

ARCHAEOLOGY

# The Oldest Town in America

## Tree Ring Studies Reveal That Oraibi, Arizona, Has Been Continuously Inhabited for More Than 500 Years

By EMILY C. DAVIS

IT MAY surprise you to learn that neither St. Augustine nor Santa Fe can any longer claim the proud title, Oldest Living Town in the United States.

Scientists have discovered a new Oldest Town, some two hundred years older than either of the well-known contestants for longevity.

It is a place in a remote region of north-central Arizona, called Oraibi. The name is pronounced as if spelled Oh-rhy-bee, with the accent on rhy. It is an Indian name meaning the place of the rock, a very appropriate name for this particular town. Oraibi stands perched high on a rocky mesa overlooking the valleys below.

Oraibi should be suitably marked with a tablet showing that it is the "Oldest Continuously Inhabited Settlement in the United States," declares Dr. A. E. Douglass, noted astronomer of the University of Arizona.

Dr. Douglass has a friendly interest in Oraibi. It was through his researches there that the new longevity record stands proved. In the ceremonial halls and the homes of the Oraibi, Dr. Douglass and archaeologists working with him have found evidence convincing them that this "place of the rock" was under construction in the year 1370 A.D. It may have been inhabited before that. But a record that goes back to 1370 is sufficient to top any claim for age that any other town has put forth.

### Only a Youngster

It was no earlier than 1565 that St. Augustine's fortifications were built by Spanish colonists in Florida. Not until 40 years after that was Santa Fe founded as a Spanish town.

These facts, to be sure, have been merely a starting point for historical debate. Loyal New Mexicans argue that the site chosen for Santa Fe was an Indian settlement and that those Indians were undoubtedly living there before 1565 when St. Augustine's walls were raised. To which Florida replies by reminding New Mexico that St. Aug-

ustine is older than its Spanish founders. There was a Huguenot settlement where St. Augustine stands for some years before the Spanish landed.

But Arizona's town of Oraibi is as old as the medieval towns in Europe that sprang up when the age of crusades and castles waned.

Oraibi looks medieval. Its irregular, fortress-like walls built in the pueblo fashion are a little bit of fourteenth century America that has somehow survived.

Oraibi has added itself to the list of historic "sights" to be seen by American tourists, and the town provides quite an eye-filling exhibit. Life in the streets and in the adobe rooms on the mesa top is not so different from what it has been day in and day out for six hundred years.

### One Auto Truck

If you climb the mesa and drive along the seven irregular streets that make up the pueblo, you can see the oldest Main Street in the States, looking just about as it did in the Middle Ages, before white men came to settle America. Fewer people are on the street than in the fifteenth or sixteenth centuries. That is the chief difference.

You may see one automobile truck chattering along the street. That is the only horseless wagon that disturbs the peace, except when outsiders come in. The Oldest Town has never had any traffic problems to speak of.

Knowing that Oraibi existed before Columbus came to America, you know that the people are some of the oldest Americans—Indians. Oraibians are Hopi Indians. They still have their native chief and other officials. They still hold native dances, such as the corn dance and the bean dance, in which they invoke rainfall for the planted crops. The low boom of the drum is the church bell calling the men to take part in the rites of planting time and harvest.

Within the rooms of the Oldest Town you can see women grinding corn on stones in the way taught by their great great grandmothers and their grandmothers before them. Some of the wom-

en have iron cookstoves. But other housewives still make their flat, paper-thin cakes of blue corn meal on heated stones.

In spite of the allure of bobbed-hair styles, some of the younger women of Oraibi are still old-fashioned enough to wear their hair in huge cartwheels over the ears. Those same ear wheels caught the eye of the Spanish explorers when they saw the women of Oraibi centuries ago. The style is the traditional Hopi headdress for the unmarried girl. Married women wear their hair in plaited strands in front of their shoulders.

### Attacked by Navajos

Oraibi has made a concession to progress by putting doors in the first floor walls of the houses. When Dr. Douglass made one visit to the place thirty years ago, the inhabitants pointed out a door as one of the newer features of the town. For centuries, ladders were the customary front door steps in Pueblo country, and for excellent reasons. A Pueblo Indian's home was his castle, and it needed strong walls and a ladder entrance that could be pulled up, like a drawbridge. Even as late as 1865, Navajo Indians attacked the Hopi pueblos.

Old residents in Oraibi might trace ancestry back to the builders of the town, if these Oraibians were the sort



### CALENDAR MAKING

To enable him to obtain tree ring specimens from beams in standing buildings, Dr. A. E. Douglass, of the University of Arizona, invented an instrument which bores out a small sample of the wood.

of folk who took a proud interest in drawing family trees. They have never bothered their heads much about records like that. It is not by their record keeping that Oraibi's historic career with its impressive dates is now revealed to students of American antiquities.

