

ALICE STRUEVER (1931-2006): CRUCIAL CONTRIBUTOR TO FLOTATION METHODOLOGY

Savannah Leach Newell
Indiana University

Biography

Alice Melcher was born on September 1, 1931 in Cleveland, Ohio. Her parents were John Henry Melcher (1902-1977), an attorney, and Marian Louise Clark (1904-1991; Ancestry.com). She received her Bachelor of Science degree from Colby College (now Colby-Sawyer College) in 1953. Following graduation, she worked as a medical technologist at Researcher Lakeside Hospital for a year. In the years following, Alice taught at schools in Ohio, Missouri, and Illinois (Prabook 2017).

Alice married Stuart Struever, who was studying at Dartmouth College at the time, on August 21, 1956. They remained married for almost 27 years and had two children, Nathan and Hanna Struever. They filed for divorce in June of 1983. While married to Dr. Struever, Alice lived and worked near Kampsville, where she helped to develop water-separation methods at Apple Creek. Alice married John Otto (Pete) Schumann (1917-2013) on July 3, 1985. Pete was a local mechanic in Kampsville and was largely responsible for the conveyer belts used during fieldwork at Koster (Della Cook, personal communication; Carr 2005). Alice died on January 2, 2006 and is buried at Summit Grove Cemetery in Kampsville, Illinois where she shares a marker with her husband, who passed in 2013 (Find A Grave).

Flotation and Water Separation

Flotation (or water separation) is a technique that uses water to isolate small archaeological items, such as the remains of small animals or seeds, from the surrounding fill. Without this method, Stuart Struever (1968) maintains “quantities of these small food remains dispersed through pit fills and midden deposits would likely slip unnoticed through the screens” (353). Before flotation, this led to greater recovery of larger food sources and ultimately an over-representation of large mammal consumption and an under-representation of small fish, mammal, and plant consumption. As its name suggests, water separation requires flowing water, often a small stream or creek, which carries away the silt. Substances float and sink at different rates depending on their size and porosity (Figure 1). For example, charred seeds should sink slowly (or even float at the top) when compared to a stone. One person turns the tub, the other scoops the material using a small strainer. Collected material is dried in the “flotation yard.” This is often followed by chemical-flotation techniques which can be used to separate items of the “light fraction” (Struever 1968:355).

Dr. Struever credits much of the methodology to Dr. Hugh Cutler. Dr. Cutler was a botanist and museum curator with an interest in archaeobotanical work. While visiting his son at the field school in Kampsville, Cutler suggested to Struever that plant remains would be more effectively recovered using flotation (Brownman 1999). The development of flotation, requiring Drs. Struever and Cutler’s planning and Alice’s legwork, was important for “augmenting the need for botany and malacology experts on archaeological teams” (Carr 2005, 6).

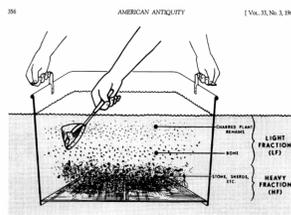


Figure 1: Principles of Water Separation (Struever 1968, 356)

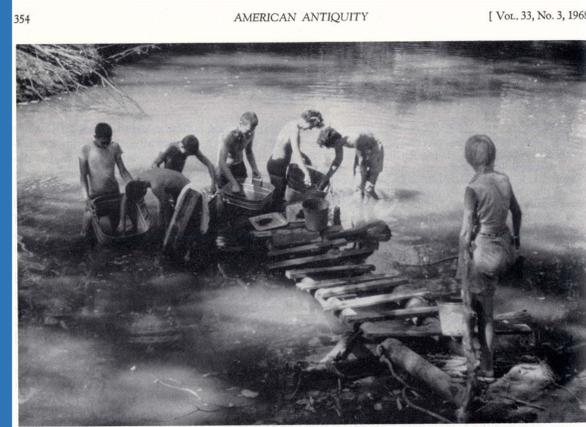


Figure 2: Water Separation at Apple Creek site. Alice is supplying soil while her students are hard at work turning tubs (Struever 1968,354)

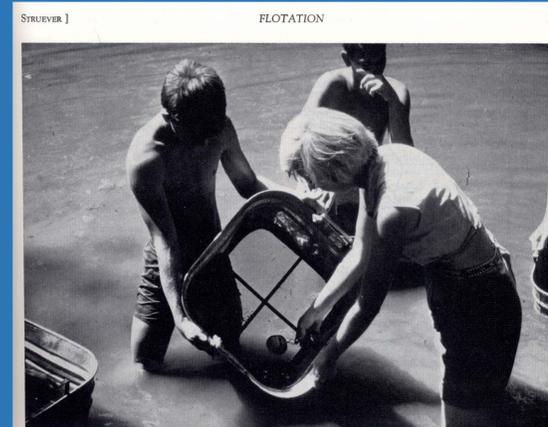


Figure 3: After sifting the dirt through the water, Alice scoops off the tiny plant remains with a small strainer (Struever 1968, 355)

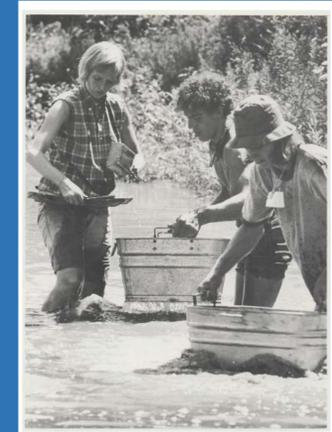


Figure 6: “Flotation Expert” Alice Struever, practicing flotation with students (Perino, 1972, 87).

