



PREHISTORIC MIRROR

A University of Pennsylvania Museum expedition recently returned from Piedras Negras, Quatamala, with fragments of what is said to be the largest hematite mirror ever found by archaeologists. The assembled mirror is displayed in the picture by Miss H. Newell Wardle of the Museum staff. Hematite is a form of iron ore that was put to many uses by primitive people in America.

movements and died in great numbers. Even the most ignorant people came to regard deaths among rats as foretelling the coming of the plague. When they found dead rats in their homes or about the premises they fled, abandoning their homes and seeking refuge in the country, which was generally considered to be healthier.

Poverty, hunger and filth were long known to favor the spread of the disease. Naturally the better constructed and better kept homes of the well-to-do were more apt to be free from rodents and vermin even in early times, although the rich and powerful did not escape the disease during the epidemics of the Middle Ages and earlier periods.

Ignorance and poverty are important factors in keeping the disease alive in China. During hard times and famines the people are obliged to rely for part of their food on hunted wild rodents, particularly the tarabagan or Siberian marmot, a kind of woodchuck. These animals are apt to be infected with plague; and when the famine-stricken population of Manchuria and neighboring Transbaikalia turn to the tarabagan for food, they get the disease.

These animals are valued for their fur as well as for food during hard times. It has long been known that men became infected with a highly fatal disease in skinning the animals. The risk is increased by the fact that the ones that are ill with plague are of course easily captured.

In this region the people live crowded together in small huts during the winter, which favors the spread of the infection. Whole communities are wiped out. Fear drives some of the population to adjacent territory, but unfortunately they carry the disease with them.

Goes From Man to Man

The disease once established in man may be transferred directly from one person to another. This is particularly the case with pneumonic plague, which is the most deadly variety.

Plague occurs in several forms. Bubonic plague is the common variety. Swollen glands or buboes are a characteristic feature which gave this variety its name. Another characteristic is the development of spots on the skin known as "plague spots" or "tokens of the disease." From these spots the disease got its name of Black Death during the Middle Ages. Headache and backache, stiffness of arms and legs, restlessness, great anxiety and depression of the spirits mark the beginning stages of bubonic plague.

This form may also attack the lungs, but true pneumonic plague has a much more sudden onset and the lungs are first involved. Patients rarely recover from this form, generally dying from two to four days after being stricken.

Fighting the plague means fighting rats or whatever rodent is responsible for the disease in the locality where it appears. During an epidemic the campaign is carried on by trapping and poisoning all the rats. All patients, of course, must be isolated. In between epidemics, anti-plague measures consist chiefly in rat-proofing buildings. Dwellings and particularly warehouses and food storage houses must be so built that rats cannot enter them. Plague was formerly carried from one country to another by the rats that lived in the holds of ships and came ashore at ports.

Stopped by Rat-Proofing

When the rat's villainous role was learned, wharves were rat-proofed and smooth metal guards, too wide for a rat to crawl over were fitted onto ships' hawsers. Ships known to have come

from plague-infested ports are fumigated by quarantine officers.

Both a vaccine for protection against the plague and a serum for its treatment have been developed, but neither has been very successful. The vaccine gives relative immunity to the disease for about six months.

All these measures for checking plague and preventing its spread are well-known to the Japanese. Plague has broken out in that country and has been eradicated very promptly. Quarantine officials here believe that they will lose no time in taking action against it if it reaches the occupied area. But the fight against plague is very costly and tedious, particularly in such a disorganized and backward region as Manchuria. The Japanese may decide to retreat before this new and implacable foe. The plague-ridden region may not seem worth the struggle and the cost, in men and money, of a mighty battle with the Black Death.

In contrast to the Manchurian picture, plague seems to be on the decline in other parts of the world. The Health Section of the League of Nations reports that during the last two years plague has disappeared from Algeria, Tunis, Tripolitania and Nigeria. There has been a marked decline in Egypt and East Africa, and in Senegal it is limited to Dakar. On the other hand the disease has invaded fresh territory in Southwest Africa and Angola and has increased in Madagascar.

In South America the disease is on the decline in Ecuador and Peru, but fresh small foci have appeared in Bolivia and Argentina.

This article was edited from manuscript prepared by Science Service for use in illustrated newspaper magazines. Copyright, 1934, by EveryWeek Magazine and Science Service.

Science News Letter, January 20, 1934

SEISMOLOGY

Benares Near Center Of Monday Earthquake

BENARES, sacred city of India, was the nearest large focus of population to the epicenter of the severe earthquake that struck India at 3:43.1 a. m. (Eastern Standard Time) on Monday, Jan. 15, seismologists calculated after examining data wired to Science Service by a dozen earthquake observatories in the United States, Canada and England.

The approximate location of the center of disturbance was 25 degrees north latitude, 84 degrees west longitude.

Science News Letter, January 20, 1934