



Primal Slaughter

WERE the first comers to this continent destroyers of its teeming wildlife, even as were the Daniel Boones and Buffalo Bills among our own more immediate forebears?

This interesting question is raised by Dr. Edwin H. Colbert of the American Museum of Natural History, in a communication to the New York Academy of Sciences. Dr. Colbert points out that the Pleistocene ice age did not wreak havoc with the ancient mammalian fauna of North America, but that a terrific cycle of extinction took place shortly after the glaciers retreated. He said:

"In the Old World there was a considerable degree of extinction at the end of the Pleistocene consequent upon the final retreat of the glaciers and the gradual establishment of neolithic and subsequent cultures in that area.

"In North America the extinction would seem to have been more extensive and probably more sudden. Recent evidence would seem to show that numerous typical Pleistocene mammals persisted in North America until post-Pleistocene or sub-recent times. Of these there may be mentioned specifically the mammoth, mastodon, horse, camel, royal bison, ground sloths, and *Tetrameryx* [a kind of four-horned antelope].

"These animals were all living when man reached this continent, ten, fifteen or twenty thousand years ago. Suddenly they were wiped out. Was this remarkable extinction of such large and numerous forms due to the advent of a new, aggressive animal, Man, who in some way may have upset a delicate ecological balance?"

Primitive hunters need not be either numerous or well armed to work wholesale destruction upon game herds. The

technique of the "drive," in which vast numbers of animals are sent pouring over a cliff in a panic stampede, was known in Stone Age times, as great masses of bones at ancient cliff-bases testify. The hunters feasted to repletion,

carried off what meat they wanted to dry, and left the rest for carrion-eating birds and beasts. Did such scenes of mass butchery mark the trail of the first American immigrants?

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BIOLOGY

Russians Misunderstand Gene Theory They Attack

By DR. T. H. MORGAN

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Press reports from Moscow reporting Soviet attacks on his Nobel Prize work caused Science Service to ask Dr. Morgan for this statement.

I DOUBT if biologists the world over will be greatly disturbed by the assertions of students of the Agricultural Academy in Moscow that the theory of the gene contradicts dialectical materialism. These assertions are probably based on a misunderstanding of the nature of the modern concept of the gene.

The modern view is free of the preformistic interpretations of the past. The genes are today looked upon as forming an harmonious system of interacting

parts responsive to the influences of the external environment.

The genetic theory is based on experimental evidence that can be verified or contradicted by anyone desiring to test its validity. The experimental evidence is of the same kind employed by chemists and physicists in their study of physical phenomena. I am wondering now if the same students would accept as valid all the theoretical developments in these fields only in the light of their own interpretation of dialectical materialism.

The gene theory, like any other scientific concept, will stand or fall in accordance with the facts and experiments on which it rests, rather than whether it is consistent with any philosophical or religious doctrine.

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MEDICINE

Synthetic Hormone Made Available To Public

THE new synthetic adrenal cortex hormone, life-saving remedy for Addison's disease, made by the Swiss chemist, Dr. T. Reichstein, will be made available commercially, Dr. George W. Thorn of Johns Hopkins Hospital announced. Tests of this synthetic hormone on animals and patients which show that the synthetic chemical can substitute successfully for the chemical made by the patient's own gland have been made by Dr. Thorn and Drs. R. Palmer Howard, Kendall Emerson, Jr., and Warfield M. Firor of the Johns Hopkins Hospital and Medical School.

The Hopkins doctors have been giving the synthetic hormone in oil preparations by hypodermic injection and also have given it by burying pills of the hormone crystals under the patient's skin. By this latter method the patient can be given an eight-months' supply of

hormone at one operation, instead of having to have daily injections.

Crystals for making the pills will not be available commercially before the autumn, Dr. Thorn said.

Fifteen very sick patients who were given the new product are now well enough to be back at work. Before giving the patient his long-term supply of the hormone in the pills, the amount he will need must first be calculated, Dr. Thorn said, by giving the oil preparation by injections. Even after he is carrying the pills around in his body, he must be watched because if he gets any germ ailment, he will need more hormone which must be given by injection. For their exhibit of this work, the Hopkins doctors received the American Medical Association's gold medal for original work.

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