MEMORANDUM

TO: Chris Lovgren

FROM: Earl H. Swanson

RE: M. A. Thesis

DATE: May 1, 1972

I have the following comments on your thesis at this time.

1. In general, your paper proceeds without reasonable order, and you need to think of it in a more systematic way than you have so far done. Your introduction should contain a clear statement of purpose in studying the Glass Buttes Quarry. It is the first obsidian quarry to be studied, has apparent evidence of aboriginal digging, and can be compared with two basalt quarries in Oregon and Idaho. Presumably, the purpose of such comparison is to see whether the same kinds of work were being done at each quarry.

Next, you need to consider the cultural question. That is, the quarry is located in Paiute country indicating who these people were and examining the question about ownership of quarries and what ethnographic evidence there may be about such matters (e.g. Steward, 1938).

You should next explain how you came first to visit Glass Buttes and began work there in the spring of 1971, what was done at that time and who was present. Then you should discuss the nature of your return trip in August with a description of what you did and who your crew members were.

2. Chapter 2 should be a description of the natural setting first and then of the site. There are adequate standard references for the physiography of the region (Fennenan) and its plant and animal community (Dice).

You must say what Glass Buttes is, how it came to be and just where it is located. In discussing briefly the occurrence of the obsidian, you should also examine the question of starch fractures and whether such prisms occur at cooling of the obsidian. Citing personal communication is not adequate if there is published literature which does the job. Will your readers need to write to Hounslow and Strawn for additional information? You should point out that the Glass Butte area can be subdivided by the color of its obsidian and by perhaps the nature of its exposure. You have selected one sub-area for study which you have called the Crabtree site. You need to provide a common place description of the locality including

the distribution of its apparent aboriginal quarry pits, the occurrence of natural debris and artifacts and just where in this setting reconnaissance and excavations took place.

- 3. Here is where your review of the literature should be placed. You should explain your reasons for such a review. It seems that you need to distill the common characteristics of the published quarries you have examined and you must also point out the ways in which they vary. This is much more important than lengthy quotations since it is relevant to your purpose. You might wish to consider, for example, whether all of the quarries have biface blanks or whether some have special kinds of debris, what there may or may not be for camping at or near quarries, whether any of the artifacts might have been used and why some categories of finds appear to be missing from some quarries. What effect do the differences of material have on the specimens from the different published quarries?
- 4. Here you must explain your field procedures with a description of pits A & B, the pits at the base of the cliff, and your excavations at the rockshelter with the discovery of apparent Mount Mazama's volcanic ash, and what this may mean for the age of the quarry. In the process you must explain why you excavated one pit by arbitrary levels with total collections and another by collection of artifacts only.

This should lead you to consider how you separate artifacts from non-artifacts, a statement of the criteria you used, and what difficulties if any of making such distinctions. Here it may be appropriate to include your discussion of patina. Remember that some Paleolithic handaxes have two or more sets of flake scars each with a different patina. At Glass Buttes you apparently do not have this but you should check your prisms to be certain and indicate that you have checked some sample of your prisms or starch fractures.

Next, you need to consider some of the sampling techniques which are used in archaeology especially if you can find them related to flintworking. If no one has done this are there any basic sampling techniques which might some other time be put to use?

Now you should describe the collections from pit A & B and from elsewhere on the site. How were these collections distributed? You have your tables to consult and do these distributions tell you anything about quarrying techniques at the Crabtree site? How would you classify your artifacts and what differences are there between your specimens and those at the Midvale and Stockhoff quarries? Why do you appear to be missing some categories at the Crabtree site? You say that no blade cores or blades are present but that there were probably none. Why do you think this? Is there something in the literature of the region which shows blade cores and blades of obsidian around Glass Buttes or in eastern Oregon and western Idaho? You call this section the manufacturing continuum, but just what

does this mean and what relationship does it have to your work? What part of the continuum is represented by the Glass Buttes? You say that blanks or bifaces were carried away to the comfort of prehistoric camps but what evidence do you have of this in the regional literature?

I forgot to add that if pot hunters have disturbed the surface of the site so greatly, why is it that the distribution of artifact cores corresponds in color to the color sources locally available? If I recall the major effect of pot hunters has been to break up nodules of large size and to cart off apparent tools. How many finished tools mighthhave disappeared from the Crabtree site? Is there any indication or standard to be found in the published quarry literature which you can use to answer this question?

cc: Don Brown

B. Robert Butler

Don E. Crabtree