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APPENDIX A: Research Data Sheet used in data collection procedures.

RESEARCH DATA SHEET

Reference Number: **Sex:** **Age:**
Population:
Date/ Recorder:

METRICS:

Humerus	Ulna
Max. Vert. Diam of Head =	Max. Diam of Head =
Max. Diam At Midshaft =	Max. Diam at Midshaft =
Epicondylar breadth =	Max. Distal Diameter =

Radius	Femur
Max. Diam of Head =	Max. Vert. Diam of Head =
Max. Diam at Midshaft =	Max. Diam at Midshaft =
Max. Distal Diameter =	Epicondylar breadth =

Tibia	Fibula
Max. Prox Epi Breadth =	Max. Diam of Head =
Max. Diam at Midshaft =	Max. Diam at Midshaft =
Max. Distal Epi Breadth =	Max Distal Diameter =

NONMETRICS:

(1=M, 2=Int. M, 3=Ambiguous, 4=Int. F, 5=F)

Humerus	Os Coxae
Medial epicondylar symmetry:	Subpub concavity:
Trochlear extension:	Subpub angle width:
Olecranon fossa shape:	Ischiopub ramus W:
Angle of medial epicondyle:	Greater sciatic notch:

APPENDIX B: Specimens used for geometric morphometric analysis – young white females

Number	Specimen Number	View Present/ Absent	Reason
1	5079	Absent SUB, SCI view	No os coxae available
2	2819	Present	
3	3069	Absent SUB, SCI view	No os coxae available
4	3275	Present	
5	3617	Present	
6	6782	Present	
7	4247	Present	
8	4678	Present	
9	3486	Present	
10	15683	Present	
11	6068	Present	
12	6338	Present	
13	6512	Present	

APPENDIX C: Specimens used for geometric morphometric analysis – young black females.

Number	Specimen Number	View Present/ Absent	Reason
1	1543	Absent SUB, SCI view	No os coxae available
2	2866	Present	
3	3041	Present	
4	3120	Present	
5	3266	Present	
6	3385	Present	
7	3609	Present	
8	3843	Present	
9	3854	Absent SUB, SCI view	No os coxae available
10	4198	Absent SUB, SCI view	No os coxae available
11	4256	Present	
12	4436	Present	
13	4448	Absent SUB view	Degraded pubic area
14	4598	Absent SUB, SCI view	No so coxae available
15	4604	Present	
16	4786	Present	
17	4956	Present	
18	5086	Present	
19	5150	Present	
20	5201	Present	
21	5259	Present	
22	5286	Absent SUB view	Degraded pubic area
23	5306	Present	
24	5335	Absent SUB view	Degraded pubic area
25	5384	Present	
26	5628	Present	
27	5692	Present	
28	5797	Present	
29	5878	Present	
30	5932	Present	
31	5957	Present	
32	6000	Present	
33	6094	Present	
34	6139	Present	
35	6157	Present	
36	6177	Present	
37	6192	Present	
38	5256	Present	
39	6290	Present	
40	6358	Present	
41	6372	Present	
42	6390	Present	
43	5767	Present	
44	5714	Present	
45	4060	Absent SUB, SCI view	No os coxae available
46	3154	Present	
47	5783	Present	
48	5316	Present	
49	5079	Absent SUB, SCI view	Bilaterally fused sacro-iliac joint
50	5892	Present	

APPENDIX D: Specimens used for geometric morphometric analysis – old black females.

Number	Specimen Number	View Present/ Absent	Reason
1	4763	Present	
2	1855	Present	
3	5018	Present	
4	5073	Present	
5	5148	Present	
6	5197	Present	
7	5511	Present	
8	5602	Present	
9	5682	Present	
10	5705	Present	
11	5717	Present	
12	5319	Present	
13	5342	Absent SUB, SCI view	No os coxae available
14	3015	Absent SUB view	Degraded pubic area
15	4584	Absent EPI, OL view	No humerus available
16	5013	Present	
17	2632	Present	
18	2900	Absent SUB, SCI view	No os coxae available
19	4564	Present	
20	4240	Present	
21	3538	Present	
22	1803	Absent SUB, SCI view	No os coxae available
23	6315	Present	
24	6328	Present	
25	6369	Present	
26	5005	Present	
27	4417	Absent SUB, SCI view	No os coxae available
28	5785	Present	
29	5635	Present	
30	5654	Present	
31	1696	Present	
32	2885	Present	
33	4990	Present	
34	5292	Present	
35	5316	Present	
36	5390	Present	
37	5698	Present	
38	6024	Present	
39	6388	Present	
40	4492	Present	
41	4998	Present	
42	5708	Present	
43	2905	Present	
44	2939	Present	
45	5323	Present	
46	5203	Present	
47	5033	Present	
48	5629	Present	
49	5039	Present	
50	5734	Absent SUB view	Degraded pubic area
51	4543	Present	

