



GOVÉRNO DO ESTADO DE SÃO PAULO
FACULDADE DE FILOSOFIA, CIÊNCIAS E LETRAS DE RIO CLARO

RUA 10 N.º 2527 — CAIXA POSTAL, 178 — TELEFONE 3518
RIO CLARO — ESTADO DE SÃO PAULO — BRASIL

Laboratório de Arqueologia
6 de agosto de 1971

T. O. Miller

Mr. Carl W. Swanson
Idaho State University Museum
Pocatello, Idaho

RECEIVED
AUG 17 1971
U. S.

Dear Carl,

It's been a long time since I've heard from you. How did your American Falls reservoir project turn out? Did they dam it, or did the Indians win the battle of the high dam?

I'm reading along some of my publications, since you say there is someone there who can translate them for you. Current research projects include archaeological materials included in the fluvial deposits of high terraces (50m above present riverbanks), which involves a running battle with geomorphologists who insist on dating these deposits at one million years old (!!) whereas I insist that the mere presence of artifacts makes this impossible; I'm also responsible for work by students on an early Guarani site (it must be early because decorated ~~ex~~ pottery is all painted, only one bowl with textured or plastic decoration has been recovered); work continues at the Tira Chapéu site, a three-component Early Man site (Allen Bryan was entranced with it when he visited me); and my students and I are conducting experiments in the lab with flint knapping and flint tool use.

This last research project is absorbing more and more of my time and interest, as I feel that here is a really important point of breakthrough in the old problems of lithic typology. I got started on this as a result of studies of use-wear vs. flaking by colluvial creep (something that I believe nobody has had the heart to study yet) down the slope of an Early Man site here. I also wanted to show that the "miscellaneous detritus and waste flakes" were really used as tools. In the lab, we have been manufacturing different edge-angles of knives and scrapers, gouges, punches, drills and engraving tools. My students are, of course, completely awed by the efficiency of stone knives. I'm using the approach, not only in terms of the experiments (observing and photographing use-wear with the aid of a binocular microscope), but as an efficient didactic technique for teaching stone typology.

ce.7.2.93.1

ce.24-432

Among other things that I have been experimenting in the laboratory, is bipolar or counterblow flaking (I don't know if that's how you say it in English or not; evidently there is no literature on the subject). This technique produces concave or concave-convex flakes, and the core that results is a polyhedral ball. From observation of archeological specimens, I concluded that the concave flake was detached after a blow from the opposite side, the flake in question being on the side of the anvil or support. In the center is a conical bulb, which I took to be the point of support of the anvil. Experiment showed that the concave flake was detached from the side of the core, sometimes with the two points of diffuse blow (blow and counterblow), and that the weak conical bulb represents the point of encounter of the force and counterforce. Experiments are continuing, but flaking by counterblow can detach relatively thick flakes, frequently ~~xxxx~~ wide ones with hinge-fractures, resulting in deeply concave flake scars with pronounced cornices.

At any rate, I must study Don Crabtree's publications, and would greatly appreciate it if you could put me in touch with him. I would like to see if I can't get public money to give him a little "vacation in Brazil" to come and swap ideas about percussion and bipolar flaking, and teach me his tricks of pressure flaking, as well as show his stuff to our colleagues and students. Could you send me copies of Tebiwa 7:1, 9:1, and 10:1, which include his articles, or if supplies are exhausted, xerox copies? And put me in touch with him? I would appreciate this so much. I have a 1968 article of his from Science, and a 1969 one from Current Anthropology, and the 1968 American Antiquity article I will see today if our library has (there are a lot of skipped or missing numbers, so I always have to go and see).

I'm sending you site reports by me on the Poco Fundo site, by my students with my analysis on the São Lourenço site, an article summarizing my ideas on the early pre-history of this region, just that the dating of the Santo Rosa site is wrong, it belongs in the Santo Antônio phase, as an early manifestation, in spite of its being a lower river terrace inclusion, and finally a study involving the application of the "new archaeology" to Brazilian problems, and, more useful perhaps, a lithic typology adjusted to punch-cards and computer language. Later on I'll send along a copy of my Ph.D. dissertation. I have a study of typology which was published in Rio Grande do Sul--would this be useful to you?

Ce.7.2.93.2