

Results of the Study of Oraibi and Dinnebito Washes

July 1, 2, 3, and 6, 1938.

Oraibi Wash

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The Oraibi Wash is cut at the present time ^{Peabody Museum Harvard University} about 20 miles below the town of Oraibi all the way back to its head, in Black Mountain. The depth of the wash varies, but in general it may be said to be cut from 20 - 80 feet. Three Hopi Indians were questioned about the recent cutting. It apparently began cutting at Burro Springs, about 20 miles below Oraibi, and cut headward. The cutting at Oraibi occurred probably from 1900 - 1905. Before the cutting the wash flowed to the East of the present position. About two miles south-east of Oraibi the Indians had a crude diversion dam from which fields were watered on the silt flats to the south. At the present time the remains of the channel can still be seen. A stand of Cottonwood trees grows at this point. The Oraibi Wall ^{ey} can hardly be said to be greatly dissected at the present time, in the vicinity of Oraibi. The main arroyo is cut in many places into bed rock but none of the side washes have cut down with the exception of the one crossing the Oraibi-Polacca Road, and this is now cutting back from the main arroyo. The lack of dissection is due to two causes: 1) The location of fields at the mouths of arroyos prevents cutting of the small arroyos; 2) Headward erosion from the main wash does not occur along the present tributary arroyos because unlike the washes in the Jeddito Valley they are not confined in channels, but in almost every case fan out on the flats. Thus there is nothing to concentrate the run-off at the main wash. It is believed that farming by the Hopis has hindered cutting over a long period of time.

Buried channels have been found at several localities.

Ten miles above Oraibi a buried channel was found about 20 feet deep. The present wash is 80 feet deep at this point. Seven and a half miles above Oraibi another smaller channel was found. Both of these channels are exposed at the surface and have no deposits on top of them. It is not known what period of cutting they represent.

About 6 miles above Oraibi the character of the valley bottom changes on the west side of the wash from a clayey silt to a rather loose sand. North of here the principal type of vegetation on the silt flats is Greasewood. Cornfields are few, probably because the soil is alkaline. To the south on the sandy area cornfields are abundant, to Oraibi. Here also a sandy layer showing evidence of partial deposition by the wind, overlies the normal valley silt. This condition continues to several miles below Oraibi. On the East side of the wash, the valley floor becomes sandy about 2 miles above Oraibi. Sherds have been found in this sandy layer, all of them in line with the tributary wash which crosses the Polacca Road. The pottery appears to be at least as old as Pueblo IV. The depth of the sandy layer varies greatly. In a few places it is seen to be cut almost as deep as the main wash. In one place a channel of the same material cuts the earlier fill to a depth almost of twenty feet. If this is the same sandy layer as the one in which sherds were found, as seems likely, we have evidence of a period of arroyo cutting corresponding to the 13th century period in the Jeddito Valley. However the cutting at Oraibi is not very deep. The whole valley floor was later built up by stream action, and wind action. Wind action was very prominent in the vicinity of Oraibi. It seems likely that it resulted from farming activity. A sketch map with 5 meter contours was made of a small area

east of the Oraibi Wash near the town of Oraibi and showed the dunes to be of the shallow blowout type. They have formed on top of the valley fill, and hence are contemporaneous with human occupance.

Dinnebito Wash

The Dinnebito Wash in the vicinity of Hautevilla is cut to a depth of about 40 feet. Evidence of successive cutting and filling was seen at two places, but no sherds were found in the fill. The lack of any large ruins near to the main wash precludes the probability of finding many sherds in the fill.

John T. Hack

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