

Appendix 4

Population Outliers

Key to abbreviations used:

BF Blackfriars	FI Foetal to Infant
OCU Chelsea	EC Early Childhood
CH Chichester	LC Late Childhood
FG Fishergate	AD Adolescence
HE Hereford	YA Young Adult
HK Hickleton	MDA Middle Adult
SH St. Helen-on-the-Walls	MA Mature Adult
TO Towton	AS Anglo-Saxon
WP Wharram Percy	M Medieval
HCW Wolverhampton	PM Post Medieval
YM York Minster	U Urban
M Male	R Rural
F Female	L/A <i>Leprosarium</i> /almshouse
I Indeterminate	S Soldier

Table AP 4.1: Adult ln(R/L) outliers. (+ R-L outlier only, *p Significant after a Bonferroni adjustment).

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
BF50	MC3L	F	MA	U	M	0.048	3.89662	0.05
BF122	FXST	F	MA	U	M	0.12	4.0697	0.049333
BF167	CFMTN	F	MA	U	M	0.051	4.45167	0.006233
BF167	CMPB	F	MA	U	M	0.144	4.05638	0.04542
BF200	UIMS	F	MDA	U	M	0.257	4.78504	0.001698
BF206	TZL	F	MA	U	M	0.076	4.16566	0.023095
BF233	MC2L	M	MDA	U	M	0.053	5.47044	3.78E-06*
BF357	CMPB	F	YA	U	M	0.169	4.46099	0.007802
BF390	FXST	M	MA	U	M	0.128	4.21945	0.026083
BF429	RML	F	MA	U	M	0.044	4.0111	0.033409
CH2	CMPB	M	MA	L/A	M	0.136	4.1214	0.028107
CH5	CFMTN	M	MDA	L/A	M	0.048	4.33885	0.007447
CH5	CZB	M	MDA	L/A	M	0.088	4.22012	0.017189
CH5	HGT	M	MDA	L/A	M	0.109	3.92	0.049931
CH9	CMPB	M	YA	L/A	M	0.15	4.09021	0.039562
CH12	CMPB	M	MA	L/A	M	0.221	5.46257	5.24E-05*
CH22	CZH	M	YA	L/A	M	0.077	4.05179	0.039872
CH24	URN	M	MA	L/A	M	0.103	4.2601	0.017766
CH31	URN	M	YA	L/A	M	0.098	4.09131	0.0366
CH39	MRH	F	YA	L/A	M	0.09	4.71358	0.001039
CH42	MC4L	F	MA	L/A	M	0.054	4.22054	0.014889
CH43	MC1L	F	MDA	L/A	M	0.063	4.67275	0.00203
CH46	TZH	M	MA	L/A	M	0.118	5.75749	8.8E-06*
CH46	TZL	M	MA	L/A	M	0.083	4.41488	0.007784
CH54	OCPL	F	MA	L/A	M	0.055	3.76966	0.038674

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
CH55	FSIH	M	MA	L/A	M	0.068	4.49118	0.007395
CH56	FIST	M	MA	L/A	M	0.14	4.46172	0.008932
CH58	CNOR	M	MDA	L/A	M	0.045	3.98567	0.020618
CH61	CFMTN	M	MDA	L/A	M	0.048	4.33885	0.005286
CH61	CMPB	M	MDA	L/A	M	0.138	4.10682	0.036475
CH74	CFMTN	M	YA	L/A	M	0.049	4.37989	0.008574
CH74	CNMS	M	YA	L/A	M	0.063	4.37393	0.003014
CH74	MAL	M	YA	L/A	M	0.063	5.42736	4.7E-05*
CH79	CDGL	M	MA	L/A	M	0.501	5.6477	1.79E-05*
CH79	CMPB	M	MA	L/A	M	0.135	4.17545	0.027089
CH79	CVWA	M	MA	L/A	M	0.236	4.0887	0.028074
CH79	FXST	M	MA	L/A	M	0.124	4.16721	0.032614
CH84	TZL	M	MA	L/A	M	0.064	4.00838	0.043985
CH85	HEB	F	MDA	L/A	M	0.072	4.14841	0.002616
CH91	MIRB	M	MDA	L/A	M	0.148	5.02393	0.000467
CH92	RMLD	F	MDA	L/A	M	0.088	4.22329	0.016979
CH94	CDGL	F	MA	L/A	M	0.355	4.08331	0.038122
CH98	OCAH	M	MDA	L/A	M	0.078	4.81398	0.00129
CH109	CECMIS	M	MDA	L/A	M	0.098	3.87642	0.046524
CH109	CFMTNS	M	MDA	L/A	M	0.053	4.03965	0.016911
CH109	CLAST	M	MDA	L/A	M	0.103	5.06052	0.00029
CH109	CLFMT	M	MDA	L/A	M	0.047	5.20412	0.000129
CH109	CMBH	M	MDA	L/A	M	0.828	5.8469	5.47E-06*
CH109	CMPL	M	MDA	L/A	M	0.175	5.08277	0.000353
CH109	CVMC	M	MDA	L/A	M	0.363	4.64617	0.002104
CH117	CMPL	M	MA	L/A	M	0.197	5.72218	1.45E-05*
CH117	COCL	M	MA	L/A	M	0.243	4.94984	0.000546
CH119	RML	M	MDA	L/A	M	0.053	4.75191	0.001279
CH126	TZL	M	MA	L/A	M	0.069	4.15097	0.01881
CH129	FIMS	M	MDA	L/A	M	0.116	4.1481	0.034938
CH129	TZL	M	MDA	L/A	M	0.071	4.11675	0.022034
CH131	FLE	F	MDA	L/A	M	0.065	4.06571	0.034424
CH134	FXST	M	MDA	L/A	M	0.133	4.343	0.015152
CH134	TZH	M	MDA	L/A	M	0.132	6.34428	2.78E-07*
CH137	CZB	M	MDA	L/A	M	0.089	4.21232	0.017801
CH139	FIMS	F	MDA	L/A	M	0.112	4.07978	0.046601
CH139	TZB	F	MDA	L/A	M	0.085	4.03368	0.040595
CH141	MRH	M	MDA	L/A	M	0.09	4.71358	0.001699
CH142	COPO	F	MDA	L/A	M	0.079	4.10846	0.018206
CH143	UXMS	M	MDA	L/A	M	0.23	5.13274	0.000295
CH146	FSIH	M	MDA	L/A	M	0.088	5.64175	2.08E-05*
CH146	OCAH	M	MDA	L/A	M	0.065	4.05781	0.039079
CH171	CFMTN	M	MA	L/A	M	0.056	4.81762	0.001131
CH171	CNMS	F	MA	L/A	M	0.052	4.24144	0.009581
CH175	RIMS	M	MA	L/A	M	0.212	5.30707	0.000125
CH177	TML	F	YA	L/A	M	0.038	5.50585	3.23E-05*
CH177	TZB	F	YA	L/A	M	0.177	8.86529	4.65E15*

