Universitat Autònoma de Barcelona

INVESTIGATING EL ARGAR through forensic facial approximation

Joana Catarina Araújo Bruno

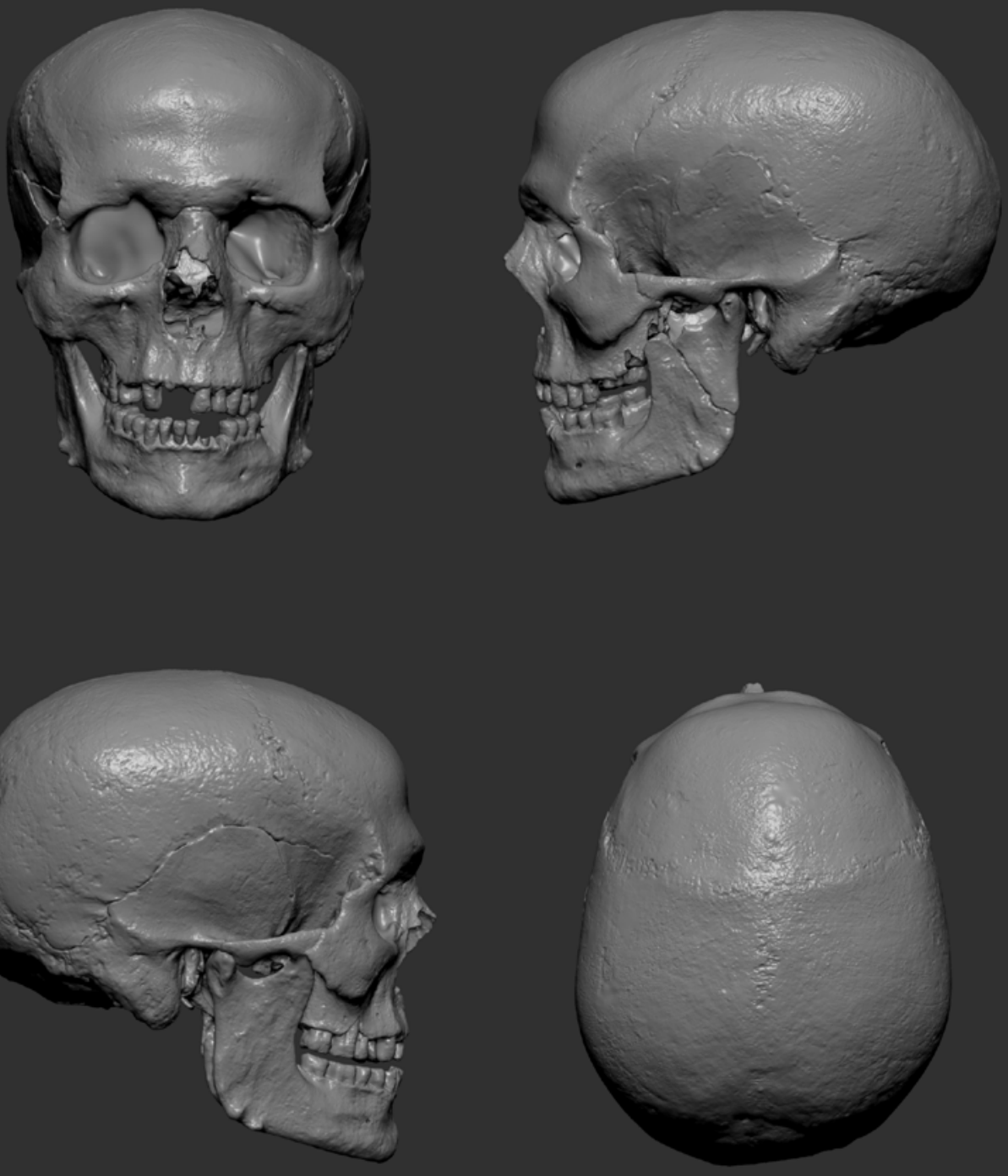
Appendix A

Argaric crania
(original state and after reconstruction)

1st level (SFA)

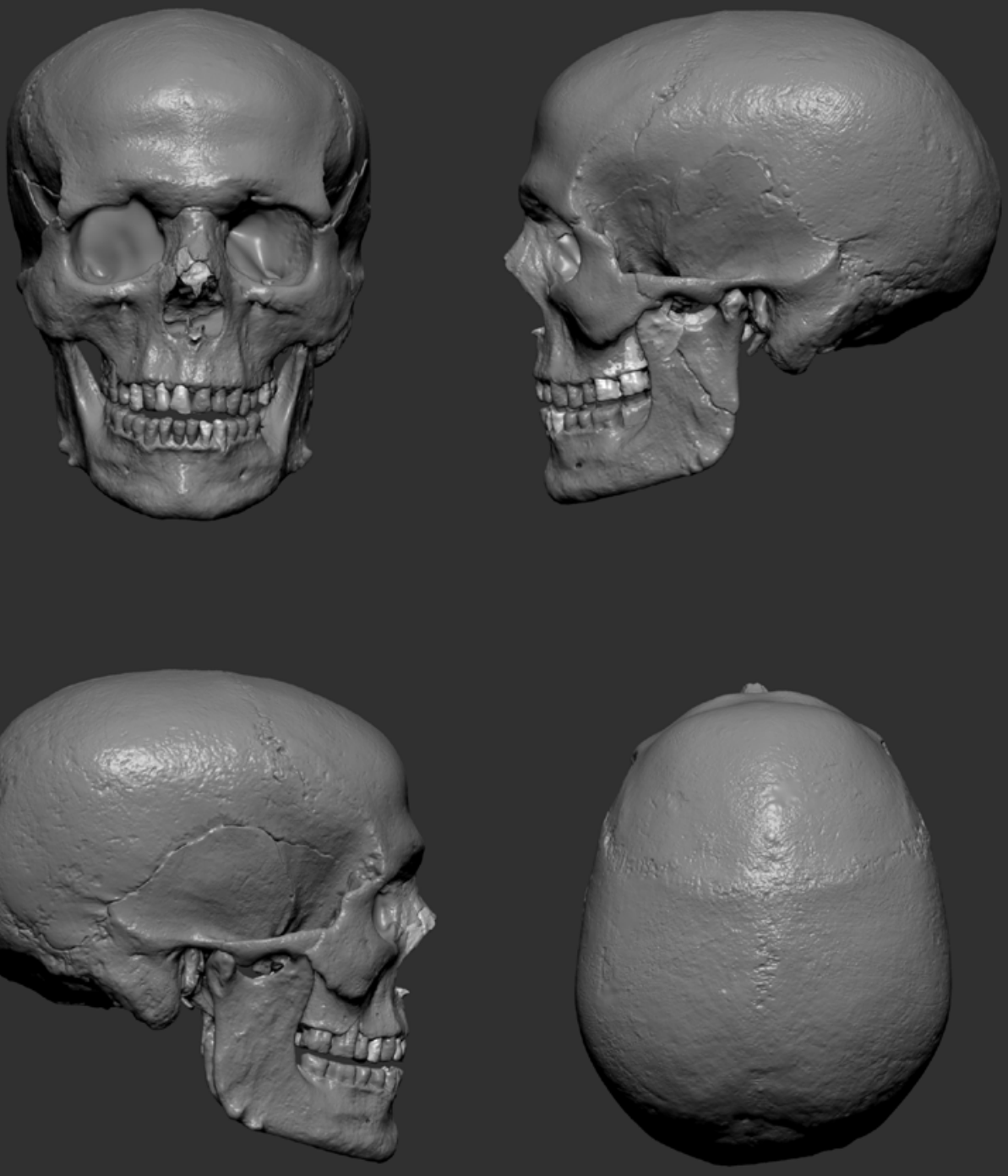
AY5

original state



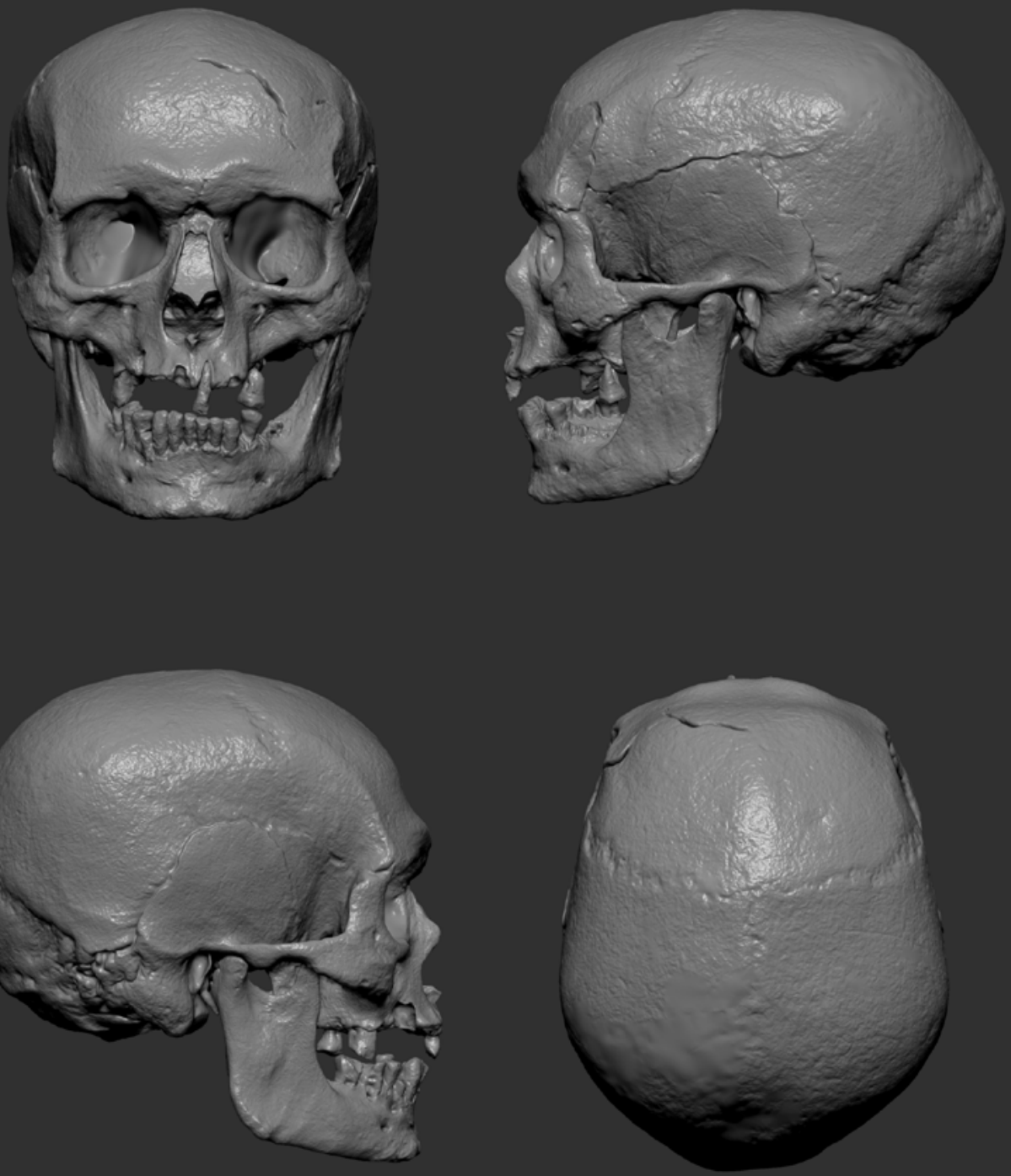
AY5

reconstructed state



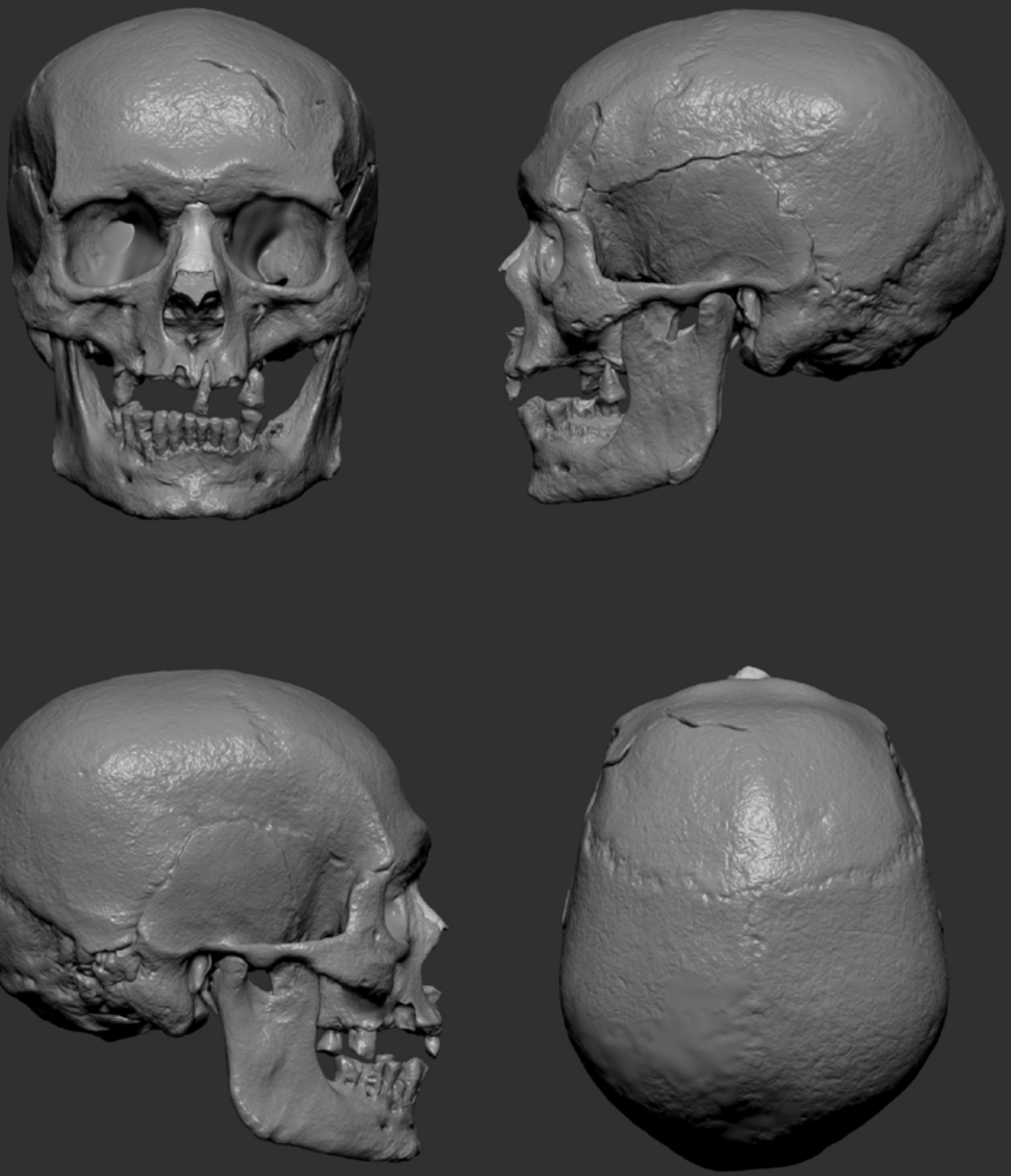
AY12

original state



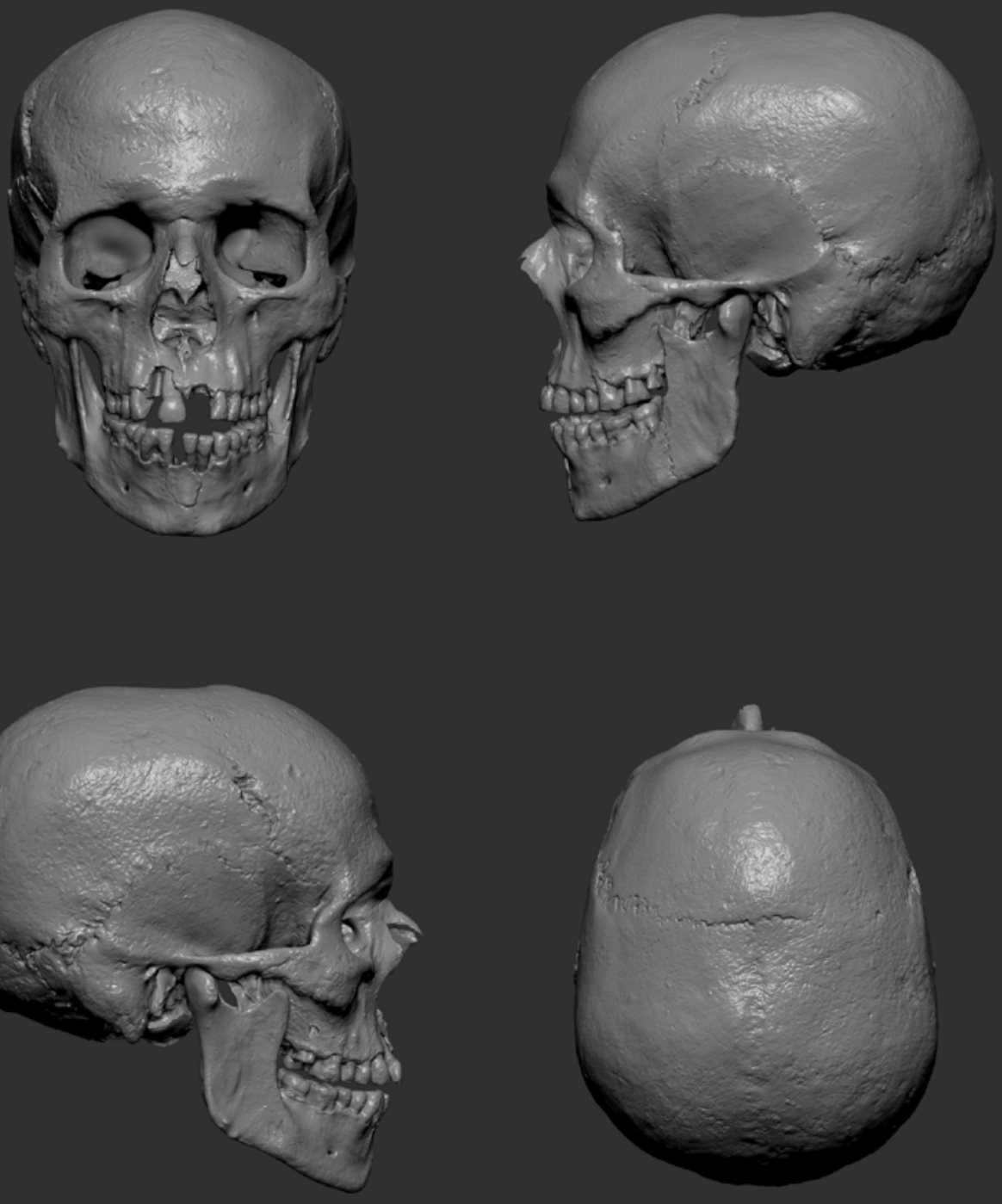
AY12

reconstructed state



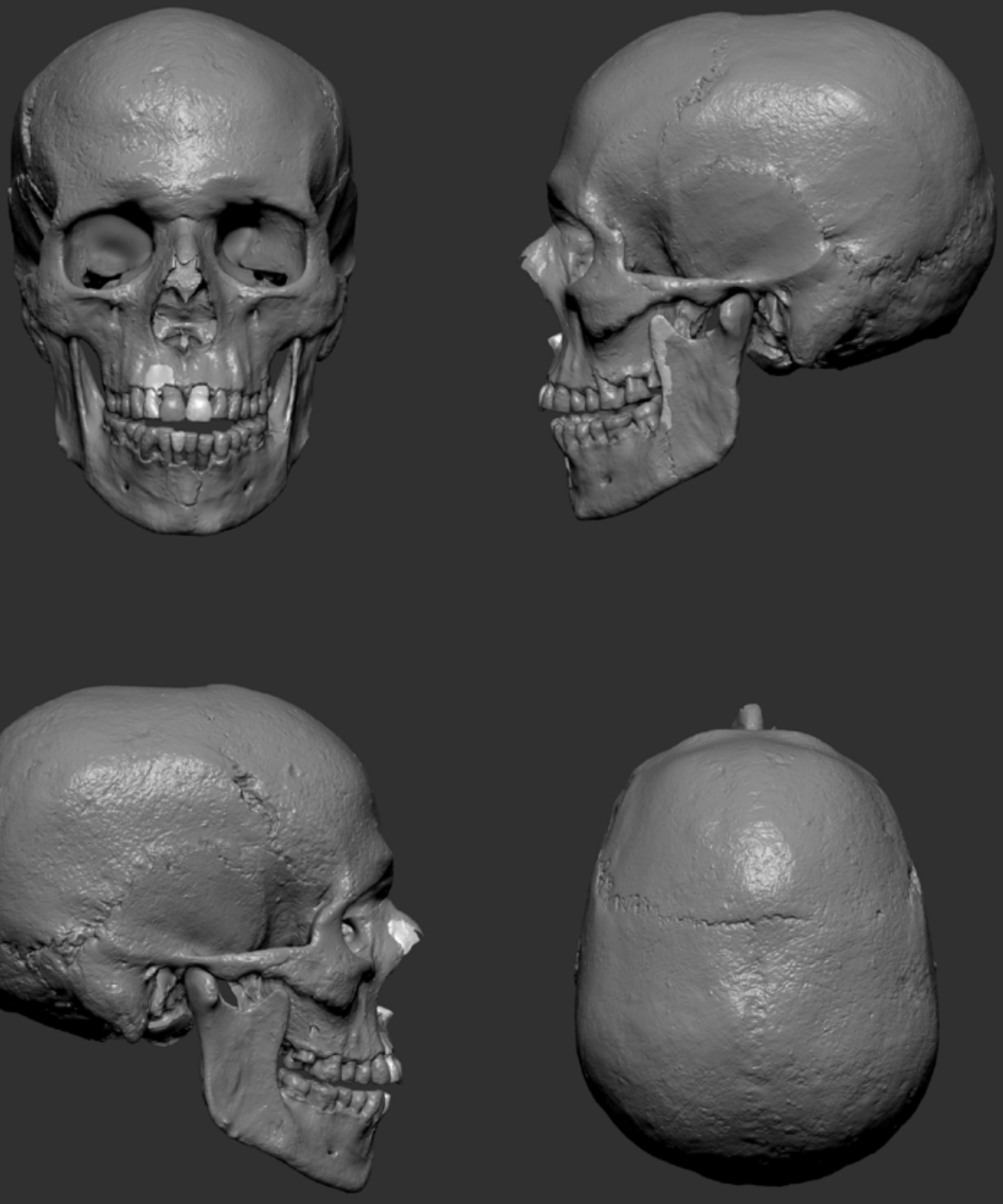
AY16

original state



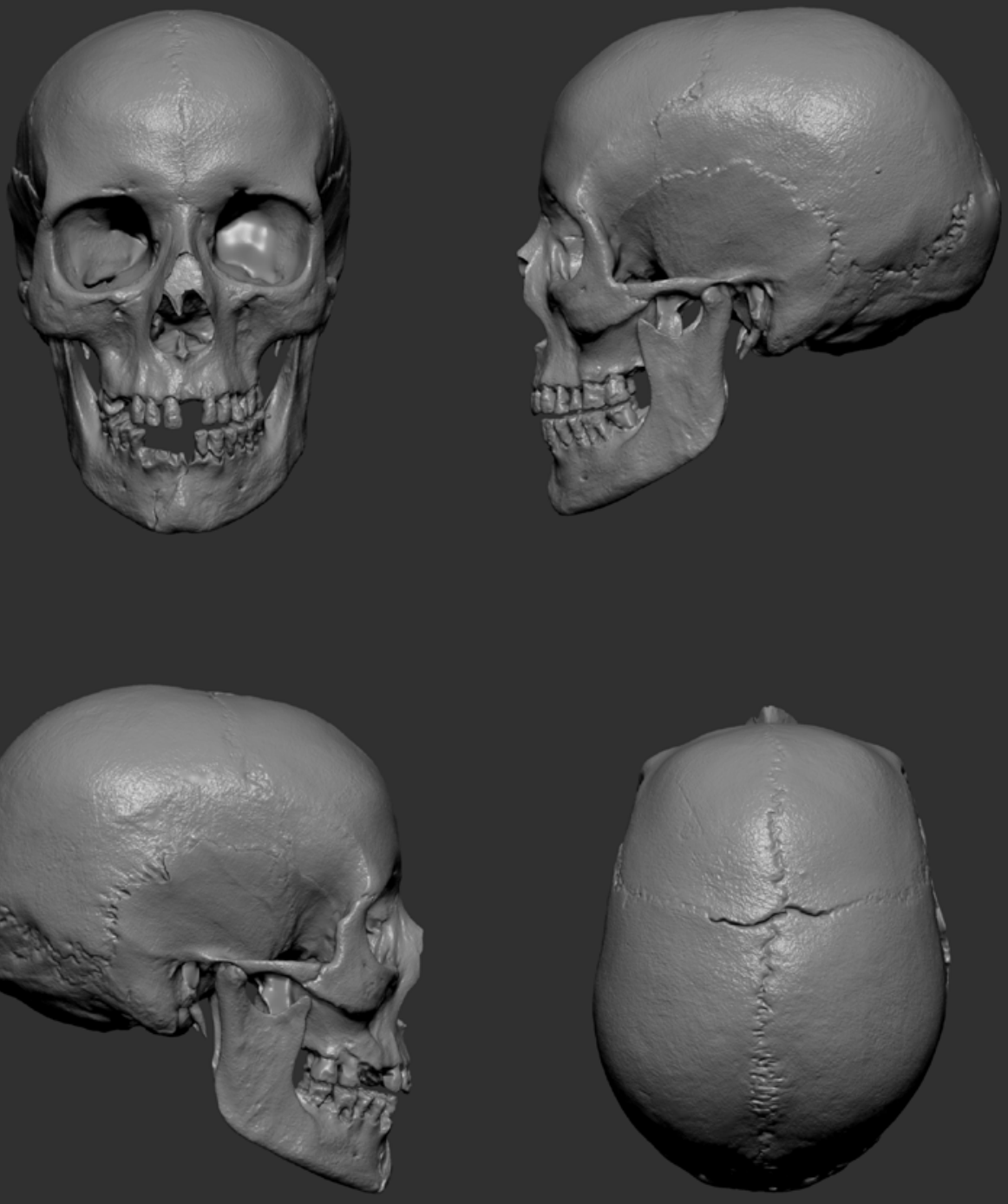
AY16

reconstructed state



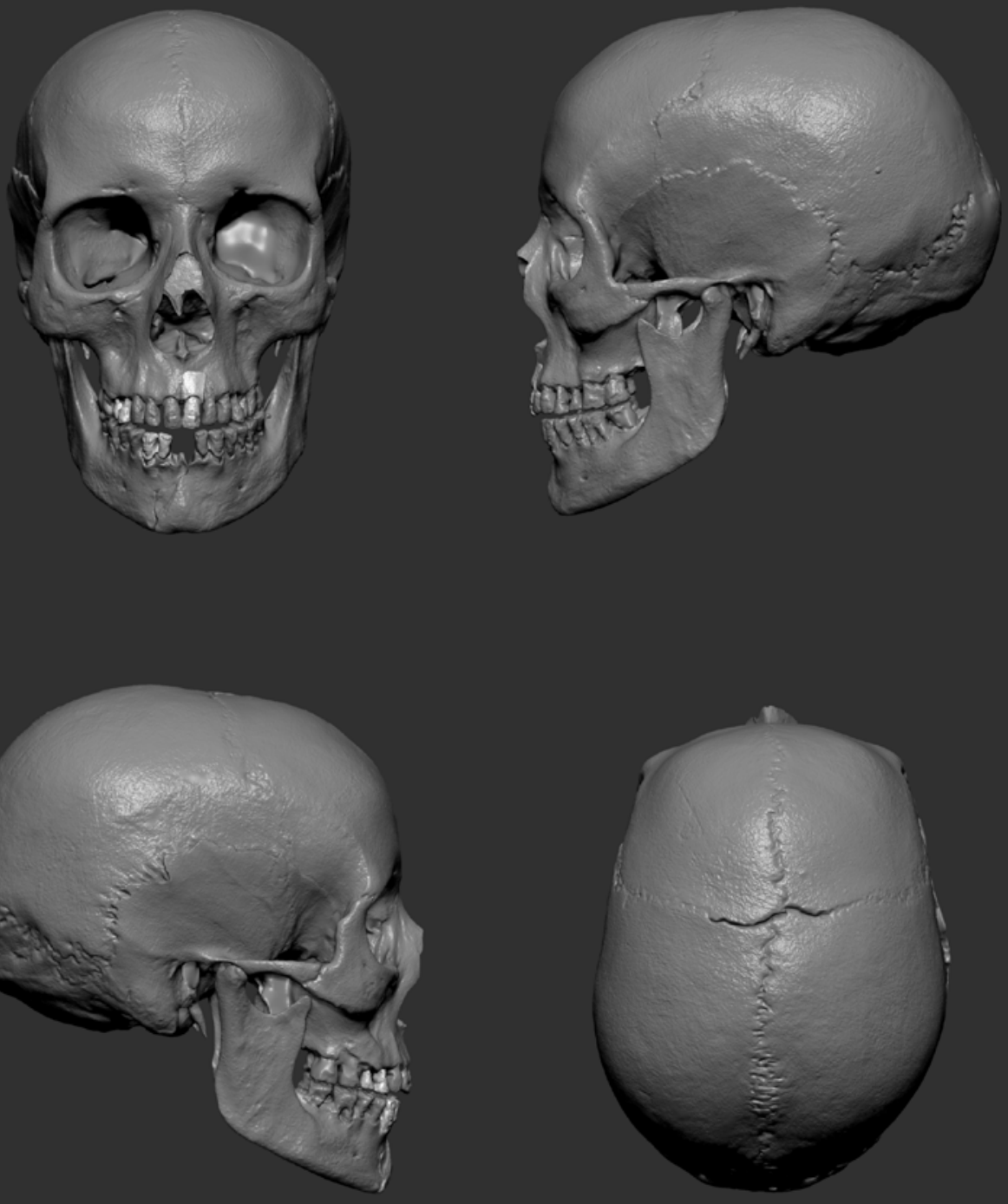
AY24 Female

original state



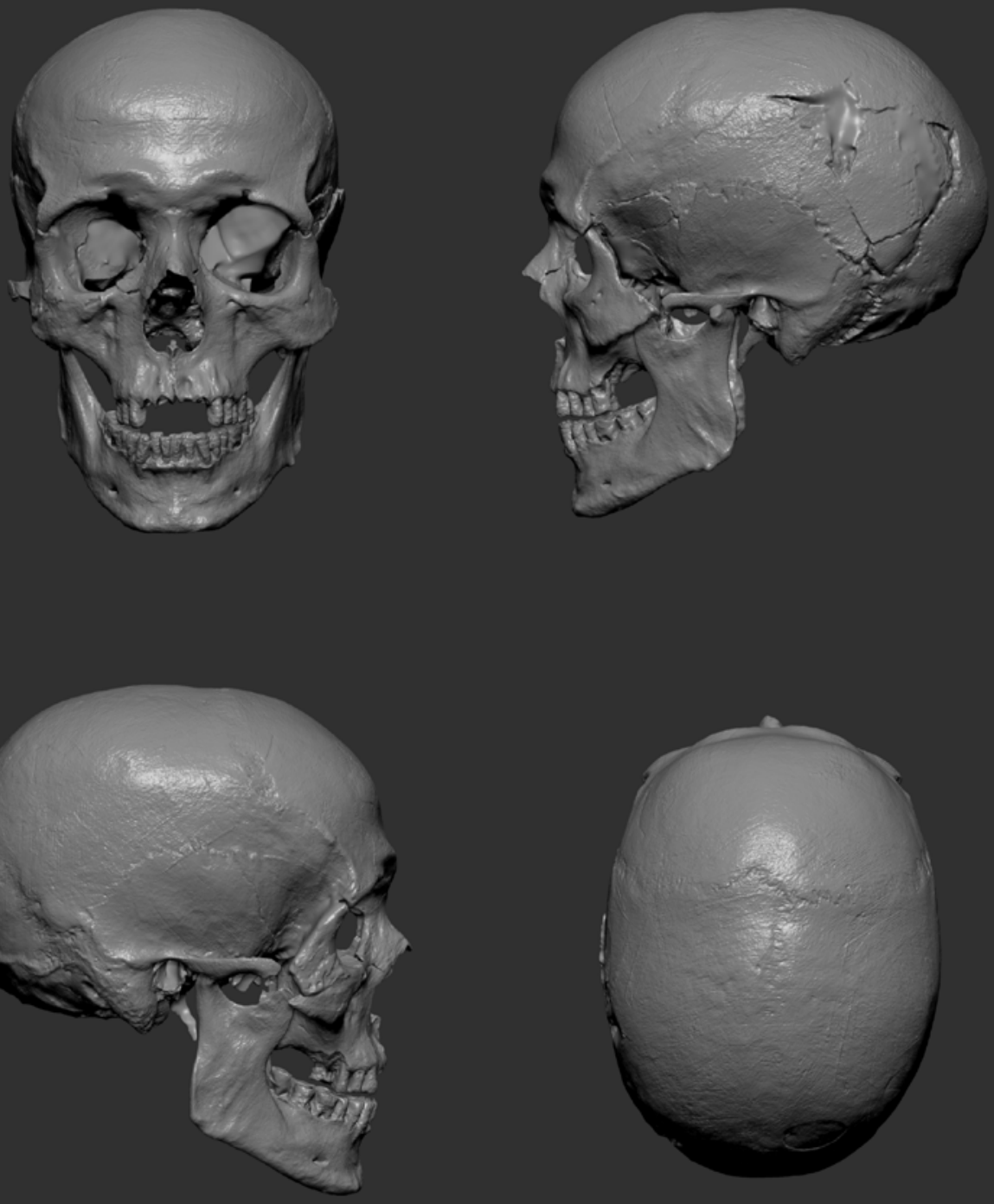
AY24 Female

reconstructed state



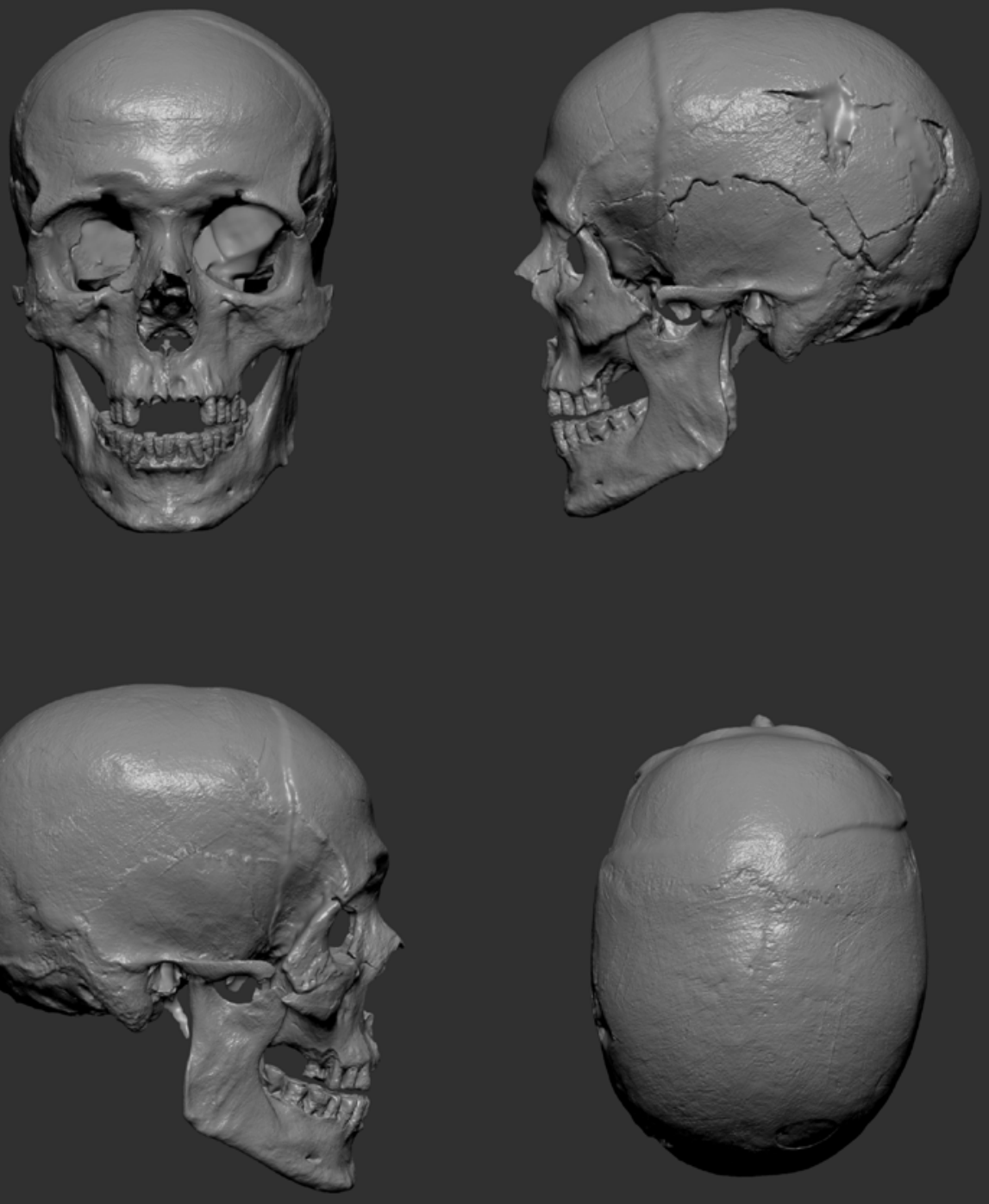
AY24 Male

original state



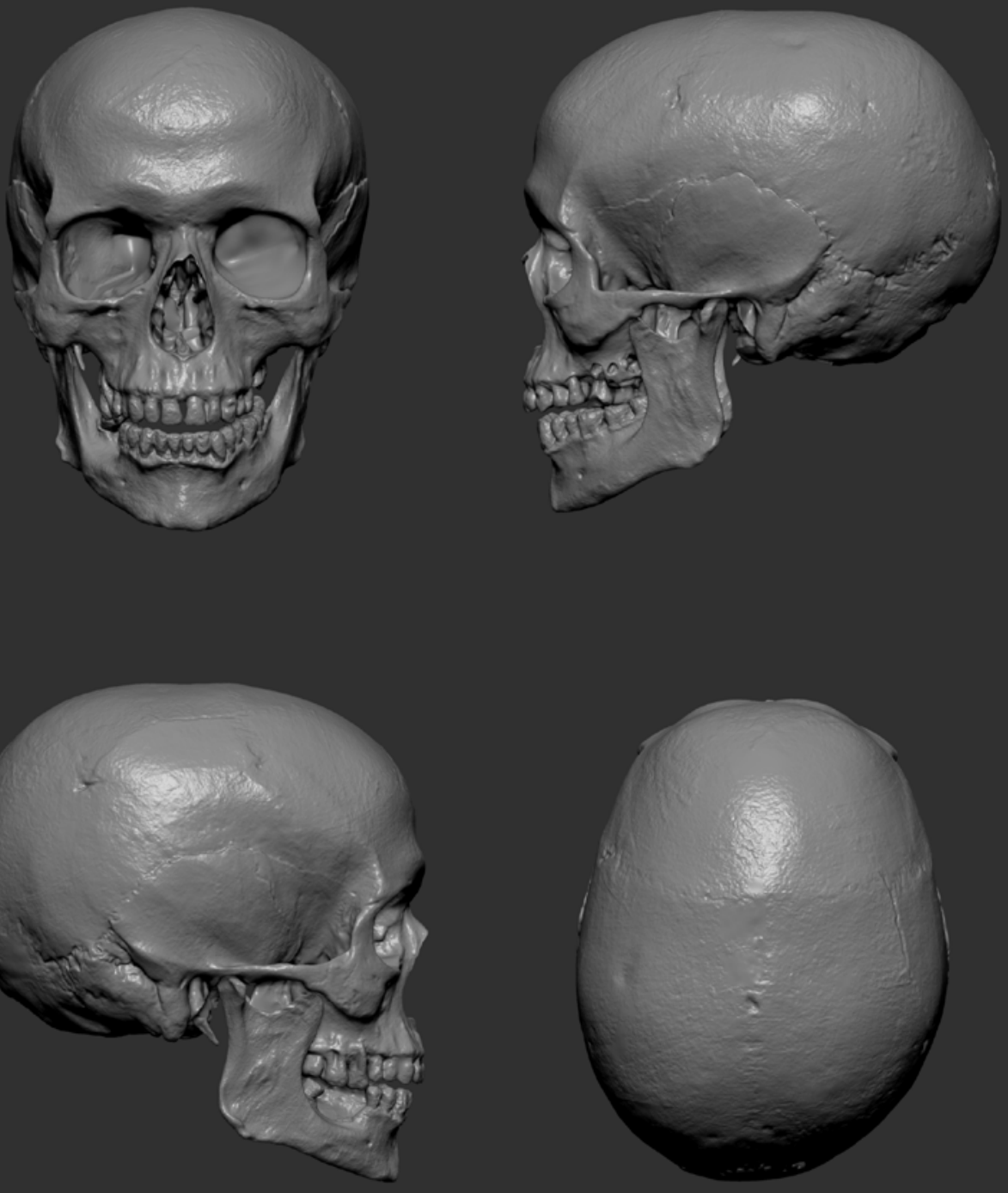
AY24 Male

reconstructed state



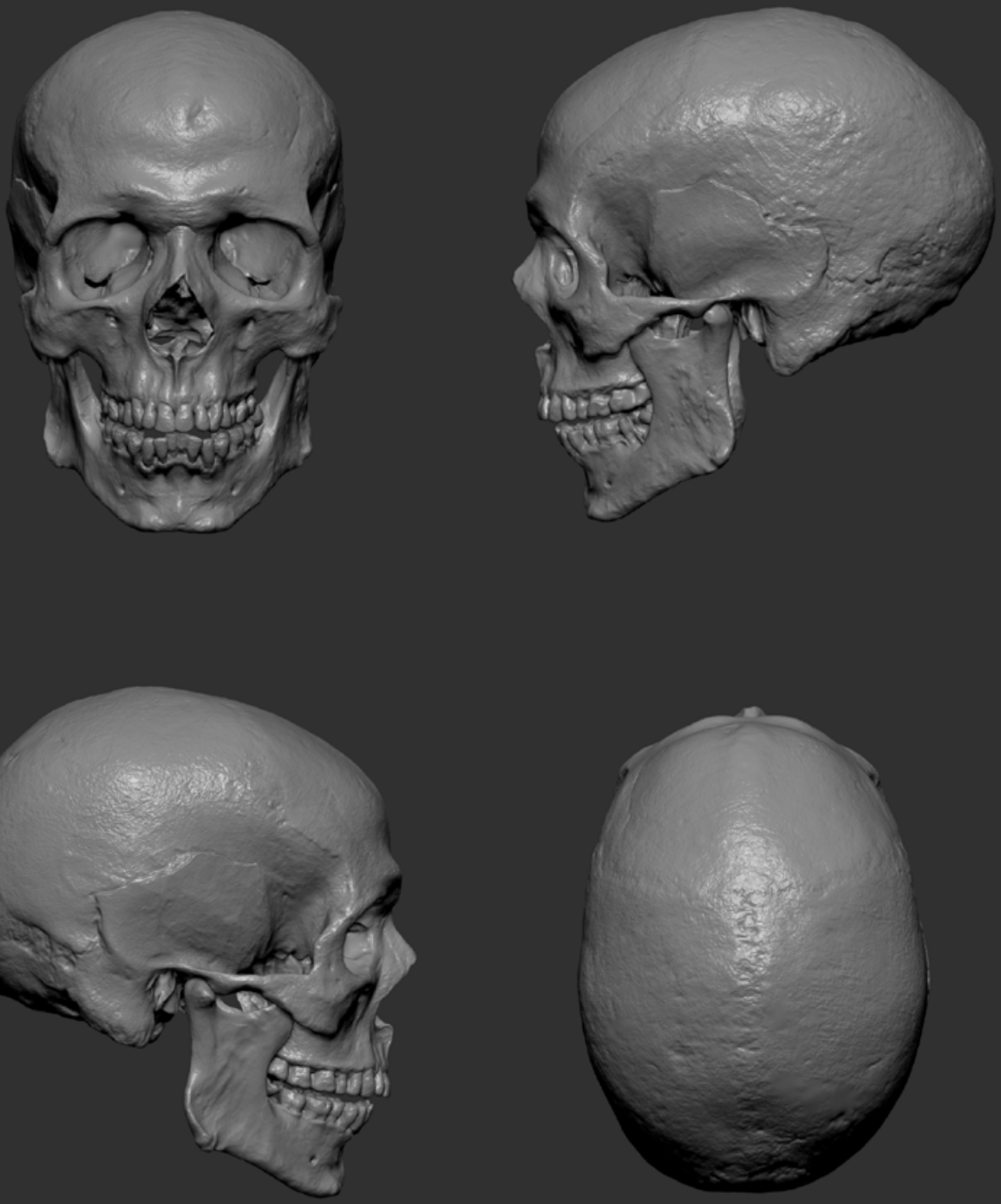
AY32

original state
(no reconstruction needed)



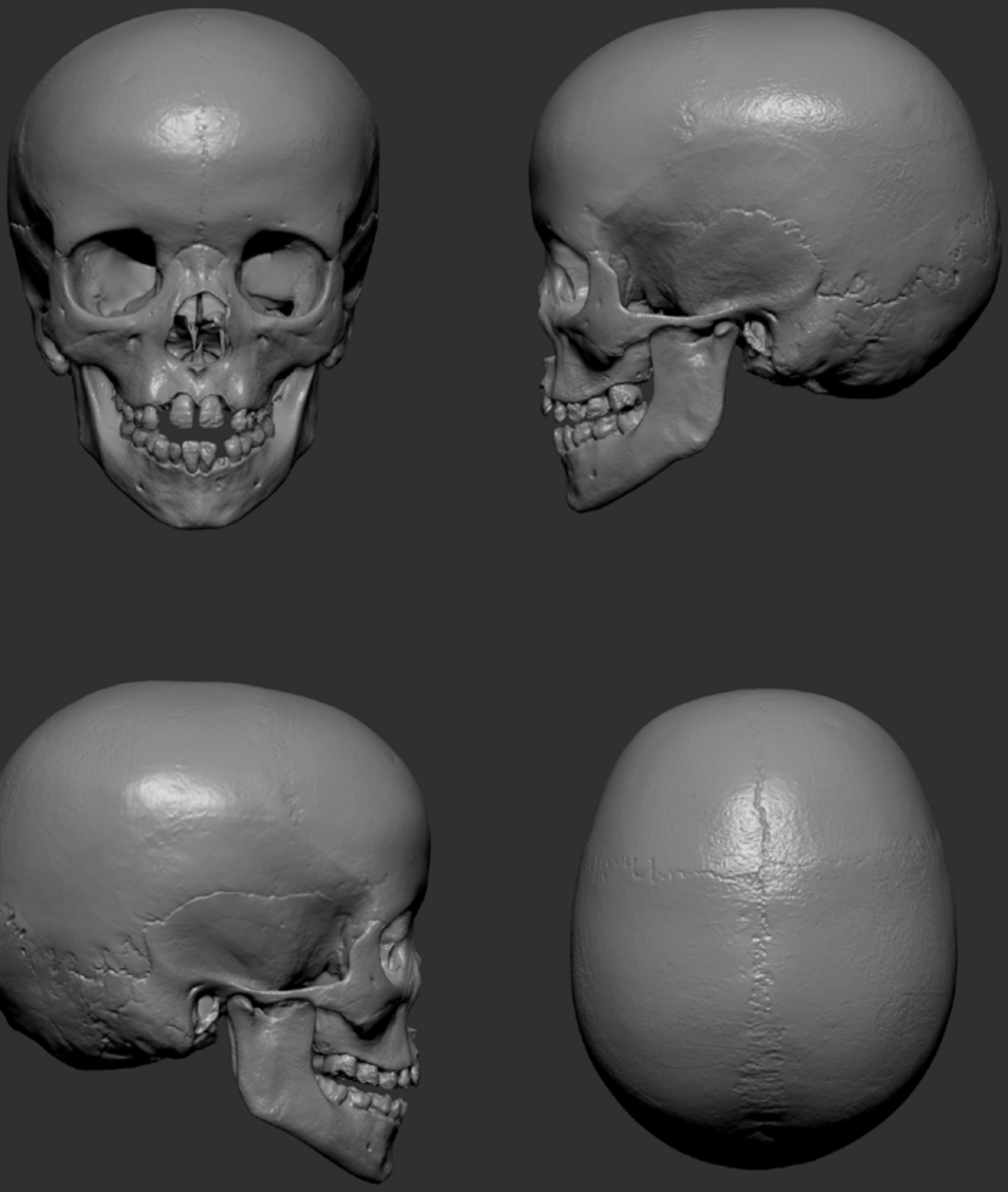
AY38 Male

original state
(no reconstruction needed)



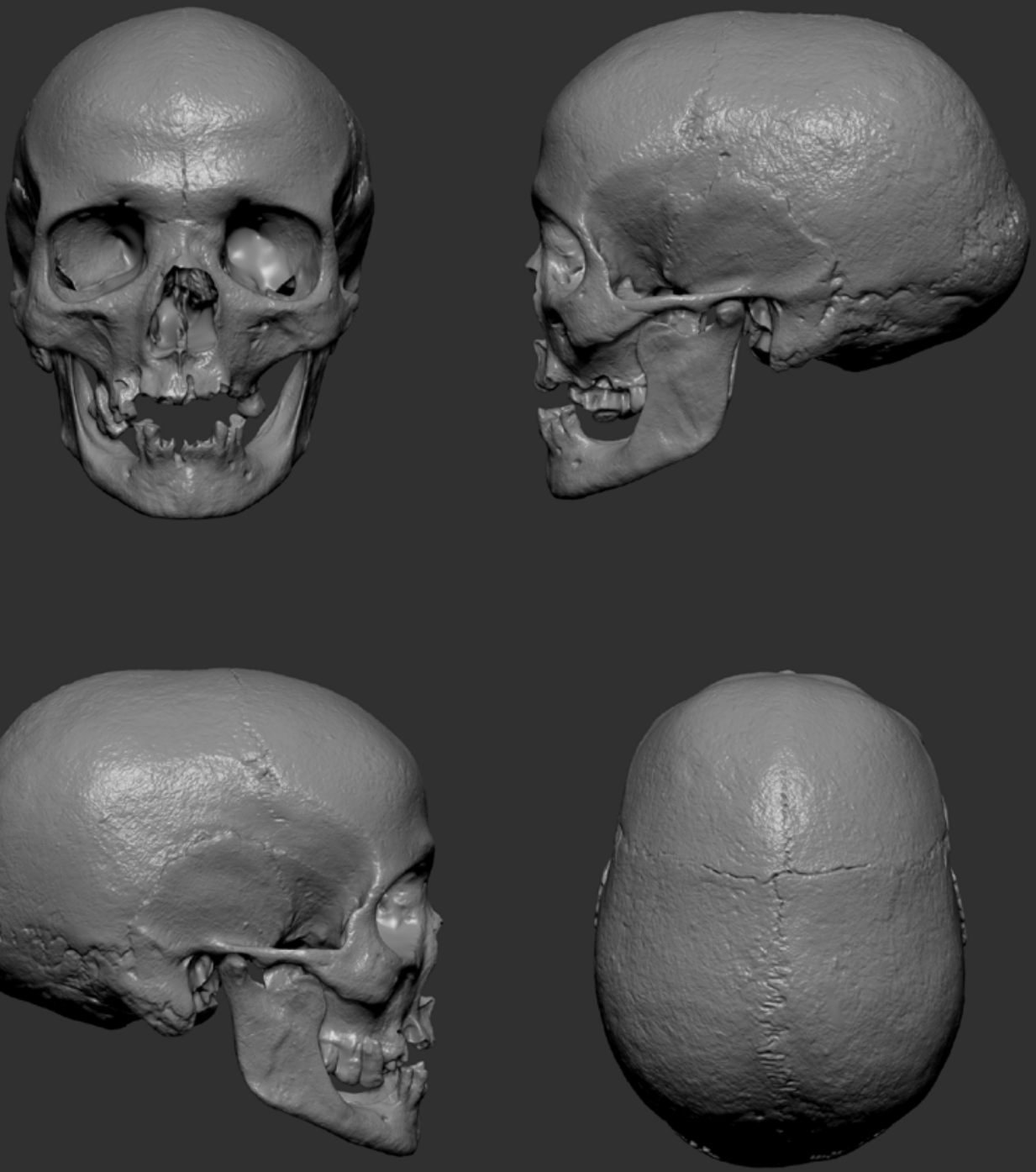
AY46

original state
(no reconstruction needed)



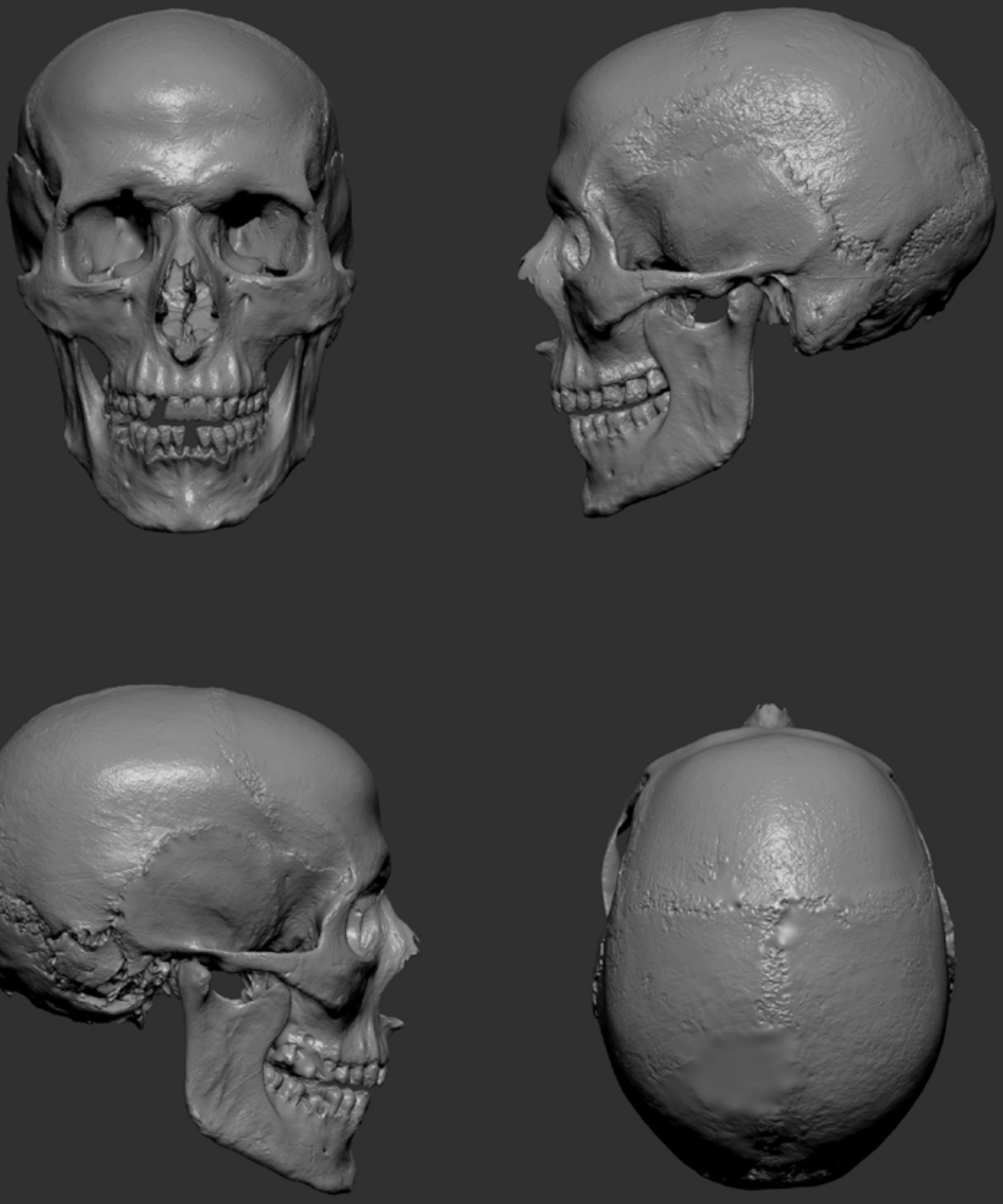
AY58

original state
(no reconstruction needed)



