

Field Museum of Natural History

Founded by Marshall Field, 1893

Roosevelt Road and Lake Michigan, Chicago

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FIELD MUSEUM NEWS

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Field Museum is open every day of the year during the hours indicated below:

Nov., Dec., Jan., Feb., Mar.	9 A.M. to 4:30 P.M.
April, September, October	9 A.M. to 5:00 P.M.
May, June, July, August	9 A.M. to 6:00 P.M.

Admission is free to Members on all days. Other adults are admitted free on Thursdays, Saturdays and Sundays; non-members pay 25 cents on other days. Children are admitted free on all days. Students and faculty members of educational institutions are admitted free any day upon presentation of credentials.

The Museum's natural history Library is open for reference daily except Saturday afternoon and Sunday.

Traveling exhibits are circulated in the schools of Chicago by the N. W. Harris Public School Extension Department of the Museum.

Lectures for schools, and special entertainments and tours for children at the Museum, are provided by the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures.

Announcements of free illustrated lectures for the public, and special lectures for Members of the Museum, will appear in FIELD MUSEUM NEWS.

A cafeteria in the Museum serves visitors. Rooms are provided for those bringing their lunches.

Chicago Motor Coach Company No. 26 buses go direct to the Museum.

Members are requested to inform the Museum promptly of changes of address.

MEMBERSHIP IN FIELD MUSEUM

Field Museum has several classes of Members. Benefactors give or devise \$100,000 or more. Contributors give or devise \$1,000 to \$100,000. Life Members give \$500; Non-Resident Life and Associate Members pay \$100; Non-Resident Associate Members pay \$50. All the above classes are exempt from dues. Sustaining Members contribute \$25 annually. After six years they become Associate Members. Annual Members contribute \$10 annually. Other memberships are Corporate, Honorary, Patron, and Corresponding, additions under these classifications being made by special action of the Board of Trustees.

Each Member, in all classes, is entitled to free admission to the Museum for himself, his family and house guests, and to two reserved seats for Museum lectures provided for Members. Subscription to FIELD MUSEUM NEWS is included with all memberships. The courtesies of every museum of note in the United States and Canada are extended to all Members of Field Museum. A Member may give his personal card to non-residents of Chicago, upon presentation of which they will be admitted to the Museum without charge. Further information about memberships will be sent on request.

BEQUESTS AND ENDOWMENTS

Bequests to Field Museum of Natural History may be made in securities, money, books or collections. They may, if desired, take the form of a memorial to a person or cause, named by the giver.

Contributions made within the taxable year not exceeding 15 per cent of the taxpayer's net income are allowable as deductions in computing net income for federal income tax purposes.

Endowments may be made to the Museum with the provision that an annuity be paid to the patron for life. These annuities are guaranteed against fluctuation in amount, and may reduce federal income taxes.

GIANT FOSSIL BEAVER

By ELMER S. RIGGS

Associate Curator of Paleontology

One of the Museum's treasures exhibited in Ernest R. Graham Hall (Hall 38) is a skeleton of a giant beaver, *Castoroides ohioensis*, as large as that of a black bear. The chisel-like incisors are three-quarters of an inch in diameter and project three inches beyond the jaws. These are the tools which enabled this animal to cut down trees of considerable size.

The specimen was found in a peat-bog near Fairmount, Indiana. A tile ditch which drained this piece of wet land had become stopped up and the farmer undertook to locate the tile by probing the ground with an iron rod. In so doing he encountered a hard object which was naturally mistaken for the tile. It proved to be the lower jaw of a large animal; the digging which followed revealed the skeleton of this giant beaver.

A skull of this species of animal, exhibited in the Museum, was found nine feet under ground while workmen were digging in a creek bank for the foundation of a bridge abutment, near Groverton, Indiana. A jaw of the same species was found at Mount Ayr, Indiana. More recently another lower jaw has been dug up by workmen who were excavating in the bed of an old lagoon at Philips Park, Aurora, Illinois, for the purpose of making a small lake. Other species of animals of this kind have been found from New York to Kansas, showing that *Castoroides* had a wide range over the eastern half of the United States.