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
CH187	MC3L	M	YA	L/A	M	0.086	7.24988	7.87E-11*
CH190	OCASH	F	MA	L/A	M	0.21	4.0363	0.049838
CH197	OCAH	M	YA	L/A	M	0.083	5.00428	0.000506
CH198	TZL	M	YA	L/A	M	0.076	4.16566	0.017854
CH202	TMLP	F	MDA	L/A	M	0.047	3.86591	0.05
CH223	HAPH	M	MDA	L/A	M	0.137	6.34795	2.51E-07*
CH230	SCL	F	MDA	L/A	M	0.088	3.8281	0.037332
CH239	CBAST	F	MDA	L/A	M	0.061	4.17998	0.016725
CH239	CFMTB	F	MDA	L/A	M	0.057	4.02557	0.03368
CH244	CMBH	M	MA	L/A	M	0.817	5.90187	3.98E-06*
CH251	TZL	F	MDA	L/A	M	0.073	4.14062	0.025591
CH272	COPO	F	MDA	L/A	M	0.093	4.73497	0.001164
CH272	SCL	F	MDA	L/A	M	0.096	4.11504	0.012169
CH274	CNMS	F	MA	L/A	M	0.066	4.46891	0.003641
CH279	CMBH	F	MA	L/A	M	0.606	4.60014	0.003563
CH284	CDGL	F	MA	L/A	M	0.374	4.30914	0.014404
CH284	CMPB	F	MA	L/A	M	0.174	4.56179	0.004911
CH301	SZS1	F	MA	L/A	M	0.171	4.42111	0.007685
CH304	SZAB	F	MA	L/A	M	0.519	8.24883	6.35E-13*
CH304	SZS1	F	MA	L/A	M	0.196	4.80173	0.001311
CH304	SZSIA	F	MA	L/A	M	0.138	4.36303	0.00623
CH307	CVWS	F	MA	L/A	M	0.2	4.15015	0.020256
CH316	CDGL	M	MDA	L/A	M	0.409	4.505	0.005997
CH317	CDGL	M	MDA	L/A	M	0.387	4.43907	0.008064
CH327	CNMS	F	MDA	L/A	M	0.061	4.64634	0.001631
CH333	FXST	M	MA	L/A	M	0.131	4.30348	0.018048
CH333	HDT	M	MA	L/A	M	0.148	4.16448	0.030915
CH335	OCASH	M	MA	L/A	M	0.261	4.7707	0.001837
CH335	UXMS	M	MA	L/A	M	0.189	4.05655	0.04519
CH337	CFMTN	M	MA	L/A	M	0.047	4.44596	0.006343
CH338	CMSAST	F	YA	L/A	M	0.123	4.01226	0.04688
CH340	CMPB	M	YA	L/A	M	0.143	4.10825	0.036414
CH351	FMLP	M	MDA	L/A	M	0.059	4.27377	0.016581
CH354	CECMIS	M	MDA	L/A	M	0.159	5.71576	8.39E-06*
CH361	FXST	M	MA	L/A	M	0.124	4.12831	0.038573
CH362	CBAPO	F	MA	L/A	M	0.091	3.84249	0.0352
CH368	UOW	M	MA	L/A	M	0.133	4.48202	0.006186
CH370	COPO	F	YA	L/A	M	0.073	4.01513	0.026521
CH374	CFMTB	M	YA	L/A	M	0.062	4.35393	0.008327
CH374	CFMTN	M	YA	L/A	M	0.108	8.74839	1.26E-14*
CH374	CNMS	M	YA	L/A	M	0.068	4.47867	0.003495
FG3	FXMS	M	MDA	U	M	0.124	4.32278	0.01629
FG4	CDGL	M	MA	U	M	0.405	4.51183	0.005805
FG5	CZL	F	MDA	U	M	0.051	4.26057	0.009053
FG14+	SAL	M	MA	U	M	-7.1	3.777	0.05
FG20	MC3L	M	MDA	U	M	0.049	3.88216	0.05
FG23	CZL	M	MDA	U	M	0.051	4.26057	0.012055

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
FG23	RMLD	M	MDA	U	M	0.1	4.86872	0.000877
FG29	MAL	M	MDA	U	M	0.053	4.53583	0.003839
FG36	CLAST	M	MDA	U	M	0.112	5.41309	4.76E-05*
FG36	HGT	M	MDA	U	M	0.135	4.93393	0.000547
FG42	HIMS	M	MA	U	M	0.204	6.42452	1.96E-07*
FG42	RGH	M	MA	U	M	0.088	3.9844	0.029567
FG46	MC3L	M	MA	U	M	0.1	7.73822	2.7E-11*
FG46	MRH	M	MA	U	M	0.077	4.35248	0.008765
FG47	FIMS	M	MA	U	M	0.114	4.09599	0.043594
FG56	TZL	M	MDA	U	M	0.067	4.12158	0.02748
FG57	FMLP	M	YA	U	M	0.061	4.34443	0.012166
FG57	OCASH	M	YA	U	M	0.241	4.43615	0.00879
FG58	CFMTB	M	YA	U	M	0.053	3.88446	0.05
FG61	OCASH	M	YA	U	M	0.282	4.93389	0.000828
FG69	TLC	M	MDA	U	M	0.097	4.56702	0.002343
FG71	CZL	M	MDA	U	M	0.059	4.88076	0.000898
FG81	CMPB	F	MDA	U	M	0.164	4.35457	0.012597
FG81	TZL	F	MDA	U	M	0.092	4.81041	0.001235
FG85	SGB	M	MDA	U	M	0.137	5.39988	5.32E-05*
FG85	TINF	M	MDA	U	M	0.204	6.30752	3.89E-07*
FG90	MC4L	F	MDA	U	M	0.053	4.19661	0.016467
FG92	FSIH	M	MDA	U	M	0.078	5.19217	0.000237
FG92	OCIS	M	MDA	U	M	0.043	4.79656	0.000962
FG94	CVWA	M	MDA	U	M	0.313	5.20701	0.000153
FG94	SZAB	M	MDA	U	M	0.247	4.04698	0.033302
FG94	TXNF	M	MDA	U	M	0.117	4.28826	0.016831
FG97	CMPB	M	YA	U	M	0.143	4.10825	0.02456
FG99	CMPB	M	MDA	U	M	0.146	4.04039	0.040649
FG101	SZS1	M	MDA	U	M	0.184	4.68766	0.002253
FG102	CMPB	F	MA	U	M	0.137	4.11415	0.035319
FG102	TLC	F	MA	U	M	0.085	4.12331	0.015804
FG103	CZB	M	ADULT	U	M	0.16	7.22738	9.03E-10*
FG110	OCIS	I	YA	U	M	0.036	4.03404	0.027909
FG144	FSIH	M	MA	U	M	0.06	4.12474	0.037242
FG149	SZAPA	M	MDA	U	U	0.248	4.88498	0.00066
FG149	SZAW	M	MDA	U	U	0.136	3.87641	0.048834
FG156	CBAST	M	MA	U	M	0.059	4.09296	0.017342
FG157	TZH	M	ADULT	U	M	0.087	4.18308	0.022065
FG161	OCIS	M	YA	U	M	0.035	3.9694	0.036247
FG163	CVXMS	M	MA	U	M	0.229	4.70628	0.002595
FG163	MC3L	M	MA	U	M	0.049	3.88216	0.04892
FG164	CVLC	M	MDA	U	M	0.672	5.6115	1.61E-05*
FG164	SZS1	M	MDA	U	M	0.191	4.73655	0.00179
FG168	CNMS	M	MDA	U	M	0.054	4.17912	0.012505
FG170	FLE	M	MA	U	M	0.078	4.91558	0.000722
FG170	HGT	M	MA	U	M	0.117	4.21972	0.01441
FG170	TZL	M	MA	U	M	0.063	3.984	0.048565

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
FG179	TZL	M	MDA	U	M	0.072	4.12931	0.026812
FG181	SZAB	M	MA	U	M	0.259	4.16434	0.020405
FG183	FSIH	M	MDA	U	M	0.066	4.42347	0.010054
FG184	MT5L	M	MA	U	M	0.059	4.13427	0.016741
FG185	MRH	M	MDA	U	AS	0.091	4.67679	0.002023
FG198	CNMS	M	MDA	U	M	0.054	4.17912	0.007487
FG228	OCASH	M	MDA	U	M	0.221	4.21822	0.023009
FG234	CMBH	M	MDA	U	M	0.542	4.17565	0.023725
FG240	CMPB	M	MA	U	M	0.193	4.82618	0.0014
FG240	FEB	M	MA	U	M	0.071	5.63521	7.23E-06*
FG240	TZL	M	MA	U	M	0.067	4.12158	0.021378
FG241	CLAST	F	MDA	U	M	0.083	4.17081	0.017478
FG245	SAL	M	MDA	U	M	0.157	3.68607	0.05
FG251	CMAH	M	MDA	U	M	0.139	4.24058	0.016619
FG251	HDT	M	MDA	U	M	0.148	4.16448	0.025655
FG280	CMPB	M	MA	U	M	0.154	4.17935	0.027075
FG280	SZAW	M	MA	U	M	0.192	5.68335	1.02E-05*
FG285	SGL	F	MA	U	M	0.092	4.38763	0.007187
FG289	SZS1	M	MDA	U	M	0.204	4.77229	0.001516
FG305	RGH	F	MA	U	AS	0.092	4.02539	0.025325
FG314	FIMS	M	MA	U	M	0.123	4.37774	0.012762
FG314	HEB	M	MA	U	M	0.091	4.310797	8.58E-05*
FG314	URN	M	MA	U	M	0.126	5.1844	0.000215
FG330	MT2L	M	ADULT	U	M	0.047	4.41025	0.004869
FG330	TMLP	M	ADULT	U	M	0.049	4.00264	0.036014
FG333	MIRB	M	MDA	U	M	0.155	5.21918	0.000172
FG335	SZS1	F	MDA	U	M	0.147	3.97141	0.05
FG337	CNMS	M	MDA	U	M	0.074	4.62293	0.001839
FG337	TZL	M	MDA	U	M	0.069	4.15097	0.024325
FG339	URN	M	MA	U	M	0.107	4.3591	0.011501
FG341	SZAPA	M	MDA	U	M	0.272	5.29809	8.4E-05*
FG341	SZAW	M	MDA	U	M	0.208	5.73023	7.89E-06*
FG344	UOW	M	MA	U	AS	0.154	5.00677	0.000503
FG349	HIMS	M	MDA	U	M	0.14	4.25743	0.021
FG353	CFMTB	M	MA	U	M	0.063	4.1904	0.00852
FG357	CMBH	M	MDA	U	M	0.682	5.12423	0.000275
FG371	SZAB	F	MDA	U	AS	0.265	4.1482	0.021918
FG373	TZL	M	MDA	U	AS	0.074	4.15071	0.024548
FG410	TZH	F	MA	U	AS	0.092	4.40768	0.008246
FG416	UML	F	MA	U	M	0.043	3.80125	0.05
FG417	OCASH	M	MDA	U	AS	0.211	4.01955	0.05
FG417	SZAB	M	MDA	U	AS	0.524	7.86527	1.06E-11*
FG417	SZS1	M	MDA	U	AS	0.278	6.50043	1.06E-07*
FG421	RXMS	F	MA	U	M	0.201	4.33029	0.014628
FG430	OCASH	M	YA	U	AS	0.227	4.2654	0.018768
FG435	CZL	F	MDA	U	U	0.05	4.34873	0.010685
FG435	MT3L	F	MDA	U	U	0.039	3.84871	0.05

