

ARCHAEOLOGY

Athenian Agora Yields New Archaeological Finds

Quaint Hedgehog Figure Explained by Modern Folk Belief; Satyr Tries to Drink From Wrong End of Wine Vessel

PILFERING habits of the Grecian hedgehog caused him to be immortalized 2300 years ago in the form of a terra-cotta figure that was recently dug up in the Athenian Agora, or market-place.

Final report of the eighth season of Agora excavations by the American School of Classical Studies in Athens was made by Dr. T. Leslie Shear, director of the work and professor of classical archaeology at Princeton University. Dr. Shear has recently returned to America.

Most unusual of his finds this spring was the hedgehog of the fourth century B.C., which he describes as having "round knobs scattered over the body, three on each side and four along the spine. The knobs have an alternate arrangement of either round holes or shallow grooves."

The scientists were at a loss to explain the knobs until one of the workmen declared that hedgehogs come to his vineyard and spear grapes on their quills, carrying them off for their young to eat.

Equally surprising was the discovery of a vase fragment decorated with the picture of an intoxicated satyr breaking through the bottom of a wine vessel. According to Dr. Shear, "the comic composition is due to the fuddled imagination of an inebriated brain."

Not only did the ancient Athenian artists occasionally take to drink, but they evidently had trouble themselves in interpreting the complicated mythology of the day, for on one of the vases described by Dr. Shear there occurs a mixture of legends.

"A beardless youth, who is armed with a double axe, is represented as engaged in combat with a man who is leaning down to grasp a rock. The youth with the double axe would normally be interpreted as Theseus, but beside him a knotted club is resting on the ground and a quiver is hanging from the branch of a tree.

"It therefore seems probable that this scene represents a contamination of the

legends of Herakles and Theseus, the Athenian hero replacing Herakles on an Attic vase," he concludes.

Outstanding historically this season was the investigation of the Klepsydra, a fountain house at the foot of the slope to the Acropolis, which had kept the citadel's defenders supplied with water from the fifth century B.C. to the Greek war of independence in the 1820's.

Entered through a fissure high in the wall of the building, the well-house gave evidence of being first built during the fifth century, at which time it consisted of a large forecourt with an antechamber for drawing water.

During the Hellenistic period (third to second century B.C.) the building was partially reconstructed, only to be filled with debris of battle after the siege of Sulla in 86 B.C. and to cave in early in the Roman period.

However, in the second century A.D. the fountain-house was rebuilt and connected directly with the Acropolis by a stairway cut through the rock bastion, and the Valerian wall was thrown around it. It remained so, according to

Dr. Shear, until the Greek war of independence, when the Bastion of Odysseus was built around the spring to defend it from the Turks.

Science News Letter, September 3, 1938

BACTERIOLOGY

School Books Not Likely To Carry Disease Germs

EVERY so often in some community comes up the question of disease germs being spread by school books. This is only natural since books handled by patients having tuberculosis, scarlet fever, diphtheria, meningitis, infantile paralysis and kindred diseases are more than likely to get some of the germs on them either from the patient's breath in sneezing or coughing or from his hands.

A pretty clean bill for ordinary school books, however, and some recommendations on books in general are now presented by Arthur H. Bryan, of the science department of Baltimore City College. He collected pages from very old and from newer school books, most of which had been recently used by students, cut up the pages, soaked them and shook them in sterile water for from 15 minutes to one hour, and then transferred some of the water to germ growth media to get some idea of how many germs actually had been on the pages of the books.

Ordinary school books, surprisingly enough, showed very few germs and those mostly of a harmless variety. Books that are not too old or dilapi-



SHARP LITTLE THIEF

Folk-belief that hedgehogs steal grapes by spearing them on their spines made possible the identification of this little terra-cotta image made in Athens 2300 years ago.

dated, he concluded, are not serious carriers of infectious diseases. School books that are kept for some time before being redistributed do not seem to have many living disease germs on their pages. Old books with visible dirt and grime smeared over their pages are capable of harboring many more disease germs than clean or new school books.

Mr. Bryan recommends that old school books which are frequently exchanged

should be opened up and sunned for several hours. Books used by sick children should not be handed out to other students immediately (most germs die or lose their virulence if kept away from body tissues for a while.) Books which are dilapidated, out of date and filthy with grime should be destroyed. Books coming back from quarantined homes should be destroyed or held for several months before redistribution.

