

NOV 19 1972 JK

Americans Absorb Huge (Lead) Doses, Autopsy of Egyptian Mummy Says

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A 2,800-year-old Egyptian mummy has yielded evidence indicating that Americans may be absorbing 100 times more lead than did the ancient Egyptians.

They may also be absorbing 25 times more cadmium, another of the heavy metals used in industry today.

The findings serve as a dramatic illustration of how man's environment has become polluted over the ages.

The mummy was donated to the University Museum of the University of Pennsylvania in 1965 by the late John Wana-maker, the merchant.

"Autopsies" Conducted
Last May it was cut open at the museum, and Philadelphia scientists then began a series of "autopsies" on the vital organs.

"The mummy practically haunted everybody," quipped one of the scientists, Dr. Solomon H. Katz, assistant curator of physical anthropology at the museum.

Carbon 14 tests indicated that the mummy was the remains of a male in his middle 40s who lived during the 22d Egyptian Dynasty and died around 892 B.C., plus or minus 50 years.

This was around the time



Dr. Solomon H. Katz

that King Solomon reigned in Israel.

Dental tests were performed on the mummy by Dr. Irving M. Shapiro, associate professor of microbiology at the University of Pennsylvania School of Dental Medicine.

The tests were somewhat inconclusive. They were based on the knowledge that traces of metals and lead collect in the teeth and bones of human beings over their lifespan.

In the case of the mummy, testing by a method known as anodic stripping voltammetry led to the discovery that lead in its teeth measured conservatively at 1.7 parts per million parts of tooth. Small Industries

Today the lead content in the human dentine (the principal mass of a tooth) has been found to measure 300 to 400 parts per million, depending on the age of the person and where he has lived.

"Since we have known that lead is useful," Dr. Shapiro said, "we have mined it all over the world. It is spread everywhere into our soil and plants and into the air. This

accounts for the dramatic increase of lead in our teeth."

Minerals Remain

On the other hand, the mummy's lifespan was in an era in which the manufacturing process consisted of local handicrafts and small home industries, University Museum archaeologists David O'Connor and Lennie Bell said. Even the smelting of iron, which yields lead as a byproduct, was not practiced in Egypt until 2 or 3 centuries after the mummy's death, they added.

Dr. Katz said that teeth provide a unique method of measuring mineral absorption. Once death occurs, he said, tooth decay ends and the minerals collected in them remain.

Dr. Irving Millman, associate member of the Institute for Cancer Research, searched the mummy for samples of blood and tissue proteins, but came up instead with proteins from what may be bacteria 2,850 years old.

Dr. Millman thinks that the bacteria entered the body just after death and before the embalming process.

Dr. Millman's study was carried on with the cooperation of Dr. Daruch S. Blumberg, professor of medicine and medical genetics at Penn's School of Medicine; Anne O'Connell, research assistant at the Institute for Cancer Research, and Dr. Michael Zimmerman, assistant professor of pathology at Penn's medical school.

Will Be Put Together
Dr. Zimmerman found a deep bacterial decomposition of the lungs. He also found what he described as a focal area of calcification in the lungs which may have been either tuberculosis or a fungal disease.

Further tests are being made. Afterward the mummy will be put together again and returned to the museum.

DEC 19 1972 H

HUD Accused Of Not Acting On Lead Paint

Attorneys for the Citywide Coalition Against Childhood Lead Paint (Polsoning) late yesterday asked the U.S. District Court to force the U.S. Department of Housing and Urban Development to stop selling or transferring properties until lead-based paint in the properties is eliminated.

Last August the coalition, represented by attorney George D. Gould of Community Legal Services, filed a suit in federal court asking that lead paint be removed.

Yesterday, however, Gould in a petition, charged that "HUD has ignored the documentary evidence of the U.S. Department of Health, Education and Welfare on the subject of the hazards of lead paint."

Gould's petition states further that the duty to eliminate this health hazard mainly in connection with small children has not been met by HUD.

"If lead paint poisoning hazards are not alleviated, children will suffer irreparable harm and injury resulting in death, brain damage, mental retardation, blindness and kidney disease," the petition states.