FOSSIL CONES AND BRANCHES OF ARAUCARIAN TREES BY ELMER S. RIGGS

Curator of Paleontology

The evergreen cone-bearing tree, known in forestry as the Araucaria, is more com-monly designated as the Brazilian or Chilean pine. A picture of the Chilean species appeared in FIELD MUSEUM NEWS, May, 1936. A related Australian species has been introduced to various sections of North America. Fossil cones and branches of trees related to Araucaria have been found in various parts of North and South America. A few years ago a fossil forest, similar in importance to that of Arizona, was dis-Argentina. It is designated as the Cerro Cuadrado Fossil Forest, named after a volcanic crater and landmark of that region. This locality was visited by the Marshall Field Paleontological Expedition in 1924, and a large collection of remarkably fine agatized cones, branches and trunks was brought to Field Museum. The collection forms the basis of a publication issued in 1935 by Dr. G. R. Wieland, of Yale.

From this Argentine fossil forest, Dr. Wieland has reported two distinct kinds of evergreen conifers. These species are based upon numerous beautifully agatized fossil cones which are so well preserved as to show in detail their seed-bearing structures. They are also known from twigs which show by leaf-scars the nature and arrangement of the foliage; likewise from many sections of branches and larger trunks showing annular rings and the grain of the wood.

The larger species of this conifer has been named Proaraucaria mirabilis and is designated as an ancestor of both the modern Araucaria and the pines. The species was first reported by Señor Carlos Spegazzini of Argentina, in 1924, and its study was further elaborated by Dr. Wieland in his publication.

A much smaller cone-bearing tree was named *Pararaucaria* and studied and illustrated by Dr. Wieland in the same publica-tion. This species is regarded by him as another branch of the family and more distantly related to the modern species.

An elaborate series of these fossil cones, collected by the Marshall Field Paleontological Expedition to Argentina, has re-cently been placed on exhibition in Ernest R. Graham Hall (Hall 38) of Field Museum. Many beautiful sectioned and polished cones, both male and female, are included in this exhibit. Beside them, for comparison, are exhibited cones of the modern Australian Araucaria bidwilli with branches and foliage of the same.

The specimens were found eroded from a bed of volcanic ash, near two volcanic craters, which poured out sheets of lava during the Oligocene period. It is quite probable that volcanic ash thrown out about the same time covered and preserved the trees and cones of the fossil forest.

PORCELAIN REVEALS TECHNIQUE

The technique of Chinese porcelain manufacture is accidentally revealed in a globular blue censer now in Field Museum. It was made probably in the sixteenth century, and was presented, as a supplication offering for sons, to a temple in Peking. The inscribed petition of the would-be-father, a man named Fang, is of interest. A trans-lation appears on the label accompanying the censer, which is on exhibition in Case 31 of George T. and Frances Gaylord Smith Hall (Hall 24).

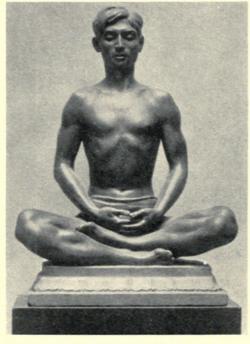
Five holes, cut through the sides, disclose the real body of the vessel, and also illustrate

the steps in making it. The bowl was first shaped, dried, and then painted. Next the glaze was laid on, but before baking the five holes were cut. Finally it was fired at a high temperature which fixed the glaze and incidentally oxidized the edges of the holes to a red color. If the cutting had been done after the baking these edges would have been white. The holes were cut as sockets for the legs and handles, which are now missing. —C.M.W.

KASHMIRI IN MEDITATION

On the southern slopes of the Himalayas lies the native Indian state of Kashmir. It lies the native indian state of rassiant. To occupies a number of successive steps or valleys, the largest and richest of which is the famous "Vale of Cashmir," approxi-mately eighty miles long and twenty-five miles wide. With an average elevation of 0.000 feet it is surrounded by lofty mountain miles wide. With an average elevation of 6,000 feet, it is surrounded by lofty mountain ranges, and is separated from the plains of northern India by rocky barriers fifty to seventy-five miles in width.

Despite this isolated geographical location, its inhabitants, the Kashmiris, are a mixed



Photograph copyright Field Museum of Natural History

Mystic

Bronze sculpture of a Kashmiri in meditation, representing one of India's many racial groups. On exhibition in Chauncey Keep Memorial Hall.

people. They are typical representatives of the Indo-Afghan races of northwestern India and Afghanistan. Medium in stature, though quite variable in height, they have rather long heads, with regular features, and a tendency to prominence of the nose, which is usually straight or convex. Their skin color is light transparent brown; they have dark eyes, and black, wavy hair.