APPENDIX E: Specimens used for geometric morphometric analysis – old white females.

Number	Specimen Number	View Present/ Absent	Reason
1	5098	Present	
2	5270	Present	
3	5406	Present	
4	5452	Present	
5	5489	Present	
6	5610	Absent SUB view	Degraded pubic area
7	5634	Present	
8	5660	Present	
9	5716	Present	
10	5790	Absent SUB view	Degraded pubic area
11	5818	Present	
12	5373	Present	
13	7402	Present	
14	7329	Present	
15	7743	Present	
16	7798	Present	
17	7622	Present	
18	7419	Present	
19	7549	Present	
20	7865	Present	
21	7683	Present	
22	7677	Absent SUB view	Degraded pubic area
23	7685	Present	
24	7781	Present	
25	7864	Present	
26	7857	Present	
27	7818	Present	
28	7356	Present	
29	7094	Present	
30	7009	Present	
31	6837	Present	
32	7083	Present	
33	6997	Present	
34	6686	Present	
35	6420	Present	
36	6170	Present	
37	6168	Present	
38	4837	Present	
39	6407	Present	
40	6166	Present	
41	4047	Present	
42	4787	Present	
43	6003	Present	
44	5962	Present	
45	5858	Absent SCI view	Degraded sciatic notch area
46	5677	Present	
47	5499	Present	
48	5898	Present	
49	5437	Present	
50	5827	Present	

APPENDIX F: Specimens used for geometric morphometric analysis – old black males.

Number	Specimen Number	View Present/ Absent	Reason
1	2865	Present	
2	2978	Present	
3	3441	Present	
4	3700	Present	
5	4244	Present	
6	4258	Present	
7	4265	Present	
8	4396	Absent SUB view	Os coxae/ sacral fusion
9	4405	Present	
10	4542	Present	
11	4608	Present	
12	4617	Present	
13	4731	Present	
14	4947	Present	
15	4961	Present	
16	5000	Present	
17	5020	Present	
18	5024	Present	
19	5053	Present	
20	5063	Present	
21	5144	Present	
22	5149	Present	
23	5170	Present	
24	5175	Present	
25	5177	Present	
26	5209	Absent SUB view	Degraded pubic area
27	5222	Present	
28	5260	Present	
29	5265	Absent SUB view	Degraded pubic area
30	5273	Present	
31	5287	Absent SUB, SCI view	No os coxae available
32	5365	Present	
33	5372	Present	
34	5392	Present	
35	5447	Present	
36	5461	Present	
37	5466	Present	
38	5513	Present	
39	5532	Present	
40	5535	Present	
41	5566	Present	
42	5646	Present	
43	5665	Absent SUB, SCI view	No os coxae available
44	5753	Present	
45	5772	Present	
46	5805	Present	
47	5837	Present	
48	5309	Present	
49	5142	Present	
50	4979	Present	
51	5050	Present	
52	5078	Present	
53	5167	Present	

APPENDIX G: Specimens used for geometric morphometric analysis – old white males.

