

Route 1, Box 39
Kimberly, Idaho
83341

April 22, 1968

Dr. Marius P. Valsamis
Director of Clinical Laboratories
Brooklyn State Hospital
681 Clarkson Ave.
Brooklyn, New York 11203

Dear Doctor:

I appreciate your interest in the Science article on the experiments and function of stone tools. I am enclosing herewith a reprint of the article as requested.

Because you are in the medical profession, you may also be interested in experiments I have been doing with obsidian knives (or polyhedral blades) which were used extensively by the aborigines in Central America. These knives are made from obsidian and the sharpness of their edge is unbelievable; for the technique of their manufacture terminates the edge to the last molecule.

For thirty years I have been replicating stone tools from obsidian and have recieved numerous cuts, yet bear no scars and have never had any infection from these mishaps. One of these cuts severed the top of the finger knucle, including some cartilage. In three days the cut was entirely healed and by the sixth day the feeling had returned to the finger. I have also experimented with these knives by dressing chickens and skinning a bear and find that when proper care is taken, the stone tool is superior to one of metal. I attribute the rapid healing and lack of scars to the fact that the knives are so sharp that the cells are severed rather than bruised and, therefore, healing is rapid.

It occurs to me that there may be some use for such tools in your profession for plastic surgery or incising semimobile tissues such as eye, etc. I am sending you a sample of these blades, for you may want to experiment on your own on a laboratory basis. These blades were made in haste and are not of first quality, but you may select a few with the right cutting angle or edge. To expose new cutting edge, the blades may be snapped between the fingers. Do not allow the edge of the blade to contact any hard material, or they will become dulled. Do hope you will experiment with these knives and if you need more blades for further work, will be glad to send some of greater size.

For further information on the history of these weapons, you may want to read an article which will appear in the October issue of American Antiquity magazine which will explain their manufacture and function in detail. Would be interested to know if you experiment and your results.

Sincerely,

Don E. Crabtree
Idaho State University

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