ARCHAEOLOGY

Single Stone Age Culture

➤ A SINGLE Stone Age Indian culture, or "Paleo-Indian co-tradition," may have once existed over the whole of the North American continent and persisted for several thousand years.

Evidence of this was reviewed for the Society for American Archaeology meeting in Albany, N. Y., by Dr. John L. Cotter of the National Park Service.

These early inhabitants of America followed much the same way of life and went through pretty much the same course of cultural development. The Stone-Age Indian used spears, atlatls, or both, and hunted large vegetable-eating animals. He used a wide variety of skinning and hide-working tools.

One widespread theme of design cited by Dr. Cotter is the beveled bone spear tip first found by him in association with fluted blades and extinct game animals at Clovis, N. M. Later, this type of bone shaft has been found at Lower Klamath Lake, Oregon; Lind Coulee, Washington; in the Itchtucknee River, north-central Florida, and at Coldstream, Tanana Valley, Alaska.

"Ever since I participated in the original Clovis find," Dr. Cotter told the meeting, "I have considered these beveled shaft por-

tions of bone to be derivative from the familiar 'sagaie' or javelin points of bone or reindeer horn from the traditional Lower Magdalenian of Europe. It is not difficult to assume the spread of this upper Paleolithic trait across Siberia into the New World, allowing for an expected cultural lag while the trait remained in the Arctic regions of the Old and New World before dissemination into North America after the last glaciation.

'As for the fluted blade, here we have an artifact encumbered with a number of more or less obfuscating (confusing) type names, with a distribution comparable to that of the beveled shaft parts, from Alaska to Florida, but with representation throughout the entire United States and the provinces of Canada."

The Paleo-Indian co-tradition might be likened, Dr. Cotter said, to the crudely-sewn garments a citizen of that era might have worn. The skins of the leggings and blouse or parka represent the broad regional traditions, and the thread binding the fabric together represents the essential and distinctive traits common to the Paleo-Indian over the entire continent and throughout the whole span of several thousands of years.

Science News Letter, May 22, 1954

Questions

AGRICULTURE—What farm by-products have been put to commercial use? p. 326.

What is macadamia? p. 329.

ARCHAEOLOGY—For what were micro-tools used? p. 333.

ASTRONOMY—What are supernovae? p. 324. In what way is the coming solar eclipse unusual? p. 330.

BACTERIOLOGY—How can germicides now be evaluated? p. 327.

MEDICINE—What damage results from reviving "dead" persons? p. 329.

OCEANOGRAPHY—How was the "Equatorial Undercurrent" traced? p. 333.

0 0 0

VITAL STATISTICS—What is the average expected life length for American women? p. 328.

Photographs: Cover, George A. Smith; p. 323, Federal Civil Defense Administration; p. 325, Convertawings, Inc.; p. 326, Sperry Gyro-scope Co.; p. 327, William Duncan Strong; p. 336, Allen Sommers.

TECHNOLOGY

Plastics for Tooling-Up

➤ TOOLING-UP IS necessary whether a new automobile or a novel guided missile is being put into production.

Plastics are now helping to make the machines that make our machines. Plastic tools used in producing articles are cheaper and faster to fashion and get into use.

Not many years ago, use of plastic materials for construction of jigs and fixtures would have been ridiculed. Now, however, plastics are replacing metal for this use.

As Benjamin Sokol of the Republic Aircraft Corporation told the meeting of the American Society of Tool Engineers, Philadelphia, plastics in manufacturing save time, labor and weight. A metal tool that weighed 3,100 pounds was replaced by a plastic one weighing only 240 pounds. Curves can be molded easily instead of machined. Alterations and duplications are

Lower prices for automobiles and home appliances are foreseen by G. C. Adams of Rezolin, Inc., Los Angeles, as a result of the wider use of plastic tools. The automobile, appliance and other industries do not require tooling for millions of parts, but usually for only a few thousand parts. Plastic tools can do such tasks. A single plastic die has been used to draw as many as 30,000 parts.

Complicated and costly machine tools for weapons production are now stored in an abandoned limestone mine at Atchison, Kans., ready for instant use in another war. Sixteen acres of space in this cave are warehouse lighted, dehumidified and floored with concrete, providing bombproof, sabotage-proof, naturally constant-temperature storage.

It costs 17 cents per square foot every year to store the millions of dollars worth of tools owned by the Army Ordnance Corps, it is reported in Ordnance (May-June).

Science News Letter, May 22, 1954

ICHTHYOLOGY

Count Salmon at Two Dams on Columbia River

➤ CHINOOK SALMON, now making their spring run up the Columbia River, will be counted this year for the first time at two points, the McNary and Bonneville Dams, 150 miles apart.

It takes the migrating fish about two weeks to swim the distance upstream. The difference in the counts will give U. S. Army engineers and fish experts some idea of the number of fish caught. Both Chinook salmon and steelhead trout will be listed as they pass through the counting stations.

Science News Letter, May 22, 1954

How did Life come to this planet?

Did Life come to Earth through "spontaneous generation" or by spore-laden cosmic dust? Or has it always existed here? Read A. I. Oparin's now-classic

ORIGIN OF LIFE"

and find out why many scientists now reject all of these older explanations in favor of Oparin's theory that living tissue was preceded by a gradual evolution of organic substance—of the carbon and nitrogen compounds on which all organisms depend.

New York Times writes: "Easily the most scholarly authority on the question of the origin of life as treated by the scientists. The book is excelent. It will be a landmark of discussion for a long time."

Amer. Chem. Soc. Journal says: "A very fascinating hypothesis. Many chemists will want to read this volume over and over again."

Scientific Book Club claims: "Will prove of great interest to the general reader."

304pp. Save \$1.80. Paperboond, \$1.70.

HISTORY OF ASTRONOMY from Thales to Kepler by J. L. E. Dreyer. (Rev. ed. of Dreyer's famous "Hist. of Planetary Systems from Thales to Kepler.") 448 pp. Paperbound, \$1.95

LAWS OF THOUGHT by George Boole. The classic of symbolic logic. Recommended by Bertrand Russell, others. 448 pp.

Paperbound, \$1.90

Paperbound, \$1.90

Paperbound, \$1.90

PRINCIPLES OF PHYSICAL OPTICS by E. Mach. Unabridged reissue of Eng. transl. of last German ed. 10 plates, 280 diagrams, 334pp. Paperbound, \$1.75

last German ed. 10 plates, Paperbound, \$1.70
WORKS OF ARCHIMEDES and METHOD OF ARCHIMEDES. Ed. by T. L. Heath. 506pp. Unabridged. Paperbound, \$1.95
FLATLAND by E. A. Abbott. Life in a two-dimensional world; science-fiction with political overtones. Intro. by Hoffmann. 109pp. \$1.00
Paperbound, \$1.00
Krait-Market Paperbound, \$1.00
Krait-Market Paperbound, \$1.00
Krait-Market Paperbound, \$1.00

MATHEMATICAL RECREATIONS by Kraitchik. Over 250 problems involving magic squares,
roulette, probability, chess, etc. For experts and
beginners. 181 ill. Revised ed. 328pp. Orig.
pub. at \$4.95. Paperbound, \$1.60
HOW TO ORDER. Send remittance to Dover
Pub., Dept. 227, 920 Broadway, N. Y. 10, N. Y.
Add 10¢ per book postage. Money back in ten
days if not delighted.