Contributions of Alice Struever

Once called a “mud puppie” by Gregory Perino, Alice dedicated an enormous portion of her time to wading in creeks and separating small artifacts from fill (1972, 87). In the early 1960s, Alice worked diligently at the excavation at Apple Creek Site in Greene County, Illinois. It was at this site that she was placed in charge of the water separation and of the students charged with the task. The development of these methods are often credited to Stuart Struever, but Alice provided the “logistical support” required to develop and run Stuart’s field projects (Jane Buikstra, personal communication) and “brought the necessary chemistry, specific gravity, and elbow grease to flotation” (Della Cook, personal communication). Stuart Struever documents her contribution in the acknowledgments of his *American Antiquity* article:

“To Alice Struever and the students who stood in Apple Creek for endless hours we owe the actual development of the water-separation method” (362).

Apple Creek was where most of this water separation development took place, but Alice was present at many excavations and was a prominent role in the early years of the Center for American Archeology and the excavations of many sites of the region, including Koster (Holton 1973; Center for American Archeology, n.d.). In addition to her roles at these sites, she is acknowledged for having been a large part in constructing maps of the Great-Lakes Riverine Area (Struever, 1965) and is noted for “regularly assist[ing] on [Struever’s] weekend digs” at the Heineken site (Farnsworth 2009, 95). During her time in the field, Alice Struever was also given the primary responsibility of feeding the students and volunteers (Figure 4) in addition to organizing dinners for visiting donors (Cheryl Munson and Jane Buikstra, personal communication). Alice Struever’s role at these field sites was irreplaceable and her dedication to spending hours in the water looking for small ecofacts is largely responsible for the success of the methods.

Tracking down information on Alice Struever has proven to be a true challenge. She was one of many rarely mentioned ‘archaeology wives.’ Alice was a trained as a teacher with no formal archaeological training; as such, her role in the development of these methods is often overlooked and mostly pushed aside to acknowledgements and brief mentions.



Figure 3: Alice ready to get started with the flots (Photo courtesy of Jane Buikstra)



Figure 4: Alice in the kitchen preparing food to feed the hungry workers (Photo courtesy of Jane Buikstra)



Figure 7: Felicia Holton interviewing Alice Struever (Photo courtesy of Jane Buikstra).

Acknowledgements

First, I would like to thank Leslie Drane and Kelsey Grimm for the invitation to take part in this symposium. I would also like to acknowledge the wonderful people who helped me track down information on this elusive woman. Thanks to Kelsey Grimm for being a wonderful librarian and sending me decent scans of the *American Antiquity* images. Thanks to Dr. Jane Buikstra for sharing her photos and knowledge and to Dr. Della Cook, and Dr. Cheryl Munson for the time they dedicated to talking to me about Alice Struever’s role in archaeology of the Midwest.

References

- Ancestry.com. Cuyahoga County, Ohio, Marriage Records and Indexes, 1810-1973 [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2010
- Brownman, David L. 1999. “Hugh Carson Cutler.” *Society for American Archaeology Bulletin* 17(1)
- Carr, Christopher. 2005. “Dedication to Stuart Struever” In *Gathering Hopewell* edited by Christopher Carr and D. Troy Case, 1-18. Plenum Publishers
- Center for American Archeology. N.d. *Mission and History*. Accessed [September 30, 2017]
- Farnsworth, Kenneth. 2009. Archival Salvage Archaeology: Stuart Struever’s Excavations at the Heineken Site in Putnam County, Illinois. *Illinois Archaeological Survey, Inc., Illinois Archaeology* vol. 21; 90-125
- Find A Grave. Alice M. Schumann (1931-2006), created by “Angie”. Accessed October 5, 2017
- Holton, Felicia A. 1973. *One of the Most Important Archeological Digs in America*. The New York Times Archives, July 15, 1973. Accessed [October 5, 2017]
- Perino, Gregory. 1972. “Women in Archaeology.” *Central States Archaeological Journal* 19 (2):86-92
- Prabook. 2017. Alice Melcher Schumann. Accessed [October 14, 2017]
- Struever, Stuart. 1965. Middle Woodland Culture History in the Great Lakes Riverine Area. *American Antiquity* Vol.31, No.2: 211-223
- Struever, Stuart. 1968. “Flotation Techniques for the Recovery of Small-Scale Archaeological Remains.” *American Antiquity* 33 (3): 353-362