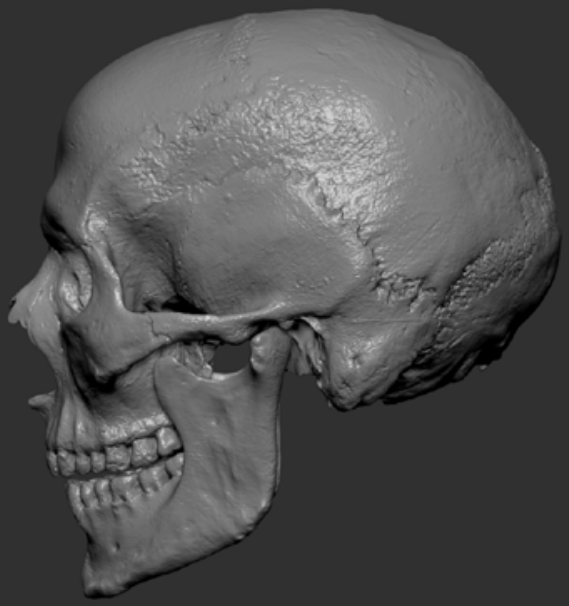
AY67

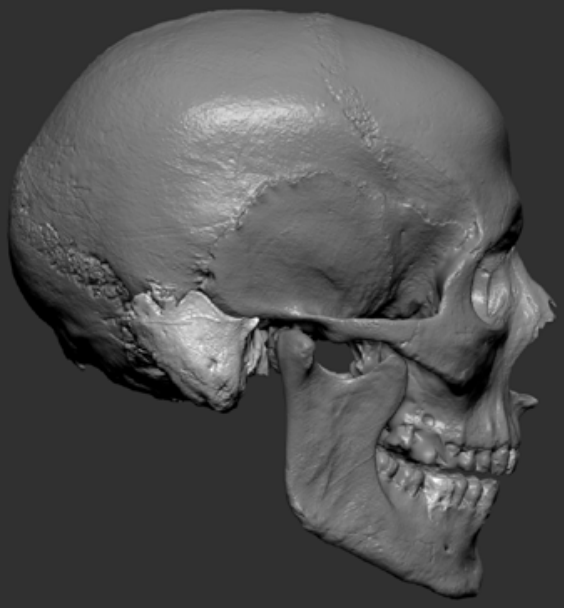
original state

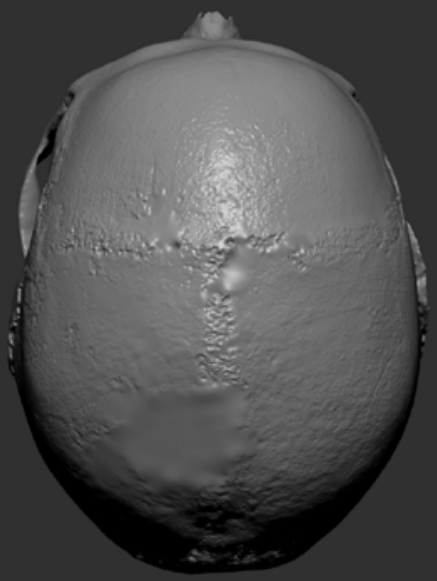


AY67

reconstructed state

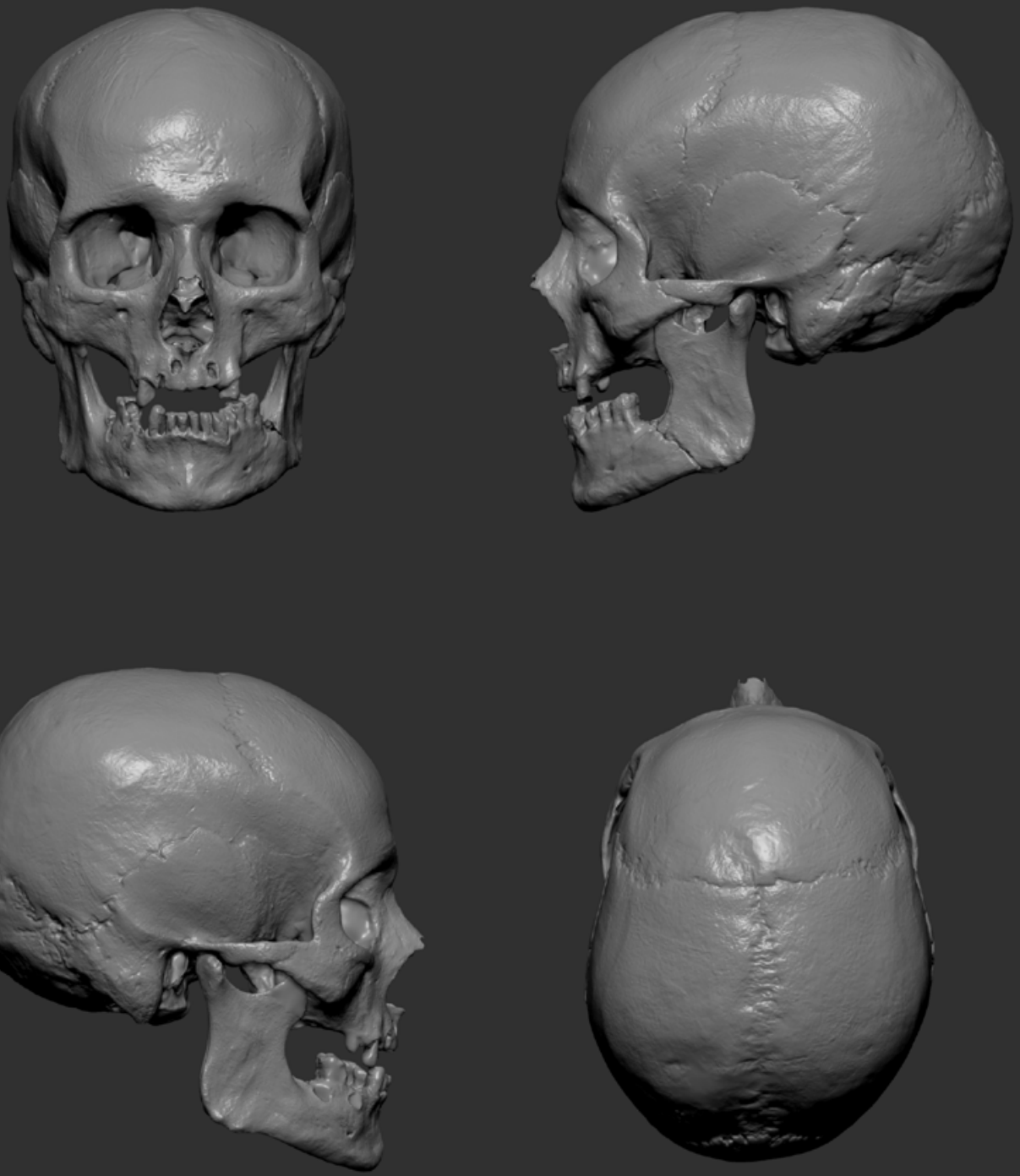






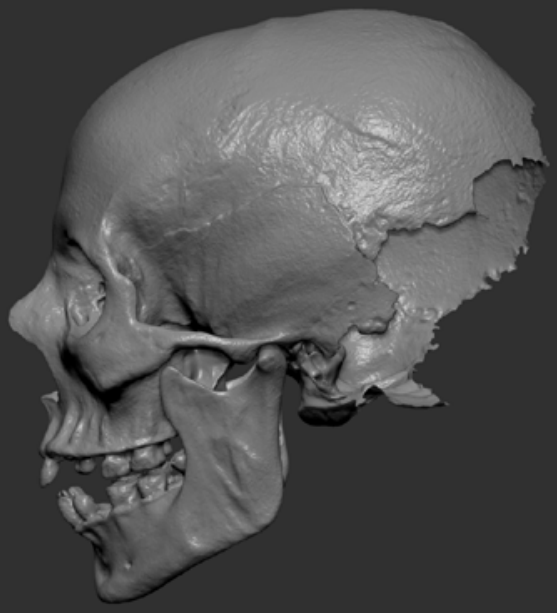
AY68 Male

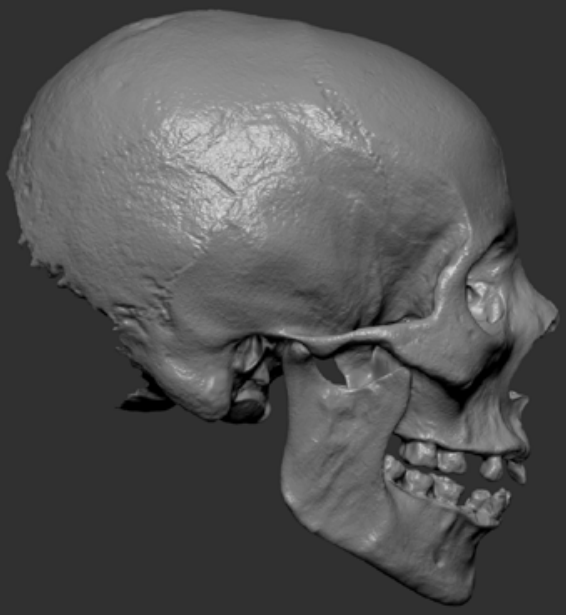
original state
(no reconstruction needed)

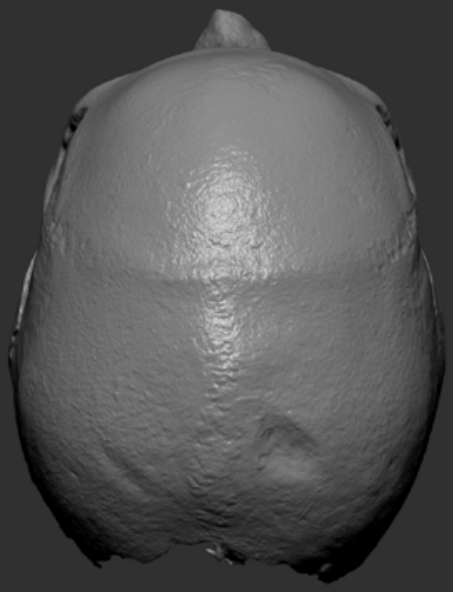


AY80 Female

original state

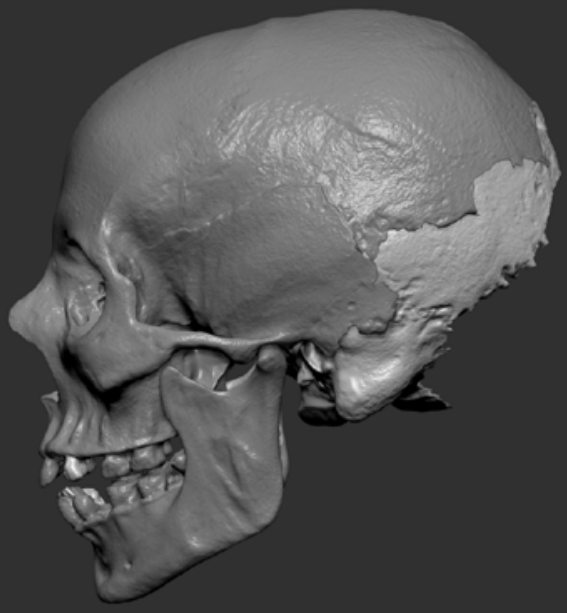


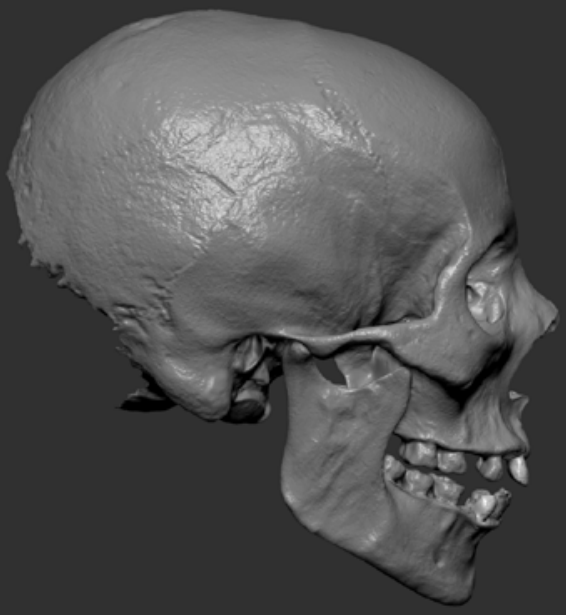


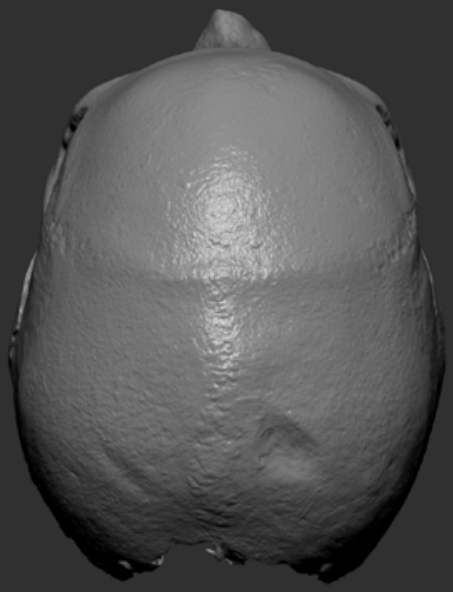


AY80 Female

reconstructed state

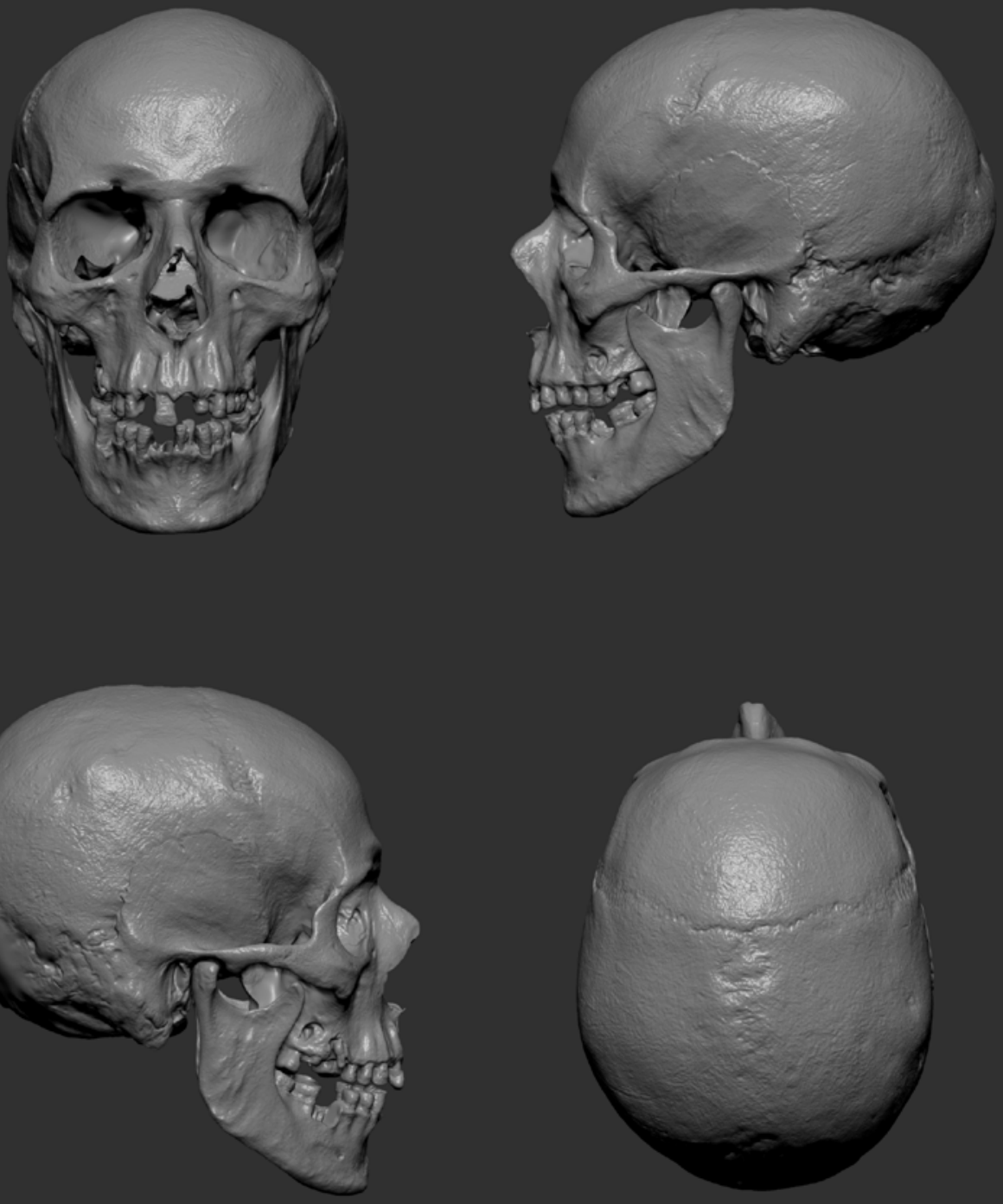






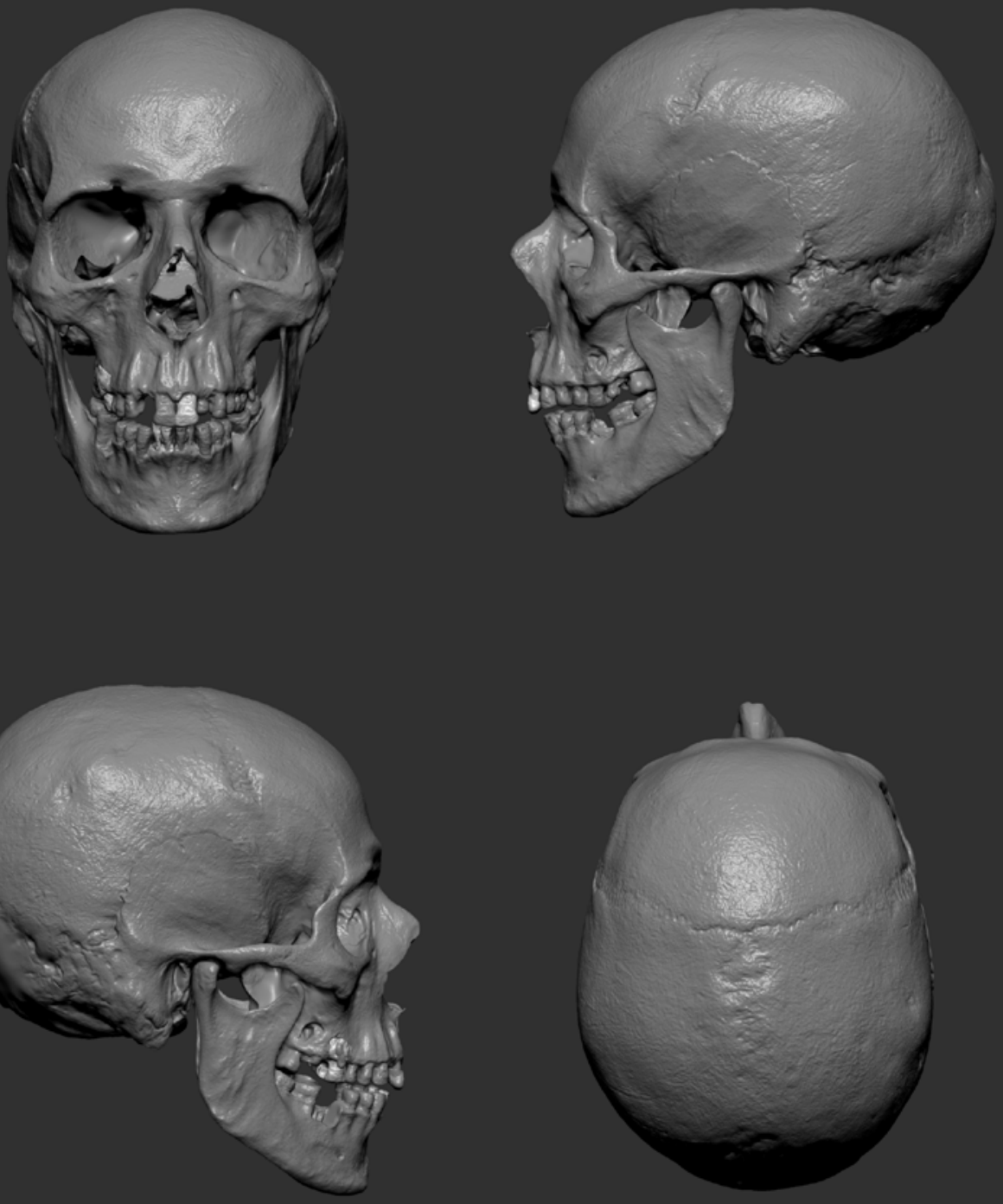
AY80 Male

original state



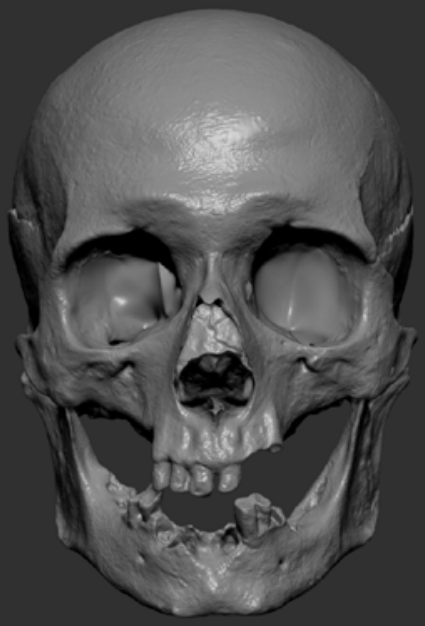
AY80 Male

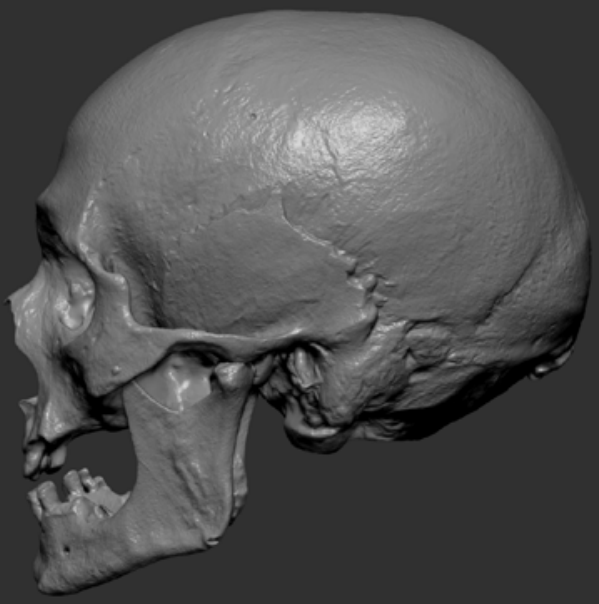
reconstructed state

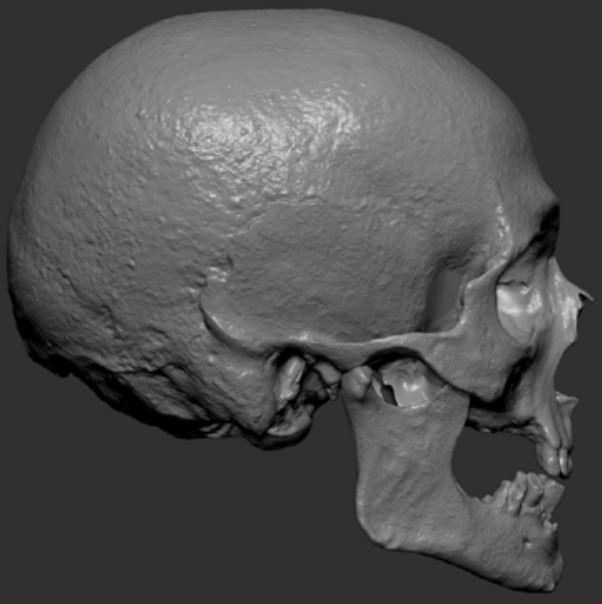


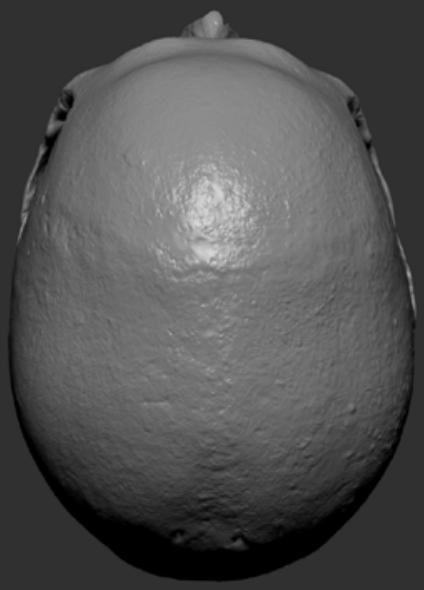
AY82 Male

original state



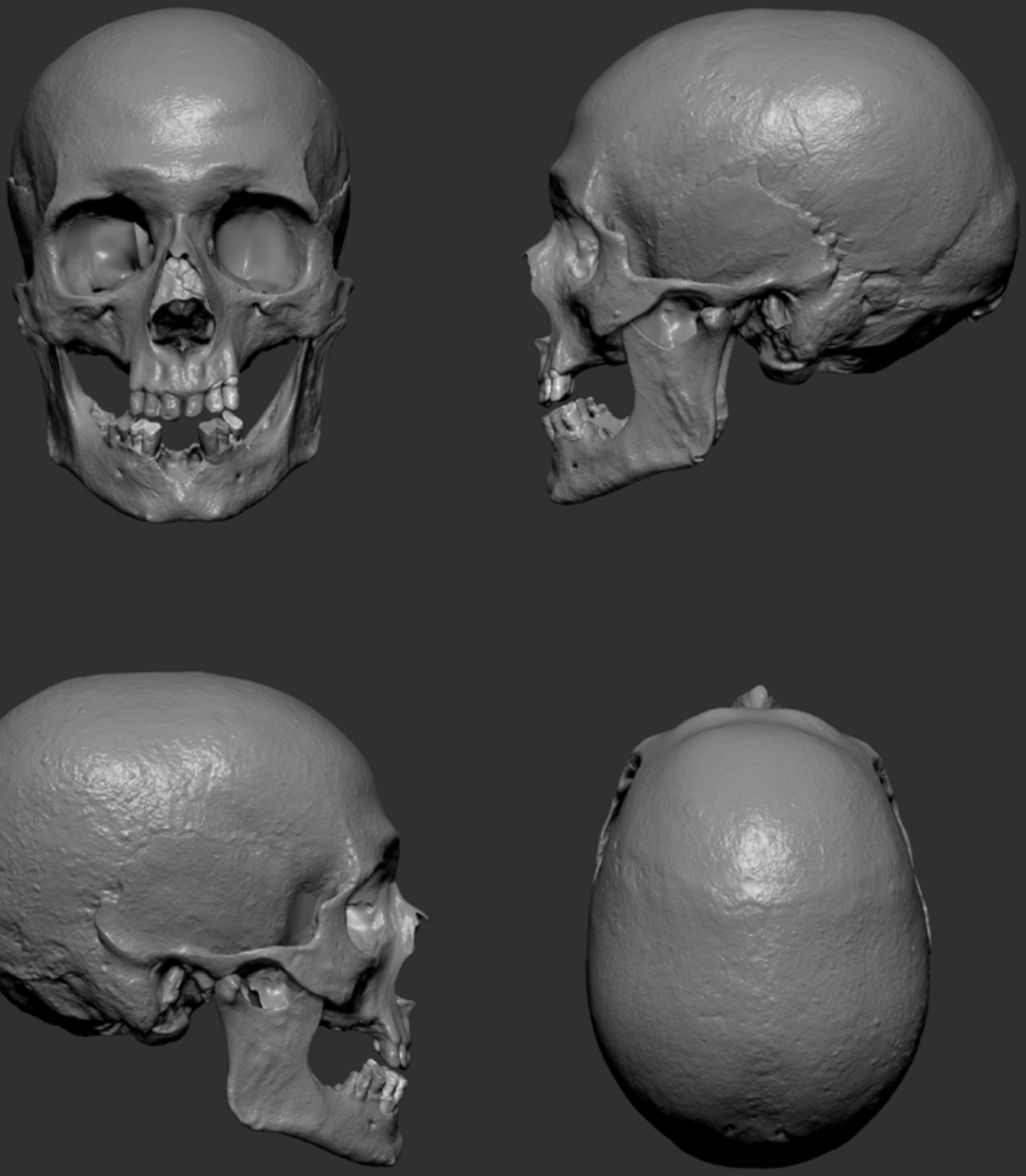






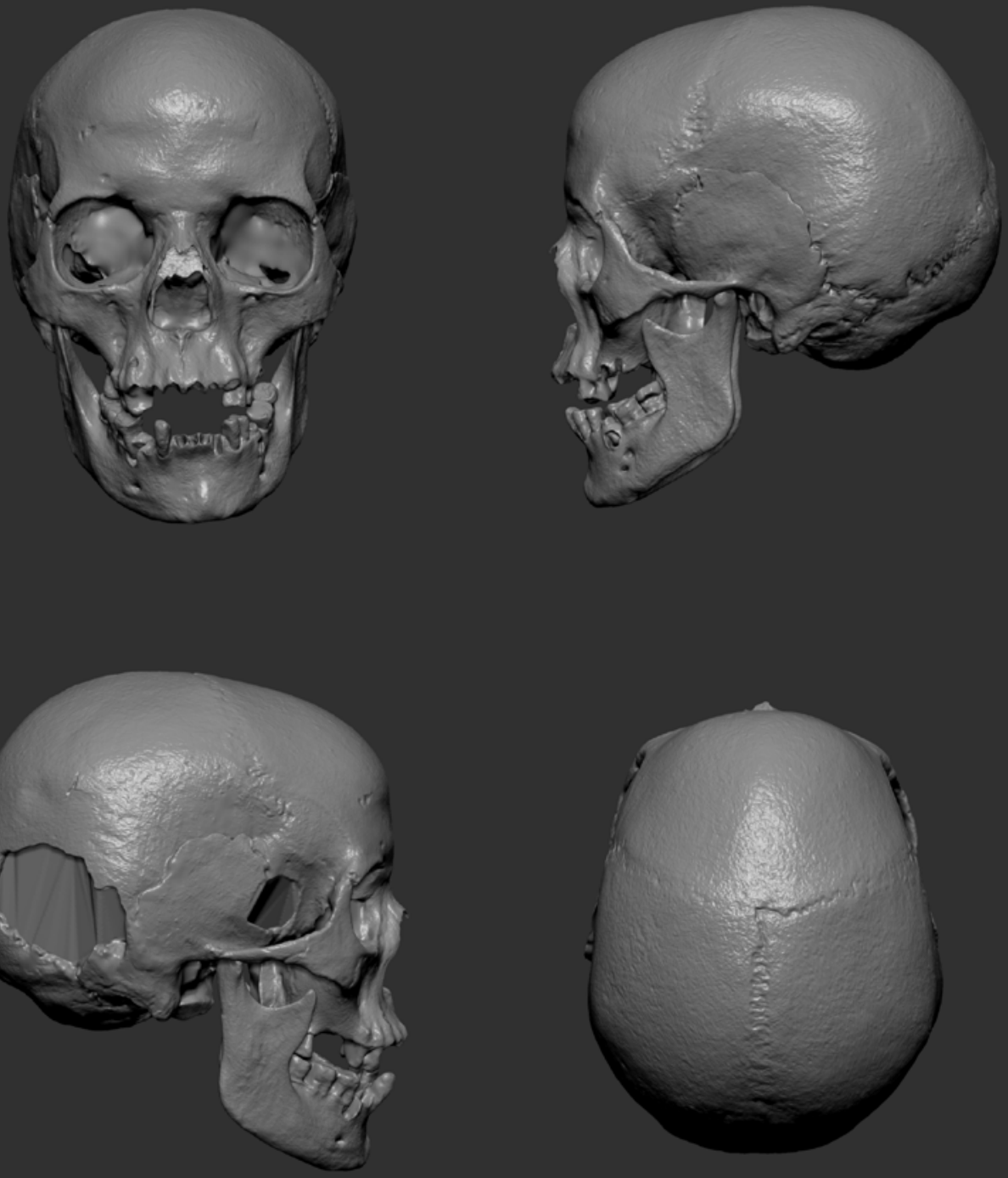
AY82 Male

reconstructed state



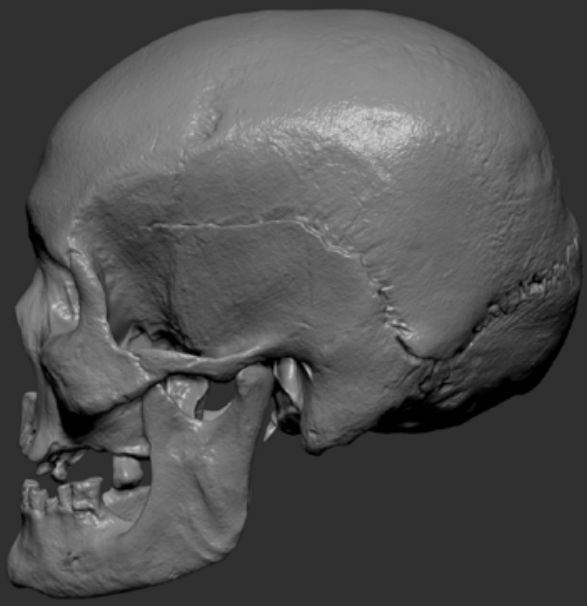
AY86

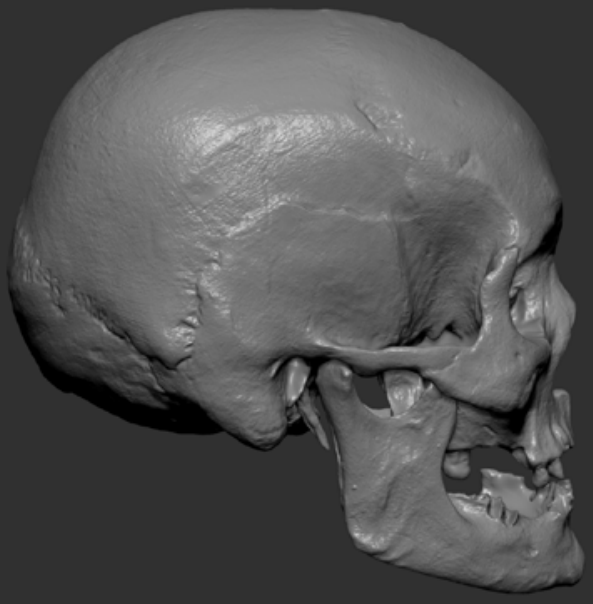
original state
(no reconstruction needed)

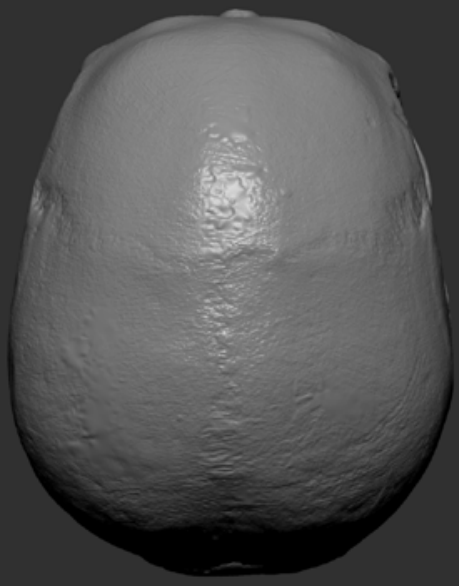


AY90 Female

original state

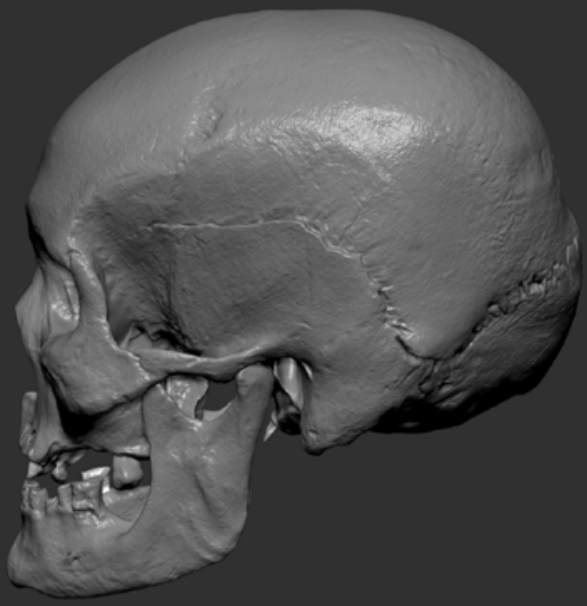


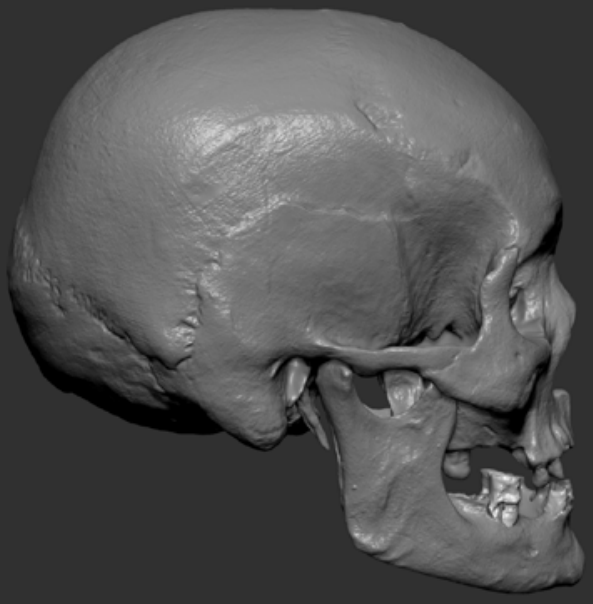


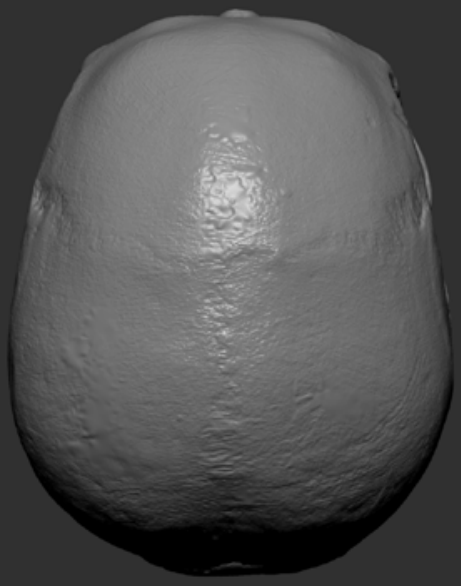


AY90 Female

reconstructed state

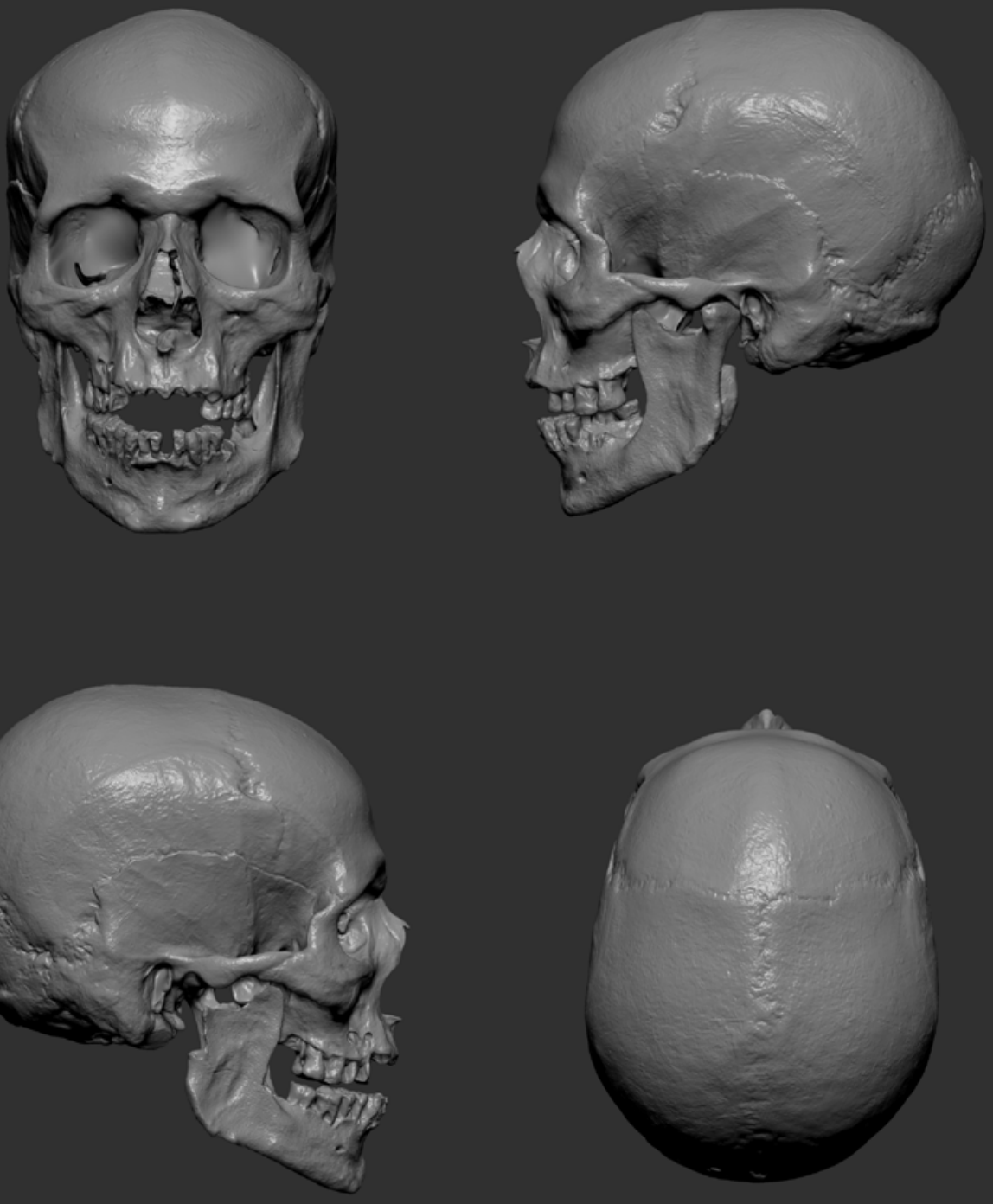






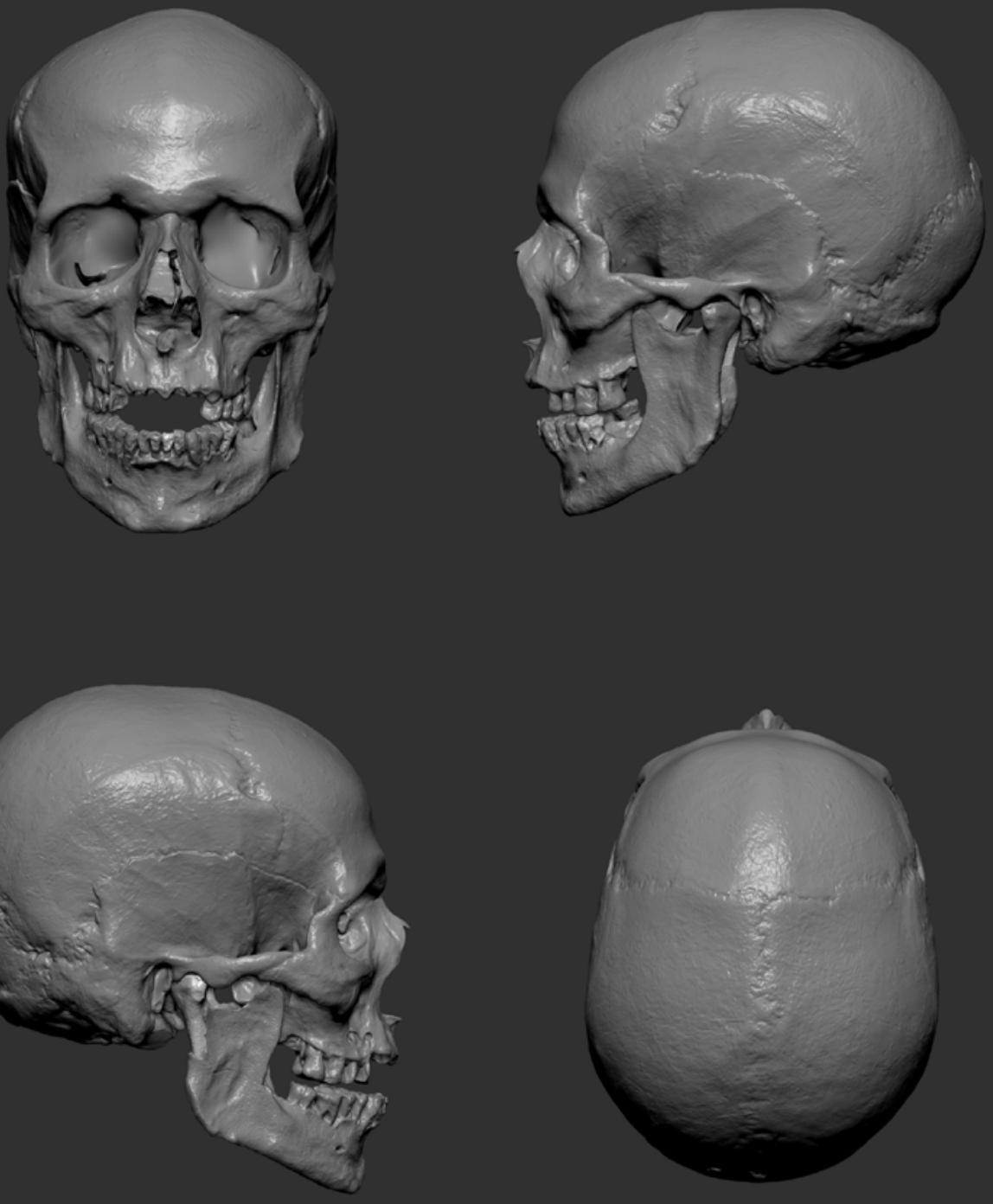
AY90 Male

original state



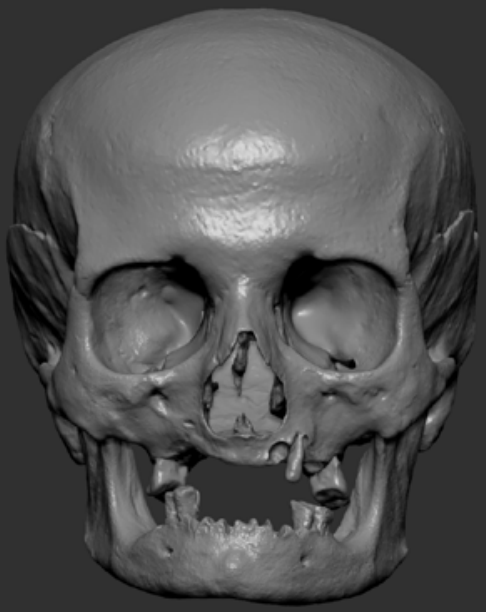
AY90 Male

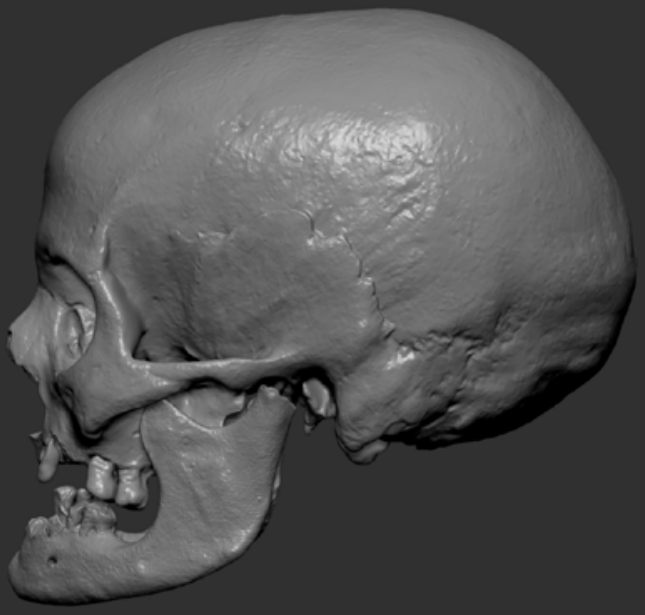
reconstructed state

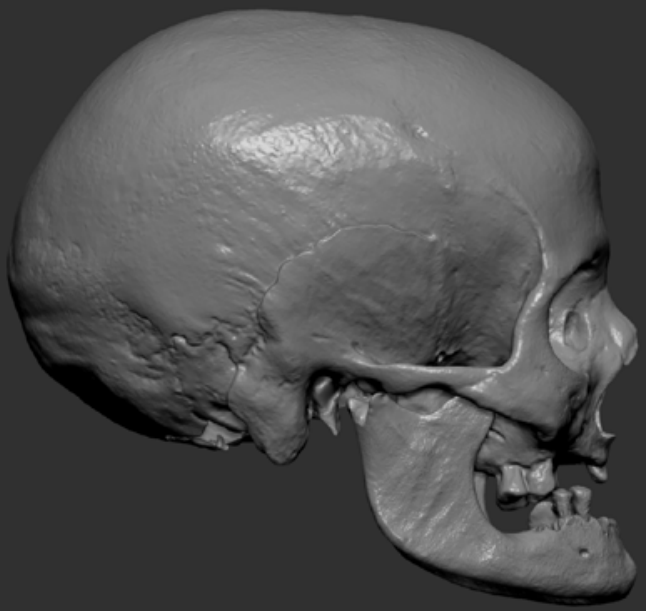


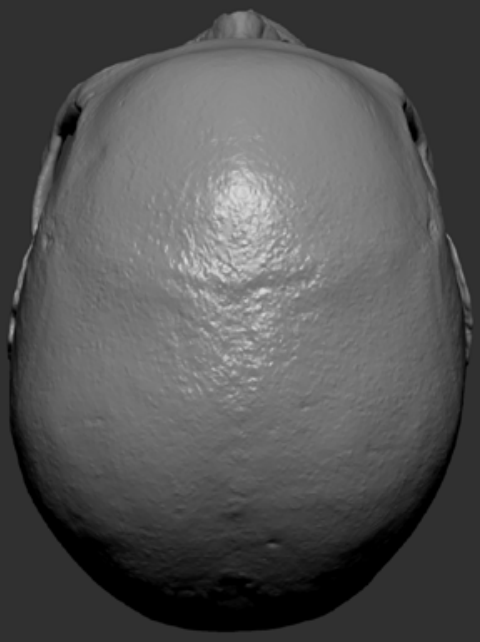
AY96

original state
(no reconstruction needed)



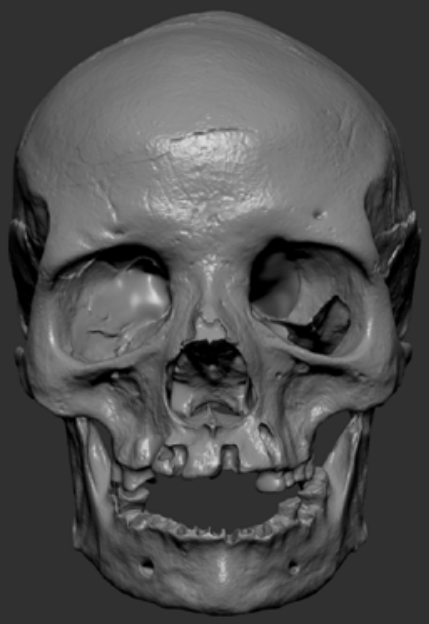


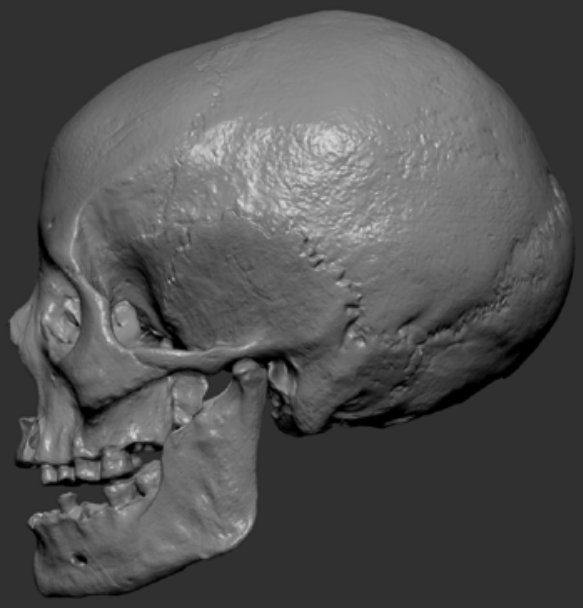


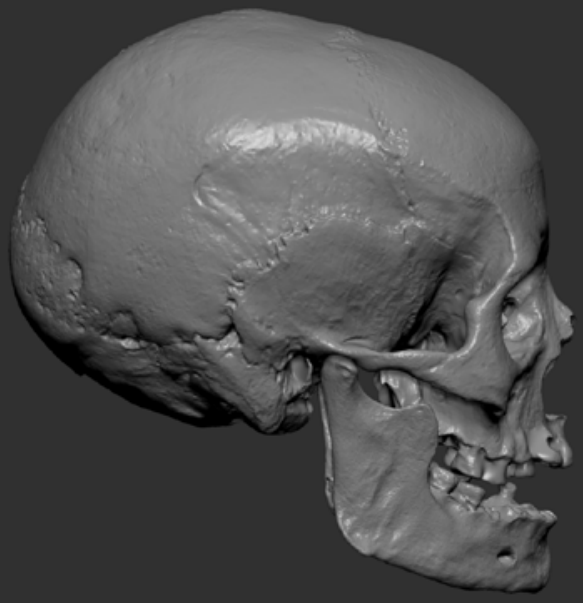


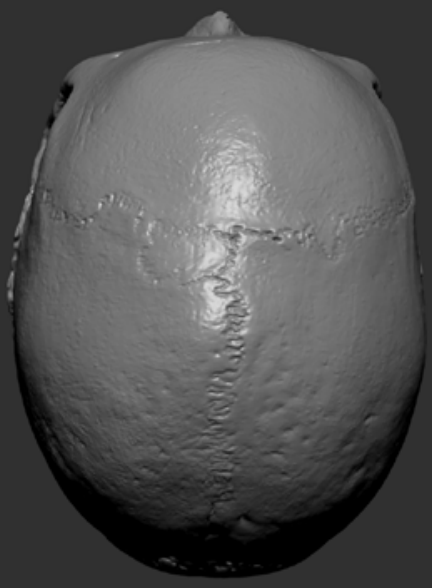
AY97 Female

original state
(no reconstruction needed)





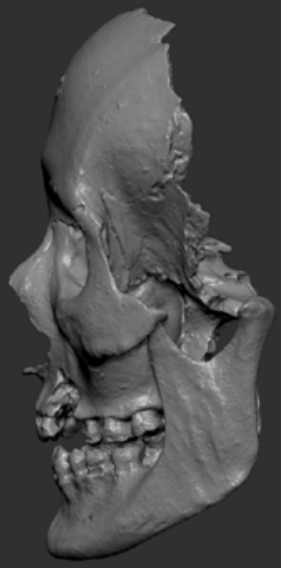


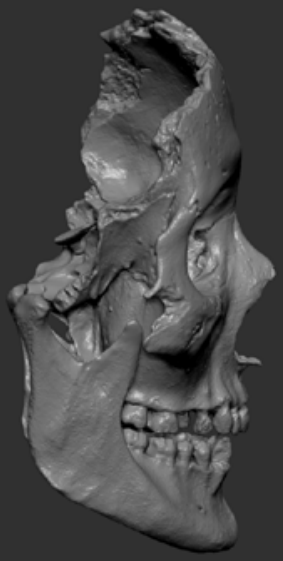


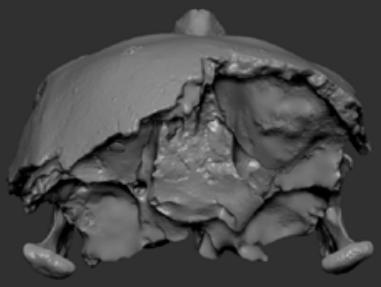
2nd level (SFA)

