

Dahlberg founded in 1948 the journal *Acta Genetica et Statistica Medica* for the publication of research on the aforementioned problems. He was its editor until his death.

Although Dahlberg may seem to have taken an antieugenical position, he made many contributions to race betterment in the broader sense. His studies of the effects of alcoholism on the Swedish population (which resulted in his becoming what he referred to as a "statistical teetotaler") and his application, as collaborator or adviser, of quantita-

tive methods to a wide variety of medico-social problems (he was an active adviser in 119 medical monographs) left an enduring mark on social medicine in Sweden.

His interest in human problems expressed itself in more personal ways as well: active assistance to refugees from Nazism and Fascism, recognized by the award to him from Great Britain of the King's Medal for Service in the Cause of Freedom. His personal convictions rested on a strong sense of scientific honesty, set forth in respect to the pros-

titution of genetics in Germany in his popular book of 1942, *Race, Reason, and Rubbish*. He later reacted with similar forthrightness when the Communists suppressed the development of genetics.

Something more than potential contributions to one branch of science is lost when a man like Gunnar Dahlberg dies, for the struggle to attain a life based on reason, which his life exemplified, is one that all scientists face.

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News of Science

AAAS Cardiovascular Research Award

The AAAS will award this year for the first time the AAAS-Ida B. Gould memorial award for research on cardiovascular problems. The award, which consists of a citation and \$1000, is intended to stimulate research, particularly basic research, in the cardiovascular field.

The winner will be chosen by a committee of judges of which Paul Dudley White is chairman. The other judges were selected by the principal organizations in the United States that are active in the cardiovascular research field: C. Sidney Burwell (Helen Hay Whitney Foundation), Robert P. Glover (American College of Cardiology), Dickinson W. Richards (Life Insurance Medical Research Fund), Francis Wood (American Heart Association), and J. Franklin Yeager (National Heart Institute). Funds for the award, which will be continued on an annual basis, are provided by the Richard and Hinda Rosenthal Foundation of New York.

Church Service on Science and Religion at Time of AAAS Meeting

Donald Harrington, minister of the Community Church in New York, has announced that he is planning a special service at 11 A.M. on the morning of 30 Dec. on the subject, "Science and Religion." The entire service will be built

around this theme, and in place of a sermon Harrington has arranged a discussion between himself and a number of scientists on "The challenge of science to religion and of religion to science."

Participants in the AAAS annual meeting, which is convening in New York 26-31 Dec., are cordially invited to attend this service. The Community Church is at 40 E. 35 St., just a few blocks from the AAAS meeting headquarters.

Archeology in the Marquesas

The results of the first archeological expedition ever made to the Marquesas Islands in the South Pacific have been reported by Harry L. Shapiro, chairman of the department of anthropology at the American Museum of Natural History, New York, and leader of the expedition. The trip was financed by Mr. and Mrs. Cornelius Crane, who accompanied the museum team.

The Marquesas are a group of 11 volcanic islands, six of which are inhabited. They are located approximately half-way between South America and Australia. Covered with mountains and luxuriant valleys, the islands are noted for their beauty. They were used by Herman Melville as the setting for his novel *Typee*, and the painter Paul Gauguin, who is buried on one of the islands, spent his last days there.

Early records show that when the first Europeans reached the Marquesas some

150 years ago, there was a Polynesian population of approximately 100,000. Shapiro states that these inhabitants were among the peoples most seriously affected by the diseases introduced by Europeans, so that when he first visited the islands in 1930 the population had dwindled to 1600. However, he now estimates that the population has increased to about 3500 persons of Polynesian ancestry.

Although ethnologists have studied the Marquesan culture and archeologists have mapped the huge stone surface structures known as meiaes, the American Museum's expedition marks the first attempt at excavations. Expedition members worked at several sites in the bays of Nukuhiva, the largest island in the group. There they discovered the remains of a culture definitely predating European contact and perhaps going back to the very early stages of Marquesan life.

According to Shapiro, scholars of cultural history in the South Pacific have been particularly interested in obtaining dates for an early culture in the Marquesas because of the light those dates would shed on the civilization of the area as a whole. Several carbon samples were taken from two caves on Nukuhiva for radiocarbon dating.

Inscribed in the rocks along the shore, the field party discovered line drawings or pictographs of human beings, whales, and other animals. Some of the drawings were hidden from sight under an extensive, rocky concretion, indicating that they must have been drawn before the concretion was formed. Therefore, the pictographs may very well represent a record of a very ancient Marquesan culture.

Another site was discovered in a sand dune that had been broken into by a tidal wave. The dune contained artifacts such as fishing gear, shell jewelry, and stone adzes. Several of the fish hooks were similar to those known to be used on Easter Island, which is some 2000 miles away.

The same site also yielded the remains of a burial which gives every indication of having been that of an important person. An articulated skeleton of a middle-aged woman resting on the scapula of a whale was supported by a circle of female skulls. Within the circle was a pile of loose bones, the remains of several skeletons.

Interferometric Comparator

The National Bureau of Standards has developed an interferometric comparator that makes routine comparisons of length to the nearest ten-millionth of an inch. Designed by T. R. Young and J. B. Saunders of the engineering metrology laboratory, the instrument will be used to check lengths of industry's master gage blocks, which control the tolerances of mass-produced machine parts.

