RADIOBIOLOGY

Atomic Radiation Hazards

Scientists disagree over meaning of the atomic bomb threat. One holds out hope that some symptoms can be treated, the other warns that there is no defense.

➤ HOW GREAT is the threat of atomic radiation to you and me?

Two physicians who studied on the spot the biological effects of the explosions of atomic bombs have just weighed their scientific evidence and come up with different verdicts. There is little difference over facts, but a big difference in what these scientists find the facts mean to us.

The "mystery" of radiation gets a "partial debunking" from Dr. Austin M. Brues of the Argonne Laboratory and the University of Chicago's Institute of Radiobiology and Biophysics. He investigated radiation effects in Japan after the atomic bombings.

Writing in the BULLETIN OF THE ATOMIC SCIENTISTS (Nov.), published in Chicago, Dr. Brues says that radiation, "like many other things, creates an illness, some symptoms of which can be counteracted by known treatment." He believes we can hope reasonably to find further treatments for this illness.

"Cancer may be made more likely to occur by radiation exposure, but exposure to sunlight will also increase one's chances of skin cancer," Dr. Brues points out.

As for the genetic effect of radiations on future generations, the scientist declares: "Chemical agents are known, in fact (and some of them may be encountered in ordinary life), which will cause genetic mutations."

Radiations, he adds, have no effect that cannot be duplicated by some drug or chemical which is known. As a matter of fact, he argues, Geiger counters and other instruments can do a better job of detecting dangerous radiation than scientists can do in tracing some poisons.

More dangerous in modern warfare than atomic radiations, Dr. Brues cautions, may be the panic caused by fear and ignorance of effects of radiation. This was only a secondary factor in the atomic bombing in Japan, but it might be worse in this country in event of war, Dr. Brues warns.

Less hopeful than Dr. Brues, is Dr. David Bradley in his gloomily-titled new book, NO PLACE TO HIDE, (Atlantic-Little, Brown). Dr. Bradley served in the radiological safety section at the Bikini atomic bomb tests. His book is a log of his experiences at Bikini.

Dr. Bradley's conclusion:

"1. There is no real defense against atomic weapons.

"2. There are no satisfactory countermeasures and methods of decontamination.

"3. There are no satisfactory medical or sanitary safeguards for the people of atomized areas.

"4. The devastating influence of the Bomb and its unborn relatives may affect the land and its wealth—and therefore its people—for centuries through the persistence of radioactivity."

Describing the instruments for detecting dangerous radiation, Dr. Bradley says, "It is perfectly clear that nature had no intention that any of her children should be monkeying around with radioactive elements, else she would have provided us with some sixth sense to protect us from running headlong into dangerous amounts of radiation."

But he agrees that radiation sickness is "a definite and predictable disease. We know more about it than we do of measles."

Of the dangers of radiation, Dr. Bradley, too, warns of ignorance and fear. Radiation characteristics he finds "real and impressive enough without investing them in the terrors of the supernatural."

Both scientists seem to agree that public understanding of radiation and its hazards is one vital hope for living with harnessed atomic energy.

Science News Letter, December 4, 1948

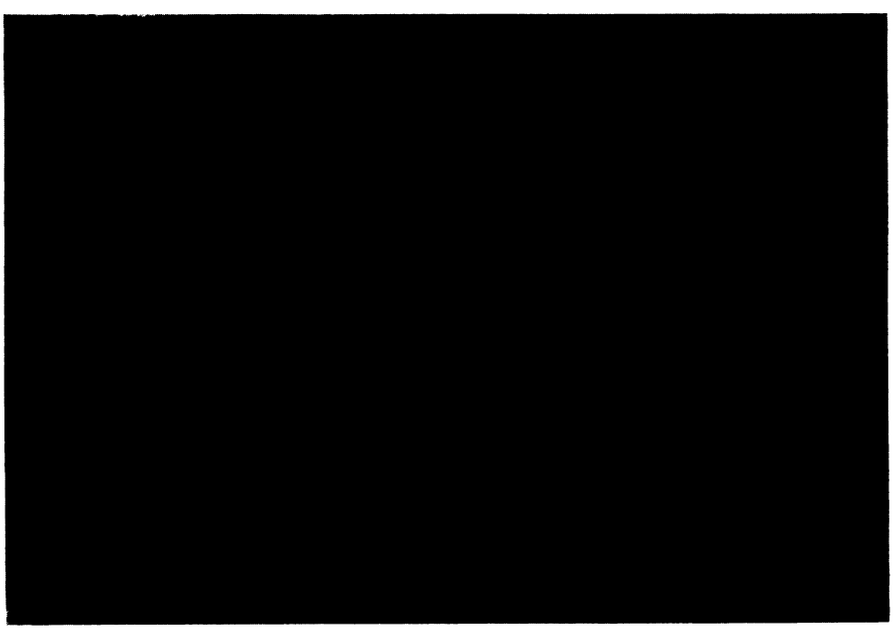
ARCHAEOLOGY

Indian Skeleton Found With Head Under Arm

➤ A BRITISH music-hall hit of some years ago, still popular as a recording in this country, recounts how the ghost of a certain "lydy" went about in the Tower, o' nights, "With 'er 'ead tucked underneath 'er arm." An early American counterpart of this situation has been discovered in an Indian grave near Monona, Wis., excavated jointly by scientists of the University of Wisconsin and Beloit College. The skeleton they dug up was normal in all respects—except that the skull was tucked under the bones of its left arm.

The site, known as Frost Woods, promises to become an archaeological classic, for it comprises a dozen or so mounds of the high Indian culture known as the Hopewell, first found in southern Ohio, but since proven to have existed at least as far west as Iowa. Many of her skeletons, most of them fragmentary, have already been excavated there, as well as a large number of artifacts.

Science News Letter, December 4, 1948



INDIAN REMAINS—Believed to be remnants of the ancient Hopewell tribe whose civilization flourished some 10 or 15 centuries ago, these skeletal remains, found in Frost Woods, Wis., are said to be in "remarkably good" state of preservation.