Millennium Radio, Way Down South

Judith Gross

On Dec. 31, as hundreds of thousands of revelers gather in public squares to count down to 2000, one audio artist will sit in a remote, ice-entrenched outpost near the bottom of the world.

He will be working microphones, RPUs, mixer and ISDN signals to bring the sounds of the Antarctic to a radio audience in the United States and Germany.

"Most people think of visual things when they think about a particular location," said Doug Quin, composer, naturalist and wildlife recorder. "Through a composition of sound, I hope to impart a different sense of this unique place at this historic moment in time, and help the audience reflect on what it means to be a part of the entire planet."

Quin has been dubbed the "Audubon of Audio" for his soundscapes in places as far away as Madagascar and the Amazon jungle. His live and recorded programs have been aired on radio networks throughout the world.

Now Quin's "Antarctica — Ice 2000" is part of the National Science Foundation's Antarctic Artists and Writers program, which gave Quin the funding for a three-month odyssey tackling the harsh Antarctic climate amid sparse transportation and minimal communication facilities for the purpose of broadcasting live on the eve of 2000.

With equipment donated by broadcast vendors and manufacturers and a commitment from National Public Radio and WDR in Cologne, Germany, to air the program, Quin plans to blend environmental, atmospheric, animal and original music sounds into a one-of-a-kind audio experience.

Whales, seals and 'whistlers'

"Many people visualize Antarctica as nothing more than ice, but the sonic palette includes a diverse range of sounds — everything from whales to atmospheric phenomena," said Quin, who will station his headquarters at Palmer Station, a research facility on an icy, glacial coast some 1,400 miles from the South Pole.

Quin plans to set up microphones at several sites to record a penguin colony and the large Weddell seals, leopard seals and crabeater seals, to catch the "language" unique to each species. He also will employ hydrophones — underwater mics — for the call of Orca and other whales.

Because the land's glaciers are in constant motion, additional pops, clicks and motion sounds made by the huge ice masses will be included, as will the omnipresent wind. To add another dimension, Quin plans to construct a sculpture from harp, piano, harpsichord and guitar strings, which the wind will musically "play" as it rushes through.

Strangest of all, however, will be the sounds of atmospheric "whistlers" —

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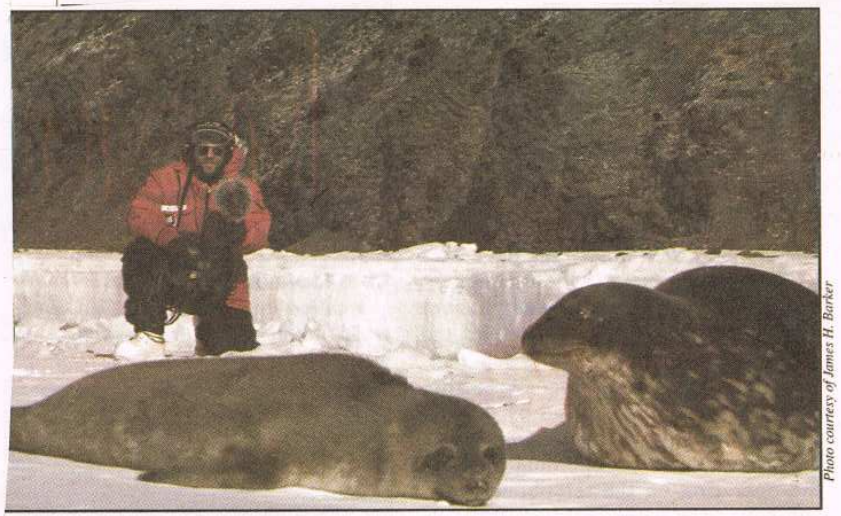

Photo courtesy of James H. Barker

Quin records seals in Antarctica.

Quin has been dubbed the 'Audubon of Audio.'

Live Sound From Antarctica

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Very Low Frequency sounds that actually emanate from outer space.

"Lightning strikes and other phenomena make a sound which resonates back to the poles from space," Quin said. "At Palmer Station, a VLF receiver picks up these sounds and a transducer puts them into hearing range, kind of a whistling effect. I'll include them in the broadcast as well."

Because transportation to the Antarctic is infrequent, Quin's visit will last three months, during which time he will camp in a tent and travel by Zodiac boat, bracing the region's summer temperatures that range from 32 down to 0 degrees F. His "studio" will consist of the equipment he has assembled.

"An important consideration was having sufficient back-up gear in case there's a problem. There are no overnight delivery services, and mail drops are few and far between. I needed reliable equipment right from the start," said Quin.

For the broadcast, Quin will set up simultaneous live feeds from mics placed in strategic locations, including an FM Wireless system, an M/S recording system and a shotgun mic, all donated by Sennheiser, plus International Transducer Corp. hydrophones to pick up underwater sounds.

The hydrophone array will send a signal back via RPU to the base at Palmer Station where Quin will be stationed.

Sounds made by his "wind harp," as well as the VLF atmospheric noises, will be mixed into a Mackie board along with the mic feeds, Quin's narration and a DAT tape with recorded material. That signal will be fed into an MPEG Layer 3 Zephyr ISDN codec donated by Telos, and compressed into a 64 kbps stream.

Because there are no telephone communications on Antarctica, the encoded audio will be fed to a portable Inmarsat B Terminal donated by Commercial Satellite Systems. It will be sent up to Inmarsat B and downloaded by NPR and WDR.

Satellite channel limitations dictate that the live feed will be mono, but Quin is planning to produce recorded programs in stereo for later airing.

NPR is planning to carry "Ice 2000" live from Antarctica on its New Year's Eve "All Things Considered" broadcast.

WDR in Germany will broadcast Quin's program live as the year 2000 begins, starting at 11 p.m. local time on Dec. 31.

In addition to the live broadcasts, Radio New Zealand will air Quin's recorded program on Sunday Jan. 2. Quin also will post his Antarctic soundscapes on the Internet, and they will likely become the basis for an addition to his list of original CD recordings.

For the radio broadcasts, Quin is estimating a combined audience of more than 40 million listeners, worldwide.

And as far as seeing in the year 2000 in what could rightfully be called the most remote place on the planet, Quin says it's a great way to celebrate the "diversity of life and the wonder of the Antarctic."

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Key Components for 'Antarctica — Ice 2000'

Sennheiser Microphones:
FM Wireless System
w/ SK250 transmitter and
EK-3041-U receiver
M/S Recording System w/MKH 30
and MKH 40 mics
MKH 815 Shotgun mic

International Transducer Corp.:
6050C Hydrophones

Rycote:
Windjammer wind and noise
dampeners

Telos Systems:
2 Zephyr ISDN codecs
(one back-up)

Commercial Satellite Systems:
Satlink B2 Portable Inmarsat
B Terminal

"It seems like the right place for the millennium, it's fascinating; the sounds of life there will raise our consciousness and provide a great opportunity to reflect on our relationship to one another and the natural world."

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*Judith Gross is a former editor of **RW**. She is a free-lance writer.*

The photo that accompanies this story is courtesy of James H. Barker, a free-lance photographer who has twice been chosen to travel to Antarctica to participate in the National Science Foundation Antarctic Artists and Writers Program.