

GENERAL SCIENCE

# New Declaration of Faith Is Aimed at Intolerance

## European Civilization Can Be Preserved Only By Devoting Energy Toward Developing the Good in It

**A** NEW scientist's oath, pledging "no loyalty greater than that to the task of preserving truth, toleration, and justice in the coming world order" is being circulated in London as a defense against the advance of intolerance.

Presented to the British scientific world through prominent publication in the pages of *Nature*, leading science journal, (May 7) the author, L. L. Whyte of London, hopes that cultural, educational and technical institutions throughout the world will offer it to their members as a declaration of scientific faith. He visualizes the new oath as playing a role similar to that of the Hippocratic Oath of more than 2000 years ago, which promoted standards among medical practitioners.

"In the last few years several of the most enlightened communities of Europe have been dispersed, and the principles of justice and tolerance openly challenged," Mr. Whyte explains. "More than this, the conception of the objective truth which is the basis of science and of all human progress is being steadily undermined. European civilization has had profound failings, but we must

either devote our energies to maintaining and developing what is good in it or accept a collapse into a barbarism of violence and intolerance.

"The greatest danger today lies in the complacent illusion—seen so often in history and now prevalent in the more fortunate countries—that civilized traditions are an inalienable legacy which can be enjoyed indefinitely by generations which are no longer ready to make sacrifices for them.

"It is my belief that men in all countries who do not wish to betray the tradition they have inherited must now discard false modesty and announce clearly for what they stand. We do not deserve and we shall not long retain the fruits of a civilization to which we do not declare and prove our active loyalty."

*Science News Letter, May 28, 1938*

GENERAL SCIENCE

## Science Gives New Motives For Finer and Better Lives

**T**HE GREAT cry of economics and politics has been for a better distribution of the material goods that we

use in our daily life—food, clothing, shelter, and a million other things that money is used to get.

In the intellectual and sociological circles, another great fundamental demand is beginning to make itself heard. All the "goods"—good things—of life must be more widely available to the people. This means the facts of science, the educational facilities, the fine thinking and feeling that provides the motivation of a new and better order of living.

A complication pointed out by Prof. Eduard C. Lindeman is that there exists at the present time no common pattern of values which may be said to serve as a guide to contemporary civilization. Dr. Lawrence K. Frank feels that the ologies have not been made meaningful for human conduct. He wants someone to interpret science in terms of "Now I lay me down to sleep."

The new culture, contrasting with older views that are ingrained for most of us and the system under which we live, shows that it is not necessary "to sacrifice others to personal salvation." The old obedience to ethical and legal rules, come what may, is shifted in face of the query "What does this do to others?" Man is coming to recognize that culture is man-made, and that the source of ultimate authority is man himself.

The new patterns that are coming out of the minds of the thinkers into the practical world impose great obligations and opportunities upon the scientists who are reordering our world whether we want it or not. Especially concerned are those who can tell us how to control our thoughts, emotions and conduct—those least charted science areas.

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## SCIENTISTS' OATH

**I** AM the inheritor of the tradition of civilization which has proved more lasting than empires. Whenever I use the language or the products of science I unconsciously pay homage to the countless men for whom no sacrifice was too great in the struggle to develop the human mind and establish the truth. Toleration and freedom are the heart of this tradition; for individual thought and love of truth are the basis not only of science, but also of justice and of civilization.

**I** DECLARE my loyalty to this tradition, my belief in the freedom of the individual to develop his talents for the enrichment of the community, and my conviction that man's community is now the whole human race, within which each nation must play its characteristic part. The natural balance between personal freedom and the proper demands of society, which is the life and health of civilization, is today doubly threatened: in certain societies by the denial of freedom and in the democratic countries by the irresponsibility of individuals. In the face of this threat:

**I** PLEDGE myself to use every opportunity for action to uphold the great tradition of civilization, to protect all those who may suffer for its sake, and to pass it on to the coming generations. I recognize no loyalty greater than that to the task of preserving truth, toleration, and justice in the coming world order.

PSYCHOLOGY

## School Governments Show Autocracies Breed Hate

**P**ERHAPS nowhere but in America could this happen.

Miniature governments—autocratic, democratic, and anarchistic—have been built, using school children as the citizens, to find out experimentally just what effect government has on the individual.

An autocratic, dictatorial government breeds hostility, it is clearly shown by this experiment, reported to the Midwestern Psychological Association by Dr. Kurt Lewin, of the Iowa Child Welfare Research Station of the University of Iowa. The amount of hostility expressed by members of the autocratic

group is 30 times as high as that among the citizens of the democracy.

Citizens in an autocracy cannot work together. Even when cooperative work groups were set up by the "dictator," they soon would break down. In the democracy, cooperation developed spontaneously.

More individual desire to dominate is evident in the autocracy, more feeling of "I-ness," more personal feeling.

