

## THE STORY BEHIND A MAJOR MUSEUM PROJECT

By AUSTIN L. RAND  
CHIEF CURATOR OF ZOOLOGY

WHEN WE PLANNED the synoptic exhibit of the animal kingdom one of the first questions was how big to make it. Obviously we couldn't use many whales, cuttlefish, elephants, or giant clams. But we could use small examples instead of large ones of each of the eight major types of animals. Finally we planned an exhibit that could be seen in its entirety in one place. After all, we have whole halls devoted to only parts of one group, for example five halls for mammals, which are merely one subgroup of the vertebrates. Vertebrates themselves have only about 46,000 species (contrasted with the million or so animals there are). For further information about each group we refer the visitor to the appropriate hall.

For the new exhibit we use eight cases, side by side, one for each of the major types of animals, and use small examples of each group shown. A mouse, a thrush, a perch, and a lamprey represent the vertebrates just as truly as would an elephant, a condor, a sturgeon, and a manta ray.

We want the Museum visitor, on first sight of the exhibit, to say "How attractive! How interesting looking! I wonder what it shows!" even before he becomes aware of the entrancing story the exhibit tells. A conference of Museum artists came up with background designs, dividing the cases into panels for each subgroup to be shown, and pastel shades of brown and tan were chosen to paint the panels.

### PAINTINGS ADD INTEREST

We realized early that the actual specimens we could exhibit needed additional illustrative material to show where and how the animals lived and their importance on our globe—something that would put across the beauty, the prominence, and the interest to us of these animals. A painting seemed the answer, and in each case we put at least one such panel. In subject the paintings range widely: for instance one is a robin pulling up a worm on a lawn, another an enlargement of protozoans in a drop of water, and another a view of corals on the Australian Great Barrier Reef. As well as supplementing the more prosaic specimens, the pictures are attractive in themselves, adding brightness and color.

Some of the specimens were easy. Dried sponges and corals (of the coelenterates) were used, even though they were only poor dried skeletons. Insects and crabs (arthropods) with their hard exoskeletons were fairly easy, though the legs of spiders and centipedes presented special difficulties. Snails and clams (mollusks) are represented chiefly by their shells, and echinoderms have a skeleton that is near enough to the surface to hold the shape when dry.

Most of the vertebrates require special preparation. We have one taxidermist whose specialty is making lifelike mounts of birds and mammals, and another who specializes in plastic replicas of reptiles, amphibians, and fishes that compare well with their living prototypes.

### OBSTACLES ARE OVERCOME

Then came the difficulties: soft-bodied worms, jellyfish that were mostly water, transparent crustaceans such as copepods. Fortunately we had some glass models, made long ago, of jellyfish, sea anemones, and Portuguese man-o'-war. These models would be hard to duplicate at the present time. The complexity and the transparency of these animals, and the long delicate tentacles are extremely difficult to show in any preparations, but the models we have are fine examples of the glassblower's skill. A few other models were made, such as that of the octopus modeled in wax with arms stiffened with wire.

However we used models as sparingly as possible. We wanted to show the real specimens whenever possible. Conferring with Turtox (General Biological Supply House) personnel we found that a number of soft-bodied animals could be displayed by first embedding them in a clear plastic. Some lower chordates, some crustaceans such as fairy shrimp, and a number of worms were prepared by Turtox in plastic blocks of appropriate sizes and show the animals very well. Even a dried sea-lily (crinoid) was improved in appearance by being embedded in a block of clear plastic.

Yet another technique was used in presenting an outline of the life history of a jellyfish. The animals are delicate and transparent at every stage, and a reverse carving was the answer. The animals were engraved on the back of a sheet of clear plastic, a small grinding-tool being used. When viewed from the front against a dark background, it is like looking at real animals floating in water. A similar technique gave very effective representations of copepods and an arrow worm. Not only are these transparent animals better represented than they would be by models, but the reverse carving is a much quicker process and it gives a "specimen" that is much more durable than a model would be.

### MICROSCOPIC SPECIES ENLARGED

Most of the animals shown are actual animals and most of the models are natural size, even when small species are shown. But when we came to the protozoans we had to show enlargements. We put samples of the real protozoans in the exhibit, mounted on microscope slides, but you can't even see them under the cover glass. So we also made enlargements by the reverse-carving method. To give the proper depth in the

carving, some details were carved on a second sheet of plastic and placed back of the first. These carvings are displayed on dark backing. From the front the appearance of depth is very real. To emphasize the fact that these are enlargements we placed a cutout of a microscope in the middle of the exhibit showing the protozoans. This points up the fact that protozoans are microscopic and that when you look at them you must use a microscope.

This is some of the background of "The Animal Kingdom." There is more that hasn't been touched on: the study collections gathered over the years on which we could draw for specimens, the books and the research that went into the form of the presentation, the long periods of application of rare skills of several persons to put the material together. The preparations required more than a year of work. Now, standing in front of the exhibit, you can see at a glance a synopsis of the types of animals that exist.

The exhibit was planned in the Department of Zoology. Joseph B. Krstolich, departmental Artist, devoted his time to it for over a year. E. John Piffner, Staff Artist, did the basic design of the exhibit unit and also the paintings and diagrams, with assistance by Miss Marion Pahl, Staff Illustrator. Carl W. Cotton, Taxidermist, prepared the birds and mammals, and Ronald Lambert, Taxidermist, did the reptiles, amphibians, and fishes. General Biological Supply House (Turtox), of Chicago, co-operated with the Museum in preparing and supplying material embedded in plastic.

## CURATOR TO COLLECT CARIBBEAN FISHES

As on several occasions in past years, the Museum will participate in a fishing expedition of the United States Fish and Wildlife Service. By invitation, Loren P. Woods, Curator of Fishes, sailed August 13 from Pascagoula, Mississippi, aboard the government service's motor vessel *Oregon* for a cruise of about forty days offshore, outside the international 12-mile limit. Trawling and long-line fishing along the entire coast of Central America from Yucatan to Panama will occupy the ship's regular crew and Curator Woods.

While the ship's personnel is engaged in investigating problems relating to commercial fisheries, Woods hopes to obtain thousands of specimens for study and for exhibition at the Museum. Woods will return to Chicago with his collections late in September, with barely enough time to sort his specimens into jars of alcohol before he departs again on the *Oregon* in November for a similar 40-day expedition farther south along the Atlantic coast of the Guianas and Brazil.





Rand, Austin Loomer. 1957. "The Story Behind a Major Museum Project."  
*Bulletin* 28(9), 6–6.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/25640>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/371235>

**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](mailto: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>.