No specimen has been reported from the immediate vicinity of Chicago so far as this writer is informed. Evidence in the form of beaver cuttings, nevertheless, has recently been encountered near Antioch, Illinois. Mr. Charles N. Ackerman, an Associate Member of the Museum, while dredging channels in peat along the shores of Grass and Fox Lakes, encountered wood showing beaver cuttings. While some of the tooth-marks were so small as to indicate that the work had been done by a species of the common beaver, *Castor*, other tooth-marks were so large as to indicate work of the larger *Castoroides*. There were branches and sections of small trunks of trees among which willow, oak and ash have been identified in the laboratories of the Museum's Department of Botany.

As further evidence of old forests in the Fox Lake region, Mr. Ackerman writes of his discoveries during the dredging operations:

"We several times had occasion to start excavations out in the clear where water did not at once come in to prevent our observing the full depth of the cuts, and here on several occasions we found trees (stumps), standing erect on their roots, in natural soil and atop clay subsoil.

"In one of these holes about fifty feet square were found fifteen or twenty stumps all erect and about six feet high. About these stumps and up to their tops was drift sand. Above the stumps to the surface or river level, another six feet, was peat. Around the roots of the stumps was what seemed a natural dark top soil and underneath clay."

Most of the skeletons of *Castoroides* are found in peat-swamps which, before artificial drainage was introduced, were covered with standing water. The water and preservative acids developed from decaying vegetation accounts for their preservation. Bones left on dry ground and exposed to the action of sun, rain and frost would have soon

decayed. The skeletons found belong to animals which lived during, or after, the glacial period. Some may have survived to within a few thousand years of the present time, but the species is now extinct.

FINGERPRINTING IN CHINA

On exhibition in George T. and Frances Gaylord Smith Hall (Hall 24) are a number of ancient clay seals from China, intentionally marked with thumb or finger prints used for purposes of authenticating documents on which the seals were imprinted. Also, illustrating an altogether different phase of the use of fingerprints, are several paintings executed entirely by employing the artists' fingertips and nails for spreading the ink or paint, instead of using a brush.

The fingerprint system of identification, which plays such an important part in crime detection today, is one of the many things generally considered to be thoroughly modern which actually had its origin in practices common in the Orient several hundred years before the Christian era. This is demonstrated in a monograph on the subject which was written by the late Dr. Berthold Laufer, former Curator of the Department of Anthropology.

While the use of fingerprints in India preceded adoption of the system in the western nations, and the idea seems to have reached Europe from there, evidence was found by Dr. Laufer to support a hypothesis that it originated in ancient China and reached India through Chinese emigrants or due to commercial intercourse. Finger and thumb prints, and even imprints of the whole hand, were widely used as signatures on legal papers in ancient China. They were not used, however, for identifying criminals. Quoting from Dr. Laufer: "Crime never assumed vast proportions in China. When crimes were committed, detection and capture were usually comparatively easy, and nothing like a criminological science was required under the patriarchal organization of government in the old China."

Some of the finger paintings executed by the Chinese reach a high artistic level. Of these Dr. Laufer wrote:

"The origin of finger painting seems to be somehow linked with the practice of finger prints, and may have received its impetus from the latter. Chinese words for both are closely related. It seems, also, that in finger painting the idea of magic was prevalent, and that the artist by direct bodily touch with the paper or silk was enabled to instill part of his soul into the work. There is reason to suppose that further research might indicate that finger painting is a most ancient and primitive method of drawing and painting, practiced long before the invention in the third century B.C. of the writing brush of animal hair and the older wooden stylus."

New Guide-Lecturers Appointed

Two new guide-lecturers have been appointed to the staff of the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures. Mrs. Leota G. Thomas joined the staff recently to fill the vacancy caused by the resignation of Mr. Franklin C. Potter, who has taken a position with the United States National Parks Service. Effective March 1, Miss Velma Whipple has been appointed to the staff to augment the number of lecturers available, because of the increasing demands for service made upon the Raymond Foundation.



1936. "Fingerprinting in China." *Field Museum news* 7(3), 2-2.

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