

ARCHAEOLOGY

New Type of Stone Age Tools Discovered in Africa

A NEW TYPE of stone-bladed tools that were used by Stone Age men and women thousands of years ago has been discovered in South Africa and reported to the Royal Society of South Africa.

C. Van Riet Lowe, who announced the discovery, stated that the stone implements were found during exploration at Mazeppa Bay, near the mouth of the Kogha River.

The implements are numerous, and are pronounced of a kind hitherto unrecorded in scientific data. They represent a distinct stage in Stone Age industry, it appears. Some of the implements are long, blade-like shapes. Some are scrapers, graters, and points. But the most characteristic specimen is like a giant crescent. It is shaped like a quarter of an orange, with the flat surfaces forming the cutting edge.

Previously, a single specimen of these crescent-shaped implements had been found, and this original specimen had been thought to be unassociated with any particular type of Stone Age culture. The new discovery shows that the crescents were standard equipment for Stone Age people of the newly explored region.

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FORESTRY

Hurricane Helps Explain "Compression Wood"

"IT'S AN ILL WIND that blows nobody good"; and this applies even to hurricanes.

For years foresters have sought an explanation of the occurrence of "compression wood" in vertically growing conifers, or evergreen trees. The 1926 Florida hurricane now promises to greatly aid in solving the mystery.

Compression wood is an abnormal type of wood that occurs to a greater or less degree in all coniferous trees. The most outstanding characteristic of compression wood is its excessive longitudinal shrinkage, which has been found to be from three to 35 times that of normal wood. This characteristic frequently is responsible for bowing, splitting, and twisting of softwood lumber.

Compression wood is readily distinguishable from normal wood by its relatively wide annual growth rings and

by its "lifeless" appearance. It commonly occurs on the lower, or compression side, of branches and leaning trees. Occasionally, however, vertically growing trees are found in which compression wood has grown first on one side of the tree and then on another, but in such trees the compression wood is in only one part of any one annual ring. How to account for this variation puzzled the foresters.

M. Y. Pillow, of the U. S. Forest Products Laboratory, examined 50 long-leaf pines from western Florida for compression wood. He found that compression wood had formed abruptly in 1926, which, according to theory, indicated that the trees had been bent over during that growing season. It is known that the hurricane of September 20, 1926, passed over the region in which the 50 trees grew. All the trees that had suddenly formed compression wood in 1926 continued to form it in 1927, but, in 1928 it did not form in some of the trees and had greatly diminished in others.

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BOTANY

Seeds of Rubber Tree Yield Feed for Livestock

SEEDS of the Para rubber tree yield an oilcake and meal that is good feed for livestock, experiments at the Virginia Experiment Station, University, Va., indicate. Earlier reports from the East Indies stated that the seeds are poisonous to farm animals, but this claim has not been borne out in the tests at the University. The rubber seed oil meal analyzes 33 per cent. protein and six per cent. fat, besides non-nutrient constituents. Cattle and sheep are said to relish it.

The question of the suitability of the oil meal has come up as the result of experiments on the production of a commercial oil from the seeds of rubber trees on East Indian plantations, initiated by an American chemist, E. D. Gothwaite, of Belawan, Sumatra. He found that rubber seed oil can be used to advantage as a drying oil, slightly inferior to linseed and tung oils in its qualities, and that after suitable treatment it might be made available for use as human food.

The development of these products from rubber seeds is still in the experimental stage, Mr. Gothwaite has stated. It is not anticipated that large quantities of the oil and cake will be found on the market in the near future.

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IN SCIENCE

ASTRONOMY

Parts of Double Star Seen Separately for First Time

PROBABLY for the first time, the two separate stars that constitute the body called sigma Scorpii have been observed separately. Prof. Bernhard H. Dawson, of the observatory of the Argentine National University, saw them as the star emerged from occultation behind the moon. The interval between them was such that he figures their distance to be about one tenth of a second or arc, or about one eighteen thousandth the diameter of the moon in the sky. No existing telescope is powerful enough to separate such close bodies when observed in the usual way.

Sigma Scorpii has been known in the past to be a double, or binary, from a study of its light through a spectroscope. As its two components revolve around each other, one approaches the earth as the other recedes, then their roles are reversed. This causes the dark lines that appear in their spectra to separate and then come together. Many such bodies are recorded in star catalogs, but Prof. Dawson's observation is believed to be the first actually made of one component separately from the other.

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MEDICINE

Skin Ailment Traced To Handling Metal Money

AN OBSTINATE case of eczema was traced by a Hungarian physician, Dr. Stephen Rothman, to handling too much metal money.

A communication to the American Medical Association says that the patient counted silver, nickel and copper coins for the Budapest street car company all day, and had eczema on his hands, underarms, shoulders and neck.

Tests with clean and sterile coins on the skin brought about swellings and inflammations, and the salts of these metals proved still more irritating. The patient gave up the money-counting job and was cured in four weeks.

