

MUSEUM'S COLLECTIONS USED FOR WORK WITH THE BLIND

During several months in the past year, Field Museum's collections, especially in the Department of Anthropology, have been made available for special work with the congenitally blind. The activity has been conducted by Mr. Donald Hesson, a blind attorney-at-law whose avocation is aiding others who are sightless, and Mrs. Hesson (Marie Seton), a former British journalist who became interested some years ago in the problems of the blind from a social service standpoint. For the work at Field Museum a room was assigned to Mr. and Mrs. Hesson, and a group of twelve blind persons ranging in age from 16 to 42 was in attendance. The latter acted as subjects in preliminary experiments, conducted twice a week, to obtain records of their reactions in handling selected material.

Similar work has been carried on by this group at other institutions. The material used has fallen into the following categories: works of three-dimensional art, at the Art Institute of Chicago, and the Oriental Institute of the University of Chicago, including sculpture, bas-relief, and ceramics; anthropological material at Field Museum, including life and death masks, models, implements, weapons, handicraft objects, ceremonial objects, and textiles; abstract forms at the Chicago School of Design; and, at the Museum of Science and Industry, mechanical devices including farm machinery, vehicles, and models. These media were chosen because they offered an obvious though comparatively unexplored field in which to study the concepts of the blind.

STUDY OF TACTUAL IMPRESSIONS

The research was premised on the belief that it might be possible to ascertain the actual limitations imposed by blindness upon the development of concepts. This problem was approached by a method of observing reactions to impressions gained by touch of concrete objects, the understanding and appreciation of which is generally supposed to depend upon sight. Thus it was possible to attempt evaluation of the extent to which the tactual sense could be trained to substitute for sight.

When the blind people are shown an object, no verbal description or clue is given as to what it represents. They are asked to give the impression that they derive from examining the object. It is then observed how the individual uses his hands and what his general expression and demeanor are while making the examination. This information, together with the person's detailed impression of the object, is recorded, and compared with the impressions of other people examining the same object. This makes it possible to follow the development not only of each person's concepts but also of any change that may take place in the external expression of each one's personality.

That blind people require oral description and reading illustrated by direct tactile examination, wherever possible, in order to develop and clarify their concepts is indicated by the following opinion from a sixteen-year-old girl after she had examined the Races of Mankind bronze sculptures by Malvina Hoffman at Field Museum:

"I lost my sight when I was a little over a year old; therefore, I have never since seen any person's face or features except my own. Being small of stature, I have not even been able to picture accurately a tall strong person, much less the physical aspects of other races and nationalities. I was quite overwhelmed by what I saw* Friday. By touching the statues I got all the varieties of faces, facial expressions, figures, and even dress which I have wondered about. Studying the bronzes even produced reasons as to why some races conquer, others are defeated, and still others though conquered cannot be subdued. Now when I hear or read about the appearance of other people, I have some definite picture in my mind."

RACIAL CHARACTERISTICS LEARNED

During the first few weeks of experimentation at Field Museum, a number of objects showing the work of the American Indians from Alaska to Peru were laid out on one table. On a second table were a number of life and death masks so exhibited that people could move them about and compare different races. The blind people were not told what racial group they were examining and comparing, nor were they given any oral descriptions until they had completed their own manual examination. Only when they had finished "looking" at the masks and objects were they informed as to the race of the heads they had "seen" and the nature and use of the other objects. Up to this time most of these people had no knowledge of the differences in physiognomy between races. Those people born blind, for example, did not associate a broad flat nose and thick lips with the Negroid type—as a matter of fact, most of them had never before examined any face other than their own. Notes taken verbatim while they were making their examinations indicate that the impressions gained by touch closely approximate those that the sighted gain visually. The correlation of details remains in the memory so that they may relate one type of nose to another after a period of several weeks or months. It is interesting to note that people who have *never* had sight express definite opinions as to what is "a nice face" or, alternatively, "an unpleasant face."

*The blind almost invariably refer to "seeing" things they touch.

The artifacts of the Eskimos bear a curious resemblance to those of races which lived in Europe at the close of the glacial period. Exhibits pertaining to Eskimo life occupy about one-third of Hall 10 in the Department of Anthropology.

THINGS YOU MAY HAVE MISSED

Fulgurites

Everyone is familiar, if not by experience at least from their reading, and from pictures, with the damage by lightning to buildings and trees, but few know of the peculiar effects left by a bolt of lightning when it strikes into the ground. These effects are well exemplified in a collection in Clarence Buckingham Hall (Hall 35). When a bolt



Photograph courtesy of The Chicago Tribune

LIGHTNING-FUSED SAND TUBE

Mr. Henry W. Nichols, Chief Curator of Geology, displays fulgurite specimen from Indiana sand dunes. An oddity exhibited in Clarence Buckingham Hall (Hall 35).

of lightning strikes into soil, the soil melts as might be expected. Owing to the high voltage of lightning there is a strong electrostatic repulsion between the particles of the molten soil which makes them fly apart so that, when cooled, instead of a rod penetrating the earth, there is a tube which has been given the name fulgurite from the Latin word for lightning, *fulgur*. The wall of the tube is fragile, rough, and of the thickness of an egg shell. These features are well shown in a giant fulgurite from the sand dunes at Chesterton, Indiana, which occupies a case by itself. Although this is eight feet long it is only part of the complete fulgurite, and no one knows how far into the sand it penetrated. When lightning strikes into solid rock the results are the same except that there may be more melted rock and the tubes are smaller. In one from Mt. Ararat, where Noah's Ark is reputed to have landed, the tubes from many strokes are small, only one-sixteenth of an inch and less in diameter.

—H.W.N.

A model showing the internal structure of a volcano is exhibited in Clarence Buckingham Hall (Hall 35), together with specimens of the materials erupted by volcanoes.

"Scarce as hen's teeth" is a familiar saying, but various types of prehistoric birds known as fossils had well developed teeth (see case in Hall 21).



Nichols, Henry W. 1943. "Fulgurites." *Field Museum news* 14(2), 5–5.

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