Supplemental Text 5

The results presented here are quantitative in that they are derived from "filtered" intensity values ratioed to the appropriate x-ray continuum regions through a least squares fitting formula rather than plotting the proportions of the net intensities in a ternary system (McCarthy and Schamber 1981; Schamber 1977). Or more essentially, these data through the analysis of international rock standards, allow for inter-instrument comparison with a predictable degree of certainty (Hampel 1984; Shackley 2011). All analyses for this study were conducted on a ThermoScientific Quant’X EDXRF spectrometer, located in the Archaeological XRF Laboratory, Albuquerque, New Mexico the mirror lab of the NSF sponsored Geoarchaeological XRF Laboratory at the University of California, Berkeley. Specific instrumental methods are outlined in Shackley (2005), and online at http://swxrflab.net/anlysis.htm. The data from the WinTrace software were translated directly into Excel for Windows software for manipulation and on into SPSS for Windows for statistical analyses. In order to evaluate these quantitative determinations, machine data were compared to measurements of known standards during each run. RGM-1, a USGS obsidian standard, is analyzed during each sample run for obsidian artifacts to check machine calibration (see Table 1). Source assignments were made by reference to Glascock et al. (1990), Glascock (2011) (see Supplemental Table 4 and Supplemental Figures 3 and 4), as well as source standard data at this lab (see Joyce et al. 2004; McCandless 1998).

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