ABSTRACTS
SECTION VI. ANTHROPOLOGY

SECTION VI – ANTHROPOLOGY
Paper Session
Thursday Morning, 10:30 – 11:30 AM
KCC Room D
Jason Mann, Presiding

1. 10:30 AM PHYLOGENETIC IMPLICATIONS OF THE BODY SHAPE OF STW 573, AN EARLY *AUSTRALOPITHECUS* FROM STERKFONTEIN, MEMBER 2 (~3.67 Ma). *Jason Heaton*, Birmingham-Southern College. Body shape is an important part of understanding an animal's lifestyle, as it can serve as an indicator of its brain/body size dynamic, diet, metabolism and locomotion. However, among fossil fauna, the issue is complicated, as complete bone lengths are often poorly represented. The unparalleled completeness of the *Australopithecus* skeleton (StW 573, or Little Foot) from Member 2 of Sterkfontein will allow us test hypotheses about the evolution of the hominin body shape and may provide clues to the phylogenetic place of the South African fossil hominins. Typical of South African *Australopithecus* species, StW 573 possesses a smaller body mass (33.1 kg) than its east African congener, *A. afarensis* ($\bar{x} = 41$ kg), but with a similar brain-to-body size, or encephalization quotient (EQ = 2.5). Relative to body size, StW 573's posterior teeth are considerably smaller (Megadontia Quotient, or MQ = 1.4) than later South African archaic species, such as *A. africanus* and *A. robustus* (MQ = 2.0 and 2.2, respectively) and more like that of the earlier occurring *A. anamensis* (MQ = 1.4). Therefore, data suggest that an early adaptive shift may have occurred, as the eastern and southern *Australopithecus* diverged, resulting in dietary, and perhaps range, differences between the groups. Consequently, after the initial migration, the three major *Australopithecus* species of South Africa – *A. africanus*, *A. robustus* and *A. sediba* – may have evolved in isolation until environmental change and a later hominin migration (~2.0 Ma) brought *Homo* into the area.
2. 10:50 AM **u Study of cultural interaction through artifacts at trash site. *Alagappan Ramanathan*, Troy University. There has been several anthropology field schools done by Troy students at trash site which is located near the pea river. This site predates to middle archaic with well-preserved artifacts like pottery, projectile points and poverty points. And several artifacts which don't belong from the local province play significant role in studying and analysis of the cultural interaction. And the detailed data and photograph of these artifacts from trash site will set the cultural time line in order. The artifacts design and pattern will be the ultimate key in figuring the actual truth about what really happened here.
3. 11:20 AM **u A Preliminary Report on a LASER Guided Archaeological Survey in the Talladega National Forest. *Zachary Smith*, Troy University. The LASER method uses a

proprietary algorithm created by Dr. Xutong Niu and Jason Mann of Troy University which locates landforms that are highly probable for containing cultural resources. In March of 2018 a EF-3/4 Tornado damaged 5,671 acres of the Talladega National Forest. Troy University Archaeological Research Center was contracted by the United States Forest Service to Determine damage to existing sites within the tornado damage path as well as surveying areas indicated by the LASER scan. This report will focus on the December 2018 field work in the Shoal Creek district of the Talladega National Forest. This report will detail the LASER scanning process, field methodology, laboratory methodology, and preliminary results of the project.

SECTION VI – ANTHROPOLOGY
Poster Session
Thursday Morning, 11:30 AM -- Noon
KCC Atrium and Ballroom Foyer
Jason Mann, Presiding

4. **u FAUNAL ANALYSIS OF A SAMPLE FROM A PREHISTORIC SHELL MIDDEN IN DALLAS COUNTY ALONG THE ALABAMA RIVER. *Riley Sombathy*, Bill Grantham, Jason Mann, and Johnathan Miller, Troy University. An excavation of a prehistoric midden near Selma revealed a prehistoric shell midden which, based on artifact analysis, dates back to 1050 CE. This research focuses on three distinct aspects of the excavation: the artifacts, the terrestrial faunal remains, and the bivalve and gastropod remains. For the artifacts, basic quantification and analysis was performed and used for relative dating purposes. The terrestrial faunal remains consist of turtle, snake, and deer bones, which were counted. Lastly, the mussel remains were tabulated and analyzed for abundance and comparative analysis.

***u or **g* Denotes presentation entered in student competition as an undergraduate or graduate student, respectively.