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
FG435	TZL	F	MDA	U	U	0.062	3.95782	0.05
HCW32	CZB	M	ADULT	U	PM	0.105	4.8038	0.001206
HCW36	HEB	M	MA	U	PM	0.091	4.310797	4.58E-05*
HCW39	CBAST	M	MA	U	PM	0.056	3.98984	0.036704
HCW39	CLAST	M	MA	U	PM	0.133	6.32707	2.77E-07*
HCW40	COBB	M	MDA	U	PM	0.066	3.99596	0.019955
HCW44	HIMS	M	MDA	U	PM	0.136	4.1844	0.0288
HCW46	CVLC	M	MDA	U	PM	0.702	5.69949	1E-05*
HCW53	CVWA	F	MA	U	PM	0.471	7.91834	7.22E-12*
HCW53	HIMS	F	MA	U	PM	0.218	6.77589	2.03E-08*
HCW53	HXMS	F	MA	U	PM	0.175	5.08347	0.000415
HCW53	SGB	F	MA	U	PM	0.143	5.51846	2.83E-05*
HCW62	CDGL	F	MA	U	PM	0.345	3.9811	0.05
HCW62	CECMIS	F	MA	U	PM	0.135	4.93471	0.000455
HCW62	CMPB	F	MA	U	PM	0.163	4.37431	0.01152
HCW70	COCL	M	MDA	U	PM	0.19	3.96756	0.045163
HCW70	HIMS	M	MDA	U	PM	0.183	5.76359	1.04E-05*
HCW70	MC1L	M	MDA	U	PM	0.085	6.31231	3.11E-07*
HCW70	MC4L	M	MDA	U	PM	0.075	5.96065	2.41E-06*
HCW70	OCASH	M	MDA	U	PM	0.344	5.99724	2.53E-06*
HCW70	UOW	M	MDA	U	PM	0.154	5.00677	0.000314
HCW75	MIRB	F	MDA	U	PM	0.132	4.49612	0.004328
HCW88	CNMS	F	MDA	U	PM	0.043	3.79641	0.05
HCW89	FMLP	F	YA	U	PM	0.065	4.63695	0.003195
HCW89	OCASH	F	YA	U	PM	0.244	4.44996	0.008264
HCW101	CVWA	F	YA	U	PM	0.31	5.27849	0.000106*
HCW111	CVWA	F	MDA	U	PM	0.229	3.99544	0.041259
HCW111	TZL	F	MDA	U	PM	0.081	4.42772	0.007328
HCW118	CMPB	F	YA	U	PM	0.162	4.39446	0.010513
HCW118	CVLC	F	MA	U	PM	0.61	5.16988	0.000163
HCW119	CECMIS	M	YA	U	PM	0.093	3.78782	0.05
HCW119	CNMS	M	YA	U	PM	0.048	4.1052	0.016831
HCW119+	HXMS	M	YA	U	PM	-3	4.025	0.05
HCW120	CDGL	M	MA	U	PM	0.395	4.43373	0.00828
HCW120	CMPB	M	MA	U	PM	0.131	4.06568	0.035782
HCW123	HSIH	M	MDA	U	PM	0.096	5.16837	0.000205
HCW124	CFMTB	F	MA	U	PM	0.081	5.17427	0.000171
HCW124	CMPB	F	MA	U	PM	0.185	4.6545	0.002356
HCW124	HEB	F	MA	U	PM	0.116	6.90573	7.86E-09*
HCW124	RGH	F	MA	U	PM	0.237	9.64603	3.25E-17
HCW124	UOW	F	MA	U	PM	0.235	7.78344	1.77E-11*
HCW124	URN	F	MA	U	PM	0.106	4.36344	0.011268
HCW125	CFMTNS	F	YA	U	PM	0.049	3.79834	0.043075
HCW129	CMSAST	M	MA	U	PM	0.144	4.82732	0.001197
HCW134	CFMTN	F	MDA	U	PM	0.069	5.87836	4.2E-06*
HCW138	FAPH	F	YA	U	PM	0.151	10.39302	5.17E-21*
HCW138	FIMS	F	YA	U	PM	0.172	6.21402	7.39E-07*

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
HCW138	FSIH	F	YA	U	PM	0.171	10.9923	1.51E-23*
HCW138	OCAH	F	YA	U	PM	0.149	9.09957	6.34E16*
HCW146	FLE	M	MDA	U	PM	0.082	5.10926	0.000274
HE685	CMBH	F	MDA	U	M	0.758	5.68241	1.38E-05*
HE959	MRH	F	YA	U	M	0.09	4.71358	0.000609
HE962	CZL	F	MDA	U	M	0.058	4.87345	0.000929
HE1064	OCASH	F	MDA	U	M	0.326	5.75441	1.04E-05*
HE1142	MT4L	F	MA	U	M	0.048	3.86919	0.046898
HE1227	OCASH	F	MDA	U	M	0.281	4.98721	0.000427
HE1318	OCASH	F	MDA	U	M	0.23	4.28711	0.017079
HE1350	CNMS	F	MDA	U	M	0.052	4.24144	0.005551
HE1350	COPO	F	MDA	U	M	0.122	5.37679	5.04E-05*
HE1445	MC1L	F	YA	U	M	0.073	5.4582	3.97E-06*
HE1495	MT2L	M	MDA	U	M	0.041	3.90827	0.039359
HE1653	MT1L	M	MDA	U	M	0.048	3.91865	0.05
HE1664	RXMS	M	MA	U	M	0.207	4.44464	0.008755
HE1771	HDT	M	MDA	U	M	0.147	4.21404	0.024904
HE1825	SZS1	M	MA	U	M	0.169	4.42435	0.007565
HE1838	OCASH	F	MA	U	M	0.269	4.87859	0.001085
HE1924	TLC	M	MDA	U	M	0.153	6.88549	9.54E-09*
HE2000	CMPB	F	MDA	U	M	0.143	4.10825	0.03003
HE2132	HIMS	M	YA	U	M	0.139	4.26189	0.020573
HE2198	FSIH	M	ADULT	U	M	0.101	6.4922	1.28E-07*
HE2472	CVXMS	M	MDA	U	M	0.235	4.79662	0.00168
HE2656	FXST	I	YA	U	M	0.149	4.89786	0.001108
HE2874	FML	M	YA	U	M	0.051	6.98991	4.52E-09*
HE2883	CVMC	F	MDA	U	M	0.328	4.18195	0.0165
HE2965	CFMTB	F	YA	U	M	0.07	4.62964	0.00241
HE3116	CECMIS	M	MDA	U	M	0.096	3.85988	0.049544
HE3116	CNMS	M	MDA	U	M	0.063	4.37393	0.005505
HE3116	MAL	M	MDA	U	M	0.109	9.2834	2.12E-16*
HE3116	MRH	M	MDA	U	M	0.182	8.9021	4.34E-15*
HE3461	FSIH	F	MA	U	M	0.062	4.21834	0.024933
HE3589	MT2L	F	MA	U	M	0.051	4.72668	0.001173
HE3732	MIRB	F	MA	U	AS	0.132	4.49612	0.005889
HE4243	CVXMS	M	MA	U	AS	0.206	4.16138	0.030761
HK5	CFMTN	F	MDA	R	PM	0.089	7.5218	1.18E-10*
HK5	CNOR	F	MDA	R	PM	0.073	5.99277	1.87E-06*
HK5	TXNF	F	MDA	R	PM	0.119	4.28189	0.017346
HK 7	CVLC	F	YA	R	PM	0.449	4.08856	0.023704
HK 7	RGH	F	YA	R	PM	0.089	3.95018	0.034232
HK8	FLE	F	MA	R	PM	0.068	4.23779	0.016575
HK8	TMLP	F	MA	R	PM	0.058	4.69254	0.001748
HK9	TZL	F	YA	R	PM	0.071	4.11675	0.028238
HK 10	CNOR	M	MDA	R	PM	0.098	7.36006	7.48E-10*
HK 10	MXRB	M	MDA	R	PM	0.117	4.0111	0.028984
HK 12	COBB	M	MA	R	PM	0.062	3.82701	0.03826

