



THE UNIVERSITY OF NEW MEXICO | ALBUQUERQUE

DEPARTMENT OF ANTHROPOLOGY

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Mr. Donald E. Crabtree
Idaho State University Museum
Pocatello
Idaho

Dear Don:

I don't know whether you remember me or not, since I was able to talk with you only briefly at the meetings in Santa Fe. I do recall you saying that you've been experimenting with the heat treatment of material, however, and I thought you might be interested in some possible evidence which has turned up in some Folsom material here in Albuquerque.

I have been continuing my quantitative analysis of PaleoIndian materials, and in going over some of the Folsom stuff from Jerry Dawson's Rio Rancho site, I noticed that the sharp tips of several of the implements were discolored red. In going back through the collection quickly, I found a total of 13 implements with this same phenomenon. All are of a yellow-brown dendritic jasper which is very common in this area, especially in Paleo sites. If I'm not mistaken, I believe this material turns red upon heating, evidently due to some iron included in its composition, thus I believe that the sharp points of these implements have been purposely heat-treated.

I have included some prints we took of these implements, and I must apologize for their very poor quality. In the group shots, the red is barely visible, but it does occur on each tip which is pointed toward the top of the picture. The close-ups of the point base and the side-scraper tip show the red more clearly, even though they are out of focus. As you can see, a wide variety of tool types is included, the only common elements being the presence of a sharply broken (in some cases retouched) tip. In the case of the channel flake (which has been glued together) the top left tip of the right-hand portion has been burned.

I've talked to several people about this, all of whom have offered different explanations for the reddish color. I feel almost certain that these tips were heated for some purpose. I doubt that it was to facilitate flaking, since only a few are retouched. I was wondering if it could be that heating somehow tempers and increases the durability of this type of jasper? Under the microscope few of the tips show any hard wear, although some are broken and two reveal a light polish.

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