The Linjiatan ruin, Hanshan County, Anhui Province in the central China, is a very important late Neolithic ruin recently found, the age of which is 5,300 years BP determined by $^{14}\text{C}$ and archaeological methods. It is extremely interesting that there are 600 jade artifacts among the recovered 1,200 relicts. There were also found a lot of pieces of raw materials abandoned after producing the jade artifacts. The jade artifacts have a variety of types, various shapes, well decorated features on the surface of the stuffs, including jade dragon, jade human figures, jade tortoise, jade pig, jade arrow, yubi, and jade hawk with special eight angle figures. It is surprising that the ancient Chinese had so advanced technique for manufacturing the jade stuffs. The ruin has very valuable archaeological significance for studying the origin of ancient civilization and immigration, the beginning of ancient jade ceremony stuffs and manufacturing technique, ancient astronomy, rice cultivation history, ancient ecological environment, immigration paths of human beings in east Asia, the primitive social philosophy and religion thoughts. We used polarized microscope, XRD, infrared and Raman spectrometers to identify the mineralogy of the jade artifacts, indicating that most of them are tremolite and actinolite, and few are quartz sandstone and quartzite. The fabrics of the jades are different from those from Hetian, Xinjiang Province in west China, but similar to those from the Liyang jade mine, Jiangsu Province, which is still mining, 150 km in the east of the ruin. Geological study shows that both jade stone, quartz sandstone and quartzite could be found from the local area. This finding has ruled out that the previous claims in the archaeological community of China that the source provenance of all jades excavated in the central China were from west China, about 4,000 km far away. Analysis of trace elements in the jade artifacts as well as jadestone from local mine will be conducted in near future, which will provide more reliable evidence for our conclusion.

**KEYWORDS:** Jade artifact, provenance, Linjiatan ruin.

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**Petrographic Studies of the Provenance and Technology of Weeden Island Elite Wares from the Kolomoki Mound Site, Georgia, USA**

Weaver, W. W.  
Stapleton, C. P.

Kolomoki is suggested to have been a dominant Woodland/Formative period political and religious center during the Weeden Island cultural phase, ca. AD 350-500. The elite ceramic wares found here, characterized by higher quality firing and finishing techniques, include Weeden Island Red, Zoned Red, Punctate, and Incised. Evidence for local or non-local production of Weeden Island period elite wares from Kolomoki is investigated using petrographic comparisons of ceramic pastes and temper with experimental briquettes made of local clays.
At McKeithen, a contemporaneous mound site in north Florida, a significant proportion of the Weeden Island ceramic wares have been suggested to be of non-local manufacture, possibly from Georgia. Results from petrographic and electron microprobe-wavelength dispersive analyses of the Kolomoki wares are compared to published results on the same wares from McKeithen to determine whether the Kolomoki assemblage exhibits similar patterns of multiple centers of manufacture. Inferences about the dispersal of technological and cultural traditions from Kolomoki to McKeithen and the southeast USA in general are considered. The role that Kolomoki played in the social and political organization of the southeast USA is also discussed. 

**KEYWORDS:** Ceramic, Electron Microprobe, Weeden Island, Kolomoki, technology.

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**The Compositional Homogeneity of Medieval Glasses**

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The compositional homogeneity of ancient glasses is frequently overlooked in studies which assess the skill of the ancient glassmaker in creating a good quality glass. This consistency in production quality is a factor which is implicit in glassmaking and is influenced by many variables in the production process.

Glass production comprises of several stages: preparation of raw materials, fritting, melting, working and heat treatment of the finished glass. Each of these stages can be very complex, combining variables (particle size, mixing, fritting and melting times, and furnace temperature) which have a dramatic effect upon the finished product. These factors (and many others) are all possible determinants in the final homogeneity and their influence will vary with each glass produced. The aim of this research is to consider some of these variables in Medieval potash glass manufacture.

This poster focuses on the preparation of the raw materials (the batch), fritting and the melting of fritted and unfritted batches of Medieval potash (bracken) glasses under experimental conditions. Scanning Electron Microscopy and Electron Microprobe Analysis are used to illustrate compositional differences within and between samples, and the results compared to English Medieval glass and glassworking material. It is concluded that altering the variables in batch preparation, fritting and melting has a significant effect on the compositional homogeneity of the glass produced and that the production of a good quality woodash glass is more complex and requires greater skill than previously thought.

**KEYWORDS:** Medieval glass, compositional homogeneity, technology.

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**Determining Intraregional Variation in the Chemical Composition of Pottery with Scanning Electron Microscopy: A Case Study from Northwest Mexico**

(Wells, E. C.)

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