

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**

**B**EISAN, 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

**H**OW 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.