

Florida Cypress Over 2,000 Years Old

Botany

A giant cypress with a trunk over fifteen feet in diameter may be Florida's rival to the big trees of California for the recognition as America's oldest living tree. Prof. Herman Kurz, of the Florida State College for Women, has made a study of the gnarled and battered veteran, and estimates that it may be 2,000 years or more old. It may be as much as 2,800 years old, he thinks.

If this does not exceed the age of the great trees that are the pride of California, it is at least a highly respectable antiquity, and Prof. Kurz feels that Floridians owe it to themselves to call public attention to the picturesque grandeur of their remaining groves of big cypresses, and at the same time insure their protection against thoughtless vandalism.

Before studying the big tree, Prof. Kurz examined the stumps of a number of recently felled seven- and eight-

foot specimens. One sample seven-footer proved by its ring count to be about 700 years old. It was, therefore, already a veteran when Ponce de Leon discovered Florida, and was a lusty young tree even when Chaucer wrote the Canterbury tales.

Commenting on the fifteen-foot giant, Prof. Kurz said:

"The stubby top and relatively short trunk hark back to many and ancient violences. Some time before Christ, this tree, probably solid and sound, had already attained a diameter of several feet. Then the pesky cypress gungus gnawed into its heart wood; maybe it was when Cicero orated for the cause of Rome. A hollow and weak trunk ensued. Next a violent storm wrenched off a large limb or two, so that the tree became stunted in appearance and growth. Just when the limbs crashed is also a conjecture. It could have happened when Caesar

was in Gaul (55 B. C.) or during the time of Constantine, about 300 A. D. During the Norman Conquests or the Crusades it may have suffered the loss of another limb or two."

After surviving all these damages and dangers, the great tree is now in real peril. And ironically enough, its life is threatened by mere penknives. Thoughtless tourists by the hundred inscribe their initials and more or less silly sentiments in its trunk, and these constant little wounds are endangering the life of the tree. Prof. Kurz advocates surrounding it with a high fence to protect it from its admirers; and he would also have Floridians undertake a campaign of public education designed to secure both a fuller appreciation of the interest and value of the big cypresses, and their preservation for future generations.

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Identifies Liquor of Ancients

Archaeology

When it comes to "sampling the evidence," one German scientist has American prohibition agents beaten. With nothing more before him than an Egyptian bottle that has been empty since 3300 B. C., Prof. Dr. Johannes Grüss of Berlin can tell whether the departed Pharaoh in whose tomb it was found liked his beer light or dark, whether he favored a brew made of barley or emmer, or whether his taste ran more daintily to wine. Fortunately for themselves and their subjects as well, distilled liquors were unknown to the kings of ancient Egypt.

It all turns on Prof. Grüss' expert knowledge of yeasts. There are many different species of these active microscopic plants that put the kick in home brew and raise the dough when the baker makes bread, and only a botanist specially trained in microscopic technique can tell them apart.

Prof. Grüss had a lot of ancient bottles and jugs which had been sent to him by an American scientist, Dr. H. E. Winlock of the Metropolitan Museum of Art in New York. They had been found in various ancient tombs, some of them dating back 1700 years beyond King Tut. They had been full of various fermented liquids for the refreshment of the late lamented on his long journey to Paradise when they were put away, but

these, of course, had evaporated, leaving a deposit of dried yeast cells and other detritus on their sides and bottoms.

By microscopic examination of this material, the German scientist was able to tell what the Pharaoh's brewer had used to give his stuff the requisite authority. The special kind of beer could be determined from starch grains mixed with the yeast deposit, and wines were betrayed by the presence of characteristic acid crystals. That one batch of beer had gone sour was indicated by the finding of the skins of number of "vinegar eels."

Early Egyptian brewers and wine-makers were not at all fussy. Apparently, they didn't even take the trouble to strain the water they used; for Prof. Grüss has found, mixed with his yeast cells, such things as tiny twigs and leaf fragments, bits of water weeds from the Nile, and wings, legs and heads of insects of various kinds, to say nothing of appreciable amounts of desert dust.

About one thing, however, they were particular. They always used the same kind of yeast, and they apparently kept their cultures pure for over 2,000 years. The elaborate ceremonies of the Hebrew purging and renewal of the leaven at Pesach give a hint of how yeast may have been cared for in old Egypt.

Prof. Grüss identifies the old Egyptian yeast as a wild species that lives on certain fruits, though he regards it as more likely that it went into the Egyptian "makings" with honey that was added to the batch as sugar is added by present-day home brewers. He regards it as a new species of *Saccharomyces*, the genus to which all yeasts belong, and in honor of the American who supplied him with his ancient bottles he has named the yeast *Saccharomyces Winlocki*.

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Big Gorilla Killed

Zoology

The killing of a huge male gorilla has been reported to Dr. Henry Fairfield Osborn, president of the American Museum of Natural History, in a letter from Dr. William K. Gregory, of the expedition sent by Columbia University and the Museum to study and photograph gorillas and other great apes in Africa. The animal was killed by H. C. Raven, leader of the party. After it had made a couple of "fake charges" it came straight at the explorers, and Mr. Raven shot it in the face.

The expedition expects to secure a second gorilla, after which the photographic work will begin. Dr. Gregory reports that owing to the density of the bush it will be extremely difficult to obtain good pictures.

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