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
HK 34	CMPB	F	MDA	R	M	0.146	4.04039	0.048673
HK 34	CVMC	F	MDA	R	M	0.304	3.862	0.05
HK 34	CZB	F	MDA	R	M	0.091	4.19409	0.014558
HK 34	FMLP	F	MDA	R	M	0.098	7.10405	2.13E-09*
HK 34	FSIH	F	MDA	R	M	0.067	4.4583	0.008588
HK36	CVLC	M	MDA	R	PM	0.506	4.55436	0.003127
HK42	RXMS	M	MDA	R	M	0.208	4.41992	0.009804
HK42	TZH	M	MDA	R	M	0.086	4.18219	0.022121
HK44	CVLC	F	MDA	R	PM	0.489	4.46486	0.004676
HK 52	CFMTNS	M	MDA	R	M	0.057	4.09893	0.014518
OCU20	RIMS	M	MA	R	PM	0.177	4.42271	0.0097
HK103a	CVLC	M	MDA	R	PM	0.545	4.63266	0.002194
OCU104	COCL	F	MDA	R	PM	0.2	4.16149	0.020184
OCU104	SGB	F	MDA	R	PM	0.117	4.56264	0.003302
OCU143	RXMS	M	MA	R	PM	0.234	5.05333	0.000467
OCU161	TXNF	F	MDA	R	PM	0.118	4.28524	0.017074
OCU193	CMSAST	F	ADULT	R	PM	0.162	5.46332	4.58E-05*
OCU218	CVLC	F	MA	R	PM	0.538	4.79425	0.001036
OCU248	CVLC	F	MA	R	PM	0.545	4.63266	0.001277
OCU258	MC2L	M	MDA	R	PM	0.059	6.02282	1.74E-06*
OCU462	TZL	M	MA	R	PM	0.083	4.41488	0.005656
OCU486	CNOR	M	MA	R	PM	0.043	3.8995	0.028763
OCU486	TXNF	M	MA	R	PM	0.125	4.50228	0.006446
OCU525	OCIS	M	MA	R	PM	0.047	5.17703	1.5E-05*
OCU532	CMPB	M	MA	R	PM	0.149	4.09995	0.037924
OCU532	HML	M	MA	R	PM	0.049	3.97529	0.045368
OCU532	OCAH	M	MA	R	PM	0.068	4.24266	0.017786
OCU532	OCIS	M	MA	R	PM	0.039	4.36562	0.006852
OCU532	SGL	M	MA	R	PM	0.083	3.91569	0.05
OCU534	CBAPO	F	YA	R	PM	0.093	3.85777	0.047581
OCU587	MT5L	F	MA	R	PM	0.066	4.63519	0.001877
OCU722	MRH	F	MA	R	PM	0.083	4.67396	0.002035
OCU744	FAPH	M	MA	R	PM	0.061	4.33778	0.01146
OCU754	CBAPO	F	YA	R	PM	0.114	4.54954	0.002611
OCU754	CMPL	F	YA	R	PM	0.16	4.64059	0.003082
OCU918	CFMTB	F	MA	R	PM	0.063	4.1904	0.01218
OCU918	MT4L	F	MA	R	PM	0.067	5.60544	1.5E-05*
OCU980	CECMIS	F	MA	R	PM	0.116	4.54894	0.002726
SH5061	OCASH	F	MA	U	M	0.239	4.44452	0.008454
SH5208	CMAH	M	MDA	U	M	0.127	3.941	0.05
SH5208	OCPL	M	MDA	U	M	0.086	5.91439	3.03E-06*
SH5218	CZB	F	MDA	U	M	0.091	4.19409	0.019305
SH5218	MT3L	F	MDA	U	M	0.04	3.89112	0.043798
SH5218a	CNOR	M	MDA	U	M	0.041	3.79587	0.04262
SH5225	FAPH	F	MDA	U	M	0.098	7.01588	4.04E-09*
SH5225	FSIH	F	MDA	U	M	0.081	5.19292	0.000237
SH5241	CMBH	F	MDA	U	M	0.571	4.33712	0.011765

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
SH5262	CZH	F	MDA	U	M	0.093	5.01776	0.000468
SH5269	CZB	M	MA	U	M	0.093	4.23892	0.015938
SH5269	CZL	M	MA	U	M	0.051	4.26057	0.015804
SH5269	FAPH	M	MA	U	M	0.211	13.3611	2.59E-34*
SH5269	FIMS	M	MA	U	M	0.113	4.08817	0.04502
SH5269	FML	M	MA	U	M	0.057	7.61516	5.98E-11*
SH5269	FMLP	M	MA	U	M	0.161	10.96237	3.34E-23*
SH5269	FSIH	M	MA	U	M	0.172	10.39745	4.59E-21*
SH5269	OCAH	M	MA	U	M	0.09	5.40449	6.35E-05*
SH5269	OCPL	M	MA	U	M	0.1	6.21508	6.47E-07*
SH5277	SAL	M	MDA	U	M	0.151	3.74716	0.05
SH5288	UOW	M	MA	U	M	0.12	3.97752	0.05
SH5288	URN	M	MA	U	M	0.1	4.15109	0.028426
SH5298	CBZO	F	MA	U	M	0.046	3.95191	0.022716
SH5315	RIMS	F	MDA	U	M	0.204	5.14589	0.000291
SH5329	CBAST	F	MDA	U	M	0.059	4.09296	0.024075
SH5330	SZS1	M	ADULT	U	M	0.19	4.78997	0.001384
SH5332	FML	M	MDA	U	M	0.031	3.98635	0.05
SH5332	FXST	M	MDA	U	M	0.126	4.17486	0.031615
SH5332	TLC	M	MDA	U	M	0.218	8.94701	8.26E-15*
SH5338	CMPB	M	YA	U	M	0.177	4.59577	0.004195
SH5361	HML	F	MA	U	M	0.095	8.40901	1.89E-13*
SH5361	HSIH	F	MA	U	M	0.1	5.31329	9.65E-05*
SH5380	TLC	F	MDA	U	M	0.126	5.93033	2.53E-07*
SH5380	TMLP	F	MDA	U	M	0.057	4.70472	0.001648
SH5393	HEB	F	MA	U	M	0.07	4.05068	0.039447
SH5399	CBAPO	M	MA	U	M	0.101	4.16113	0.013973
SH5399	COPO	M	MA	U	M	0.123	5.2211	0.000112
SH5399	FAPH	M	MA	U	M	0.096	7.05074	3.19E-09*
SH5399	FSIH	M	MA	U	M	0.081	5.19292	0.000156
SH5399	FXST	M	MA	U	M	0.256	8.65232	2.E-14*
SH5399	OCIS	M	MA	U	M	0.034	3.98069	0.03449
SH5399	RIMS	M	MA	U	M	0.174	4.37759	0.011877
SH5402	FAPH	M	MA	U	M	0.061	4.33778	0.014292
SH5402	OCIS	M	MA	U	M	0.035	3.9694	0.026097
SH5409	CMPL	F	MDA	U	M	0.141	4.0242	0.047291
SH5438	TLC	M	MA	U	M	0.079	3.95283	0.031437
SH5445	CVLC	M	MDA	U	M	0.419	3.87078	0.05
SH5447	FEB	F	MA	U	M	0.053	4.41982	0.007378
SH5447	FXST	F	MA	U	M	0.388	12.5483	1.3E-30*
SH5447	TXNF	F	MA	U	M	0.114	4.19513	0.025239
SH5451	CDGL	M	MA	U	M	0.392	4.45073	0.007657
SH5451	FEB	M	MA	U	M	0.07	5.85143	4.97E-06*
SH5463	SZAB	F	MDA	U	M	0.264	4.19631	0.017831
SH5475	HIMS	M	MA	U	M	0.132	4.06222	0.048439
SH5485	CMPB	F	MA	U	M	0.144	4.05638	0.037813
SH5485	TZB	F	MA	U	M	0.083	3.96825	0.05