Through all the centuries of its existence, the dates of the town have been hidden in tree-rings in the housebeams, awaiting the coming of some one clever enough to read the tree-ring code. Only when Dr. Douglass and archaeologists working with him completed the tree-ring calendar for the Southwest, could the age of Oraibi be deciphered.

How Dr. Douglass and a number of archaeologists worked for years to collect thousands of tree-ring specimens that would fit together into a 1200-year perfect calendar of annual tree-rings is now a famous tale of American science.

Dr. Douglass, who was studying weather cycles, started by examining the annual rings that are added to the circumference of growing trees. He noted that in dry years a tree forms a narrow, meager ring, and in rainy years, a wide ring is formed. He found that he could identify outstanding rings or series of rings, and could say that those peculiar rings were formed in such and such years with considerable accuracy.

Working under the auspices of the National Geographic Society, Dr. Douglass carried his investigations into the past. He examined older and older cross-sections of Southwestern pines and fir trees, using the peculiar, easily identified rings as overlapping guides to date the older growth rings. Finally the calendar was carried without a break as far back as 700 A.D., from a beam found in prehistoric Pueblo Bonito.

#### Dates in Charcoal

By that tree-ring calendar the ages of more than forty prehistoric pueblos have been determined so far. Cross-sections of roof beams have given up some dates—like the hidden cornerstone records in an old building. Even fragments of charcoal lying in buried ruins have contained readable dates expressed in tree rings.

To make it possible for him to obtain tree ring specimens from beams in standing buildings, in Oraibi and other pueblos, Dr. Douglass invented an ingenious instrument which bores a small sample of wood out of the beam.

From Oraibi, Dr. Douglass and his associates have collected about 275 different beam specimens, many of which are datable. Some of these have been added to the town's record very re-



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#### MAIN STREET, FOURTEENTH CENTURY

*This quaint thoroughfare, the most ancient Main Street in the United States, looks about the same today as it did in the Middle Ages. The photographs were taken by members of the National Geographic Society's Pueblo Bonito Expeditions.*

cently, following a new visit to Oraibi.

The tree-ring records from Oraibi prove its continuous habitation from 1370 to 1770. Every time that an Indian went out to the forest to cut down a tree to build a new apartment in the pueblo or to renew a sagging roof-beam, a new, dated piece of fresh cut timber was built into Oraibi, for archaeologists to find and decipher centuries later.

By 1770, the record stopped, Dr. Douglass found. It appears that the men had gone to the forest for pines and firs so often that the supply within reach was exhausted. After that, repairs to the town had to be made with cottonwood. And cottonwood is not a tree that has clear, readable growth rings like the pines and firs.

But long before 1770, Spanish explorers and missionaries had taken up the story of Oraibi, telling of its people and its unusual character. So, the occupation of the "place of the rock" is documented for all of six centuries.

The Southwest has many pueblos built earlier than Oraibi, as the tree-ring records prove. But all of these earlier towns are deserted ruins today. There is danger that Oraibi may soon be joining them, giving up its historic distinction as the Oldest Living Town.

"I am afraid the place will be abandoned," was Dr. Douglass' regretful conclusion when he left the mesa not long ago after his latest visit to collect tree rings. He added, "I should like to see some method of preserving it. Here is an Indian village which could be made a point of permanent attraction."

In his quest for tree-ring history, Dr. Douglass has come to know a good many of America's oldest settlements,

both living and deserted. Oraibi he has found to be quite a "character" of a town. Few American communities have developed the trait of independence so consistently as the Oldest Town has done. The town is a "place of rock" in character as well as appearance.

Oraibi was almost 200 years old when white man discovered it. What important events happened in those first 200 years, no one knows, except that Dr. Douglass can look at the tree ring record, and date for you the especially bad years of drought and hardship and the especially good years of rainfall and agricultural prosperity.

#### Secret of Independence

Some day, after Oraibi is completely abandoned, archaeologists may go in to dig among the buildings and may learn more highlights of the first two centuries. If towns, like human beings, establish their personalities in the first years of life, then the secret of Oraibi's independent manner must be sought in its fourteenth century experiences.

The pueblo's first glimpse of white men came in 1540 when a party of Coronado's little Spanish army arrived and added Oraibi to its string of American discoveries. After that, Oraibi's reputation for independence began to grow.

Spanish priests and soldiery alike found that Oraibi was no weak little village to be easily won. The Spaniards, impressed by the town's strength, said that its walls sheltered 14,000 natives. The Spaniards were exaggerating. Still, Oraibi was the largest Hopi pueblo.

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