AY11

original state

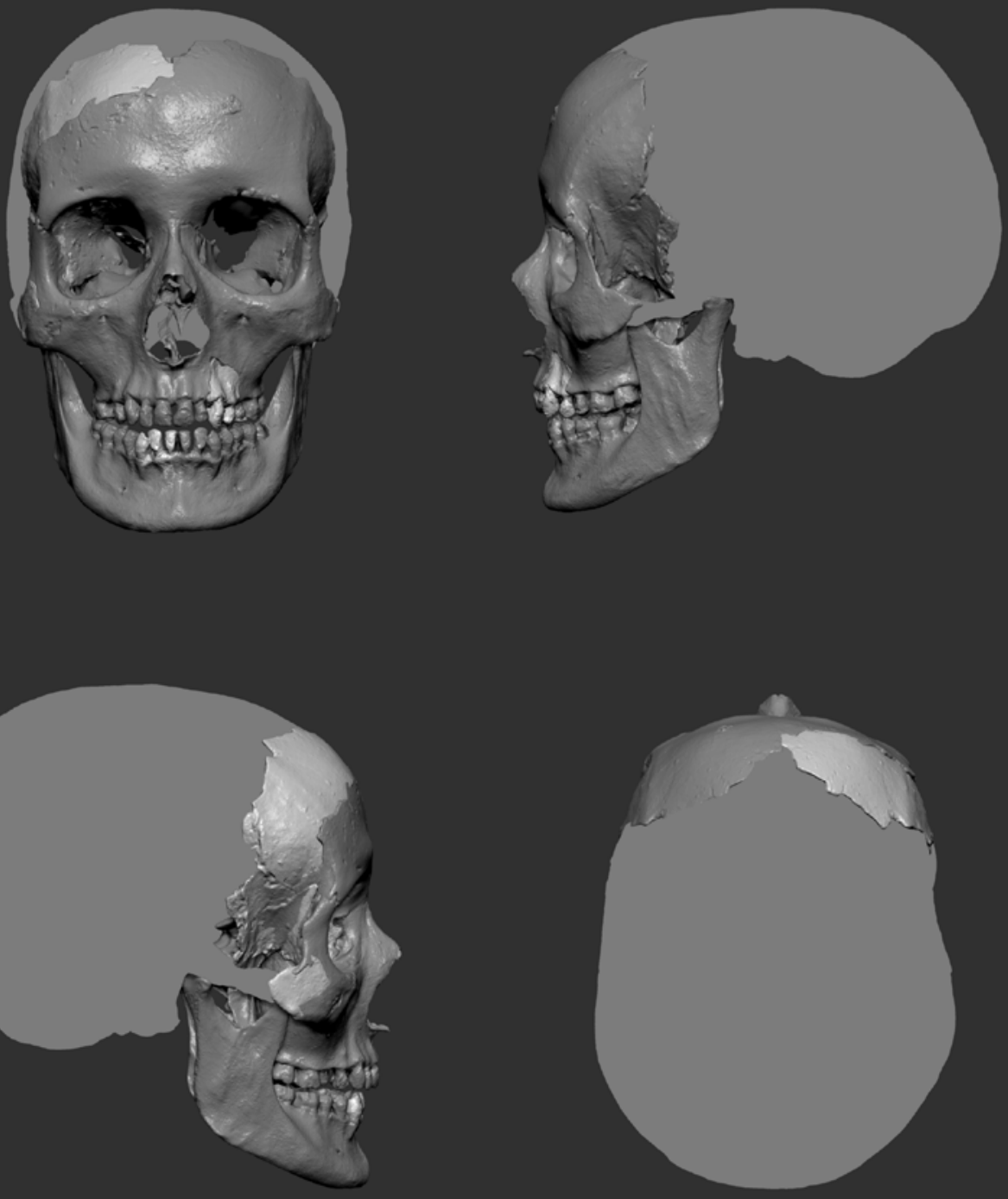






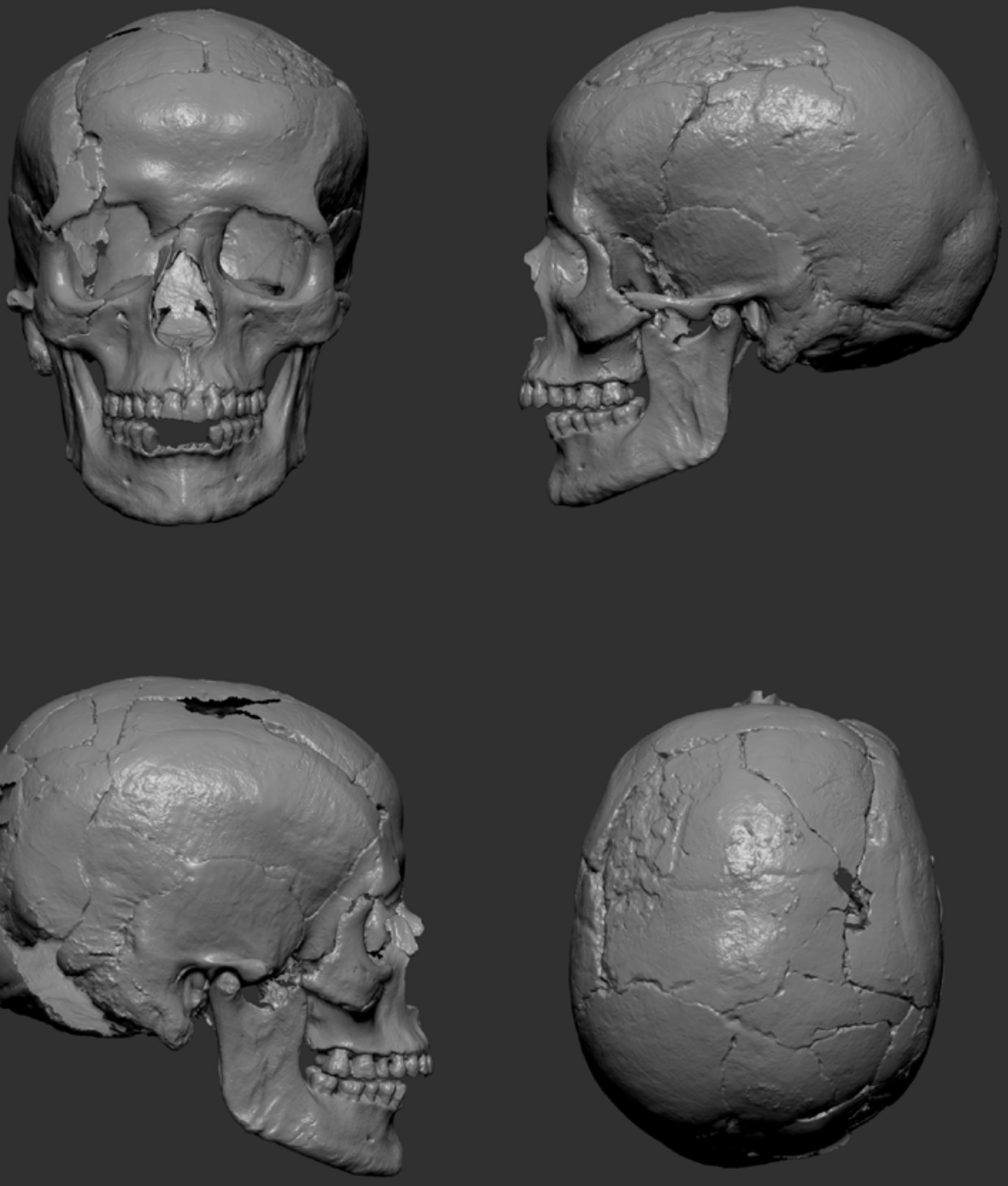
AY11

reconstructed state



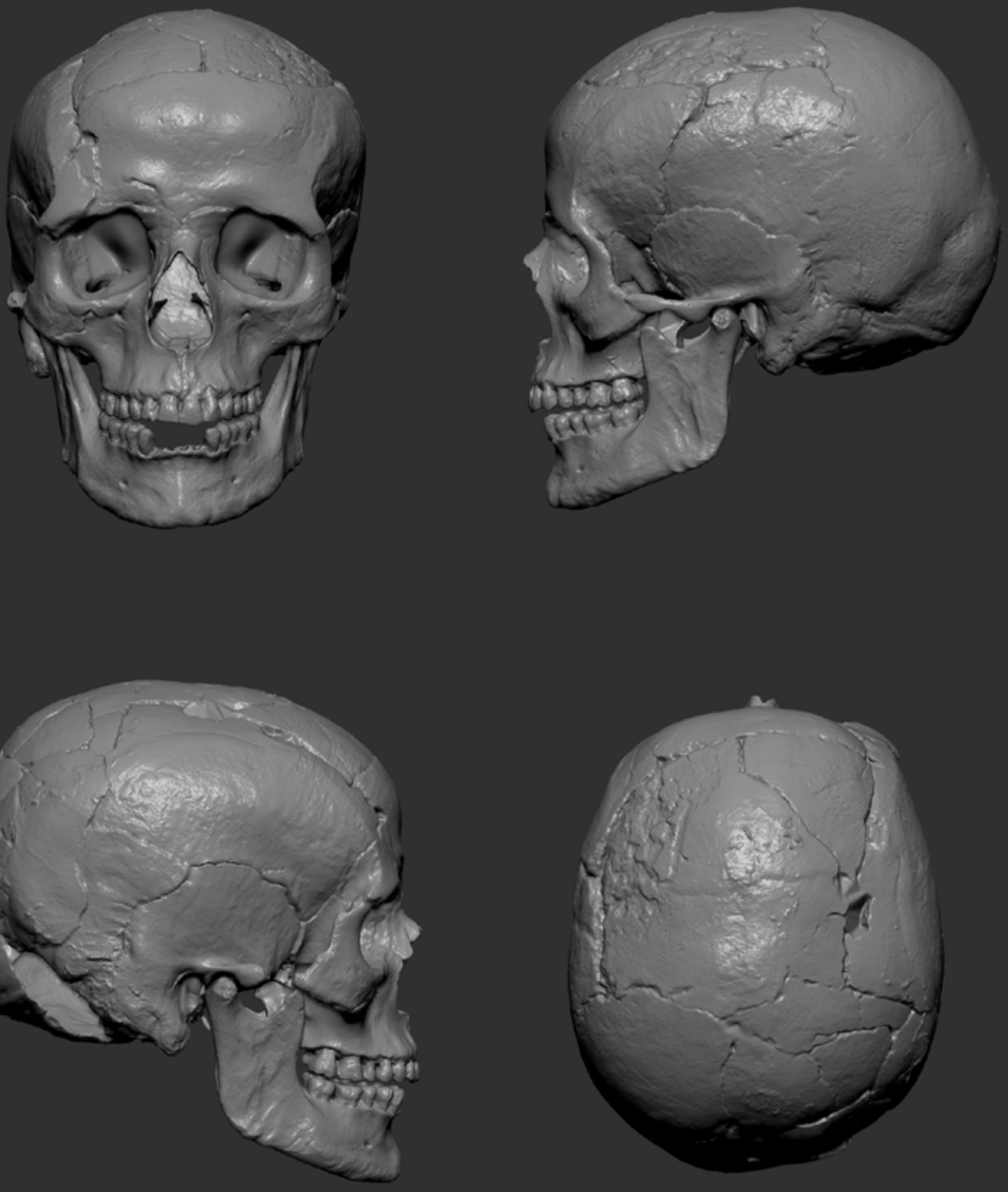
AY21

original state



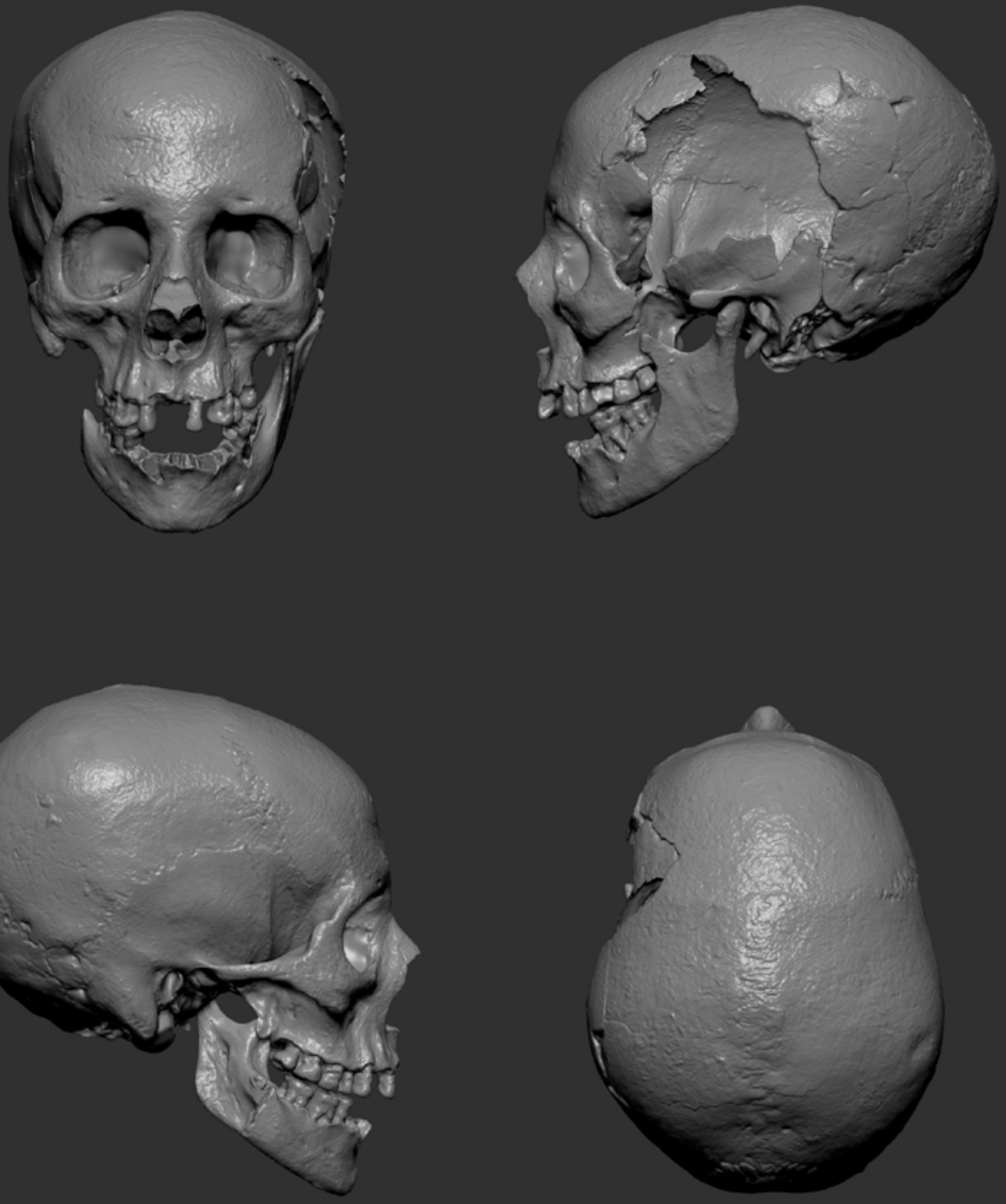
AY21

reconstructed state



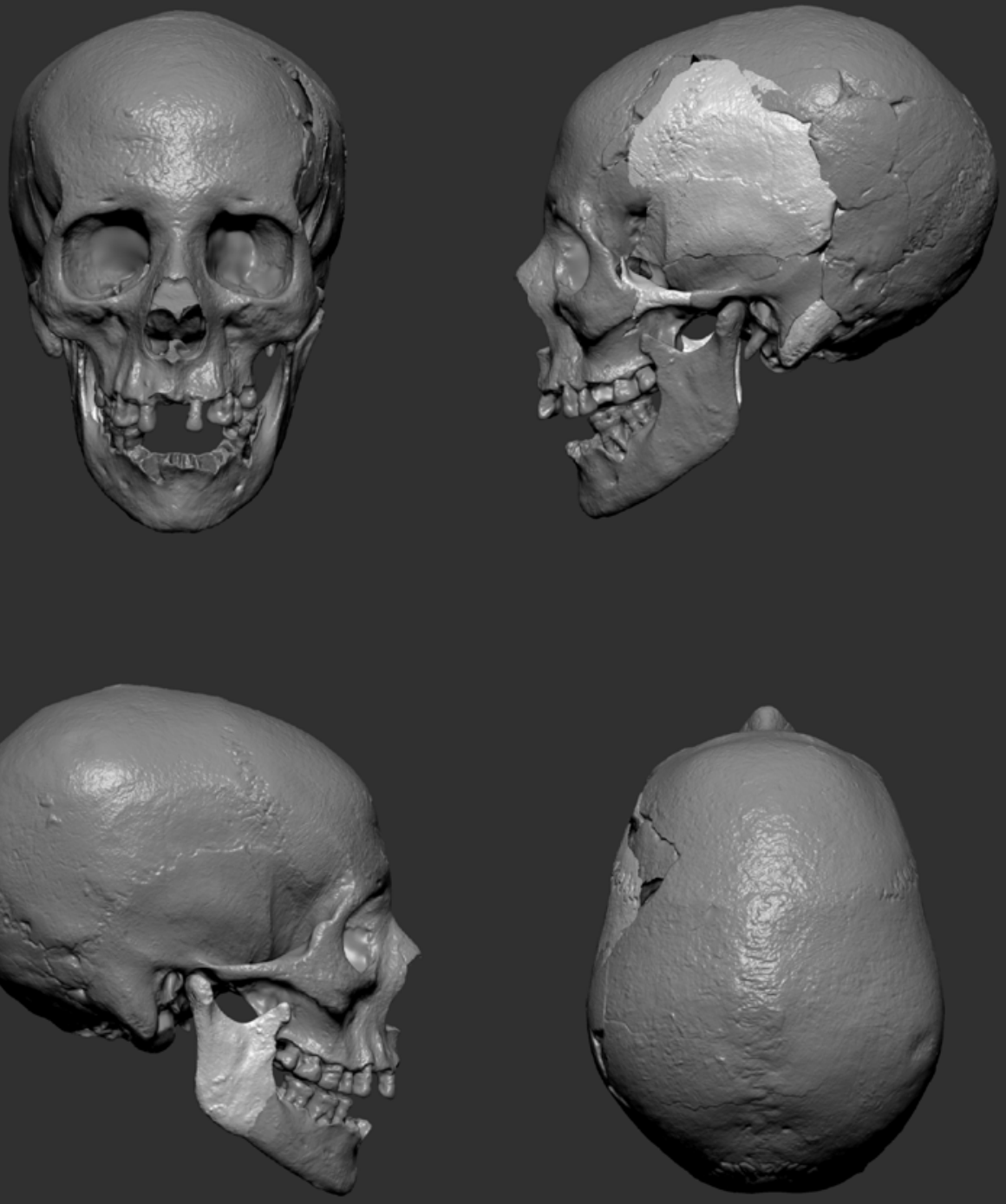
AY22 Female

original state



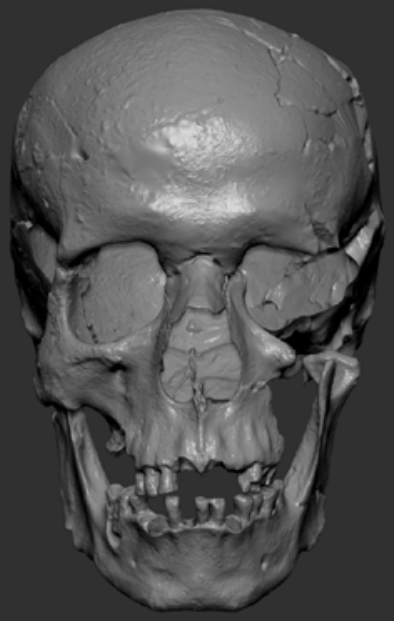
AY22 Female

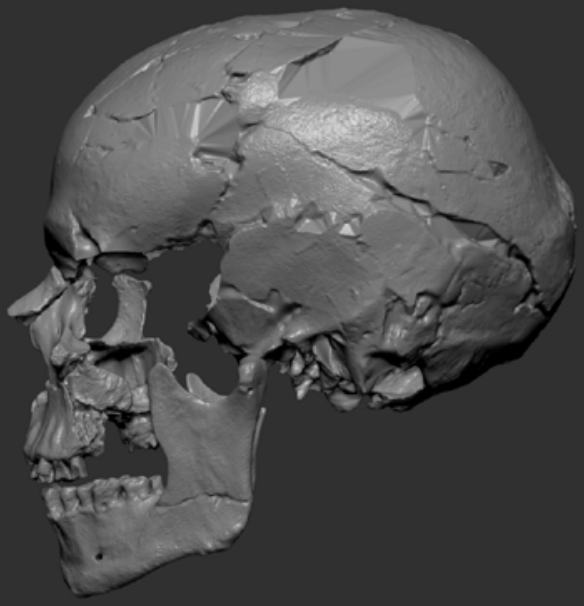
reconstructed state

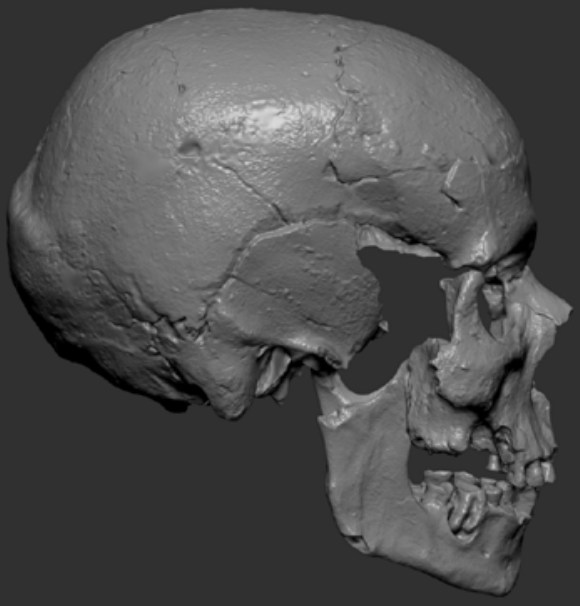


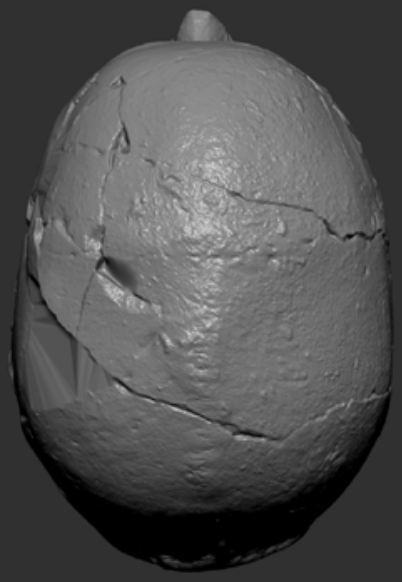
AY22 Male

original state



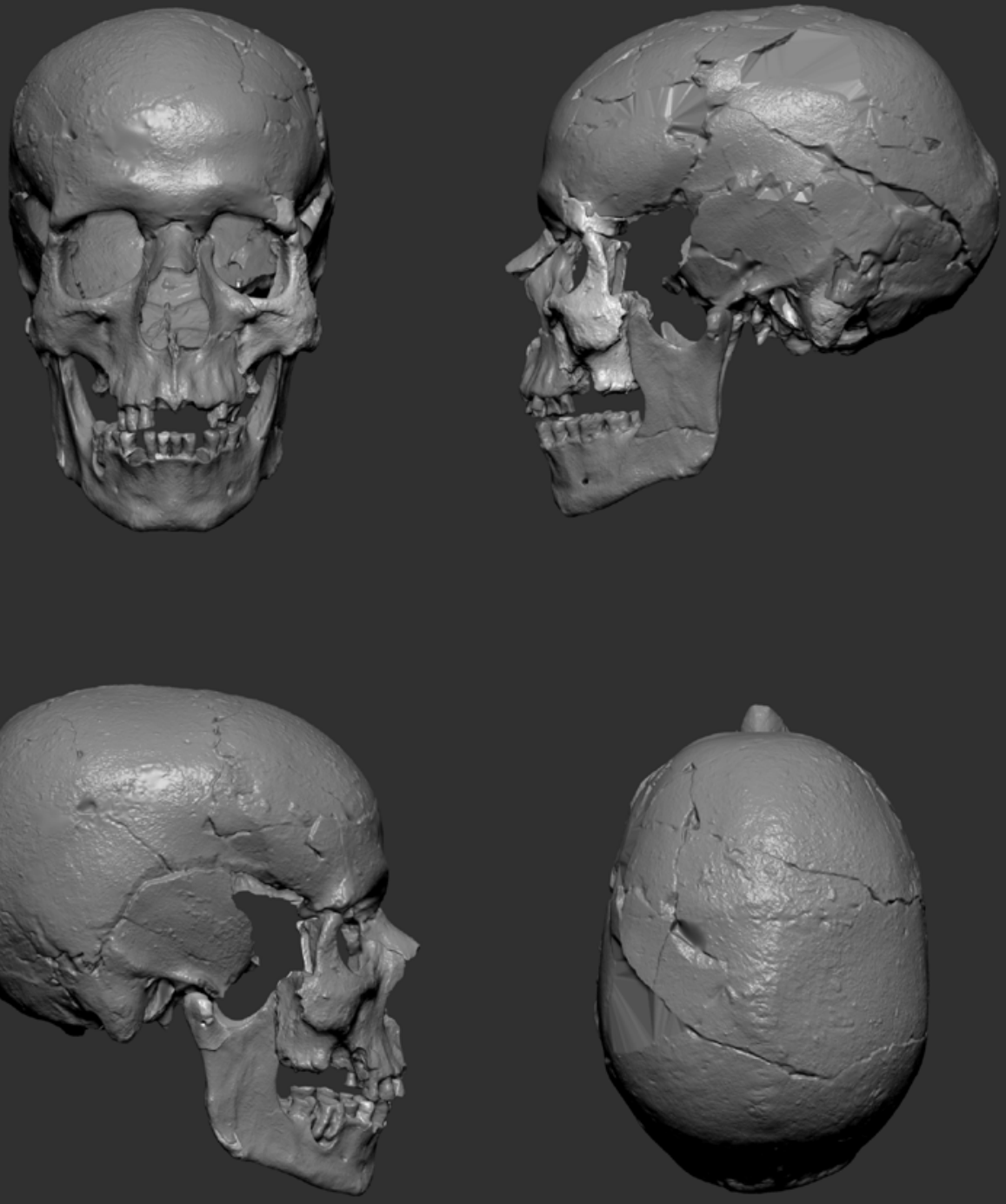






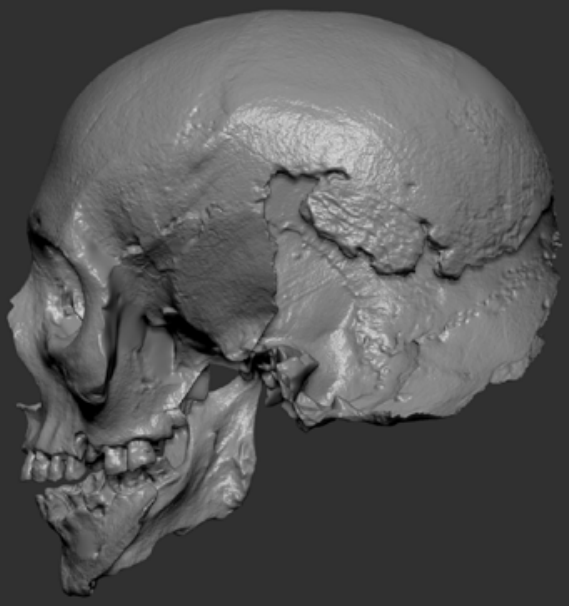
AY22 Male

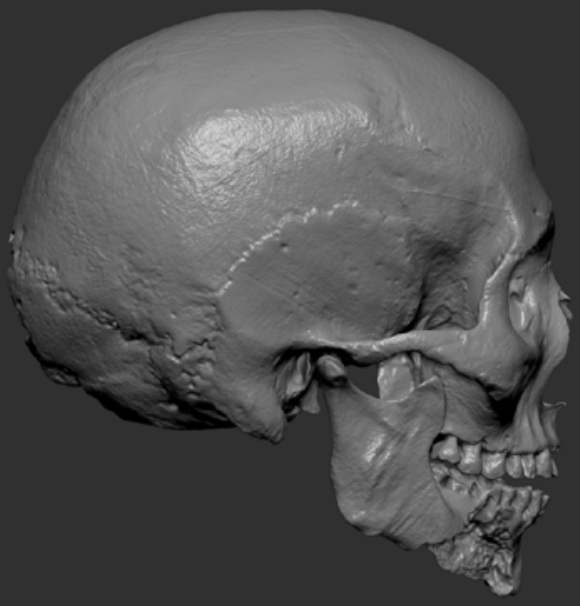
reconstructed state

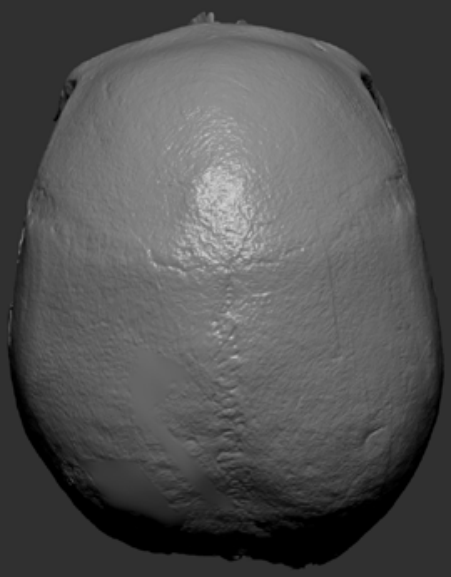


AY26 Female

original state

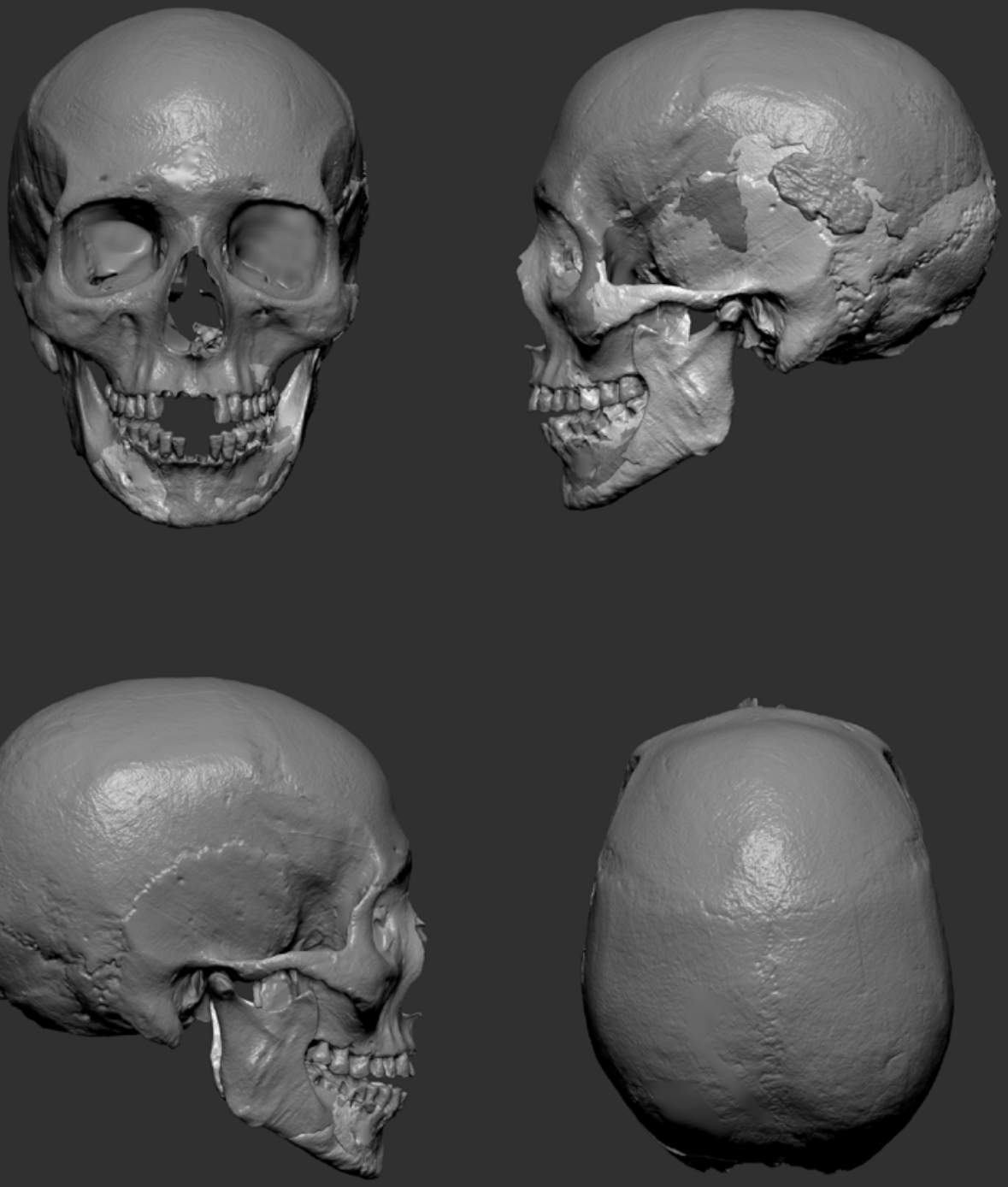






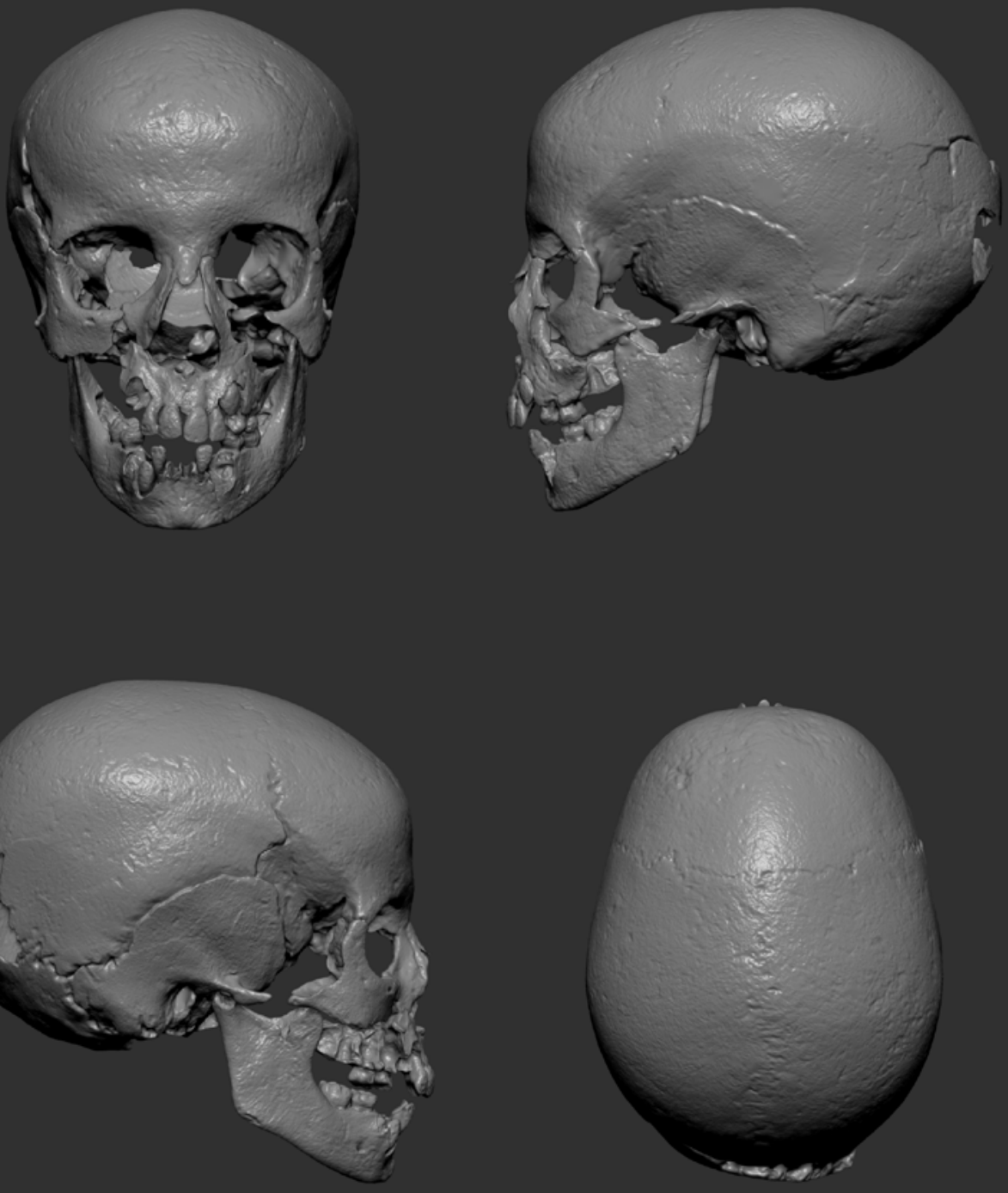
AY26 Female

reconstructed state



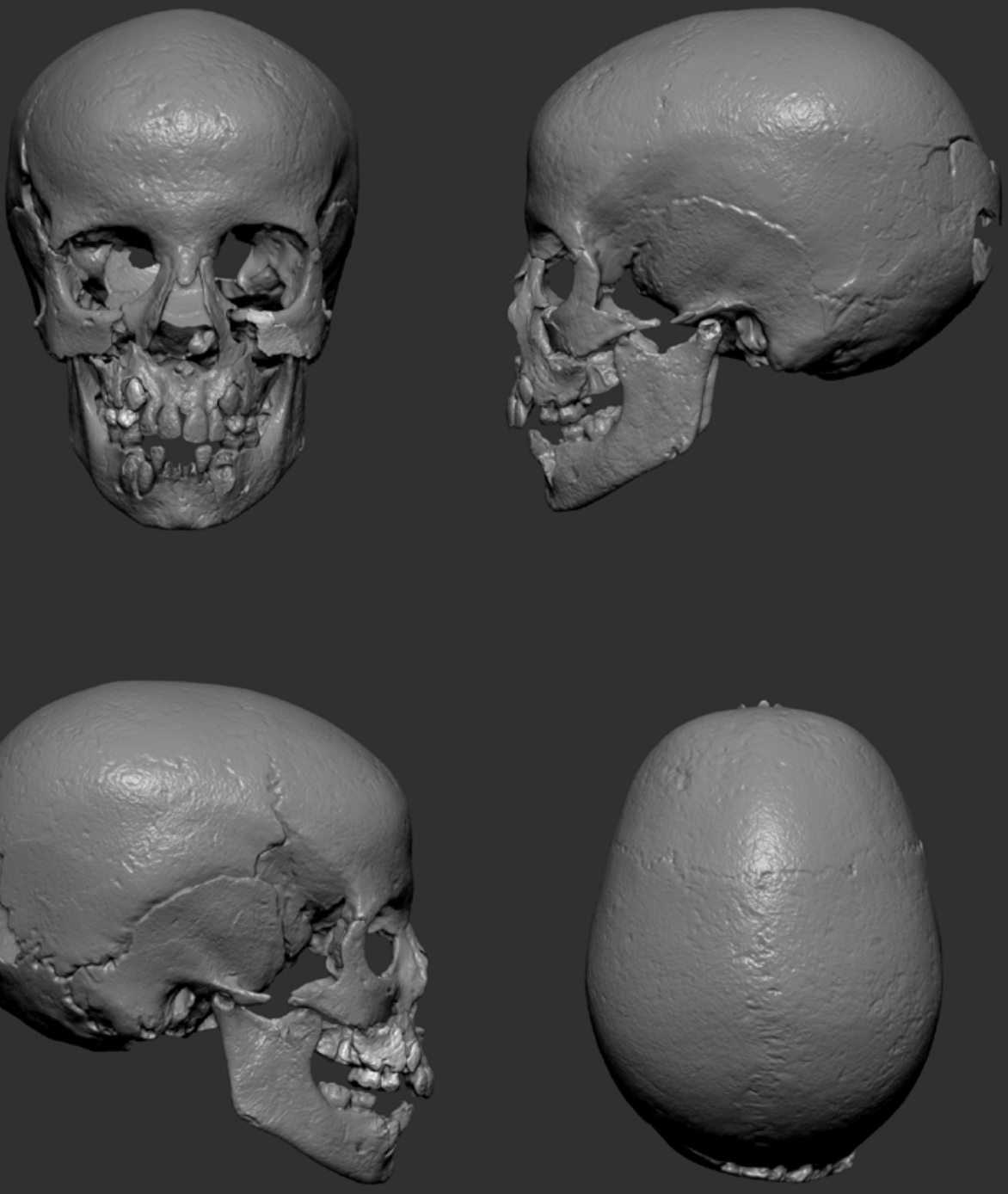
AY30

original state



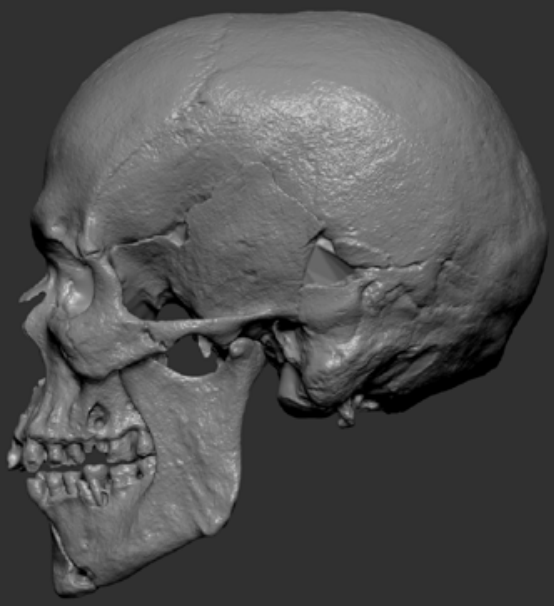
AY30

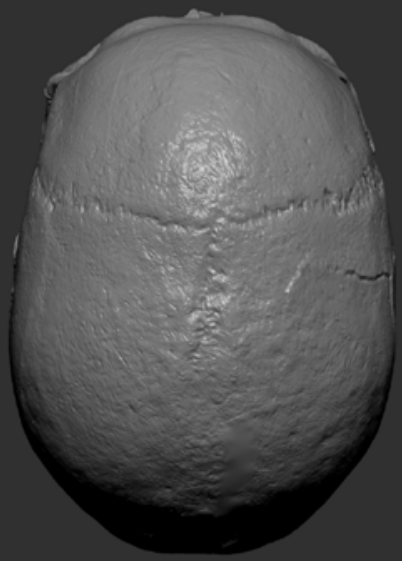
reconstructed state



AY42 Male

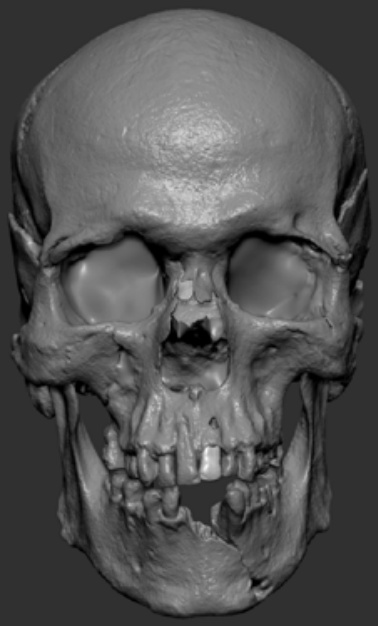
original state

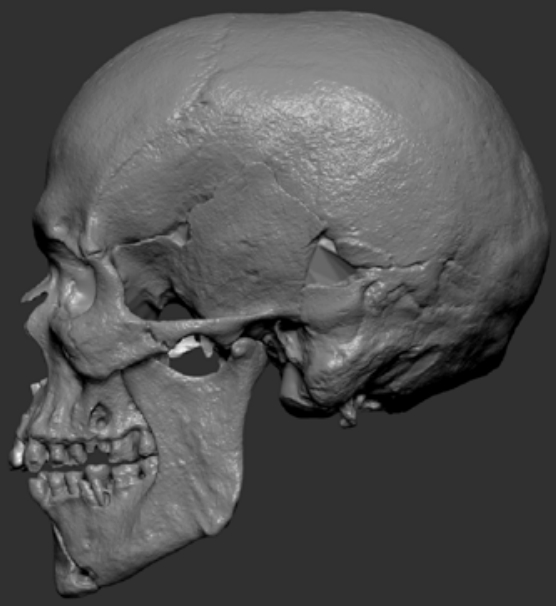


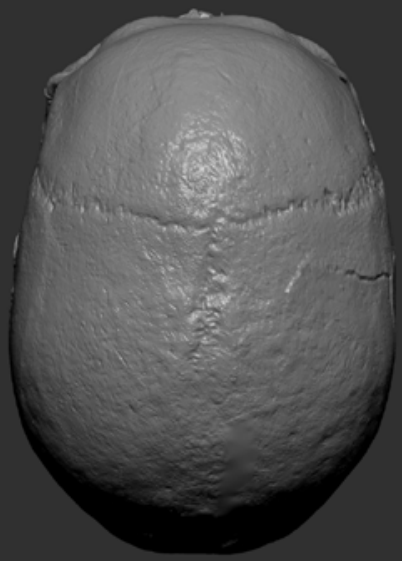


AY42 Male

reconstructed state

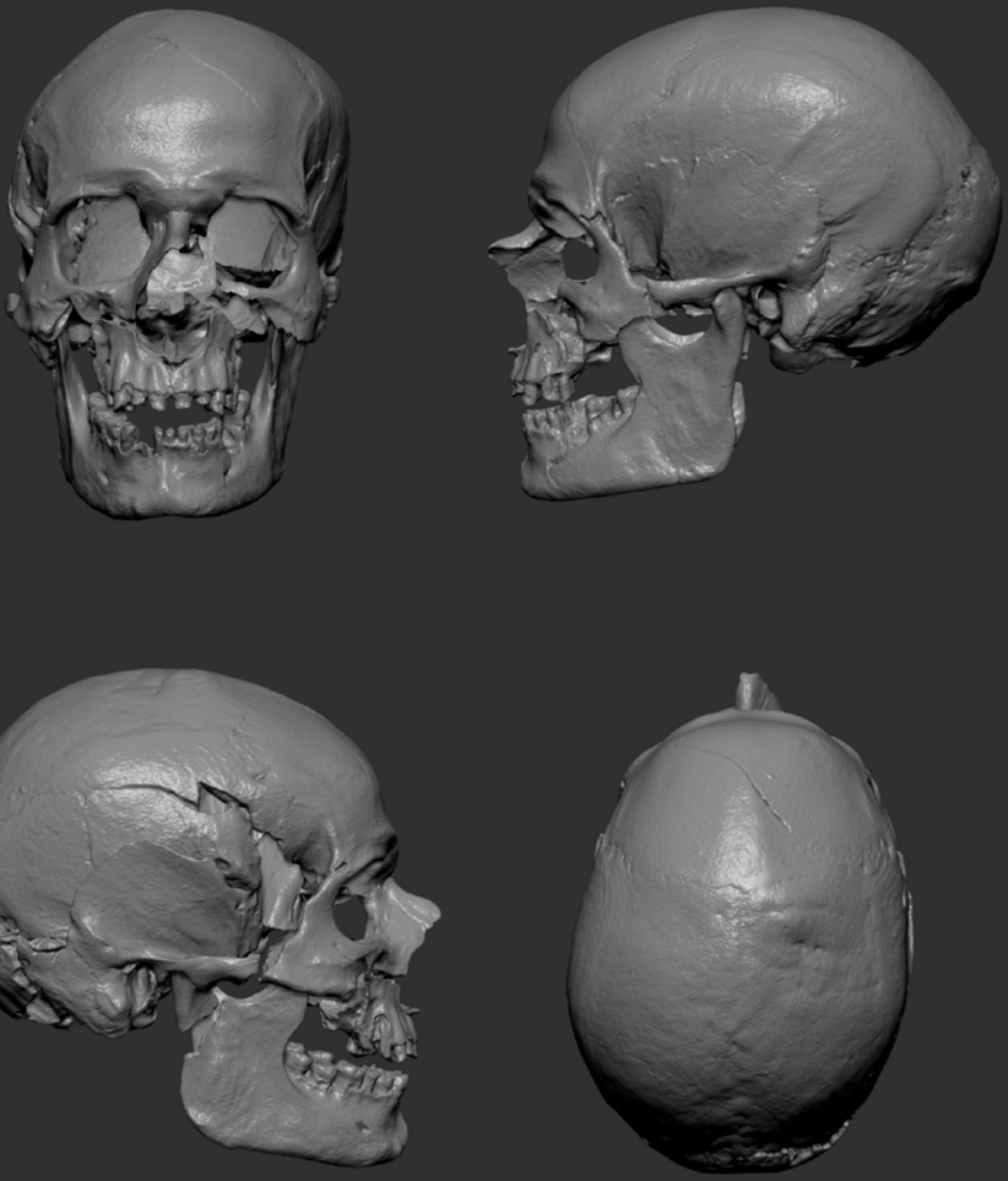






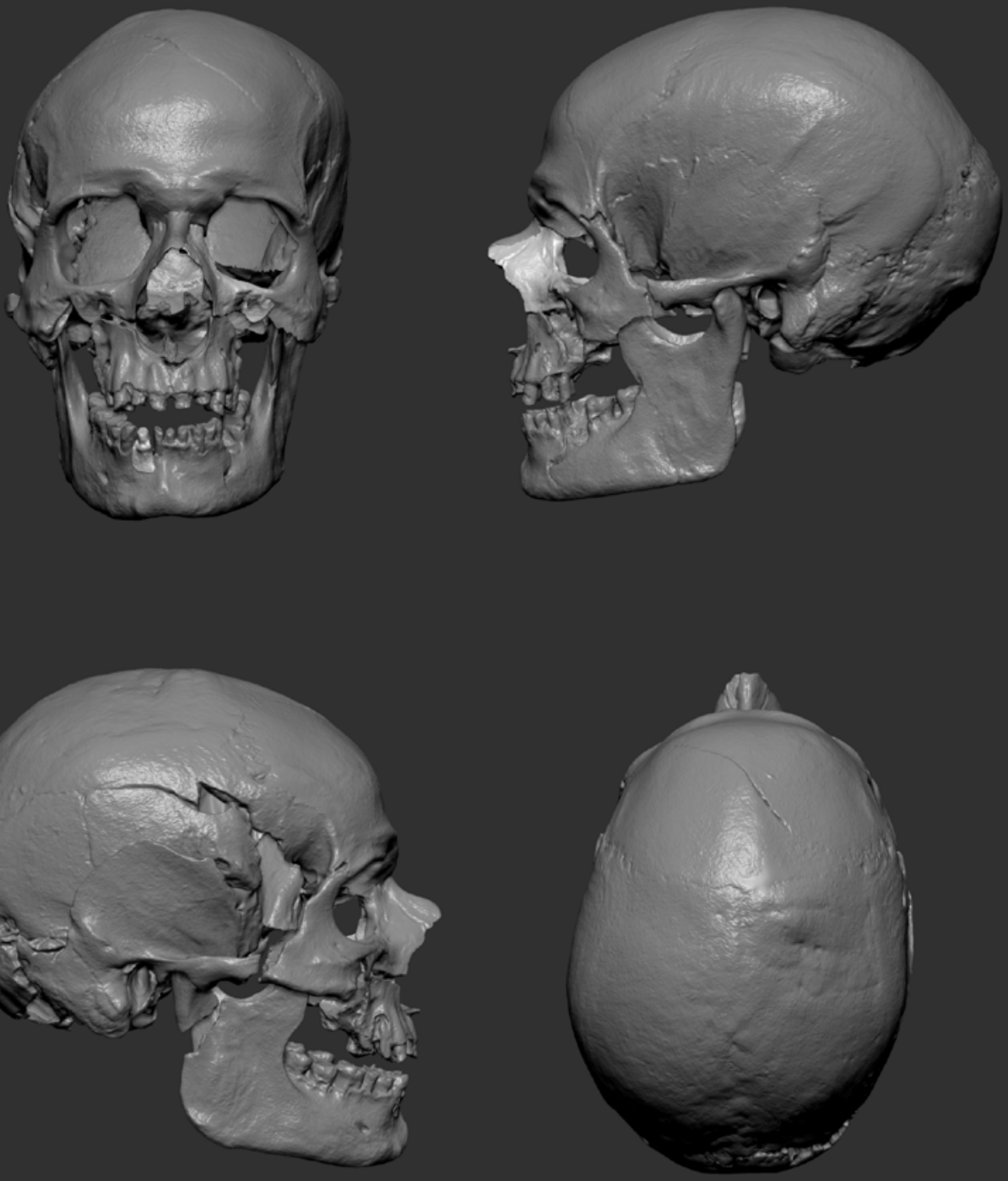
