**Supplemental Table 1. Minanha Stable Isotope Results and Preservation Indices.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample IDa** | **Burial** **Location** | ***δ*13Ccol (‰)** | ***δ*15Ncol (‰)** | ***δ*13Csc (‰)** | ***Δ*13C sc-col** | **Atomic C/N Ratiob** | **Collagen Yield %c** | **wt %Cd** | **wt %Ne** | **C.I.f** |
| Late to Terminal Preclassic (400 B.C. to A.D. 250) |  |  |  |  |  |
| SS3 | Epicenter | −13.5 | +10.7 | −5.3 | 8.2 | 3.24 | 3.79 | 43.8 | 15.8 | 3.73 |
| ***SS17*** | Epicenter |  |  | −6.9 |  |  |  |  |  | ***4.88*** |
| Early Classic (A.D. 250 to A.D. 550) |  |  |  |  |  |
| SS28 | Site Core |  |  | −6.2 |  |  |  |  |  | 3.89 |
| SS5 | Site Core | −11.6 | +8.7 | −7.6 | 4.0 | 3.3 | 1.82 | 45.2 | 16.0 |  |
| SS34 | Epicenter |  |  | −5.1 |  |  |  |  |  |  |
| SS27 | Site Core |  |  | −2.4 |  |  |  |  |  |  |
| [Transitional] Early Classic to Middle Classic (A.D. 250 to A.D. 675) |  |  |  |  |
| SS21 | Epicenter | −9.8 | +9.3 | −6.2 | 3.6 | 3.26 | 1.52 | 45.0 | 16.1 |  |
| SS13 | Site Core | −9.8 | +8.0 | −2.6 | 7.2 | 3.26 | 2.72 | 45.0 | 16.1 |  |
| SS30 | Site Core | −8.1 | +9.2 | −4.8 | 3.2 | 3.15 | 4.45 | 46.0 | 17.0 |  |
| SS26 | Site Core |  |  | −2.6 |  |  |  |  |  | 3.7 |
| SS10 | Site Core | −9.1 | +7.2 | −2.6 | 6.5 | 3.23 | 2.07 | 44.5 | 16.1 |  |
| SS11 | Site Core | −8.8 | +8.5 | −3.1 | 5.8 | 3.24 | 4.09 | 45.2 | 16.3 |  |
| Middle Classic (A.D. 550 to A.D. 675) |  |  |  |  |  |
| ***SS8*** | Periphery |  |  | −7.2 |  |  |  |  |  | ***4.38*** |
| SS12 | Site Core | −10.8 | +8.3 | −5.1 | 5.7 | 3.22 | 6.19 | 45.2 | 16.4 |  |
| SS16 | Epicenter | −12.1 | +7.5 | −7.0 | 5.1 | 3.24 | 3.89 | 45.7 | 16.5 |  |
| ***SS33*** | Epicenter |  |  | −4.2 |  |  |  |  |  | ***4.86*** |
| Late Classic (A.D. 675 to A.D. 810) |  |  |  |  |  |
| SS15 | Site Core | −11.6 | +8.7 | −4.0 | 7.6 | 3.24 | 1.82 | 45.0 | 16.2 |  |
| SS7 | Epicenter | −9.0 | +9.2 | −3.8 | 5.2 | 3.27 | 3.2 | 45.0 | 16.1 |  |
| SS6 | Epicenter |  |  | −6.7 |  |  |  |  |  |  |
| Terminal Classic (A.D. 810 to A.D.900) |  |  |  |  |  |
| ***SS25*** | Site Core | −10.0 | +9.8 | −2.2 |  | 3.24 | 1.79 | 46.0 | 16.5 | ***4.3*** |
| SS24 | Periphery |  |  | −3.8 |  |  |  |  |  |  |
| SS1 | Epicenter | −9.1 | +8.3 | −7.0 | 2.1 | 3.25 | 3.69 | 44.6 | 16.0 |  |
| SS2 | Site Core | −13.7 | +8.5 | −4.6 | 9.0 | 3.4 | 4.57 | 42.4 | 14.6 |  |
| SS14 | Site Core | −10.2 | +9.8 | −3.2 | 7.0 | 3.3 | 3.12 | 44.2 | 15.6 |  |
| SS32 | Epicenter | −10.0 | +9.3 | −2.6 | 7.4 | 3.21 | 6.19 | 46.0 | 16.0 | 3.79 |
| SS22 | Site Core | −10.1 | +9.7 | −6.3 | 3.7 | 3.23 | 5.51 | 45.8 | 16.5 |  |
| Early Postclassic (A.D. 900 to A.D. 1200) |  |  |  |  |  |
| SS29 | Site Core | −10.5 | +9.1 | −5.9 | 4.7 | 3.29 | 2.38 | 45.0 | 15.9 |  |
| SS19 | Epicenter | −10.5 | +9.2 | −5.3 | 5.2 | 3.33 | 2.81 | 45.4 | 15.9 | 4.09 |
| SS23 | Periphery | −12.2 | +9.3 | −5.0 | 7.1 | 3.41 | 2.36 | 43.5 | 14.9 |  |
| SS20 | Epicenter | −12.6 | +9.5 | −6.5 | 6.1 | 3.22 | 2.72 | 44.2 | 16.0 |  |
| SS9 | Site Core | −14.1 | +9.2 | −6.3 | 7.8 | 3.47 | 1.86 | 45.0 | 15.1 |  |
| SS18 | Epicenter | −12.4 | +9.6 | −6.9 | 5.5 | 3.3 | 1.70 | 45.7 | 16.1 |  |
| SS31 | Epicenter | −12.7 | +8.4 | −7.1 | 5.6 | 3.45 | 2.01 | 44.0 | 14.9 | 3.26 |

*Note:* Blank cells indicate there is no data for this variable. Sample values shown in bold italics have been eliminated from all subsequent analyses since tests indicate these samples did not retain biogenic collagen or bioapatite.

a Sample ID was assigned by Stronge 2012 for stable isotope analysis. For corresponding catalogue number and burial information, refer to Table 1.

b Atomic C/N. Acceptable range is 2.9–3.6 (Ambrose 1990).

c A yield of less than 1% is insufficient for isotopic analysis (Ambrose 1990; van Klinken 1999).

d A value less than 4.8% suggests sample degradation/contamination (van Klinken 1999).

e A value less than 13% suggests sample degradation/contamination (Ambrose 1990; van Klinken 1999).

f C.I. corresponds to crystallinity index. Acceptable range for modern bone is 2.8–4.0 (Wright and Schwarcz 1996).