

empires, more white frontiersmen "went native" than Indians accepted white ways. But it is rare indeed to find a highly educated, cultivated man with Neihardt's talent as a teacher who would become a Sioux—after living among the Omaha just after the turn of this century—and learn the Siouxan truths, and then teach them to university students.

And it was a happy coincidence, to say the least, when a tolerant and foresighted University of Missouri President, Elmer Ellis, set his sights on Neihardt as his university's Poet in Residence, and persisted until he wooed Neihardt away from the Bureau of Indian Affairs and into the academic world which Neihardt had once sworn he would never accept. "You can't be a teacher and a writer, too," Neihardt once told me. "This is contrary to current beliefs, but most of my ideas are against the current of contemporary opinion. When I came to Columbia, I knew that I wouldn't get any writing done." He had finished *When the Tree Flowered*; the manuscript only had to be polished to meet a publisher's deadline date. His next published poem, after years of self-imposed poetic silence, was a contribution to *The Poetry Bag*, fully a year after his retirement from MU in 1965.

Neihardt was a pragmatic mystic, one of those paradoxical men who, living by the pen, are able to save money, invest wisely in gems, books, horses, property, so that they can afford to write well what they wish, without the admonition of a hunger-pinch.

How did I come to know this man? One day,

after I transferred to Columbia from another college, hobbling about—a cracked kneecap was my souvenir from Fort Leonard Wood and my passport to the academic maze—I chanced to see an afternoon televised talk show. This was in the fall of 1958, when Neihardt was doing a series of public television appearances as part of an experiment in televiewing education. I knew instantly that I had to meet this man who spoke of men like old Hugh Glass with his mangled leg, crawling across the wilderness, like one who knew the torment of that crawl from personal experience, who spoke of history which was alive and singing in the wind, not Carlyle's "dryasdust."

It took a while. I watched his televised courses every chance I got. I went to hear his public lectures—he lectured on every subject from Indians and frontier literature to ESP—and finally, a year later, I squeezed into a packed Epic America auditorium. Before that semester was over, I had battered on the door of his patience until he let me learn more than in the classroom. In the old greasy-spoon restaurant which used to be across from the rear doors of Jesse Hall, he and I would eat thick stew and converse; that summer, I would drive out to Skyrim Farm and learn from long hours of conversation. Wherever my wanderings took me after that, to teaching jobs in Arizona, to other jobs elsewhere, I would always come back to touch home base at Skyrim, or write long letters which he always answered.

In 1961, I became a member of Neihardt's groups of parapsychological experimenters who

ran a long series of tests for telekinetic and psychokinetic evidence. These experiments Neihardt shared with his friend, Dr. Joseph Banks Rhine of the F.R.N.M. at Duke University. I have described them in my book about Neihardt, *Luminous Sanity*.

Neihardt had a zest for living, a zest which drove him to live the epic which he wrote, which made it necessary for him to retrace the route of the fur trappers down the Missouri as he describes this glorious adventure in *The River and I*, to explore on foot the badlands through which Hugh Glass crawled, to live with Indians who, as youngsters, had been present at the death of Custer and the massacre at Wounded Knee, "where a dream of peace and brotherhood lay bloody in the snow." He communicated this zest and joy in living to his students and his disciples.

But his zest for living included a zest for dying. "I look upon death as a glorious adventure," he said a year ago, but years before, he sang:

*"Seek not for me within the tomb;
You shall not find me in the clay!
I pierce a little wall of gloom
To mingle with the Day!"*

*I brothered with the things that pass;
Poor giddy Joy and puckered Grief;
I go to brother with the Grass
And with the sunning Leaf. . .
My God and I shall interknit
As rain and Ocean, breath and Air;
And O, the luring thought of it
Is prayer!"* □

Three Mizzou Profs Propose Building Sun-Wind Converters To Combat Energy Crisis

By JOSEPH J. MARKS

To meet the energy crisis, get your own private power supply.

And put your money on those "limitless" power sources: sun and wind.

That's the course being followed by three University of Missouri-Columbia scientists. If their efforts go as well as expected, you'll be able to buy your own supplementary energy system—a sun-wind energy converter—in four to five years!

Dr. Walter Meyer, professor and chairman of nuclear engineering, and Dr. Aly Mahmoud and Dr. Carmelo Calabrese, both professors of electrical engineering, are confident they can build the energy converter. Its basic components already exist. It's just a matter of putting them together.

