

HCAA Contest Held at General Meeting - January 20, 2018

CONTEST DETAILS

www.hcarcheology.org



The methodology for estimating the number of cooking events that took place at fcr middens in Central Texas has been pioneered over the last 10 years by archeologists at Texas State University. Some of these archeologists helped us to determine how many times Indians cooked at this large Kemosabe midden.

You will need to know a little about the midden in order to make a good guess at the number of times Indians cooked at this midden, so what follows will help you to do just that;

- 1) Recognize that the math formula created by Texas State for estimating cooking episodes was derived by sampling authentic middens as well as “experimental archeology”. In the case of the latter this involved using typical Central Texas limestones as the heating elements in modern earth ovens to determine how often the rocks would crack with continued oven use (into smaller and smaller pieces with each cooking episode). They found that typically only four cooking episodes could be gained from original large limestones used as heating elements before the rocks had to be discarded, because the heat fractured them into fire cracked rocks (fcr) that were too small to be useful.
- 2) The archeologists also grouped the fcr into four general sizes. At the large Kemosabe midden over 9,000 fire cracked rocks were sorted into the four size groups to get a good statistical sample. The largest fcr (>15 centimeters in diameter) in this sample constituted only 0.17% of the total, and the very smallest size group (<7.5 centimeters in diameter) constituted 86.9% of the total sample.
- 3) Through boreholes in and around the midden and two back hoe trenches through it, the shape and size of the midden was established to be an oblong feature, 0.55 meters (22 inches) at its thickest portion, 10 meters (33 feet) maximum width, and 20 meters (60 feet) maximum length.
- 4) The volume of fire cracked rock was calculated to be 47 cubic meters with a weight of 75,500 kilograms (166,449 pounds, or 83.3 tons).
- 5) The oldest portion of the midden is Early Middle Archaic and the youngest is Late Archaic, a total span of 3,200 years over which the midden was used to cook food.

- 6) And most important, the amount of limestone rock used in a single cooking event is about 175 kilograms (385.4 pounds), but some of this is reused rock from previous cooking events. It is not all new rock.

Here is your final clue: the answer is less than 7,000 cooking episodes but greater than 100 cooking episodes. The engineers in the membership may try to figure this all out.....for the vast majority....just GUESS!

Click for more information on FCR Middens:

<https://www.texasbeyondhistory.net/kids/dinner/rocks.html>