

over a period of several years (see SNL, 79:23, Jan. 14, 1961), but the final identification of them as a new species in the genus of man had been withheld while scientists examined the find.

The discovery was announced by Dr. Leakey simultaneously at the National Geographic Society in Washington, D. C., and in *Nature*, April 3, 1964, in London.

Studying the bones independently were Dr. Leakey under a grant from the National Geographic Society, Prof. Phillip V. Tobias of the Medical School of the University of Witwatersrand, Johannesburg, and Dr. John R. Napier of London University's Royal Free Hospital Medical School.

Parts of five individuals were found, including a young woman and a child. The child whose skull was fractured in history's

oldest murder was reported in 1961 as being different from the Zinj man. (See SNL, 79:147, Mar. 11, 1961)

All three scientists reached the same conclusion: these bones represent a direct ancestor of modern man—a discovery of far greater significance than the finding of Zinj in 1959. His place in time is shown in the table drawn up by the National Geographic Society.

Dr. Leakey expressed concern over the destruction of other valuable fossils in the area where both *habilis* and Zinj have been found. There has been more rain in the last few years which means water in the Olduvai gorge. Grazing cattle are coming to the gorge to drink and crushing precious fossils under their hoofs.

• Science News Letter, 85:243 April 18, 1964

PSYCHOLOGY

Color Books Harmful

► SIMPLE COLORING BOOKS are under attack. They are said to inhibit a child's imaginative and inventive growth by causing him to follow a given pattern rather than letting him work things out for himself.

Coloring books, as well as all the other prefabricated pictures for coloring and shapes for gluing together, are a meaningless cut-and-dried approach to education, stated Dr. Blanche Jefferson, chairman of the program in art education at the University of Pittsburgh, Pa.

Learning to stay exactly inside the lines of the picture, and to color a preconceived, often over-simplified and trite image cramps a child's creativity, she stated in a report published by the Association for Childhood Education International.

The color books also can limit and confuse the child just by giving him too much help, and by placing a fixed idea before him instead of inspiring him to do a job himself.

This approach to education is inconsistent with what is needed to maintain freedom of thought in America, and is more akin to the patterned thinking of totalitarianism, Dr. Jefferson said.

Adults erroneously regard these books as "educational" or as a means to "better muscular coordination."

Parents often feel the coloring book is a harmless activity to occupy the child in a

quiet way while the adult can get some things done for himself.

Not so harmless, said Dr. Jefferson. With these books, the child does not need to think; he needs only to obey. There is no challenge here, and no depth of concentration is needed.

A child can feel close identity and pride in his own achievement if he has done all of it, Dr. Jefferson maintained.

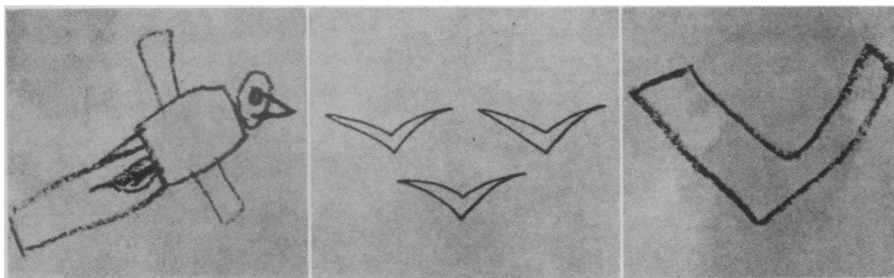
In order to build up the creative resourcefulness and imaginative skills in a growing child, parents and teachers should use a little imagination and resourcefulness of their own, she said.

Many items around home and building provide excellent creative material for the child to work with, Dr. Jefferson said. Basic ingredients are paper, scissors, paste and crayons, paints or magic markers. The paper can be anything—wrapping paper, paper bags, colored paper from magazine advertising, a pretty lining from an envelope.

An adult should not worry about the results of the child's work, she warns. What may seem a mass of scrawls and paint may seem a lovely picture to the child, and he should not be criticized or derided. On the other hand, he should not be overly praised either.

But in whatever ways the child uses materials, said Dr. Jefferson, "the work must be original—all of it—entirely original."

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Eastern Arts Association

CREATIVITY SUPPRESSED—The drawings show how a child's original, free and imaginative conception of a bird (left) was influenced to the stereotyped simplified drawing (right) of the adult color book version (center).

Questions

ANTHROPOLOGY—In what respects does the skull of *Homo habilis* resemble that of *Homo sapiens*? p. 243.

GENERAL SCIENCE—What mental qualities seem to be stimulated by the studying and playing of music? p. 254.

GEOLOGY—How were tiny glass bubbles found in the rocks of Great Swan Island formed? p. 249.

MEDICINE—What new instrument is expected to make childbirth safer? p. 245.

SPACE—How many pictures of the sun per hour will the spectrometer on the new sun-scanning satellite send to earth? p. 247.

ZOOLOGY—What bait is being used to lure porcupines? p. 248.

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