

animal fossils are less common and are usually not carbonized.

In the last nineteen years, Mr. George Langford, Assistant Curator of Fossil Plants on the Museum staff, has collected more than 500 different species of plants and 100 species of animals in nodules from these spoil heaps. Thus we know that the swamps



Drawing by Curator Richardson

'NUT-CRACKING' FOR SCIENCE

A collector cracking nodules in the field. He uses a flat-faced hammer, holding the nodule edgewise on a convenient stone "anvil." He has thoughtfully brought along a galvanizing pail to carry home the nodules that contain good fossils.

from which the Illinois coal was derived were unusually rich in life forms as compared with even present-day swamps. The plant remains range from tiny spores and ferns to pieces of the trunks of large tree-ferns and club mosses. The animals include horse-shoe crabs, mussels, shrimp-like forms, millipedes, insects, spiders, and fishes. The climate in which they all lived was warm and humid, with shallow fresh water underfoot, probably moving sluggishly toward the sea that then covered the Missouri and Kansas region. Overhead were tall fern-like trees, such as may be seen in the famous diorama of a coal-swamp forest in Ernest R. Graham Hall (Hall 38), shown on the cover of this BULLETIN and on page 3.

BEST SPECIMENS NOT SHOWIEST

Since new or rare species of plant and animal fossils are continually being discovered in the Pennsylvanian nodules of the Braidwood area, it is highly desirable that anyone collecting in that area should have his specimens identified and should make some provision for depositing the scientifically valuable material in the Museum. Let him who wants to build a collection of his own be not alarmed that he will lose it in this way, however. The scientifically important nodules in his cabinet will most likely not be those that are the most spectacular to look at. Ex-

perience has shown that the showiest specimens belong in general to the commonest species; the rare ones are very frequently thrown away by the amateur collector without even being taken home.

THE MUSEUM AND STUDY OF LIVING PEOPLES

By ALEXANDER SPOEHR
CURATOR OF OCEANIC ETHNOLOGY

As part of the program of research and exhibition carried on by the Department of Anthropology, one of the Museum's major interests has been in ethnology—the study of the cultures of living peoples.

Ethnology is often supposed to be restricted to the observation of primitive peoples only, as these existed in their native state, unaffected by contact with the western world. However, there are few if any groups left that remain completely undisturbed by the expanding industrial civilization of Europe and America. If ethnology is only the study of primitive peoples in their pristine state, then its subject matter has almost disappeared.

Ethnologists, however, do not accept this limitation of their field. It is perfectly true that they have concentrated attention on the lesser-known, often technologically primitive, peoples of the world. The reason for this is to be found in the broad comparative framework in which anthropological study proceeds.

BROAD AS THE EARTH

Anthropology, of which ethnology is a subdivision, is oriented around the conviction that man and his works should be observed and studied wherever man, or evidence for his former presence, is to be found. The proper study of mankind is as broad as the earth and extends as far back in the corridors of time as the evidence permits. In implementing this approach, ethnologists concentrated on those living peoples of the world about which little or nothing was known. They concerned themselves with learning more about exotic groups, some of them possessors of only the simplest techniques with which to make a living, others with an advanced technology and a sophisticated art. Great museum collections illustrating the native cultures of Africa, Oceania, Asia, Australia, and the Americas were established in the urban centers of Europe and America.

In the relatively short span of its existence, ethnology has been able to block out the major indigenous cultures of the world. Through the continuous improvement of its exhibits, this Museum has as one of its jobs to show the diversity of form and the essential characteristics that the world's cultures display, in order that we may deepen our perspective of man in relation to his culture and come to understand better the

variety of culture types that have been associated with human groups over the earth.

So far, we have emphasized two things about ethnology: its comparative nature and its interest in men wherever they live. These prompted the sending of ethnological expeditions to isolated places. Although the native cultures of even the most remote peoples now have been affected by the expansion of western civilization, there is no sound reason to believe that humanity the earth over will soon be the possessors of a uniform culture. There will remain great blocks of peoples in Asia, Africa, and the Pacific whose cultures will continue to be very different from our own.

