Route 1, Box 39
83341

August 22,1968

Dr. Junius B. Bird
American Museum of Natural History
Central Park West at 79th St.,
New York, New York 10024

Dear Junius:

Evelyn and I were so glad to hear from you and do want to tell you how much we enjoyed our visit at Kersey. I am only sorry that we could not have had more time together. Thank you also for the "bloody" picture and the obsidian blades from the Island of Lou.

The blades show some very interesting techniques. They appear to have been made from very large flakes which served as the core and then the margins removed to form the long triangulate blades. The technique is similar to making a burin blade and core, but, of course, on a considerably more massive scale. There is an absence of the pronounced bulb of force and no undulations, indicating that detachment was by a large wood percussor. The wood permits a longer interval of contact with the platform part which causes the cone of force (bulb) to diffuse, eliminating the waves of compression. I have not seen this particular technique before and thank you so much for this opportunity. I shall try a replication. These tools shall be donated to Idaho State University Museum for their collection.

I am returning the Mannix flake you sent to me together with a few of my waste flakes which have a certain similarity of platform area. These were made by the technique I showed you at Kersey - using the edge of a cobble, a rest, and a controlled percussion blow. The large white flake has been heat-treated and is from the same source as the smaller untreated white flakes. Also, there is a flake of treated yellow jasper to show the change of texture.

The Mannix flake was removed from the parent mass by a high velocity blow by contact with a hard object which caused an eraillure flake to form. Hackling and fissuring radiate from the point of applied force. Also this type of blow causes strong compression rings, or undulations, to form on the ventral side of the flake. The termination of the flake at the distal end is quite flat with a feathered edge which indicates that the mass was supported, or affixed, when the force made contact. The absence of a platform indicates that the percussion force struck the edge of the mass at a slightly less than vertical angle.

Junius, the Calico Hills site is very controversial and I only wish I could say that the objects from the pit were man-made, but those shown me were not. I am extremely interested in the site and have visited it three times - once before excavation and on two later occasions to view the pit material. There is <u>no doubt</u> - and never has been - that the <u>surface</u> material is man-made. I examined the surface material and found finely fashioned simple choppers, bifacial implements, tools which resemble handaxes and a variety of implements including blades. Also, the range

Ce.1.5.5

of this surface material is on the plateaus on both sides of Lake Mead and on many desert pavements in Southern California. However, I could find no evidence of this type of tool - or tools - in, or having been excavated from, the pit at Mannix. At the San Bernardino Museum I was shown a biface which was without question a man-made tool but it was never made definite to me whether this was surface or from the pit.

At the site, Ruth showed me her "Goodies" which were disappointing and not man-made but, rather, were "naturefacts". All I could find in the goodie box were a few flakes that could have been man-made but also could have been produced by natural force. These were first-stage flakes which can be produced in quantities by natural actions. No cores were shown to me and no "man-made" tools, which would be impossible to replicate by natural action. I think that,statistically, in an alluvial fan of this size - and considering the tumbling action of the flow - that we have to expect flakes to be detached from vitreous material by nature which could strongly resemble man-made flakes.

Another point against these pseudo tools is: the flakes that both Bordes and myself found and said "could be" would not possibly fit on the so-called tools which Leakey represents as man-made. The things I was shown, and which Simpson called tools, are numerous in solifluction deposits. Bordes has told me of seeing better made "naturefacts" from Eocene levels which strongly resembled man-made tools but, in truth, were the result of natural action.

The lumps I was shown gave no evidence of planned flake detachment and, in flintknapping, the worker must preconceive his detachment to end up with the desired tool. I have not visited the site in years, so it is possible that they are now finding something good, but what I saw was not man-made. The flake you sent to me is much better than anything I saw at the site, but I note from your letter that there is no position data, so it could well be from the surface material, which is genuine. If there were an assemblage of these flakes found in context, then there would be little doubt that they were man-made. I have marked the flake scars and surface areas on a duplicate sketch to show the sequence of flake removal.

A. Natural surface of raw material.

B. Could be a natural plane of fracture. Surface character does not permit one to determine the direction of force.

C. Large negative flake scar made while the speciman flake was still attached to the core. Force was directed at about 4:30 O'clock.

D and F. Flake scars were made while the flake was still attached to the parent mass.

E. Flake scar was probably made at the same time that the principal flake was detached from the core.

G and H. Flake scars show a change in lustre, being more vitreous than the other flake scars, typical of flake scars made after material has been heated. In this case, the speciman flake would have had to have been heated before flakes G & H were removed. Flake H is enigmatic because the point of spplied force is absent.

I Much the same as G and H but can't be sure.

Ca.1.5.15.2

We plan to be in New York sometime in October and possible can discuss this further at that time. Again, thanks so much for the obsidian It is so thoughtful of you to remember me and my quest for material.

Sincerely

Don Crabtree