800 Riverside Drive New York, New York 10032 February 9, 1969

Mr. Don E. Crabtree Idaho State Museum Pocatello, Idaho

Dear Mr. Crabtree:

I have just finished reading with much interest and awed admiration your article in the October, 1968, American Antiquity. It seems to me the result of an impressive amount of work, patience, and careful observation: congratulations.

I'm in what I hope are the latter stages of writing up some field work I completed recently in India. The focus of my work were microliths, so you can understand my interest in and appreciation for your article. I mentioned the article to a friend and colleague of mine in India, thinking that his University there was a subscriber to American Antiquity. It turns out that as a result of the devaluation of the rupee a couple of years ago, the subscription had to be cancelled. Since he also has been excavating microlithic sites, he is most interested in your work and would be very grateful to receive a reprint of the article, if you have one you could spare. His name and address:

Dr. V. N. Misra Archaeology Department Deccan College Poona 6, India.

If you have reprints of any other articles you have prepared on the production of stone tools or weapons, both he and I would be very grateful to receive them.

I wonder if you'll be coming through New York again in the near future? I have some specimens that I'd like to show you and ask your opinion about, regarding pressure vs. indirect percussion detachment of blades. If you don't intend to be here in the coming months, I could send you a few cores--not more than half a dozen or so--for your examination.

You may be aware that the entire question of crested guiding ridges has been the subject of some intensive study by Indian archaeologists, and that Subbarao wrote a quite comprehensive survey of the subject from a distribution viewpoint in the Old World. Crested guiding ridges in India are one of the hallmarks of Neolithic and Chalcolithic chipped stone industries, supposedly differentiating them from the partly earlier, Late Stone Age or Mesolithic-like microliths. However, the whole subject is still very much open to further inquiry, as I hope to point out in my dissertation. I wonder, for example, just how parallel and straight a blade a knapper could have detached without the use of a preforming ridge, using indirect percussion or pressure for detaching blades? Sankalia has suggested that the Chalcolithic knappers may have used a method for detaching blades similar to that still employed in the production of beads from semi-precious stones, in India: the striking platform is held against a metal point which is imbedded in or rests on a

heavy stone; the knapper grasps the core with one hand and, with the other, taps against the flat, distal end of the core with a bone or antler hammer. (In the modern example, the core, of course, eventually becomes the finished product--beads--and the blades are discarded.) Sankalia claims that this method was used in Chalcolithic times to produce blades and cores not much inferior to the type you illustrate as pressure-detached. From what you report, however, it may not be possible to detach such perfect blades by the method of the modern bead-makers. I'd be very interested to learn if you have tried this particular method of indirect percussion detaching, and what your results were. Incidentally, chalcedony was often the most common material used in the Chalcolithic industries.

Below I'm listing the references about this subject in the Indian literature, for your information:

Subbarao, Bendapudi

- 1958 Blade industry of Period III. In Sankalia, H. D., B. Subbarao and S. B. Deo, The excavations at Maheshwar and Navdatoli 1952-53. The Deccan College Research Institute and The Maharaja Sayajirao University Publication No. 1. Poona and Baroda. (p. 41-65).
- 1955 The Chalcolithic blade industry of Maheshwar (Central India) and a note on the history of the technique. Bulletin of the Deccan College Research Institute, XVII:2:126-49, Poona.

Sankalia, H. D.

- 1964 Stone Age tools: their techniques, names, and probable functions. Poona: Deccan College Postgraduate and Research Institute. (Esp. p. 33).
- The socioeconomic significance of the lithic blade industry of Navdatoli, Madhya Pradesh, India. Current Anthropology, 8:3:262-68, June.

I believe that both papers by Subbarao are practically identical and contain references to many Old World examples of the crested guiding ridge technique, but I don't recall if he has any of the New World references.

I look forward to hearing from you.

Sincerely yours,

Jerome Jacobson

Columbia University and NY State Archaeological Assoc.