

ARIZONA'S HO'OK GEOGLYPH - PART II

BY

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Subsequent to the October, 1987 presentation of my paper on the Ho'ok geoglyph I visited the site with Boma Johnson. Mr. Johnson is a BLM archaeologist and an authority on earth figures. Upon seeing the geoglyph, Mr. Johnson agreed with my position that there are presently three, not two, stick figure anthropomorphs that constitute this geoglyph.

When one is in the company of a knowledgeable authority it is wise to listen, ask questions, and learn. This trip provided just such an opportunity. Mr. Johnson showed me evidence that indicated recent reworking of the geoglyph confirming what Mr. Ernest Ellis had told me in a similar visit to the site in September, 1987. During the September visit Mr. Ellis, who lived about three miles from the geoglyph for forty-eight years, remarked that the figures were more distinct than they were when he last visited the site many years earlier. Mr. Johnson pointed out several areas of the geoglyph that showed mineral earth with no migration of smaller stones back into the body furrows of the figures. This "lithic migration" is a natural phenomenon. When an area is cleared down to mineral soil, in this case to construct a geoglyph, the earth begins the slow process of returning to its original state. Wind, rain, floods, the slope of the land, its exposure to such weather conditions, and the growth of vegetation are all factors that contribute to this healing process. These factors, especially the weather conditions, will remove the newly exposed soil and uncover underlying rocks. These same weathering processes also deposit new rocks in the furrows. Small stones are the most numerous newcomers with larger stones, because of their greater mass, being less frequently deposited. This process of lithic migration continues until the scar is obliterated (Figure 1). If all these factors proceeded at a constant rate, or if the intensity of these factors at each occurrence could be measured, we could use this process as a mechanism to date geoglyphs. In the absence of such consistency the phenomenon serves only as a useful "guesstimation" of the geoglyph's age. Another method used to date geoglyphs is to measure the amount of mineral, primarily calcium, deposited on the underside of stones. This can only be done where weather conditions and the mineral content of the soil are conducive to the formation of such deposits. Lichen growth is another dating method that is useful in dating geoglyphs, however, like lithic migration and mineral accretion, lichen growth is dependent on weather conditions for its verity.

After having the phenomenon of lithic migration described and shown to me I made a survey of the Ho'ok geoglyph to identify those areas that showed disturbance of this process. The results of this assessment are shown in Figure 2. It was evident that the arms, thighs, and upper abdomen of the giant figure had been reworked. Also, the baby figure had received extensive renovation. The third figure, which had previously been ignored, identified as an arrow passing through the body of the giant to kill her, or as a foot trail and trail shrines, had also undergone renovation.

It is the controversial presence, or absence, of this third figure that initiated my investigation of this geoglyph. The pelvis, legs, thorax, and both arms of this third figure showed areas of mineral soil with no evidence of lithic migration. The piles of stones that form the hands of this third

figure also, when closely examined, showed evidence of recent placement. Creosote bushes have grown in both piles of stones that constitute the hands of this figure. Some of these stones, when lifted from their position in the soil, show the presence of decaying creosote leaves under them. This indicates a recent placement of those stones. Other stones showed bare mineral soil under them indicating an older placement. Also, some of the older placed stones had lichen growth on their surface. None of the stones in the geoglyph showed evidence of mineral accretion, apparently the mineral content of the soil is not conducive to the formation of such deposits.

Once it was certain that the geoglyph had been reworked questions arose. Had the earlier authors been correct and there were only two figures in the original geoglyph? Had the arrow, or foot trail with trail shrines, been added after the original report to the Smithsonian Institute by the Bureau of American Ethnology in 1904-1905? Was the third figure always present, but so old it was indistinct and the reworking was done to restore it? Was the reworking done by the Indians who still regard the site as a shrine, or did a visitor who felt the arrow, or trail and shrines, was meant to be a third figure similar to the other two to alter the figure? To answer these questions aerial photographs of the geoglyph were searched out and examined to see what features of the geoglyph were visible when the photographs were taken. Due to the angle of photography, shadows, and poor resolution of detail the third figure was not clearly shown. However, one photograph, taken about 1980 by Harry Casey, showed better resolution of some features than the others. This photograph showed the feet, legs, body furrow, and the head of the third figure, however, no arms were visible.

