

There is a weak spot at 243 in the "double" which, in the short space it is visible, seems to have a sharp outer edge. Considering the action of modern trees in that locality, this is the best interpretation until confirmation or correction is secured. It does not affect the dating of the ruin.

THE DATING CHECKED

The dating of Bluff Ruin secured by Mr. Patton is considered checked and sustained. The sequences supporting this dating are therefore (1) sequence A, 234 to 320±, pinyon, 20 or more specimens, one verified prediction, at 302; (2) sequence C, 231-306, highly sensitive pine, specimen numbers FST-199, 202, 245, and 257, verified predictions at 291, 297, and 302; and (3) Sequence D, 224 to 275, very sensitive pine section, specimens FST-200 and 201 with very strong verified prediction at 257 and 258.

There are four sites from which dated ring records in the 200's have been obtained, namely, Mummy Cave and Red Rock Valley in northeastern Arizona, Durango in southwestern Colorado, and Kanab in southern Utah. Forestdale is added as fifth in that list with a construction date not far from A.D. 330±10.

SOME IMPLICATIONS OF THE BLUFF RUIN DATES

EMIL W. HAURY

Dr. Douglass' preceding article on the analysis of tree-ring material from the Bluff Ruin (Arizona P:16:20, Arizona State Museum Survey) in the Forestdale Valley, east-central Arizona, is an extremely important addition to our growing southwestern archaeological picture. So that the full significance of this work will not be lost, the following archaeological notes are appended.

The cultural remains of this village so far unearthed include eight pit-houses of round or roundish form (average diameter about 3.5 meters) but otherwise quite featureless, scooped out of the solid sandstone bedrock; there was one large (over 10 meters in diameter) round structure which must probably be classed as religious rather than domestic. All cultural material was exceedingly scarce. Stone implements include both basin and crudely troughed metates. Manos are large, generally of oval form. Present also are small stone vessels or mortars, tubular stone pipes, and a small amount of chipped scrapers, knives, and straight-based leaf-shaped projectile points. Bone implements were almost entirely lacking and pottery was present but in small quantities. One extremely fragmentary burial suggested that inhumation was practised.

The chief pottery type was a smoothed plain brown ware, and there were small amounts of polished smudged and red types. There was no painted pottery. The pottery is manifestly in the Mogollon tradition and the relative unimportance of it in the culture suggests that the horizon was near the threshold of the introduction of ceramics.

Basketmaker or Anasazi sherds of any description were not found, although such are present in later phases.¹ Intrusive pottery assignable to

¹Haury, E. W., *Excavations in the Forestdale Valley, East-Central Arizona*. Social Science Bulletin, No. 12, University of Arizona, pp. 84-85, 1940.

the Hohokam Culture includes Gila Plain and several painted sherds too extensively eroded for phase identification.²

The Bluff Site bears certain unmistakable marks of relationship with the S U Site in New Mexico excavated by Martin³ which, although not dated as yet by tree-rings, is estimated to be early. It seems, furthermore, to be the basic culture of the Forestdale Valley. Some centuries later it amalgamated with the Anasazi to constitute the Forestdale Phase as determined in the Bear Ruin.

Of the four localities mentioned by Dr. Douglass producing ring records through the 200's A. D., Mummy Cave, Red Rock Valley, Durango, and Kanab, the terminal dates of the records from the latter two areas point to a Basketmaker II or non-pottery level of culture. The Mummy Cave record, with outside date in the 300's is probably associated with Basketmaker II and the status of the Red Rock Valley specimens has not been accurately determined. In this light the 4th century date for the Bluff Site would appear to give us the earliest ruin with a pottery complement yet dated by tree-rings. Ever since considerable age has been claimed for the Mogollon Culture and particularly the proposal that Mogollon pottery may have been in existence before Anasazi ceramics, the lack of tree-ring dates has been cited as the central argument against it. While the evidence from the Bluff Site is still not conclusive it is nevertheless in support of this line of reasoning. Additional work in the Bluff Ruin is indicated and unfortunately this must wait until after the war, when a detailed report will be issued.

²In view of the early date of this village and the presence of Hohokam pottery, interesting light is cast on Gladwin's revision of the Snaketown chronology. Gladwin, H. S., Excavations at Snaketown, III: Revisions. Medallion Papers No. 30, Gila Pueblo. 1942.

³Martin, P. S., Rinaldo, J., and Kelly, M., *The S. U. Site: Excavations at a Mogollon Village, Western New Mexico*. Anthropological Series. Field Museum of Natural History, Vol. 32, No. 1. 1940.