

ARCHAEOLOGY

Oldest Eskimo Find in Alaska Made by Archaeologist

1500 Years Set as Minimum Age of Settlement and Tree Rings Brought Back for Exact Date Study

BRINGING the good news that he has discovered the remains of an Eskimo settlement so old that it is the oldest evidence of man ever discovered in the Arctic, Henry B. Collins, Jr., archaeologist of the Smithsonian Institution, has just returned to Washington. The prehistoric settlement is at least fifteen hundred years old, Mr. Collins said, and is probably far older than that.

For several years, Mr. Collins and other explorers in Alaska have been finding pieces of fossil ivory carved in a style of art far superior to anything made by modern Eskimos. Archaeologists call this the old Bering Sea art. It has been believed that these things were very old, but to prove it the explorers wanted to find abandoned settlements where such objects were cast away when broken or worn out.

This summer, Mr. Collins, accompanied only by a student aide, James A. Ford of Mississippi College, set out for St. Lawrence Island and there he found a series of five settlements, one abandoned after another. The most recent of these villages was by the present seashore.

The sea gradually receded at this end of the island, Mr. Collins explained. The Eskimos, who always wanted to live close by the sea, kept moving forward to follow the advancing shore line. So, the older the settlement, the farther back from the present seashore it lies.

The Eskimos had a casual way of living on top of their kitchen waste heaps and trash piles. Remains of their wooden house beams and stone floors are still to be found frozen in the mounds that contain their broken tools and weapons and the bones from their meals.

In the latest abandoned village, by the present shore, the expedition found iron-bladed harpoon heads and other materials that the Eskimos acquired only after they met white men. This village was abandoned within the past hundred years. A little way back from the shore was found a mound that represents the next older village. Here the harpoons

were comparatively modern, but there was no trace of the white man's coming. Half a mile back from the shore, was a third village, with ivory objects carved in a more complex and beautiful style.

The fourth village, still farther back, lay at the base of a mountain, and here the carved objects thrown away in the last days of the village were like the objects used in the third village. But the art in the bottom of the mound was of a finer kind, the old carved fossil ivory of the Old Bering Sea culture that the explorers have been finding elsewhere.

Up the side of the mountain, by chance, Mr. Collins found the oldest settlement of all, where the shore line stood many, many centuries ago, and here the art is all of the ancient style. This is the settlement which he pronounces the oldest remains ever found in the Arctic. The timbers are to be sent to Dr. A. E. Douglass, of the University of Arizona, the astronomer who has been so successful in his efforts to date pueblo ruins of the Southwest by a "tree ring calendar." Whether the



HENRY B. COLLINS, JR.

Of the Smithsonian Institution, who has just brought back to Washington the earliest evidence of man ever discovered in the Arctic.

method of determining the date on which ancient timbers were cut can be applied to the Arctic is not yet known, Mr. Collins said. The wood from the region is chiefly driftwood and not very well preserved.

If the tree ring calendar can be fitted to Alaskan Eskimo settlements, however, it will mean that archaeologists will no longer have to say vaguely that prehistoric Eskimos lived "centuries" ago, or "perhaps a thousand years or more" ago.

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GEOPHYSICS

Newly Found Submarine Valley Will Guide Ocean Liners

TRANSATLANTIC liners now have a new "landmark" to guide them when approaching the American coast, with the discovery of a previously unknown submarine valley in the Georges Bank. This bank runs eastwards from Cape Cod for about 200 miles and the valley is near its eastern end.

Following the earthquake of November 19, 1929, off Newfoundland, which disrupted cable communication, Captain Bone, of the S. S. Transylvania, made a sounding to check his position, and found a much greater depth than anything expected in the vicinity. At first it was suggested that the rift had sud-

denly appeared as a result of the quake. During recent months the U. S. Coast and Geodetic Survey's survey ship, the *Oceanographer*, formerly J. P. Morgan's yacht, the *Corsair*, has resurveyed the region.

Using the sonic depth finder, which measures ocean depths by the time required for a sound wave to reach the ocean bottom and return as an echo, they found a valley about 8 miles long and 400 fathoms (nearly half a mile) deeper than the surrounding ocean floor. The normal depth in this region is about 100 fathoms.

The survey work was done with the

aid of the radio compass. By this means the position of the ship at all times was accurately checked, and it was found that the valley was more than 500 miles away from the epicenter of the earthquake, and the point where the cable breaks occurred. For this reason it is believed that the valley has nothing to do with the quake; apparently it has been there a long time, but with no careful surveys of the region having been made in the past, its existence was unknown.

