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Letters

Just like us?

Bruce Bower's review of the current debates concerning Upper Paleolithic humans ("When the Human Spirit Soared," SN: 12/13/86, p.378) repeats the widely asserted but curious admonition to "Make no mistake; the people who brushed or blew pigment around their hands on the cave wall were just like us in body and brain." The assumption that all brains are alike even today is a dubious proposition, but to claim that the contemporary brain organization occurred with the appearance of the modern skull type is to advance a brainless model of human evolution. I wonder if anthropologists select shoe styles or ice cream flavors on the basis of the container size?

Thomas A. Gentry
Professor of Psychology
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Cover: Some epidemiologists suspect that extremely low-frequency radiation from power lines and other sources may be hazardous to our health. Increased risks of spontaneous abortion and of childhood cancer have been cited by recent studies as possible effects of such exposure. (Photo: Daniel Brody, courtesy of Environmental Action Foundation)



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Bruce Bower's article about the cultural revolution of the late Ice Age included the intriguing observation that a majority of handprints on a cave wall had missing fingers. He cited several possible but not particularly plausible reasons for this.

It would seem that a very likely explanation could be severe frostbite. A culture that was native to a relatively warm climate but attempting to subsist as hunters in a near-arctic climate would surely have to learn the hard way to cope with the elements. Fingers are very vulnerable as they must be exposed to carry out manual tasks effectively.

Toes also are susceptible to frost. Are there any footprints in these particular sands of time?

Dean R. Freitag
Cookeville, Tenn.

Human footprints from the Ice Age have been discovered in France with no evidence of missing toes, says anthropologist Randall White of New York University. The majority of the

handprints in question, he adds, have fingers missing that are relatively easy to hold down. For example, many show only a raised thumb, while none shows only a raised third finger. The frequencies of specific finger patterns support the notion that a code was used, possibly to designate various animals in a manner similar to later cave paintings. — B. Bower

Cancer data defended

It should be obvious to reporters who receive copies of the annual statistical report provided by the National Cancer Institute to the National Cancer Advisory Board ("Cancer stats: Gains and losses," SN: 12/13/86, p.372) that they receive the equivalent of a book on cancer statistics each year and that we provide all the available data without selection. I am surprised, then, that Dr. Bailar's

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in punitive damages is still under appeal.

- Last month, representatives of the 20 utilities that form the Western Energy Supply and Transmission Associates were meeting to discuss priorities for future bioeffects research and its funding.

- In Canada, representatives from unions, utilities, academia and government are forming a group to address priorities in ELF exposure research.

Much of the research is directed toward those who work in magnetic fields. More studies are suggesting that such occupations carry the increased risk of developing cancers (SN: 11/10/84, p.292). Response to the studies is flowing from several sectors, including Massachusetts Institute of Technology, which will offer a practical course on the hazards and measurement of nonionizing radiation in August.

All the data, statistical analyses and confounding factors are adding their weight to the hefty problem of deciding which ELF effects should concern the public. Clay Easterly of Oak Ridge (Tenn.) National Laboratory organized a workshop immediately following the Denver power line meeting to review the latest ELF results, but he refuses to talk publicly about a consensus statement being prepared using participants' comments.

"A lot of people had been skeptical for a long, long time [about the ELF-cancer link]," he told SCIENCE NEWS. "But now scientists are recognizing the significance of this research." He says the Oak Ridge lab will recommend a "multicentered approach" to ELF field research. "Many things need to be sorted out," says Sagan, adding that the public so far has "no reason for taking any protective action. We wouldn't know how to do that, even if there were a need."

Other researchers contacted by SCIENCE NEWS, even those with attention-getting data, agree. "There is no solid evidence that you should be worried, even if you live under the power line," says Savitz. "The bottom line . . . is that the evidence does fall short of implicating these fields as a health hazard." But he adds, "The other side is that there are these suspicions raised that haven't been resolved. So from a public health perspective, there is a reason for concern."

The debate on ELF fields and their biological effects is increasingly sensitive as a political issue, according to Wertheimer and others. As Savitz says, "There is certainly a spectrum of views on this — to put it mildly."

While recognizing the potential for scare tactics and public panic, researchers in the field widely believe that, although there is no absolute proof that ELF fields cause conditions like spontaneous abortion and childhood cancer, there is sufficient reason to take a closer look. □

The Indoor Naturalist

By Gale Lawrence

If something flies, walks or grows in your home, you will most likely find it described in these pages. Both the serious outdoor naturalist and the armchair observer will enjoy this look at the world of nature indoors. Read this book "straight through," and use it as a handy reference guide for family members as they make new observations around the house.

— from the publisher

Prentice Hall Press, 1986, 210 pages, 9 1/4" x 6", paperback, \$10.95

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statement implying we select the data we present to delude the scientific community and the Congress goes unchallenged by the press. We highlight what we perceive as important changes from year to year, but make no attempt to cover all the data in the book and no data are excluded.

Since the Institute has set goals for itself for reducing cancer mortality, we also need to identify trouble spots, and this is also done with the help of the annual review. Trouble spots are not generally viewed as good news. One piece of information we identified as a trouble spot is the increase in mortality in people over 65. Several explanations for this warrant study. Cancer could be diagnosed at a more advanced state or be more virulent in the older population; cancer treatment might also be less well tolerated or not given at all because of the patient's age. There are data in the book to support some of these hypotheses. The Institute has, in addition, begun to initiate studies in population groups in which the statistics show problems to better understand the reasons for these problems.

It should also be noted that we take pains to point out that the decline in mortality we observe is not always due to advances in treatment. Decline in mortality in men under 45, for example, is due in part to the decline in lung cancer incidence and mortality because more young men have quit smoking. This shows that prevention can work. However, with treatment advances, the impact is often first noted in the younger population because new treatments are often more strenuous in the beginning. They are applied more broadly only when they have been modified and made suitable for general use. Therefore, the upward creep of the decline in mortality statistics from the pediatric age group to young adults to those under the age of 55 for the entire population and through 65 in whites indicates that new advances are getting out there in the way we would have predicted.

The fact that the decline in mortality in the minority population is not as impressive gives us another indication of a problem in achieving our goals for the year 2000 — that of assuring equal access to advances in cancer diagnosis, prevention and treatment for minorities. The unchallenged statement by Dr. Bailar implies a coverup of sorts. We would do a much better job covering up by not presenting the data at all.

Finally, it seems to me that SCIENCE NEWS should appreciate the fact that the success or failure of the Cancer Program is not measured by mortality statistics alone, but rather by the enormous contribution its resources have made to the biologic revolution, which almost everyone agrees will provide the ultimate answer to prevention and treatment of cancer. Advances in molecular biology have been applied in the prevention, diagnosis and treatment of cancer too recently to observe their effects in the national statistics. It is ironic that because the fruits of the biologic revolution present both the Cancer Program and organized medicine with problems in the translation of new advances from the laboratory to the bedside, the enormous value of this aspect of the Cancer Program and the value of the annual statistical review are ignored by Dr. Bailar.

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