

Abstract Submitted
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Archaeometry Using X-Ray Fluorescence JUAN OLVERA, DAVID BIXLER, Angelo State University — I am currently using X-Ray Fluorescence (XRF) for analyzing archeological and mineralogical samples and determining their elemental constituents. Although XRF may be applied to many different fields, I am using this technique in the field of archaeometry. For example, with XRF, I can determine what elements make up a chert arrowhead, and, with a database of such information, determine the likely origin of a particular artifact. I am using Amptek's ADMCA software, detector, X-ray source, and electronics to collect data spectra. I will present preliminary data on chert samples (worked and unworked) that have been collected from various nearby sites. This allows me to build up a database of the elemental fingerprint of chert from these regions. Then, chert artifacts can be examined and their "fingerprints" compared to the database. With a completely mapped out database we may be able to determine interactions between different groups of people. No conclusions can be made at this time because the database is currently being built.

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