

S4 Table: Calculated archaeological T-17 Unit 3 C/P and IRSF values, and bioapatite crystal size averages as measured from XRD.

Archaeological Sample	Burning Stage	FTIR-ATR		XRD	
		C/P (1415 cm <sup>-1</sup> /1035 cm <sup>-1</sup> )	IRSF (565 cm <sup>-1</sup> +605 cm <sup>-1</sup> )/ 590 cm <sup>-1</sup>	Crystallite size Angstrom +/-	
T17-779	Stage 0	0.415	2.61	99	5
T17-754	Stage 0	0.42	2.63	95	5
T17-747	Stage 0	0.46	2.54	96	4
T17-757a	Stage 0	0.461	2.55	83	4
T17-496a	Stage 0	0.406	2.59	107	5
T17-542	Stage 0	0.368	2.58	99	4
T17-496b	Stage 1	0.299	2.62	97	6
T17-761	Stage 1	0.37	2.63	111	5
T17-611	Stage 2	0.38	2.75	112	6
T17-487	Stage 2	0.357	2.71	119	5
T17-816	Stage 2	0.355	2.62	89	3
T17-651	Stage 3	0.279	2.91	112	5
T17-511	Stage 3	0.329	2.84		/
T17-720a	Stage 4	0.307	2.94	118	5
T17-757b	Stage 5	0.173	3.73	167	6
T17-675	Stage 5	0.19	4.22	345	20
T17-580	Stage 6	0.108	5.2	600	23
T17-682	Stage 6	0.188	4.08	366	18
T17-637	Stage 6	0.145	4.13	813	39
T17-720b	Stage 6	0.123	4.47	881	26