To build an experimental model, the scientists will need about two years and \$125,000 (which they first requested from the National Science Foundation February 1973).

Once a model is built, a manufacturer could mass produce the unit, bringing costs down to \$2,000 to \$3,000 per home.

Here's how the supplementary energy system will work:

Atop your house will be a wind converter with a propeller driven generator. It will be about as big as a good sized TV antenna (5 to 10 feet in diameter) and hopefully, will supply 70 percent or more of the home energy you'll need. (Wind is an inexpensive energy source.)

On the sides of the roof will be two skylight-like panels, each about the size of a desk top. They will contain silicon cells which convert the solar energy into electrical energy.

Electric cables from wind, solar energy units, and the public utility will be interconnected via the electronic brain (more about that later). These cables will run to the basement into large storage cells (like automobile batteries).

The storage batteries, about the size of two file cabinets, could cost about \$700 to \$800. That expense will be in addition to the cost of the energy converters, but the batteries should last 7 to 8 years. Once charged, they could give your home enough power for two weeks, even if the public utility should shut down and there's no sun or wind during the entire time.

There will be an inverter to convert DC (direct current) to AC (alternating current) near the battery. The battery produces DC current, while everything in and around the house—assuming it operates as it does today—runs on AC.

Somewhere in the house will be an electronic control device—a "brain" that will automatically control the amount of power coming into the house, distribute it throughout the house, and send the excess to the utility company or to the neighbors who need it. This "brain" might also be programmed so that you can tell it which part of the house should be turned on first when power comes in and which should be turned off last in case of a shortage.

When the University of Missouri-Columbia scientists set out to develop the supplementary energy system, they recognized there was no single solution to the energy crisis. They wanted to make as much use as possible of energy sources which would have an endless supply (sun and wind) and combine them with a familiar source (a utility company). Their idea is to develop and build a system that will supplement the power now provided by utility companies without placing total faith in any one source of energy.

Meyer is primarily interested in the sun as an

energy source and sees the converter's main utility as supplementing the power we are now receiving from oil, gas, coal, and nuclear plants.

Calabrese likes the converter idea because energy would be generated "right at the home itself."

And Mahmoud, who is directing the research project and who has already patented some of the solid state devices used to make up the electronic brain, sees the project as "a challenge" and a chance to involve graduate students in "something that will work to meet society's needs."

As you learn about the supplementary energy system, you can almost picture hundreds of thousands of people flocking to buy one. It would provide a much needed energy source. It wouldn't be any noisier than the wind blowing around your home. And, while it would be fairly costly, it would seem like a worthwhile investment.

But, Mahmoud isn't so convinced that acceptance will be enthusiastic. "If people really need to have these things," he said, "they'll probably get them. But there's a lot of difference between accepting something and having it crammed down your throat."

"A lot of subdivisions don't even allow outdoor TV antennas. What do you suppose people might think of something that looks like this?" he said, pointing to a drawing of the sun-wind energy converter.

"I think people will accept these units, but it will take time."

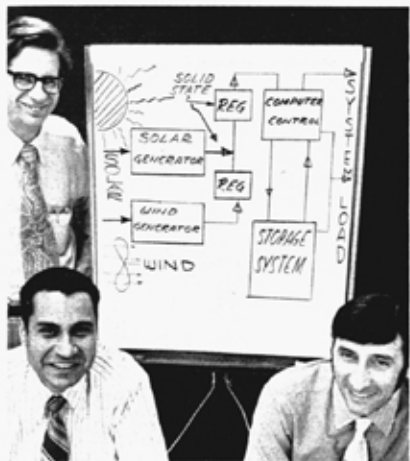
Mahmoud admitted there might be a way to avoid putting a supplementary energy system in every residential structure. Bigger units could be built to serve a city block or subdivision.

He said something like his energy converter might become a necessity because of the limits of existing energy sources.

How about that big stockpile of oil that's supposed to be locked in shale? We're supposed to have the technology to get it by 1980. "I'll be thrilled if we get it by 1990," said Mahmoud. Even then, we will still have to develop a system to move it to where we need it."

What about nuclear power? "Even with the rapid developments in nuclear power," said Meyer, "the utilities would welcome supplemental power systems to offset part of the demand."

So the sun-wind energy converter keeps looking better. I've already sent in my order. □



From the left, Dr. Meyer, Dr. Mahmoud, and Dr. Calabrese.