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
SH5485	UCH	F	MA	U	M	0.123	4.67874	0.002013
SH5485	UOW	F	MA	U	M	0.152	5.11407	0.000292
SH5498	CZB	M	MDA	U	M	0.127	5.82267	5.75E-06*
SH5498	CZL	M	MDA	U	M	0.067	5.52593	3.18E-05*
SH5498	FEB	M	MDA	U	M	0.081	6.34569	2.69E-07*
SH5498	FIMS	M	MDA	U	M	0.157	5.69551	1.57E-05*
SH5498	FIST	M	MDA	U	M	0.145	4.61257	0.004438
SH5498	FLE	M	MDA	U	M	0.145	8.98425	1.85E-16*
SH5498	FMLP	M	MDA	U	M	0.105	7.4077	2.61E-10*
SH5498	FSIH	M	MDA	U	M	0.069	4.52216	0.006417
SH5498	FXST	M	MDA	U	M	0.134	4.34005	0.015367
SH5498	MT1L	M	MDA	U	M	0.071	6.14781	8.43E-07*
SH5498	MT5L	M	MDA	U	M	0.111	7.50797	1.63E-10*
SH5498	TINF	M	MDA	U	M	0.19	5.93448	3.67E-06*
SH5498	TML	M	MDA	U	M	0.072	10.36684	1.81E-20*
SH5498	TMLP	M	MDA	U	M	0.086	7.03984	3.2E-E09*
SH5498	TXNF	M	MDA	U	M	0.293	11.24685	1.65E-24*
SH5501	SZAB	F	MA	U	M	0.289	4.53838	0.003933
SH5501	TLC	M	MA	U	M	0.092	4.41925	0.0045
SH5508	HXMS	F	MA	U	M	0.145	4.05068	0.05
SH5519	CFMTB	F	YA	U	M	0.079	5.16981	0.000174
SH5519	CVWA	F	YA	U	M	0.296	5.12096	0.000237
SH5526	CFMTB	F	YA	U	M	0.056	4.01036	0.035794
SH5526	CLFMT	F	YA	U	M	0.037	4.15939	0.01636
SH5542	SZS1	M	MDA	U	M	0.204	4.77229	0.000999
SH5545	OCASH	M	MA	U	M	0.208	4.07133	0.042933
SH5570B	SAL	F	MA	U	M	0.16	3.65679	0.05
SH5593	CMAH	M	MDA	U	M	0.14	4.21735	0.018401
SH5595	FMLP	F	MDA	U	M	0.067	4.74141	0.001947
SH5603	CECMIS	M	MDA	U	M	0.092	3.8157	0.05
SH5622	SZAB	M	MA	U	M	0.348	5.5348	2.71E-05*
SH5622	SZS1	M	MA	U	M	0.243	5.73962	9.73E-06*
SH5622	SZSIA	M	MA	U	M	0.143	4.43622	0.00463
SH5631	COBB	M	YA	U	M	0.061	3.88186	0.030854
SH5635	UOW	M	MDA	U	M	0.158	5.07235	0.000362
SH5637	CECMIS	M	MDA	U	M	0.13	4.88331	0.000581
SH5648	CZL	M	MDA	U	M	0.071	5.75653	8.87E-06*
SH5650	CMBH	M	MDA	U	M	0.651	4.93616	0.000709
SH5710	COBH	M	MDA	U	M	0.071	3.77462	0.028855
SH5794	FXST	M	MA	U	M	0.155	5.0728	0.000459
SH5794	MT5L	M	MA	U	M	0.093	6.62407	4.55E08*
SH5804	SZAW	F	MDA	U	M	0.195	5.55082	2.07E-05*
SH5843	OCH	M	YA	U	M	0.037	5.28724	7.04E-05*
SH5907	CBAP0	F	MDA	U	M	0.091	3.84249	0.05
SH5907	CFMTB	F	MDA	U	M	0.054	3.90767	0.05
SH5907	CNMS	F	MDA	U	M	0.062	4.57627	0.002244
SH5907	COBB	F	MDA	U	M	0.089	5.41185	3.63E-05*

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
SH5977	HIMS	M	MDA	U	M	0.178	5.67648	1.7E-05*
SH5989	CVML	F	MDA	U	M	0.084	3.98347	0.038747
SH6017	OCASB	F	MDA	U	M	0.228	5.30201	8.61E-05*
SH6030	CBAPO	F	MDA	U	M	0.088	3.95855	0.031617
SH6030	CMPB	F	MDA	U	M	0.131	4.06568	0.043155
SH6030	COPO	F	MDA	U	M	0.08	4.07274	0.021143
SH6033	FMLP	F	MDA	U	M	0.06	4.31026	0.014139
SH6033	RIMS	F	MDA	U	M	0.181	4.4964	0.006938
SH6060	FEB	M	MDA	U	M	0.062	5.21984	0.000154
SH6060	FLE	M	MDA	U	M	0.084	5.14512	0.000229
SH6082	MAL	M	MDA	U	M	0.047	3.98687	0.041272
SH6083	SZS1	M	MDA	U	M	0.174	4.4484	0.006804
SH6103	CZH	M	MA	U	M	0.103	5.54122	3E-05*
TO 6	CMBH	M	YA	S	M	0.795	5.86296	4.98E-06*
TO9	MC2L	M	MDA	S	M	0.045	4.58144	0.003164
TO12	FSIH	M	MDA	S	M	0.066	4.42347	0.007995
TO17	SGL	M	MDA	S	M	0.114	5.4102	5E-05*
TO22	MT1L	M	MDA	S	M	0.099	8.43971	1.51E-13*
TO23	FML	M	MDA	S	M	0.031	3.98635	0.043116
TO26	SGL	M	YA	S	M	0.133	6.25444	4.34E-07*
TO42	MT4L	M	MDA	S	M	0.091	7.38889	3.74E-10*
TO47	FAPH	M	YA	S	M	0.102	7.13224	1.82E-09*
TO47	FSIH	M	YA	S	M	0.18	10.28655	1.29E-20*
TO47	FXMS	M	YA	S	M	0.12	4.18587	0.029664
TO47	TMC	M	YA	S	M	0.082	4.36263	0.005609
WPCN06	MRH	M	MDA	R	PM	0.112	5.79544	8.33E-06*
WPCN06	RGH	M	MDA	R	PM	0.128	5.51955	2.37E-06*
WPCN06	SZAB	M	MDA	R	PM	0.251	4.06679	0.030717
WPCN06	UCH	M	MDA	R	PM	0.188	7.4034	2.76E-10*
WPCN06	UOW	M	MDA	R	PM	0.145	4.91449	0.000794
WPCN06	URN	M	MDA	R	PM	0.112	4.55585	0.004707
WPCN17	CECMIS	M	MDA	R	PM	0.099	3.84275	0.05
WPCN17	CMAH	M	MDA	R	PM	0.141	4.19468	0.020314
WPCN18	CLAST	M	MDA	R	PM	0.086	4.27139	0.011384
WPCN18	COPO	M	MDA	R	PM	0.11	5.16986	0.000144
WPCN19	CLAST	F	MA	R	PM	0.077	3.9472	0.043958
WPCN20	CNMS	F	MDA	R	PM	0.069	4.41493	0.004635
WPCN20	FSIH	F	MDA	R	PM	0.061	4.17261	0.030363
WPCN20	OCASH	F	MDA	R	PM	0.225	4.26642	0.018664
WPCN20	SZAPA	F	MDA	R	PM	0.291	5.54886	2.25E-05*
WPCN27	TZL	M	MA	R	PM	0.089	4.71253	0.001971
WPCN28	MC3L	F	YA	R	PM	0.052	4.12587	0.022953
WPCN41	OCASH	F	MA	R	PM	0.281	4.98721	0.000633
WPCN41	RML	F	MA	R	PM	0.046	4.16675	0.017506
WPEE4	SZS1	M	MA	R	M	0.159	4.15855	0.018848
WPEE13	SZS1	M	MDA	R	M	0.159	4.15855	0.02422
WPEE62	CVMC	M	MDA	R	U	0.303	3.91088	0.038089

