THE ANTIQUITY OF PYORRHEA REVEALED BY X-RAY

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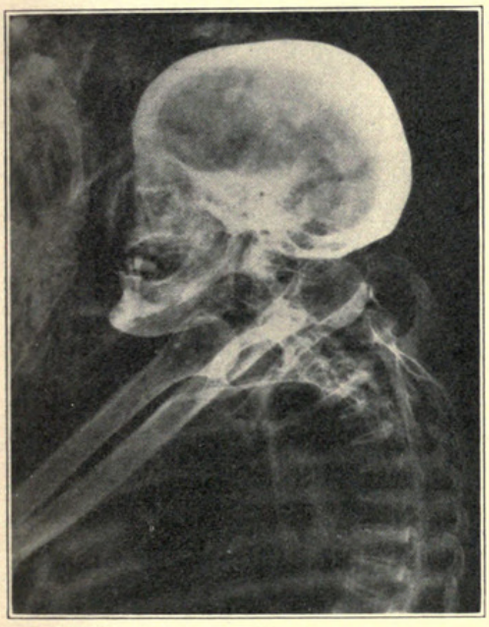
The incidence of pyorrhea in present times is too well known to merit discussion; its antiquity, however, has not been exploited. This disease has been the common lot of man from pre-dynastic times to the present day.

Careful modern diagnosticians consider pyorrhea an important etiologic factor. All patients suffering from chronic systemic disorders are subjected to an intra-oral examination before definite diagnosis is made. Every physician's and dentist's X-ray laboratory has a file of case histories which includes patients with pyorrhea. Field Museum X-Ray Laboratory has a record of mummies which display roentgenologic evidence of having been afflicted with this same disease.

Peruvian mummies dating back over hundreds of years, and Egyptian mummies dating back thousands of years before Christ, are on the Museum's pyorrhea list. Included is one of the oldest Egyptian mummies on record, a pre-dynastic specimen of a woman antedating 3,500 B.C., who lost most of her teeth, probably due to pyorrhea.

This pre-dynastic mummy comes from a period before the introduction of the practice of embalming; the body was dried by nature. A shallow pit was dug in the desert sands and a grass mat was spread in the bottom of it. The body, folded in the embryonic position, rested on this mat, and was covered with skins pieced and stitched together, the short fur on the inside. This in turn was covered by a woven piece of linen cloth, and a second



Ancient Pyorrhea Sufferer

X-ray picture of mummy of Egyptian woman in Field Museum collection, revealing that modern disease attacked ancients. From a film made in the Museum's roentgenological laboratory.

grass mat was placed on top. The head was usually toward the south. Around the body were set jars of food and drink, tools and weapons, and sometimes toilet requisites. The pit was then filled with sand and left undisturbed until the advent of the archaeologist.

The accompanying illustration is a roentgenogram of this pre-dynastic Egyptian mummy. The specimen is on exhibition in the Egyptian Hall (Hall J) of the Museum.

This woman, who, judging from her skeleton, was not an elderly individual when she died, was nevertheless aged physically. In the print, it can easily be seen that her back was bowed, and to the observer accustomed to the interpretation of these films, her entire attitude is one of physical decrepitude and despair. Pyorrhea may have been a contributing cause of this woman's physical disability. Prophylactic measures at the onset of her disease might possibly have prevented her deformity and added to the span of her life.

An interesting series of research problems is being carried out in the Division of Roentgenology of Field Museum. This laboratory is a gift to the institution from President Stanley Field.

A new and unique X-ray technique which produces films of greater brilliancy than it is possible to produce by the usual methods, and is peculiarly adapted to museum work, has been developed in this laboratory. The ray used in this technique could not be used on living tissue because of its caustic effect, but it does not in any way harm the materials that are submitted for examination in the Museum.