AY45

original state



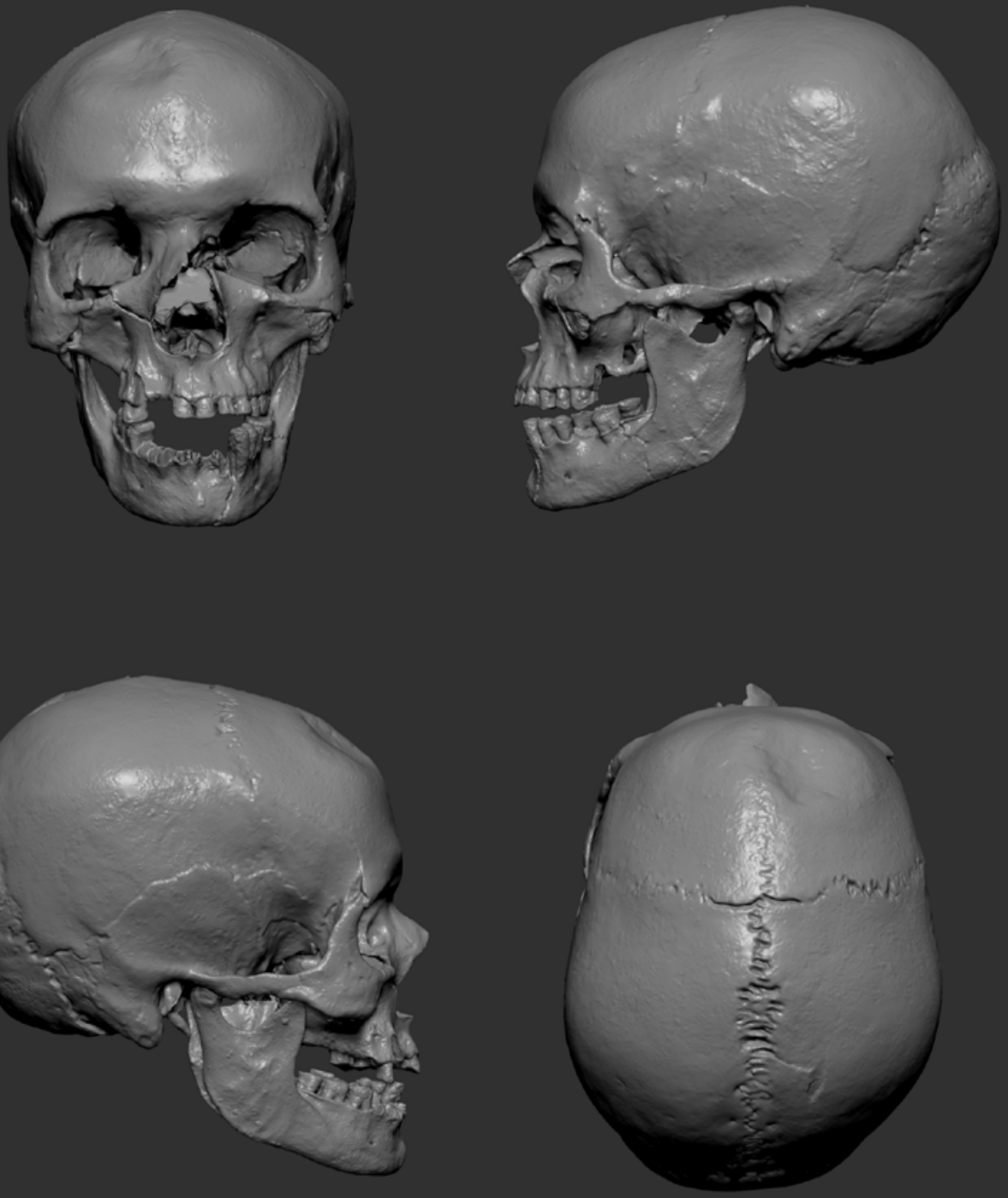
AY45

reconstructed state



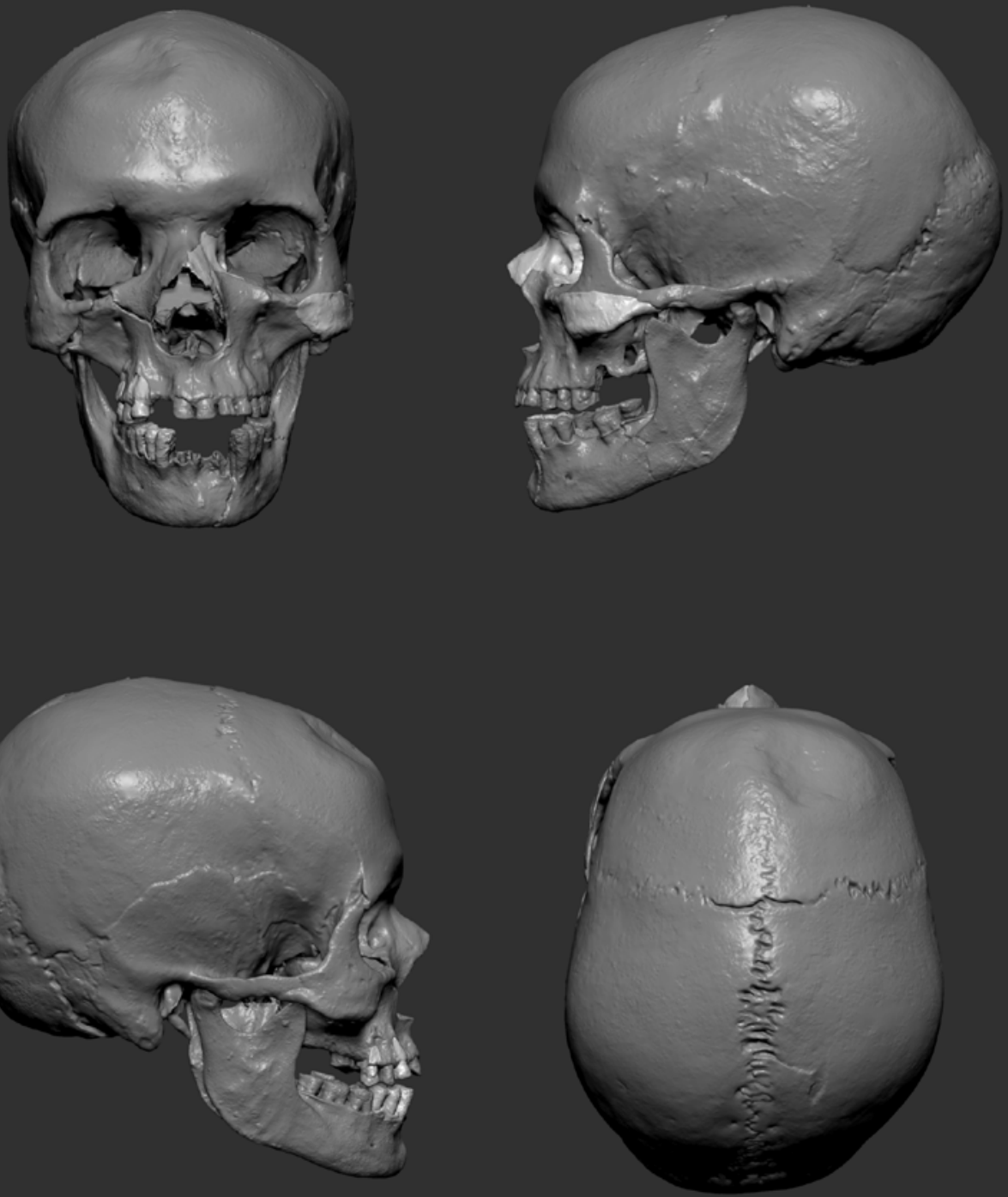
AY47

original state



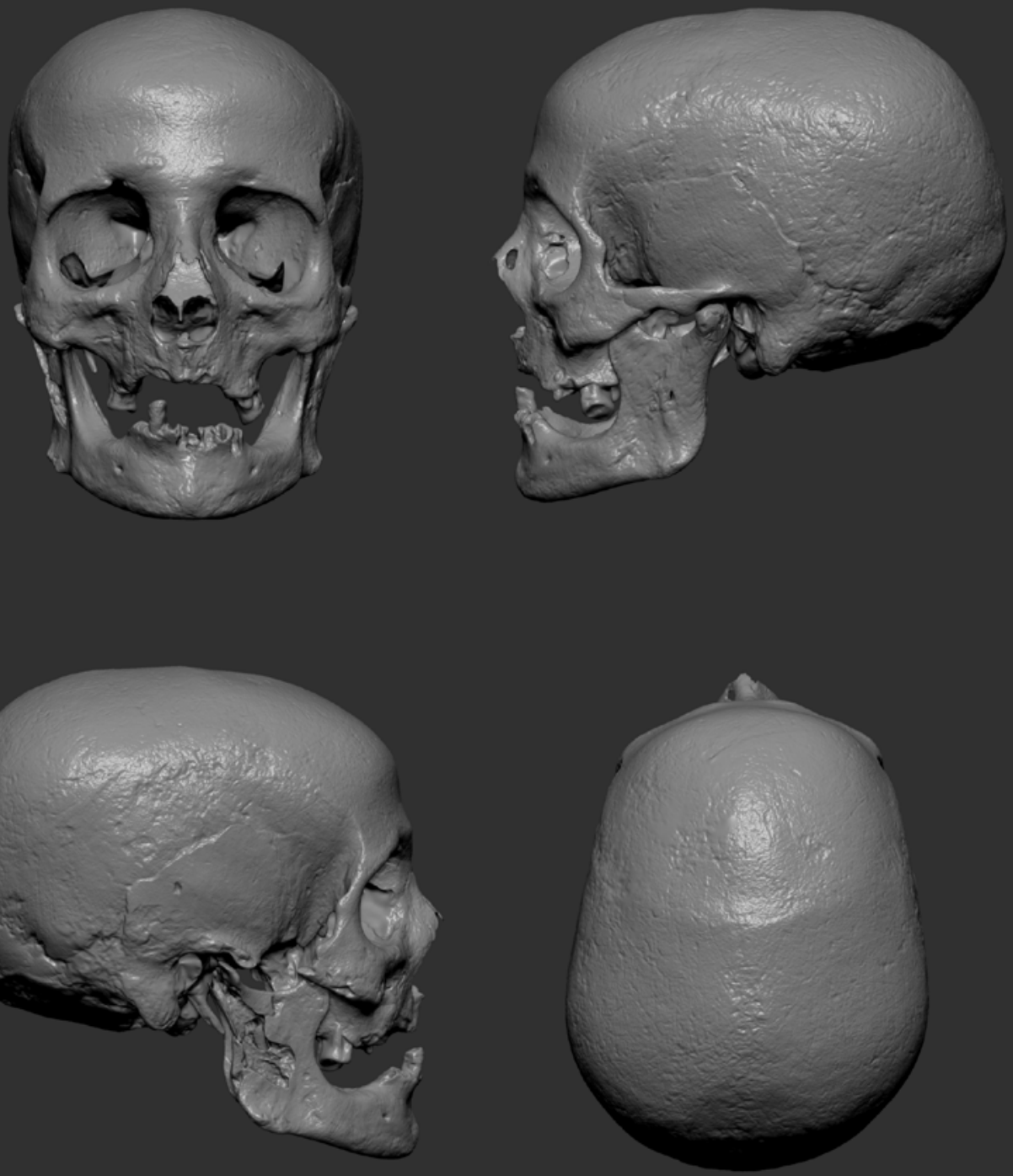
AY47

reconstructed state



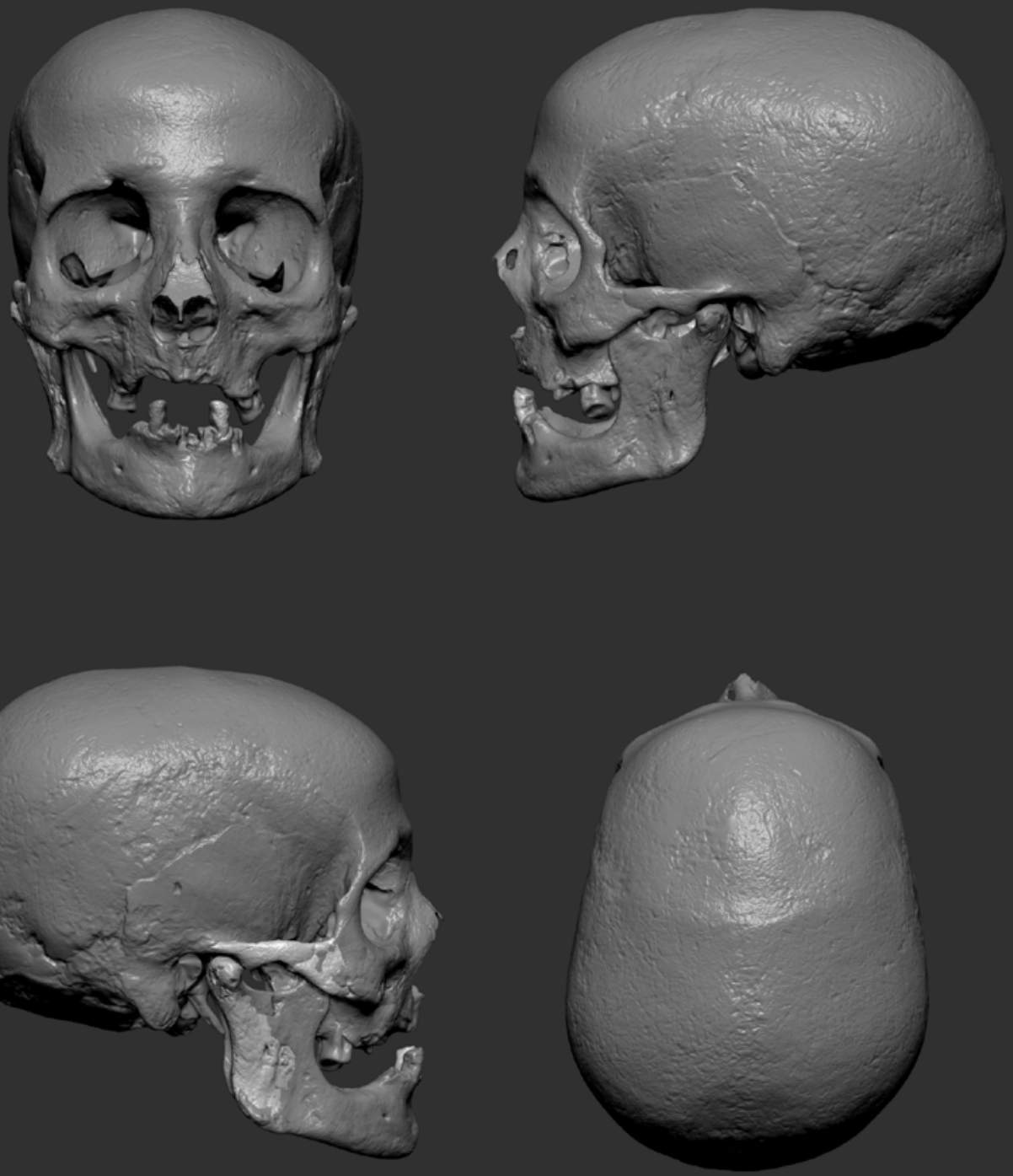
AY48

original state



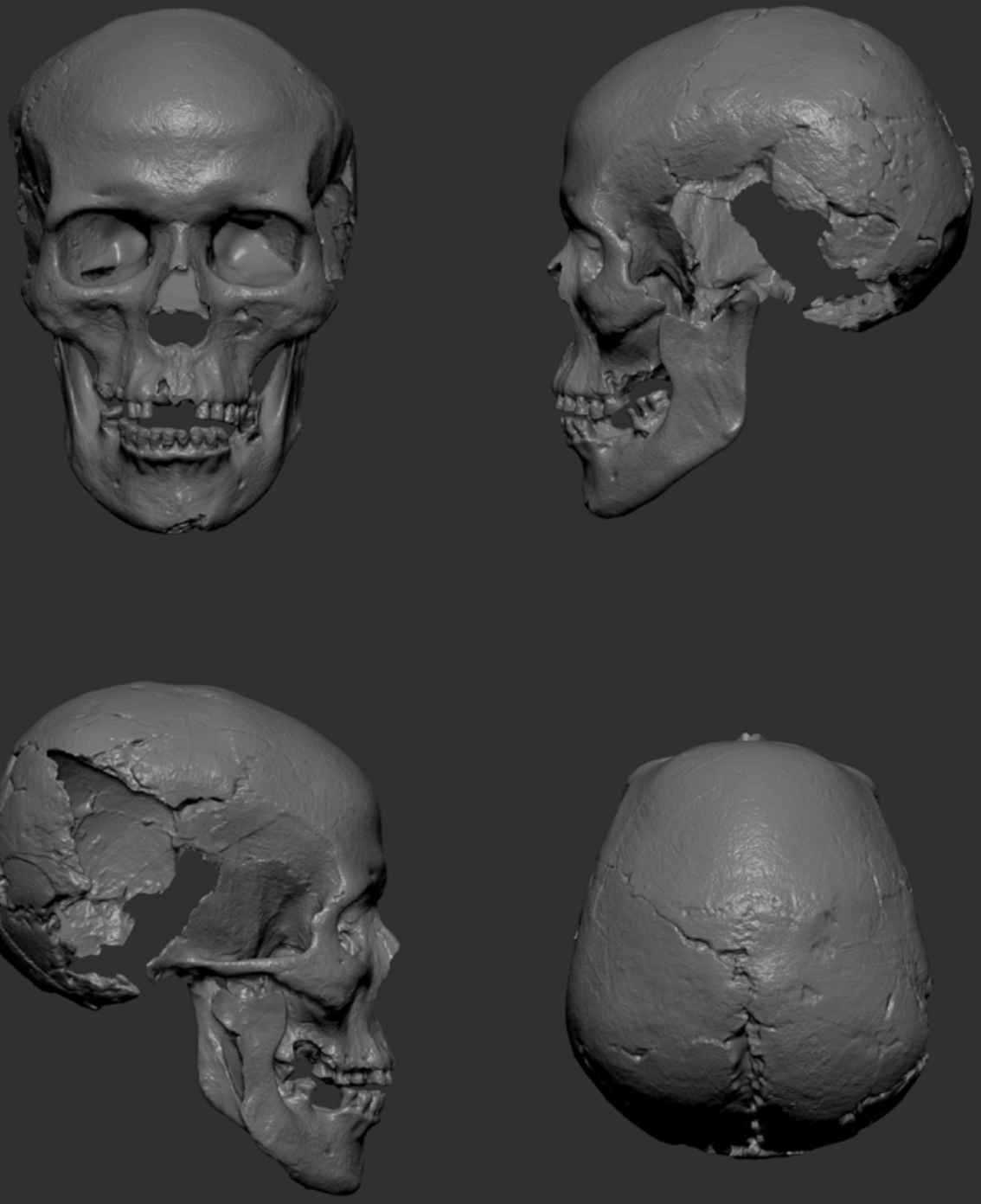
AY48

reconstructed state



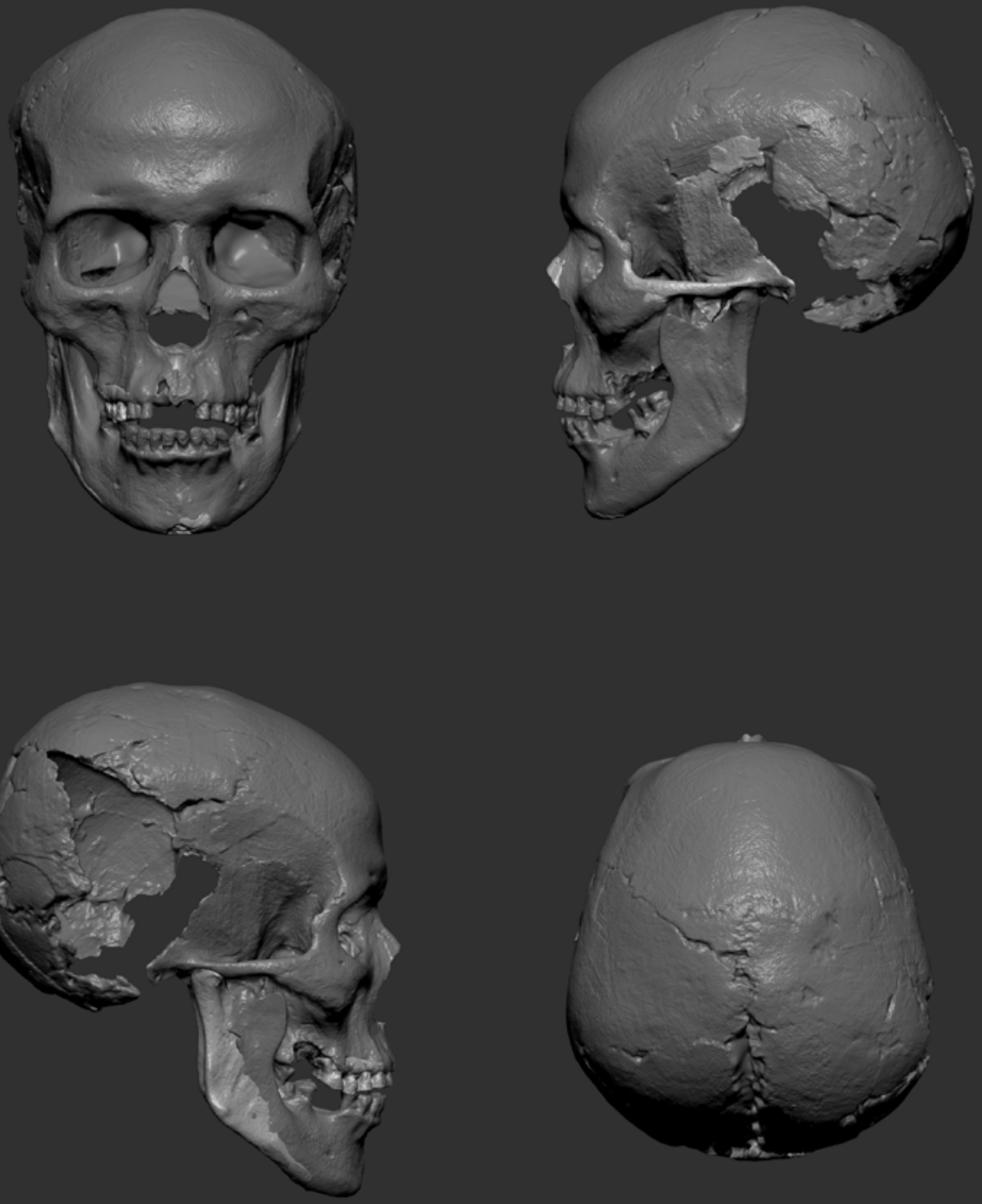
AY53

original state



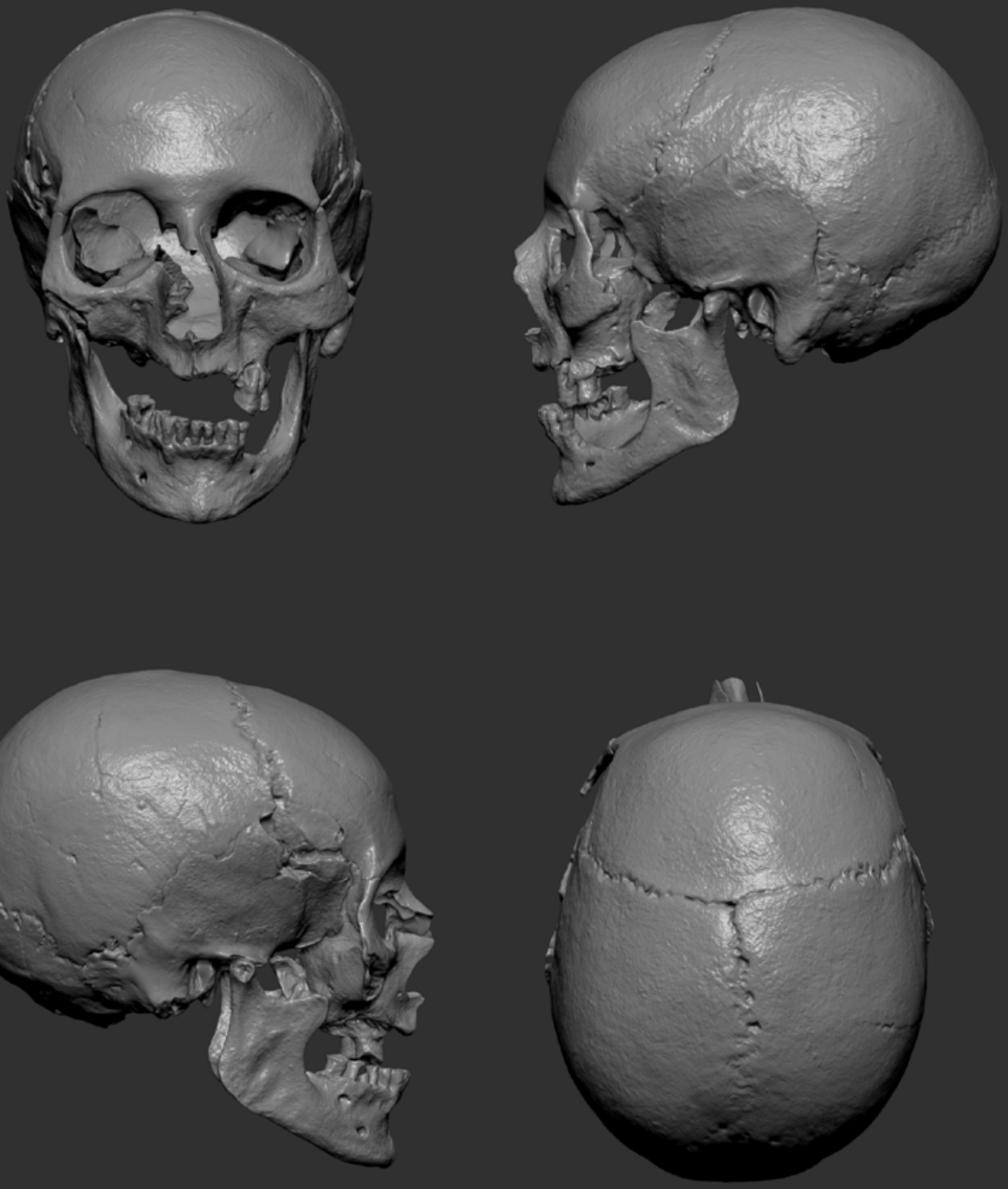
AY53

reconstructed state



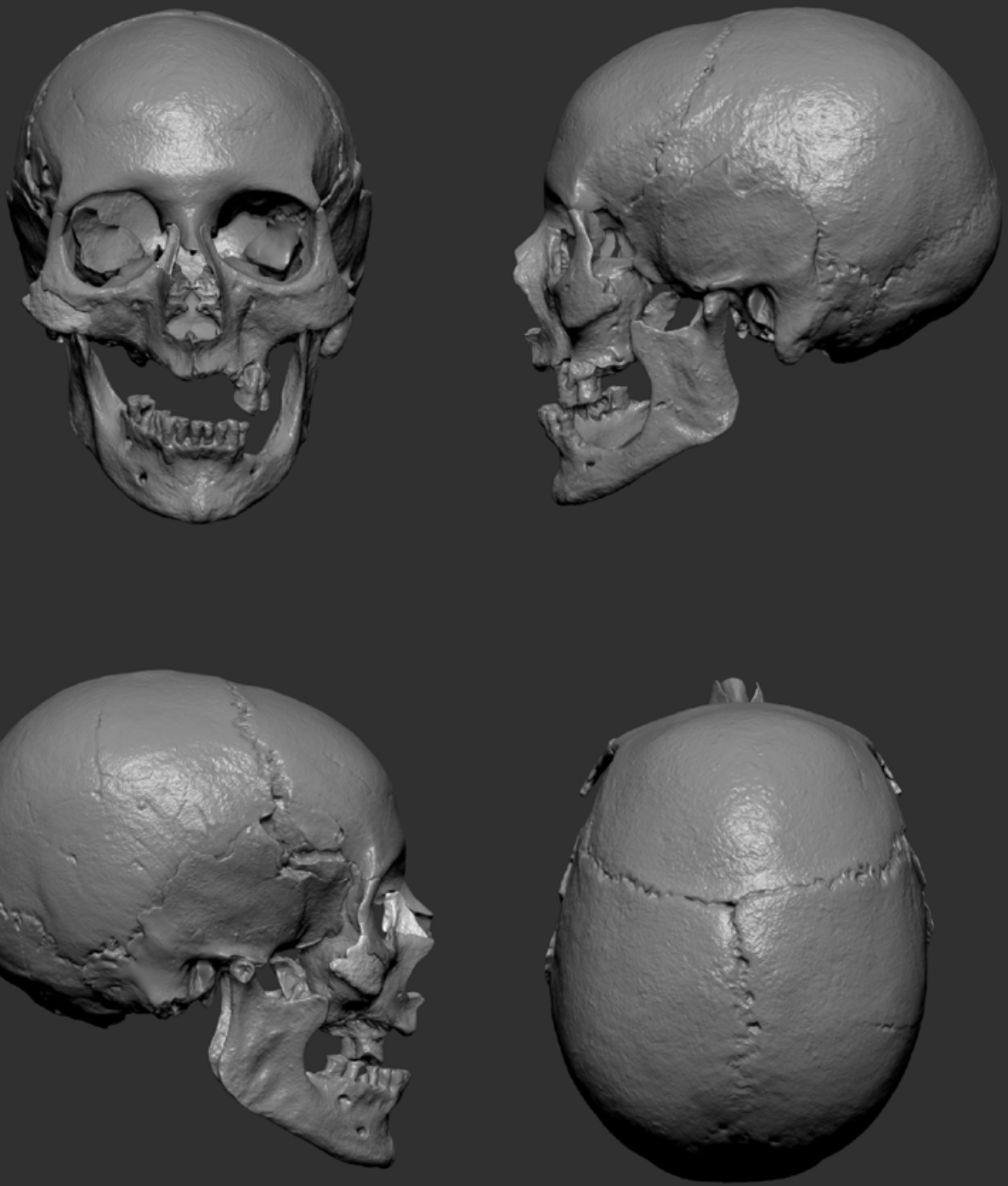
AY82 Female

original state



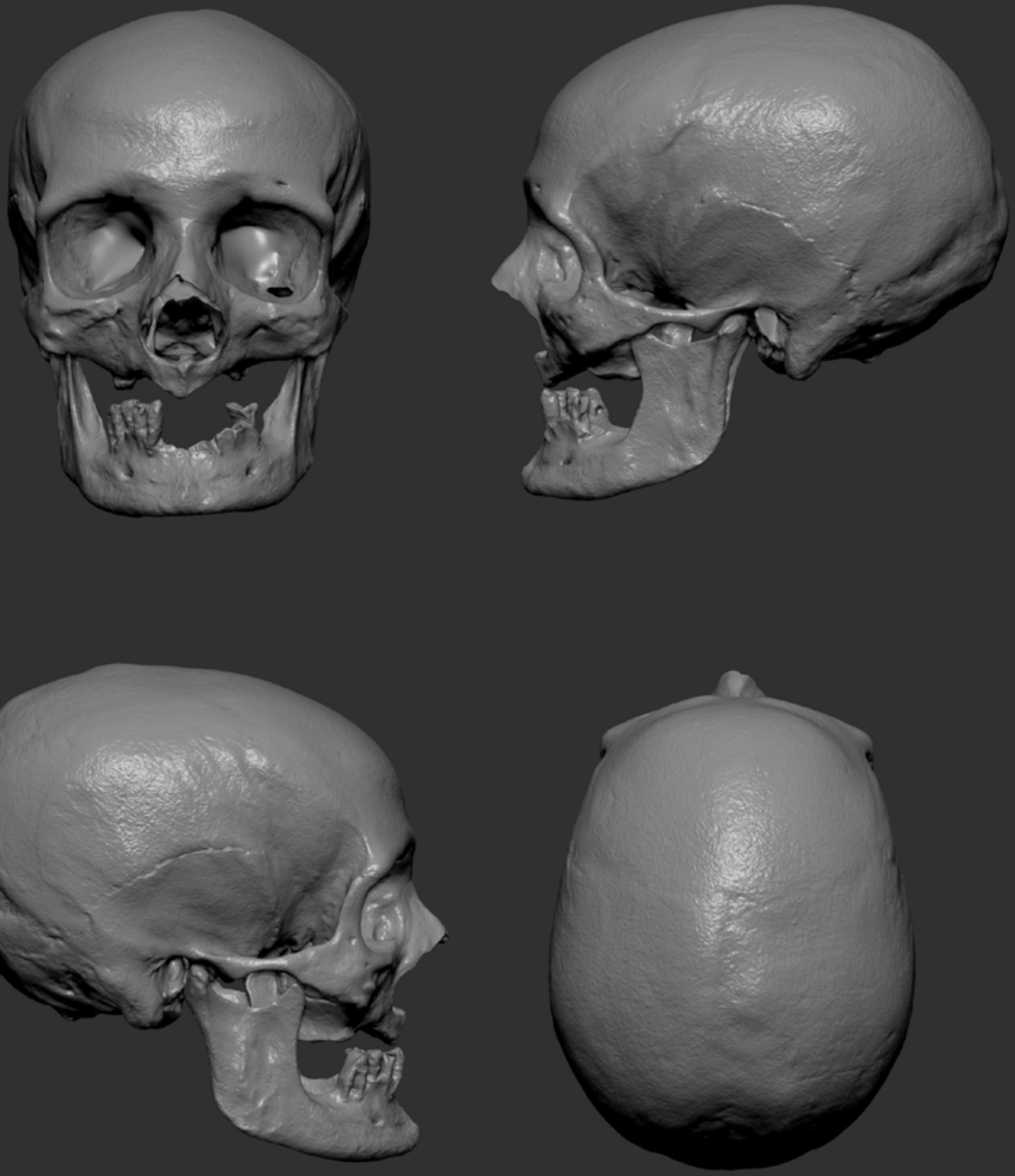
AY82 Female

reconstructed state



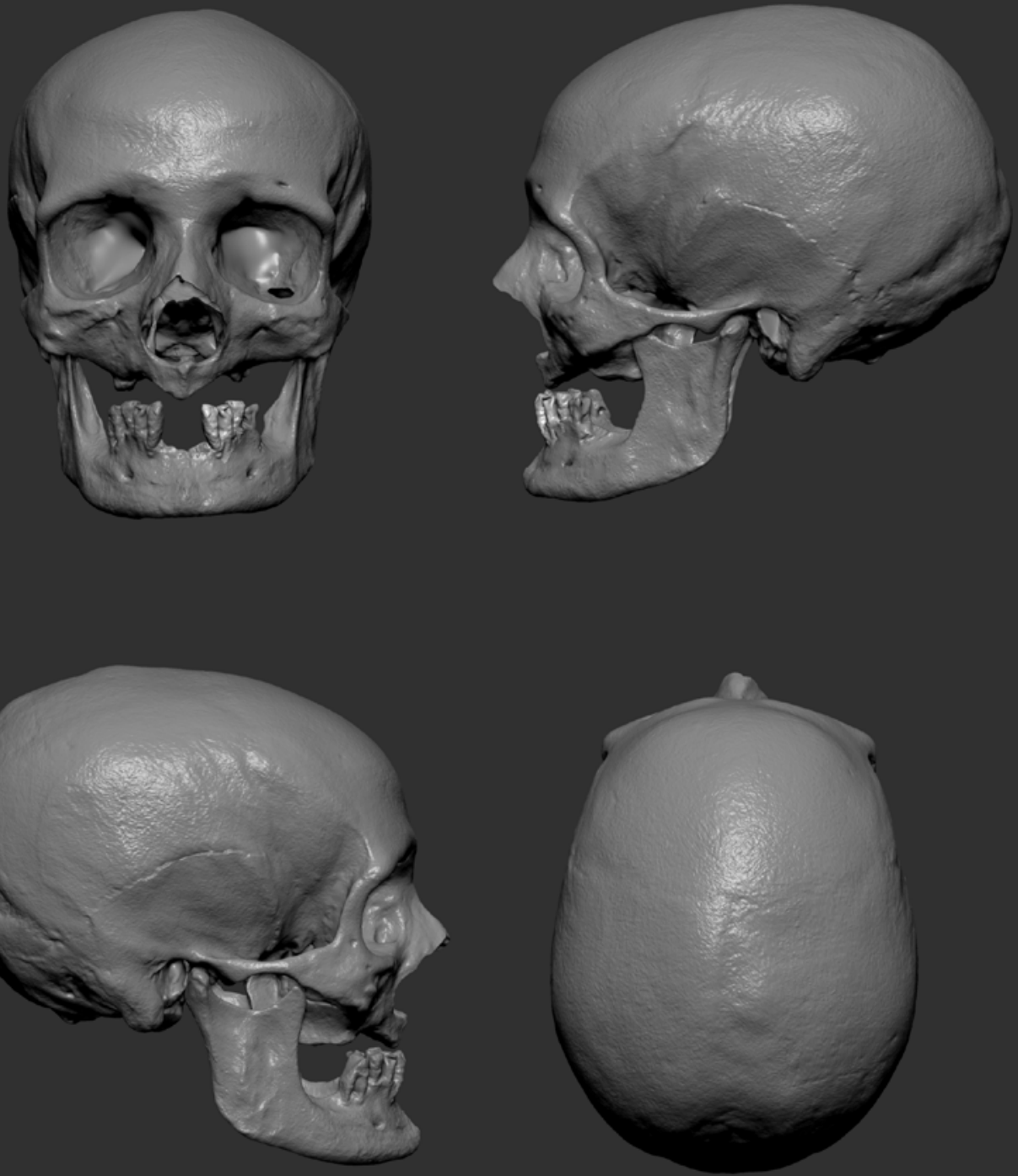
AY87

original state



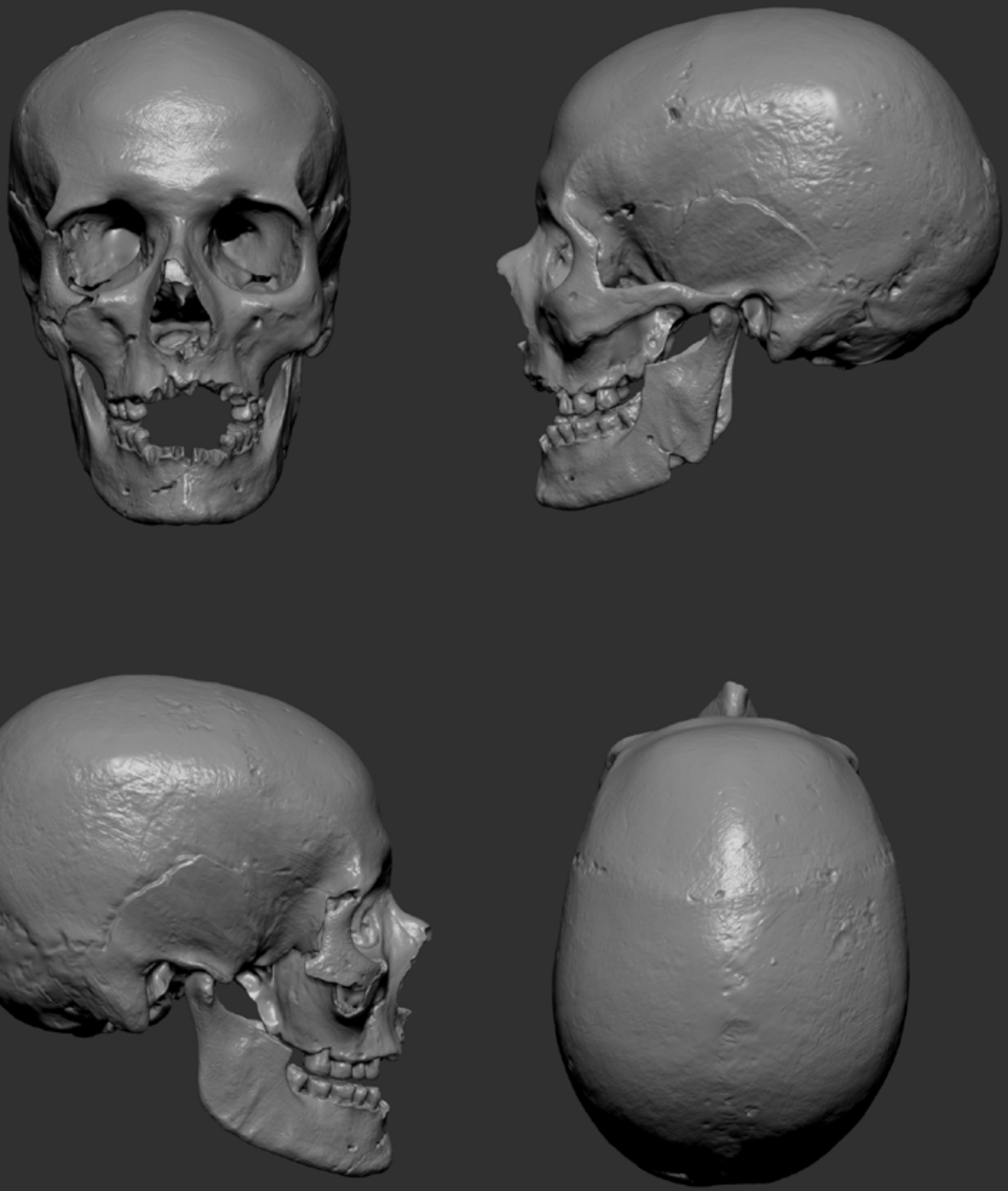
AY87

reconstructed state



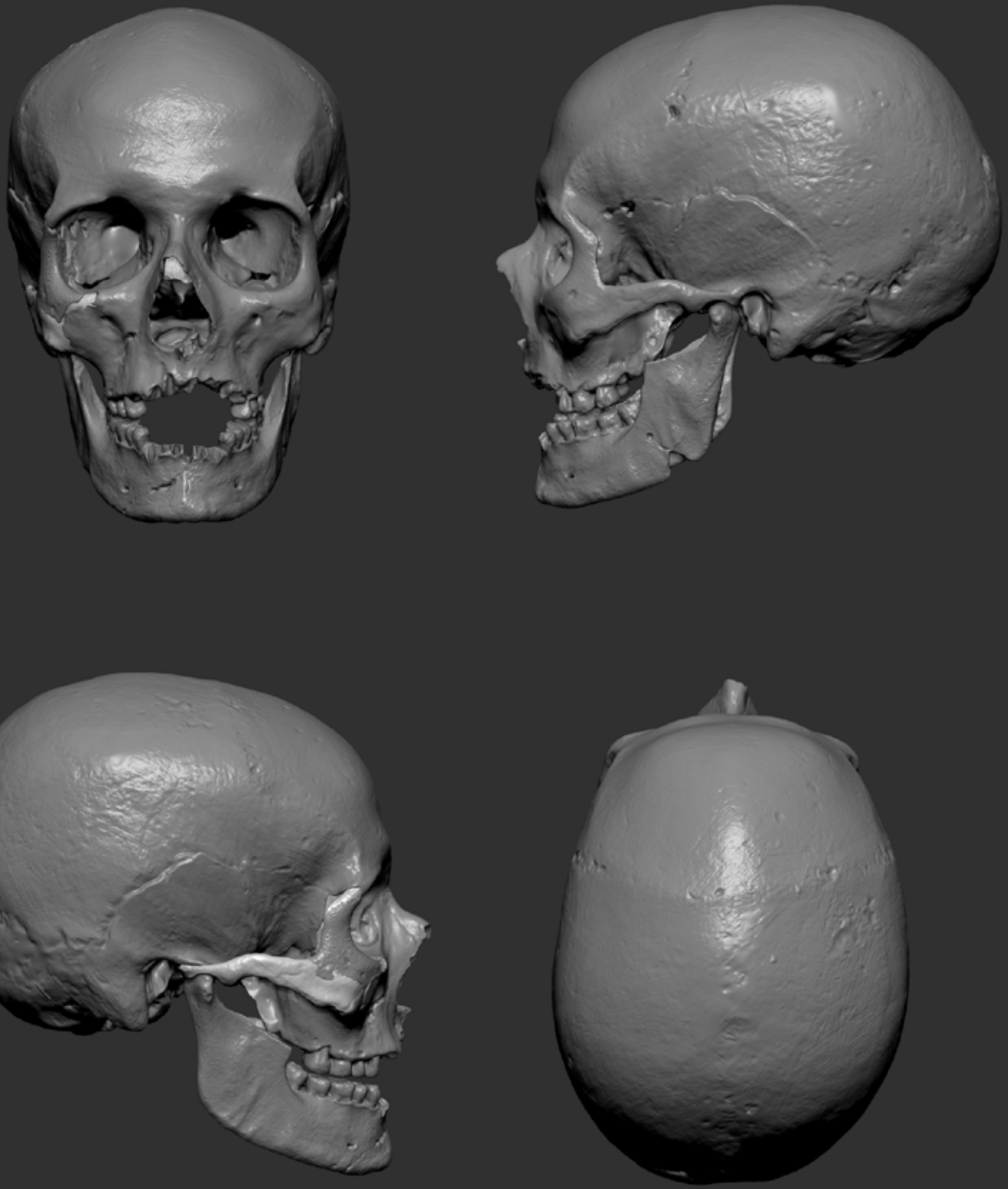
BA31

original state



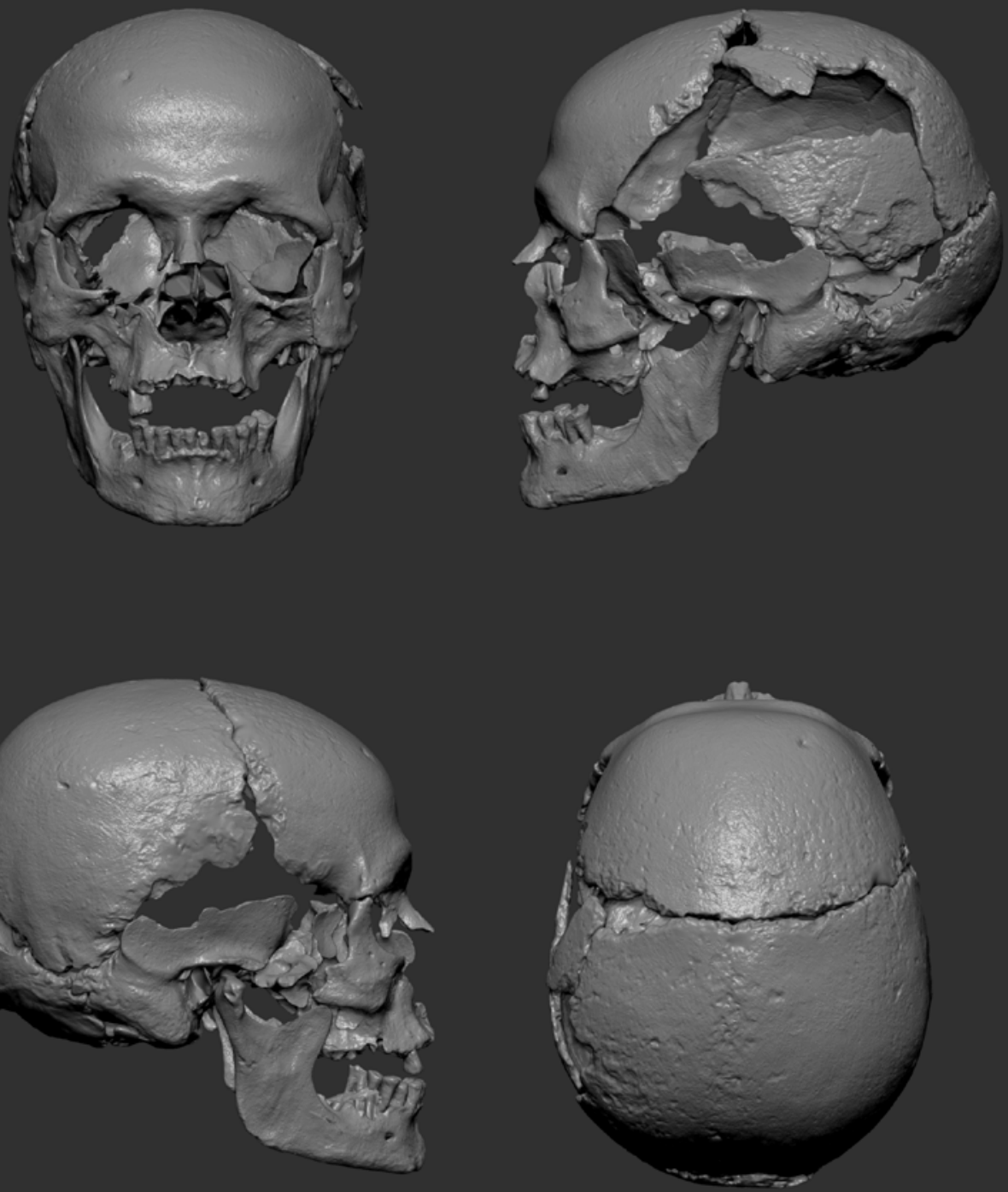
BA31

reconstructed state



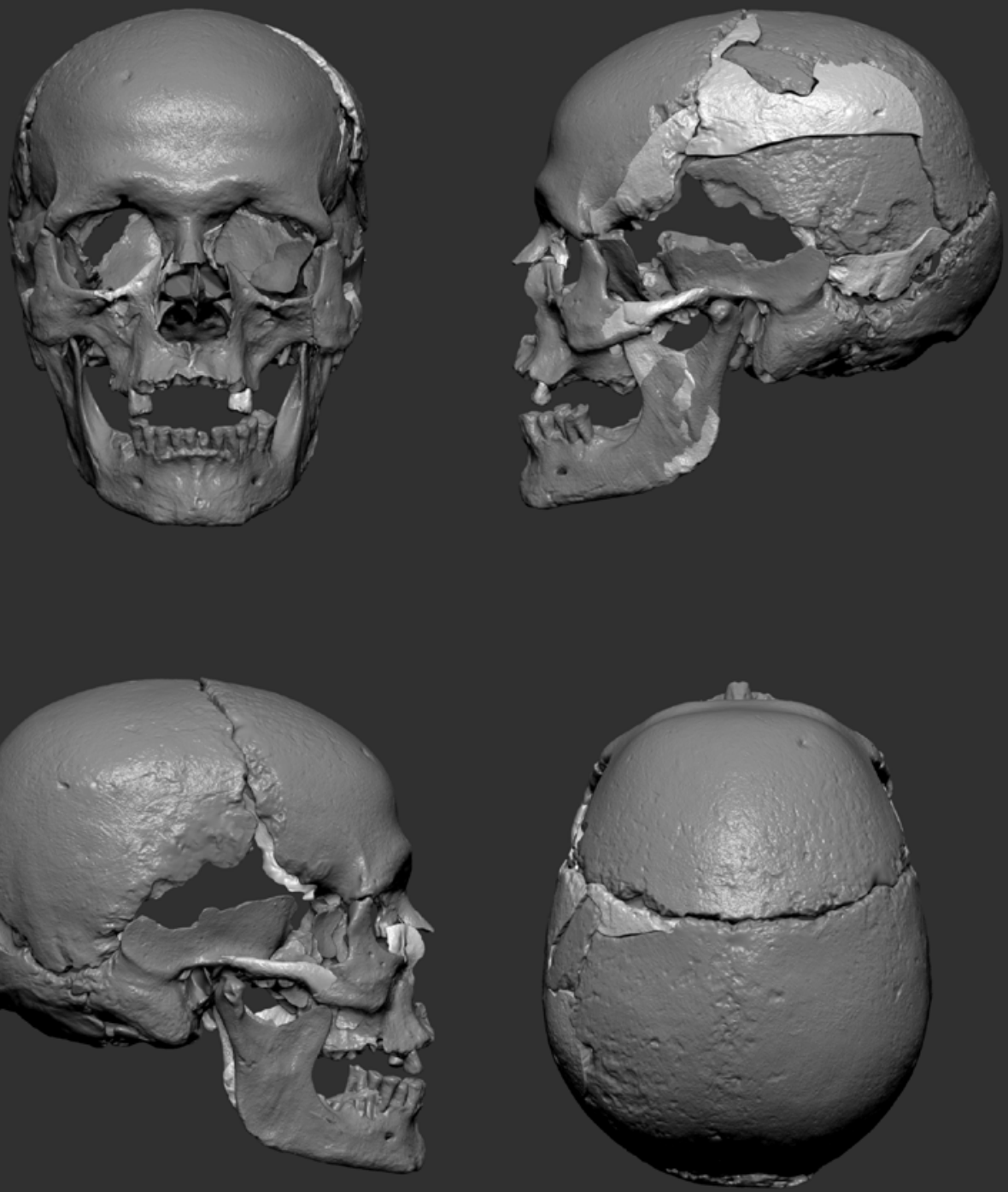
BA33

original state



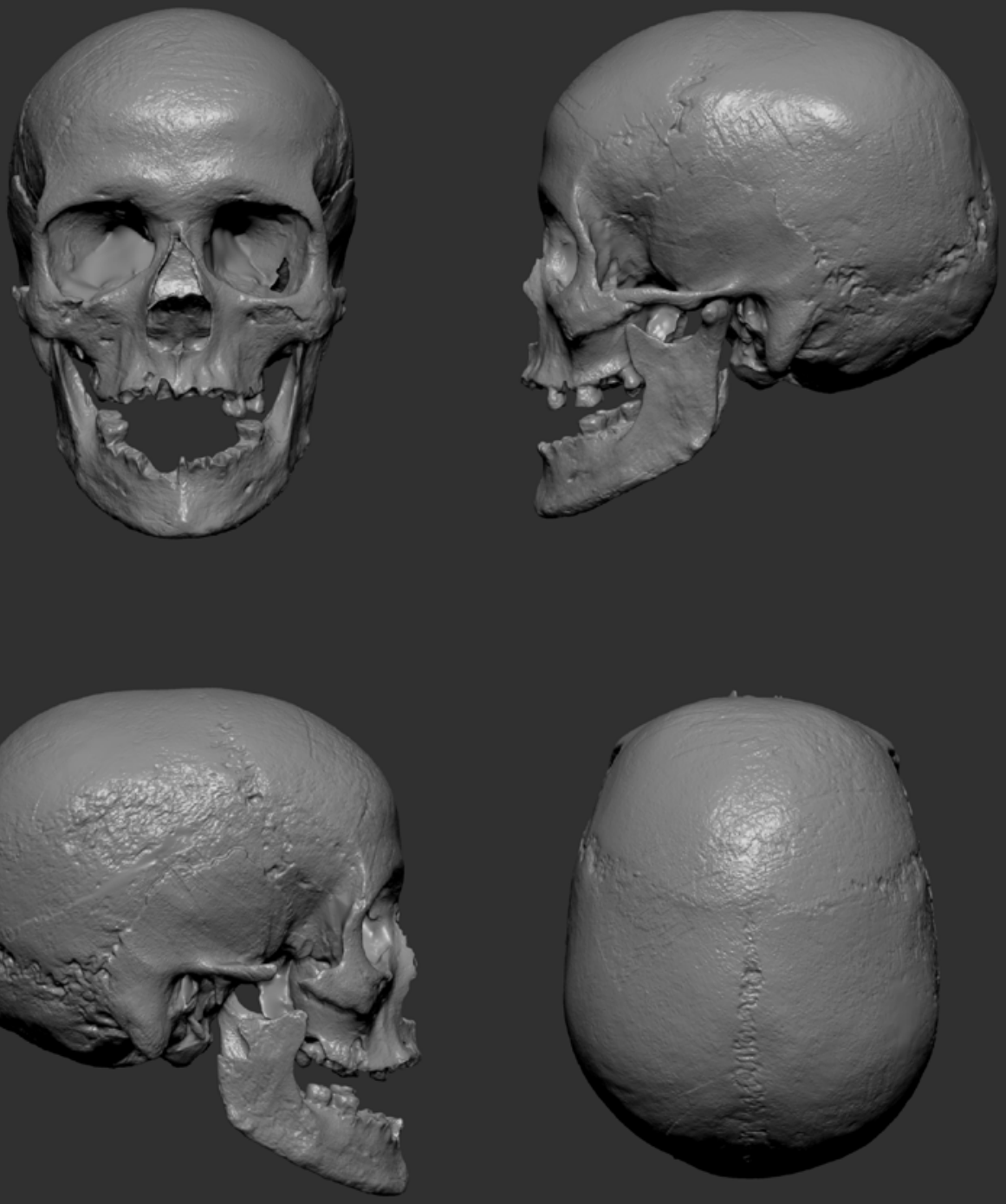
BA33

reconstructed state



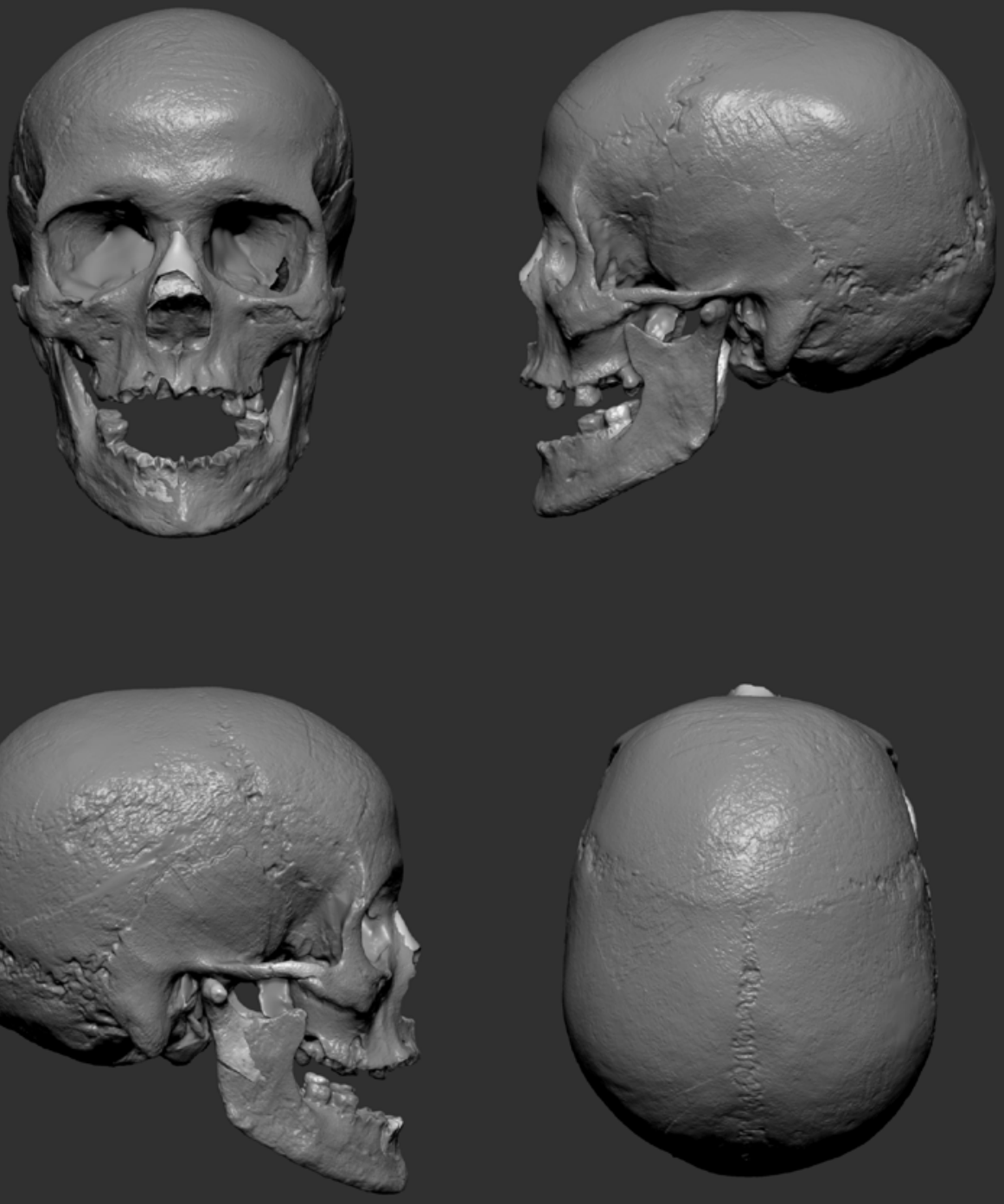
BA63

original state



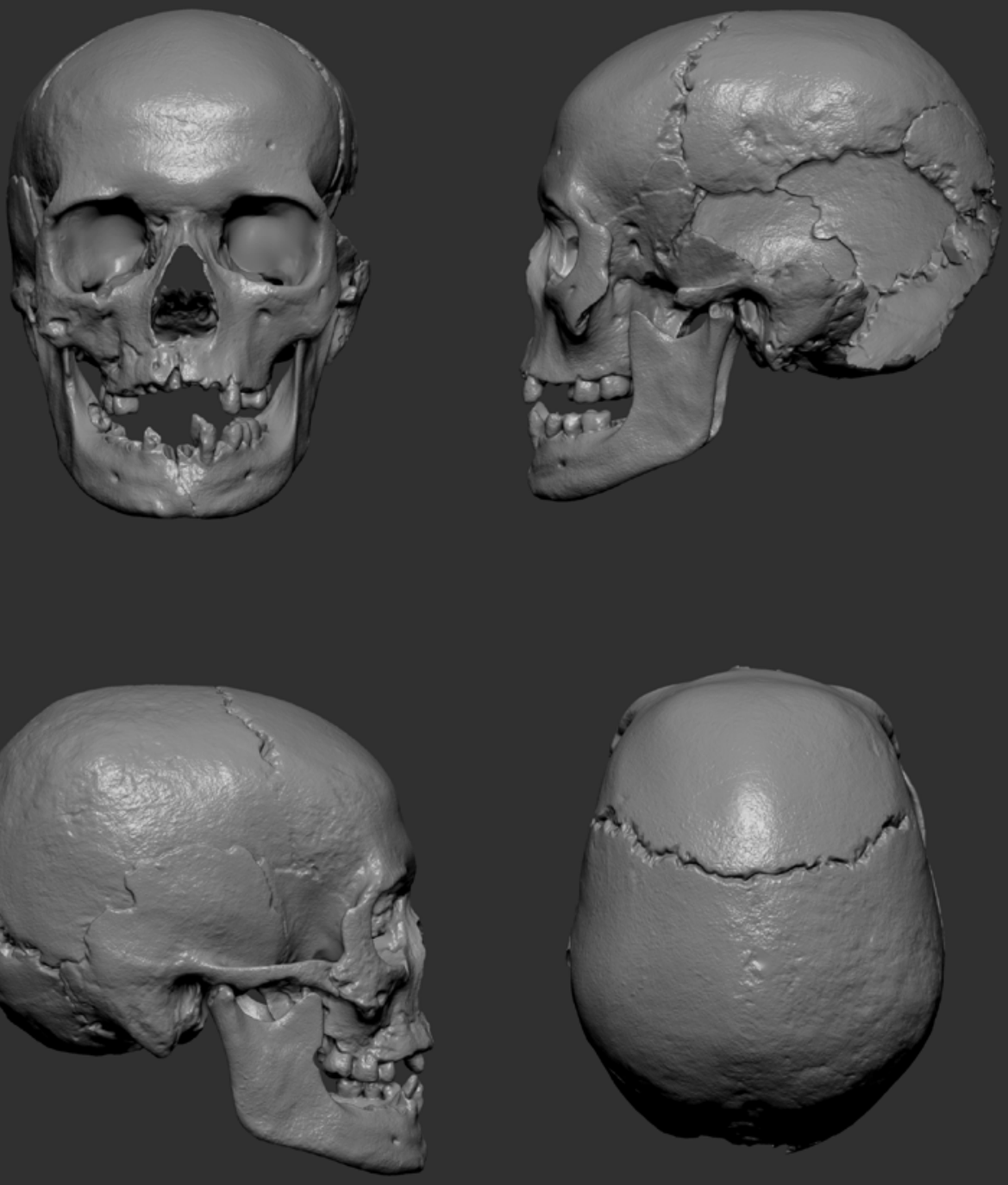
BA63

reconstructed state



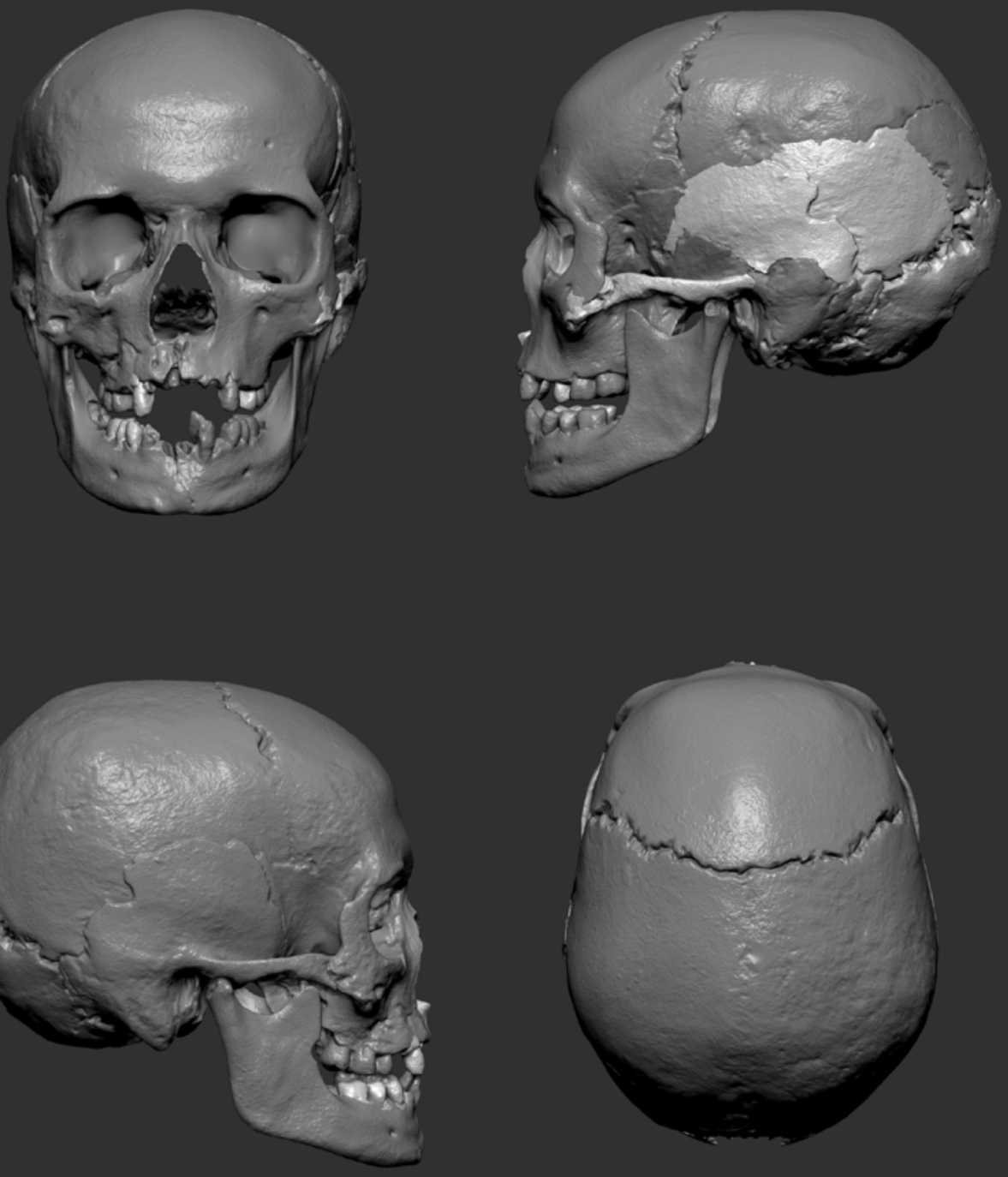
BAM-6

original state



BAM-6

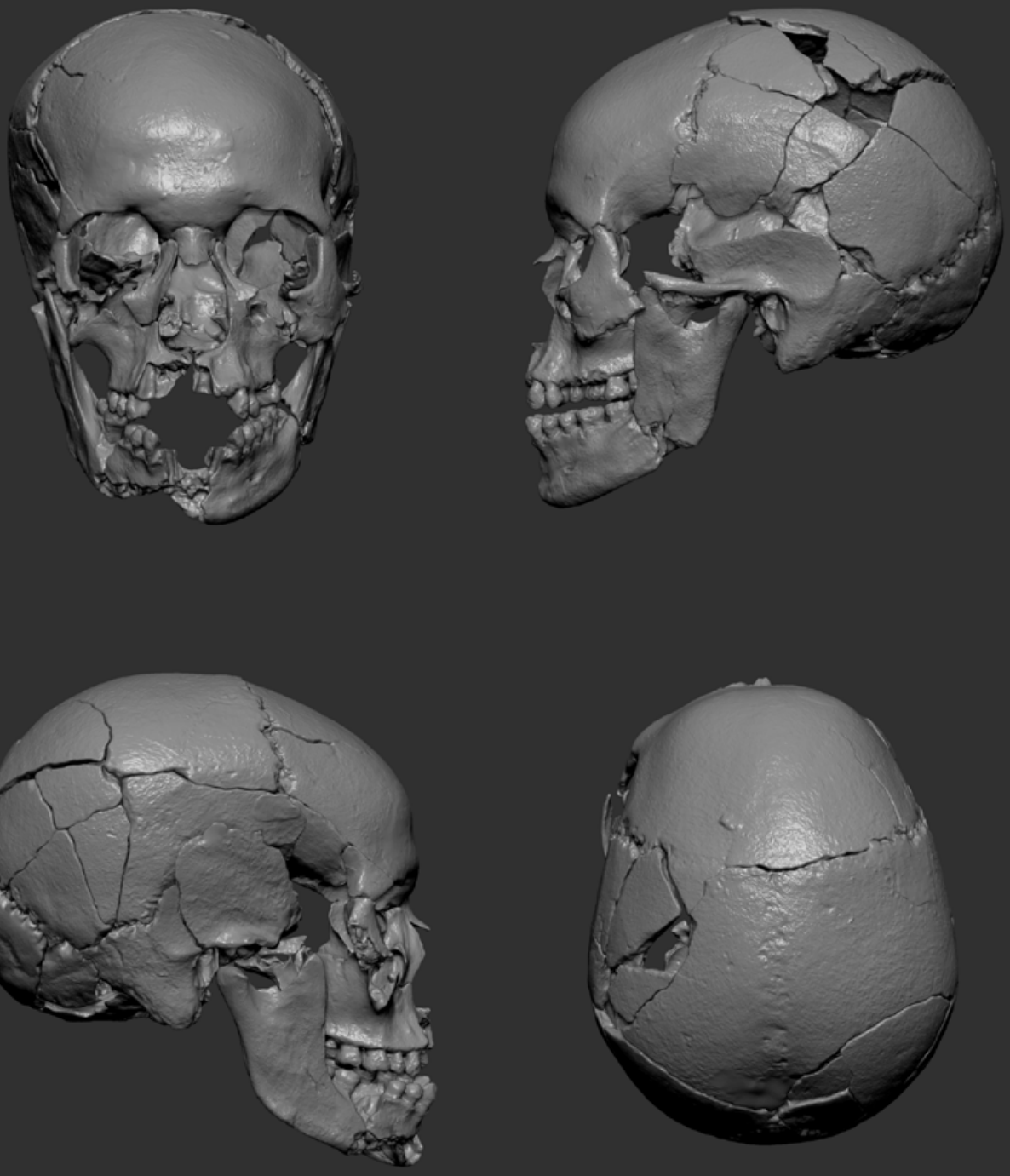
reconstructed state



3rd level (SFA)

