

were most abundant, were mentioned in the legend.

Reconstruction of the past vegetation was the first step in assessing the albedo values (1). Next, an estimate of the present large-scale albedo of a similar vegetational type on a similar soil was made using aerial albedo measurements (2) and relative surface brightness observed from satellites (3). It was assumed that the bare soil reflectivity 18,000 years ago did not significantly differ from that in the present, except for areas with fossil late Pleistocene sand dunes or loess.

We would appreciate all relevant information that could help us upgrade the present rudimentary map of the earth's surface 18,000 years ago.

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### Climatology Conference

The First Miami Conference on Isotope Climatology and Paleoclimatology (1) was held 16 to 22 November 1975, chaired by Cesare Emiliani and Willard F. Libby. Eighty-four scientists from ten countries attended and agreed on the following salient points:

1) Ice ages have been the normal condition during the last several million years, with temperate climates enduring only about 5 percent of the time.

2) Because the global food supply depends primarily on climate, current understanding of climate must be vastly improved in order to meet the challenge of tomorrow's food supply. We possess the methods and techniques to establish climate history and only a concerted effort is needed to do that.

The conferees agreed that, in particular, study of the climatic history of the past 10,000 years (the Holocene), using the isotopic record of marine shells, corals, foraminifera, and tree rings together with accurate radiocarbon dating and focusing on the occurrence of extreme climatic conditions, should be of highest priority.

Those attending also agreed on the

importance of establishing the frequencies modulating climatic change during the last 1 million years, using cores from the world oceans and from marginal seas where high rates of sedimentation exist.

Also given high priority at the conference was the study of the geochronology of significant cave and lake deposits, using radiocarbon for dating and oxygen isotopic analysis for identifying climatic trends, plus study of (i) the evolution of polar climates through an expanded program of isotopic analysis of the Greenland and Antarctic Ice, and (ii) the rates of advance and retreat of the world's ice from 8,000 to 18,000 years ago, using radiocarbon dating and oxygen and deuterium isotopic analysis of closely spaced continental samples.

The participants found that a successful attack on the pressing problems of climatic change should encompass the use of all isotopic methods and the international cooperation of all isotope laboratories involved in climatic studies. They suggested an International Decade of Isotope Climatology Study, beginning with a close comparison of isotope standards, and the establishment of an Isotope Data Bank and an information center in Miami.

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1. Supported by the National Science Foundation, Eugene Bierly, monitor.

### Hepatitis B Vaccine: Disclaimer

Witold J. Brzosco, a former research associate of mine at the National Institute of Hygiene in Warsaw, implies in a letter to the editor (7 Nov. 1975, p. 510) that our group directly participated in the development of a hepatitis B vaccine. I feel obliged to inform you that the National Institute of Hygiene group, headed by myself, has never been involved in the preparation of any hepatitis B vaccine or any hepatitis B virus materials meant to be used as a vaccine. While still working in our department as an independent researcher, Brzosco isolated and treated with formalin the hepatitis B surface antigen which he subsequently used for skin testing of patients at the Infectious Diseases Clinic of the Warsaw Medical Academy, where he is now employed.

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