Number	Specimen Number	View Present/ Absent	Reason
1	4372	Present	
2	4837	Present	
3	5127	Present	
4	5434	Present	
5	5476	Present	
6	5531	Present	
7	5673	Present	
8	5684	Present	
9	5777	Present	
10	5805	Present	
11	5864	Present	
12	5877	Present	
13	5908	Present	
14	5348	Present	
15	4601	Present	
16	5907	Present	
17	3299	Present	
18	3012	Present	
19	3292	Present	
20	3295	Present	
21	3201	Present	
22	3311	Present	
23	3567	Present	
24	3446	Present	
25	3243	Present	
26	3193	Present	
27	3188	Absent SUB view	Degraded pubic area
28	3432	Present	
29	3474	Present	
30	3453	Present	
31	3242	Present	
32	4006	Present	
33	5715	Present	
34	5225	Present	
35	4953	Present	
36	5949	Absent SUB view	Degraded pubic area
37	5929	Present	
38	5587	Present	
39	5731	Present	
40	5784	Present	
41	5407	Present	
42	5642	Present	
43	5325	Present	
44	5724	Present	
45	5873	Present	
46	4589	Present	
47	5759	Present	
48	5711	Present	
49	5872	Present	
50	5304	Absent SUB view	Degraded pubic area
51	5570	Present	
52	6223	Present	

APPENDIX H: Specimens used for geometric morphometric analysis – young black males.

Number	Specimen Number	View Present/ Absent	Reason
1	1694	Present	
2	2019	Present	
3	2858	Present	
4	2889	Present	
5	2991	Present	
6	3096	Present	
7	3153	Absent EPI view	No medial epicondyle
8	3298	Present	
9	3561	Absent SUB, SCI view	No os coxae available
10	4236	Present	
11	4522	Present	
12	4535	Present	
13	4599	Present	
14	4794	Present	
15	4948	Absent SCI view	Degraded sciatic notch area
16	5010	Present	
17	5022	Present	
18	5025	Absent SUB view	Degraded pubic area
19	5031	Present	
20	5037	Present	
21	5080	Present	
22	5082	Present	
23	5124	Present	
24	5130	Present	
25	5152	Present	
26	5192	Present	
27	5262	Present	
28	5293	Present	
29	5351	Present	
30	5354	Present	
31	5361	Present	
32	5369	Present	
33	5394	Present	
34	5415	Present	
35	5428	Present	
36	5429	Present	
37	5431	Present	
38	5493	Present	
39	5569	Present	
40	5572	Present	
41	5591	Present	
42	5627	Present	
43	5638	Present	
44	5656	Absent SCI view	Degraded sciatic notch area
45	5663	Present	
46	5670	Present	
47	5691	Present	
48	5751	Present	
49	5761	Present	
50	5816	Present	
51	5856	Present	
52	5870	Present	
53	5885	Present	
54	5904	Present	
55	6353	Present	
56	6391	Present	
57	5868	Present	

APPENDIX I: Specimens used for geometric morphometric analysis – young white males.

Number	Specimen Number	View Present/ Absent	Reason
1	4220	Present	
2	6109	Present	
3	115	Present	
4	4485	Present	
5	3632	Present	
6	3441	Present	
7	3142	Present	
8	2546	Present	
9	4296	Present	
10	2656	Present	
11	3106	Present	
12	6680	Present	
13	3291	Present	
14	2615	Present	
15	2467	Present	
16	1835	Present	
17	814	Present	
18	7327	Present	
19	7507	Absent OL view	Pathology
20	6675	Present	
21	7147	Present	
22	8317	Present	
23	6046	Absent SUB, SCI view	No os coxae available
24	6008	Present	

APPENDIX J: Means, standard deviations, and univariate F-ratios for postcranial measurements of males and females, intra-observer results.

	Males					Females				Univariate
Variables (mm)		Mean	Range	s.d.	S.E.		Mean	Range	s.d.	S.E.	F-ratio
	N					*N*					
Humerus:											
Vertical head diameter	11	46.1		3.87	0.2	20	40.4		3.26	0.2	**19.26***
Maximum midshaft diameter	11	23.7		1.78	0.1	20	20.7		2.12	0.1	**15.32***
Epicondylar breadth	11	64.4		3.90	0.2	20	56.5		3.36	0.2	**34.38***
Midshaft circumference	11	70.4		5.23	0.3	20	61.6		4.84	0.3	**22.12***
Pelvis:											
Pelvis length	11	210.9		15.23	0.1	19	193.9		13.97	0.1	**9.57***
Pelvis breadth	11	153.2		9.65	0.1	19	148.8		11.51	0.1	1.15
Pubis length	11	67.0		7.03	0.2	20	71.3		8.55	0.2	1.98
Ischium length	11	80.7		6.16	0.1	20	78.6		6.71	0.1	0.76

**** p-values significant at <0.05***

APPENDIX K: statistical analyses of non-metric humerus characteristics, intra-observer results.

