. "We buy hand sewn washable shades from New York and make the hard back and vinyl pleated lamp shades in standard sizes. But for the person who wants something that isn't a standard style or size, we'll make that too."

Beuthien has been in the lamp business for 11 years. He was one of the owners of Lampcraft in Royal Oak. Village Lamp Shop at 135 Romeo, Rochester, was a branch store.

After managing the Detroit factory where lamp shades were made, he sold out his share of the business to his partner and ventured on his own in Rochester.

In the shop, part of which is the original old building, Beuthien keeps the "who's who" of lamp shades.

"We don't have the less expensive shades made of styrene. We use dextron cones, which are flame retardant, and make trimmings out of matching fabric, not out of binding material like the cheaper ones have. We also sew the trim onto the shade instead of gluing it. You can look for this by pulling back the frame and looking for hand stitches."

A former employee of Ford tractor finance department, Beuthien is teaching Peneau, a former school bus driver, how to make shades.

"We can make anything," Beuthien said. "We make shades for lamp shops as well as our own place. We can recover, remake warped shades and make our own frames if we have to."

Though the technique of making a shade doesn't seem difficult, there's more to it than meets the eye.

THE FIRST STEP is laying out the material onto a pattern. If the shade is

a standard size, the pattern is hanging on a clothes rack in a back room. Otherwise, Peneau has to custom make a pattern. Then he cuts the fabric, rolls it onto the frame and trims it.

"There's a lot to learn about it," explained Peneau.

Each fabric, from special backed linen ready to be cut to fabric the customer brings in that must be laminated, has its own characteristics. Each shade requires a different technique.

But before the one-man production line starts, the men and the customer have to decide on the shape, size, color, amount of light the shade will reveal and the type of fitting required.

"Most people don't know how to suit a shade to a lamp," Beuthien said. "You have to consider the diameter of the top and bottom of the shade, its height, the way the washer fits on the lamp and the use of the lamp. If it's a reading lamp, you'll want the shade to let through more light than just a lamp to light a room."

"We tell customers to bring their lamps with them. We'll either make a pattern for a new shade from the old one or suggest a different shade."

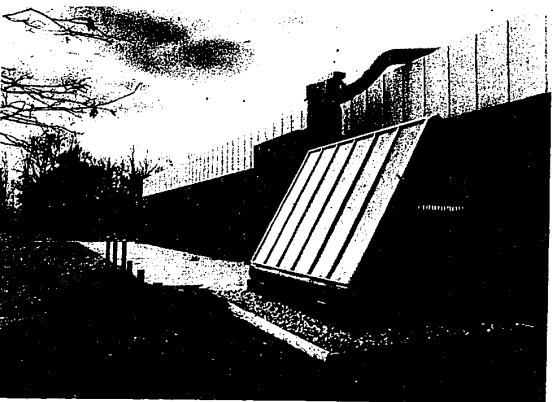
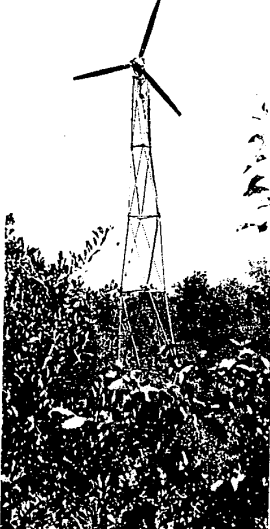
"We can tell when a shade looks right or wrong," Beuthien added. "If more than one shade suits a lamp, then we leave the final decision up to the customer."



Andre Peneau believes it's important to match a lamp with the right shade. (Staff photo by Doug Bauman)



Solar collector panels (above) and a wind tower (right) gather energy in Oxford.



Not all work is experimental. This commercially produced solar collector stands on the Macomb County Community College campus in Warren.