

Route 1, Box 39
Kimberly, Idaho
83341

Sept. 10, 1968

Mr. Ed Barry
Gem Center, U.S.A.
4100 Alameda Avenue
El Paso, Texas 79905

Dear Ed:

Thank you so much for your prompt reply regarding the origin of the Peacock obsidian. One hundred miles Southwest of Guadalajara would be somewhere around, or between, Autlan or Colima. This sounds about right, for I have seen some very fine large black obsidian polyhedral cores in the Museum at Colima. I am fortunate enough to have one of these cores, but the obsidian is quite different than the Peacock variety - no beautiful colors and no discernable flow structure.

I am extremely interested in obsidian and its geographical range, both as a means of tracing the movement of man and for interpreting the various techniques employed to reduce the obsidian mass to finished tools. Currently, several universities are doing scientific research on various volcanic glasses, i.e. Dr. Robert Heizer, University of California, Berkeley, Calif; and Dr. James Griffin, University of Michigan, Ann Arbor, Mich. They are conducting surveys of obsidian sources and are using neutron activation for identification. Historically, in the Mediterranean area, it has been noted that man was transporting obsidian as early as 6000 B.C. from the islands to the mainland.

Regarding the heating of obsidian, I have been successful in thermal treating the Glass Butte material and find that the polyhedral cores and blades are much more refined and easier to manufacture. However, there is no possible way, as yet, to prove that prehistoric man used this means of alteration.

Relative to the polyhedral cores and blades, I will send you a reprint of my paper on this subject which will appear in the October issue of American Antiquity describing my experiments on core and blade mfg. I experimented with this technique for many years before I was successful in replicating both the cores and blades. I hope you will find this paper of interest. Further suggested reading is "Obsidian Industry of Teotihuacan" by Michael W. Spence, American Antiquity, Vol. 32, #4, October, 1967; and "Obsidian and the Origins of Trade", by J.E. Dixon, J&R. Cann, and Colin Renfrew, Scientific American, March, 1968. Believe you will enjoy both articles.

Sounds like you have found a Polyhedral core of Peacock obsidian. If you like, you can send this core to Dr. Earl Swanson, Idaho State Univ., the Museum, Pocatello, Idaho for analysis and possible dating. I am sure he would be glad to hear from you. Cores can be dated by taking a small sample from an edge and doing a thin section to measure the hydration layers.

The Peacock obsidian I received from you is quite small for the manufacture of polyhedral cores, as the mass must be preformed prior to detaching the blades. However, as soon as I have time, I shall try some small ones. If you like, I will send you a sample of the blades.

Again, thank you for your reply and it is good to know of your interest in such materials.

cc-Dr. Earl Swanson

Yours very truly
Don Crabtree

Oct 15, 1968