



FROM THE 'IVORY HOUSE'

A drooping palm, one of the twenty fragments of ivory carvings from Queen Jezebel's palace in Samaria, now acquired by the Fogg Art Museum of Harvard.

to King Ahab and his Queen Jezebel, at Samaria. Existence of the ivory house of the royal pair has often been questioned, until the recent discovery of the ivory fragments by an expedition, of which Prof. Lake was a member.

The excavations show that Ahab's palace stood on top of the hill of Samaria, in a great open court extending over some seven or eight acres. Massive walls surrounded this court, and the ivory art pieces were found just inside the north wall. Several thousand fragments were recovered, but many were blackened by fire.

The ivory pieces are believed to have adorned the throne, tables, couches, and cabinets of the palace, and possibly also the wall panels. Nearly forty pieces are in excellent preservation. From these, archaeologists deduce that King Ahab imported much of his palace art from Egypt. Many of the figures depicted are from Egyptian mythology, and the decorative motives feature the Egyptian lotus and drooping palm. Plainer, less skilfully carved ivories suggest local Samarian workmanship.

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PUBLIC HEALTH

Country's Lowest Death Rate Reported by Surgeon General

Institute of Health Chemists Learn More About Sugar; Radium Dial Painting Still a Menace

THE DEATH rate for this country for the calendar year 1932 was the lowest ever recorded, Surgeon General Hugh S. Cumming, U. S. Public Health Service, stated recently. The statement was contained in the Surgeon General's annual report to Congress which covers the activities of the Service for the fiscal year ending July, 1933.

Unusually favorable health conditions prevailed during the first half of 1933 and the indications are that the whole year just ended will also prove to have been an unusually healthy one. Preliminary reports from large cities of the country for 1933 indicate a still lower death rate than before recorded, being less than 12 per 100,000 population.

Mitogenetic Ray Proof Lacking

Mitogenetic rays, those mysterious and supposedly potent rays said to emanate from roots of growing plants and yeast cultures, may exist but physical proof of their existence is lacking, it appears from the report.

At the Service's office of field investigations of cancer, under the charge of Dr. J. W. Schereschewsky at Boston, studies designed to demonstrate by physical means the presence or absence of these rays were carried out, using the Geiger radiation counter, an apparatus for detecting and measuring extremely small quantities of radiation. The sensitivity of this apparatus was determined in absolute units and was found to be at least six times as great as necessary to respond to radiation of the intensity assigned to mitogenetic radiation. Even with this very sensitive detector no rays could be detected from any of the various substances said to be active radiators of mitogenetic rays.

No More Mouth Pointing

Radium dial painting still threatens the health of the workers in the industry, according to the report.

The health hazard of this occupation was not entirely eliminated when the habit of pointing the radium paint

brushes with the mouth was stopped, Dr. R. R. Sayers and associates of the federal health service found. Their examinations showed that there is a slight accumulation of radium in the bodies of workers who have been employed since January 1, 1927, that is, under present conditions with mouth pointing eliminated.

Dust in the air of the workrooms was found to be radioactive to a degree sufficient to account for the radium accumulation in the bodies of the employees. The federal health experts recommended that the dissemination of dust in the workrooms should be prevented by extreme cleanliness in the factory. In addition, personal cleanliness of employees and adequate ventilation, both local and general, were urged.

Chemical Views Upset

Current chemical views as to the composition of sucrose, the common sugar of our kitchen shelves, dining tables and candy shops, have been unsettled by discoveries of Prof. Claude S. Hudson and associates of the U. S. National Institute of Health, briefly described in the Surgeon General's report.

These studies of the veteran sugar chemist raise the important question of whether the present view of how this sugar is decomposed in our bodies by the digestive ferment, invertase, is correct. The new ideas about sugar resulted from the isolation in pure crystalline form of a new, very reactive substance, a gamma methyl fructoside, derived from fructose, the sugar of fruits. The new substance could not be decomposed by invertase.

Prof. Hudson and associates were investigating the way in which invertase, digestive ferment present in the digestive tract and in yeast, splits sucrose into glucose and fructose. Their studies made it clear that this mechanism of the inversion of sucrose by invertase is essentially concerned with the fructose portion of the molecule.

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