

Harp would put Iowa on cultural map

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Feature Writer

Leif Brush, assistant Professor of Art, has an idea for this strange, new instrument, so unique, that it would put Iowa City on the cultural map of the world.

That is why when he presented his plans for the Iowa Riverharp and Performance Barge Project last week to the University of Iowa Campus Planning Committee he met with many puzzled looks.

The committee, after having just viewed the plans for the proposed glass courtyard to be added on to the University Hospital Tower, might have been prepared for anything. But a 750-foot Harp, which resembles high tension lines strung across the Iowa River, is at least as puzzling as a glass courtyard which resembles a high-rise greenhouse.

The Iowa Riverharp, if constructed, would be primarily a musical instrument. But, notwithstanding its resemblance to high tension lines, which has drawn criticism from some in the university community, it would also serve as an artistic structure. And in the future it could have potential as a scientific instrument.

The proposed design for the harp consists of 75 wires, each tuned to a different pitch, to be strung between wooden railroad trestles and anchored to 40-foot steel beams on opposite banks of the Iowa River.

At this point the design is tentative. Even the location has not been specified, and there is likely to be static from Corps of Engineers and Iowa Natural Resources Council which have jurisdiction over the river.

The wires, or harp strings, would be plucked by computerized trams which travel back and forth on rubber wheels. These would be activated from a composers booth. In addition to these man-made sounds a composer could choose from a variety of

natural sound sources.

Wind will cause the harp to "sing" continually. Raindrops or even bird droppings will also make harp music. Or a hydrophone, positioned in the water below, might pick up sounds to be amplified through the harp strings.

Brush's plan also calls for a performance barge to be floated beneath the harp. Vibrations, echoing upward from the barge, would be picked up by the strings and amplified. For instance, one might conceivably hear the resulting sounds of a dance being performed below.

Another musical possibility would be to pipe the harp sounds into Hancher Auditorium. The composer, working in the booth, would have the option of mixing any of the natural or man-made harp sounds with other sounds, such as voice or even moog synthesizer.

Assistant Music Professor Lowell Cross has acknowledged that the Riverharp could be used in conjunction with the Cross-Jeffries Laser Deflection System, which combines simultaneous sound and laser light images.

"If someone would write a concerto for Riverharp and Symphony Orchestra," Cross said, "that could be presented at Hancher."

The trouble is that there are no existing riverharp concertos because there are no riverharps. Iowa's, if it is built, will be a first.

Perhaps it is just that, the prestige of being first, which moved the Campus Planning Committee to give mild encouragement to Professor Brush to go ahead and design the Riverharp. Another factor might be that he isn't asking for a huge cash outlay from the

university at this time.

In 1970 the School of the Art Institute of Chicago awarded Brush two fellowships to continue his research into the idea of terrain instruments (instruments which are played by natural elements, wind, rain, leaves, etc.) Now he hopes to get another grant to continue

his designing of the Iowa Riverharp.

But nothing of the scope of the proposed riverharp has ever been attempted.

"This project is so unusual," said Guy Hassler, Head of the Physical Plant Engineering Department, "that Bethlehem and United States Steel won't even talk about it."

Something like the Riverharp, which unites high-powered technological skills with artistic endeavor must rely to a great extent on interdisciplinary involvement between science and the art. Professor Brush has received collaborative assistance from a variety of scientists at the U. of I. Professor Kwan Rim, Chairman of the Department of Mechanics and Hydraulics is working on the structural problems of building the harp so

it will support the weight of seventy-five wires at the correct tension.

Don Enemark of the Physics and Astronomy Department, when he is not busy with the Hawkeye Satellite, is working on the construction of the trams which will pluck the harp strings.

To be sure, most of the scientific involvement to this point has been the purely technical aspects of how to build the harp.

But Professor Brush, who calls himself a corporation because he is forever branching out in a new direction, hopes to involve the sciences in experimental work after the harp is completed.

For instance Professor Dong Chung, of the Department of Electrical Engineering, is working on a way to free the strings of ice in the winter. That is technical enough by itself, but when the ice breaks off it is bound to produce some sort of sound.

When asked if he were concerned that he might be creating a symphony for breaking ice, he responded that just getting the

ice off was his immediate concern.

Yet he also noted that the Riverharp may provide a new area for engineering research.

"We will be interested in the effects of wind and rain on the harp," he said. "We don't know yet what concrete results we may find, but that is the way will all research until it is done."

Professor Norbert Malik, also of the Department of Electrical Engineering, is interested in mini computers.

"That includes their artistic application," he says. "Such application will be afforded by the Riverharp. It's mind-boggling the number of possibilities that exists when you can place seventy-five trams anyplace on seventy-five wires. No one artist can visualize all the possibilities, but a computer could and perhaps become a necessary tool for composition."

Mindboggling is a good word to describe the proposed Iowa Riverharp. For Professor Brush it symbolizes what he calls the "underlying cross-disciplinary harmonies that are developing among the arts, sciences and technology."

"The Riverharp could bring international focus to Iowa City," he adds. "There are some important people who just might be interested in coming here to write a concerto for symphony orchestra and riverharp."

If nothing else, the Riverharp would at least create a new job. Someone will have to keep it in tune.