BATS OF THE CHICAGO AREA

By Colin C. Sanborn
Assistant Curator of Mammals

Bats are flying mammals belonging to the order Chiroptera. The seven species found in the Chicago area are beneficial rather than harmful. They feed entirely on insects, and do not suck blood or fly into a person's hair. Blind bats can fly about and avoid striking objects with as much ease as bats which can see, so there is no reason to be afraid of their becoming entangled in one's hair. The vampire or bloodsucking bats are found only in Mexico and South America.

Bats are common in this region between May and September. The red and silver-haired bats are the most abundant. Then follow the little brown bats and also the larger brown species. The hoary bat, the largest one found here, is rather scarce, and there are but few records of Trouessart's and Rafinesque's bats. These last two resemble externally the little brown bat, and could easily be confused with it.

Bats are more plentiful during their migrations in the spring and fall. Some bats do not migrate for the winter but hibernate here. A silver-haired bat was found in the Museum on February 5, and a brown bat was taken from a wood-pile in late December. The young number from one to two. When small they cling to the mother as she flies about in search of food.

There is still much to be learned about the bats of the Chicago area, and Field Museum will be glad to receive specimens or records of occurrence. Most of the bats of this region may be seen in the Museum in a case especially devoted to mammals of the Chicago area.

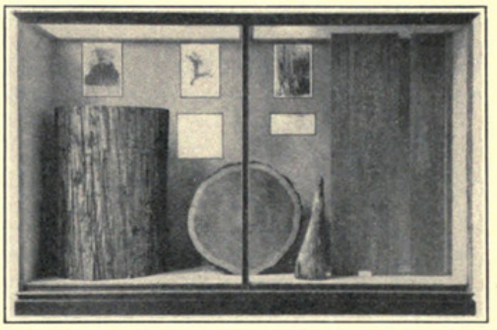
Nature Study Classes

Approximately 65 scoutmasters and assistant scoutmasters of boy scout troops in the Chicago area attended a series of classes in nature study held at Field Museum between February 28 and March 28. The course was presented by lecturers of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures. Its aim was to train the scoutmasters for conducting nature study work among the boys enrolled in their troops.

REINSTALLATION OF WOODS IS NEARLY COMPLETED

The forests of North America are scarcely excelled by those of any other country for the wealth of timbers they provide. According to Sargent's *Manual of the Trees of North America* there are more than 700 species of trees growing in North America.

A few years ago Professor Samuel J. Record, the Museum's Research Associate in Wood Technology, was asked to formulate



Typical Wood Exhibit

This case, containing specimens of southern cypress, illustrates the manner in which all exhibits of North American woods are being reinstalled.

a plan for reinstallation of the exhibits of North American woods in Charles F. Millspaugh Hall (Hall 26) whereby they would be displayed to the best advantage to meet the requirements of the student interested in American forestry, and the person seeking definite information on the properties and characteristics of various woods with a view to some specific use, as well as the casual visitor to the Museum. Professor Record worked out a plan under which reinstallation was begun in 1929, and this work is now nearing completion.

Of the very large number of species of trees native to the United States and Canada, a few are of vastly greater importance than the rest. Some, such as walnut, stand out because of their excellent quality; others, such as yellow pine, because of their relatively great abundance. Almost the entire supply of useful timbers of the United States and Canada is at present derived from about ten per cent of the total number of existing species. Because of this, together with space limitations, the exhibits have been restricted for the most part to the trees which are industrially and commercially of actual importance, or some eighty-four species. However, the Museum also has study collections comprising samples of almost all of the trees of North America.

The present appearance of the wood exhibits as reinstalled is well illustrated in the accompanying photograph showing the case containing southern cypress. Arranged in the sequence of their botanical relationships, beginning with the pines, each tree is represented in a standardized manner by a section of trunk showing the bark, a cross section of the trunk, and selected boards which show the appearance of the wood and varieties of grains. These specimens are supplemented by photographs or reproductions of branches showing foliage, flowers or fruit; photographs showing the trees growing both under summer and winter conditions, and maps indicating the distribution. In the labels information is given as to the principal characteristics and physical properties, and the chief uses for which the wood is suitable.

The model of the moon at Field Museum is the largest and most elaborate ever made.