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
WPG275	CZH	F	MDA	R	M	0.112	5.95596	2.89E-06*
WPG275	FAPH	F	MDA	R	M	0.081	5.94149	3.61E-06*
WPG275	FIST	F	MDA	R	M	0.13	4.09808	0.044372
WPG275	FXMS	F	MDA	R	M	0.132	4.62842	0.004016
WPG370	CFMTN	M	YA	R	M	0.052	4.4827	0.005424
WPG370	MT5L	M	YA	R	M	0.054	3.86054	0.05
WPG370	SGB	M	YA	R	M	0.108	4.20222	0.01626
WPG379	CFMTN	M	MA	R	U	0.05	4.41745	0.00726
WPG385	CFMTN	F	MDA	R	M	0.046	4.40144	0.007745
WPG436	CVWA	M	MDA	R	M	0.24	4.11157	0.025545
WPG478	SCL	F	YA	R	M	0.146	6.25507	4.49E-07*
WPG528	CVIMS	M	YA	R	M	0.253	4.19162	0.02717
WPG528	HEB	M	YA	R	M	0.12	6.92944	6.72E-09*
WPG528	SGL	M	YA	R	M	0.108	5.21794	0.000136
WPG528	URN	M	YA	R	M	0.184	7.8036	1.51E-11*
WPG571	CFMTB	F	MA	R	M	0.083	5.17521	0.00017
WPG601	FSIH	M	MA	R	U	0.079	5.1943	0.000235
WPG604	SZS1	M	MDA	R	U	0.156	4.17412	0.022601
WPG628	HSIH	F	MDA	R	U	0.086	4.59756	0.003341
WPG635	OCASH	F	YA	R	U	0.21	4.0363	0.041704
WPG643	MT5L	F	MDA	R	U	0.058	4.14208	0.016172
WPG694	CMPB	M	MDA	R	U	0.178	4.56692	0.004805
WPG694	COPO	M	MDA	R	U	0.079	4.10846	0.011811
WPG746	CMAH	M	MDA	R	U	0.134	4.1065	0.023022
WPG746	CZH	M	MDA	R	U	0.077	4.05179	0.032146
WPG746	FEB	M	MDA	R	U	0.071	5.63521	1.68E-05*
WPG746	SZS1	M	MDA	R	U	0.15	4.02408	0.042471
WPG746	UOW	M	MDA	R	U	0.12	3.97752	0.045203
WPG760	SZAPA	F	MDA	R	U	0.226	4.46926	0.004561
WPNA47	CVLC	F	MDA	R	U	0.426	3.88796	0.05
WPNA66	COCL	F	MDA	R	U	0.234	4.84212	0.000923
WPNA88	CLAST	F	MA	R	AS	0.09	4.42091	0.005919
WPNA88	CLFMT	F	MA	R	AS	0.038	4.19839	0.013903
WPNA88	OCAH	F	MA	R	AS	0.083	5.00428	0.000315
WPNA94	CMPB	F	MDA	R	AS	0.185	4.6545	0.003192
WPNA100	CBAPO	F	MA	R	AS	0.089	3.91891	0.037117
WPNA100	CECMIS	F	MA	R	AS	0.125	4.81961	0.000784
WPNA128	CVMC	M	MDA	R	U	0.408	5.09724	0.00024
WPNA145	MC3L	M	MDA	R	U	0.087	6.99795	4.18E-09*
WPNA168	FIMS	F	MA	R	U	0.156	5.75326	1.13E-05*
WPNA176	RGH	M	MDA	R	M	0.099	4.20276	0.0122
WPNA181	FMLP	M	MA	R	U	0.069	4.83886	0.001217
WPNA181	OCAH	M	MA	R	U	0.07	4.3407	0.01158
WPNA181	TLC	M	MA	R	U	0.077	3.92152	0.035521
WPNA195	CVMC	M	YA	R	U	0.37	4.64611	0.002108
WPNA202	FIMS	F	MA	R	U	0.111	4.07082	0.048351
WPNA217	CMPB	M	MA	R	M	0.136	4.1214	0.3421

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
WPSA2	OCPL	M	YA	R	U	0.053	3.75567	0.040559
WPSA15	HAPH	M	MA	R	U	0.102	4.58726	0.003028
WPSA15	MC4L	M	MA	R	U	0.064	5.09545	0.000253
WPSA17	CFMTB	F	MDA	R	PM	0.063	4.1904	0.016991
WPSA17	CFMTN	F	MDA	R	PM	0.048	4.33885	0.01027
WPSA17	CNOR	F	MDA	R	PM	0.058	4.94585	0.000337
WPSA17	RIMS	F	MDA	R	M	0.163	4.06735	0.045745
WPSA17	UPL	F	MDA	R	PM	0.053	4.15335	0.018623
WPSA21	RML	M	MA	R	U	0.05	4.52953	0.003575
WPSA21	UPL	M	MA	R	U	0.057	4.45877	0.004942
WPSA29	COBH	F	YA	R	U	0.071	3.77462	0.0476
WPSA36	CLAST	F	MDA	R	U	0.082	4.18854	0.016183
WPV26	MC1L	F	MA	R	PM	0.056	4.09809	0.025917
WPV26	MIRB	F	MA	R	PM	0.14	4.76923	0.001636
WPV38	OCAH	M	MDA	R	M	0.073	4.50844	0.005443
WPV42	CMPB	F	MDA	R	PM	0.139	4.09942	0.037679
WPWCO45	CNMS	F	MA	R	U	0.044	3.80851	0.05
WPWCO45	COCL	F	MA	R	U	0.215	4.4657	0.005339
WPWCO56	CMPB	F	MA	R	U	0.127	3.9949	0.05
WPWCO91	OCASH	M	MDA	R	U	0.204	4.01235	0.05
WPWCO124	TZL	F	MA	R	U	0.071	4.11675	0.016957
WPWCO125	SAL	M	MDA	R	U	0.154	3.71619	0.05
WPWCO138	CVML	M	MDA	R	M	0.09	4.27301	0.011495
WPWCO173	TLC	F	MA	R	U	0.08	3.9185	0.036124
CY34	CVMC	M	MDA	U	M	0.303	3.91088	0.05
CY89	MT2L	M	MDA	U	M	0.044	4.17366	0.013377
CY89	SZS1	M	MDA	U	M	0.202	4.88977	0.000855
CY104	FML	M	MDA	U	M	0.033	4.26345	0.016287
CY104	FXST	M	MDA	U	M	0.123	4.16314	0.033159
YM19	FAPH	M	MA	U	M	0.069	4.99055	0.000646
YM19	FSIH	M	MA	U	M	0.063	4.26197	0.020626
YM22	CMAH	M	MDA	U	M	0.134	4.1065	0.029447
YM29	COPO	M	ADULT	U	M	0.116	5.28491	8.05E-05*
YM43	COPO	M	YA	U	M	0.096	4.75986	0.001038
YM43	CVML	M	YA	U	M	0.094	4.4241	0.005931
YM53	MRH	F	MA	U	AS	0.086	4.77368	0.001272
YM56	CMBH	F	YA	U	AS	0.565	4.34043	0.01158
YM74	RGH	M	MDA	U	M	0.095	4.09231	0.019295
YM76	FXST	M	YA	U	M	0.17	5.5851	2.96E-05*
YM90	FIMS	M	MDA	U	M	0.118	4.19805	0.028195
YM98	MRH	M	ADULT	U	M	0.129	6.54693	7.44E-08*
YM103	CVWA	F	ADULT	U	M	0.261	4.48895	0.004919
YM122	COBH	M	MDA	U	AS	0.082	4.36316	0.00452
YM130	COPO	M	MA	U	AS	0.075	4.05323	0.022754
YM131	CFMTNS	F	ADULT	U	AS	0.061	4.27368	0.006579
YM134	CDGL	F	MDA	U	AS	0.572	6.42424	1.8E-07*
YM136	CFMTN	M	MDA	U	AS	0.061	5.22429	0.000148

Table AP 4.1: Continued.

Skeleton	Measurement	Sex	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
YM136	CNOR	M	MDA	U	AS	0.052	4.5725	0.001806
YM136	COBB	M	MDA	U	AS	0.058	3.76669	0.047636
YM142	CBPO	M	ADULT	U	AS	0.062	3.91797	0.041047
YM152	CFMTNS	M	MDA	U	AS	0.054	3.98352	0.021185
YM154	CLFMT	M	ADULT	U	AS	0.035	3.97805	0.034518
YM156	CFMTNS	M	MDA	U	AS	0.066	4.49218	0.00261
YM156	COBH	M	MDA	U	AS	0.092	4.78739	7.06E-05*
YM167	CBAPO	M	MDA	U	U	0.103	4.15046	0.014641
YM167	CMPB	M	MDA	U	U	0.213	5.32928	0.000107
YM167	COPO	M	MDA	U	U	0.108	5.25795	9.21E-05*
YM167	MXRB	M	MDA	U	U	0.147	5.16926	0.00015

Table AP 4.2: Subadult ln(R/L) outliers. (*p Significant after a Bonferroni adjustment).

