

How an exhibit is made — Color in Nature

What is behind the Museum's presentation of a new exhibit like *Color in Nature* in Hall 25, which was opened to the public March 11?

It started as one item among many in a list of suggested 1971 exhibits assembled early in 1970 by Solomon Smith, the Museum's coordinator of temporary exhibits. It emerged as one of the four selected by the Museum's ten-man exhibit committee—composed of the director, chairmen of the four divisions (anthropology, botany, geology, zoology), chairman of the education department, planning and development officer, building superintendent, business manager, and chairman of the exhibition department.

It was among those chosen because color, as one of the fundamental dimensions of nature, is also one of the main dimensions of the Museum's collections. We know that the evolutionary function of color in plants and animals is often a critical aspect of their total character. We are aware of color in inanimate nature, but little more than some physical facts about how it is produced are understood.

The choice and execution of the *Color in Nature* exhibit demonstrates two exciting modern ideas in operation.

Assistant graphic designer Kathleen Kuhlman.



Bob Martin, designer of the exhibit.

One is about the nature of learning, and one is about the art of design.

Old ideas about both learning and design usually involved static facts or objects or pieces. New ideas about both involve a sense of dynamic flow. For instance, knowledge was often thought of as accumulation of facts—orderly, but in an essentially encyclopedic kind of order. "Furniture of the mind" was a favorite metaphor, but it did not mean the kind of comfortable furniture that invites one to slouch in it with shoes off. Knowledge is now more often thought of as systems and subsystems of relationships with which we interact. Unless "pieces" of information can be assimilated into patterns, little "learning" occurs.

Similarly, the old concept of design was based on arrangement of static elements around an axis, a kind of "middle," so as to produce a sense of equilibrium or symmetry. Design was often thought of as decoration for its own sake, to satisfy an esthetic appetite. Design is now more often thought of as a means to improve the effectiveness of communication and the flow of information.

Both of these new ideas are rooted in the fast, complex flow of modern

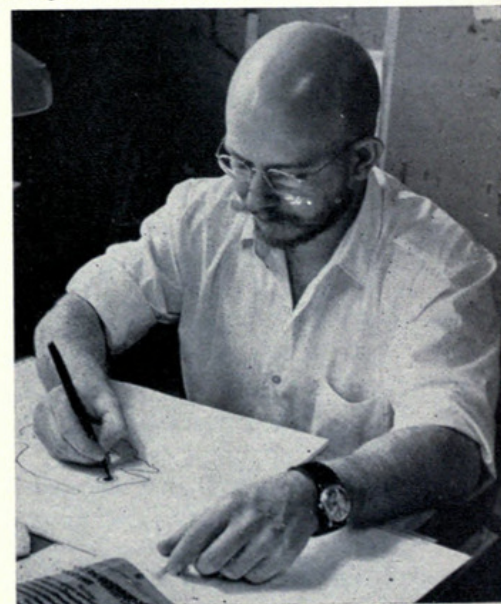
Lothar P. Witteborg

industrial "mass" society. And both ideas represent challenge within the walls of a natural history museum as much as in the "outside world." A natural history museum is now an essential part of the mass education framework necessary to support a modern society. It must certainly continue to develop further its capacity to generate new knowledge and understanding through research, but its unique responsibility—different from that of all other institutions in our society—is to make knowledge about our natural world concrete, accessible, and understandable to everyone. A museum is truly the most public of all educational institutions. The challenge is to educate by conveying understanding of the patterns of these complex, dynamic interrelationships.

The design of nature is a dynamic flow with many dimensions. Our designs for explaining it in exhibits must flow too and must combine as much concrete demonstration as possible with only as much abstract explanation in words as necessary. The whole must create a synthesis of visual appeal to both the emotions (by its interest) and the mind (by its logic).

To attempt to achieve such a grand goal, exhibit designers must think first,

Exhibition Department illustrator
Zbigniew T. Jastrzebski.



work later. They must thoroughly understand the information content and all the interrelationships in order to find the "storyline" pattern around which they can build to satisfy the three fundamental design principles—function, flow, and form.

In the case of *Color in Nature*, the Museum's first sizable interdisciplinary exhibit, the several "storylines" worked up by each of the scientific staff concerned had to be woven together. The exhibit is probably the most comprehensive assemblage of information about color in nature that has yet been attempted anywhere. Rupert L. Wenzel, chairman of the Department of Zoology, was the overall scientific coordinator; Donald Simpson contributed for Botany; Edward J. Olsen for Minerals; Melvin A. Traylor for Birds; Hymen Marx for Amphibians and Reptiles; Loren P. Woods for Fish; Alan Solem for Invertebrates; Philip Hershkovitz for Mammals; and John Kethley for Insects.

Bob Martin of the Exhibition Department, assigned to the project as main designer, and Solomon Smith did extensive background reading in the subject matter and met frequently with the scientists as a general plan for the

Bob Martin and student helper Dale Lehman install some of the larger specimens first.



A segment of the finished exhibit.

exhibit took shape. Eventually a rough scale model was made that divided the available space in Hall 25 into broad subject areas and a visitor flow path.

The designer always has these performance standards in mind: (1) to provide visual interest to gain attention and start the viewer's eye moving; (2) to simplify visual representation and organization for speed in viewing, reading, and understanding; and (3) to provide visual continuity for clarity in sequence. To satisfy these criteria in the realm of museum exhibition design, we divide the design problem into two distinct areas of specialty. The three-dimensional, or exhibit, designer works with space and structure plus color and lighting. The graphic designer works with one-dimensional forms, color, typography, and projected visual images (in this case, slides). The two specialists must work in close harmony in order to achieve the desired results. Don Skinner came into the project as graphic designer at this stage, when the general spatial arrangement of the exhibit and the specific areas of content were being tied down.

After decisions were made about the specimens and objects to be used, we needed also the specialized artistic and technical skills of the illustrator, the

model maker, the sculptor, the taxidermist, the audio-visual expert, and numerous other specialists.

Most of the specimens chosen were rather small, so Bob Martin had to develop a method to protect them that would not interfere with easy viewing or would not distract from the storyline continuity. The solution was to place the specimens behind a large expanse of glass that did not determine or in any way interfere with the way they were arranged and displayed and that did not seem to be a barrier to viewers.

Photographs were taken of supplementary items, graphic panels were prepared, and hundreds of 35 mm. color transparencies were edited. Eventually the specimens to be used were removed from various halls in the Museum and placed in their new temporary setting in Hall 25.

The composite result drew upon all the new forms of visual communication technique, which newspapers, magazines, television, and even packaging have, in fact, pioneered and learned to exploit for the purpose of mass selling to a mass society. Our purpose is to transmit information by means of every appropriate visual mode simultaneously, and to do it simply, clearly, and fast. This purpose can be achieved only by design, good "information design"—which doesn't just happen by accident. Sure formulas, smart gimmicks, short-lived fads like "cadillac tail fins" or novelty type faces have no place. The principles of information design being developed today are a response to a need of modern society. They aim always and above all for comprehension.

When the final installation of *Color in Nature* was completed, the scientific staff had logged over 500 man-hours and the Exhibition Department over 2,000 man-hours. Design is expensive, but we know now that it is necessary.

Lothar P. Witteborg is chairman of the Exhibition Department at Field Museum.



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