MELISSA GUYDISH[1], and KRISTY HENSON[2], [1]Dept of Exercise Science and Athletic Training, West Virginia Wesleyan College, Buckhannon, WV, 26201, [2]Dept of Forensic Anthropology, Fairmont State University, Fairmont, WV, 26554. Using digitized Native American skeletal remains to conduct osteological analyses.

Conducting osteological analyses on human skeletal material enhances our knowledge of these remains. Photos and descriptions are insufficient when communicating the wear, pathology, variation, or nuances of native populations. There are numerous laws, regulations, and financial dilemmas hindering our ability to further research human skeletal remains at a deeper level. Unfortunately, smaller institutions frequently find sophisticated imaging tools to be cost-prohibitive. Photographs lack sufficient detail when attempting to capture and convey an accurate representation of the unique structure, markings, and degeneration of human skeletal remains. Integrating new technology and techniques into this field has the potential to solve these dilemmas. CT scanning and file extracting creates virtual three-dimensional models and stores the information for future study. This removes the time limit surrounding this research (due to mandatory repatriation), allowing for thorough skeletal analyses, and gives us access to the remains at all times. To assess this methodology, we conducted complete osteological analyses on three CT replicated human skeletal remains of three individuals uncovered during the archaeological excavation in Cabell County, West Virginia. In previous studies we analyzed the accuracy of the digital data by comparing physical human remains to the digitized versions. We hypothesized that the digital replicas are sufficient and allow a complete osteological analysis of the human skeletal material.