CURRENT ARCHAEOLOGICAL HAPPENINGS IN OREGON

A Quarterly Newsletter of the Association of Oregon Archaeologists

Volume 48, Number 2, 2023

Mystery of The Cressman Box

CONTENTS

ASSOCIATION UPDATES 3

LEGISLATIVE UPDATES 5

SHPO UPDATES 6

UPCOMING EVENTS AND NEWS 7

RESEARCH SHORTS 13

In Search of L. S. Cressman's Box: Speculations Concerning a Very Minor Archaeological Mystery 13

STUDENTS' CORNER 17

Connections Across Landscapes: A Comparative Analysis of Two Late-19th Century Chinese Migrant Site Faunal Assemblages in Oregon 17

POSTCARDS FROM THE FIELD 19

A: WHATCHAMACALLIT 20

LAST LAUGH! 20

RESEARCH SHORTS

In Search of L. S. Cressman's Box: Speculations Concerning a Very Minor Archaeological Mystery

Craig E. Skinner (Northwest Research Obsidian Studies Lab)

Several decades ago, the holdings of the University of Oregon Museum of Natural History were split into separate anthropology, paleontology, and zoology collections. With few exceptions, all archaeological and anthropological materials ended up in the charge of the Oregon State Museum of Anthropology. The brief tale presented here concerns one of those exceptions, the Cressman Box.

As many of the readers already know, Luther S. Cressman founded both the State Museum of Anthropology and the Department of Anthropology at the University of Oregon. He has long been considered the "Father of Oregon Archaeology" and carried out pioneering archaeological research in many areas of the state.

The Cressman Box

Through an odd series of coincidences, I recently became aware of a box of artifacts currently being curated in the Museum of Natural History's paleontology collection. Written on the top of the box are the words "Cressman" and "Flaked Stone" (Figure 1). Stamped on the side of the used Kodak photographic paper box is the date "J '48 21".

Figure 1: Top of film box in which the artifacts are stored.

Figure 2: Caramel box lid used in packing.

Packed inside under the protection of a piece of cardboard from a "Kraft Dairy Fresh Caramels" box (Figure 2) are 108 flaked stone artifacts, primarily an assortment of bifaces, biface fragments, and projectile point fragments. There are no notes associated with this small collection and there is absolutely no clue as to the origins or archaeological provenance of the artifacts.

So where might these artifacts have originated? And when? Just the sort of minor armchair archaeological mystery to explore on a rainy winter Oregon afternoon at the lab. The main clues come from both the types of raw material and an analysis of several of them.

Almost all of the artifacts (N=103) fall into the generalized category of cryptocrystalline silicates (CCS - quartz, jasper, chalcedony, etc). Overall, the assortment of types of lithic materials present in the collection is suggestive of those that might be found along the Oregon coast. A single piece of metamorphic rock is also included in the collection and further hints that the artifacts may have originally been collected at southern Oregon coastal sites (where metamorphic rocks from the Klamath Mountains may have been locally available).

Four of the artifacts are obsidian tools and these provide the most concrete evidence for the original provenience of the collection. I subjected these to X-ray fluorescence trace element analysis (Table 1) and found that all were correlated with northern California obsidian sources. Three of the four artifacts originated from the GF/LIW/RS source, a composite geochemical obsidian source located on the flanks of Medicine Lake Volcano in northern California (Figure 3). The fourth artifact came from the Sugar Hill source located in the northern Warner Mountains of northeastern California. The sources are described elsewhere by Hughes (1986).

Analytical methods used in the analysis of the artifacts are detailed in Skinner (2000). Obsidian from these two areas has often proven to be the source of the very limited amount of natural glass recovered from southern Oregon coastal sites (Unpublished research, Northwest Research Obsidian Studies Laboratory).

OBSIDIAN ARTIFACTS				
Element *	**Artifact 1**	**Artifact 2**	**Artifact 3**	**Artifact 4**
Rubidium	137	141	140	149
Strontium	57	72	71	70
Yttrium	23	29	22	30
Zirconium	126	181	175	182
Niobium	28.9	55.2	55.3	50.8
Fe:Mn Peak Ratio	28.9	55.2	55.3	55.8
Fe:Ti Peak Ratio	43.4	36.0	36.1	36.9
Barium	643	730	658	699
Geologic Source	Sugar Hill (Warner Mts.)	GF/LIW/RS (Medicine Lake Volcano)	GF/LIW/RS (Medicine Lake Volcano)	GF/LIW/RS (Medicine Lake Volcano)

* Trace element values are reported parts per million.