Science News Letter, September 3, 1938

SOCIOLOGY—ECONOMICS

Future Social Security Costs Cannot be Estimated Exactly

Figures for 1980 Subject to Factors at Present Unknown; Transfer of Interest to Problems of Present is Urged

GOVERNMENT officials have no accurate idea how much the Social Security old-age insurance will cost forty years from now. Such estimates have been reported frequently.

Despite intricate calculations, or perhaps because of them, Consulting Actuary W. R. Williamson, of the Social Security Board, confesses that it is impossible now to predict the exact cost of the plan when 1980 rolls around.

First among the uncertainties is the number of men and women who will survive to the age of 65 in future years. Mr. Williamson does not wish to rely on the experience of insurance companies in making this estimate, because the insurance companies' medical examinations and other factors make the situation of the life insurance holder different from that of the general population. A margin of safety for the insurance company in figuring death payments becomes just the opposite when the object is to figure life annuities.

New discoveries in medical science may reduce the deathrate from old-age diseases. Such advances would add to the cost of old-age insurance. Invention of new contraptions like the automobile and airplane, on the other hand, might increase the likelihood of accidental death, thus reducing the cost of old-age payments.

War would entirely upset predictions of survival and would reduce costs of the plan.

Another uncertainty is the number of individuals covered.

"There is as yet no clear evidence of the exact number of covered workers or

approximate full-time jobs," says Mr. Williamson in his report. (*Social Security Bulletin*, July)

In connection with the framing of the Social Security Act, it was estimated that the annual covered pay roll for 1937 would be in the neighborhood of \$28,000,000,000, representing between 25,000,000 and 26,000,000 full-time jobs. So far 40,000,000 benefit account numbers have been assigned, and it is estimated that wage reports received for the first six months of 1937 represent 32,000,000 persons for whom tax payments have been made by employers.

"There is a recognized lag in tax collection," comments Mr. Williamson. "Even though such employment changes as are now developed were accurately recorded, one can hardly believe that the tempo of the period of 1937 and 1938 is indicative of the situation during succeeding decades.

Officials expect some movement between the covered and non-covered occupations. It is estimated that at present only some 25,591,000 workers, out of the total of about 48,830,000 gainfully employed, are covered by the old-age plan.

It may very well be that the future will see more and more housemaids deserting the kitchen for the factory and small store keepers seeking employment in the chains where they will be eligible to old-age benefits.

Experts trying to estimate how many will be included in the plan by 1980 have made guesses ranging from 35,000,000 to 75,000,000.

Of course the present boundaries be-

tween the covered and excluded occupations may be shifted, too. Amendments to the act may bring agricultural or domestic workers under the plan or may change the age at which the payments are started.

A third uncertainty is the number of those who remain in employment beyond the 65-year age limit and thus delay the old-age payments. In making the early estimates for the social security plan, it was thought that an average of two and a half years of delay in retirement could be assumed. But when the worker is sure of an income at the age of 65, his attitude and that of his employer may change and alter the whole picture. Opposed to this tendency would be any increase in health of older men or raising of the standards of living. Benefit payments are low.

Part-time employment in the covered occupations adds yet another uncertainty to the estimation of costs, for the benefits of such workers will be larger in proportion to their taxes than will those of long-term members of the plan.

Finally there are the less tangible and immeasurable political and economic influences that may force drastic changes in structure of the plan.

Summing up all the difficulties, Mr. Williamson urges less emphasis upon the attempt to evaluate future costs.

"This major indefiniteness, therefore, must be accepted as inherent in any social insurance plan. . . .

"This indeterminate quality of old-age insurance costs may itself be the strongest argument for shifting our attention from the problems of 1980 to a more thoroughgoing consideration of present needs. We cannot foretell the future, but we can see the necessities of the present. A shift in attention should be most rewarding."

Science News Letter, September 3, 1938

PHARMACOLOGY

Pharmacology Research Institute Organized

INTENDED to occupy in pharmaceutical science the place of famous industrial laboratories in the fields of physics, chemistry and engineering, a Squibb Institute for Medical Research is being organized by E. R. Squibb and Sons. The new institute, to be staffed by scientists assembled from leading institutions in the United States and abroad, will occupy a newly-completed \$750,000 laboratory located at New Brunswick, N. J. It is expected to be in complete operation this fall.

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