

Buckley et al. Supplemental Tables 2a-e.

Supplemental Table 2a. Results of Hierarchical Cluster Analysis using 2, 3, 4, and 5 Cluster Models.														
2-Cluster Model	$^{87}\text{Sr}/^{86}\text{Sr}$							$\delta^{18}\text{O}_p$						
	One-way ANOVA		Tukey Post hoc Comparison					One-way ANOVA		Tukey Post hoc Comparison				
	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p
	16.42	0.002	Cls. 1-2	0.00041	0.00019	0.00063	0.002	5.29	0.042	Cls. 1-2	1.35	0.06	2.64	0.042
3-Cluster Model	One-way ANOVA		Tukey Post hoc Comparison					One-way ANOVA		Tukey Post hoc Comparison				
	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p
	23.58	0.000	Cls. 1-2	0.00010	-0.00021	0.00040	0.671	8.20	0.008	Cls. 1-2	2.95	0.94	4.96	0.006
			Cls. 1-3	0.00057	0.00034	0.00079	0.000			Cls. 1-3	0.55	-0.94	2.04	0.585
		Cls. 2-3	0.00047	0.00011	0.00083	0.012			Cls. 2-3	-2.40	-4.75	-0.05	0.046	
4-Cluster Model	One-way ANOVA		Tukey Post hoc Comparison					One-way ANOVA		Tukey Post hoc Comparison				
	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p
	14.76	0.001	Cls. 1-2	0.00011	-0.00026	0.00048	0.788	12.58	0.001	Cls. 1-2	2.63	0.89	4.37	0.005
			Cls. 1-3	0.00058	0.00030	0.00086	0.000			Cls. 1-3	0.23	-1.07	1.53	0.947
			Cls. 1-4	4.32381	-0.00019	0.00028	0.939			Cls. 1-4	-1.07	-2.13	0.12	0.065
			Cls. 2-3	0.00047	0.00005	0.00089	0.029			Cls. 2-3	-2.40	-4.39	-0.41	0.020
			Cls. 2-4	-0.00007	-0.00047	0.00033	0.951			Cls. 2-4	-3.70	-5.51	-1.76	0.001
		Cls. 3-4	-0.00054	-0.00085	-0.00022	0.002			Cls. 3-4	-1.30	-2.72	0.25	0.093	
5-Cluster Model	One-way ANOVA		Tukey Post hoc Comparison					One-way ANOVA		Tukey Post hoc Comparison				
	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p	<i>F</i>	<i>p</i>	Clusters	diff	lwr	upr	p
	23.93	0.000	Cls. 1-2	0.00017	-0.00013	0.00047	0.374	10.38	0.003	Cls. 1-2	2.78	0.87	4.69	0.007
			Cls. 1-3	0.00064	0.00041	0.00087	0.000			Cls. 1-3	0.38	-1.08	1.84	0.894
			Cls. 1-4	0.00010	-0.00010	0.00030	0.459			Cls. 1-4	-0.85	-2.13	0.42	0.192
			Cls. 1-5	0.00020	-0.00002	0.00043	0.086			Cls. 1-5	0.53	-0.93	1.99	0.732
			Cls. 2-3	0.00047	0.00013	0.00081	0.008			Cls. 2-3	-2.40	-4.54	-0.26	0.030
			Cls. 2-4	-0.00007	-0.00038	0.00025	0.944			Cls. 2-4	-3.63	-5.65	-1.62	0.002
			Cls. 2-5	0.00004	-0.00030	0.00037	0.996			Cls. 2-5	-2.25	-4.39	-0.11	0.042
			Cls. 3-4	-0.00054	-0.00079	-0.00029	0.001			Cls. 3-4	-1.23	-2.83	0.36	0.125
		Cls. 3-5	-0.00043	-0.00071	-0.00016	0.004			Cls. 3-5	0.15	-1.59	1.89	0.998	
		Cls. 4-5	0.00010	-0.00015	0.00035	0.642			Cls. 4-5	1.38	-0.21	2.98	0.081	

Supplemental Table 2b. Statistical Results for Tests between Demographic Groups and Tooth Developmental Phases