Many modern ships, especially the large liners, are equipped with sonic depth finders, so that a sounding can be taken in a few seconds, instead of the much longer time required when a line had to be lowered and hauled in again. For this reason, accurate depth surveys are important. Thus it will now be possible for a navigator, when entering the region of the Georges Bank, to tell his position closely, if he finds a sudden drop below him of 400 fathoms.

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ARCHAEOLOGY

Byzantine Relics Found at City of Saul's Disgrace

Building, Possibly Chapel or Villa, Is Dated By Greek Inscription in Mosaic Pavement

BEISAN, the Biblical Bethshan where the body of King Saul was hung up on the wall after he had killed himself in the lost battle of Mt. Gilboa, has now yielded treasures of a much later date to the spades of archaeologists. Gerald Fitz-Gerald, in charge of the Palestine expedition of the University of Pennsylvania Museum, has just reported to Curator Horace H. F. Jayne the discovery of a building of Byzantine date. This represents the period after the fall of Rome, when the seat of the Empire was at Byzantium, modern Constantinople.

The building, believed to be a chapel or a villa, still retains much of the original mosaic pavement of its rooms. There were also found gold jewelry and coins of the Byzantine Empire, as well as articles of bronze, glass and terra cotta of sixth-century Roman date.

In his report to Mr. Jayne, Mr. Fitz-Gerald says:

"Since beginning its work at Beisan this season the expedition has concentrated its efforts chiefly on the excavation of a cemetery, and we have succeeded in excavating about thirty tombs thus far.

"Nearly all of them have proved to be either of Roman or Byzantine date but one tomb we discovered was of a different type, namely a ledge of rock on which lay five of the pottery sarcophagi of the 'slipper' type with the lids representing human heads, which have been associated with the Philistine or other Egyptian mercenaries of about the 12th century B. C.

"These sarcophagi were much broken, but the head of one of them was preserved in good condition. The burials had evidently been looted, but a scarab and some rude figurines as well as some stirrup vases and other remains of sub-Mycenaean pottery were found with them.

"The principal finds in the Roman and Byzantine tombs consist of lamps, glass vases, and small objects of bronze. An extremely graceful figurine is a noteworthy find. Some gold earrings and a large number of carnelian beads were also unearthed."

The discovery of numerous little figures of terra cotta in good condition is regarded as important evidence for the undisturbed state of much of the find. Looted tombs in this region usually had figurines that accompanied the burial pretty thoroughly scattered or destroyed by the treasure-hunting vandals.

"A wholly unexpected discovery," the report continues, "was made of the cemetery slope, when a stone gateway, over three meters wide, was uncovered leading into a room paved with a mosaic floor. On the threshold the mosaic bears a Greek inscription, obviously of the Byzantine period. Beyond the inscription part of a pattern has been uncovered, including figures of birds in square panels, apparently arranged around an octagonal figure.

"The walls surrounding the mosaic figure have been traced, and it proves to extend for over fifteen meters towards



WITNESS OF TOMB'S SECURITY

Figurines like this found undisturbed in graves at Beisan, the Biblical Bethshan where the body of King Saul was hung up on the wall after he had killed himself, show that looters had passed them by.

the north, and nearly ten meters from east to west. Moreover, at the east of it there lie three smaller rooms, all paved with mosaics, beyond which similar paving has appeared, as is also the case on the west side of the big room.

"It is too early as yet to speak with certainty of the nature of this building, for, while the inscription appears suitable to a church or a tomb, the disposition of the room would rather suggest a house or villa. In any event the finding of so large an extent of mosaic paving at this point is a most gratifying surprise."

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STATISTICS

1930 Population Found From Figures 20 Years Old

HOW FAST yeast or flies grow may seem to have little relation to the 1930 population figures, but Profs. Raymond Pearl and Lowell J. Reed, of the School of Hygiene and Public Health of the Johns Hopkins University, Baltimore, with a background of extensive and thorough studies of yeast and fly as well as human populations, predicted with great accuracy just how many people Uncle Sam's census enumerators would find in the United States this year.

Ten years ago, using only population data of 1910 and earlier, Profs. Pearl and Reed drew a "logistic curve" of population growth of the United States which predicted that the population in 1930 would be 122.4 millions.