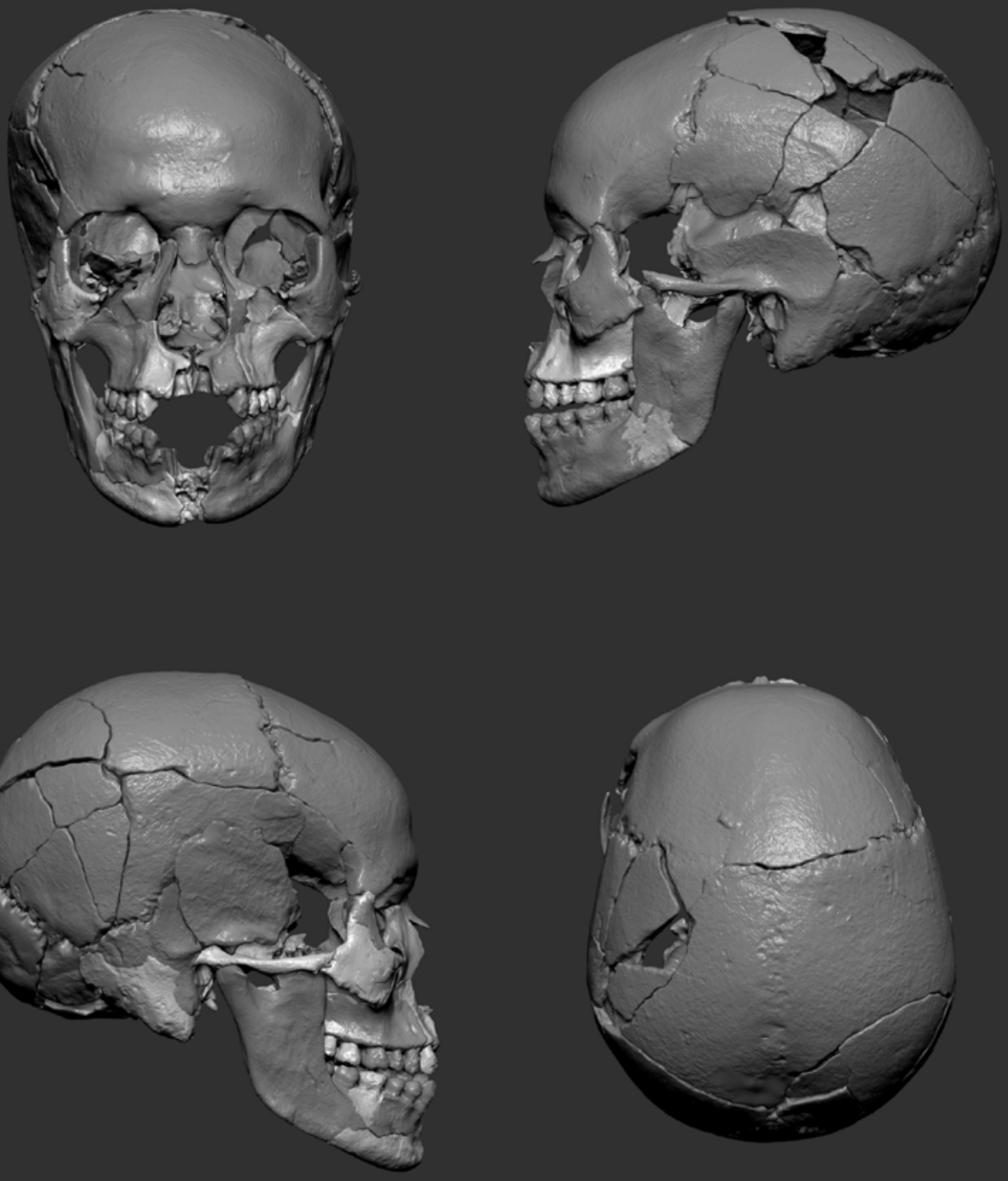
AY3

original state



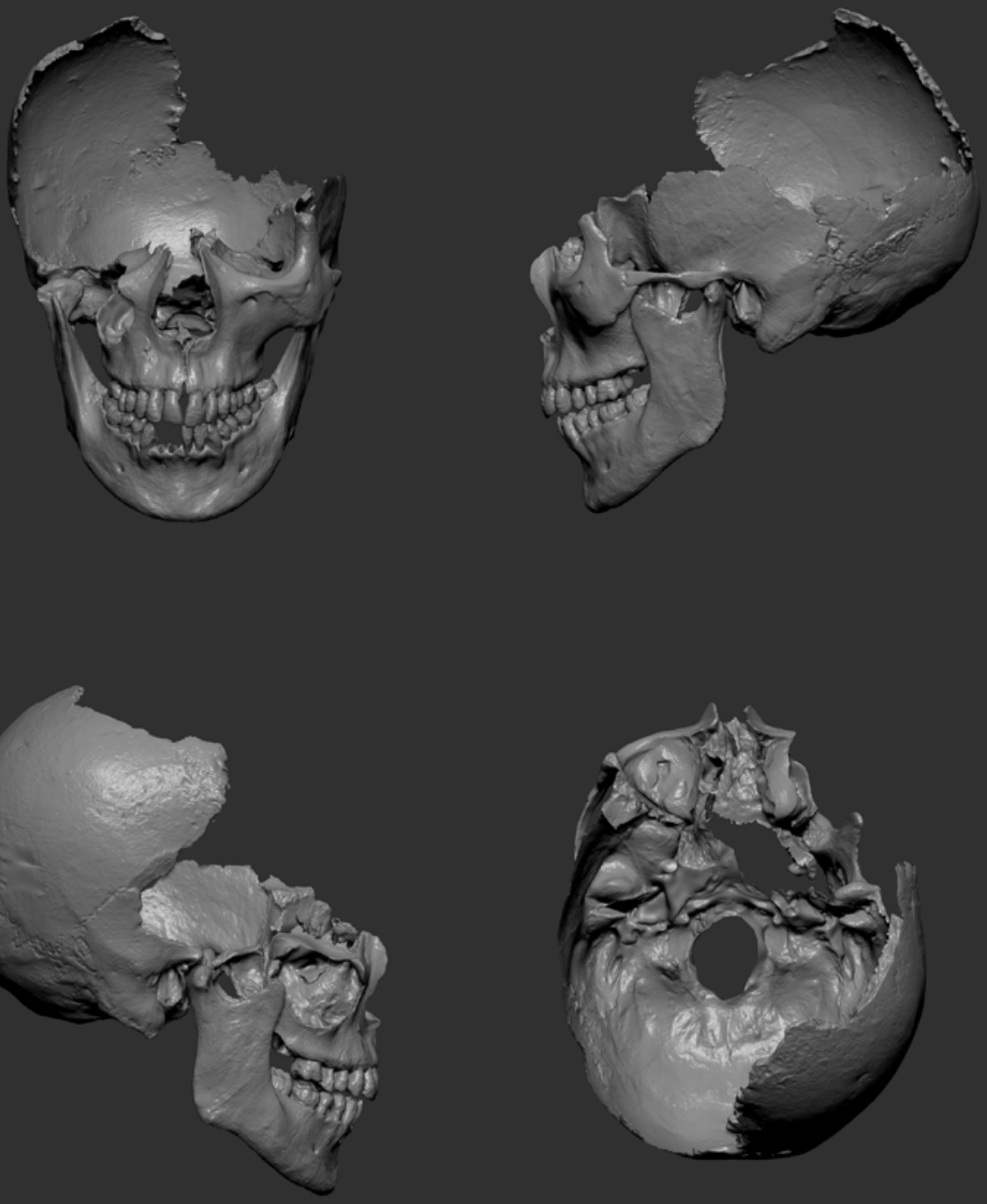
AY3

reconstructed state



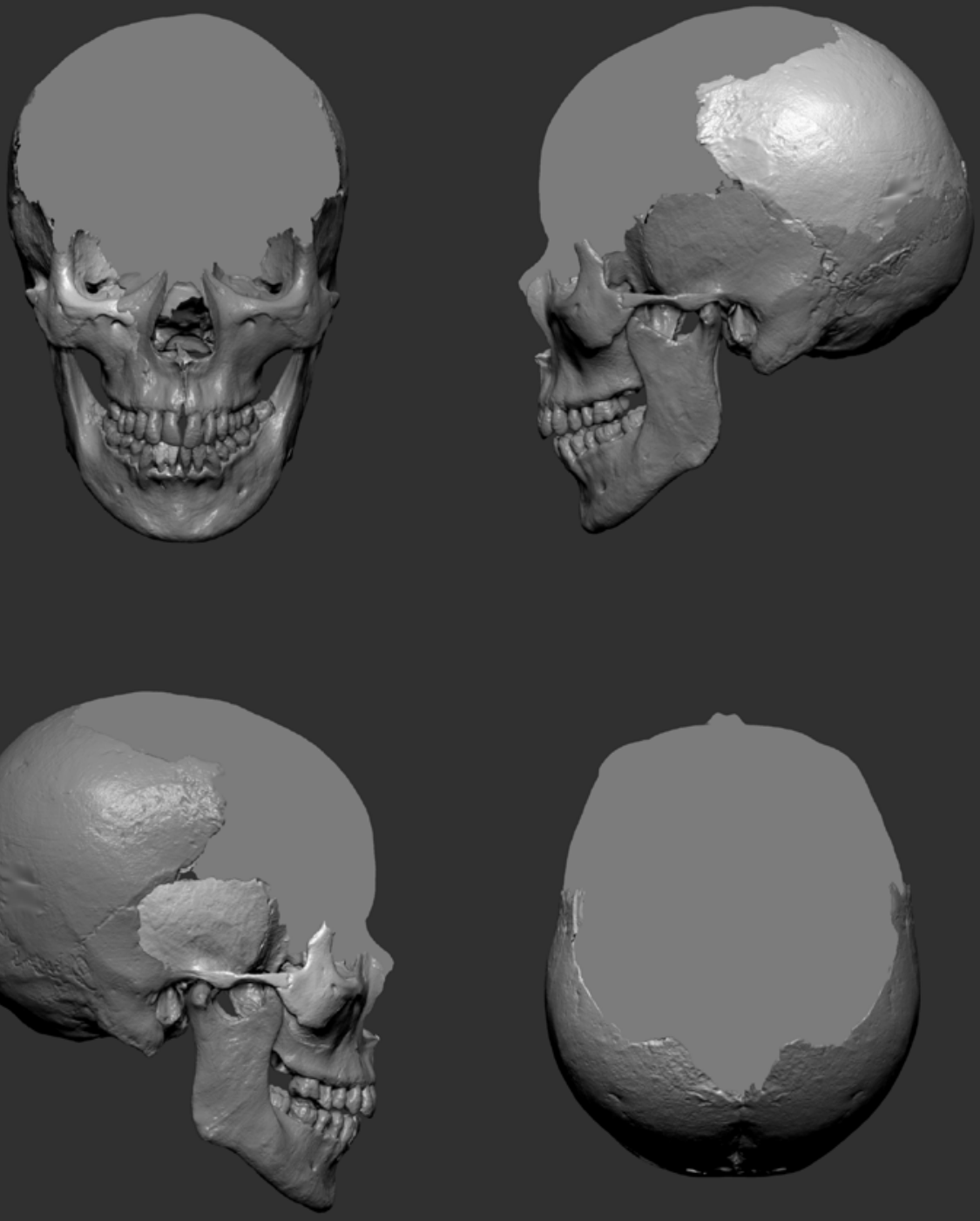
AY38 Female

original state



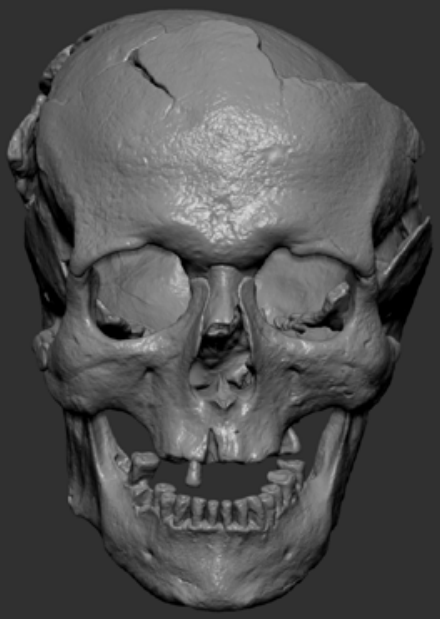
AY38 Female

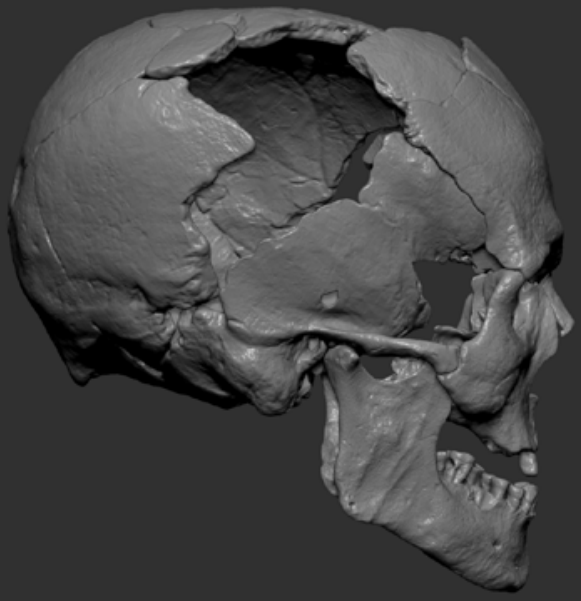
reconstructed state

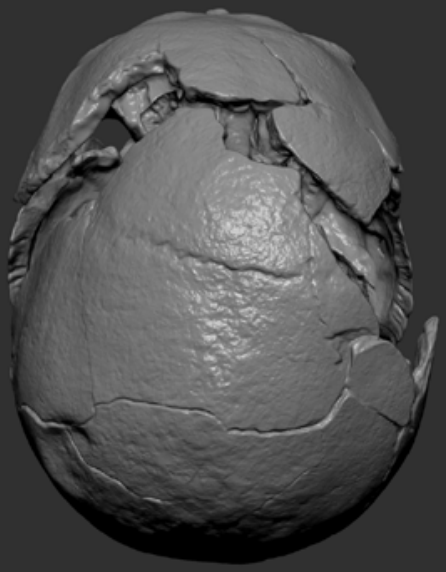


AY60 Male

original state

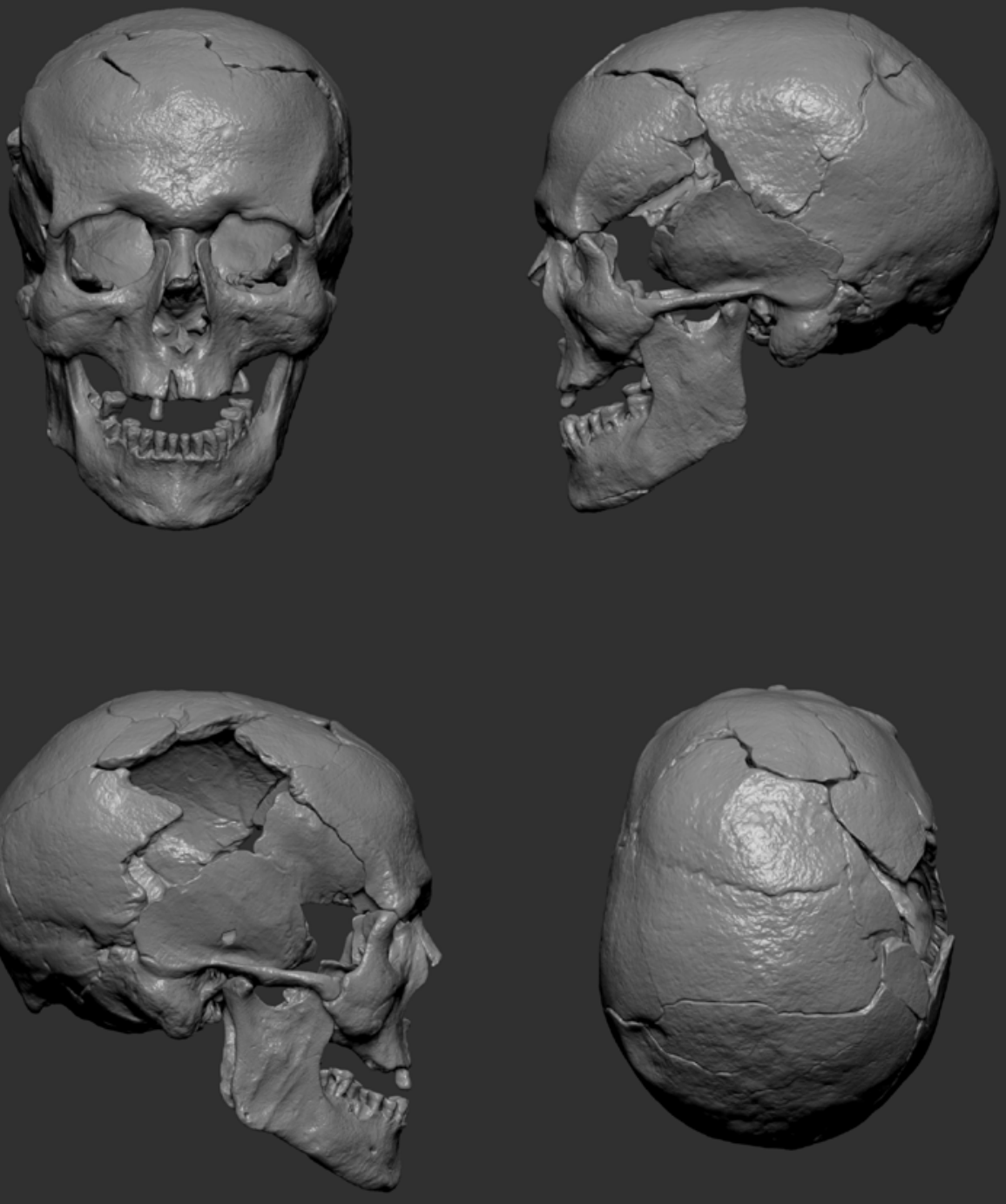






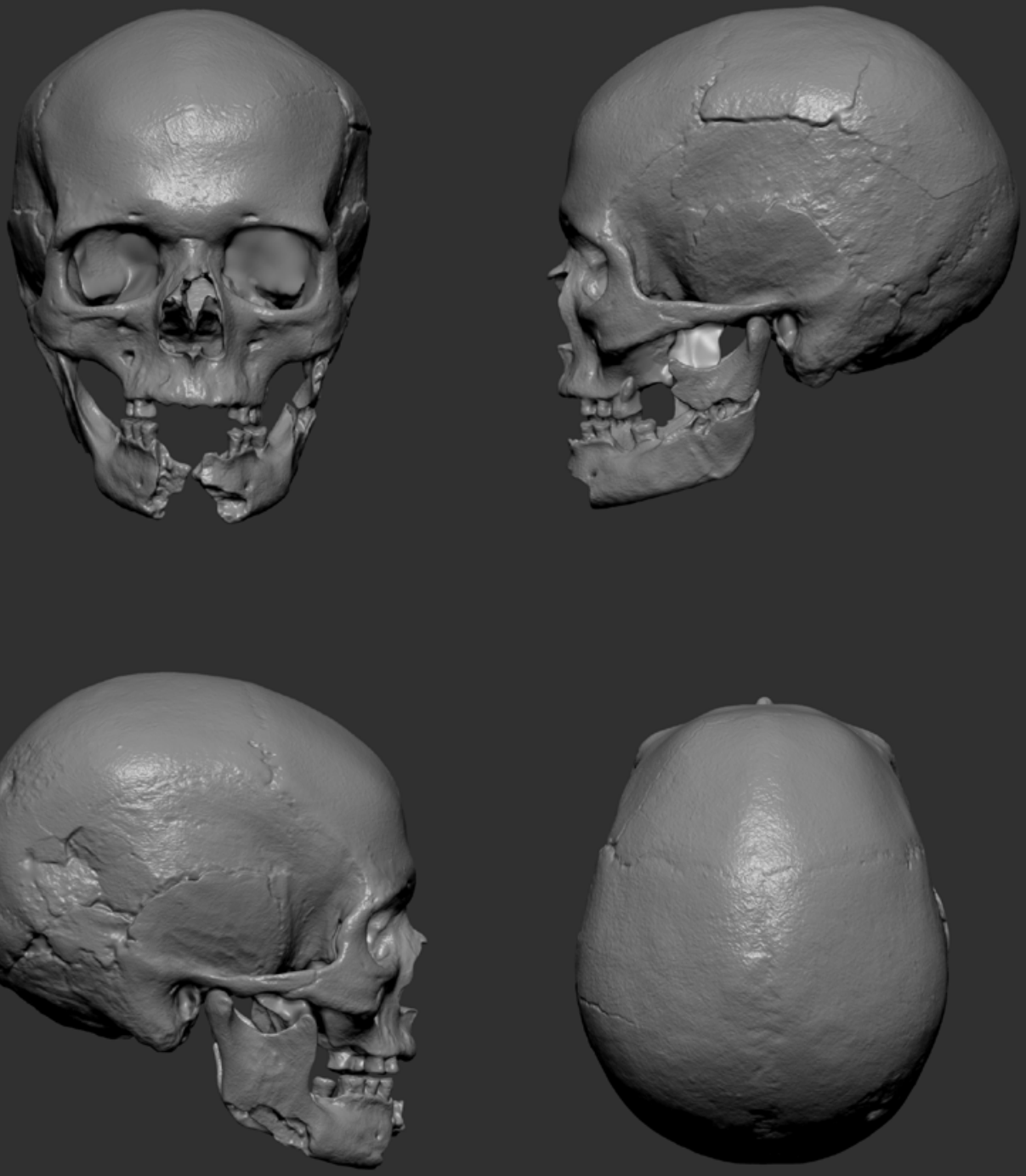
AY60 Male

reconstructed state



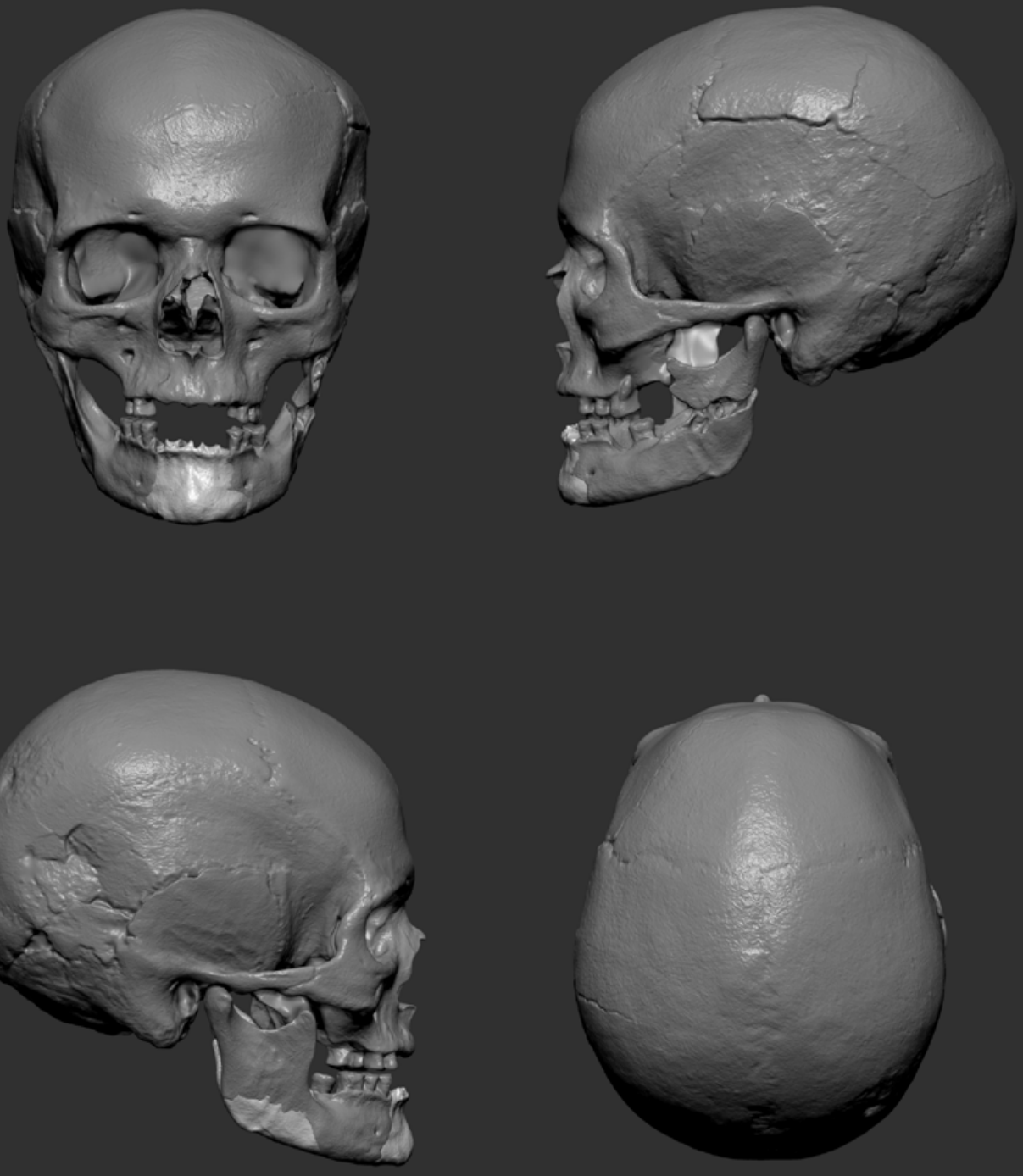
AY94 Female

original state



AY94 Female

reconstructed state



Appendix B

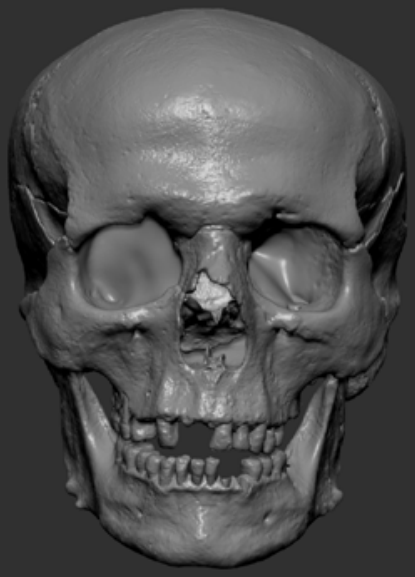
"Faces of El Argar"

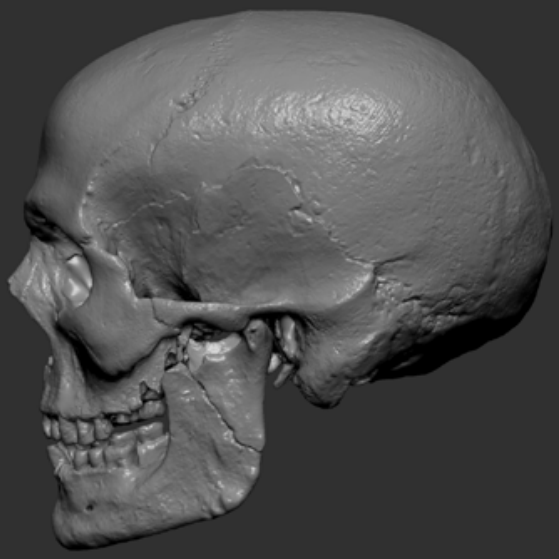
(facial representations of individuals from La Almoloya and La Bastida)

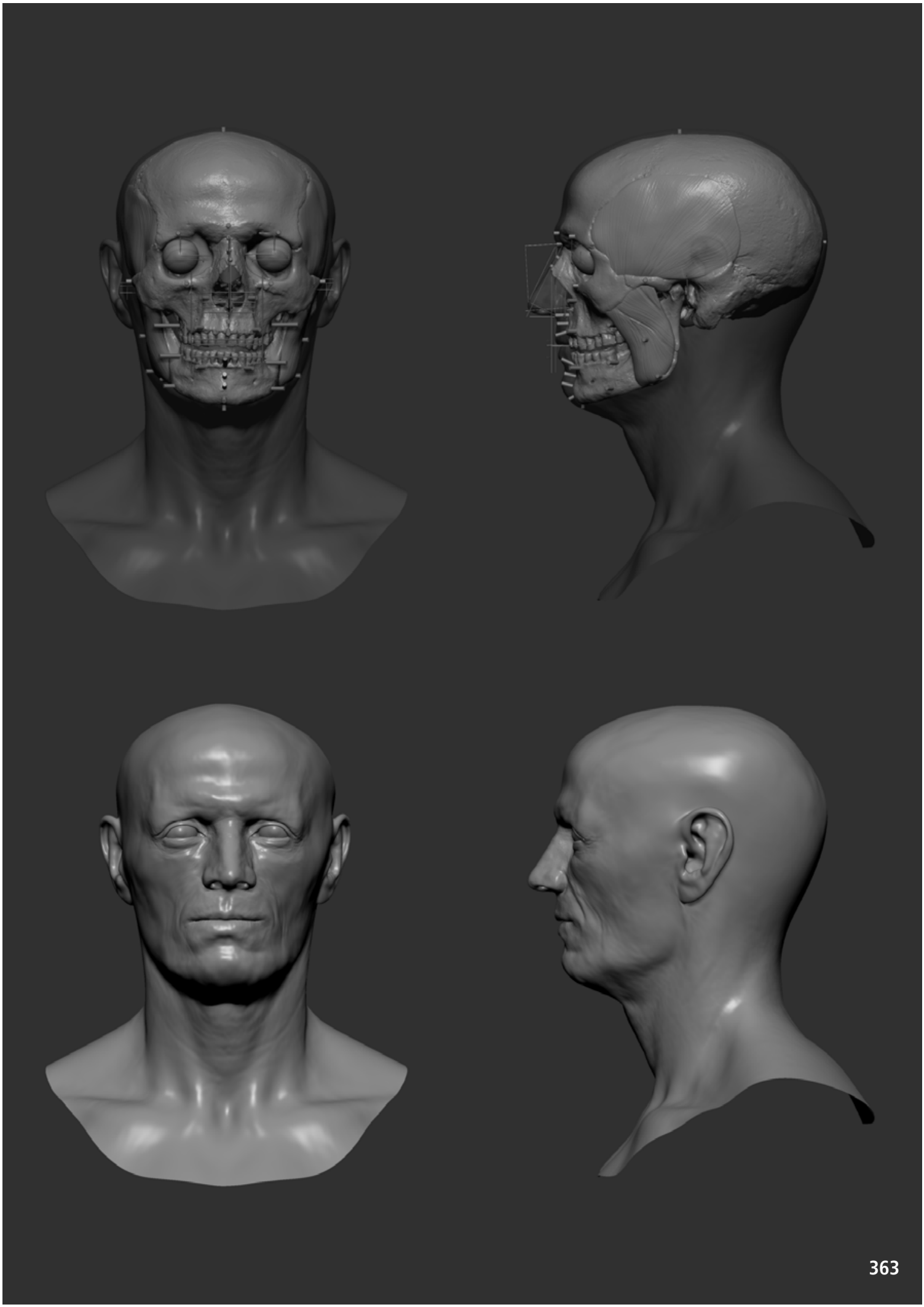
La Almoloya

1st level (SFA)