		$^{87}\text{Sr}/^{86}\text{Sr}$									$\delta^{18}\text{O}_p$								
		Time Phase (Ceramic)																	
Tooth Phase	Tlamimilolpa			Xolalpan			Kruskal-Wallis			Tlamimilolpa			Xolalpan			One-way ANOVA			
	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>	
EC	12	0.70496	0.00004	9	0.70497	0.00009	3.203	2	0.202	9	15.3	0.9	3	15.4	0.8	0.140	3	0.934	
LCA	5	0.70516	0.00031	2	-	-				6	15.1	2.3	3	15.8	1.5				
		Time Phase (14C)																	
Tooth Phase	Lapidary			Transition			Kruskal-Wallis			Lapidary			Transition			Student t-test			
	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>	n	mean	sd	-	-	-	<i>t</i>	<i>df</i>	<i>p</i>	
EC	6	0.70525	0.00031	12	0.70481	0.00027	10.264	2	0.006	7	15.0	0.4	-	-	-	0.693	13	0.501	
LCA	5	0.70516	0.00031	2	0.70498	0.00016				8	15.5	2.1	-	-	-				
*For Sr-isotopes, only Lapidary EC, LCA and Transition EC were tested due to sample size; For O-isotopes, only Lapidary EC and LCA were tested due to sample size.																			
		Compounds																	
Tooth Phase	Tlajinga 17-18			Tlajinga 33			Kruskal-Wallis			Tlajinga 17-18			Tlajinga 33			Student t-test			
	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	<i>t</i>	<i>df</i>	<i>p</i>	
EC	5	0.70488	0.00004	18	0.70498	0.00035	7.097	2	0.029	-	-	-	12	15.4	0.8	0.115	18	0.910	
LCA	1	-	-	6	0.70515	0.00028				1	-	-	8	15.3	2.1				
		Socioeconomic Status																	
Tooth Phase	Higher			Lower			Kruskal-Wallis			Higher			Lower			One-way ANOVA			
	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>	
EC	10	0.70495	0.00042	13	0.70496	0.00021	4.507	2	0.105	9	15.1	0.6	3	16.2	1.0	0.691	2	0.516	
LCA	5	0.70503	0.00007	2	-	-				7	15.1	2.2	2	-	-				
		Sex																	
Tooth Phase	Female			Male			Kruskal-Wallis			Female			Male			One-way ANOVA			
	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>	
EC	7	0.70484	0.00048	10	0.70507	0.00024	3.281	3	0.350	1	-	-	11	15.4	0.9	0.448	2	0.646	
LCA	3	0.70499	0.00013	4	0.70519	0.00034				4	14.9	2.9	6	15.8	1.0				

*Lapidary = AD 200-350; Transition = AD 300-450

Supplemental Table 2c. Statistical Results for Tests between Demographic Groups.

$^{87}\text{Sr}/^{86}\text{Sr}$										$\delta^{18}\text{O}_p$								
Time Phase (Ceramic)	Tlamimilolpa			Xolalpan			Student t-test			Tlamimilolpa			Xolalpan			Student t-test		
	n	mean	sd	n	mean	sd	<i>t</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	<i>t</i>	<i>df</i>	<i>p</i>
	17	0.70502	0.00040	11	0.70497	0.00010	0.518	18.72	0.610	15	15.3	1.5	6	15.6	1.1	-0.482	19	0.636
Compound	Tlajinga 17-18			Tlajinga 33			Mann-Whitney U			Tlajinga 17-18			Tlajinga 33			Student t-test		
	n	mean	sd	n	mean	sd	<i>W</i>	<i>df</i>	<i>p</i> *	n	mean	sd	n	mean	sd	<i>t</i>	<i>df</i>	<i>p</i>
	6	0.70488	0.00004	24	0.70502	0.00033	26	-	0.015	1	-	-	20	15.3	1.4	-	-	-
Status	Higher Status			Lower Status			Mann-Whitney U			Higher Status			Lower Status			Student t-test		
	n	mean	sd	n	mean	sd	<i>W</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	<i>t</i>	<i>df</i>	<i>p</i>
	15	0.70498	0.00034	15	0.70501	0.00027	152	-	0.106	16	15.1	1.4	5	16.2	0.6	-1.555	19	0.137
Sex	Female			Male			Mann-Whitney U			Female			Male			Student t-test		
	n	mean	sd	n	mean	sd	<i>W</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	<i>t</i>	<i>df</i>	<i>p</i>
	10	0.70489	0.00040	14	0.70510	0.00026	46	-	0.172	5	14.9	2.2	16	15.5	0.9	-0.519	4.3	0.629