Skeleton	Measurement	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
BF71	CDGL	EC	U	M	0.374	4.07072	0.0104
BF360	OCASH	LC	U	M	0.342	5.26127	8.04E-05*
BF432	RIMS	EC	U	M	0.171	4.21709	0.008502
CH53	CECMIS	LC	L/A	M	0.07	4.56445	0.001461
CH53	FIST	LC	L/A	M	0.198	5.13767	0.000149
CH53	FMLP	LC	L/A	M	0.099	6.1159	9.31E-07*
CH53	FXMS	LC	L/A	M	0.134	4.88344	0.000491
CH53	FXST	LC	L/A	M	0.166	4.82147	0.000675
CH53	TINF	LC	L/A	M	0.164	4.30322	0.006131
CH68	OCASH	FI	L/A	M	0.242	4.37035	0.004905
CH80	FEB	EC	L/A	M	0.044	3.41502	0.05
CH90	FML	AD	L/A	M	0.028	3.70623	0.05
CH96	CVXMS	FI	L/A	M	0.223	4.45738	0.003192
CH114	FMLP	EC	L/A	M	0.069	4.60833	0.001586
CH140	SGB	EC	L/A	M	0.131	3.85532	0.02931
CH152	MRH	EC	L/A	M	0.073	4.37107	0.00362
CH166	FXMS	LC	L/A	M	0.107	4.17698	0.01093
CH166	TXNF	LC	L/A	M	0.14	4.60247	0.001694
CH169	OCASH	EC	L/A	M	0.263	4.65032	0.001437
CH188	OCIB	EC	L/A	M	0.059	4.83521	0.000482
CH200	TLC	LC	L/A	M	0.092	3.50952	0.048658
CH206	CVIMS	EC	L/A	M	0.239	3.79996	0.046064
CH213	URN	FI	L/A	M	0.146	4.00577	0.017281
CH215	CDGL	LC	L/A	M	0.33	3.73666	0.035403
CH215	CFMTN	LC	L/A	M	0.044	3.63218	0.046272
CH215	FLE	LC	L/A	M	0.071	3.41052	0.05
CH226	TMC	LC	L/A	M	0.084	3.84213	0.017531
CH228	TLC	LC	L/A	M	0.108	3.64191	0.032751
CH263	CVMC	EC	L/A	M	0.364	4.28932	0.004029
CH263	CVWS	EC	L/A	M	0.364	4.28932	0.004029
CH263	TMC	EC	L/A	M	0.088	3.48915	0.05

Table AP 4.2: Continued.

Skeleton	Measurement	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
CH265	RIMS	EC	L/A	M	0.227	5.61098	1.33E-05*
CH285	MRH	EC	L/A	M	0.057	3.65267	0.05
CH293	FXMS	AD	L/A	M	0.12	4.46431	0.003246
FG62	OCASH	AD	U	M	0.298	4.95638	0.000351
FG100	CMPB	EC	U	M	0.231	4.59977	0.00138
FG100	UCH	EC	U	M	0.099	3.99548	0.017503
FG126	FIST	AD	U	U	0.15	3.78399	0.05
FG146	FSMLD	EC	U	U	0.069	3.84352	0.022579
FG146	SGB	EC	U	U	0.123	3.71325	0.049561
FG177	TINF	LC	U	M	0.167	4.2352	0.00817
FG177	TXNF	LC	U	M	0.128	4.29286	0.006437
FG205	OCASB	AD	U	M	0.123	3.89377	0.027504
FG233	FAPH	LC	U	M	0.125	6.57511	1.26E-07*
FG233	FEB	LC	U	M	0.057	4.06712	0.008651
FG233	FSIH	LC	U	M	0.148	7.251	4.33E-09*
FG233	TLC	LC	U	M	0.09	3.99632	0.010808
FG271	CECMIS	EC	U	M	0.091	5.06664	0.000181
FG278	HAPH	LC	U	M	0.094	3.68802	0.029349
FG278	HDT	LC	U	M	0.13	3.99204	0.020107
FG278	HGT	LC	U	M	0.176	3.11702	0.05
FG287	SZAB	LC	U	M	0.153	3.99507	0.014106
FG300	CZB	LC	U	AS	0.085	4.01179	0.011443
FG300	CZH	LC	U	AS	0.072	3.50433	0.05
FG318	CMSAST	AD	U	M	0.147	3.6557	0.046447
FG348	SZAB	LC	U	AS	0.214	4.60766	0.001263
FG354 OR 345	RSMLD	AD	U	AS	0.111	3.56429	0.05
FG358	MC4L	LC	U	U	0.044	3.23653	0.05
FG359	UXMS	EC	U	M	0.148	3.75344	0.05
FG368	TINF	AD	U	AS	0.181	4.31735	0.005821
FG384	CECMIS	EC	U	U	0.072	4.30839	0.004029
FG419	RSMLD	EC	U	AS	0.135	4.09244	0.0084
FG422	HSMLD	FI	U	AS	0.093	4.49527	0.002132
FG422	HSMLP	FI	U	AS	0.119	4.82104	0.000529
HCW26	FSMLD	EC	U	PM	0.073	3.83114	0.023717
HCW30	TINF	EC	U	PM	0.177	4.37008	0.004643
HCW45	CVWS	FI	U	PM	0.18	3.57297	0.05
HCW48	CVMC	LC	U	PM	0.324	4.49968	0.001942
HCW48	CVWS	LC	U	PM	0.324	4.49968	0.001942
HCW48	FAPH	LC	U	PM	0.066	3.6476	0.05
HCW48	FLE	LC	U	PM	0.142	6.00292	2.88E-06*
HCW48	HAPH	LC	U	PM	0.161	5.1259	0.00021
HCW48	HIMS	LC	U	PM	0.163	5.06924	0.000202
HCW48	HML	LC	U	PM	0.046	4.83002	0.000524
HCW48	HXMS	LC	U	PM	0.112	3.7616	0.05
HCW48	MT3L	LC	U	PM	0.049	3.84148	0.01802
HCW48	MT5L	LC	U	PM	0.053	3.25048	0.05
HCW48	OCIS	LC	U	PM	0.046	3.91541	0.022816

Table AP 4.2: Continued.

Skeleton	Measurement	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
HCW48	RML	LC	U	PM	0.04	3.79559	0.027721
HCW48	RSMLD	LC	U	PM	0.205	5.46929	3.69E-05*
HCW48	SGL	LC	U	PM	0.146	6.00902	1.84E-06*
HCW48	TML	LC	U	PM	0.055	6.47796	1.7E-07*
HCW48	TXNF	LC	U	PM	0.115	3.87959	0.034112
HCW48	TZH	LC	U	PM	0.163	5.78532	8.98E-06*
HCW48	UCH	LC	U	PM	0.103	4.00926	0.016646
HCW48	UOW	LC	U	PM	0.143	3.87462	0.029392
HCW50	HSMLD	FI	U	PM	0.088	4.49985	0.002086
HCW50	SGB	FI	U	PM	0.208	6.08121	1.25E-06*
HCW55	CECMIS	LC	U	PM	0.099	4.9576	0.000288
HCW66	OCASH	FI	U	PM	0.325	5.22113	9.8E-05*
HCW68	TMLP	EC	U	PM	0.076	4.85166	0.000479
HCW103	FMLP	FI	U	PM	0.082	5.33403	5.25E-05*
HCW103	HSMLP	FI	U	PM	0.113	4.91204	0.000355
HCW103	OCIS	FI	U	PM	0.061	4.89313	0.000396
HCW103	TZH	FI	U	PM	0.092	3.65738	0.039682
HCW106	MRH	EC	U	PM	0.073	4.37107	0.001054
HCW106	TINF	EC	U	PM	0.139	3.77193	0.05
HCW106	TXNF	EC	U	PM	0.175	5.66188	1.03E-05*
HCW110	FSIH	EC	U	PM	0.083	4.82705	0.000501
HCW110	OCASB	EC	U	PM	0.191	6.07632	1.21E-06*
HCW110	OCASH	EC	U	PM	0.503	7.0278	4.42E-09*
HCW132	OCASH	FI	U	PM	0.379	5.59347	1.49E-05*
HCW137	OCASB	EC	U	PM	0.12	3.92728	0.024091
HCW137	URN	EC	U	PM	0.146	4.00577	0.008211
HCW147	FIMS	AD	U	PM	0.12	4.22375	0.009094
HE133	HXMS	LC	U	M	0.119	3.95828	0.026618
HE133	TZH	LC	U	M	0.085	3.59416	0.048867
HE473	UML	LC	U	M	0.042	4.11361	0.008227
HE473	UPL	LC	U	M	0.042	3.67721	0.037709
HE501	CVXMS	EC	U	M	0.195	3.89934	0.031591
HE501	OCIB	EC	U	M	0.043	3.69525	0.038594
HE1043	OCASH	LC	U	M	0.273	4.66858	0.001326
HE1660	CZL	AD	U	M	0.068	4.93771	0.000315
HE3113	HGT	EC	U	M	0.163	3.43722	0.05
HE3471	SZAB	LC	U	M	0.141	3.84448	0.024546
HE3887	UXMS	AD	U	M	0.165	4.0481	0.016598
HK4	MXRB	FI	U	PM	0.111	4.57188	0.001462
HK4	TINF	FI	U	PM	0.261	5.88566	3.18E-06*
HK7a	FXST	FI	U	PM	0.159	4.77118	0.000851
HK9a	FSMLD	FI	U	PM	0.082	4.07781	0.009645
HK22	OCH	EC	U	M	0.043	3.60746	0.05
HK24	TZL	EC	U	M	0.097	4.96107	0.000293
HK25	MC5L	LC	U	M	0.058	4.10284	0.008044
HK59	RSMLD	FI	U	PM	0.094	3.39506	0.05
HK59	OCIS	FI	U	PM	0.05	4.1266	0.010074

Table AP 4.2: Continued.

