BREAKING GROUND IN SOUTH AFRICA

by Maria R. Gonzalez
Nested in the heart of South Africa—between dongas, precious artifacts and sites dating back 165,000 years—is the key to understanding the exodus of the early modern human species, modern Homo sapiens, from its home in Africa. A team of students and faculty archaeologists from Texas State traveled to the site of Erfkroon in South Africa, in search of artifacts dating to the period of the last migration.

This study breaks ground in the quest to gain further understanding of the physical, environmental and behavioral changes that catalyzed the dispersal of modern humans. Britt Bousman, associate professor of anthropology and director of the university's Center for Archaeological Studies, and graduate students Holly Meier and Eric Oskansen spent hours under the sun digging, scraping, dusting and analyzing in order to help bridge the gap in our understanding of humankind's origins.

“We know from fossil evidence from Africa and other continents that the earliest hominins evolved in Africa 5 million years ago,” said Bousman. “The genetic and fossil evidence also tells us that our current species evolved in Africa and replaced all the fossil hominins in other areas.”

It is not known why our direct ancestors left their home in Africa or how they managed to survive after other hominin species died out in Europe and Asia. Why were modern humans so successful in replacing the fossil hominins that lived in Europe and Asia? We might be years away from answering this question; however, we are getting closer.

The Texas State team worked in conjunction with James Brink, head of the Florisbad Quaternary Research Department of the Natural Museum of South Africa, and a crew of veteran archaeologists with 25 years of experience. Their intense search yielded fertile results in finding fossils and artifacts dating to the time period of the most recent migration.

“Genetic and fossil evidence shows that possibly as early as 200,000 years ago significant physical changes in the species occurred, but we don’t see behavioral evidence for this change until some 50-70,000 years ago,” said Bousman. “We’re out there trying to find raw evidence from this time period.”

The excavation took place in three sites in South Africa, including a Middle Stone Age site in which the team found fossils of extinct animals and other artifacts. Among the prized findings of this site were lion’s teeth, rare in archaeology sites, and the lower leg bone of an extinct buffalo dating back 165,000 years.

“We looked at the 60,000- to 100,000-year period when we think modern Homo sapiens started altering its behavior and migrating out of Africa,” said Oskansen.

The Texas State team also excavated an antelope kill site at Baden-Baden dating back 500 years, the only one of this type discovered in the area. Another invaluable excavation took place at Cornelia, an Early Stone Age site that dates back 1 million years. The Texas State team assisted James Brink there by collecting samples for paleomagnetic dating.

Meier and Oskansen reminisced about the time spent in South Africa, from digging meticulously to find a 165,000-year-old fossil, to halting all work at exactly 10 each morning for tea and peanut butter sandwiches, in order to honor local South African customs. They worked with talented African archaeologists in order to include the once-marginalized local point of view and avoid the Euro-centric scholarship that once dominated the field.

As far as the results of the dig, Bousman, Meier and Oskansen agree on one thing: There is enough evidence for them to go back. “Like any initiating project, it’s important to know that the information to continue is there. We know we can go back, find more. It’s just a matter of time and depth,” said Meier. “We found the right deposits, we know where to look. It was a great success.”

The path of this excavation will lead to a broader study that will track down modern Homo sapiens’ replacement all over the world. In the meantime, Bousman is preparing a proposal to return to South Africa and continue to break ground, in the literal and metaphorical sense, and contribute to the relentless quest to complete the gargantuan puzzle of the origins of humankind.

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We know from fossil evidence from Africa and other continents that the earliest hominins evolved in Africa 5 million years ago.
Africa, Europe and Asia come to mind when we think of archaeologists excavating in search of inklings to decipher our ancestors’ way of life. Texas State left its print in two archaeology projects last summer, one at prehistoric mounds in Georgia and the other one at San Marcos’ Aquarena Center.

During the summer, a long way from South Africa and closer to home, Britt Bousman and a group of his Texas State students searched the sediments in what is now the Aquarena Center in San Marcos for flint arrowheads and other artifacts. The site pertained to the Calf Creek era and is named for the Calf Creek Indians, a group of nomadic people who traveled through Central Texas with the bison herds 6,000 years ago. The premise of the excavation is to find out more about drought patterns in the region and how Native Americans coped with harsh conditions.

The results of this excavation are the topic of anthropology graduate student Deidra Aery’s M.A. thesis.

From the prehistoric Calf Creek era in Central Texas, the team moved forward in time and space to Georgia and the historic period of the Creek Nation civilization dating back to 1350 C.E. A team of archaeologists from the University of South Carolina, the University of Texas at Austin and Texas State worked at Etowah Indian Mounds State Historic Site. Together they mapped the enigmatic mounds in an effort to understand this mysterious civilization that thrived in splendor for 500 years and of whom we have a limited amount of information.

Kent Reilly, Texas State archaeologist, compared the Creek Nation civilization to the well-known advanced achievements of the Aztec civilization in the valley of Mexico, both of whom thrived during the same period. —Maria R. Gonzalez