

SCIENCE WATCH

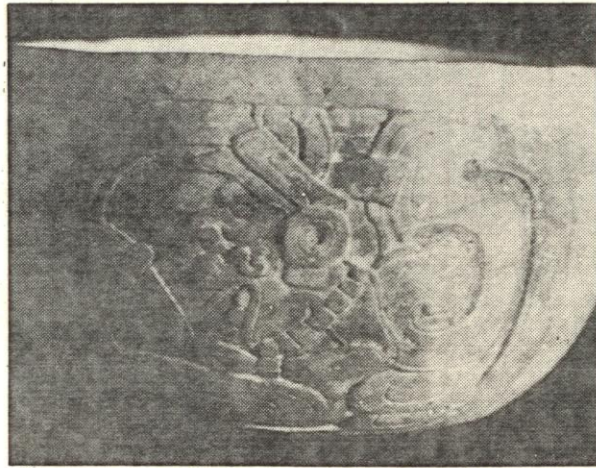
Did Mayans Collapse Later Than Thought?

THE reason for the collapse of the ancient Maya civilization in Central America may not be as big a mystery as archeologists have thought. According to new excavations in Belize, the collapse seems to have come later than generally assumed, late enough to have been caused by massive epidemics of disease introduced by European conquerors.

This is the message from a Maya grave dug up in August by Dr. Diane Z. Chase and Dr. Arlen F. Chase, archeologists at the University of Central Florida in Orlando. In a report issued this week by the National Science Foundation, which supported the research, the two archeologists, a husband-and-wife team, said the grave near Corozal, Belize, contained the skeleton of a man who lived about 500 years ago, just before the Spanish conquest. The body was adorned with elaborate jewelry, including a pair of gold earplugs inlaid with turquoise and jade. The plugs, which once fit through a hole in the earlobe, flared out to cover the ear and were hung with small metal bells.

The jewelry and other artifacts indicated that the man had been a provincial ruler of some substance and power. Such adornments were identical to those worn by Aztec rulers, suggesting to the Florida archeologists that the Maya chief had been courted by Aztec leaders as someone of great importance.

Beyond that, the archeologists concluded, the discovery showed that "a sophisticated Maya civilization flourished right up to the invasion of the Spanish conquistadors in the 16th century." This contradicted the prevailing view that the Mayan collapse began as early as 1350 A.D. This was when they apparently ceased to build the huge temples and pyramids that marked the classic period of their culture. But if the grave in Belize is any indication, according to the new re-



Associated Press

A limestone bowl recovered from the grave of a Mayan ruler in Belize.

port, the commercial and political structure of the Maya civilization was apparently sturdy and prosperous on the eve of the European contact.

Since most native Americans at that time were killed by disease introduced by the Europeans, Dr. Diane Chase said, it can be assumed that this, and not some obscure economic or cultural changes centuries earlier, could have brought the Maya civilization to the ground.

Fighting Tropical Diseases

The probability that researchers will be able to develop successful measures to control tropical diseases "has never been greater than it is today," according to a report issued by

the Congressional Office of Technology Assessment. But the Federal Government is spending less than \$100 million a year on tropical disease research, a tiny fraction of its total annual biomedical research budget of well over \$4 billion, the Congressional agency estimates.

Researchers have already contributed a few important treatments for tropical diseases: oral rehydration therapy to prevent death from a wide spectrum of diarrheal diseases; praziquantel, a drug marketed in 1980 to treat schistosomiasis, a debilitating disease caused by worms; and ribavirin, an antiviral drug that has proved effective against Lassa Fever. Scientists using recent advances in biotechnology hope to have

a vaccine against malaria on the market in 5 to 10 years.

But research on therapies for tropical diseases has lagged behind research on diseases of importance to the United States, which offer a bigger market for drug companies, the report said. "Few new drugs have been introduced for human tropical diseases in the past two decades," the report noted, but there has been a surge in development in drugs to combat parasitic infections in domestic animals.

The report suggests that vaccination has the greatest potential for preventing illness and death, but none are available against human parasitic diseases and few against viral or bacterial diseases. Rapid diagnostic tests are required to study the natural history of some diseases, the report said, and a combination of techniques is needed to control the organisms that spread tropical diseases.

The study proposed seven options to encourage research on medical technologies for tropical diseases but left it to Congress to decide whether any of them should be put into effect.

New Medical Chief

Samuel O. Thier, chairman of the department of internal medicine at Yale University's medical school, will become president of the Institute of Medicine of the National Academy of Sciences this month.

He is scheduled to serve a five-year term as head of the 650-member institute, which was formed in 1970 to enlist distinguished doctors and other professionals in examining public health issues, such as vaccine supplies, nursing home regulation, and prevention of low birthweight.

Dr. Thier will succeed Frederick C. Robbins, who will return to the faculty of Case Western Reserve University in Cleveland, where he previously served as dean of medicine.