'AREA STUDIES'

At the moment one of the major interests in research and teaching in universities is in foreign "area studies"—the thorough understanding of a major world area with its human population and its culture. The prominence of the United States in world affairs demands a wider knowledge of the people of such major areas if our relations with them are to be in any degree satisfactory to us and to them. Ethnology is particularly suited to the furtherance of such area studies.

In striving for a fuller understanding of the historical relations of peoples the world over, ethnology joins hands with archaeology and documented history. Ethnology has been a major contributor to one of the principal demonstrations that anthropology has made: the importance and nature of culture—that entity consisting of a traditional heritage of meanings shared in by a society. And it has developed the comparative method in its techniques for showing the stuff of which cultures are made and wherein they differ. It has striven for objectivity, so necessary for understanding.

This contribution of ethnology to foreign area studies is not merely academic. With the conclusion of World War II, the United States assumed the responsibility for the administration of the ex-Japanese Mandate in the Pacific, consisting of most of the islands of Micronesia. Yet in this country little was known of the people who lived there. Accordingly in 1947 and 1948, a program of ethnological research, in which the Museum participated, was conducted in Micronesia to find what the cultures of the area were like—in what ways they were similar and how they differed. The information obtained will be of use not merely to anthropologists but also to the administrators of the area, who must have a basic knowledge of the people if administration is to be successful.

SOCIAL ANTHROPOLOGY

Growing out of the comparative nature of ethnology there has also crystallized a special interest, which has come to be called social anthropology. The aim of social

anthropology is not so much the descriptive study of the diverse cultures of the world, or of establishing their particular historical connections, as in defining and testing more general propositions concerning the nature of man and culture. Social anthropology is only in the process of becoming established and its formulations are still preliminary. Like all of anthropology, its point of view is comparative.

If we are to know the nature of man's family organization, then the family systems of societies the world over must be contrasted and compared. If we are to understand economic systems, we must compare the different motivations that lead men to work and to save, and the utilization of wealth in different societies. If we are to understand the processes of culture change, a hypothesis derived from the examination of one culture must be tested against comparable situations in other cultures. Finally, social anthropology is essentially empirical. The student must go into the field and observe at first hand—whether it be to the Eskimo, the Maya, the Solomon Islanders, the Chinese, or modern America that his problem leads him.

As a result, we find that ethnology is not to be defined by its particular subject matter

as much as by its approach and problems. Anthropologists have studied modern communities in the United States, as well as in Ireland, Mexico, Africa, and the Solomon Islands. The internal organization of a factory has been found to be susceptible to the same methods of investigation as a Melanesian village. There is today a growing field of applied anthropology in industry.

As ethnology grows and matures, its goals and methods likewise change. It remains, however, comparative and empirical. In its development, it owes much to museums, for they have sent expeditions into the field and have supported ethnological work at home. Chicago Natural History Museum has sent ethnological expeditions to the Philippines, Madagascar, New Guinea, East Africa, Micronesia, Labrador, and British Honduras—to give but an incomplete list. The knowledge that these expeditions have gained has been diffused to the public through the medium of scientific publications and through exhibits and associated activities. Like the field work itself, the popular presentation of the results of such research is being constantly improved, in order to present a more intelligible picture of the history and nature of man and his works.

GENETICS, PALEONTOLOGY, AND EVOLUTION

For some years there has been a strong movement for the reintegration of sciences that had had separate and specialized development. The unifying intermediate sciences that have grown to independent status, such as physical-chemistry and biochemistry, have been peculiarly fruitful of results. The splitting of the atom and the crystallization of viruses are spectacular, but these successes represent only a small part of the scope of the new sciences.

Among the various biological sciences, specialized independent development had also reached an extreme by the end of the 19th century, and the new science of genetics has had a remarkable growth since that date. Within the Museum, the separation of zoology and botany and of the various divisions of systematic zoology illustrate this "isolationism." The movement for bringing these sciences together under the heading of *ecology* is one of the most promising directions of interest for the museum of the future.