The Kashmiri language is classed among the Indo-Aryan group, but shows an undercurrent of a more primitive dialect. In religion most of the Kashmiris are Mohammedans, but about one-quarter are Hindus. The majority of the latter are Brahmins, and it is a common sight to see a holy man sitting under a tree surrounded by his dis-ciples, or sunk in deep meditation in the attitude of prayer. Such a one was chosen by Miss Malvina Hoffman to represent these people in the Races of Mankind sculptures in Chauncey Keep Memorial Hall (Hall 3).

MAY GUIDE-LECTURE TOURS

Conducted tours of exhibits, under the guidance of staff lecturers, are made every afternoon at 3 P.M., except Saturdays, Sundays, and certain holidays. Following is the schedule of subjects and dates for May:

Week beginning May 3: Monday—Indians of the Chicago Area; Tuesday—Animals of Economic Im-portance; Wednesday—Primitive Philippine Life; Thursday—General Tour; Friday—Trees of the Chi-care Area cago Area.

Week beginning May 10: Monday-Egyptian Exhibits; Tuesday-Bird Habitat Groups; Wednesday -Moon, Meteorites, Minerals; Thursday-General Tour; Friday-The Cave Peoples.

Week beginning May 17: Monday-Primitive African Exhibits; Tuesday-Plants of Economic Value; Wednesday-Hall of Fossil Plants and Animals; Thursday-General Tour; Friday-Game Animals.

Week beginning May 24: Monday—Skeletons, Past and Present; Tuesday—Indians of Plains and Deserts; Wednesday—Modern Man; Thursday—General Tour; Friday-Unusual Plants.

Monday, May 31-Memorial Day holiday, no tour.

Persons wishing to participate should apply at North Entrance. Tours are free and no gratuities are to be proffered. A new MUSEUM NEWS. Guide-lecturer's services for special tours by parties of ten or more are available free of charge by arrangement with the Director a week in advance.

Gifts to the Museum

Following is a list of some of the principal gifts received during the last month:

gifts received during the last month: From Harold S. Gladwin—29 pieces of pottery and 50 potsherds, Arizona; from Miss Caroline M. Wicker and Mrs. Frances Rugman—3 ethnological specimens, Sudan; from Dr. E. E. Sherff—296 herbarium speci-mens; from Professor J. Douglas Hood—28 herbarium specimens, Peru; from R. H. Stewart—a specimen of lepidodendron, West Virginia; from Estate of William N. Rumely—an iron meteorite, Indiana; from Alfred A. Look—a fossil *Titanoides* skull, Colorado; from Lincoln Park Zoo—an adult chimpanzee; from P. E. P. Deromyagala—9 snakes, Ceylon; from John G. Shedd Aquarium—8 fish specimens and 15 snake eels, Africa, Mexico, and Florida; from Chicago Zoological Society— 7 birds, a lizard, 2 snakes, a small panda, a kangaroo, and a hyrax; from Howard K. Kelley, from Dr. E. E. Sherff, and from J. Eric Thompson—valuable books for the Library.

NEW MEMBERS

The following persons were elected to membership in Field Museum during the period from March 16 to April 15:

Associate Members

Rev. Edward S. Ames, Dr. Fred Bischoff, James A. Gamble.

Annual Members

Annual Members Leon J. Caine, Edward C. Cronwall, Miss Hilda G. Davis, Peter Diem, Mrs. Fred B. Edell, Mrs. Anne Forester, Mrs. Rushton L. Fordyce, Dr. E. M. K. Geiling, Mrs. Ida M. Headley, Arnold Horween, Charles W. Jones, Mrs. Rose H. Keller, Edward L. Kunze, Miss Jennie Lintuman, Alfred W. Mansfield, John A. Massen, W. Edward Maurer, Frederick Mayer, Mrs. E. Eugene Neff, Hoogner Nelson, Ludwig Plate, Mrs. James E. Poole, Jerome B. Rosenthal, Max Rosner, Julius Schwill, Burton F. Secord, Isaac Shapiro, W. D. Steele, Mrs. Etta D. VanVlissingen, William Wager, W. S. Weber.

Distinguished Visitors

Four noted European scientists were visitors at Field Museum last month. They are Dr. Oswald Menghin, professor of prehistoric archaeology at the University of Vienna, Dr. H. R. von Koenigswald, paleon-tologist of Bandoeng, Java, Dr. V. Gordon Childe, professor of prehistoric archaeology at the University of Edinburgh, and Dr. Dorothy A. E. Garrod, research fellow of Newnham College, Cambridge, England Dr. Garrod assisted the Museum some years ago in planning the Gibraltar Neanderthal group in the Hall of the Stone Age of the Old World (Hall C).



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