

GENERAL SCIENCE

Every Man Must Be Sociologist For World To Solve Problems

Man's Golden Age Ahead, Harvard Geologist Predicts; Good Will Would Aid Cooperative Solution of Problems

EVERY MAN must become his own sociologist if the world is to work out its destiny, Prof. K. F. Mather, Harvard University geologist, will warn scientists at the Christmas week lecture of the Society of Sigma Xi to be given in Columbus during the sessions of the American Association for the Advancement of Science. His address on "The Future of Man as an Inhabitant of the Earth" was issued in part in advance to facilitate its use by the press.

"Man is still in the stage of specific youth," Dr. Mather will predict. His 'golden age,' if any, is in the future rather than in the past. Human nature is still sufficiently plastic and pliable to permit considerable change, notably in this important area of attitudes and relationships wherein the increase of good will as a motive for action seems most likely to result in beneficial adjustments to the new factors in the environment.

"In seeking thus a satisfactory coordination of intelligence and good will, it becomes necessary for research scientists to give more thought than has been customary in the past to the social consequences of their work.

"As scientists they should continue to seek truth regardless of its consequences and to increase human efficiency in every possible way, but as members of society, as individual representatives of a species seeking future security as inhabitants of the earth, they must also do their utmost to ensure wise use of knowledge and constructive application of energy.

Social Science Not Unnatural

"There is a real difference between the so-called 'social sciences' and the 'natural and physical sciences' that has an important bearing here. It is not that there is anything 'unnatural' about the social sciences. Man is a part of nature, and the study of human society is just as truly 'natural science' in the real sense of the term as any other study. The difference arises from the peculiar factors and particular functions pertaining to the co-

operative way of life. Whereas the scientific use of things may be achieved through the efforts of a very small minority of the citizens, provided with adequate facilities for research, the scientific organization of society in a democracy can be achieved only when the majority of its citizens have the scientific attitude toward social problems and act in accordance with that attitude of mind. In other words, only a few physicists, chemists and technologists are required for the mastery of our physical environment, but for victory in the struggle with ourselves every man must be his own sociologist."

Expectancy 500,000 Years

Geologically the earth will probably be comfortable for man's inhabitation for scores of millions of years to come, Prof. Mather will continue. As one of the species of animals on the earth, man will have an average expectancy of existence as a race for 500,000 years but with his remarkable control over environment (which man alone possesses) there is no reason why this 500,000 year average cannot be greatly exceeded.

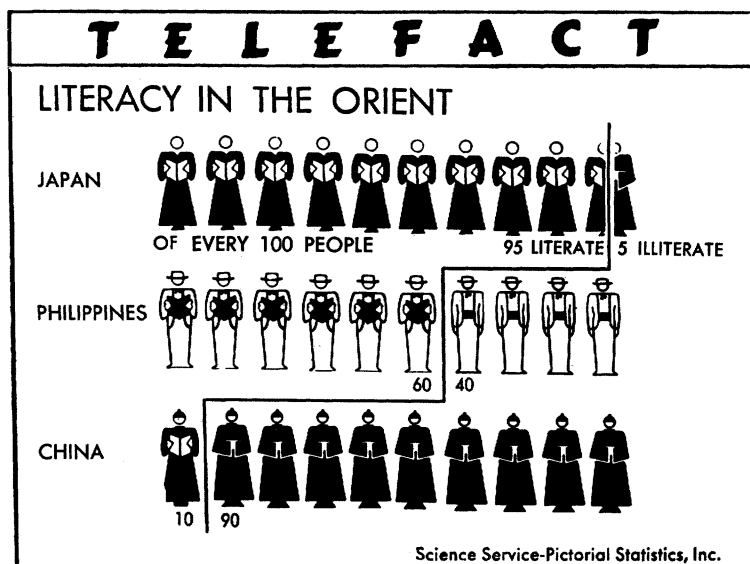
The disappearance of famous and powerful species of animals in the past has been due to environmental changes, Prof. Mather explains. Only man can dwell equally well on Arctic ice packs, in the Tropics, under the sea and in the air. Man has done this not by becoming specialized in his form but by taking his proper environment with him wherever he may be.

Great Ice Ages, such as those which have swept the temperate zones of the earth before, will probably come again, Prof. Mather points out. While we call our times a post-glacial epoch it may very well be really an inter-glacial epoch. Man, however, would now have no fears if the Ice Ages came again, for his control of environment would permit him to continue to live. It will need only an average drop in temperature of 10 degrees Fahrenheit to bring ice over most of Canada, northern United States and the Scandinavian countries.