$^{87}\text{Sr}/^{86}\text{Sr}$										$\delta^{18}\text{O}_p$														
Time Phase (^{14}C)	Lapidary			Transition			San Martín			Kruskal-Wallis			Lapidary			Transition*			San Martín			One-way ANOVA		
	n	mean	sd	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>	n	mean	sd	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>
	11	0.70521	0.00030	14	0.70483	0.00026	3	0.70503	0.00008	11.722	2	0.003	15	15.3	1.5	4	16.0	1.2	3	15.7	1.3	0.402	2	0.675

*Lapidary = AD 200-350; Transition = AD 300-450; San Martín = AD 400-550
 Pairwise comparison of statistically significant tests found in Supplemental Table 2e.

Supplemental Table 2d. Statistical Results for Tests between Combined Demographic Parameters

		$^{87}\text{Sr}/^{86}\text{Sr}$						$\delta^{18}\text{O}_p$										
Time Phase (Ceramic)																		
Compound	Tlamimilolpa			Xolalpan			Student t-test			Tlamimilolpa			Xolalpan			Student t-test		
	n	mean	sd	n	mean	sd	t	df	p	n	mean	sd	n	mean	sd	t	df	p
Tla. 17-18	2	-	-	2	-	-	0.394	15.8	0.699	-	-	-	1	-	-	-0.802	19	0.434
Tla. 33	15	0.70504	0.00004	9	0.70499	0.00009				15	15.3	1.5	6	15.8	1.3			
Status	Tlamimilolpa			Xolalpan			Kruskal-Wallis			Tlamimilolpa			Xolalpan			Kruskal-Wallis		
	n	mean	sd	n	mean	sd	chi-squared	df	p	n	mean	sd	n	mean	sd	chi-squared	df	p
Higher	11	0.70495	0.00039	4	0.70507	0.00007	3.904	3	0.272	12	14.9	1.5	5	15.4	1.4	4.078	2	0.130
Lower	6	0.70516	0.00040	7	0.70491	0.00005				3	16.6	0.4	2	-	-			
Sex	Tlamimilolpa			Xolalpan			Kruskal-Wallis			Tlamimilolpa			Xolalpan			One-way ANOVA		
	n	mean	sd	n	mean	sd	chi-squared	df	p	n	mean	sd	n	mean	sd	F	df	p
Female	7	0.70489	0.00049	2	-	-	2.591	2	0.459	4	14.7	2.8	1	-	-	0.782	2	0.473
Male	8	0.70520	0.00035	5	0.70505	0.00007				11	15.5	0.8	6	15.8	1.3			
Compounds																		
Status	Tlajinga 17-18			Tlajinga 33			Kruskal-Wallis			Tlajinga 17-18			Tlajinga 33			Student t-test		
	n	mean	sd	n	mean	sd	chi-squared	df	p	n	mean	sd	n	mean	sd	t	df	p
Higher	-	-	-	15	0.70498	0.00034	5.953	2	0.051	-	-	-	17	15.2	1.5	-1.268	19	0.22
Lower	6	0.70488	0.00004	9	0.70509	0.00033				1	-	-	4	16.2	0.8			
Sex	Tlajinga 17-18			Tlajinga 33			Kruskal-Wallis			Tlajinga 17-18			Tlajinga 33			Student t-test		
	n	mean	sd	n	mean	sd	chi-squared	df	p*	n	mean	sd	n	mean	sd	t	df	p
Female	3	0.70487	0.00003	7	0.70489	0.00049	7.728	3	0.020	1	-	-	4	14.7	15.7	-0.075	3	0.505
Male	3	0.70488	0.00005	11	0.70516	0.00027				-	-	-	17	2.8	0.9			
Socioeconomic Status																		
Sex	Higher			Lower			Kruskal-Wallis			Higher			Lower			One-way ANOVA		
	n	mean	sd	n	mean	sd	chi-squared	df	p	n	mean	sd	n	mean	sd	F	df	p
Female	7	0.70489	0.00049	3	0.70487	0.00003	3.148	3	0.369	4	14.7	2.8	1	-	-	1.214	2	0.320
Male	8	0.70506	0.00009	6	0.70516	0.00040				13	15.4	1.0	4	16.2	0.8			