Distribution of classification, all males and females, trochlear extension.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1	2	3	4	5	
SEX	Male	5 (46%)	3 (27%)	2 (18%)	1 (9%)	0 (0%)	11
	Female	8 (40%)	4 (20%)	3 (15%)	5 (25%)	0 (0%)	20
Total		13	7	5	6	0	*N* = 31

Pearson's chi square value=1.189, df=3, p=0.76>0.05

Distribution of classification, all males and females, olecranon fossa shape.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1	2	3	4	5	
SEX	Male	2 (18%)	6 (55%)	2 (18%)	1 (9%)	0(0%)	11
	Female	4 (20%)	7 (35%)	2 (10%)	7 (35%)	0 (0%)	20
Total		6	13	4	8	0	*N* = 31

Pearson's chi square value=2.873, df=3, p=0.412>0.05

Distribution of classification, all males and females, medial epicondylar angle.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1	2	3	4	5	
SEX	Male	4 (36%)	3 (28%)	1 (9%)	2 (18%)	1 (9%)	11
	Female	0 (0%)	2 (10%)	1 (5%)	15 (75%)	2 (10%)	20
Total		4	5	2	17	3	*N* = 31

Pearson's chi square value=12.95, df=4, p=0.01<0.05

Distribution of classification, all males and females, estimated sex from the distal humerus.

		1=M, 3=Ambiguous, 5=F					Total
		1		3		5	
SEX	Male	**10 (91%)**		0 (0%)		1 (9%)	11
	Female	5 (25%)		0 (0%)		**15 (75%)**	20
Total		15		0		16	*N*= 31

Pearson's chi square value=12.344, df=1, p=0.00<0.05

APPENDIX L: statistical analyses of non-metric pelvic characteristics, intra-observer results.

Distribution of classification for all males and females, subpubic concavity.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1	2	3	4	5	
SEX	Male	6 (55%)	5 (45%)	0 (0%)	0 (%)	0 (0%)	11
	Female	0 (0%)	0 (0%)	2 (10%)	14 (70%)	4 (20%)	20
Total		6	5	2	14	4	*N*= 31

Pearson's chi square value = 31.000, df = 4, p= 0.00<0.05

Distribution of classification for all males and females, subpubic angle.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1	2	3	4	5	
SEX	Male	4 (36%)	3 (27%)	3 (27%)	1 (9%)	0 (0%)	11
	Female	0 (0%)	0 (0%)	0 (0%)	2 (10%)	18 (90%)	20
Total		4	3	3	3	18	*N*= 31

Pearson's chi square value = 28.088, df = 4, p= 0.00<0.05

Distribution of classification for all males and females, ischio-pubic ramus width.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1	2	3	4	5	
SEX	Male	7 (64%)	1 (9%)	1 (9%)	1 (9%)	1 (9%)	11
	Female	2 (10%)	2 (10%)	1 (5%)	5 (25%)	10 (50%)	20
Total		9	3	2	6	11	*N*= 31

Pearson's Chi Square value = 11.498, df = 4, p = 0.02<0.05

APPENDIX L (continued): statistical analyses of non-metric humerus characteristics, intra-observer results.

Distribution of classification for all males and females, greater sciatic notch width.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1	2	3	4	5	
SEX	Male	5 (46%)	4 (36%)	0 (0%)	1 (9%)	1 (9%)	11
	Female	0 (0%)	0 (0%)	1 (5%)	4 (20%)	15 (75%)	20
Total		5	4	1	5	16	*N*= 31

Pearson's Chi Square Value = 23.410, df = 4, p= 0.00<0.05

Distribution of classification for all males and females, estimated sex for the pelvis.

		1=M, 2=Intermediate M. 3=Ambiguous, 4=Intermediate F, 5=F					Total
		1		3		5	
SEX	Male	11 (100%)		0 (0%)		0 (0%)	11
	Female	0 (0%)		0 (0%)		20 (100%)	20
Total		11		0		20	*N*= 31

Pearson's Chi Square Value = 31.000, df = 1, p = 0.00<0.05