Since aerial photographs were inconclusive and my attempts to gain information by questioning the Indians had proved futile, due no doubt to the fact that I am not an Indian and no matter how sincere, a non-Indian is not readily granted the confidence of the Indian people. Realizing this deficiency I contacted LaVan Martineau. Mr. Martineau was adopted and raised by the Piute Indians and is considered to be their brother. Because of this acceptance he is able to acquire information that is not disclosed to outsiders. Mr. Martineau was able to question a tribal historian about the geoglyph. This historian is an 86 year old Pima Indian from Sacaton, Arizona. Without betraying any trusts given to him, Mr. Martineau passed on to me the following information about the geoglyph.

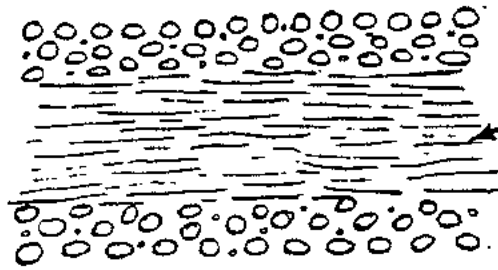
Originally there were only two figures in the geoglyph, Ho'ok the giant and one of the children she ate. The historian Mr. Martineau interviewed said that there was not a third anthropomorph nor was there an arrow, however he was not certain about the presence of a trail that may have passed through the original geoglyph. Further searching by Mr. Martineau located a school teacher who told him that the tribe's school children had gone to the geoglyph to sharpen, restore, and maintain it as a part of their cultural heritage. Because the school children were not under the supervision of tribal elders, who knew the legend and composition of the geoglyph, the short trail line bisecting the body of the giant figure and the trail shrines were mistaken to be the body furrow and feet of a third anthropomorph similar to the other two. The children sharpened that trail line accordingly, and in so doing they created a new third figure. The exact date this occurred is not known, however, it was probably done before the construction of the present protective enclosure surrounding the geoglyph because that enclosure was constructed with a deliberate jog in its east wall to include the head and neck of the third figure (Figure 3).

Although there is evidence of an old trail leading toward the geoglyph from

the west, it is not continuous with the trail line that now constitutes the body furrow of the third figure. Furthermore, this trail line does not continue on to the east (Figure 3). It is strange why a short, yet distinct, trail that comes from nowhere, and goes nowhere, would be constructed in the geoglyph to bisect the body of the giant figure. The early authors that described this geoglyph did not acknowledge the presence of such a trail, however, this trail, which is now the body furrow of the third figure, shows areas of lithic migration that has progressed to such a degree as to suggest it is quite old (Figure 2). The name of the geoglyph is Ho'ok va"ak which means "Ho'ok lying" because she reportedly slept at that site as she journeyed through the valley. Mr. Martineau suggests that the short trail may represent the concept of her travel.

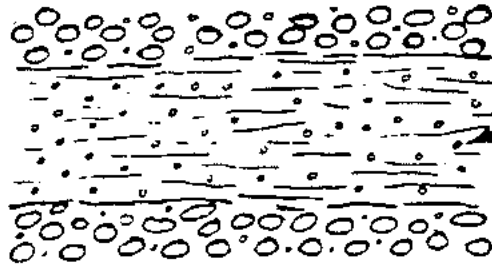
The mystery surrounding the presence of the third figure in the geoglyph is now solved. The early authors were correct when they described only two figures in the original geoglyph. The third figure was mistakenly created by tribal school children who, with pride, good intentions, and tribal spirit, but without the supervision of tribal elders, sharpened up a trail line they mistook to be a body furrow and thus added a new third stick figure anthropomorph to the geoglyph. The children's cleanup also accounts for the other recently reworked areas of the geoglyph.

CONSTRUCTION
OF GEOGLYPH



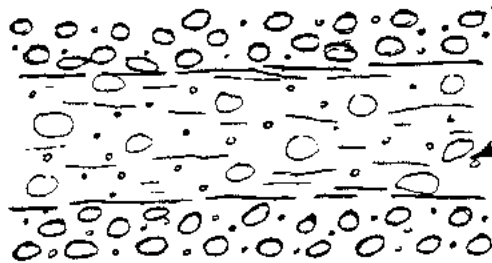
STONES REMOVED DOWN
TO MINERAL SOIL TO
FORM THE FURROW OF
THE GEOFORM.