Constructiveness is higher in the democracy; in the autocracy it falls down quickly when the "dictator" is not present.

In the autocracy, the hostility of the group is likely to center on a scapegoat who is treated so badly by the whole

group ganged together that he finally becomes a "refugee" from the group. After his departure, another member becomes the scapegoat.

Contrary to what might be guessed, an anarchy was found to be nearer to the autocracy than to the democracy in effect on the citizens. The resemblance was particularly great in regard to the hostility between members.

"In autocracy the tension seems to be due to lack of freedom," Dr. Lewin interpreted. "In laissez faire, tension seems to be due to the anarchic structure of the situation which prevents long range planning and lacks meaningful time perspective both for the group and the individual."

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#### ARCHAEOLOGY

## Archaeologists Dig Up King Solomon's Seaport

### New Finds Indicate That Sheba's Queen Visited King For Political Reasons, Not Because of Romance

**T**HAT popular idea about the Queen of Sheba visiting King Solomon to enjoy his intellectual conversation may be all wrong. Archaeologists have unearthed King Solomon's seaport, where he built his ships. They suspect Sheba's Queen came up to Jerusalem in alarm over the growing power and trade expansion of the Israelite empire. It was a Hitler-visits-Mussolini affair, back in the tenth century B. C.

Excavation of Solomon's port, the Bible town of Ezion-geber on the shores of the Red Sea at Tell el-Kheleifeh, is reported by Dr. Nelson Glueck, director of the American School of Oriental Research in Jerusalem. The president of the American Schools of Oriental Research, Prof. Millar Burrows, of Yale, announcing the discoveries today, said that the lost site was re-discovered at the northern end of the Gulf of Aqaba.

The mystery of finding the ruins half a mile inland is believed solved by the fact that north winds continually blow sand from the Arabah, and the seashore is widened slowly year by year.

When King Solomon built his fleet there, his vessels could trade directly with southern Arabia and indirectly with India. Prof. Burrows points out that "it is probable that the visit of the Queen of Sheba, which is narrated immediately

after the construction of the merchant fleet, was inspired in part by the fear that Solomon's marine enterprise would diminish her revenues from the trade which passed by caravan through her territory."

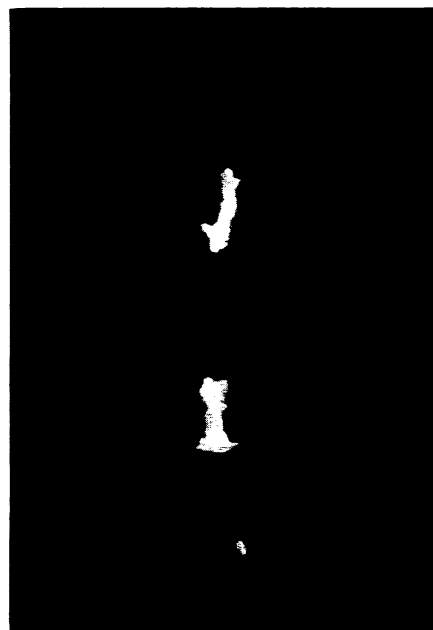
Why the wise Bible king chose a port exposed to north wind blasts is now understood by the archaeologists. Excavation reveals a big copper smelting and refining plant well preserved, and the ancient workers are believed to have used the constant draft as an aid in working their furnaces. The strong draft still blows through the flue holes in the rooms.

The seaport flourished from the tenth to the eighth century B. C., according to finds unearthed in the ruins. The inhabitants worked at ship building, copper smelting, fishing, and manufacture of such copper implements as spear heads and nails.

So important are Dr. Glueck's discoveries considered that another campaign is planned for next year. The expedition has been supported by a grant from the American Philosophical Society.

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A Czechoslovakian anthropologist has made a study of types of eyebrows and eyelashes.



**MAN-MADE LIGHTNING**

*This is the half-million-volt Westinghouse surge generator in operation at the Franklin Institute. The artificial lightning bolt shattered a four-inch billet of wood so quickly that only the top could be pictured; the rest was instantaneously splintered and knocked out of camera range.*

#### ENGINEERING

## Half Million Volt Strokes Of Man-Made Lightning

**A** HALF MILLION volts of artificial lightning crash into tiny model houses to show how electrical science protects real homes against the menace of natural lightning strokes in a demonstration which is a regular Franklin Institute exhibit just opened with Westinghouse cooperation.

The man-made lightning, in one test, strikes a section of tree trunk, scatters it into kindling and shows how a tree or pole is split by real lightning.

In another test stands a small house, electrically illuminated. Near the house, on a pole, is a transformer as in real life. The arrival of the lightning stroke creates a high-voltage arc at the transformer and the lights in the house go out. In contrast, when a lightning arrester is placed across the transformer, the lights in the house only blink when a 500,000-volt bolt hits the electric wiring.

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When the element selenium is heated to 70 degrees Centigrade it is found to have elastic properties.