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CE FIELDS

ARCHAEOLOGY

Aztec Poet Viewed City From Bathtub in Mountains

A NEW bathing pool said to be one of those maintained by the Virgil of the Aztecs, with the long name of Netzahualcōyotl, has been found on a mountain at Texcotzingo. Here the Aztec poet had a fine view of Lake Texcoco and ancient Mexico City from his mountain top bathtub, sure in his isolation that he could not be seen.

The site has been little studied by archaeologists. It is a complicated system of pools of different levels, water conduits, stairs, courts, and terraces of stone. The new "bathtub" is the fourth of its kind found. It is round, built of stone, and frogs of stone sit on its edge. Clay idols found there in the past suggest that the site might have been connected with some Aztec sex cult.

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ENTOMOLOGY

Bees Like a Regular Life And Object to Change

BEES are very methodical little spinsters; they like to go through a regular routine of jobs during their active lives, and will adapt themselves to another order of things only if they have to.

This has been learned by a Berlin entomologist, Dr. G. A. Rösch of the Berlin Agricultural high school. In his first observations he found that bees go through a regular cycle of occupations during the 35 days of their normal lives in summer. For the first three days after they emerge as adults they are chambermaids, cleaning up the brood-cells. Then they become nurses, feeding the older larvae honey and pollen.

When they are six days old, they graduate to the class of infant nurses, and feed the younger larvae. They cannot do this at first because certain food-producing glands in their heads are not yet developed, and the secretions of these are needed as infant food.

During the second week, after the duties of nurse have been accomplished,

the young workers have a varied routine of cleaning up the hive and mounting guard. During this time they grow the wax glands on their bodies, which enable them to take their turn as builders of the comb. They also make their first flights, but gather no honey or pollen; these first flights are merely orientation "jumps."

At last, at the age of about three weeks, they are ready to go out as full-fledged foragers. They continue this occupation during the remainder of their lives, which are seldom more than six weeks long.

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MEDICINE

Fevers Given Children To Check St. Vitus Dance

FEVERS, used these days to burn out certain ailments of the human system, now seem to check St. Vitus dance in children.

Twenty-four children have been treated by fevers artificially produced by manufactured serum. Dr. Lucy Porter Sutton, working in Bellevue Hospital in New York City, reported these cases to the American Medical Association. The average time of the children in the hospital was nine days. Sixty-three cases used for comparison treated by other means stayed on an average of forty-seven days in other hospitals. The usual treatment is rest and quiet.

Dr. Sutton used typhoid-paratyphoid serum because it gave fevers for successive days which promptly stopped the symptoms. The discovery was an accident. Dr. Sutton was treating an extreme case of St. Vitus dance in a boy. He was given a drug as a sedative. It had no beneficial effect and only aggravated the disease. But through a misunderstanding the drug was not stopped until the thirteenth day when a rash and a fever developed. This was traced to poisoning from the drug. It was noted however, that the disease abruptly improved, after an irregular fever that rose as high as 106.4 degrees. A consideration of various factors convinced Dr. Sutton that it was the fever that cured.

She then tried small doses of typhoid serum because it was a safe and simple way of giving fever, and found it effective in cases tried. Later, typhoid-paratyphoid serum was chosen because it was a still simpler, safer, and cheaper way of giving fever.

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ETHNOLOGY

California Tribe Features Nose Rings at Weddings

IN THESE civilized United States, there exists today an Indian tribe whose marriage ceremony requires not that the bride have a ring put on her finger, but that the groom have a ring put through his nose.

The tribe is the Kamia, living in Imperial Valley in southeastern California. No youth may marry until he has had his nose pierced. The ceremony takes place when a boy is about fifteen years old, and not less than four youths may be operated upon at one time. If but three boys want to marry, there is no ceremony, resulting in no weddings.

When the young Indians want to marry, they obtain their parents' consent, and the Chief's "policeman" calls late at night and escorts them into the brush. Here four operators, using wooden needles, pierce the boy's noses. Immediately after the piercing, the boys must run fifteen miles each, after which they stay at the place of operation for four days. During this period the youths are restricted to a diet of corn mush and watermelons. Women stay nearby and sing continuously.

After the fourth night, the youths go home, where they must stay naked for a month, and may eat no fish, deer or jack-rabbit. The hole in the nose is kept open by a small circular stick, in order that appropriate rings may be inserted for the wedding ceremony.

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STATISTICS

Tuberculosis Death Rate Less In Spite of "Flu"

IN SPITE of influenza and unemployment which always boost it, the tuberculosis death rate is six per cent less for the first half of 1931 than the record low point reached last year, statisticians of the Metropolitan Life Insurance Company report. Diphtheria dropped 35 per cent. in fatality. Whooping cough was a little less fatal, but scarlet fever and measles deaths increased. The year 1931 so far has had more influenza and pneumonia, and the rise in the cancer death rate has been particularly disturbing. The diabetes death rate is up, also heart disease and cerebral hemorrhage. Violent deaths from suicide, homicide and automobile accidents have increased.

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