Holland High and Dry

While much land now used would be covered with ice, the usable portion of the earth's surface probably would not be greatly diminished by this glaciation, the Harvard geologist continues. The removal of much water from the oceans to form this ice would lower the sea level and many countries, now nearly at sea level like Holland, would become high and dry.

In the reverse direction, warns Prof. Mather, a warming of the earth's average temperature would melt present Polar ice and raise the sea level by some 50 feet with disastrous (*Turn to page 399*)





OK'd Christmas Trees

CHRISTMAS trees were used freely and without particular thought of possible effects on national timber economy, until Theodore Roosevelt and Gifford Pinchot made the public forest-conservation-conscious something over a generation ago. Then a sudden revulsion of feeling set in. Everybody was shouting, "Woodman, spare that tree!" and vendors and users of Christmas trees came to be looked upon almost as public enemies. Unlimited cutting was opposed by equally unbridled demands to stop it.

Gradually, however, a sensible reaction from both extremes set in. Conservation began to mean sane and measured use instead of a panic-driven, miser-like refusal to expend anything. This ideal has not been fully realized by any means, but it is at least something toward which we as a nation are progressing. Chopping down a tree, even a little tree, is not necessarily a sin: it all depends on the circumstances.

● RADIO

"Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, will be augmented with special programs due to the many scientific meetings during the Christmas season.

Wednesday, December 20, 3:35 p. m. EST, Dr. Fritz Zwicky, California Institute of Technology, will describe great exploding stars, speaking from Los Angeles.

Monday, Dec. 25, 4:30 p. m. EST, Watson Davis will present the highlights of the year in science, speaking from Washington.

Tuesday, Dec. 26, 6:15 p. m. EST, Dr. Wesley C. Mitchell, retiring president of the American Association for the Advancement of Science, will discuss public relations of science. Introduction by Dr. Walter B. Cannon, president. From Columbus.

Friday, Dec. 29, 4:00 p. m. EST, Dr. F. R. Moulton, permanent secretary, A.A.A.S., will join with Watson Davis in interviewing leading scientists attending the A.A.A.S. meeting. From Columbus.

Listen in on your local station. Regular programs will continue each Monday, 4:30 p. m. EST, 3:30 CST, 2:30 MST, 1:30 PST.

The U. S. Forest Service and the various State conservation agencies now give definite approval and even encouragement to the use of Christmas trees, if they have been properly selected, and cut under forest-safeguarding supervision.

There are always many times more small trees in a young and developing stand of timber than can possibly grow up into logging size. Good forestry practice demands the thinning out of some of these, to give the remaining trees a chance to grow more rapidly.

Thinning operations require a good deal of labor, for which wages must of course be paid. Also, the removed trees must be disposed of. It is now accepted procedure to make these thinnings in time to ship the little trees for the Yuletide market, thereby finding an economic disposal for trees that would otherwise have to be stacked up and burned. The thinning operation thus becomes at least partly self-liquidating.

To identify Christmas trees obtained in conformity with good forestry practice, red certification tags are attached. Trees thus marked are not necessarily more expensive than similar trees less carefully obtained.

Science News Letter, December 16, 1939

From Page 389

results to great cities like New York now built nearly at sea level.

According to Prof. Mather, "The critical question for the twentieth century is: how can two or three billion human beings be satisfactorily organized for the wise use and equitable distribution of resources which are abundant enough for all but are unevenly scattered over the face of the earth? Clearly, the future of man depends upon finding and applying the correct answer to that particular, but far-reaching question."

How human society is organized forms perhaps the answer, Prof. Mather continues. Whether there shall be greater regimentation of society or its further organization along the principles of democracy must be decided.

"Both methods are being tried under a variety of conditions, and each has something to be said in its favor. But both cannot be equally conducive to the continuing existence of mankind, and one or the other must be selected as the basis for the future security of man."

Science News Letter, December 16, 1939

An Army tank recently ran down a deer in Wisconsin.

OFF PRESS DECEMBER 20th!

1939 INDEX

TO AUTHORS' ABSTRACTS

in

- ANATOMY
- ANTHROPOLOGY
- MORPHOLOGY
- NEUROLOGY
- NUTRITION
- PHYSIOLOGY
- ZOOLOGY — for all papers published in

Journals of

The Wistar Institute of Anatomy and Biology

January to December 1939

This year's subscribers to the Advance Abstract Card Service receive this Index free.

Available to non-subscribers — price fifty cents per copy.

Edition Limited!

Order Now!

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

Woodland Avenue and Thirty-sixth Street
Philadelphia, Pa.