

LUCILLE G.

~~WILLIAM~~ LEWIS • LOUSE POINT ROAD • THE SPRINGS • EAST HAMPTON, N. Y.

August 11, 1969

Dear Don;

This report is obviously in no shape to be sent directly to NSF. In fact, it is pretty shoddy. However, I was not sure whether you planned to send it in directly or to edit all of the reports together. I knew that you wanted a report rapidly and so decided to send this to you as is. If you want a finished report, send me a note and I will revise this. Actually, I think my brain is archaeologically turned off this summer--I decided in May to take a vacation from archaeology and I can't persuade my brain to end it yet!

I have also enclosed a report on La Vermine du Lion. The book itself is on its way under separate cover. Thanks so much for lending it to me, I very much enjoyed it and am looking forward to getting back to the city to buy some others of his works--that is the only reason I can think of for going back to that filthy (but glorious) place.

We have had alternated rain and sun since I returned home. So far I have been following my planned schedule fairly well: swimming, bike riding, fishing; flintknapping, some polishing, reading. When I was in New York my obsidian had not yet arrived, but I imagine it is there by now.

I hope you and Evelyn are fine and have had a change to work on the Lava house. Tell Evelyn that Tracy sent a picture from Alaska and that he looks charming in a beard.

Have a wonderful rest of the summer,

Love,

P.S. Please forgive the atrocious typing! I'm not very good at it at the best of times and am even worse right now.

CS 5-6-11

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DEPARTMENT OF ANTHROPOLOGY

Schermerhorn Hall

Flintknapping School, July 1969, Twin Falls, Idaho

I first became interested in flintknapping because of an interest in lithic technology. As my doctoral thesis is going to be an analysis of technological change, within a single geographic region, I thought that a manual understanding of the mechanics of working stone would be of great value to me.

From my month of study with Don Crabtree, I gained the rudiments of this manual understanding, plus a great deal more. I had not previously realized how visible is the difference between percussion and pressure, and between hard and soft hammers in percussion. Another factor which needs to be taken into account is the suitability of a certain kind of hammerstone for a certain kind of raw material. That is, for obsidian one needs a light hammerstone, of some material such as sandstone, whereas for British flint a much heavier hammerstone is required. This is because a heavy hammer will crush obsidian and a light one will make no impression on flint.

Another feature of interest coming out of the course concerns the amount of thought and calculation which goes into the creation of an artifact, be it a crude hand axe or a Folsom projectile point. Before doing much chipping one tends to consider it a hit ~~and~~ or miss proposition in which you swing the hammerstone until something comes off. On the contrary, it turns out that each blow struck should be the result of careful deliberation, of consideration of the nature and direction of the material to be removed and of evaluation of the balance between inward and downward force necessary to take off enough but not too much material. Learning all this requires some understanding of the nature of cones of force and of the effects of weight, velocity and force upon the shape and duration of any cone. After awhile parts of these calculations become fairly automatic, but the more one understands about the cone, the better one can chip flint! Another factor which one comes to understand much better is the difference between raw materials. With some materials, a crudely-made point is a major achievement; with others, an excellent point is not very difficult to make.

Heat treatment, its ~~uses~~ uses and results, was also treated during the course of the month. Heat treatment can make a hard recalcitrant stone possible to work; a problem which I intend to pursue is whether it can make a soft stone take a sharper edge.

All of the understanding of stone gained through using it ~~can~~ then be applied to the analysis of archaeological collections. With the understanding of how stone works, one is much less likely to make bizarre functional deductions about one's tools.

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P.S. I sealed this before  
I remembered to sign the letter.  
Sorry! Love, Lucy @