Artifact 1: Fragment of a large biface midsection.
Artifact 2: Projectile point midsection, probably a corner notched point.
Artifact 3: Biface fragment, probably a projectile point tip.
Artifact 4: Unformed complete biface.

Table 1. Results of trace element analysis of obsidian artifacts.

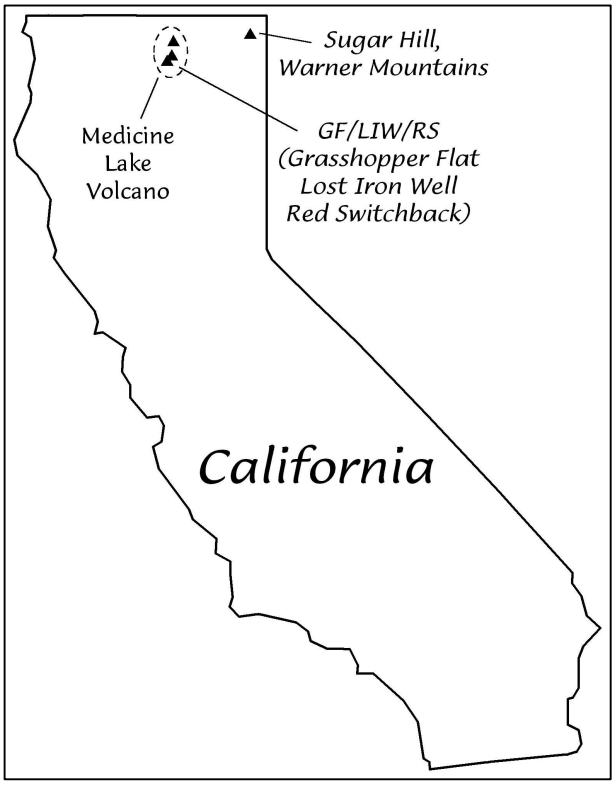

Figure 3. Locations of obsidian sources identified by trace element analysis of "Cressman Box" artifacts.

Given the overall composition of the lithic materials in the mystery box, the geologic origins of the four obsidian artifacts, and the age of the packing materials, it seems likely that the 108 artifacts were collected along the southern Oregon coast sometime during the 1950s. How and why they ended up in the museum box is the final question in this minor archaeological mystery that I guess we'll never be able to answer.

Acknowledgments

My thanks to Elizabeth Orr, curator of the Museum of Natural History Paleontology Collection, for bringing the box of artifacts to my attention. Additional thanks go to Leonard Skinner and William Orr for facilitating the process.

Author's Note: This well-aged vintage piece of research originally appeared for a few years on the Northwest Research Obsidian Studies Laboratory website in about 2000-2001. Aside from some minor reformatting, I have made no attempt to update the original text or the figures. The research was carried out just for the fun of it as NWROSL Project BO-99-69. Although I often scanned artifacts in order to have a permanent digital record, it regrettably appears that I didn't do that for these analyzed artifacts. The box and its contents were later returned to Elizabeth Orr.

REFERENCES CITED

Cressman. Luther S.
1952 Oregon Coast Prehistory. *American Philosophical Society Yearbook*, pp. 256-260.

Cressman. Luther S.
1953 Oregon Coast Prehistory: Problems and Progress. *Oregon Historical Quarterly* 54:291-300.

Hughes, Richard E.
1986 *Diachronic Variability in Obsidian Procurement Patterns in Northeastern California and Southcentral Oregon*. University of California Publications in Anthropology 17, Berkeley, California.

Newman, Thomas M.
1959 *Tillamook Prehistory and Its Relation to the Northwest Coast Culture Area*. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Oregon, Eugene, Oregon.

Skinner, Craig E.
2000 Northwest Research Obsidian Studies Laboratory World Wide Web Site - www.obsidianlab.com