Supplemental 2d continued:

Time Phase (14C)												
Compound	Lapidary			Transition			San Martín			Kruskal-Wallis		
	n	mean	sd	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>
Tla. 17-18	-	-	-	4	0.70488	0.00005	-	-	-	11.277	3	0.010
Tla. 33	11	0.70521	0.00030	10	0.70482	0.00031	3	0.70503	0.00008			
Status	Lapidary			Transition			San Martín			One-way ANOVA		
	n	mean	sd	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>
Higher	9	0.70510	0.00021	5	0.70472	0.70489	2	0.70505	0.00011	4.262	2	0.029
Lower	2	0.70568	0.00004	9	0.00044	0.00004	1	-	-			
Sex	Lapidary			Transition*			San Martín			One-way ANOVA		
	n	mean	sd	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>
Female	5	0.70515	0.00026	4	0.70455	0.00036	-	-	-	4.217	4	0.015
Male	6	0.70526	0.00034	4	0.70499	0.00013	3	0.70503	0.00008			

Lapidary			Transition			San Martín			One-way ANOVA		
n	mean	sd	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>
-	-	-	1	-	-	-	-	-	0.331	2	0.722
15	15.3	1.5	3	16.0	1.5	3	15.7	1.3			
Lapidary			Transition			San Martín			Kruskal-Wallis		
n	mean	sd	n	mean	sd	n	mean	sd	<i>chi-squared</i>	<i>df</i>	<i>p</i>
12	14.9	1.5	3	16.0	1.5	2	16.0	1.8	4.590	2	0.101
3	16.6	0.4	1	-	-	1	-	-			
Lapidary			Transition*			San Martín			One-way ANOVA		
n	mean	sd	n	mean	sd	n	mean	sd	<i>F</i>	<i>df</i>	<i>p</i>
4	14.7	2.8	1	-	-	-	-	-	0.511	3	0.680
11	15.5	0.8	3	16	1.5	3	15.7	1.3			

Supplemental Table 2e. Pairwise comparisons.

Compounds and Tooth Phase - $^{87}\text{Sr}/^{86}\text{Sr}$		
	Tla. 17-18 - EC	Tla. 33 - EC
Tlajina 33 - EC	0.14	-
Tlajinga 33 - LCA	0.01	0.14

Time Phases (^{14}C dates) and Tooth Phase - $^{87}\text{Sr}/^{86}\text{Sr}$		
	Lapidary-EC	Lapidary-LCA
Lapidary-LCA	0.71	-
Transition SM-EC	0.03	0.02

Compounds and Sex - $^{87}\text{Sr}/^{86}\text{Sr}$			
	Tla. 17-18 - Female	Tla. 17-18 - Male	Tla. 33 - Female
Tlajinga 17-18 - Male	1.00	-	-
Tlajinga 33 - Female	1.00	1.00	-
Tlajinga 33 - Male	0.02	0.02	0.85

Time Phases (^{14}C dates)* - $^{87}\text{Sr}/^{86}\text{Sr}$		
	Lapidary	Transition
Transition	0.01	-
San Martín	0.39	0.06

Time Phases (^{14}C dates) and Compounds - $^{87}\text{Sr}/^{86}\text{Sr}$			
	Lapidary-33	Transition-1718	Transition 33
Transition-1718	0.07	-	-
Transition-33	0.04	0.48	-
San Martín-33	1.00	0.48	0.31

Time Phases (^{14}C dates) and Status - $^{87}\text{Sr}/^{86}\text{Sr}$		
	Lapidary-High	Transition-High
Transition-High	0.03	-
Transition-Low	0.18	0.42

Time Phases (^{14}C dates) and Sex - $^{87}\text{Sr}/^{86}\text{Sr}$				
	Lapidary-Fem	Lapidary-Male	Transition-Fem	Transition-Male
Lapidary-Male	0.97	-	-	-
Transition-Fem	0.04	0.01	-	-
Transition-Male	0.91	0.59	0.21	-
San Martín-Male	0.97	0.77	0.21	1.00

*EC = Early Childhood; LCA = Late Childhood/Adolescence

Tla. = Tlajinga

Lapidary = AD 200-350; Transition = (Transition to San Martín) AD 300-450; San Martín = 400-550