MB - Lunar Astronauts

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Dear Joe:

This August provided an opportunity for me to visit Awatovi and I thought I'd like to write you about it. We have a group of geologists studying an area in the Hopi Buttes centering around Castle Butte. In fact this area is used occasionally as a place for training lunar astronauts. The work, there, includes study of the alluvial fill, so it was appropriate for me to visit the Jeddito Valley with our geological team in order to recover some of my type localities and we spent two days around Awatovi. We found the ruin at Awatovi in pretty good shape. Our camp, of course, is now an archaeological site also. One can still see the remains of the stone footings for the tent floors. But you must have revisited the site a good many times yourself.

I was most interested in the ecological changes that have taken place in the Navajo-Hopi country during the almost 30 years since Awatovi was excavated. These changes have a bearing, I think, on the validity of some of our ideas on the importance of the environment in the history of the Pueblo peoples. Plainly there have been many wet years since 1940 and this summer, in particular, was cool and wet. The entire area between Antelope Mesa and Winslow looks very different from the old days. The gramma grass is thick and vigorous. The Navajos are even introducing Hereford cattle on the open range that look very healthy. Snakeweed, one of the most abundant shrubs, used to be a puny plant a few inches high. It now forms vigorous bushes up to 3 feet high. The Navajo country used to have abundant rabbit brush. You may not recall this plant, but it is a large shrub with a bright yellow flower, growing in areas of blowing sand. I had a hard time finding any rabbit brush at all. My impression is that on the average the sand involved in movement because of wind action is much less than it was in the period 1935-40.

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The most spectacular evidence of this is near Tallahogan Canyon where the high vegetation-free dunes that we studied are now completely gone. Nothing is left but bare rock. The falling dunes on the canyon wall are now green with vegetation. I surmise that the vigorous growth of grasses on Antelope Mesa has cut off the sand supply so that the dunes have blown away. An alternative explanation is that the Indian Service interfered with the dunes in some way. We could, of course, check out the second hypothesis. My friends tell me that the dune area I once studied on Garces Mesa is no longer active. I suspect that the big active dunes on First Mesa behind Walpi are no longer active because I could not see them from the road - but this should be checked out.

What interested me most was the Tallahogan Gardens. The place is now half in ruins with many irrigation plots abandoned. You probably recall our theory that the gardens depended in part on the active dunes to supply an efficient intake area for the water supply. We can surmise that spring flow and seepage off the Mesa is now inadequate to water as large an area as it did 30 years ago. The alternative explanation is that the Tallahogan gardens have been partially abandoned for some cultural reason, such as that the Hopis prefer to buy produce at the Circle-K or Safeway. As above, this explanation can be checked out.

Our geologists in Flagstaff who were with me during this visit may have an opportunity to investigate some of these things. I hope so. In any case the changes in the environment in 30 years have been dramatic and I think our Awatovi studies might serve as basis for describing some of them.

It was a great pleasure to revisit the old place and enjoy fond memories of a great dig and fine people.

Hope to see you down here this winter.

With best regards,

Sincerely yours,

John

John T. Hack

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