Of all the unifying ideas, that of *evolution* touches the materials of museum exhibition and museum research most closely. The anatomy pursued and presented in museums is essentially comparative anatomy, with a main thread of interest in the evolution of its subject matter and close and direct relations with paleontology. Paleontology, in turn, depends directly upon neozoological source material but has evolution, both as

the major panorama of life on the globe and the development of minor individual groups, as its theme.

This is by way of introduction to explain the Museum's legitimate pride in its participation in the fine volume of essays, *Genetics, Paleontology, and Evolution*, published by Princeton University Press and resulting from the distinguished international conference under the same title held at Princeton in celebration of that university's bicentennial anniversary. Four members of the Museum staff were invited guests of Princeton University, January 2-4, 1947, to take part in the symposium that constituted the main purpose of the conference. These were Dr. Theodor Just, Chief Curator of Botany, Mr. Bryan Patterson, Curator of Vertebrate Paleontology (Department of Geology), Mr. D. Dwight Davis, Curator of Vertebrate Anatomy (Department of Zoology), and Mr. Karl P. Schmidt, Chief Curator of Zoology. One of the most effective aspects of the conference, however, consisted in bringing together the leading scientists engaged in systematic zoology and botany, paleozoology and paleobotany, and the whole field of genetics, with a series of younger men who had given promise of careers in scientific research.

The essays by the Museum staff in the distinguished volume now at hand are "Some Aspects of Plant Morphology and Evolution" by Dr. Just, "Comparative Anatomy and the Evolution of the Vertebrates" by Mr. Davis, and "Rates of Evolution in Taeniodonts" by Mr. Patter-

FIFTY YEARS AGO AT THE MUSEUM

Compiled by MARGARET J. BAUER

Mr. Edward E. Ayer, first President of the Museum, retired from this post in 1899. He continued to serve the Museum with unceasing interest, and the older members of the staff remember his visits made in a wheelchair nearly to the time of his death. Mr. Ayer is remembered for his contributions to the exhibition halls and for the notable Ayer Library of Ornithology.



THE SOMALI WILD ASS GROUP

Now on exhibition in Carl E. Akeley Memorial Hall (Hall 22).

In 1899 Carl E. Akeley completed and installed the Somali wild ass group, an exhibit that illustrates clearly his exceptional artistic talents. Hitherto, taxidermists had too often turned out specimens that, while anatomically correct, appeared lifeless and wooden. The fine line of demarcation between artist and craftsman in taxidermy is shown in the Somali wild ass group. Art students, especially, will be interested in noting the different attitudes and expressions that make for the individuality of each of the animals.

son. The appearance of these names on the attractive jacket of the book constitutes the kind of public recognition of its role in modern science that the Museum most needs.

KARL P. SCHMIDT
Chief Curator of Zoology

Technical Publications Issued

The following technical publications were issued by Chicago Natural History Museum during the last month:

Fieldiana: Zoology, Vol. 31, No. 30. *A New Species of Tinamus from Peru*. By Boardman Conover. June 30, 1949. 4 pages, 2 text figures.

Anthropological Series, Vol. 30, Part I, No. 2. *The Anthropology of Iraq. The Lower Euphrates-Tigris Region*. By Henry Field. July 8, 1949. 202 pages, 180 plates, 4 text figures, 2 maps.



Spoehr, Alexander. 1949. "The Museum and Studies of Living Peoples."
Bulletin 20(8), 4-5.

View This Item Online: <https://www.biodiversitylibrary.org/item/25045>

Permalink: <https://www.biodiversitylibrary.org/partpdf/365477>

Holding Institution

University Library, University of Illinois Urbana Champaign

Sponsored by

University of Illinois Urbana-Champaign

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the Chicago Field Museum.
For information contact dcc@library.uiuc.edu.

Rights Holder: Field Museum of Natural History

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.