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Stimulant Beverages in Pre-Hispanic Texas
*New Paper Unearths First Evidence of Native American Production
of Alcoholic and Caffeinated Beverages in Pre-Hispanic Texas*

WICHITA, Kansas (July 21, 2020): In a new paper in the *Journal of Archaeological Science: Reports*, Dr. Crystal Dozier (Wichita State University, Anthropology) and Drs. Doyong Kim and David Russell (Texas A&M University, Chemistry) report chemical residue evidence of caffeinated beverages and possible grape wine in Native American ceramics prior to Spanish colonization. This is the first chemical evidence of caffeinated beverages in the region and is the first suggestive evidence for pre-Hispanic wine in North America.

The researchers analyzed 54 pieces of pottery from six archaeological sites across central Texas dating from 1300-1650 CE — also called the Toyah Phase. The researchers believe the sites represent gathering places where feasts may have been held. Dr. Crystal Dozier, the corresponding author, notes, “I believe these findings speak to the universality of the human experience. People around the world have continually and independently discovered various plants and cooking techniques that provide mind-altering experiences.”

Absorbed residues in the pottery underwent chemical analysis using ultra-high precision chromatography, which compares unknown molecules to known chemical signatures. The researchers found repeat signatures of caffeine and other compounds associated with caffeinated beverages in several pottery sherds. The caffeinated options at that time would have been chocolate, which was grown in central Mexico, or Yaupon Holly tea, commonly referred to as Black Drink. The paper cites the tea as more likely owing to early Spanish colonizers recording the beverage in the American South among different Native American groups. The analysis also revealed signatures of chemicals associated with grape wine — tartaric and succinic acids; those findings were less secure than the caffeine results as they could not be replicated in multiple trials.

Dr. Crystal Dozier states, “caffeine and alcohol are two of the most popular substances today and are incredibly important components of religious, social, and political life in many societies. It should be no surprise that indigenous Texans also innovated, experimented with, and used these chemicals. Our research supports that complications around stimulant use among indigenous people, such as alcoholism, are a result of colonialism, poverty, and trauma rather than biological interactions or a presumed historical absence.”

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Citation:

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