MELISSA GUYDISH, Dept of Exercise Science and Athletic Training, West Virginia Weselyan College, Buckhannon, WV, 26201, and KRISTY HENSON, Dept of Biology and Environmental Science, West Virginia Wesleyan College, Buckhannon, WV, 26201. Using digitized Native American skeletal remains to conduct osteological analyses.

Conducting human osteological analyses using authentic excavated remains is difficult due to current laws and regulations surrounding Native American human remains. Universities which once housed these remains for analysis have since repatriated the remains or they are no longer available for teaching purposes. Plastic teaching models are insufficient to communicate the wear of excavated bones as well as pathology, variation, or nuances of native populations. Recent technology has the potential to solve this dilemma. Three-dimensional (3D) scanning creates virtual models and stores the information so it will not be lost once the original material is repatriated. To assess this methodology, we conducted a complete osteological analysis on CT replicated human remains of one adult individual uncovered during the archaeological excavation of Clover, a Fort Ancient civilization in Cabell County, West Virginia. We hypothesize that the digital replicas allow a complete osteological analysis of the human skeletal material. Data were collected using *Standards for Data Collection from Human Skeletal Remains*. Preliminary results show we can identify basic skeletal anatomy with all skeletal landmarks along with basic osteometric measurements. Estimated age is 18-20, height is +/- 170-183cm. The remains also exhibited arthritis, extreme cavities, healed tibial fracture, and possible trepanning of the occipital bone. Basic lifestyle affects are visible allowing for information on how a population lived before death. Study of digitized skeletal remains can allow for future research to teach students about human populations based on real skeletal materials.