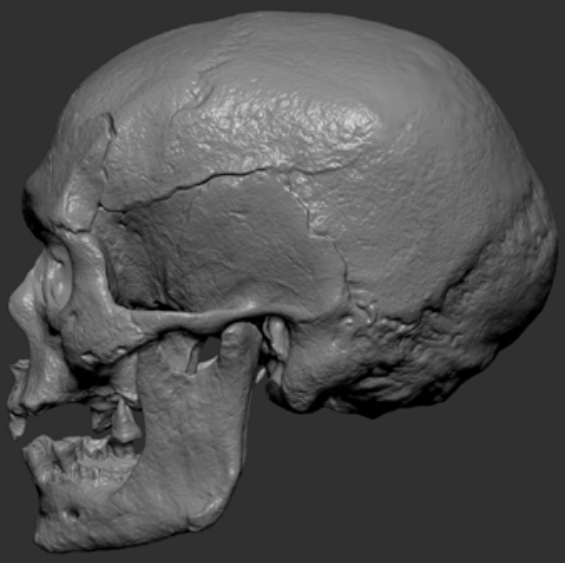
AY5

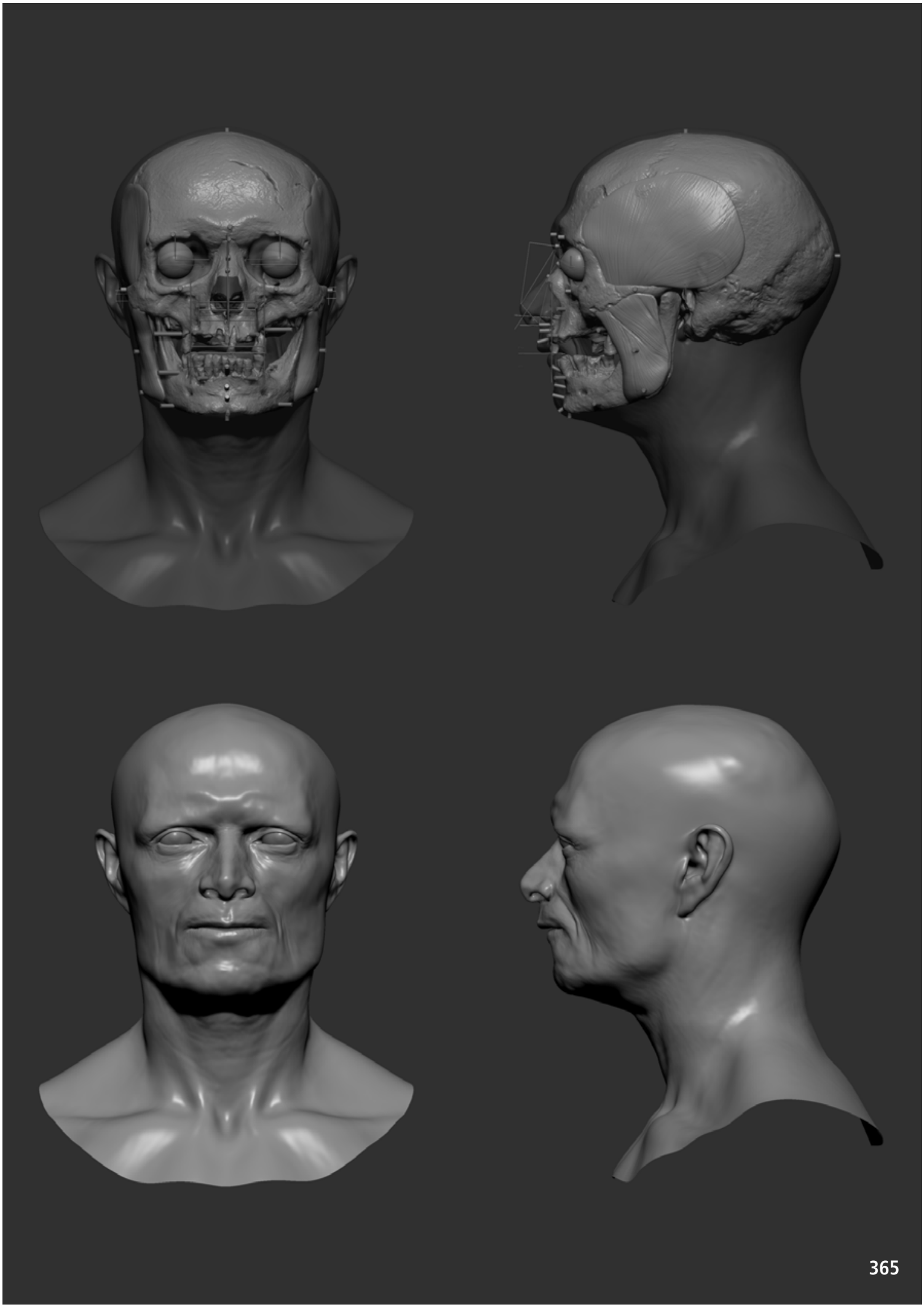




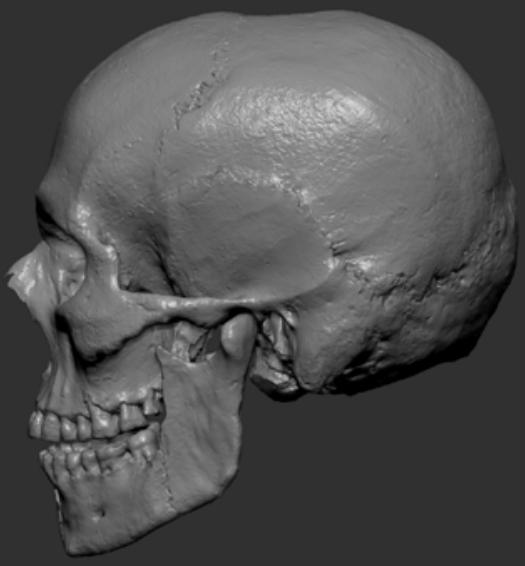


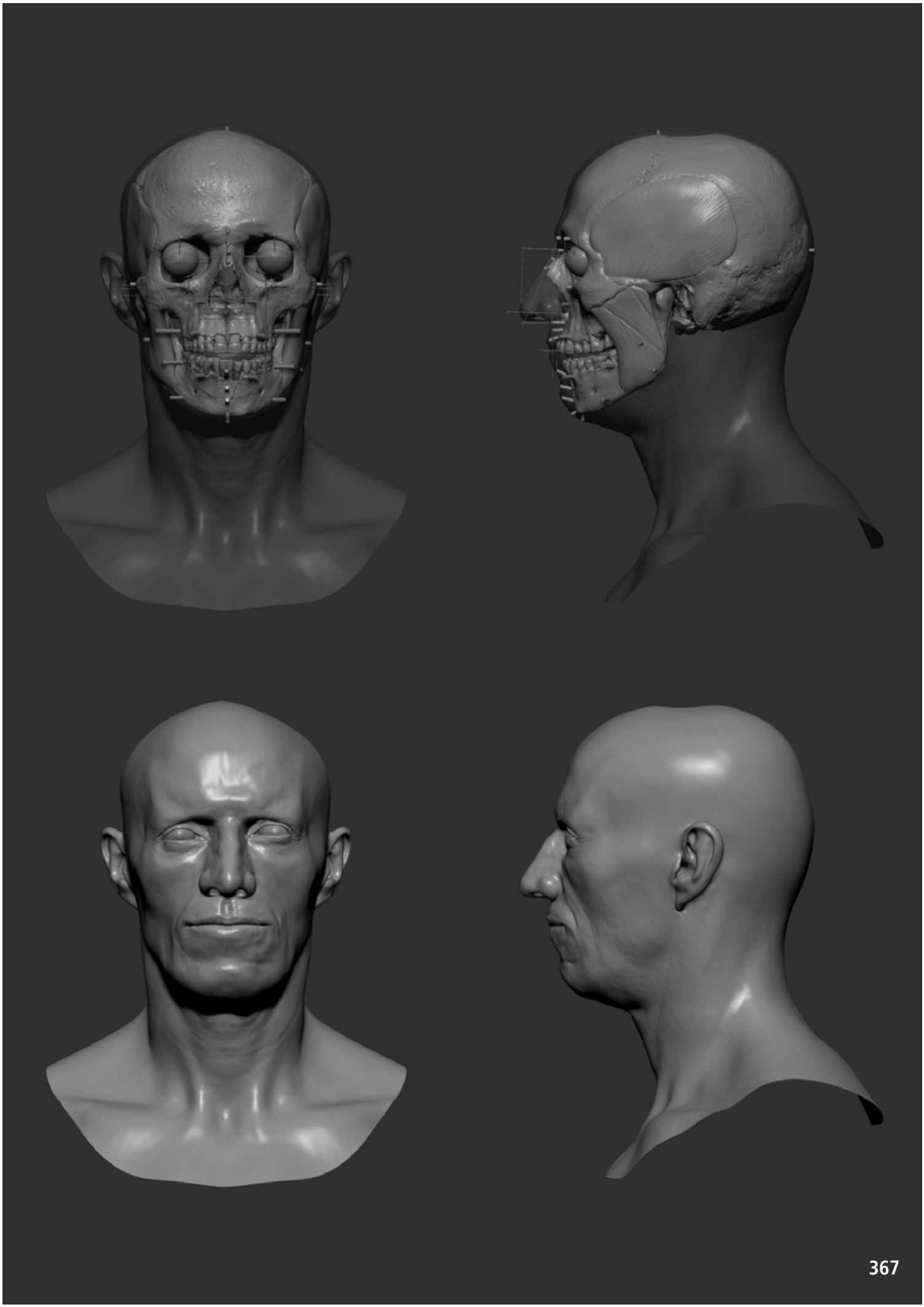
AY12



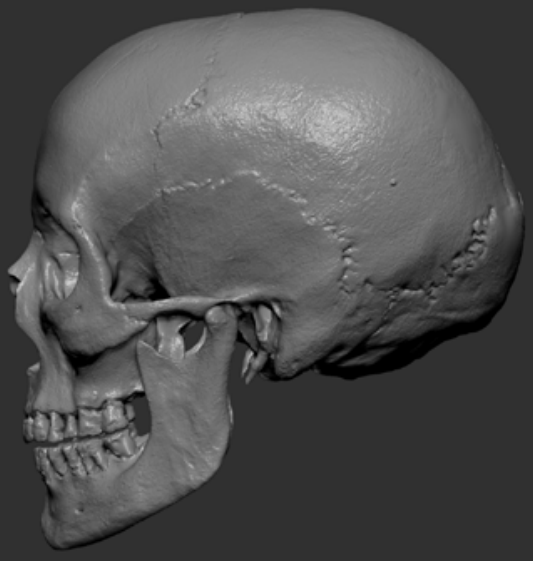


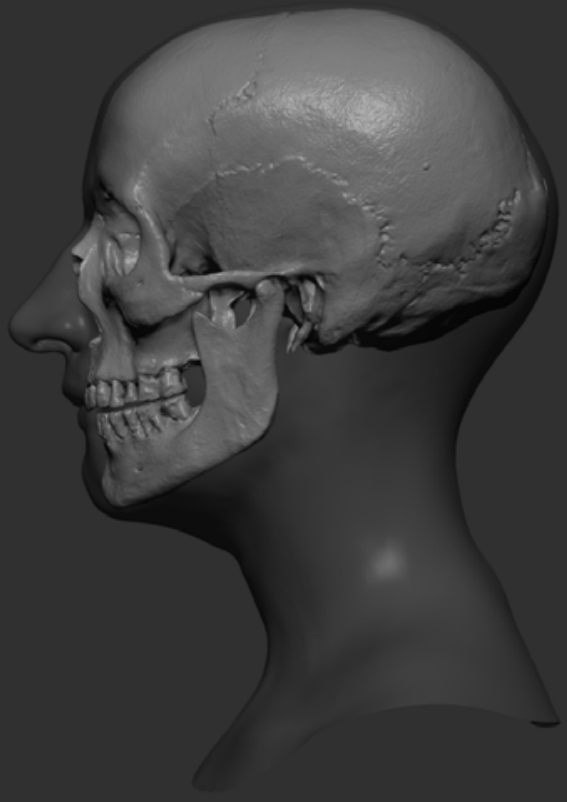
AY16

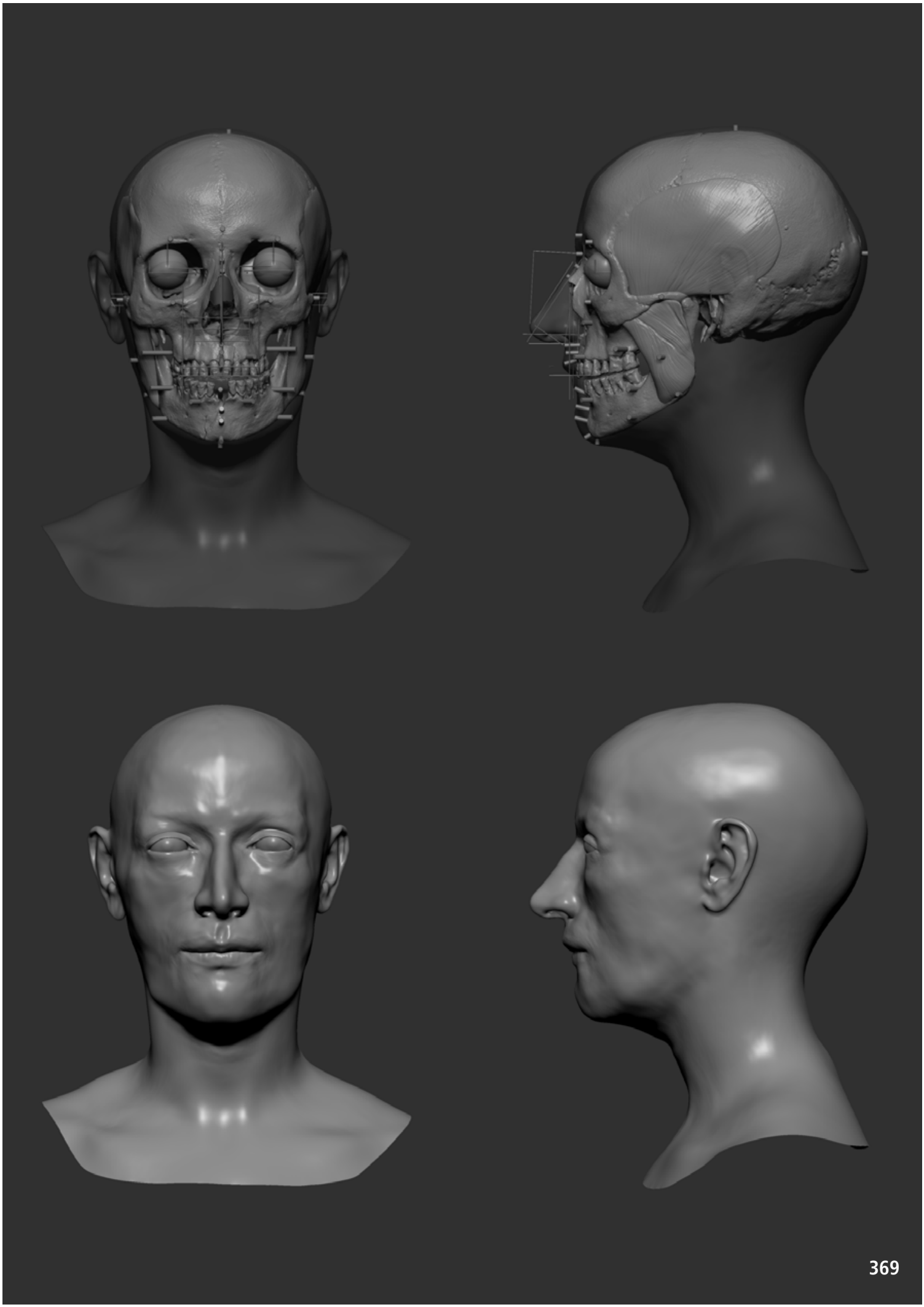




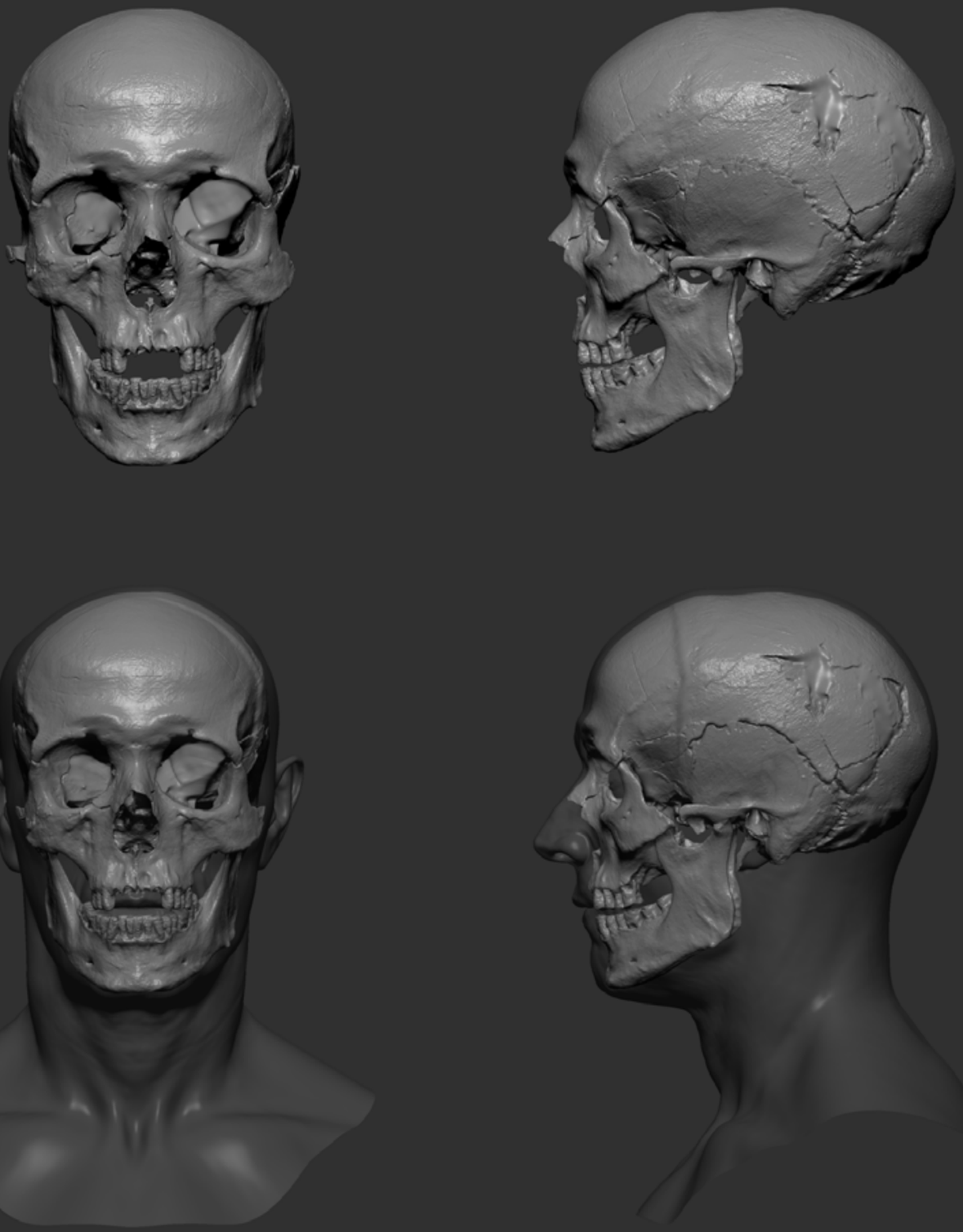
AY24 Female

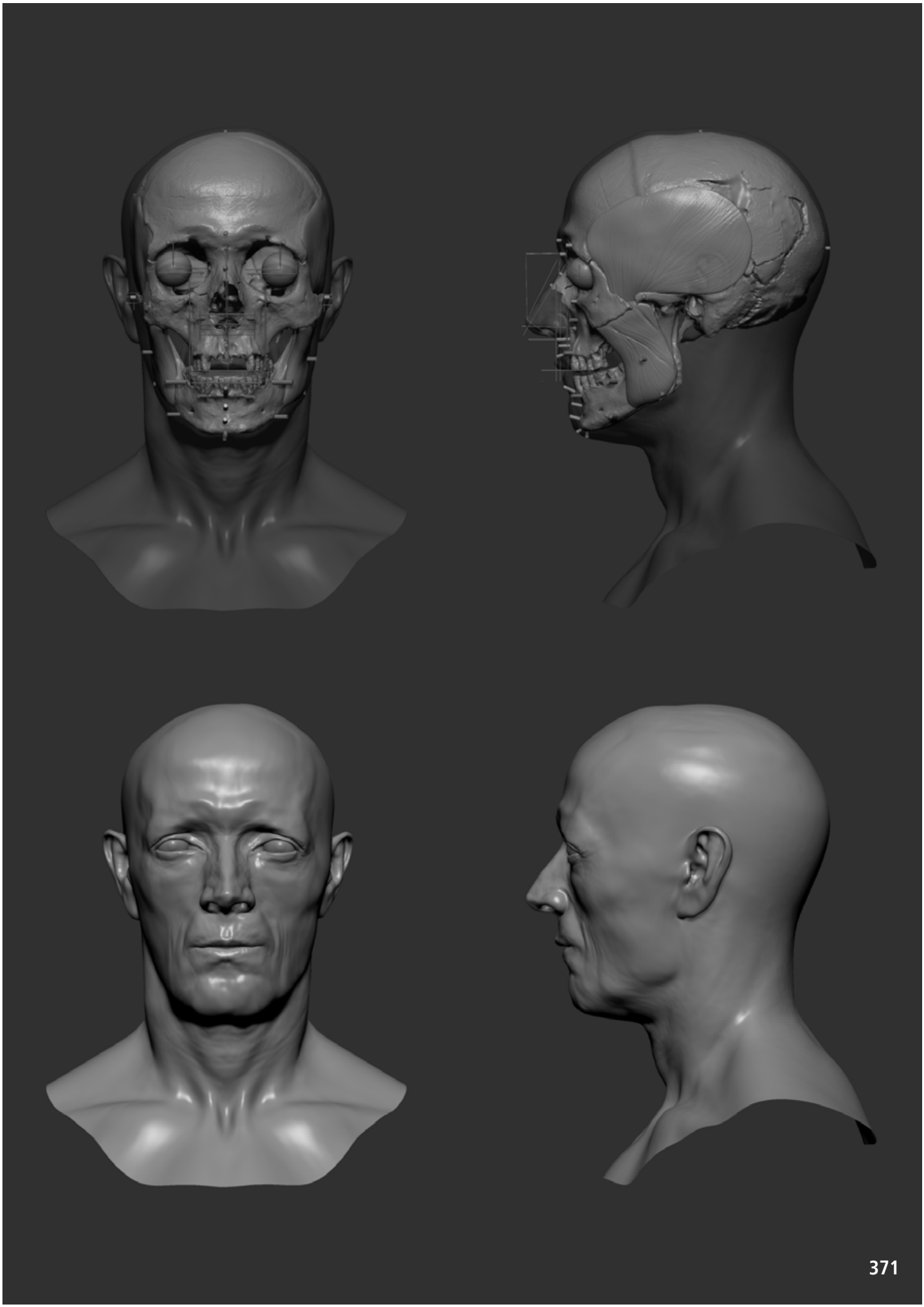




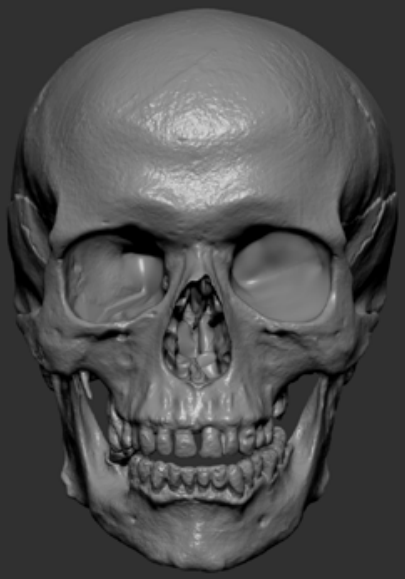


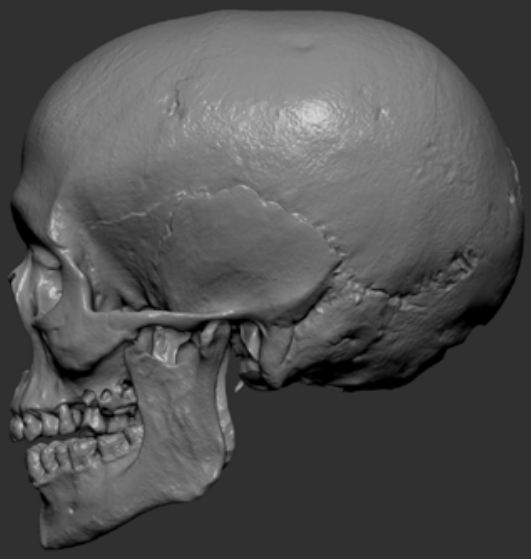
AY24 Male

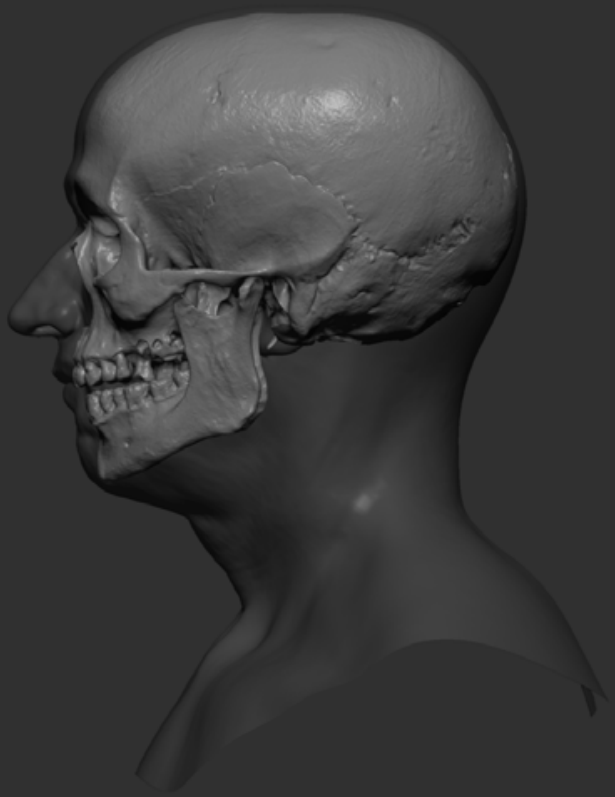


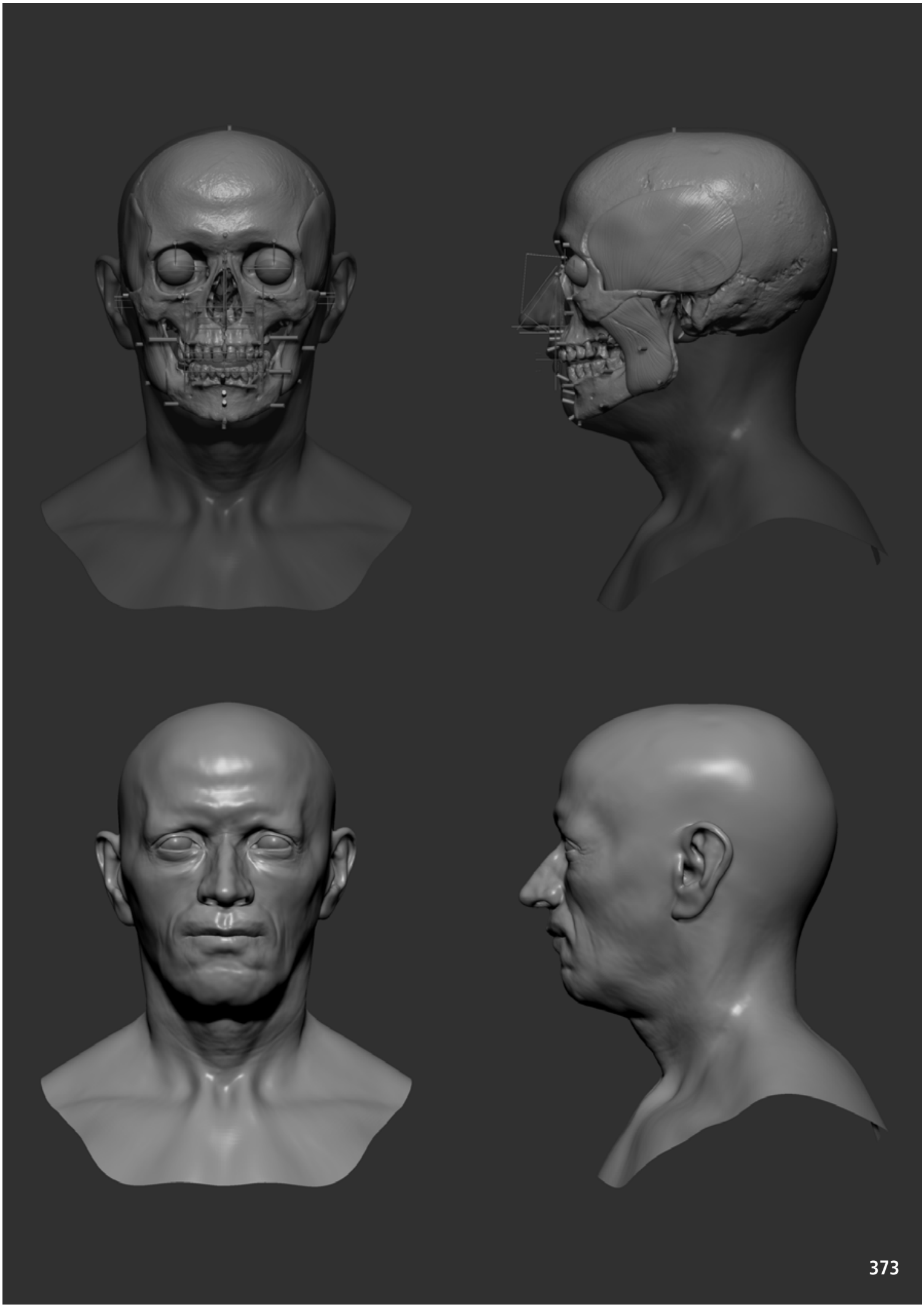


AY32

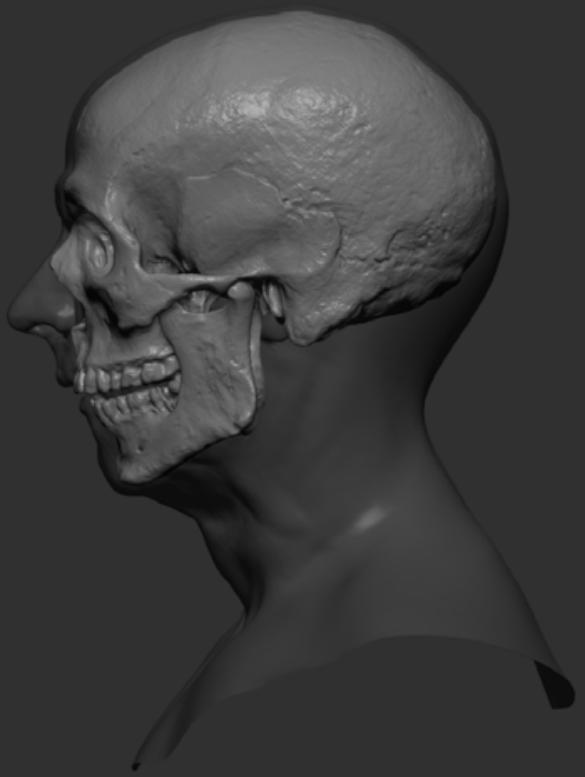


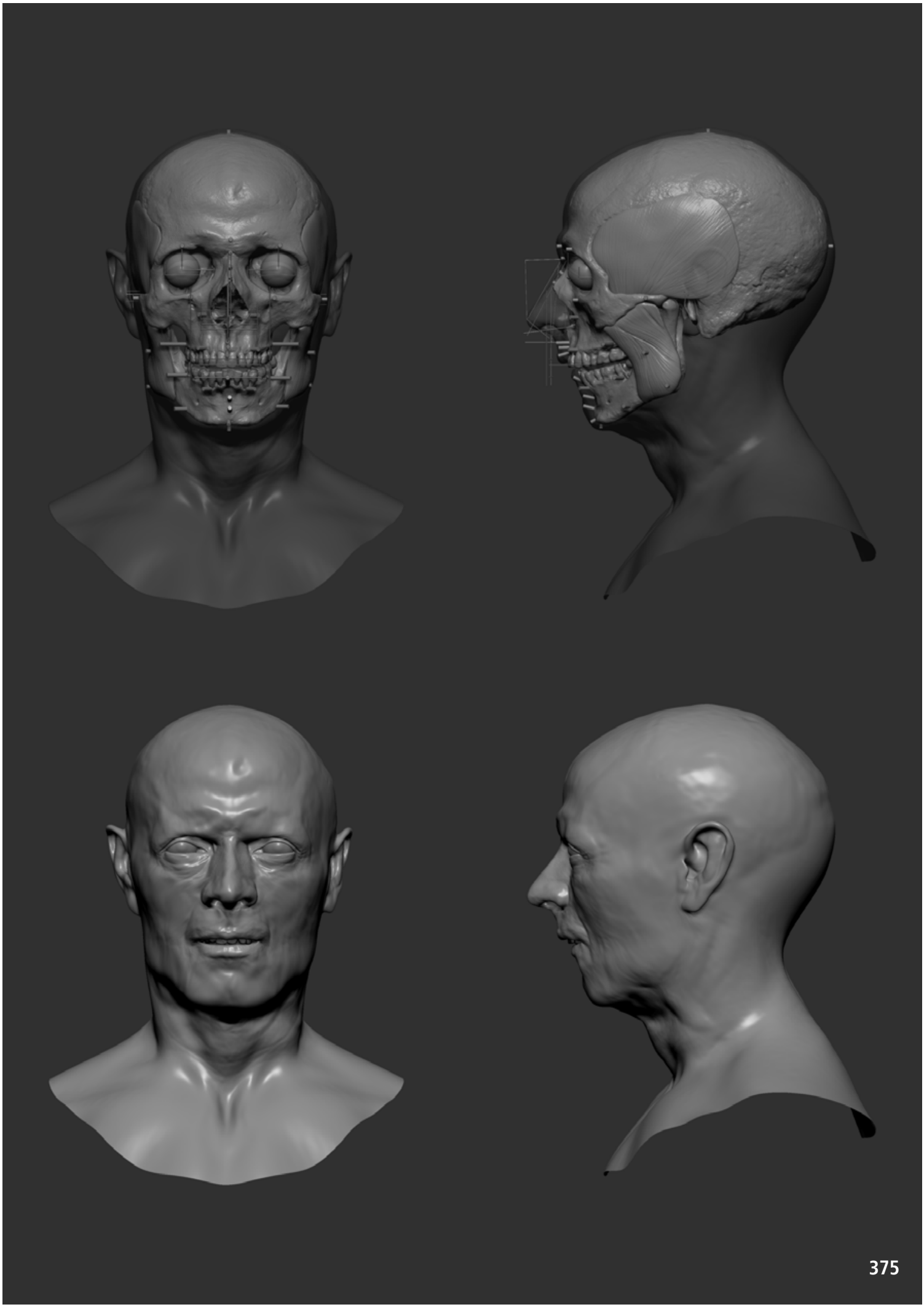




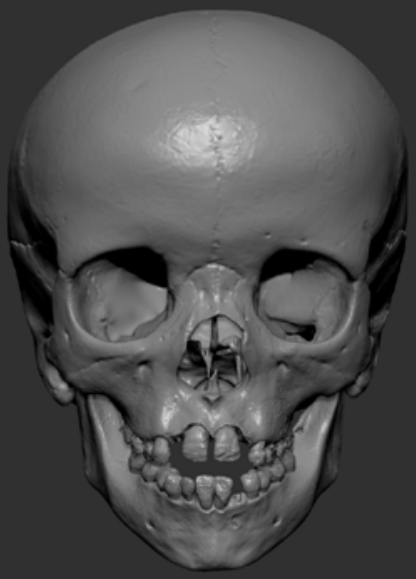


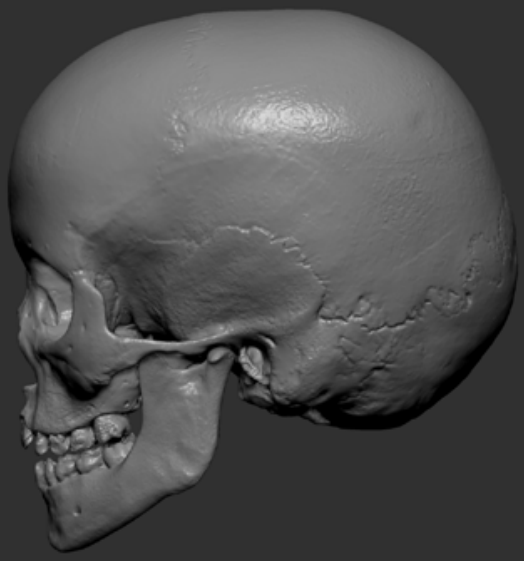
AY38 Male

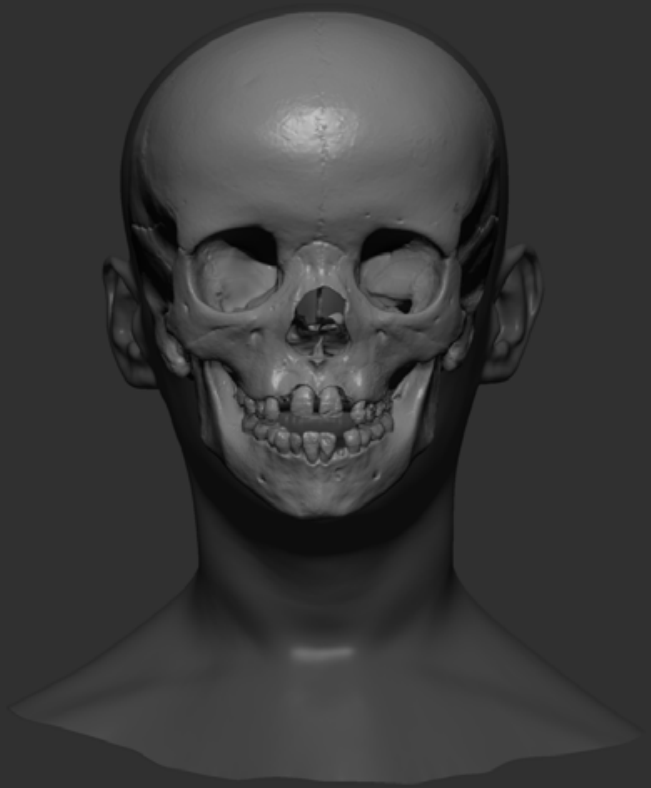


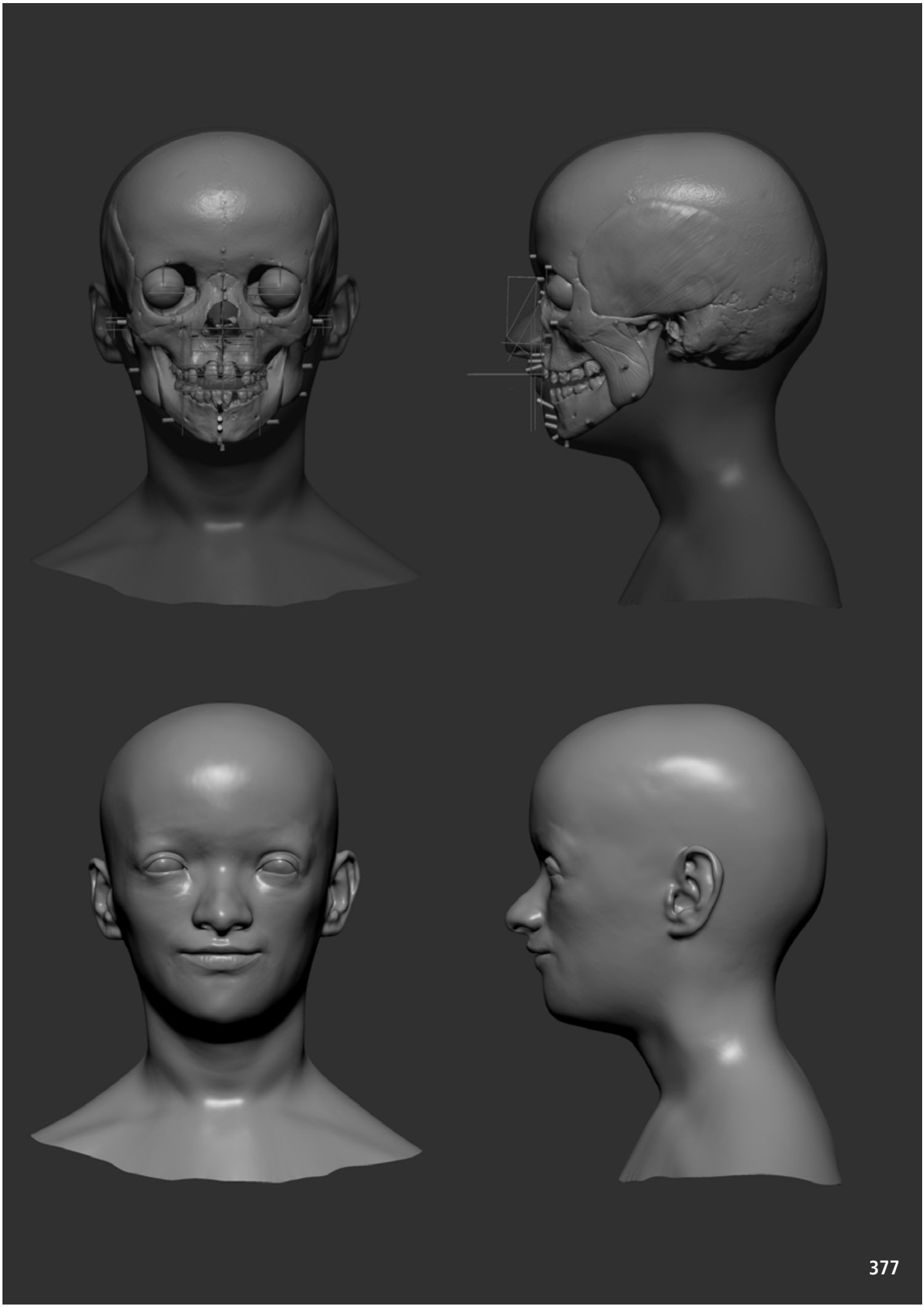


AY46

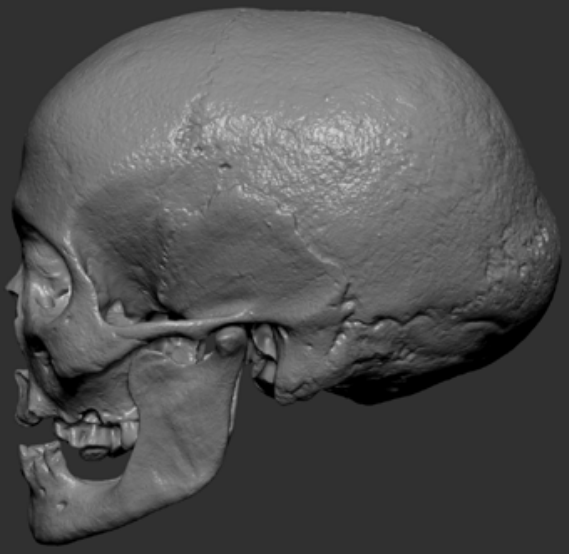


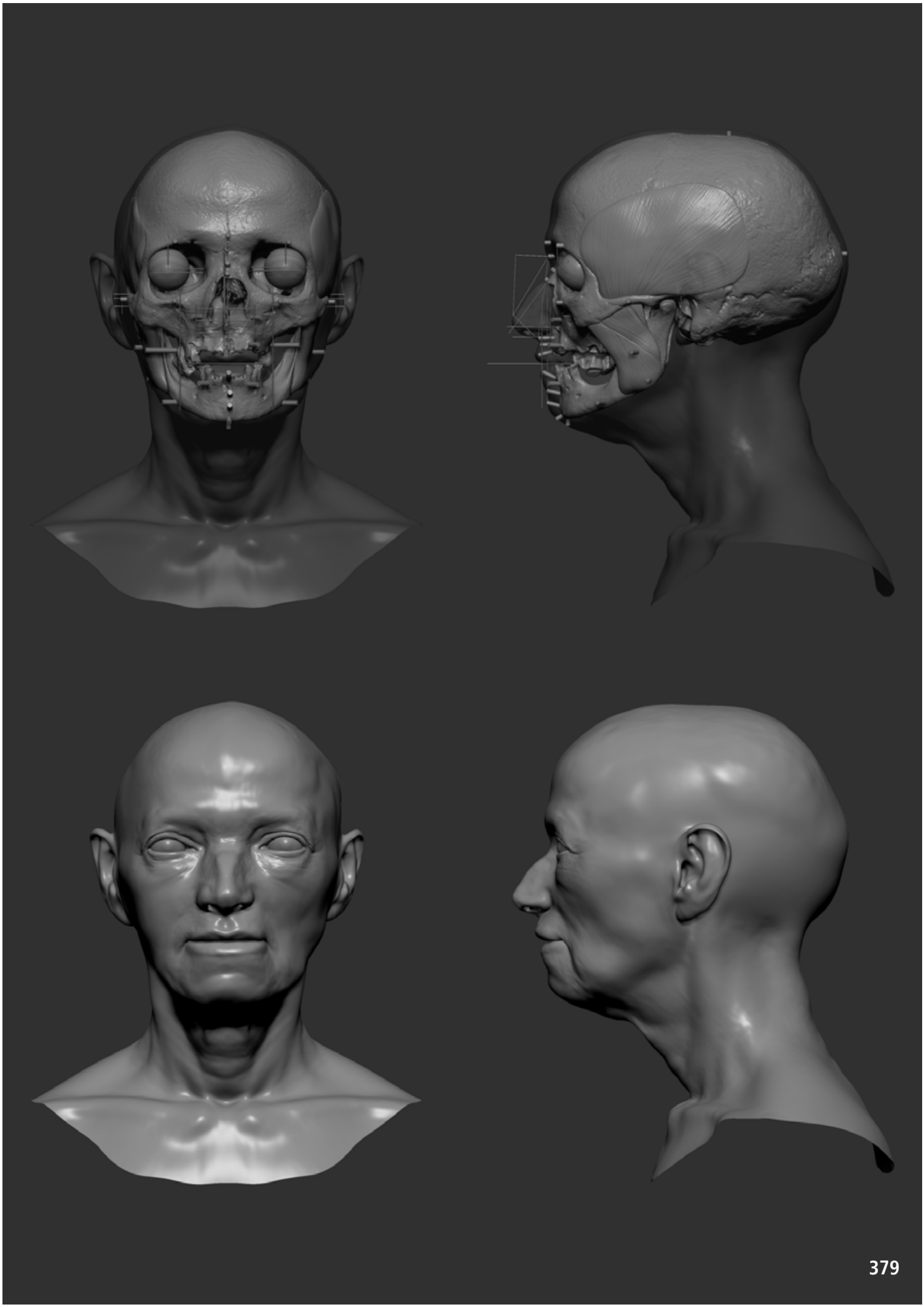




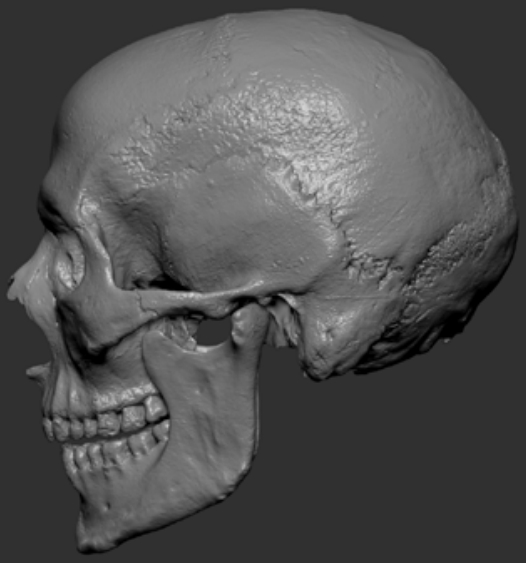


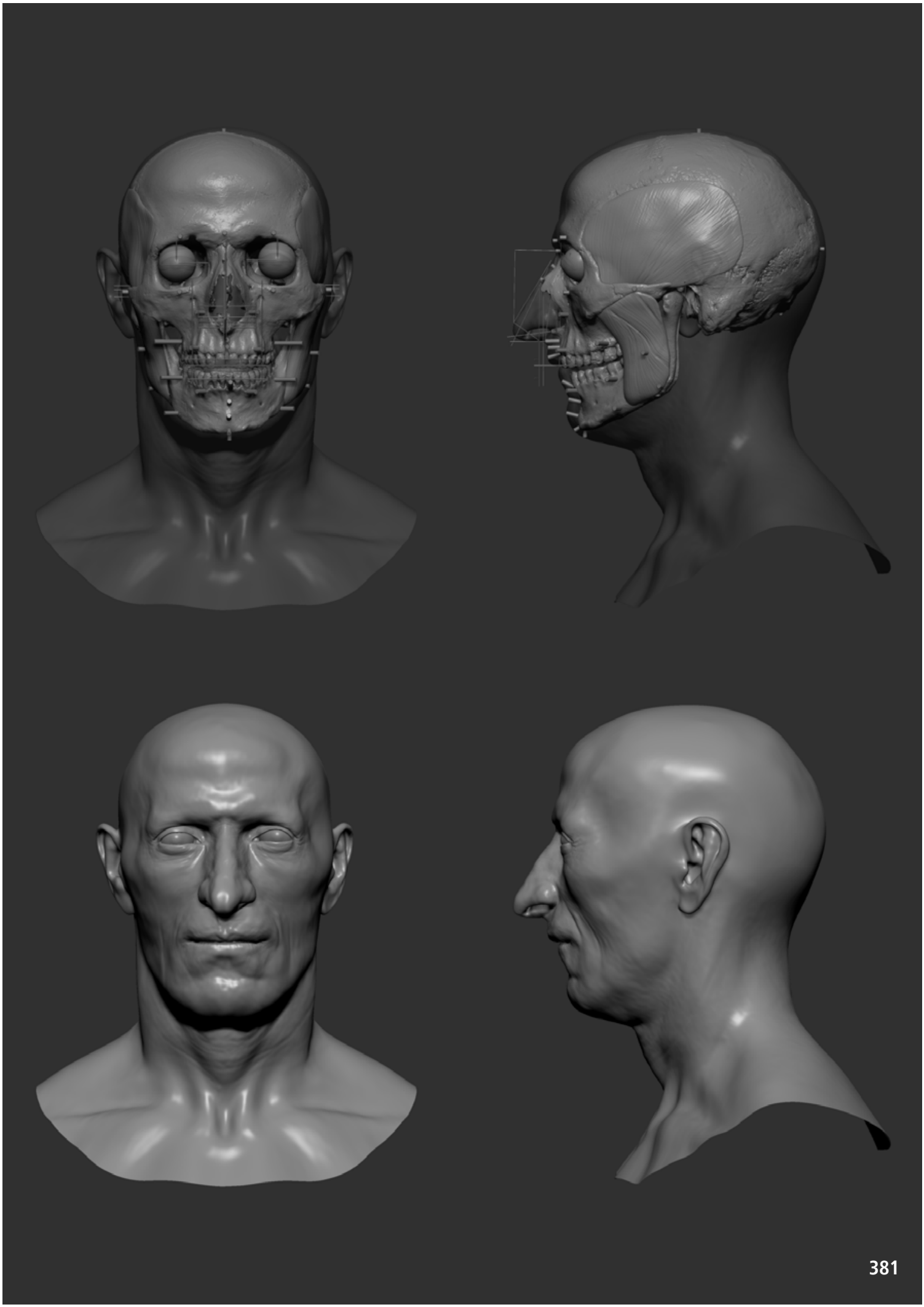
AY58



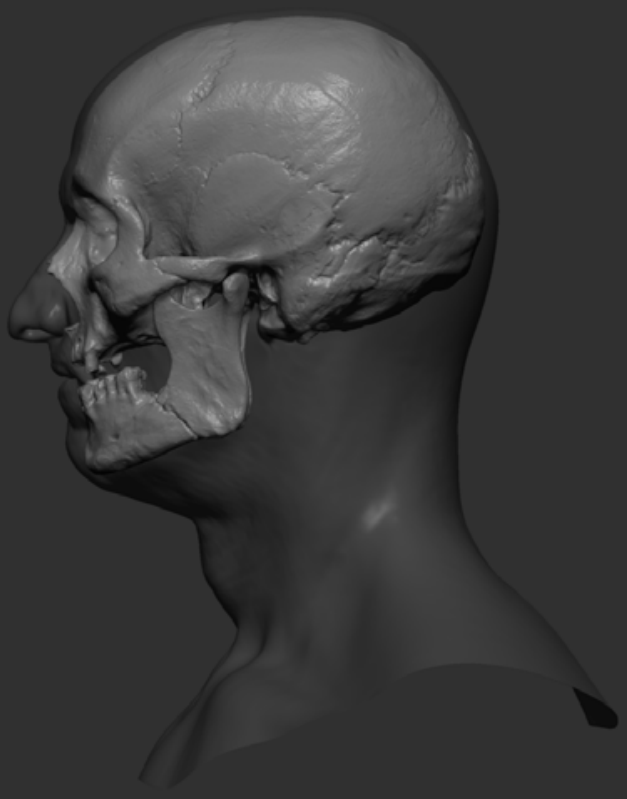


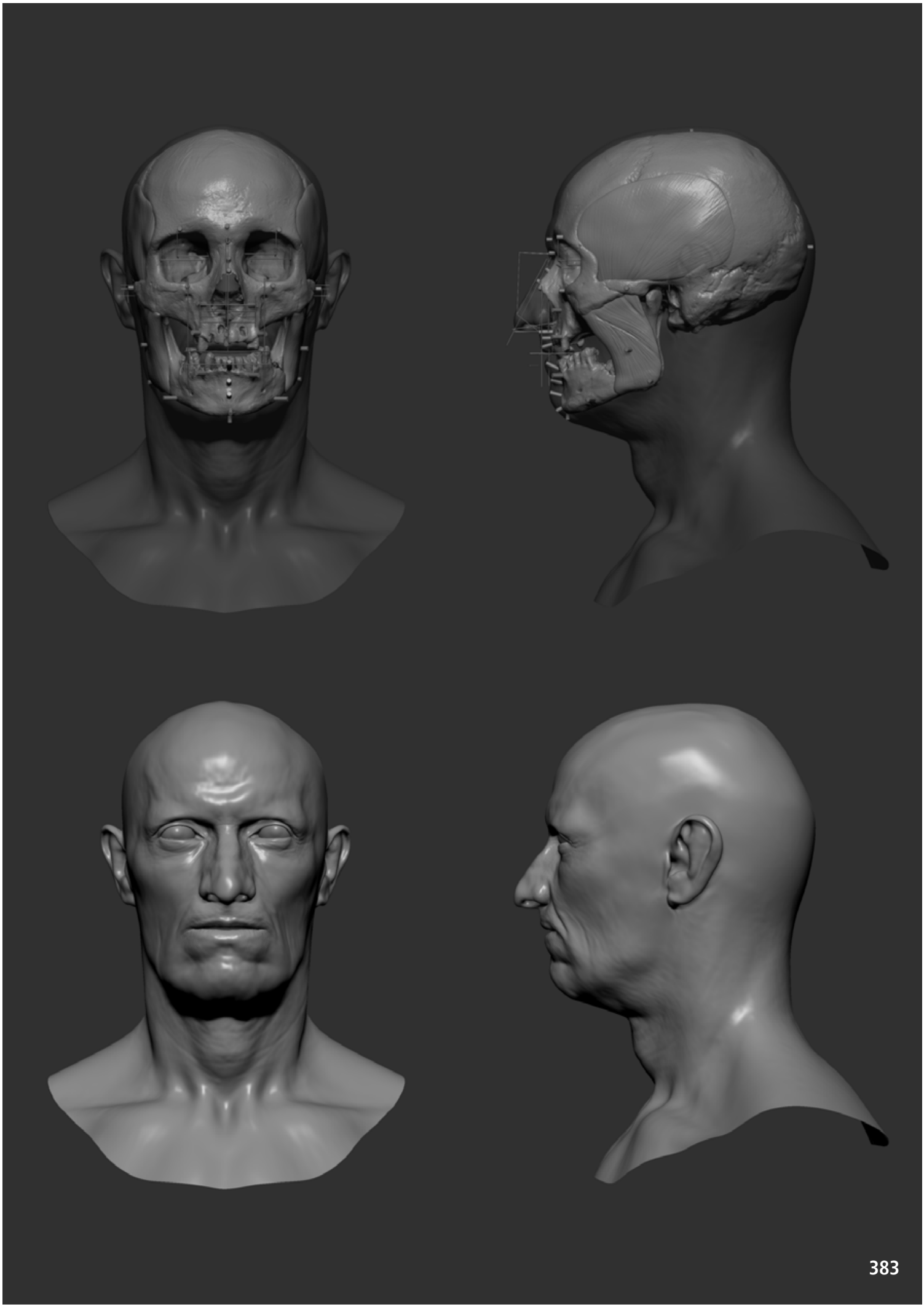
AY67



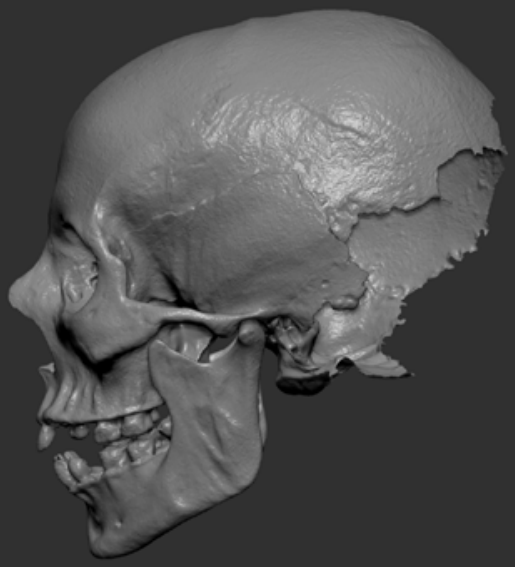


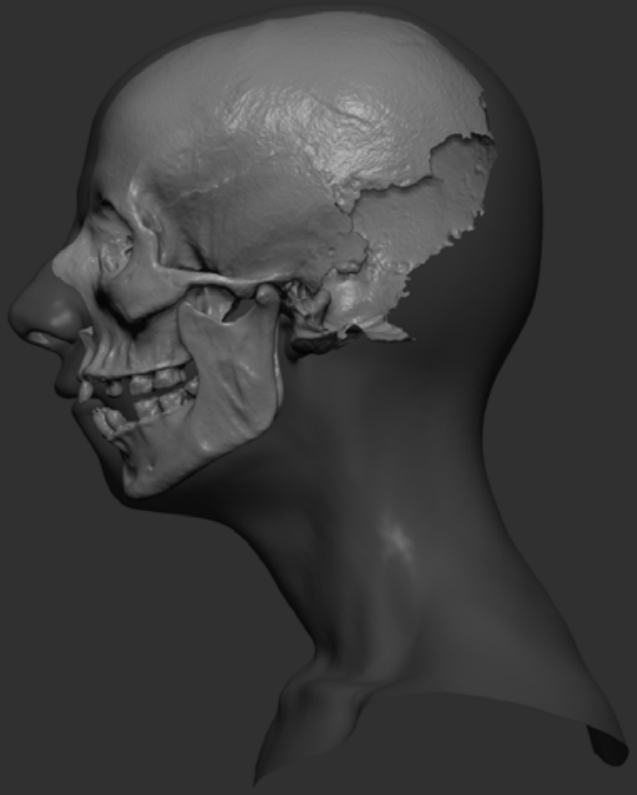