Skeleton	Measurement	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
OCU161a	HIMS	FI	R	PM	0.167	4.97354	0.000319
OCU161a	OCH	FI	R	PM	0.073	5.98841	2.22E-06*
OCU232	RSMLD	FI	R	PM	0.104	3.56375	0.05
OCU232	UCH	FI	R	PM	0.13	4.97906	0.000273
SH5168	UXMS	AD	U	M	0.174	4.1682	0.010249
SH5276	HDT	EC	U	M	0.138	4.14015	0.01116
SH5351	CVIMS	EC	U	M	0.373	6.05019	1.31E-06*
SH5351	UOW	EC	U	M	0.221	6.04529	1.43E-06*
SH5351	URN	EC	U	M	0.187	5.06328	0.000197
SH5470	TINF	LC	U	M	0.213	4.99001	0.000288
SH5476	RML	LC	U	M	0.055	4.99113	0.000249
SH5479	FSIH	EC	U	M	0.06	3.55353	0.05
SH5518	CZL	LC	U	M	0.054	4.24924	0.004992
SH5620	CZB	LC	U	M	0.096	4.19051	0.005969
SH5621	URN	EC	U	M	0.142	4.25426	0.006359
SH5669	CMPB	AD	U	M	0.233	4.35287	0.003867
SH5673	MT3L	LC	U	M	0.061	4.19568	0.005567
SH5697	MC4L	LC	U	M	0.075	4.52078	0.001813
SH6023	CZB	LC	U	M	0.071	3.89083	0.017477
SH6023	CZH	LC	U	M	0.085	3.94098	0.014692
SH6023	MT4L	LC	U	M	0.045	3.24943	0.05
WPCN4	SZAB	LC	R	PM	0.207	4.84631	0.000462
WPEE36	MAL	AD	R	U	0.04	3.78806	0.033103
WPEE72	CMSAST	LC	R	U	0.134	3.44928	0.05
WPEE73	CMSAST	EC	R	U	0.188	4.52377	0.001746
WPG314	FLE	EC	R	U	0.08	3.70067	0.036891
WPG367	CDGL	EC	R	U	0.297	3.70808	0.038809
WPG424	UXMS	LC	R	U	0.149	3.66953	0.05
WPG433	SZAB	EC	R	U	0.179	4.47986	0.002125
WPG456	SZAB	LC	R	U	0.131	3.71543	0.038939
WPG470	RGH	FI	R	U	0.146	4.5207	0.001738
WPG497	HML	AD	R	U	0.047	4.63696	0.001221
WPG500	MRH	LC	R	U	0.057	3.65267	0.030406
WPG658	CZL	LC	R	U	0.053	4.56982	0.001421
WPG658	TML	LC	R	U	0.032	3.91018	0.022235
WPNA65	FML	LC	R	U	0.029	3.71926	0.04925
WPNA65	TINF	LC	R	U	0.156	4.20635	0.009158
WPNA65	TMC	LC	R	U	0.105	3.67906	0.029219
WPNA65	TMLP	LC	R	U	0.073	5.53362	3.12E-05*
WPNA65	UXMS	LC	R	U	0.242	5.81507	4.64E-06*
WPNA69	CFMTN	FI	R	U	0.094	6.51479	2.63E-07*
WPNA79	CMPL	EC	R	U	0.205	4.51858	0.001943
WPNA95	MC3L	LC	R	U	0.046	3.31924	0.05
WPNA111	CMAH	LC	R	U	0.107	3.81083	0.028002
WPNA116	CVIMS	EC	R	U	0.244	3.78995	0.048002
WPNA165	CFMTN	EC	R	U	0.051	4.03545	0.011035
WPNA178	CDGL	AD	R	U	0.318	3.79584	0.028494

Table AP 4.2: Continued.

Skeleton	Measurement	Age	Settle- ment	Period	ln(R/L)	Tg	p-value
WPNA198	URN	LC	R	U	0.128	3.9198	0.023865
WPNA219	CZB	EC	R	U	0.078	3.97646	0.012942
WPV3	FXMS	FI	R	PM	0.116	4.45013	0.003444
WPV24	CVML	AD	R	PM	0.062	3.64264	0.05
WPWCO176	MC4L	AD	R	U	0.052	3.55344	0.045051
YM12	HGT	EC	U	PM	0.382	4.61225	0.001902

Table AP 4.3: Subadult R-L outliers. (*p Significant after a Bonferroni adjustment).

Skeleton	Measurement	Age	Settle- ment	Period	R-L	Tg	p-value
BF341	HDT	AD	U	M	-2.2	4.101096	0.005168
BF341	HXMS	AD	U	M	-1.7	3.766448	0.024695
BF341	RIMS	AD	U	M	-1.5	4.136524	0.004766
CH31	MC3L	AD	L/A	M	2.9	3.782553	0.005804
CH64	SZS1	AD	L/A	M	2.8	3.739201	0.014479
CH187	TMC	AD	L/A	M	-2.8	3.35383	0.020904
CH226	RGH	LC	L/A	M	-1.7	3.606454	0.018301
CH226	TZL	LC	L/A	M	-2.9	3.418112	0.034397
FG261	UOW	AD	U	M	-2.5	4.006971	0.006804
FG354 OR 345	RIMS	AD	U	AS	-1.3	3.608871	0.040817
HCW55	COCL	LC	U	PM	3.3	3.888377	0.008491
HCW125	CECMIS	AD	U	PM	1.7	3.414448	0.037934
HCW125	CVMC	AD	U	PM	4.1	3.531415	0.001468
HCW125	MRH	AD	U	PM	-2.8	3.635734	0.024235
HCW125	SCL	AD	U	PM	-2.9	2.913322	0.0317
HCW138	FXMS	AD	U	PM	-2.6	4.524968	0.000894
HCW138	HXMS	AD	U	PM	2.2	3.966029	0.010975
HCW147	FXST	AD	U	PM	3.3	3.594315	0.049786
HE133	HDT	LC	U	M	-2.3	4.268514	0.002476
HE133	HSMLD	LC	U	M	-2.7	3.818044	0.010571
HE133	HSMLP	LC	U	M	-2.6	3.870037	0.008506
HE133	UIMS	LC	U	M	-2	3.879797	0.013963
HE235	RML	FI	U	M	-0.035	3.562077	0.022735
HE366	RXMS	AD	U	M	2.1	3.974173	0.009629
HE956	FML	AD	U	M	-10	4.214053	0.002493
HE956	FMLP	AD	U	M	-3.7	3.852621	0.014847
HE1043	TZL	LC	U	M	3	3.46541	0.028959
HE3748	HIMS	AD	U	M	-2	4.256482	0.00311
HE3748	RML	AD	U	M	-6	4.289823	0.001126
SH5271	SAL	LC	U	M	2.5	3.444021	0.021547
SH5473	CVIMS	AD	U	M	1.7	3.720328	0.027182
SH5586	OCASB	AD	U	M	5.6	3.846926	0.012658
SH5586	OCIB	AD	U	M	5	3.716394	0.011753
SH5778	OCIS	LC	U	M	-2.4	3.453727	0.048813
SH5782	FXST	AD	U	M	-3.9	3.935362	0.012958

Table AP 4.3: Continued.

Skeleton	Measurement	Age	Settle- ment	Period	R-L	Tg	p-value
WPG370	TZB	AD	R	M	3	3.848417	0.005927
WPG370	TZL	AD	R	M	3	3.46541	0.028959
WPG497	CVWA	AD	R	U	3.6	3.426547	0.047735
WPG528	CMPL	AD	R	M	-4.2	4.299995	0.001493
WPG528	HML	AD	R	M	14	5.271162	1.33E-05*
WPG528	MT1L	AD	R	M	-2.2	3.391207	0.038225
WPG528	UCL	AD	R	M	3.1	4.612831	0.000399
WPG528	UIMS	AD	R	M	2.2	3.622162	0.038535
WPG528	UOW	AD	R	M	2.9	4.052688	0.005605
WPG528	UXMS	AD	R	M	2.5	4.552069	0.000696
WPNA4	CVML	AD	R	U	-7	3.754966	0.012405
WPNA178	SGB	AD	R	U	2.2	3.541092	0.037535
WPV24	SGB	AD	R	PM	2.2	3.541092	0.037535
WPV30	TSMLP	AD	R	PM	-3	3.404134	0.028787
WPWCO16	SZAB	AD	R	U	-3.2	3.558733	0.026113
WPWCO79	OCH	AD	R	U	-4	3.735443	0.014787
WPWCO92	OCIB	AD	R	U	-4	3.535947	0.023492
YM63	CVXMS	AD	U	M	-2.4	4.622447	0.000531
YM76	SZAB	AD	U	PM	3.8	4.16818	0.002178