



DOUBLE SEPULTURE

Sealed adobe tubes in which Hohokam Indians placed the urns in which they deposited the remains of their dead.

ARCHAEOLOGY

“Thermos Bottle” Burials Found in Arizona Ruins

INDIANS in the Southwest over a thousand years ago didn't have thermos bottles, but they invented a burial fashion that looks curiously like one.

Discovery of this heretofore unknown type of Indian burial, consisting of a bottle within a tube, is reported by Carl F. Miller, Tucson archaeologist.

Mr. Miller was digging at ruins of a settlement near here, where Hohokam Indians once lived in pit dwellings, when he discovered queer looking tubes of adobe. Inside the tubes he found urns or bowls of pottery. And inside the urns were bones of cremated Indians.

When the Indians had deposited the urn in the adobe tube, they sealed it with an adobe stopper, making a solid column.

Mr. Miller was impressed by the excellence of the pottery, most of it being well shaped and undecorated.

Science News Letter, April 9, 1938

CLIMATOLOGY

Long Range Forecasts Called Future Possibility

Astronomer Traces Connection Between Sunspots And Events in Earth's Atmosphere Up to 100 Miles

SCIENTISTS are hopeful that it will not be long before it will be possible to predict—a year or more in advance—the coming of hot and cold seasons or wet and dry periods.

Delivering the seventh James Arthur Lecture at the U. S. National Museum, Dr. Harlan T. Stetson, astronomer and research associate of Massachusetts Institute of Technology, said:

“That weather changes accompany changes in solar radiation has been frequently shown through the long series of observations made at the Smithsonian Institution. Enough has been done already to hold out hope that with a more thorough understanding of the solar cycle and the absorption of solar radiation taking place in the earth's atmosphere, it will not be long before predictions of hot and cold seasons, wet and dry periods, may be made a year or more in advance with a more creditable score of hits than can be done at present. All this emphasizes the importance of predicting sunspots.

“Present indications are that sunspot numbers are now near the top of the so-called 11-year cycle,” said Dr. Stetson. “Last July they reached an all-time high, hitting the highest value on record since 1870 but the sun had some surprises in store. During what was supposed to be a minor reaction in August, sunspot numbers went tumbling and continued the toboggan until into

December. For a week or two inactivity was the rule. With the beginning of the year sunspots began to break out again with increasing numbers and by the middle of February had recovered two-thirds of their losses since last July. Whether or not the present surge upward will continue to increase to early spring and out-top the July 1937 high remains to be seen.

“If such is the case, it will appear that the spring maximum will be the high spot of the present movement, after which with recessions and minor elevations, the curve will continue to decline for the next five or six years.”

Increased Disturbance

The great rise in the number of sunspots during the last year has had much to do with the observed disturbances in the earth's atmosphere and with some of the unusual displays of aurora which have been noted very recently, Dr. Stetson indicated.

Simultaneously with the appearance of sunspots, which are huge storms raging on the sun, there have been violent electrical disturbances affecting the reception of radio signals at the experimental radio station of Dr. Stetson.

The violent sunspot storms change the amount of ultraviolet radiation received on the earth, Dr. Stetson also indicated. These rays produce the layer of ozone known to exist at heights of ten miles and more above the surface of the earth. The rays ionize the oxygen atoms present and form the ozone molecule O₃. It is the ozone layer which blocks off part of the ultraviolet rays and permits only those beneficial to health to penetrate to the earth's surface.

The energy absorbed by the ozone layer raises the temperature of the upper stratosphere and is the factor probably responsible for the creation of the radio reflecting layers high above the earth. Investigations now under way are seeking the daily values of the amount of ozone in the atmosphere on a world-wide scale.

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