AY68 Male

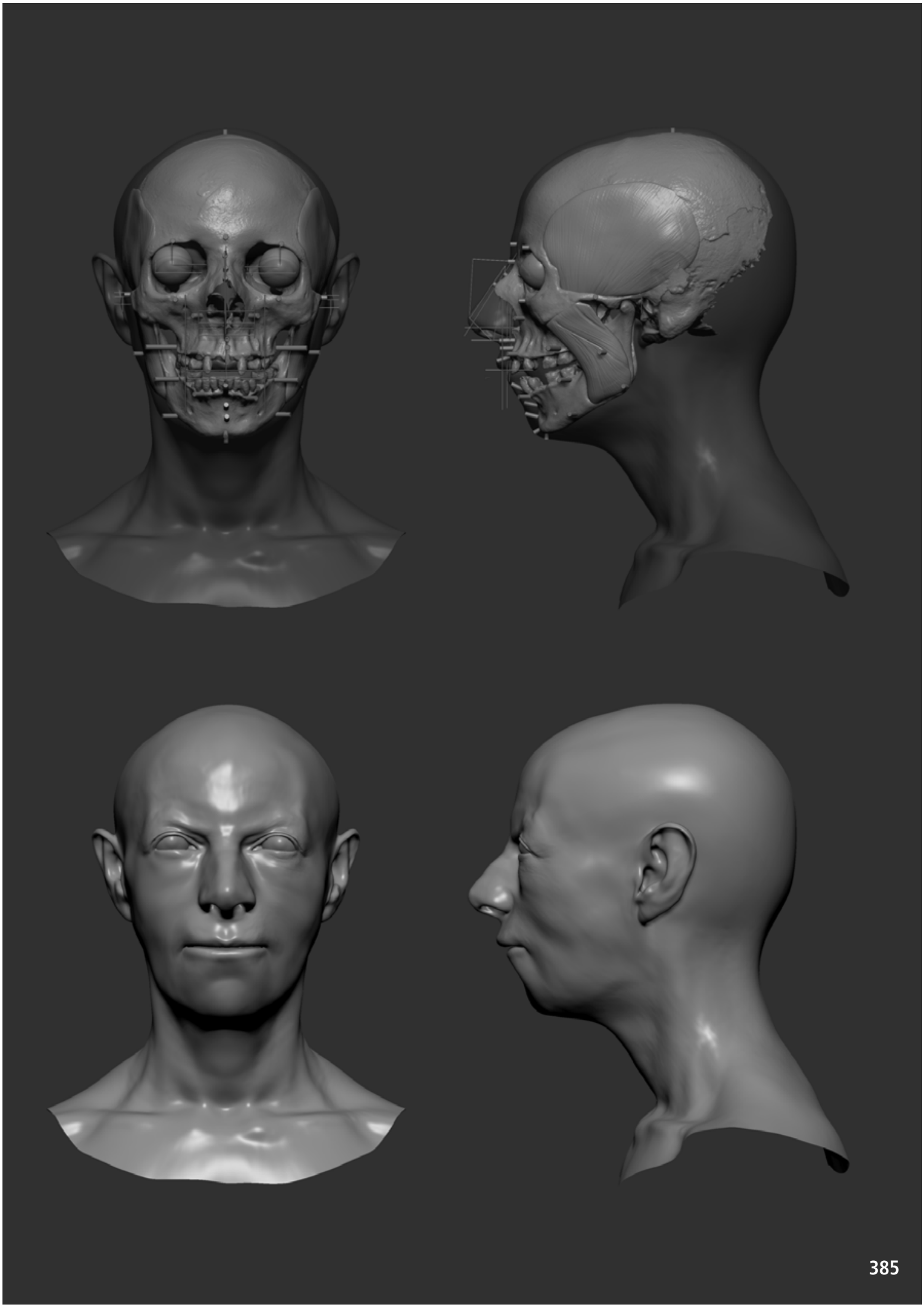




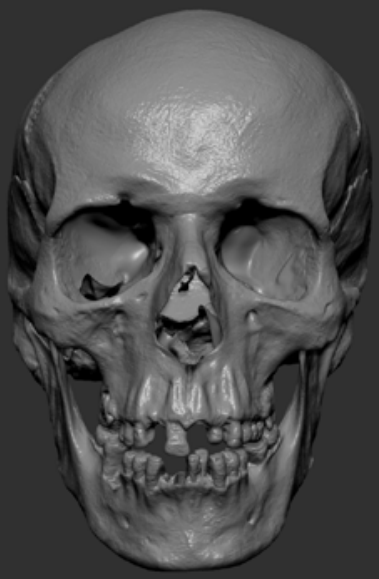
AY80 Female

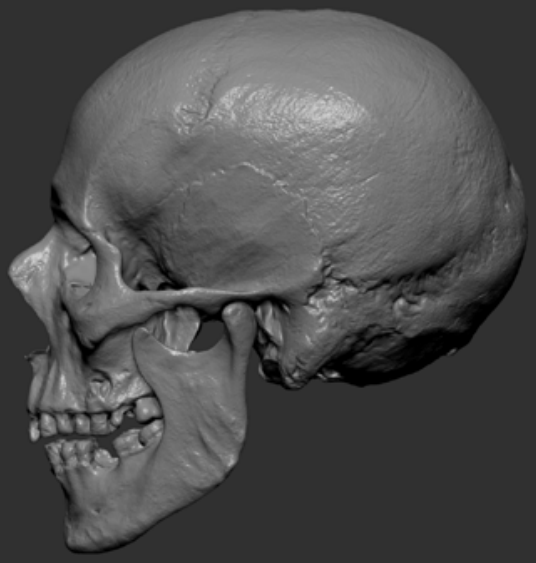


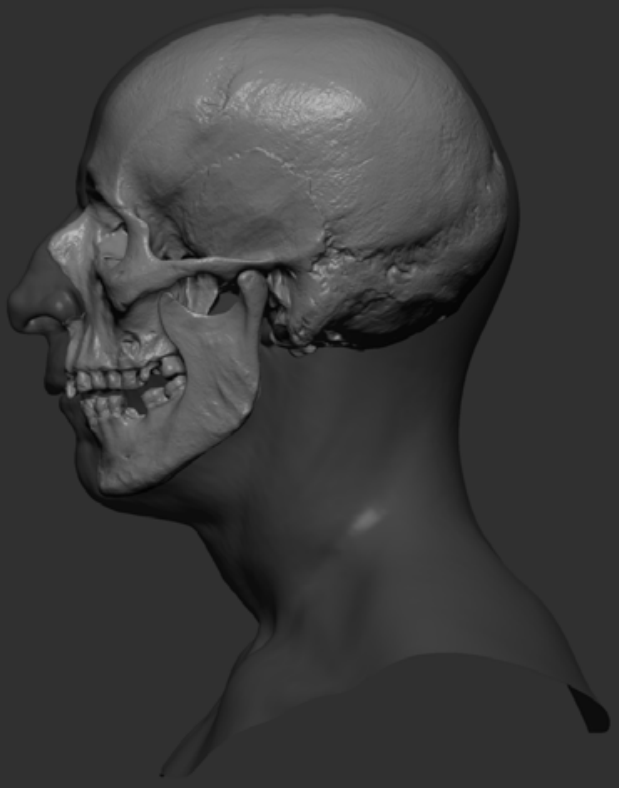


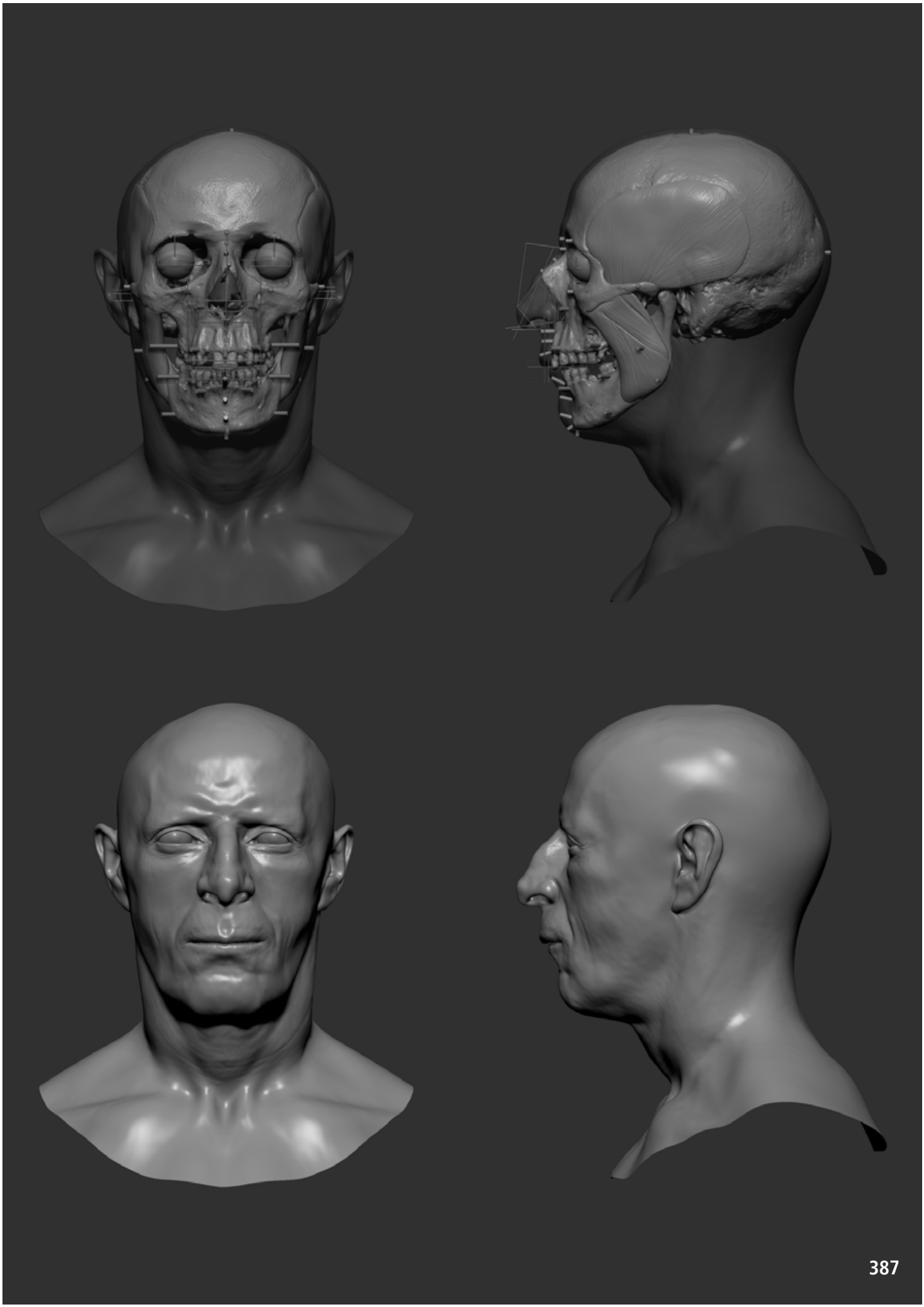


AY80 Male

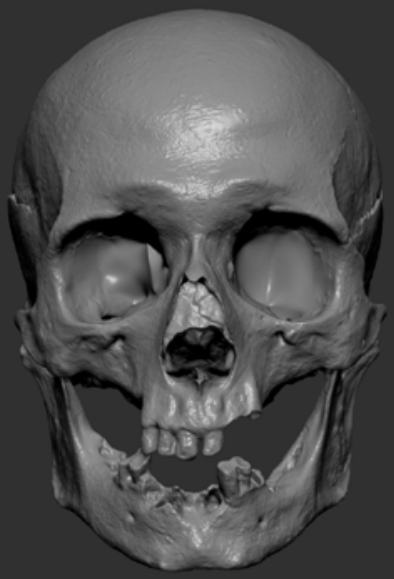


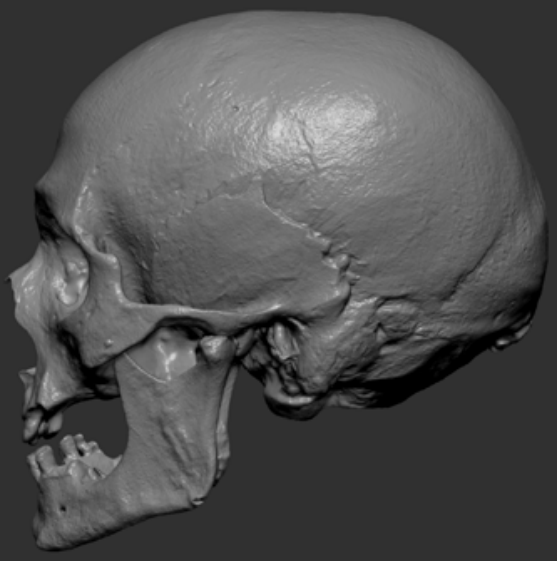


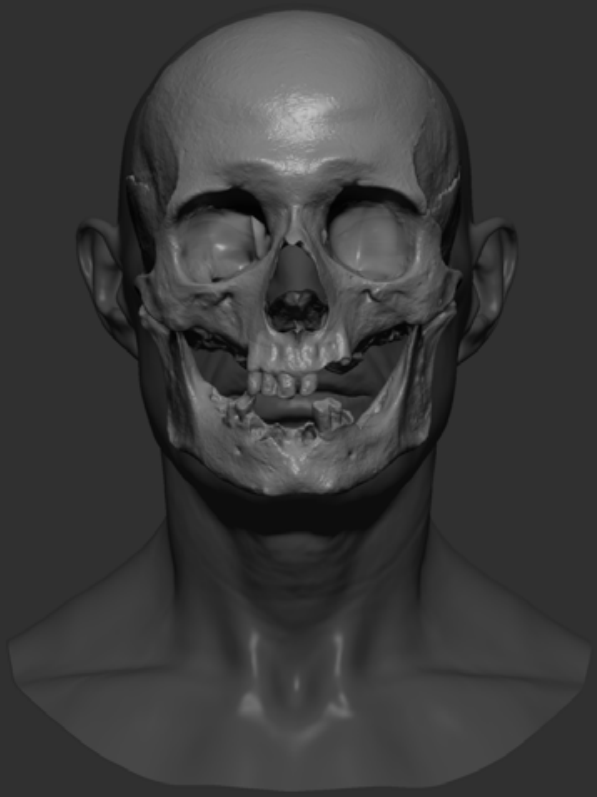


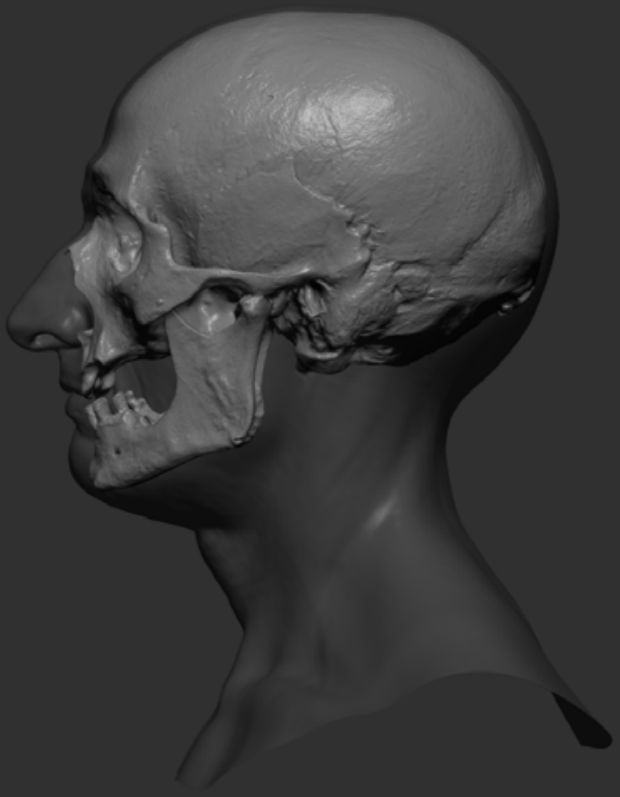


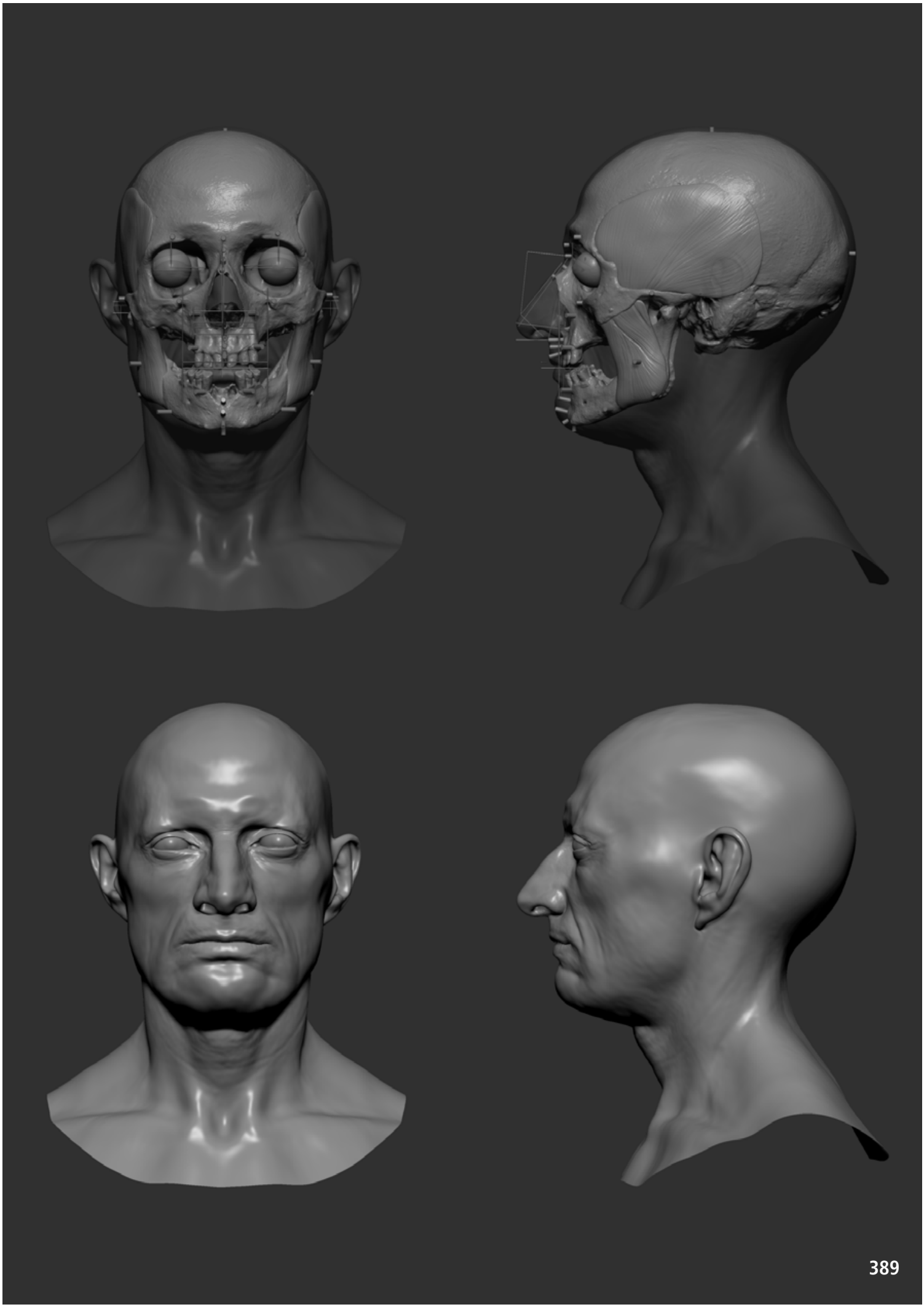
AY82 Male



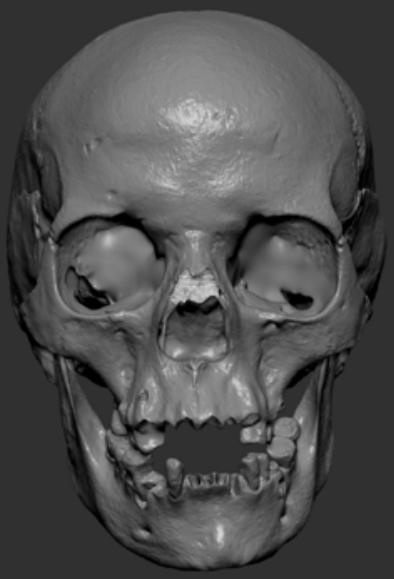


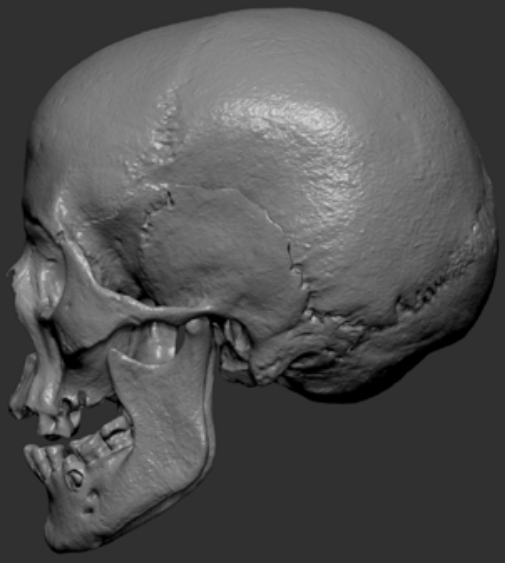


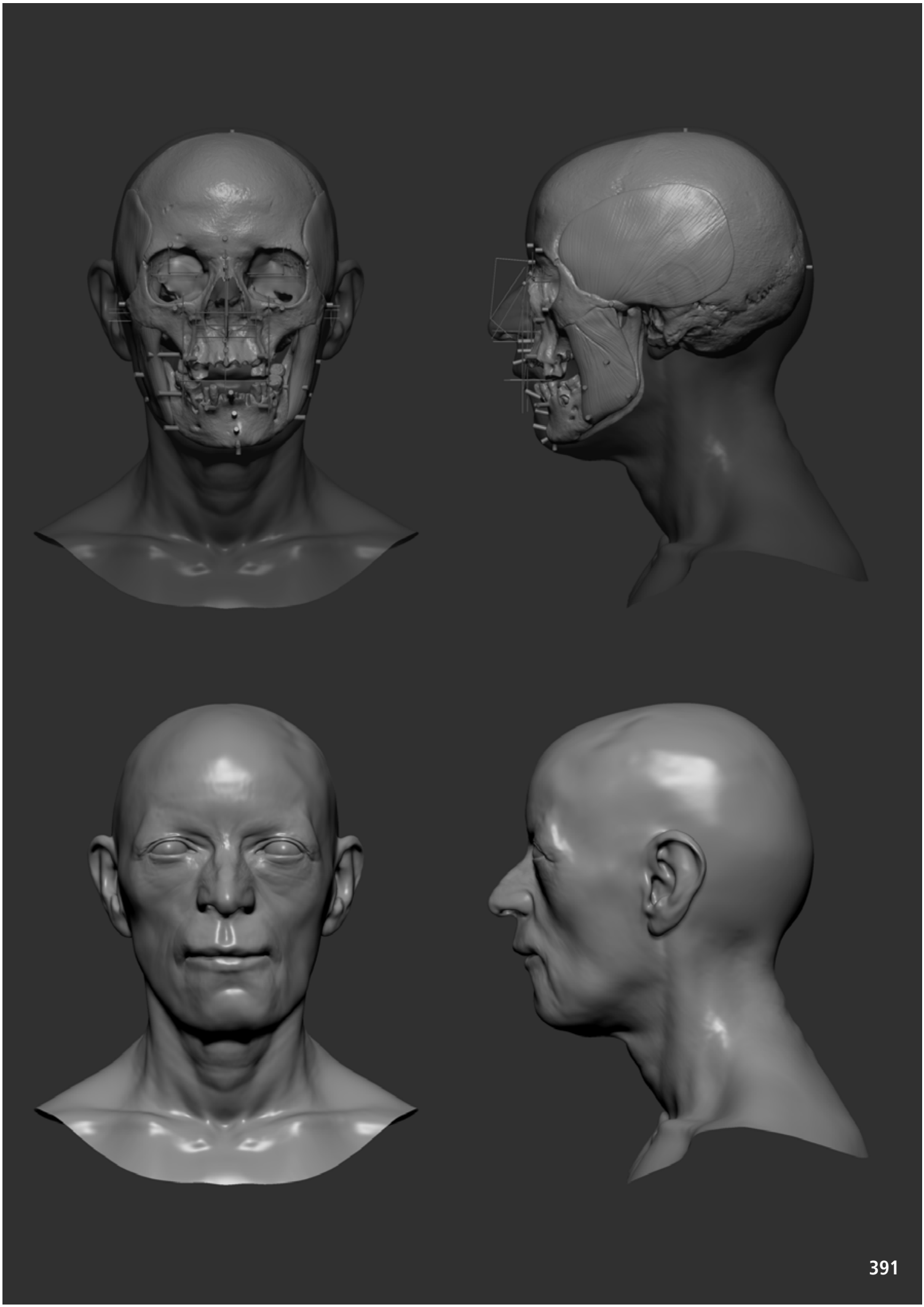




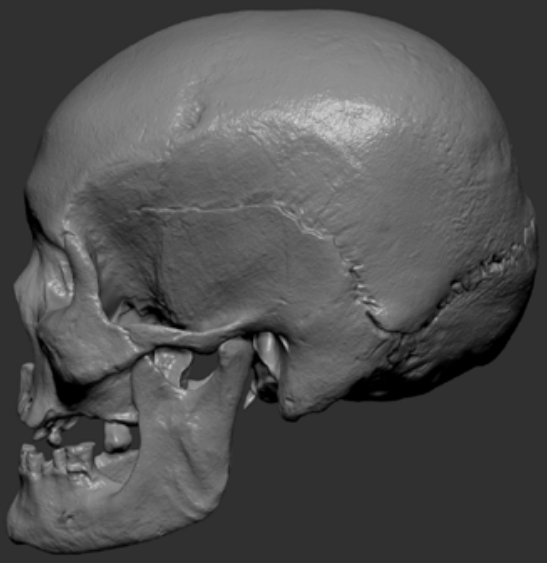
AY86

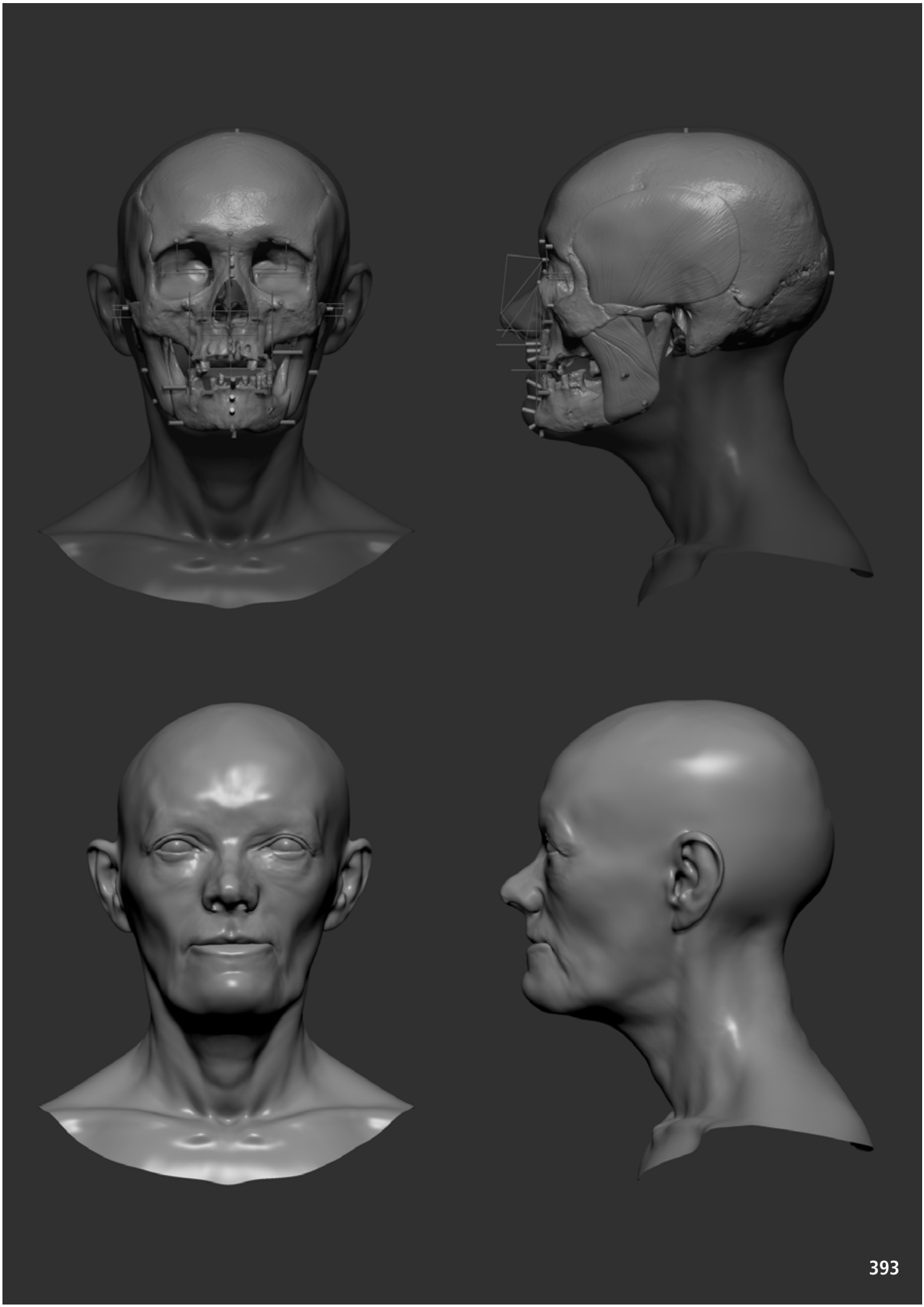




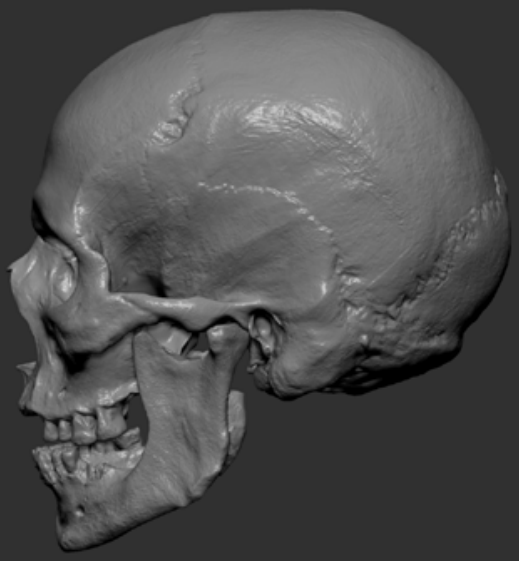


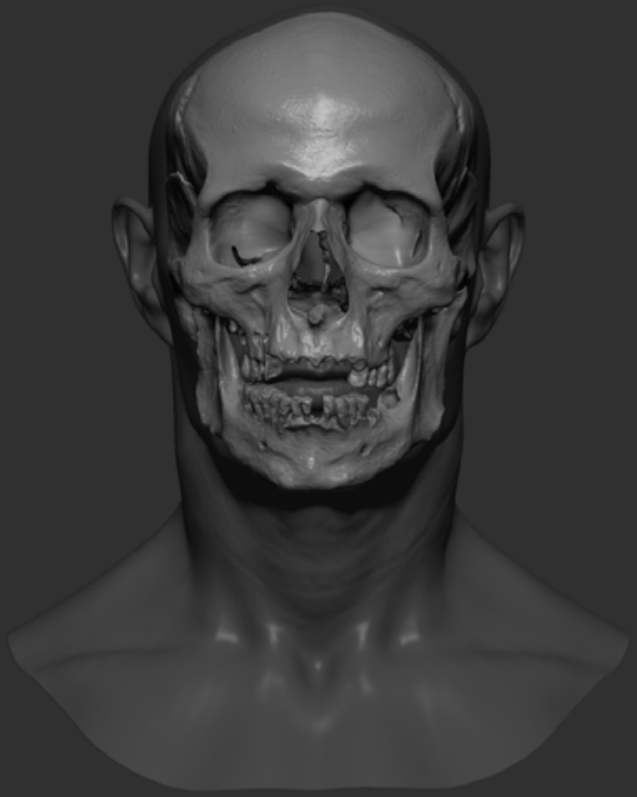
AY90 Female

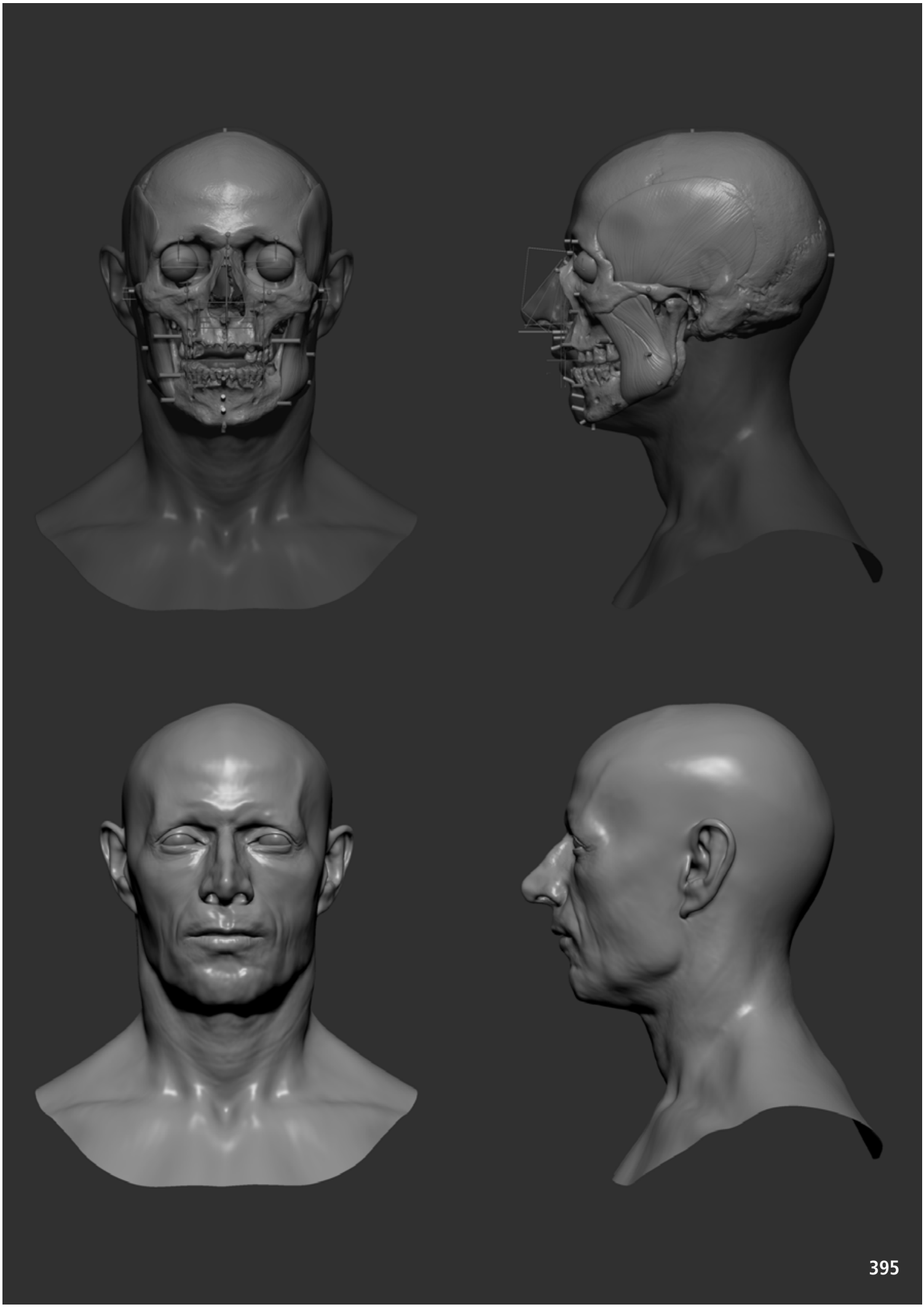




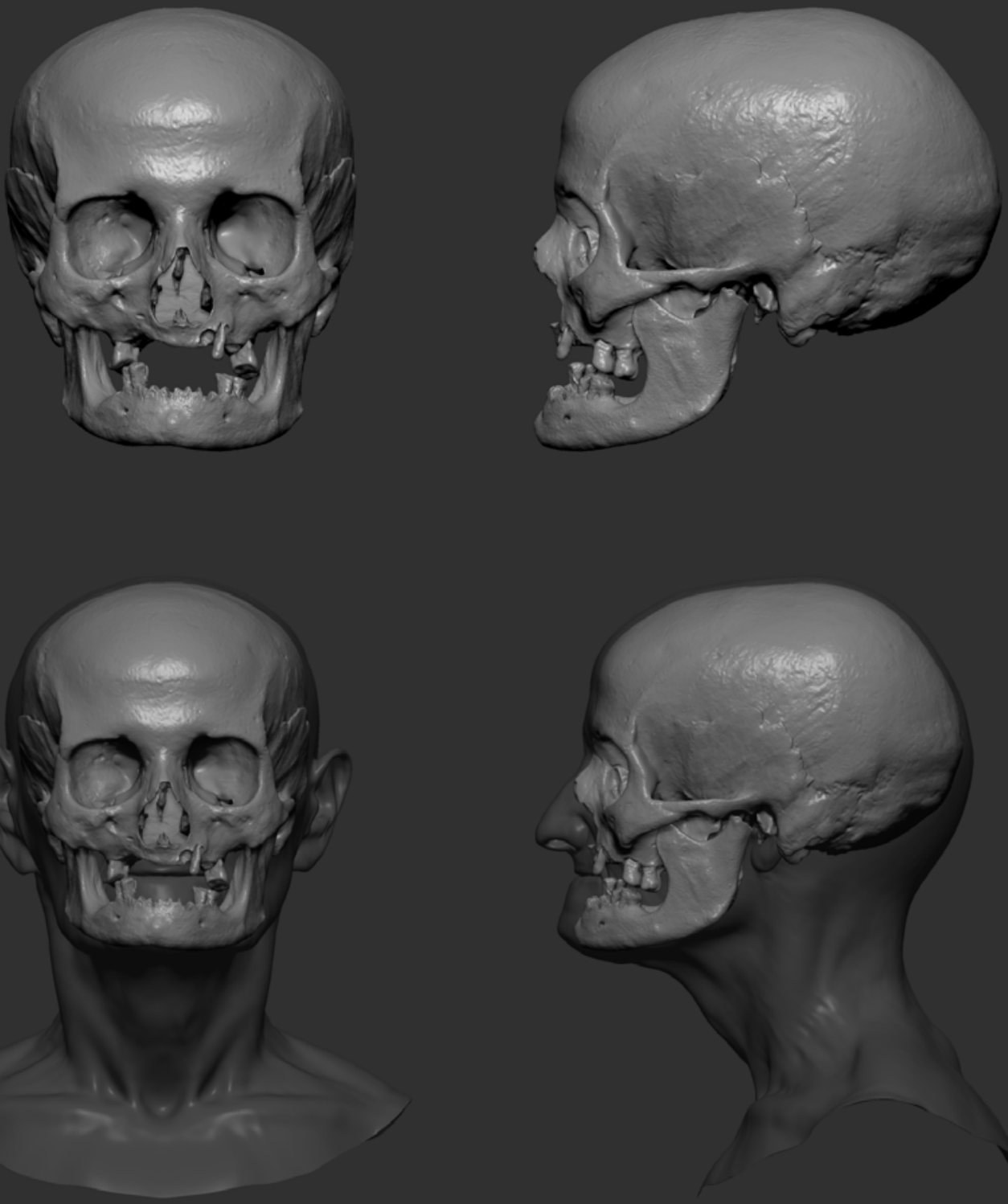
AY90 Male

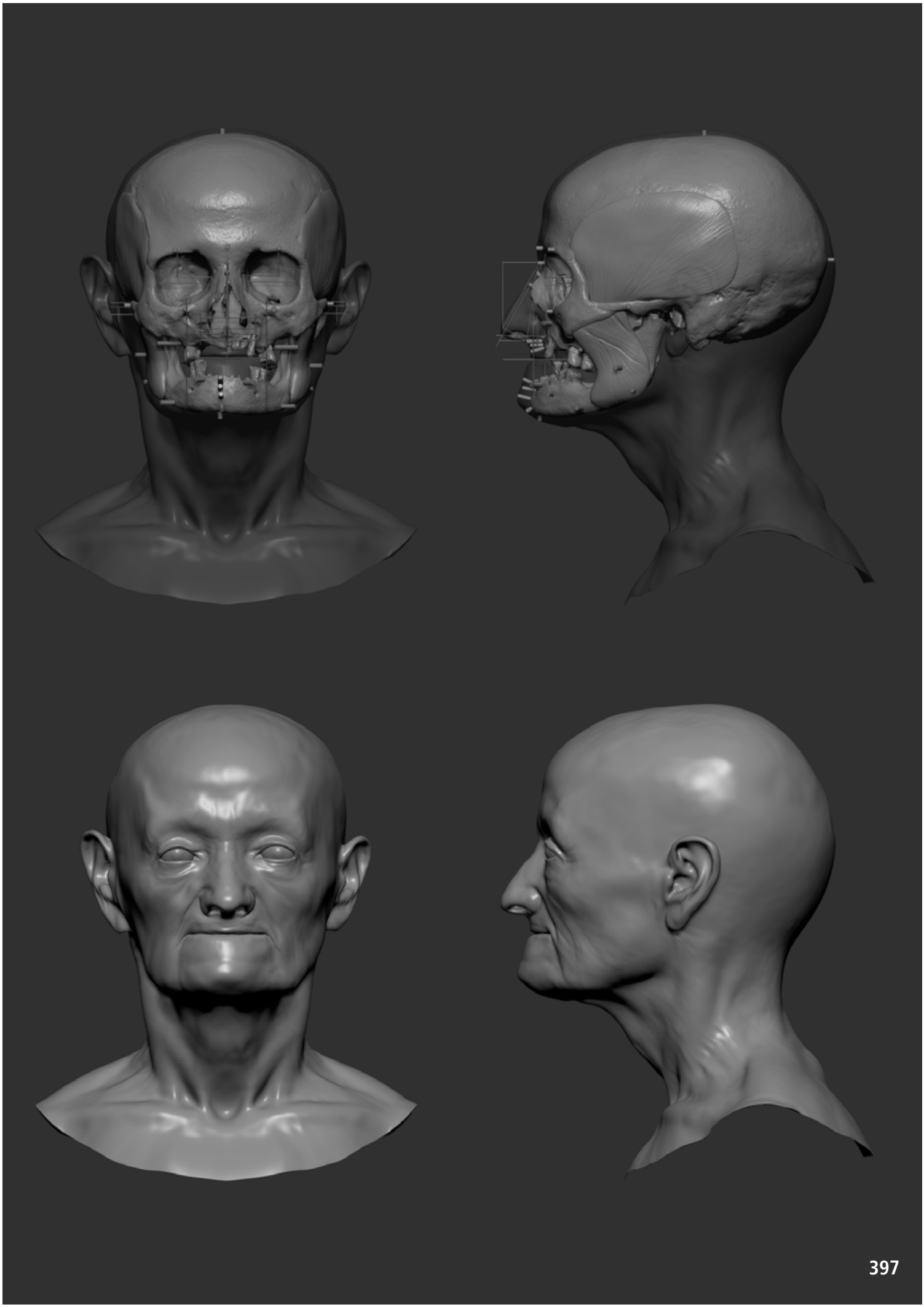




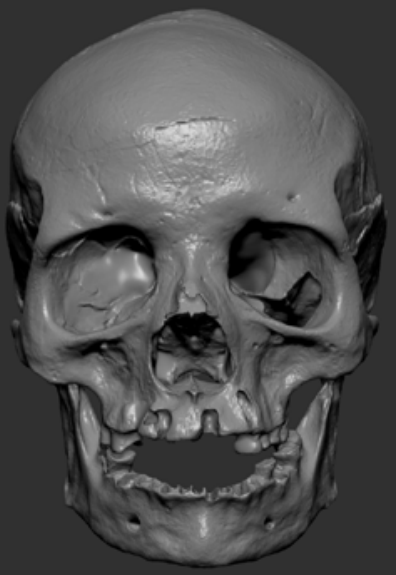


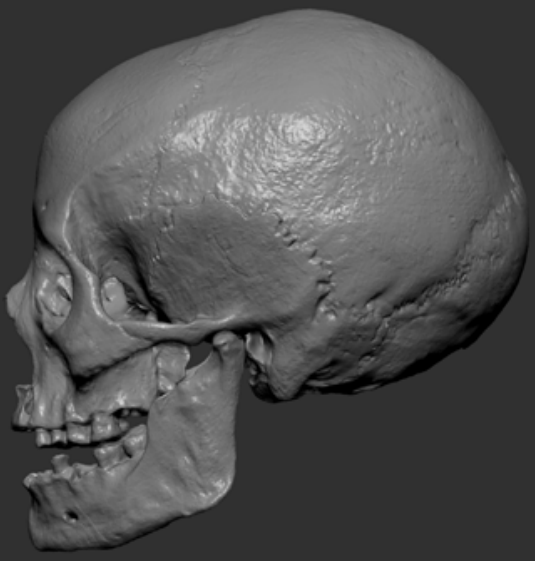
AY96

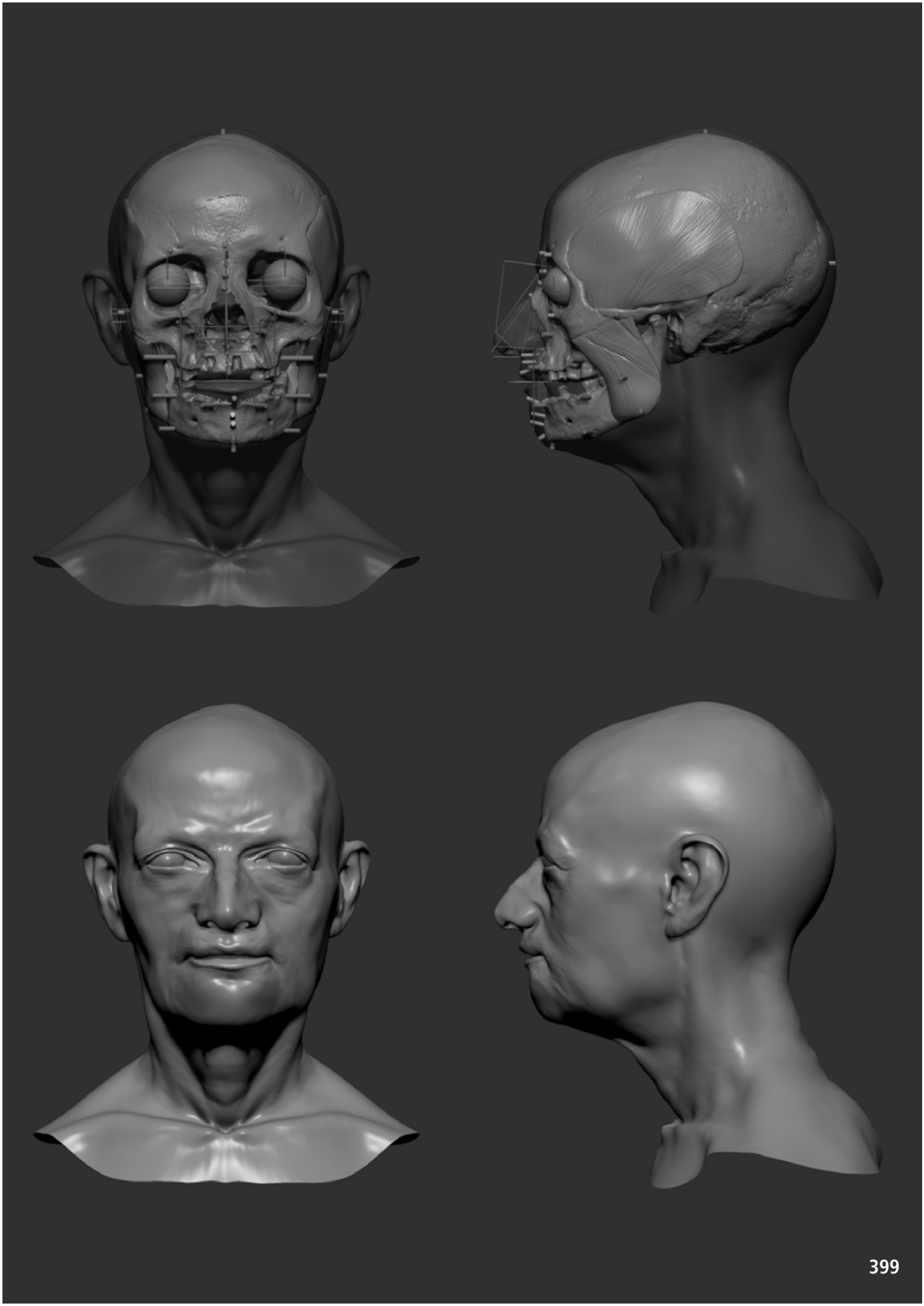




AY97 Female

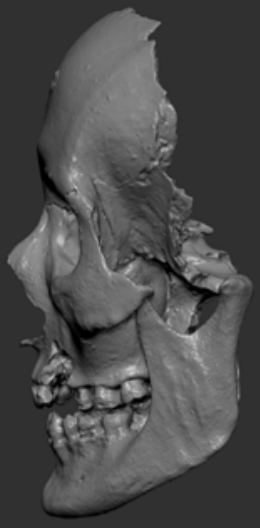


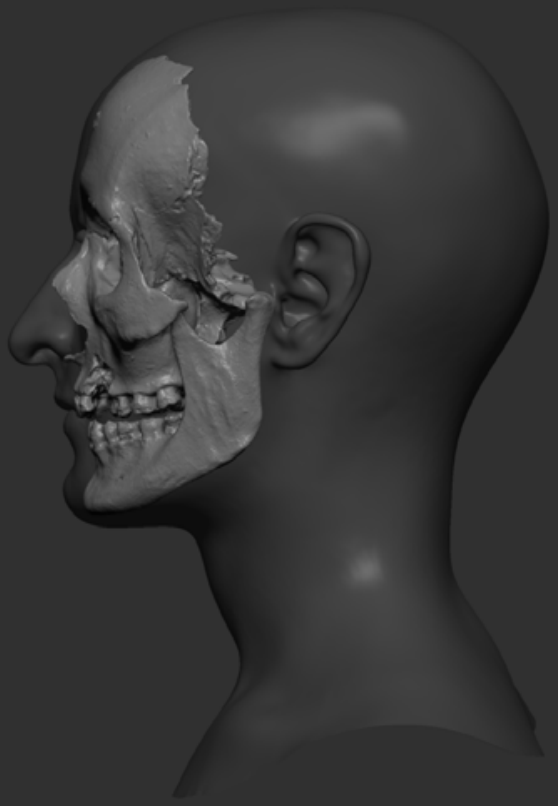


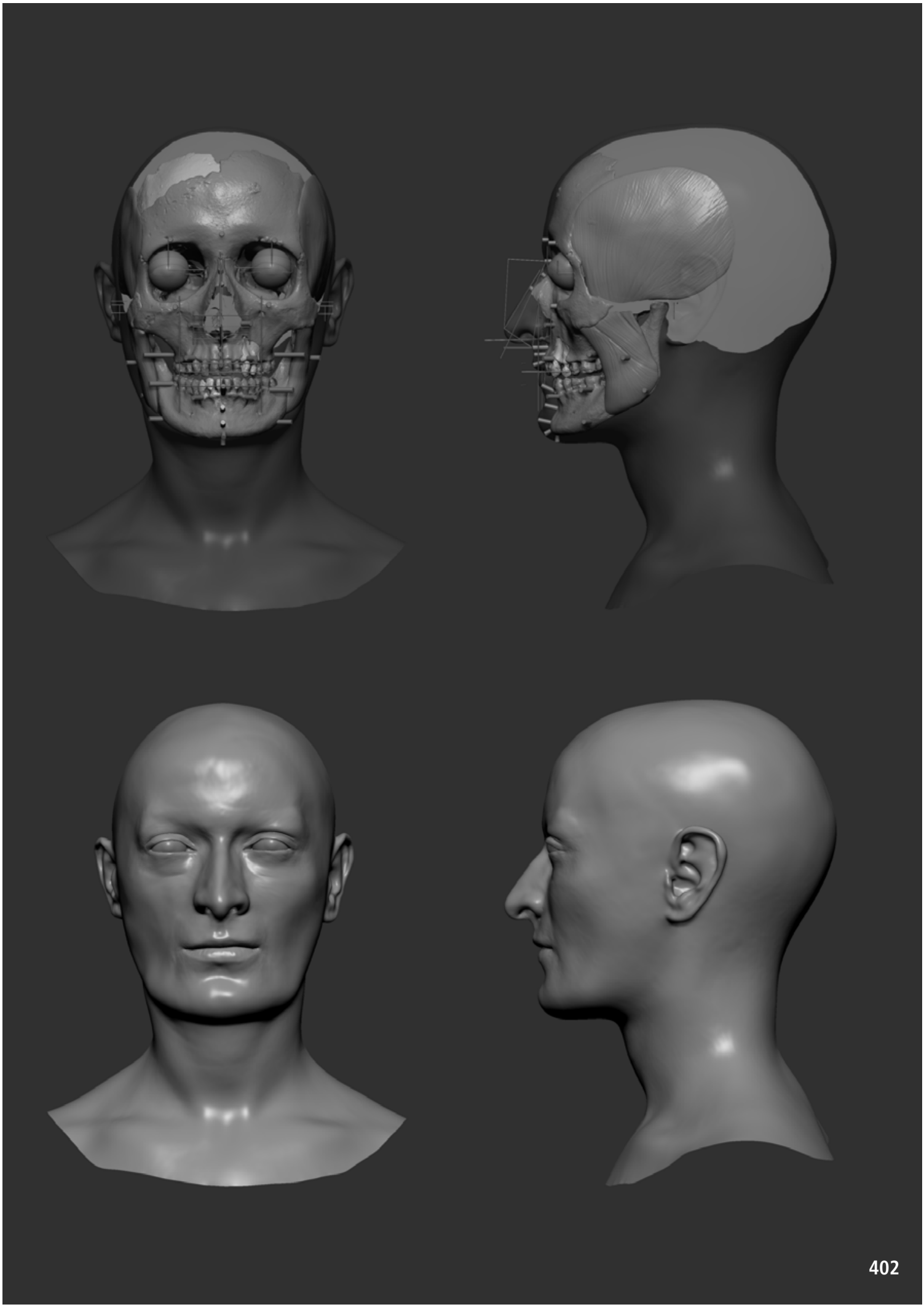


2nd level (SFA)

