Earth Almanac

EB Martin

Bitter Pill: Rhino-horn Art Ground Into Potions

Once they were fit for an emperor's eye. Now they are being turned to dust, swallowed up by a continuing demand from Chinese both in China and overseas for patent medicines.

Intricate cups, plates, bowls, and figurines were carved from rhinoceros horn by master Chinese craftsmen during the Ming (1368-1644) and Ching (1644-1912) dynasties. Most of these national treasures are kept not in China's museums but in drug factory storerooms (top). Factory owners have been buying such antiques for decades from collectors and businessmen.

As rhino-horn stocks dwindle—due to fewer rhinos in the wild and better protection of those that remain—drug factories are pulverizing these fabulous art objects into medicine believed to reduce fever and inflammation. Esmond Bradley Martin, who wrote of the rhino's plight in the March 1984 GEOGRAPHIC, recently became the first foreigner allowed to inspect stockrooms, where he found antique carvings. A top-quality cup—worth a pittance as a powdered potion—could garner more than $30,000 in hard currency from a collector, if the carvings were auctioned on the world market as Martin proposes.

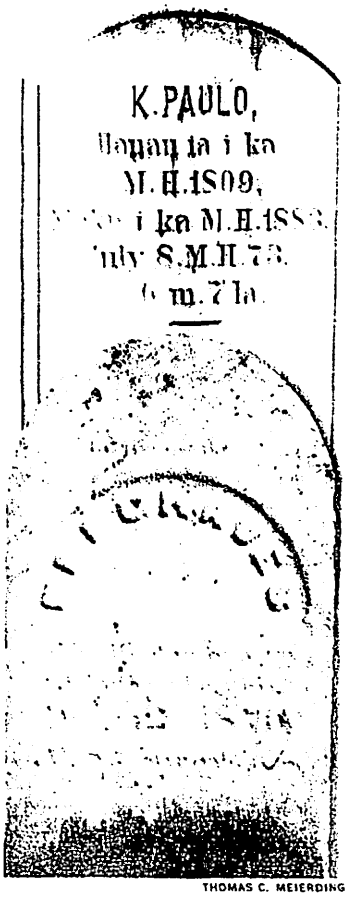
ESMOND BRADLEY MARTIN

On Tombs, Pollution's Toll Is Graven in Stone

Ten thousand tombstones bear disquieting epitaphs, says University of Delaware geographer Thomas C. Meierding. His study reveals a history of air pollution's destructive effects. Meierding and his students traveled 40,000 miles visiting urban and small-town U. S. cemeteries. They found the worst cases in the heavily polluted Ohio River Valley, shown by an eroded 1878 marble stone near Marietta, Ohio (right, at bottom). In contrast, a century-old headstone in Hawaii of the same Vermont marble remains smooth.

Meierding saw little damage in the Great Plains and Florida but severe effects in Illinois and western Pennsylvania. Deterioration increased between 1930 and 1960, then eased due to pollution controls and the decline of heavy industry.

He discovered that acid rain, his initial suspect, dissolved only a thin surface layer. The real damage came from sulfur dioxide gas—released by burning high-sulfur coal—which forms gypsum within the marble and forces the stone apart.



THOMAS C. MEIERDING

Vulnerable Yew Tree Yields Cancer Treatment

The northern spotted owl has become an environmental emblem for the cause of preserving old-growth forests in the Pacific Northwest. But those ancient woods also nurture another species, the Pacific yew tree, which may add its own argument for preservation—a treatment for cancer.

The yew tree's bark contains a substance called taxol. Dr. William McGuire and other researchers at Johns Hopkins University in Baltimore found that taxol reduced the size of malignant ovarian tumors by half or more in 30 percent of the 40 women they tested. Each year ovarian cancer strikes 20,000 women in the United States; about 12,000 die. Taxol may also aid treatment of melanoma and breast cancer, say scientists at the National Cancer Institute.

Frequently found with old-growth species, such as Douglas fir, the slow-growing yew trees have little commercial value as timber. They are often burned by loggers unless special arrangements are made allowing collectors to strip the bark from the trees.

The federal government has denied a petition to declare the yew a threatened species, so environmental groups are seeking other means of protection.

"The idea of asking people to care about species diversity in a distant rain forest may seem a little abstract," says Bruce Manheim of the Environmental Defense Fund. "Here we finally have a tangible example of a very valuable resource that is being destroyed."

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