FIRST PHASE
OF HEALING



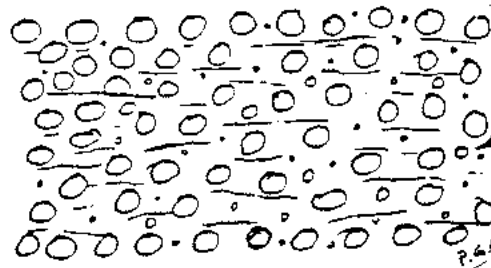
LITHIC MIGRATION OF
SMALLER STONES INTO
FURROW BEGINS THE
HEALING PROCESS.

SECOND PHASE
OF HEALING



MORE SMALL STONES AND
SOME LARGER STONES
MIGRATE INTO FURROW.

HEALING
COMPLETED



HEALING COMPLETE.
NO EVIDENCE OF THE
FURROW DUE TO THE
PROGRESSIVE LITHIC
MIGRATION.

FIGURE 1.

PROGRESSIVE LITHIC MIGRATION TO HEAL
SCAR CAUSED BY GEOFORM CONSTRUCTION.

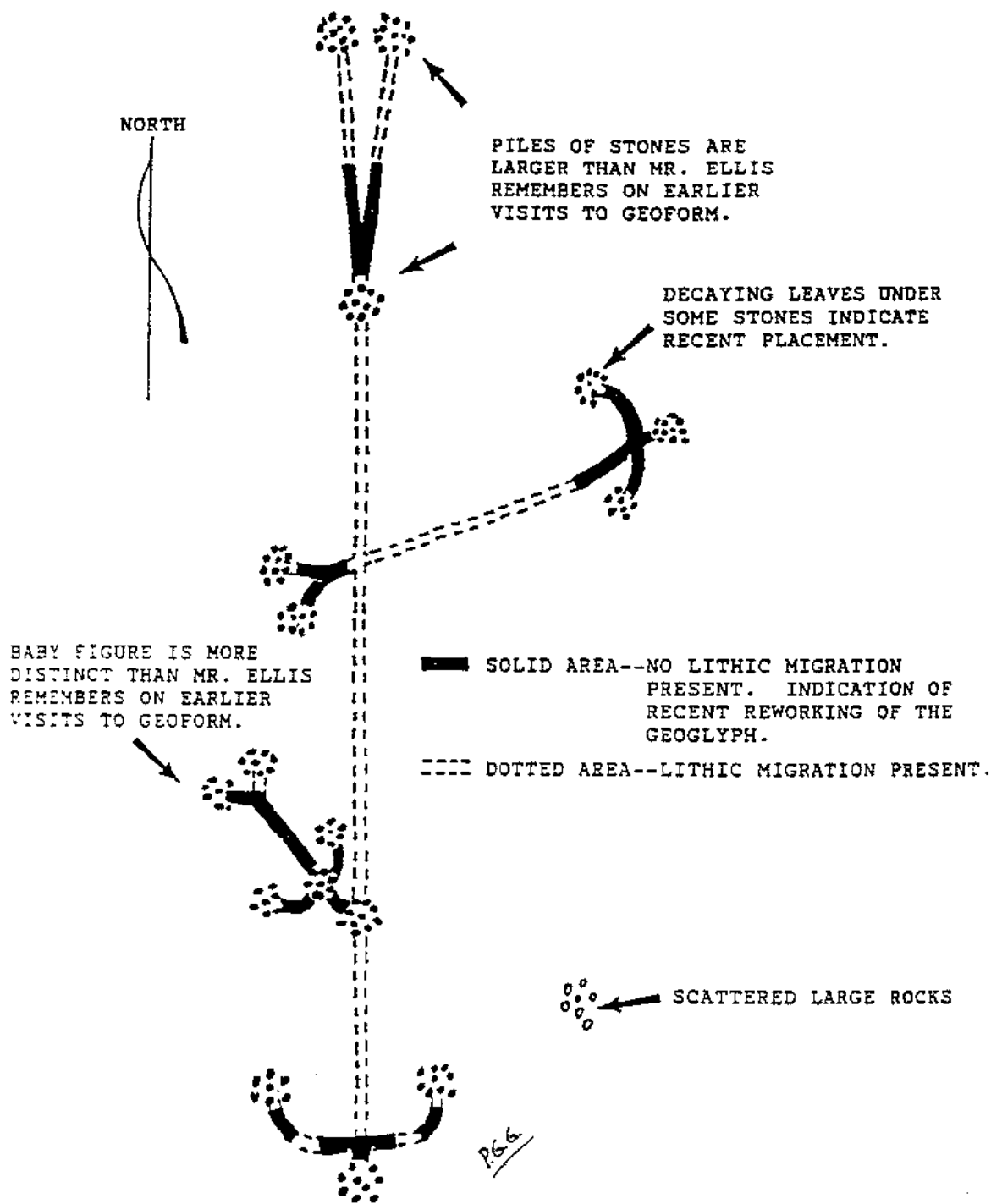


FIGURE 2.
 EVIDENCE OF RECENT REWORKING OF HO'OK GEOFORM

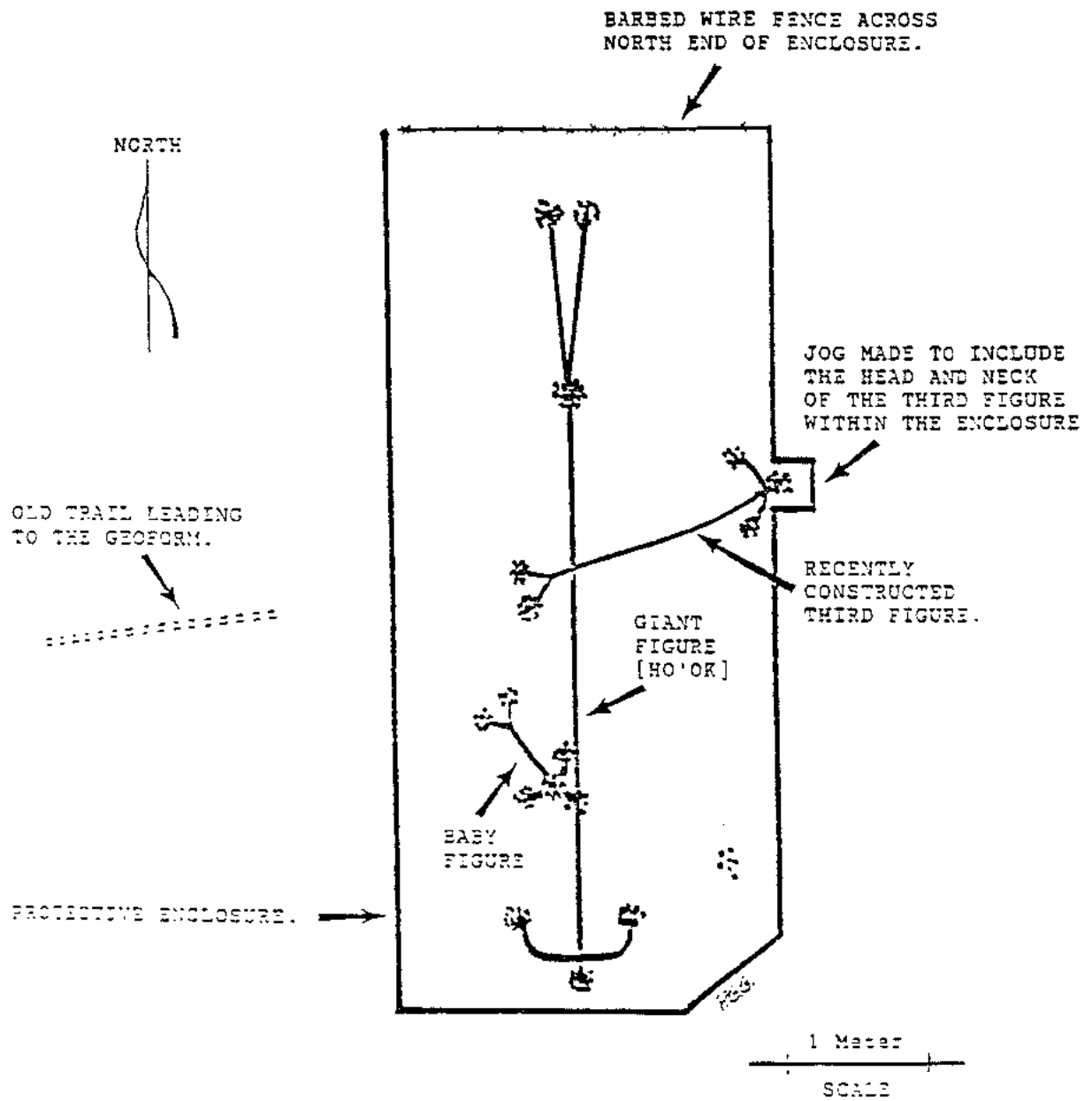


FIGURE 3
PRESENT CONFIGURATION OF HO'OK GEOFORM