## Science

edited by CONSTANCE HOLDEN

## Planetary Malignancy

The rapid growth of the world's population has from time to time been compared to various disease processes. But physician and anthropologist Warren M. Hern of the University of Colorado at Boulder has gone beyond casual analogies to offer a detailed "diagnosis." The proliferation of human communities and the accompanying environmental destruction, he says, is "a malignant ecopathological process" that—"failing a radical reconsideration of many of our most cherished assumptions"is "ultimately ecocidal."

In the fall 1990 issue of *Population and Environment*, Hern argues that population growth shares the four main features ascribed to cancer:

Rapid, uncontrolled growth. Although humans have the ability to regulate their numbers, growth continues now largely unchecked.

Invasion and destruction of adjacent normal tissues. Like tumors, humans aggressively invade adjacent space and replace the ecosystems with their own.

**De-differentiation.** "A striking feature of human communities is that they are becoming indistinguishable in appearance." That means they are losing specialized adaptations that



Warren M. Hern.

keep them confined to, and others out of, local ecosystems.

**Metastasis.** With human communities, it's called colonization and urbanization.

Hern writes that "the observations of the scientific community over the last 20 years have provided massive support for this hypothesis and little, if anything, to refute it."

But while some scientists, such as biologist E. O. Wilson, responded favorably to Hern's proposition when he solicited their opinions, others were less than supportive. Astronomer Carl ("nuclear winter") Sagan rejected the analogy because although humans can do surface damage, "the Earth cannot be harmed by the human species." Oceanographer Roger Revelle made the puzzling observation that "biological hypotheses and 'laws' that apply to other animals cannot be used to describe human beings." And zoologist Clifford Grobstein said he prefers to see humans as "spreading life like Johnny Appleseed" by colonizing extraterrestrial sites.

Says Hern: "I don't think many people are ready to hear what I have to say."

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