Thermoluminescence dating of ceramic technology at St. Croix, Nova Scotia

D.I. Godfrey-Smith\textsuperscript{1}, M. Deal\textsuperscript{2} and I. Kunelius\textsuperscript{1}

\textsuperscript{1}Department of Earth Sciences, Dalhousie University, Halifax, Nova Scotia B3H 3J5, Canada
\textsuperscript{2}Archaeology Unit, 1004 Ingstad Building, Memorial University of Newfoundland, St. John's, Newfoundland A1C 5S7, Canada

We report here the first direct dates for six ceramic artifacts recovered from BfDa-1, a prehistoric archaeological site located in Hants County, southcentral Nova Scotia. Thanks to excavations in 1990 and 1993, this shallow site has produced sherd fragments from which over 100 vessels have been inferred. Normally, local and regional culture histories are interpreted on the basis of existing chronological sequences which are constructed on the basis of design changes in prehistoric ceramics. Such stylistic chronologies are underpinned by a limited number of absolute radiocarbon dates. The thermoluminescence (TL) technique is much preferred over relative typological dating for ceramic chronology. First, it provides a date for the firing of each vessel. Secondly, it may allow the discovery and chronological attribution of local stylistic variants or rapid stylistic changes which may not be recognizable in an existing typology. The six sherds from the St. Croix site yielded absolute ages of $1.6 \pm 0.2$ ka to $3.1 \pm 0.3$ ka. They thus confirm the interpretation, based on stylistic attributes, that the site's occupation period spanned the greater portion of the Ceramic period (ca. 1050 B.C. to 1500 A.D.).