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THE CHICAGO CORAL REEF 400,000,000 YEARS AGO

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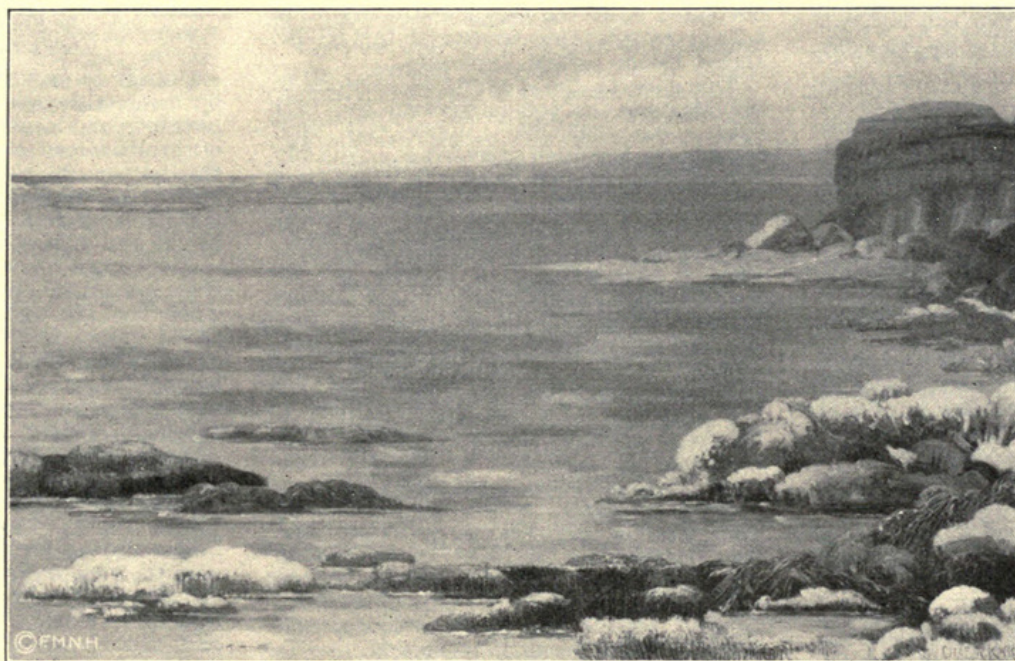
Four hundred million years ago the site of Chicago was submerged under the waters of a great interior sea which covered the northern part of what is now the Mississippi Valley. The limestone which underlies the city was the bed of this shallow sea, and it contains many fossilized remains of the stony skeletons of marine animals. Study of these fossils enables geologists to present a fairly complete description of the local life and conditions of that time.

This sea was an offshoot of the Arctic Ocean, but at that time the Arctic waters were warm and the climate subtropical. Conditions at Chicago especially favored coral growth, and masses and reefs of coral were the dominating features of this primeval scene. The coral is a small primitive animal, little more than a tube of flesh with a mouth and crown of tentacles on its upper end. It rests upon a pedestal of limestone which it builds from lime extracted from the sea water. There were many single corals, each growing on its own pedestal, but the impressive features of the seascape were the colonies of compound corals where many animals grew together, their stony pedestals coalesced into one large mass. The individual corals were small, seldom exceeding a quarter of an inch in diameter, but the colonies were large. Some took the form of domes; other cylindrical branching forms resembled grotesque trees. At this time corals had just acquired the reef building habit, and a great coral reef which has been exposed in what is now a quarry at Stony Island Avenue and Ninety-first Street was among the first such reefs formed. Resemblance to modern reefs was increased by the presence of the more delicate bryozoa. These resembled corals but were slender and grew in intricate network patterns. Many assumed fan or leaf forms. Others were branching or netted threads which incrustated the coral.

There were also the crinoids, which, with their small round bodies and feathery tentacles growing on long, flexible stems, look so much like flowers that they are called stone lilies. Sponges and shellfish also grew attached to the bottom but in

lesser numbers. Not all the animals were attached to the sea bottom—there were crawling and swimming forms as well. The scavenger trilobites with the habits and much of the appearance of crabs, were common. The cephalopods, the most highly developed animals of these seas, were numerous. They were related to the octopus and squid, but unlike these were provided with shells. There were a number of varieties. Some had coiled shells, and others, including the largest and most common, had long, straight, pointed shells.

Other animals were present in smaller



The Site of Chicago, 400,000,000 Years Ago

Mural by Charles R. Knight restoring the Chicago coral reef, as science indicates it probably appeared. The land where the city now stands was then submerged beneath the Arctic Ocean, which in those days was a tropical sea. This painting is on exhibition in Ernest R. Graham Hall.

numbers and there must have been vegetation to support the abundant animal life, but this vegetation, confined to the lower orders of plant life, had no hard parts to become fossils, so that we know little of it.

Although this scene, if we could view it, would be strange in detail, its general aspect must have been very like that of a modern coral reef and, in fact, less strange to us than most landscapes of that remote time or even of times much more recent. A restoration of the Chicago reef forms the subject of one of the twenty-eight mural paintings by Charles R. Knight, exhibited in Ernest R. Graham Hall (Hall 38). The painting is reproduced in the illustration accompanying this article.

Supposedly magic ornamental daggers, hatchets, war clubs, tridents and other weapons used by Lama priests of Tibet in exterminating demons and enemies of Buddhism, are on exhibition in Hall 32.

SCULPTOR COMPLETES BRONZES OF ORIENTAL PEOPLES

Miss Malvina Hoffman of New York and Paris, distinguished sculptor commissioned by Field Museum to prepare 110 life-size bronze statues, busts and heads representing the principal living races of mankind for exhibition in Chauncey Keep Memorial Hall, recently returned to America. About two-thirds of her task is now completed. On her last journey she was engaged in extensive studies of the peoples of Asia and the South Pacific, and, during a subsequent sojourn at her Paris studios she made the finished bronzes of figures modeled in clay during her travels. Last month Miss Hoffman spent a week at the Museum at work upon various details in connection with the Keep Hall project.

Before undertaking her work in the Orient, Miss Hoffman had made the figures illustrating types of the peoples of Europe, Africa, and America. Early in the autumn of 1931 she sailed from San Francisco for the Far East. She was accompanied by Samuel B. Grimson, her husband, who acted as photographer of the expedition; Miss Gretchen Greene, secretary and manager; and Jean de Marco, who made the plaster casts. The party visited Honolulu, Japan, China, the Philippines, Bali, Java, Singapore,

Penang, the Malay Peninsula, Calcutta, Delhi, Jaipur and Colombo.

Everywhere Miss Hoffman was received with the greatest cordiality and enthusiasm, and local anthropologists rendered valuable assistance. Museums and hospitals were placed at the artist's disposal, and in them she made her headquarters for studying, measuring, photographing, and modeling the best available living representatives of the racial types desired.

The Bishop Museum of Honolulu accorded Miss Hoffman full cooperation, and there she modeled a life-size portrait-head of a Hawaiian youth, and another of a Samoan. She also made a life-size drawing of a Samoan chief. At Tokyo Miss Hoffman modeled life-size heads of a Japanese man and woman. She then made a trip to the island of Yezo, home of the Ainu, where she obtained as subjects for study a typical old Ainu man and middle-aged woman. The data, measurements, and photographs

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