An instrument of this accuracy has been greatly needed because of the extremely small dimensional tolerances now required for parts used in the guided-missile, jet-aircraft, machine-tool, and other industries. At present the bureau calibrates master gage blocks to an accuracy of 1 part in 1 million—that is, to the nearest millionth of an inch for inch-long blocks.

Malaria Eradication in Mexico

Some 3 million houses in the malarious areas of Mexico will be sprayed starting 1 Jan. 1957 in the largest undertaking of its kind ever attempted in this hemisphere. This enormous enterprise is aimed at wiping out the mosquitoes that transmit malaria, thus effecting the eradication of this disease in Mexico. The Pan-American Sanitary Bureau, Regional Office of the World Health Organization, which has stimulated the eradication program, is collaborating by furnishing technical assistance in this campaign. The United Nations Children's Fund is providing large quantities of insecticides, trucks, and other essential materials, but the Mexican Government will furnish most of the funds and direct the program.

PASB has also set up a Coordination Office of its Malaria Eradication Program in Mexico City to coordinate the national malaria eradication programs now under way or in preparation throughout this hemisphere. The present status of these national programs is as follows: of the 20 countries originally infected, two (United States and Chile) have completed eradication; ten of the 18 still infected have begun eradication campaigns (Argentina, Brazil, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Dominican Republic, and

Venezuela); three have completed plans for converting control programs to eradication campaigns (Nicaragua, Panama, and Paraguay); and five are either surveying for, or are considering converting to, eradication campaigns (Bolivia, Colombia, Costa Rica, Cuba, and Peru). Canada and Uruguay have no malaria problem.

In the Caribbean territories, a similar situation prevails: five of the 16 originally infected have eradicated malaria (Antigua, Barbados, French Guiana, Martinique, and Puerto Rico); four are well advanced in eradication campaigns (British Guiana, Canal Zone, Saint Lucia, and Tobago); and seven have plans for converting control programs to eradication (Belize, Dominica, Grenada, Guadeloupe, Jamaica, Surinam, Trinidad).

New ARDC Agency for Small Business

The Air Research and Development Command, Baltimore, Md., has established a new procurement agency, the Executive for Small Business. The agency has been designed to increase utilization of small businesses possessing a technical capability in research and development areas. Located in ARDC Headquarters, the Executive for Small Business will have Air Force field development offices at each of the ARDC centers.

The new agency will provide an efficient counseling service for representatives of small business. In addition, ARDC will have greater access to source information concerning organizations with potential research and development procurement possibilities. John C. Eiden, former administrative officer in the Office of the Director of Research and Development, Headquarters, USAF, has been named head of ARDC's new program.

Cancer Society on Smoking

A summary review of information on the relation of cigarettes to lung cancer has been published by the American Cancer Society. The pamphlet, drawing on the 4-year ACS study of the smoking habits of 188,000 men, was written in response to many requests for a concise, factual statement for the public on lung cancer and cigarettes. "This booklet," the pamphlet says, "seeks to provide a summary of a problem whose elements are changing and developing each year. It is tentative and incomplete. . . ."

In an eight-page section of questions and answers dealing mainly with findings of the ACS statistical study, the booklet points out that field work on the

study "has been almost entirely completed: a final report will be made covering the study and analyzing about 12,000 deaths. The study was originally planned for three to five years and four annual follow-ups have provided necessary data. Statisticians estimated that they would need 200,000 person-years of experience for accurate conclusions. The final analysis will cover more than 700,000 person-years of experience."

In answer to the question "Shall I give up smoking?" the booklet says: "The American Cancer Society feels that this must be a personal decision based on evidence available today. The evidence suggests that cigarettes are a health hazard. The specific effect of cigarette smoking on a particular individual cannot be predicted."

Earlier, the pamphlet says, "The American Cancer Society has no plans for a campaign against cigarette smoking. . . . The final decision on whether to smoke cigarettes rests with the individual, who will probably make up his mind in consultation with his doctor. Physicians will surely be prime movers in shaping attitudes toward cigarettes."

Control of Cholesterol Production

A way has been found to control, in laboratory animals, the natural production of cholesterol, the fatty substance that accumulates in human arteries and is implicated in atherosclerosis and coronary disease. Atherosclerosis is the chief cause of death in the United States, leading to 370,000 deaths a year. By feeding a cholesterol-free diet containing 1 percent delta-4-cholestenone, a synthetic compound related chemically to cholesterol, Daniel Steinberg and Donald S. Frederickson of the National Heart Institute have been able to depress the cholesterol in blood serum of rats to as much as 44 percent below that of control animals on a similar diet lacking the delta-4-cholestenone.

Injections of labeled (radioactive) acetate demonstrated that the delta-4-cholestenone was interfering with the normal mechanism for manufacturing cholesterol. Acetate is taken up by the liver to make cholesterol, and in normal animals radioactive acetate can be found in the liver cholesterol with a Geiger counter shortly after injection. The investigators measured only 5 percent as much labeled acetate in the liver cholesterol of the rats that were fed 1 percent delta-4-cholestenone as in the normal rats 2 hours after injection.

Steinberg and Frederickson caution that delta-4-cholestenone itself should not be considered as a practical drug for the treatment of high blood cholesterol in human beings. Its use is definitely haz-