**Supplemental Text**

*AMS 14C Chronology of Coxcatlan Cave*

The radiocarbon chronology of this project was derived from a sample of 31 radiocarbon ages. Fourteen of these ages were produced from bone collagen samples as part of the current study and 17 radiocarbon ages were from previous studies on charcoal and plant samples. The Bayesian model for the Preceramic sequence of Coxcatlan Cave may be replicated in OxCal using the following CQL2 code:

Sequence("Preceramic Sequence")

 {

 Boundary("Start Early Ajuereado");

 Phase("Early Ajuereado")

 {

 R\_Date("UCIAMS-215917, Zone-XXVI", 29020, 510);

 R\_Date("UCIAMS-215918, Zone-XXVI", 27860, 440);

 R\_Date("UCIAMS-223936, Zone-XXVI", 27240, 190);

 R\_Date("UCIAMS-223937, Zone-XXVI", 24660, 140);

 R\_Date("UCIAMS-223939, Zone-XXV", 27690, 200);

 R\_Date("UCIAMS-223938, Zone-XXV", 26510, 170);

 };

 Boundary("End Early Ajuereado");

 Boundary("Start El Riego");

 Phase("El Riego")

 {

 R\_Date("UCIAMS-223944, Zone-XVIII", 8745, 20);

 R\_Date("I-769, Zone-XVIII", 8375, 275);

 R\_Date("I-574, Zone-XVI", 7800, 250);

 R\_Date("UCIAMS-223945, Zone-XVI", 7475, 20);

 R\_Date("I-675, Zone-XVI", 7350, 300);

 R\_Date("UCIAMS-215919, Zone-XV", 8650, 35);

 R\_Date("UCIAMS-223943, Zone-XV", 7345, 20);

 R\_Date("I-651, Zone-XV", 6700, 180)

 {

 Outlier();

 };

 R\_Date("UCIAMS-215920, Zone-XIV", 8085, 30);

 R\_Date("B-123040, Zone-XIV", 7100, 50);

 };

 Boundary("Transition El Riego/Coxcatlan");

 Phase("Coxcatlan")

 {

 R\_Date("I-457, Zone-XIII", 7000, 220);

 R\_Date("B-123043, Zone-XIII", 6290, 50);

 R\_Date("OS-36647, Zone-XIII", 6270, 50);

 R\_Date("I-567, Zone-XI", 6925, 200);

 R\_Date("I-459, Zone-XI", 6325, 200);

 R\_Date("B-144504, Zone-XI", 6190, 70);

 R\_Date("M-1089, Zone-XI", 5560, 250);

 };

 Boundary("Transition Coxcatlan/Abejas");

 Phase("Abejas")

 {

 R\_Date("I-766, Zone-IX", 5250, 200);

 R\_Date("I-652, Zone-IX", 5200, 180);

 R\_Date("I-594, Zone-IX", 4950, 200);

 R\_Date("UCIAMS-223942, Zone-IX", 4935, 15);

 R\_Date("UCIAMS-223941, Zone-IX", 4735, 15);

 R\_Date("UCIAMS-223940, Zone-IX", 4125, 15);

 R\_Date("I-593, Zone-VIII", 5150, 220);

 R\_Date("I-653, Zone-VIII", 4770, 175);

 };

 Boundary("End Abejas");

 };