that modern men have not yet developed the cosmology to deal with the fact that nuclear weapons could destory everything that men believe should survive. "Scientists are still groping, as we all are," he said. "The question is, do we have time to do the psychological work as well as the political?"

Lifton believes that "we all share in this religion of nuclearism," the awe of a blind force that man has created which can destroy all that man has created. He said that some of those who watched the first nuclear blasts had undergone "a conversion experience"—a "conversion in the desert." Some scientists such as Edward Teller, Lifton argued, have "embraced this weapon as a nuclear deity." Lifton said that such scientists believe that these weapons can both destroy societies but also save them by preventing further wars. Other nuclear scientists, Lifton argued, have "the apocalyptic imagination," the feeling that they have a sacred duty to communicate the horrors of nuclear weapons to mankind.

One of those who has felt a compulsion to communicate during the past quarter of a century, Eugene Rabinowitch, told the symposium that he had recently visited Hiroshima. "There, people think the main problem is to get rid of nuclear weapons, all nuclear weapons." In Rabinowitch's opinion, however, all technically feasible weapons would eventually be used in case of conflict—"the crucial problem is to put an end to war."

Although the average television viewer and newspaper reader may have thought that the AAAS annual meeting here consisted mostly of foolish disruptions, he would have had a different opinion if he had heard these serious men discuss the legacy of Hiroshima.

"We are all survivors of Hiroshima," Lifton said and touched a responsive chord in his audience. "The nuclear scientists are prophetic survivors. They are the rest of us writ large."

—BRYCE NELSON

Bryce Nelson, a national correspondent for the Los Angeles Times, *reported on the AAAS annual meeting for that newspaper. He is a former member of the* Science *news staff.*

Carnegie Plans Telescope in Chile

The Carnegie Institution has announced that it will build a 100-inch optical telescope in the Chilean Andes at the institution's Las Campanas Observatory, which operates under a cooperative agreement with the University of Chile.

Construction of the $6 million telescope, scheduled for completion in late 1975, was made possible by a gift of $1.5 million from former DuPont president Crawford H. Greenewalt and Mrs. Greenewalt. Carnegie hopes to obtain additional funds from private and government sources.

The instrument is being designed by Hale Observatories, makers of the 200-inch Hale telescope, the world's largest, located at Palomar Observatory in California.

The new telescope, to be located 7600 feet high atop Cerro Las Campanas in North Central Chile, is especially designed for observations in the Southern Hemisphere. Because of the exceptional viewing conditions in Chile, it is expected to achieve the same range and clarity in the south as the great Hale telescope does in the Northern Hemisphere.

According to Dr. H. W. Babcock, director of Hale Observatories, the telescope will provide answers to questions about the nature and distribution of quasars and the symmetry of the universe, will help to identify radio and x-ray sources in the south, and will aid in the study of the evolution of southern stars and galaxies. Those galaxies closest to the earth's are most accessible to view from the Southern Hemisphere.

At present the largest telescope in the Southern Hemisphere is a 72-inch instrument at Radcliffe Observatory in Pretoria, South Africa; but several other big telescopes are under construction. The European Southern Observatory at La Silla, 30 miles south of Las Campanas, is building one with a diameter of 144 inches. Further to the south, the National Science Foundation's Cerro Tololo Inter-American Observatory is planning, with the aid of $5 million from the Ford Foundation, the construction of a $10-million, 150-inch telescope. In Australia, a 150-inch Anglo-Australian telescope is also planned.

The strip of coastal mountains where the observatories are located in Chile runs several hundred miles north to south and is generally thought to have the best conditions in the world for optical astronomy observations. The atmosphere is stable, and the Chilean skies are unusually dark and free of clouds, haze, dust, and pollution. There are no large cities nearby to cast interfering reflections, a phenomenon which is beginning to hamper the operations of some North American observatories (see *Science*, 5 February).—C.H.

RECENT DEATHS

William H. Atwood, 83; professor emeritus and former head, biology department, University of Wisconsin, Milwaukee; 20 November.

Desmond D. Bonnycastle, 59; dean, graduate school of biomedical sciences, and chairman, pharmacology department, New Jersey College of Medicine and Dentistry; 19 December.

Concetta B. Cabral, 48; professor of biology, Adelphi University; 22 December.

Laurence W. Durrell, 82; professor emeritus of botany and plant pathology and dean emeritus, College of Natural Sciences, Colorado State University; 1 December.

Charlotte L. Maddock, 72; former research associate in pathology, Harvard Medical School and The Children's Hospital; 18 November.

Joseph E. Markee, 67; former chairman, anatomy department, Duke University School of Medicine; 27 November.

Charles L. Mitchell, 87; retired meteorologist, U.S. Weather Bureau; 14 December.

Michael M. Ovchynnyk, 69; associate professor and curator of cold-blooded vertebrates, Michigan State University Museum; 4 December.

Lucile E. Swendsen, 74; professor emeritus of biology, University of Wisconsin, Milwaukee; 10 September.