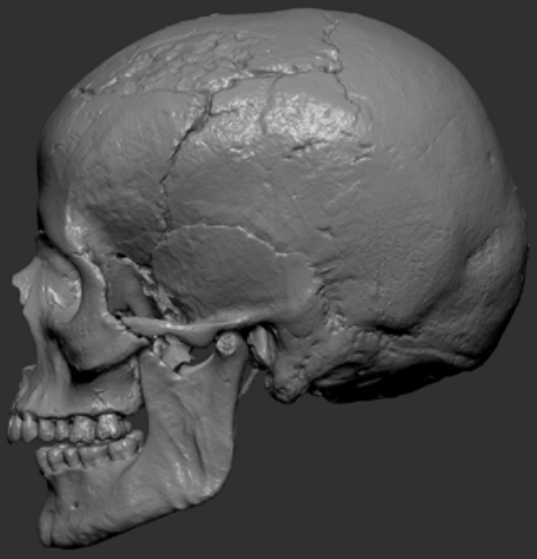
AY11

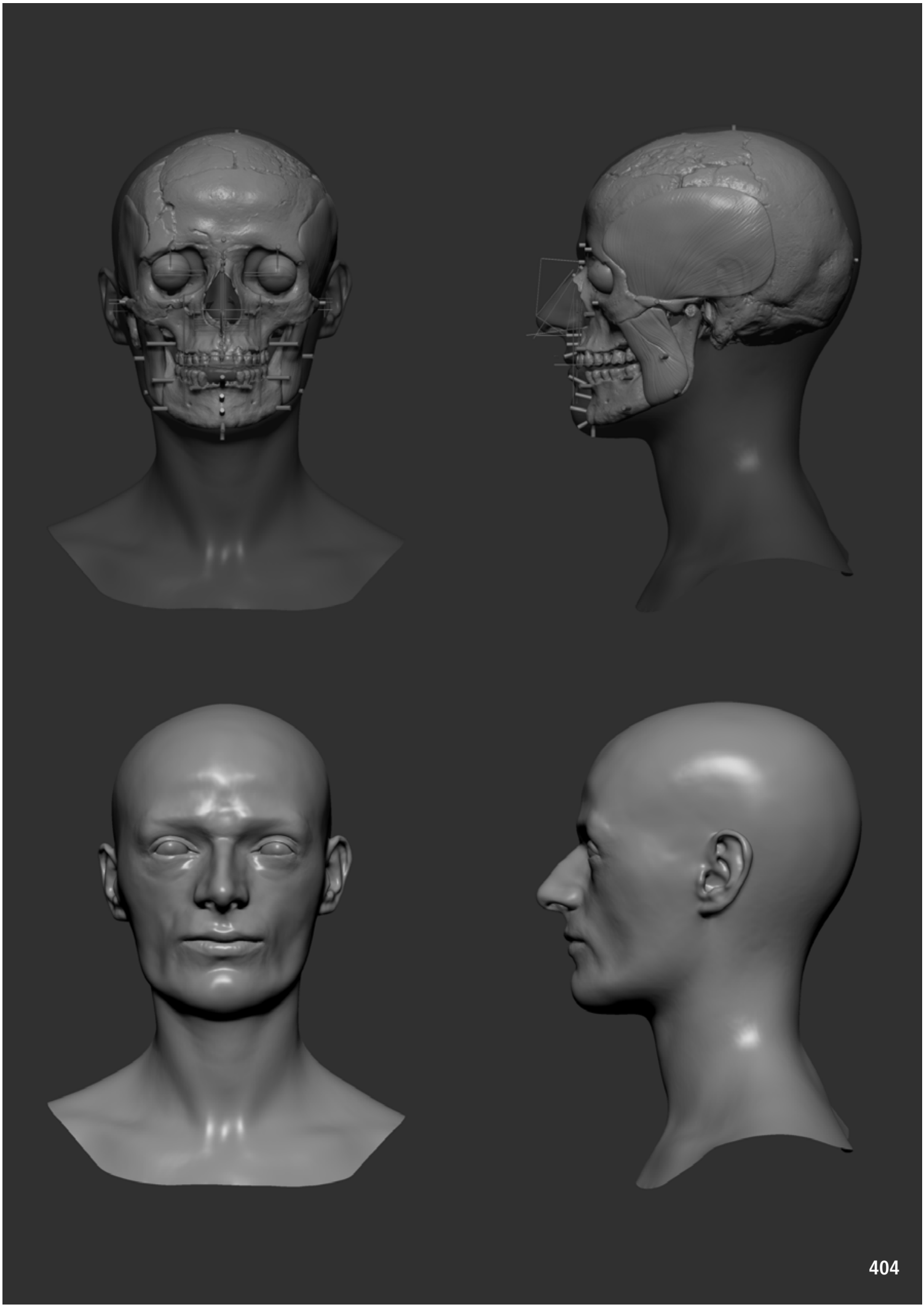




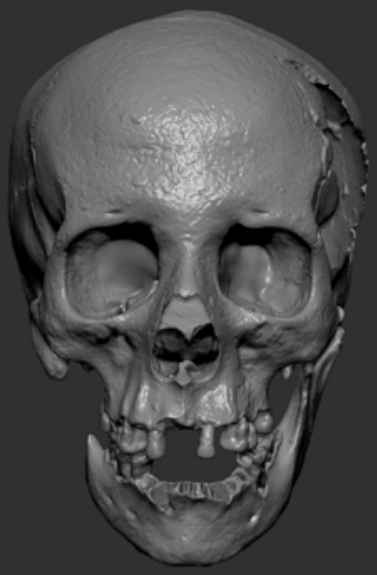


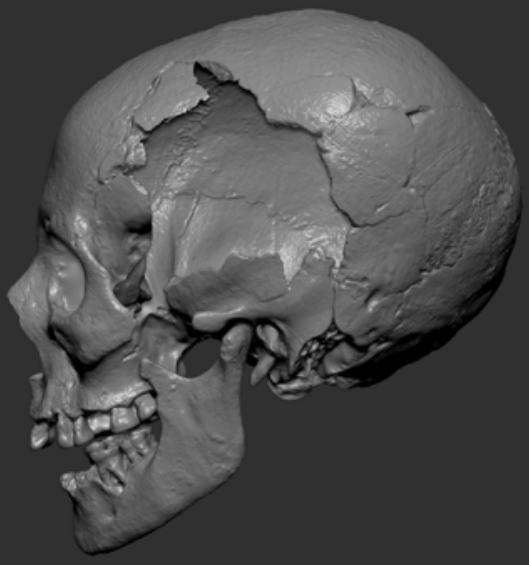
AY21

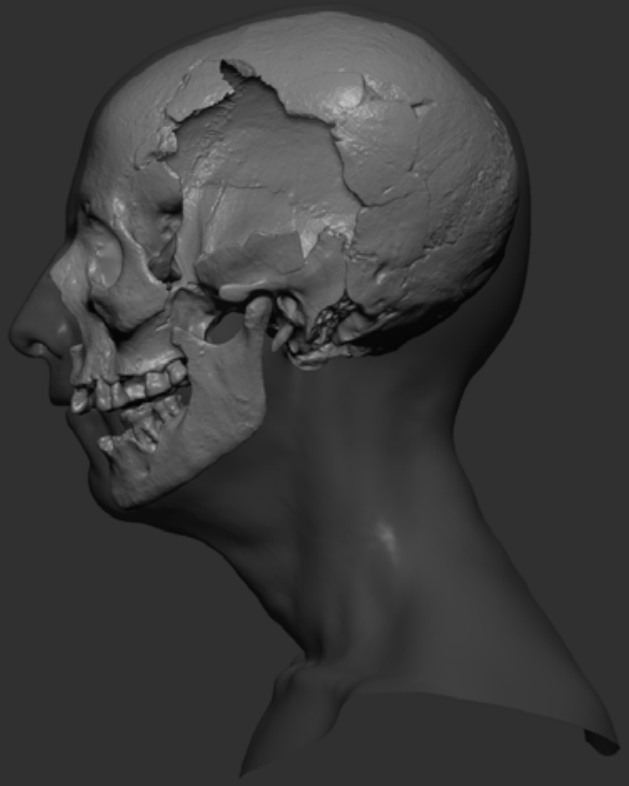


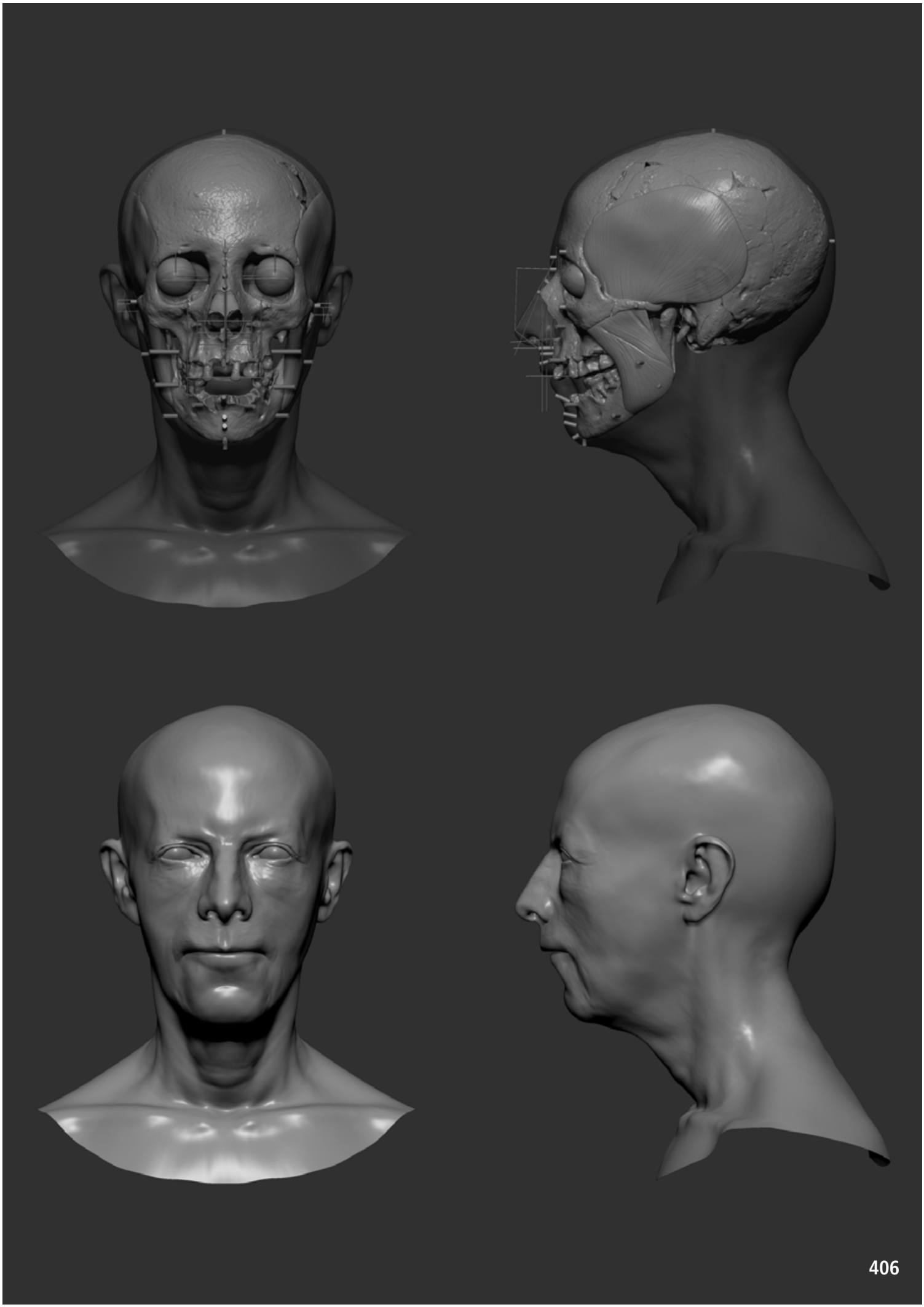


AY22 Female

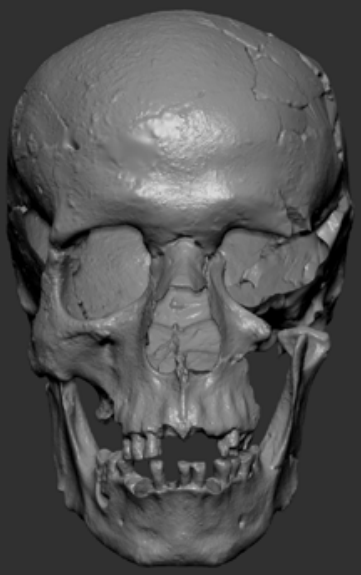


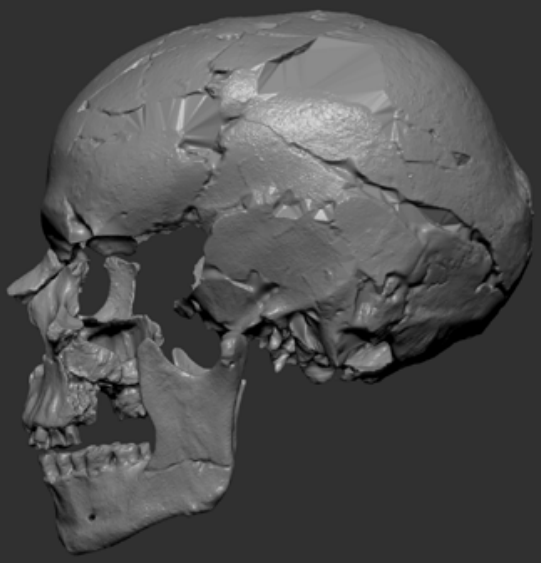


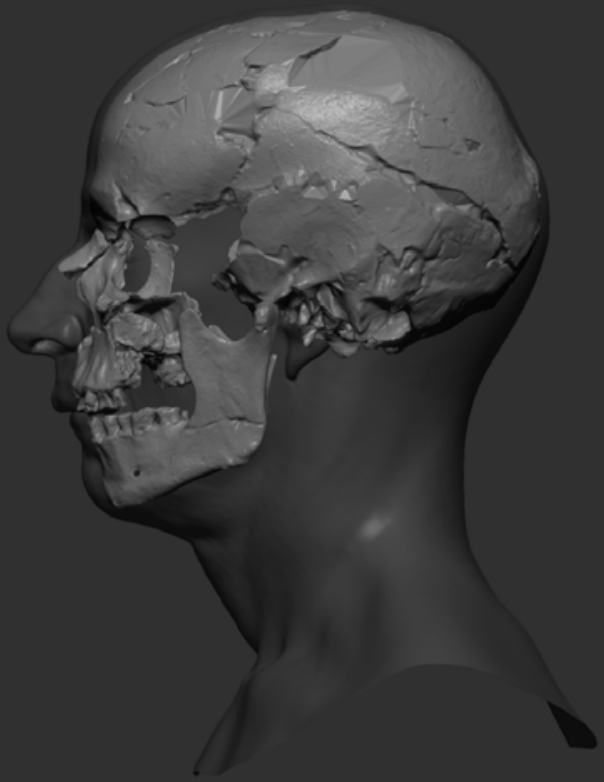


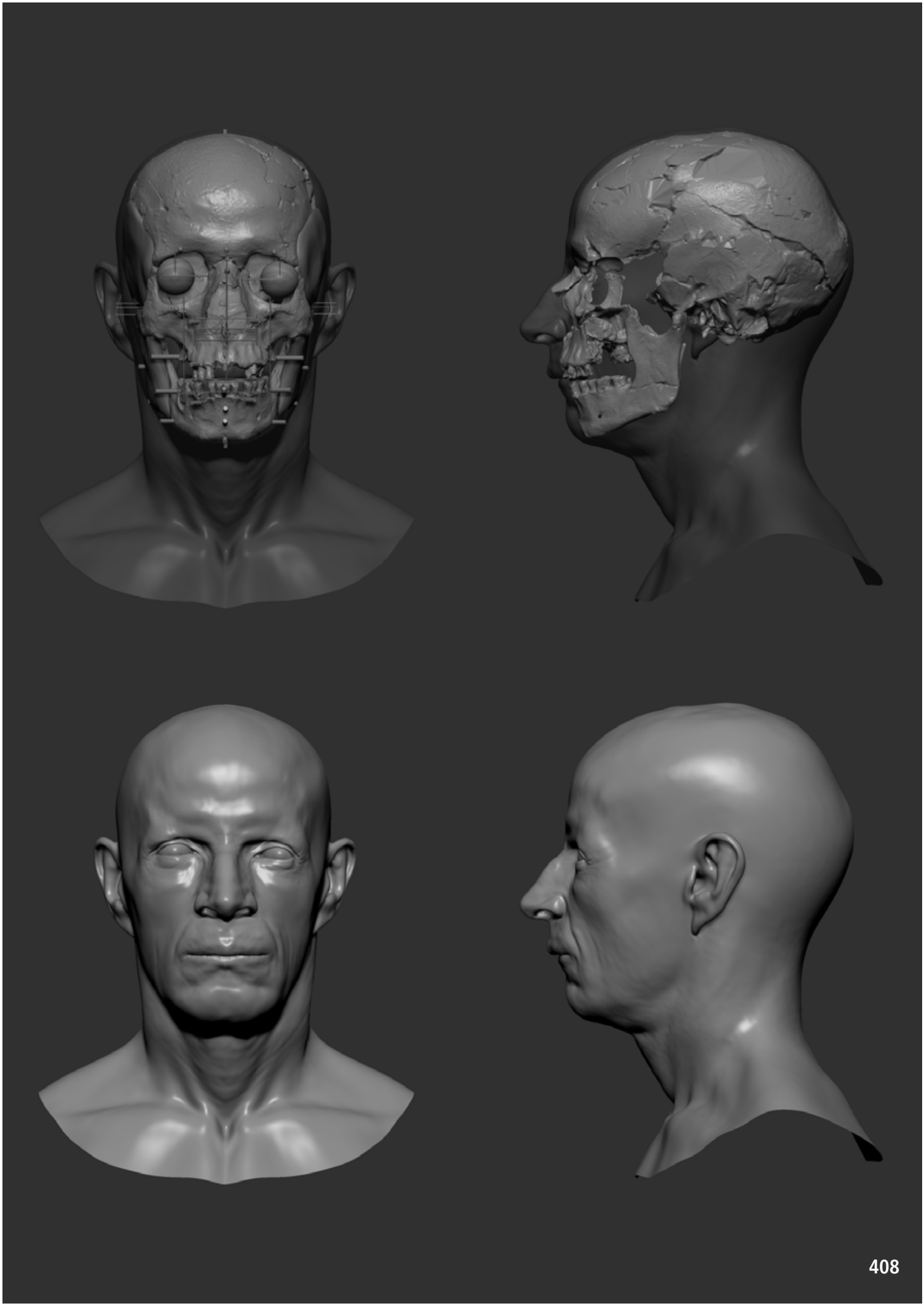


AY22 Male

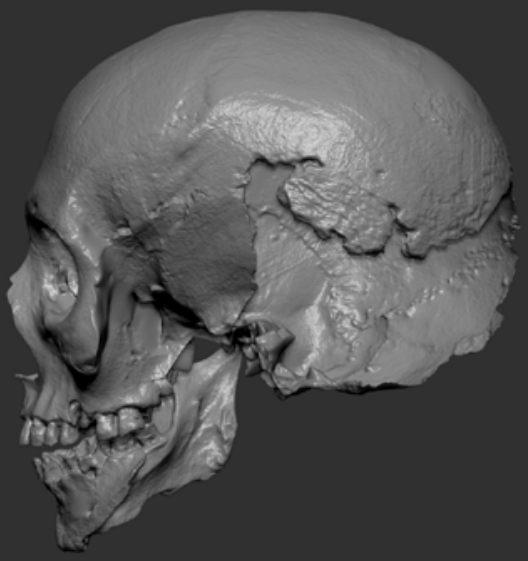


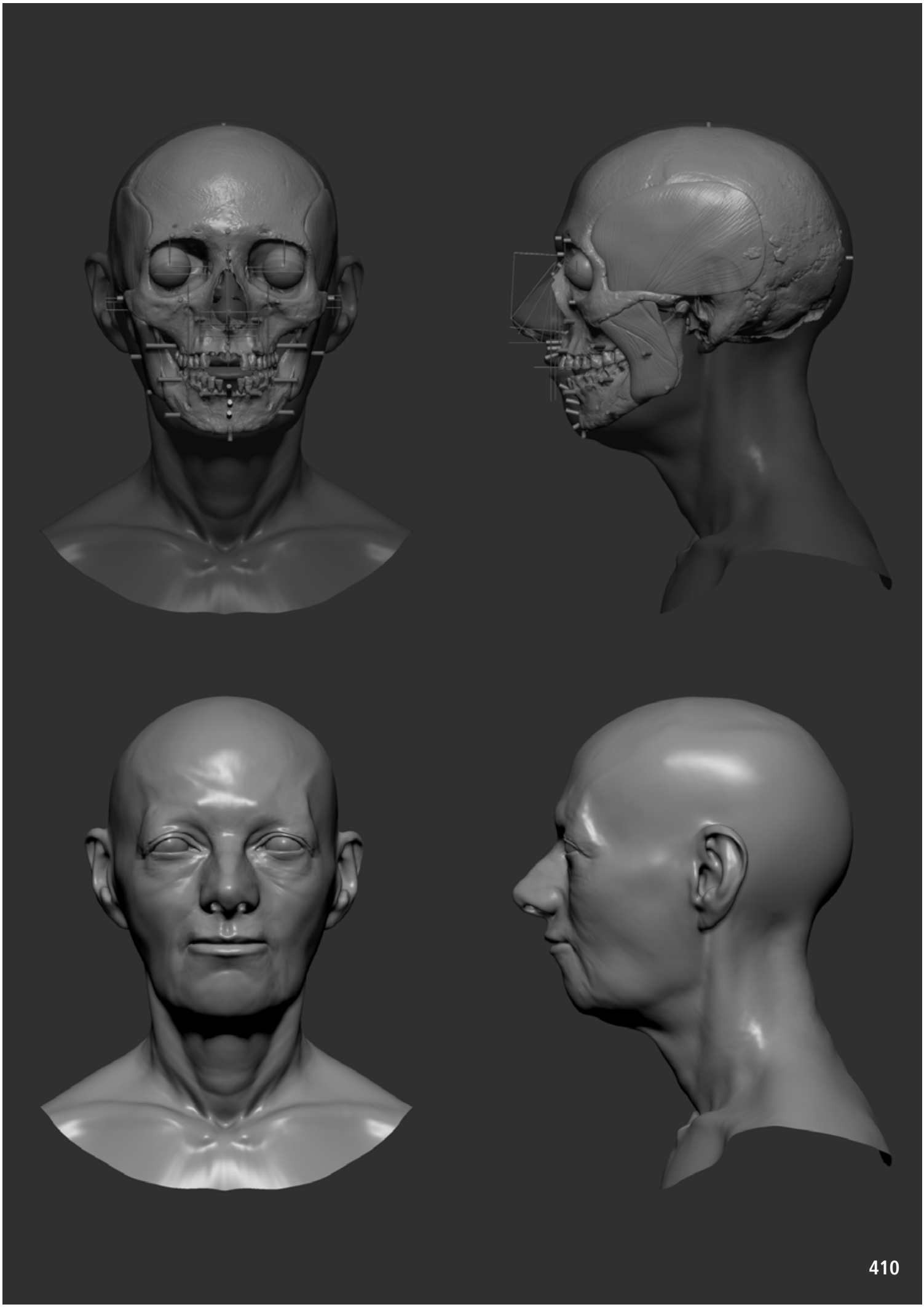




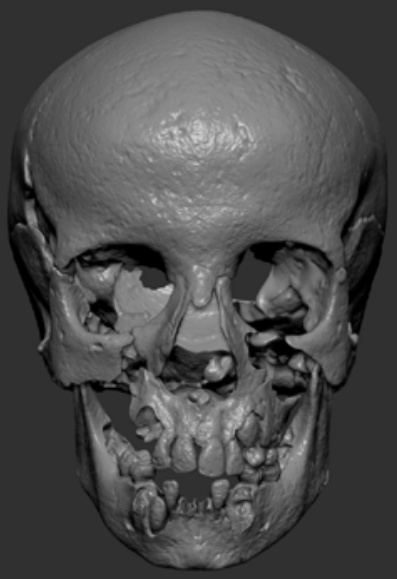


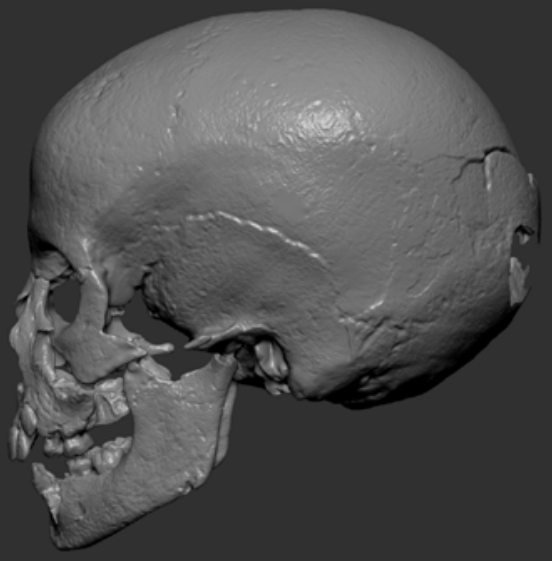
AY26 Female

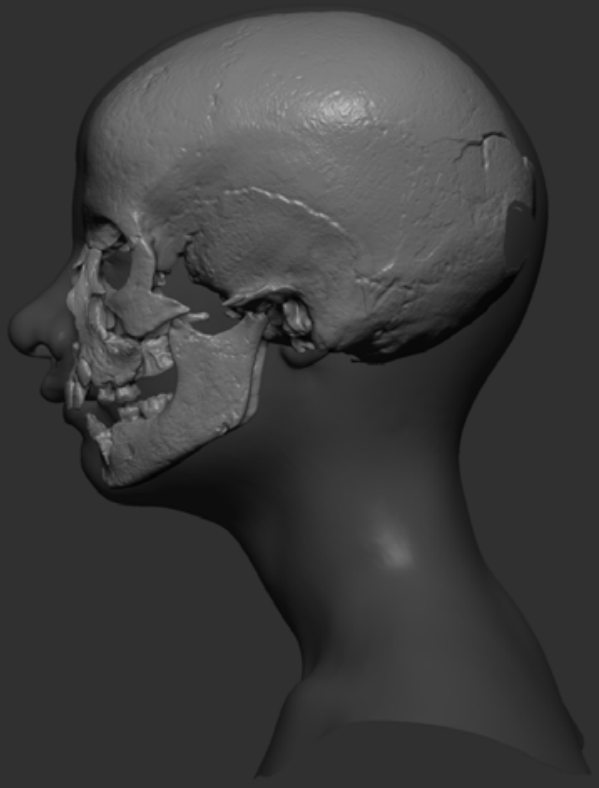


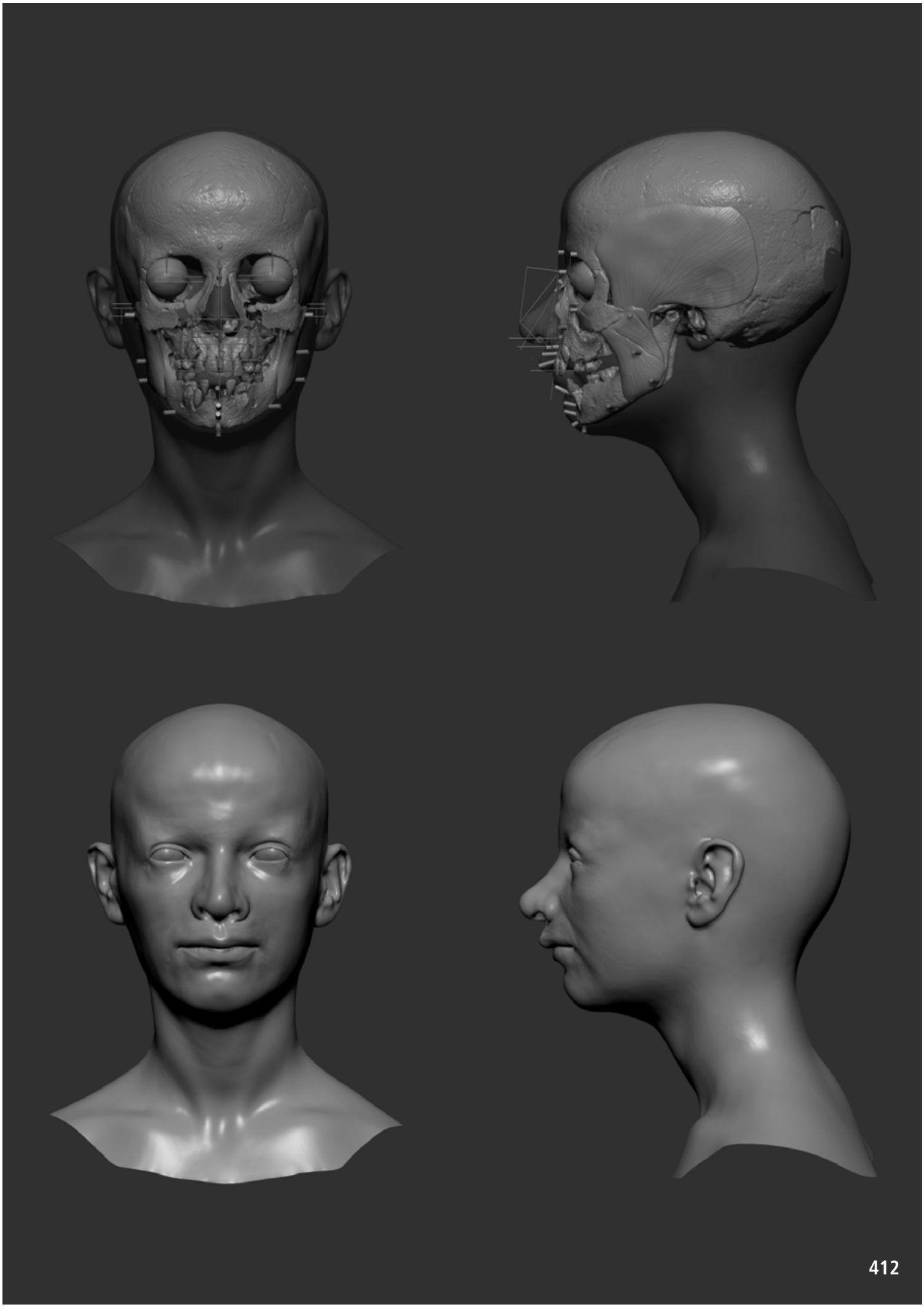


AY30

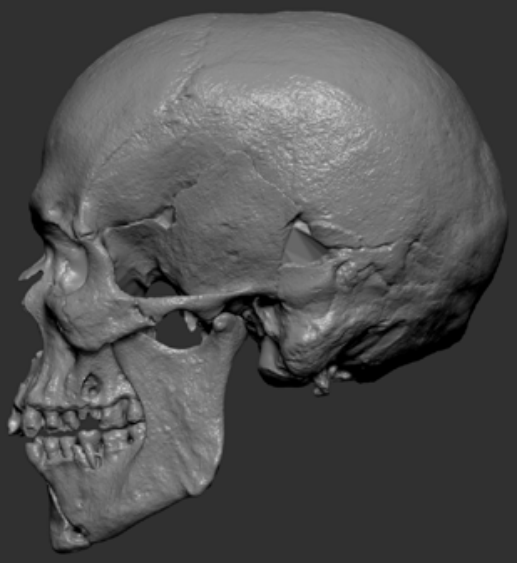


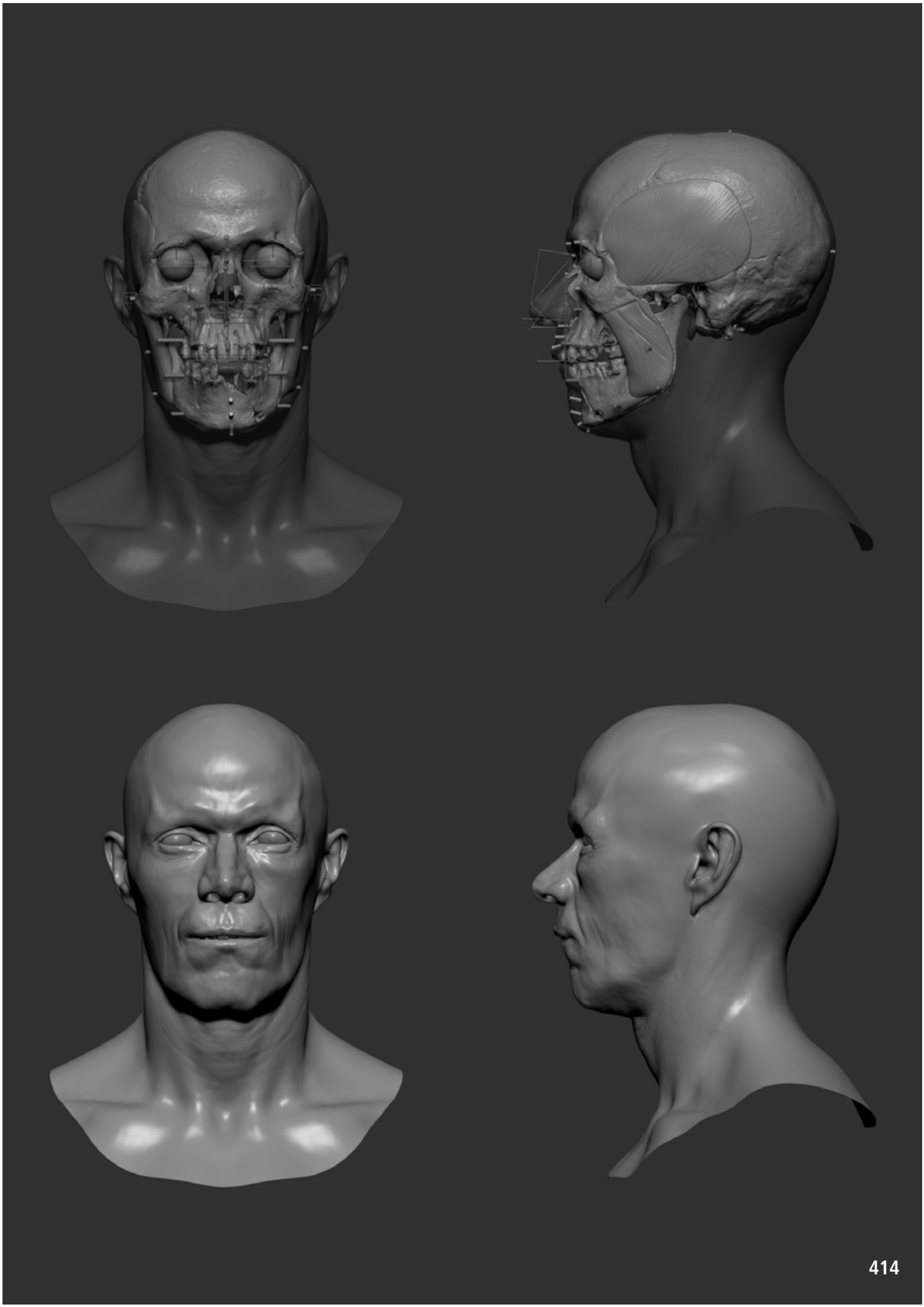




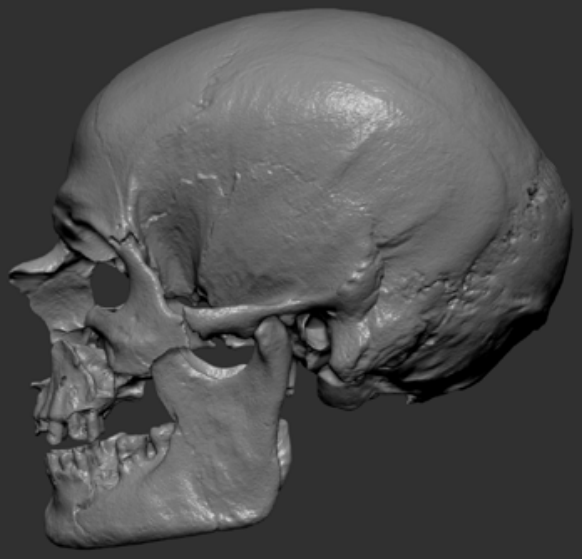


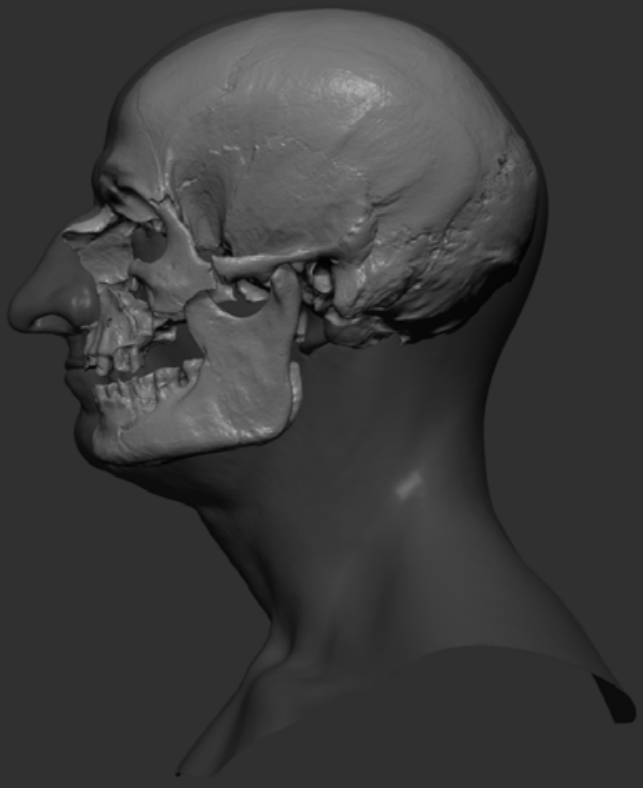
AY42 Male

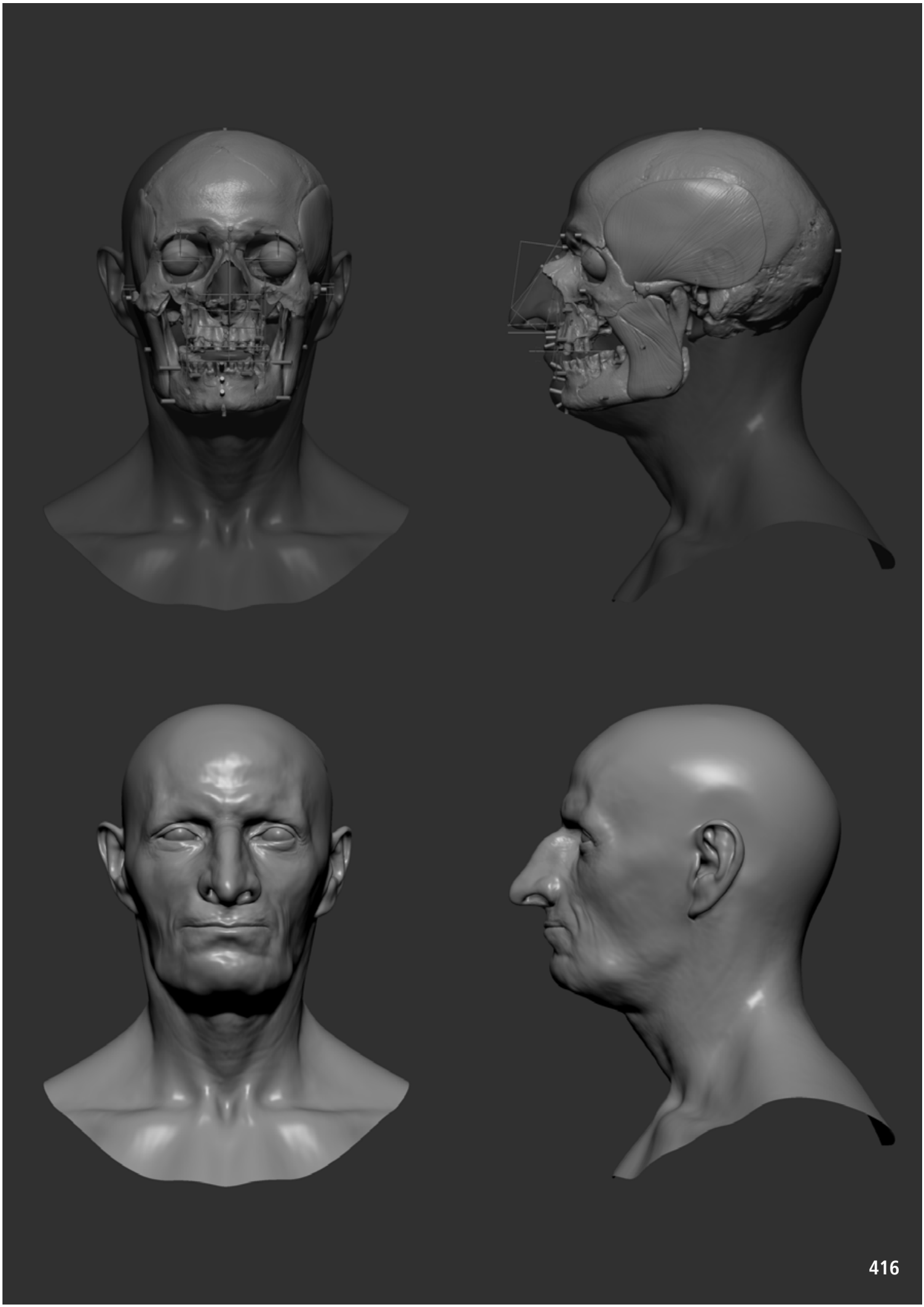




AY45







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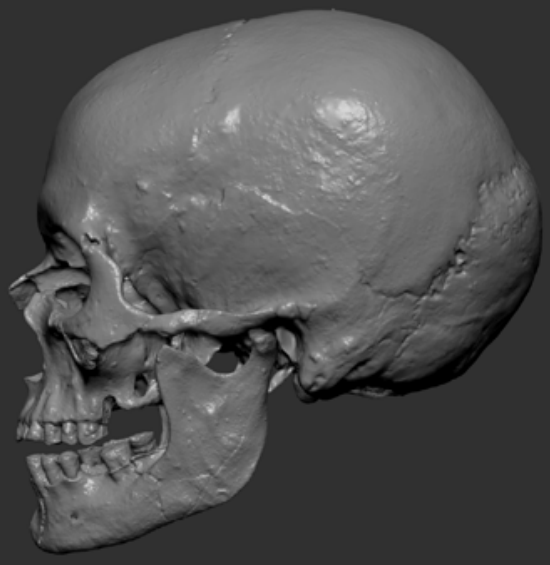

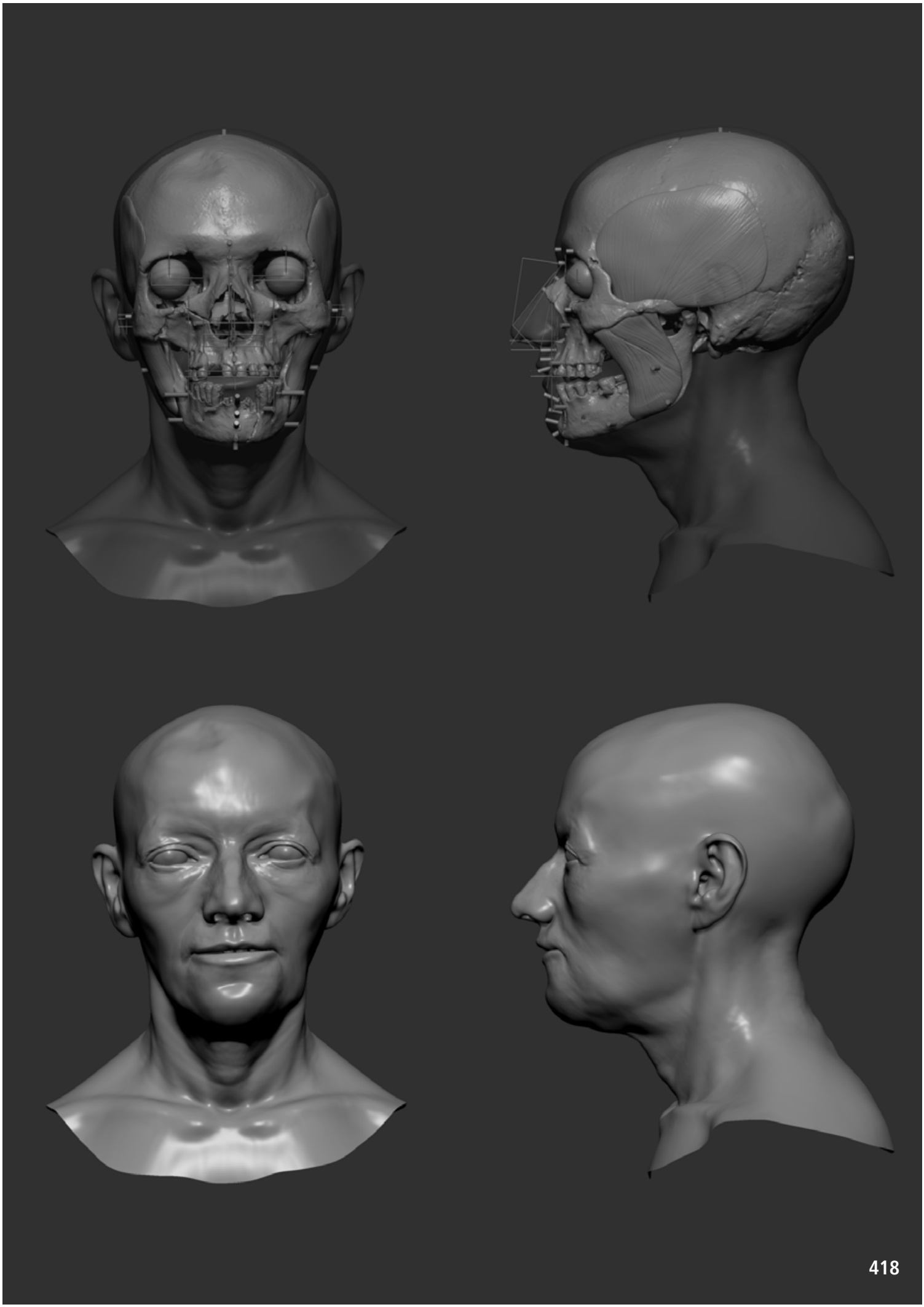

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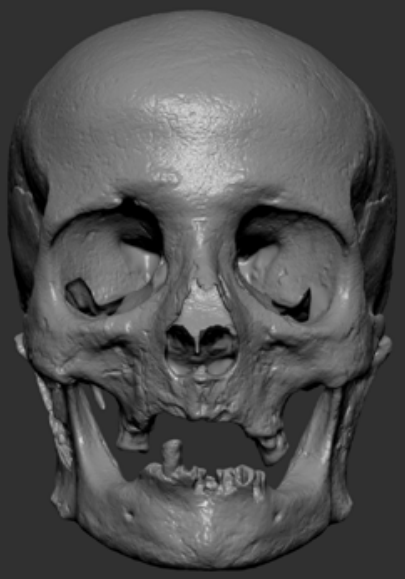
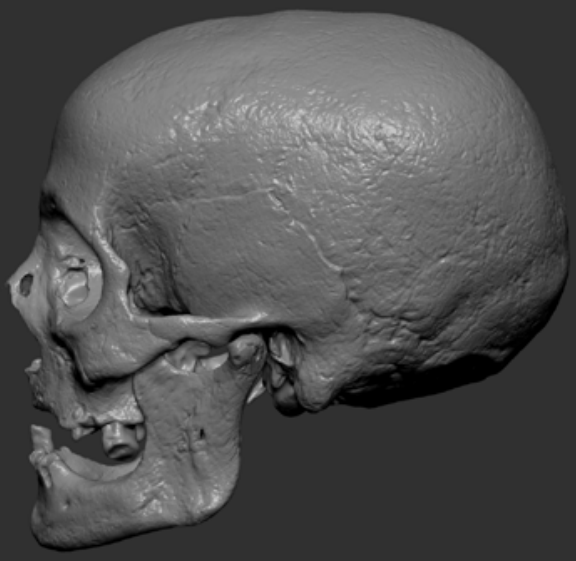
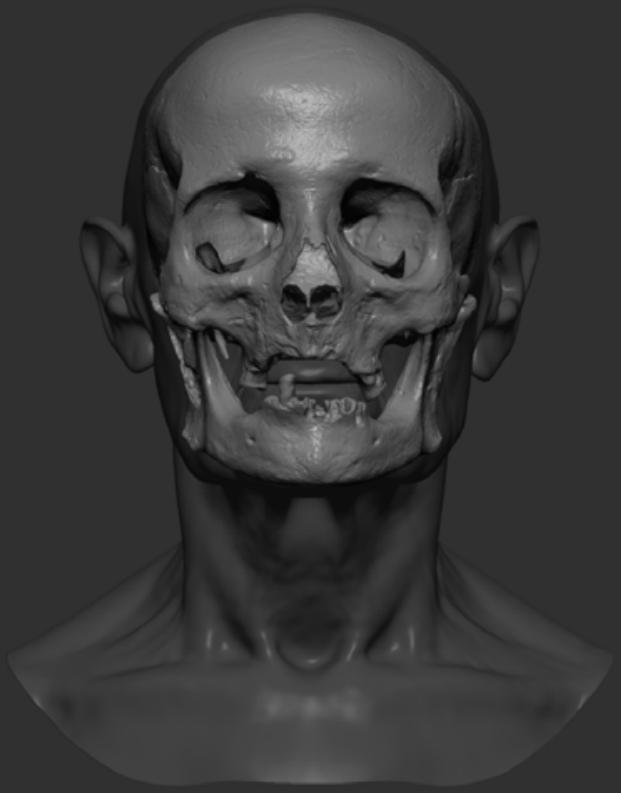
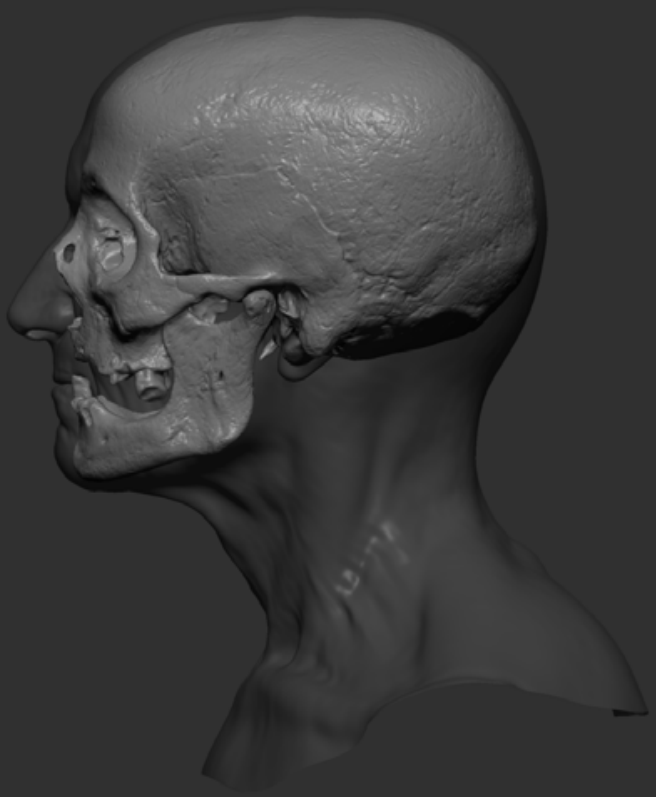
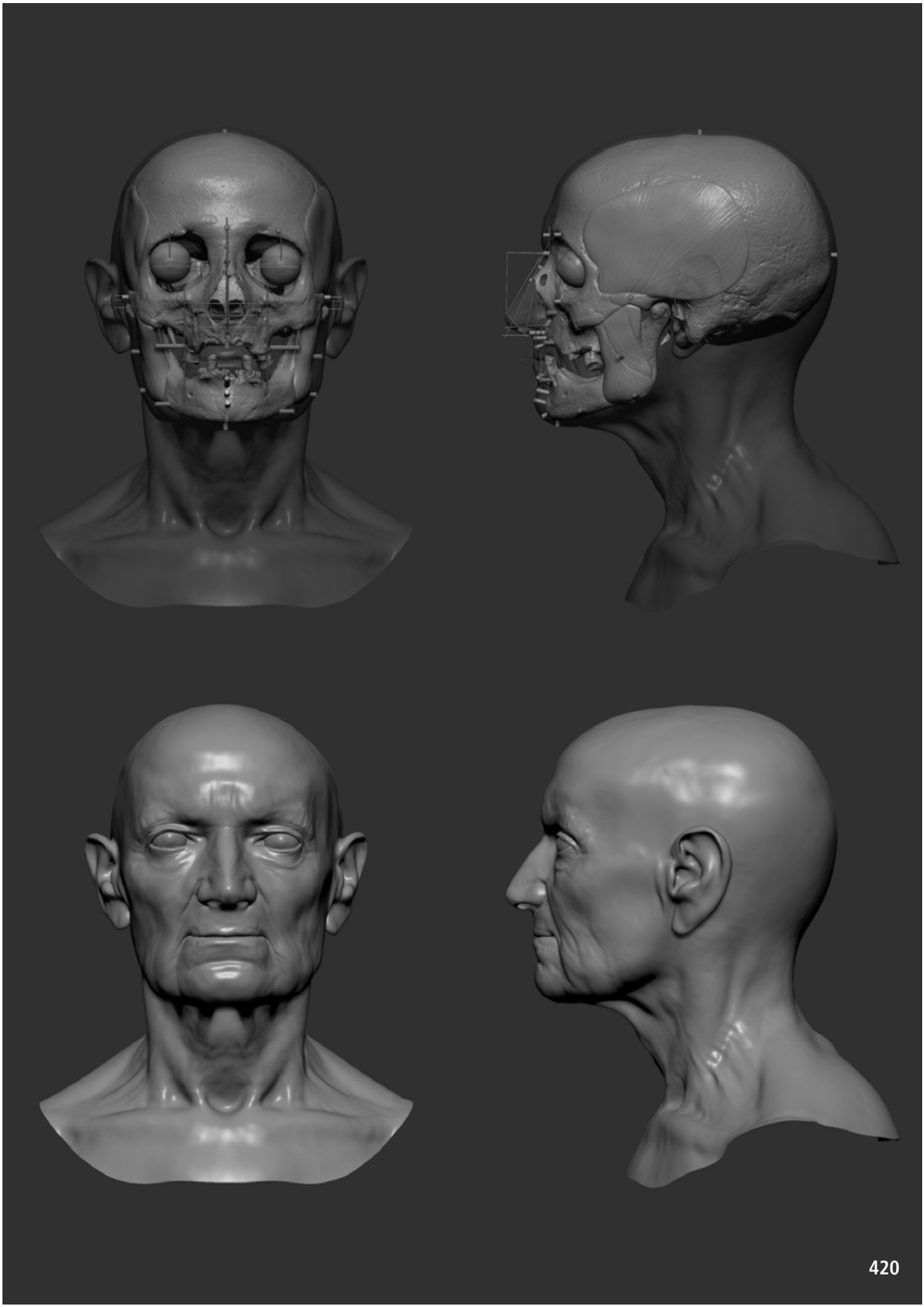


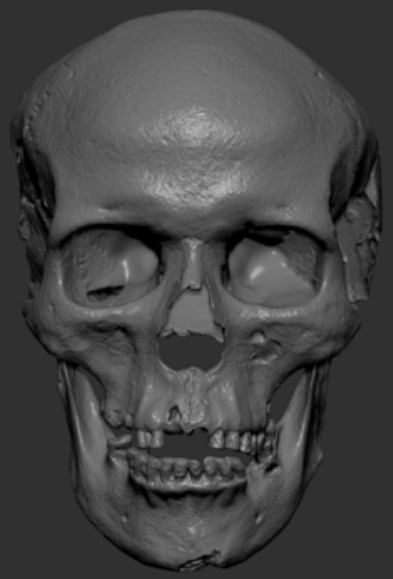


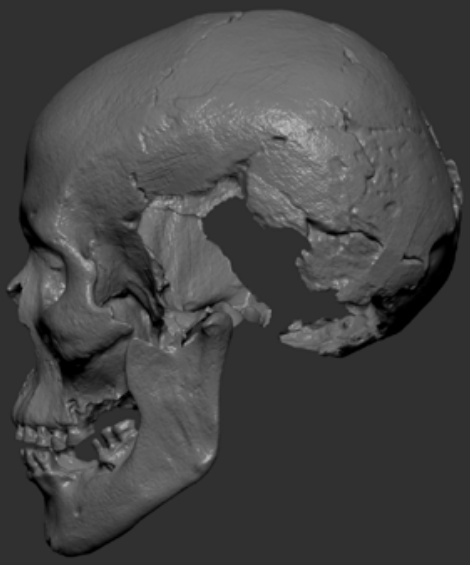


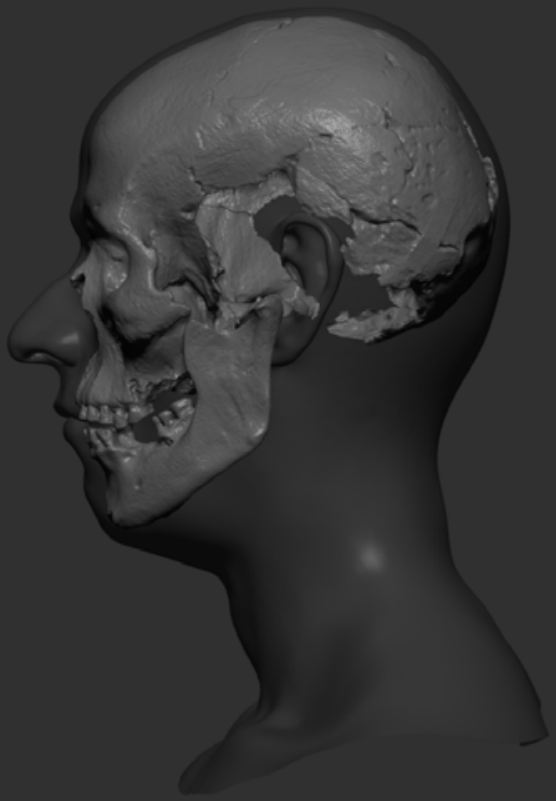


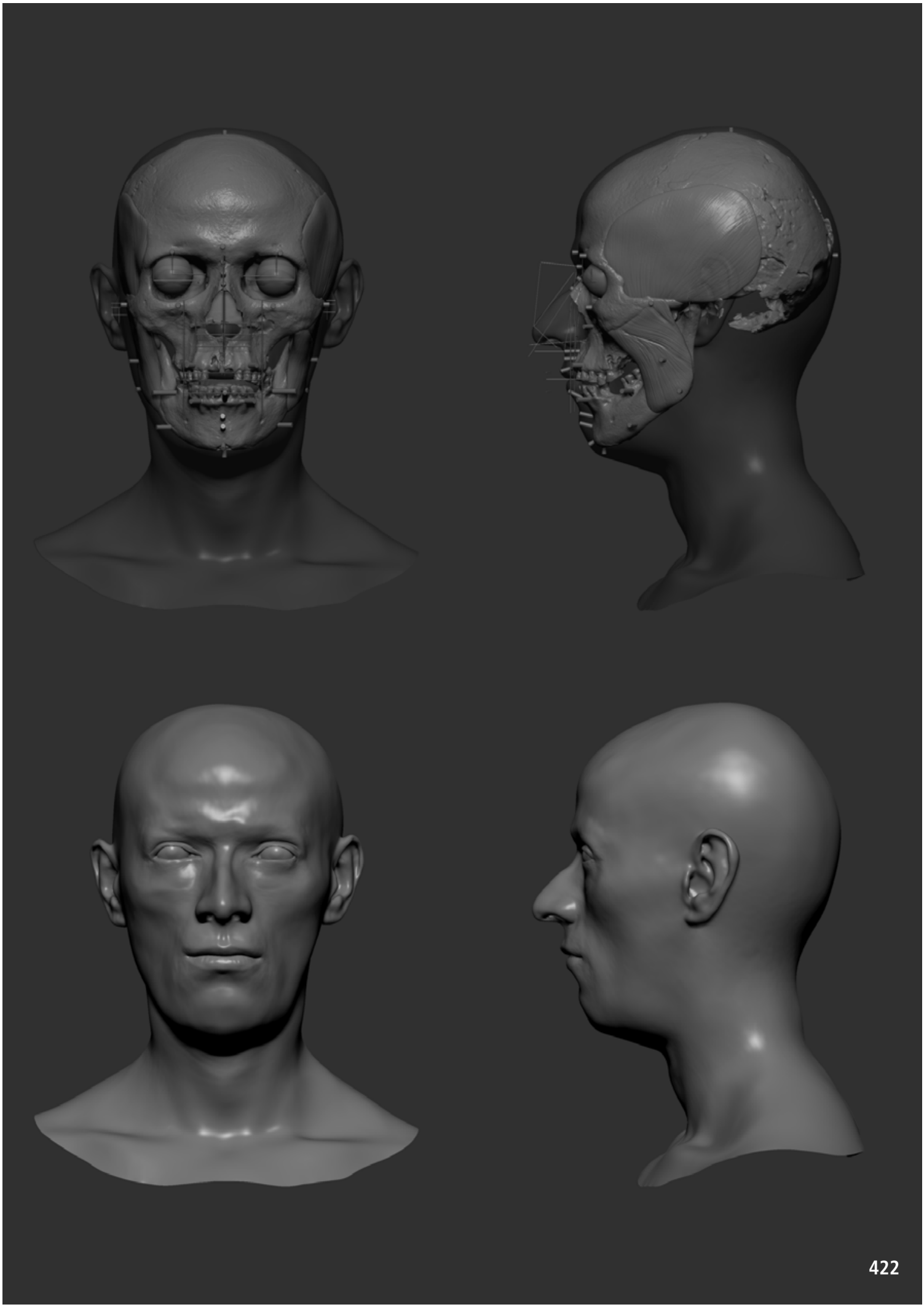


AY53

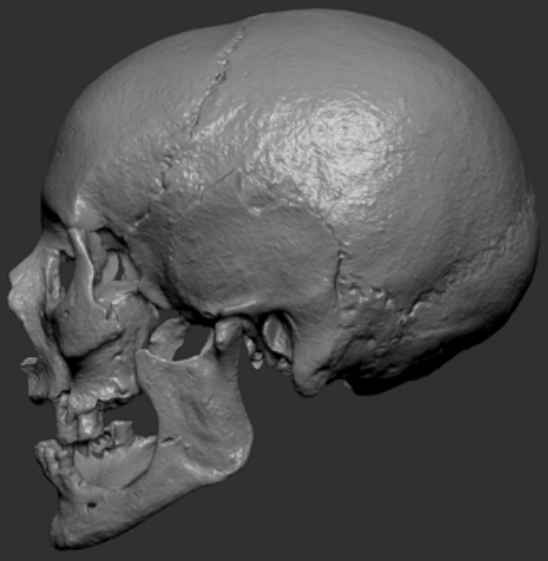


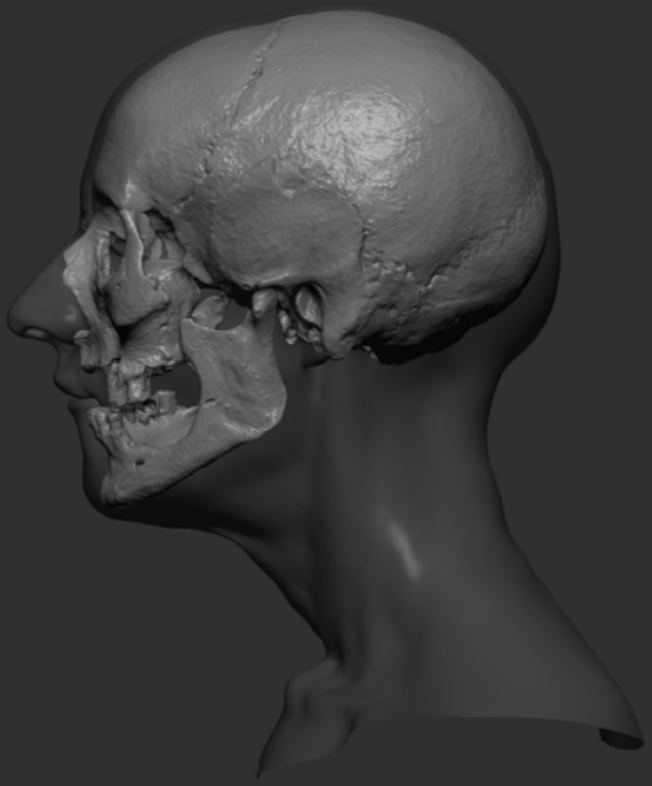


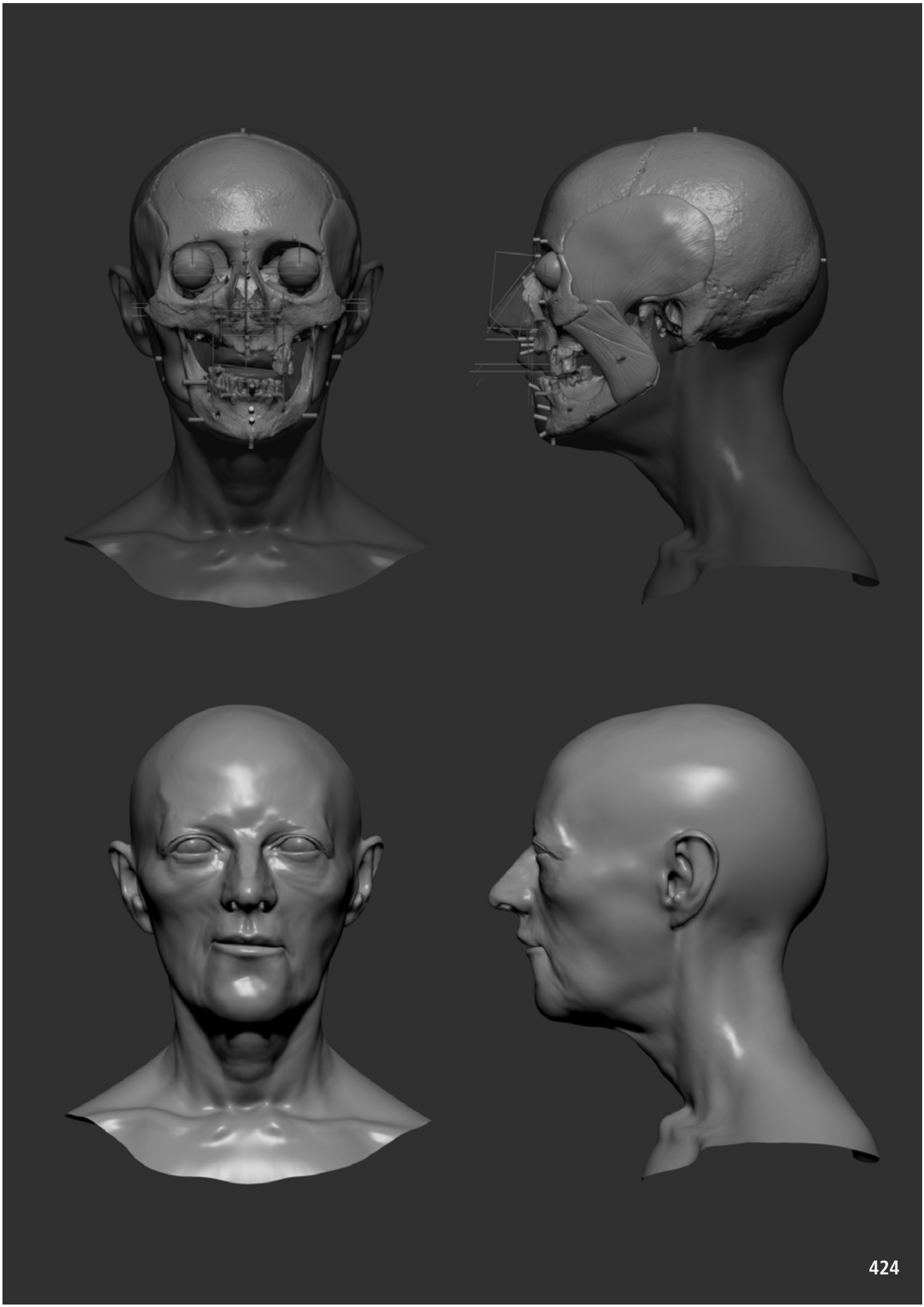




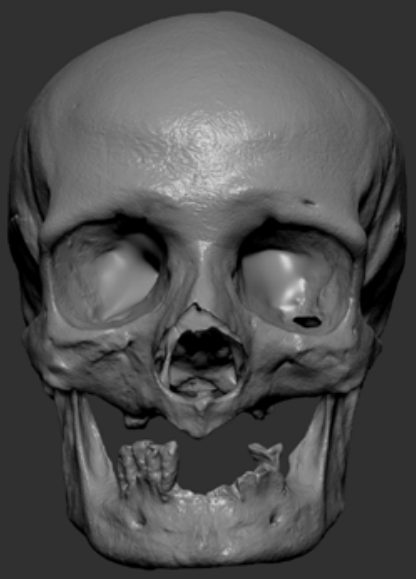
AY82 Female

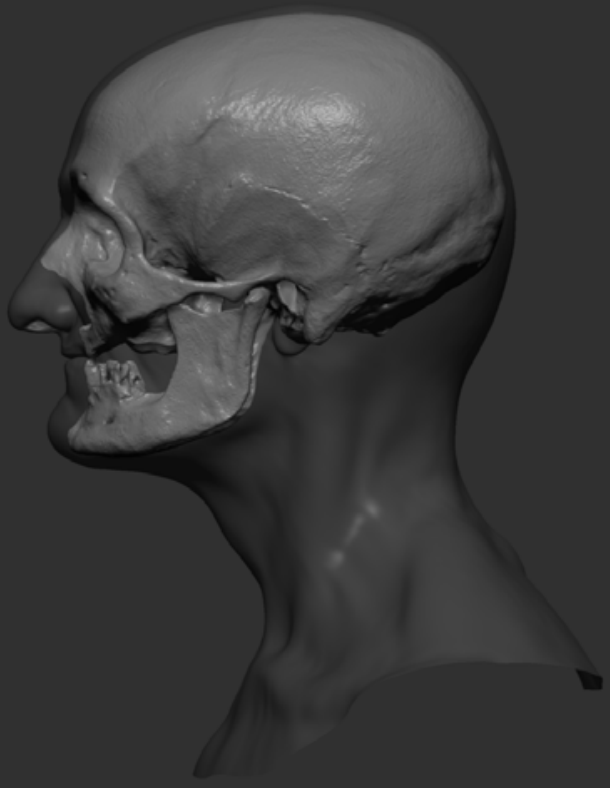


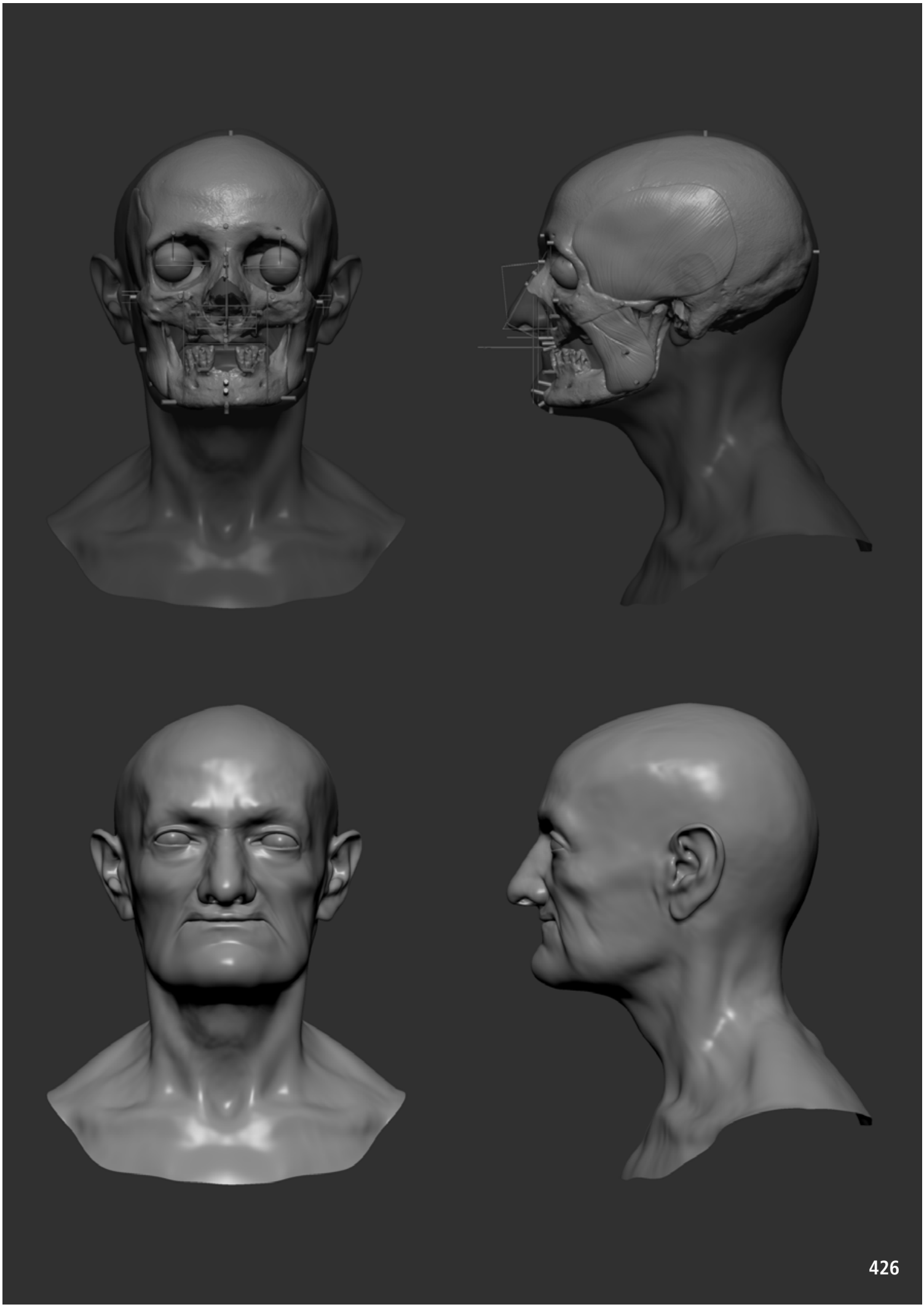




AY87

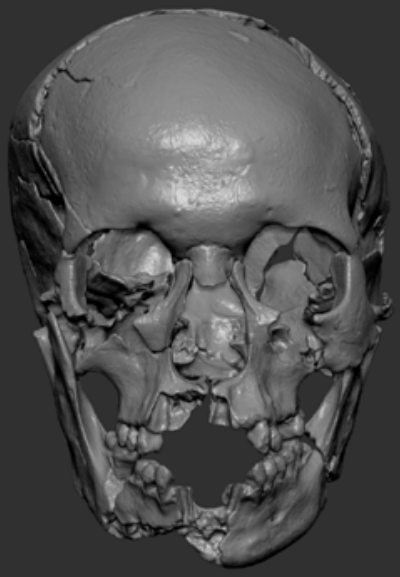


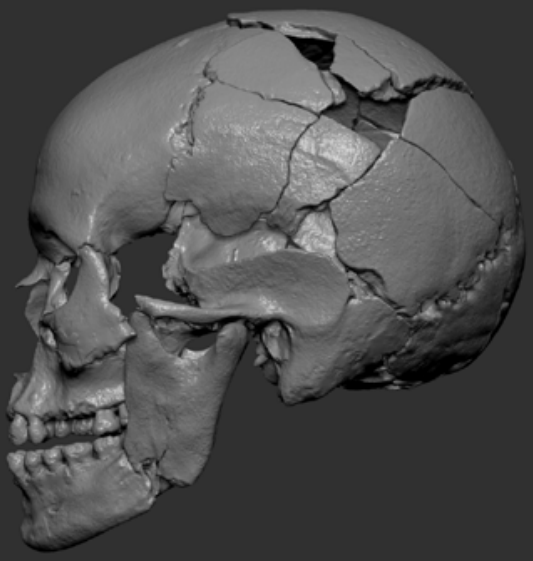


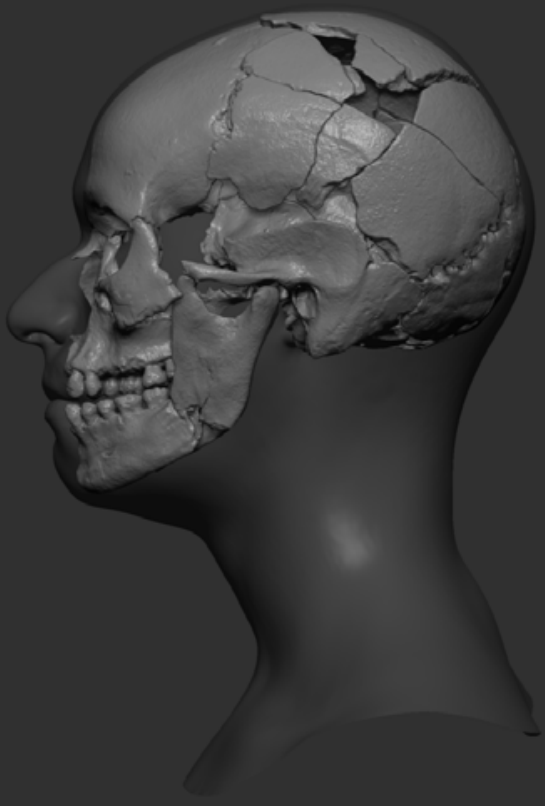


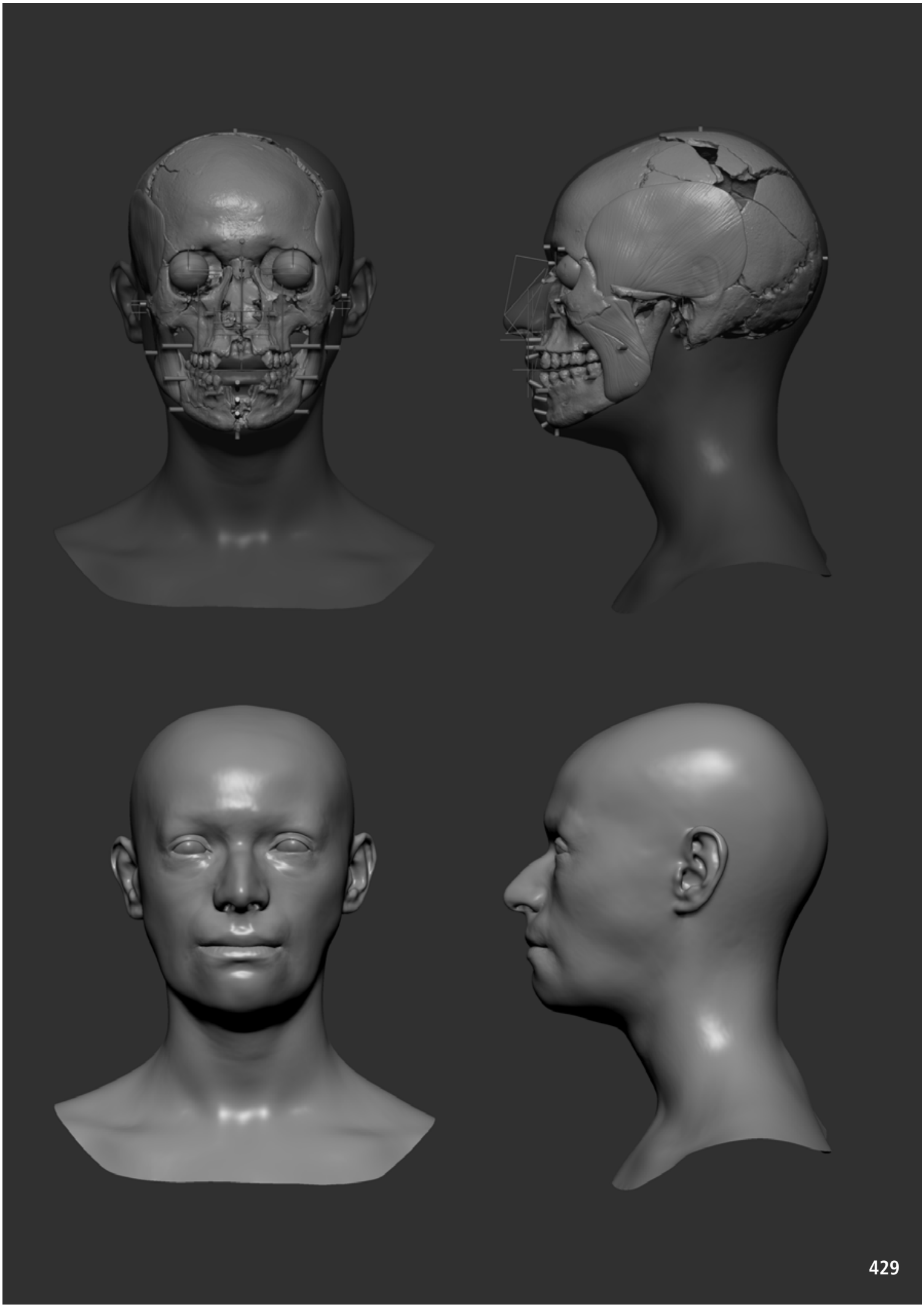
3rd level (SFA)

AY3

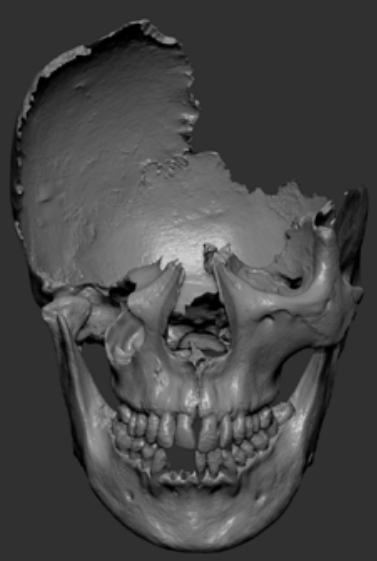


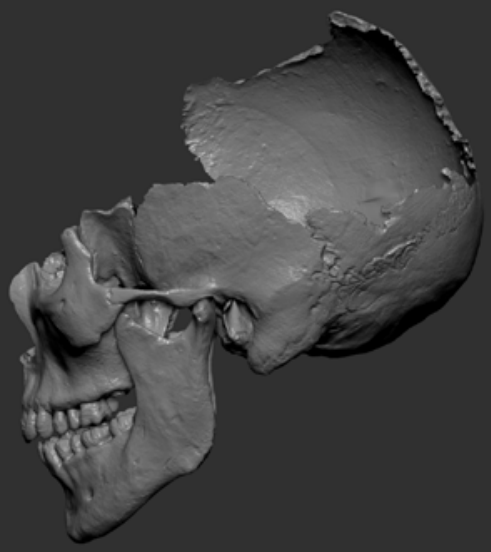


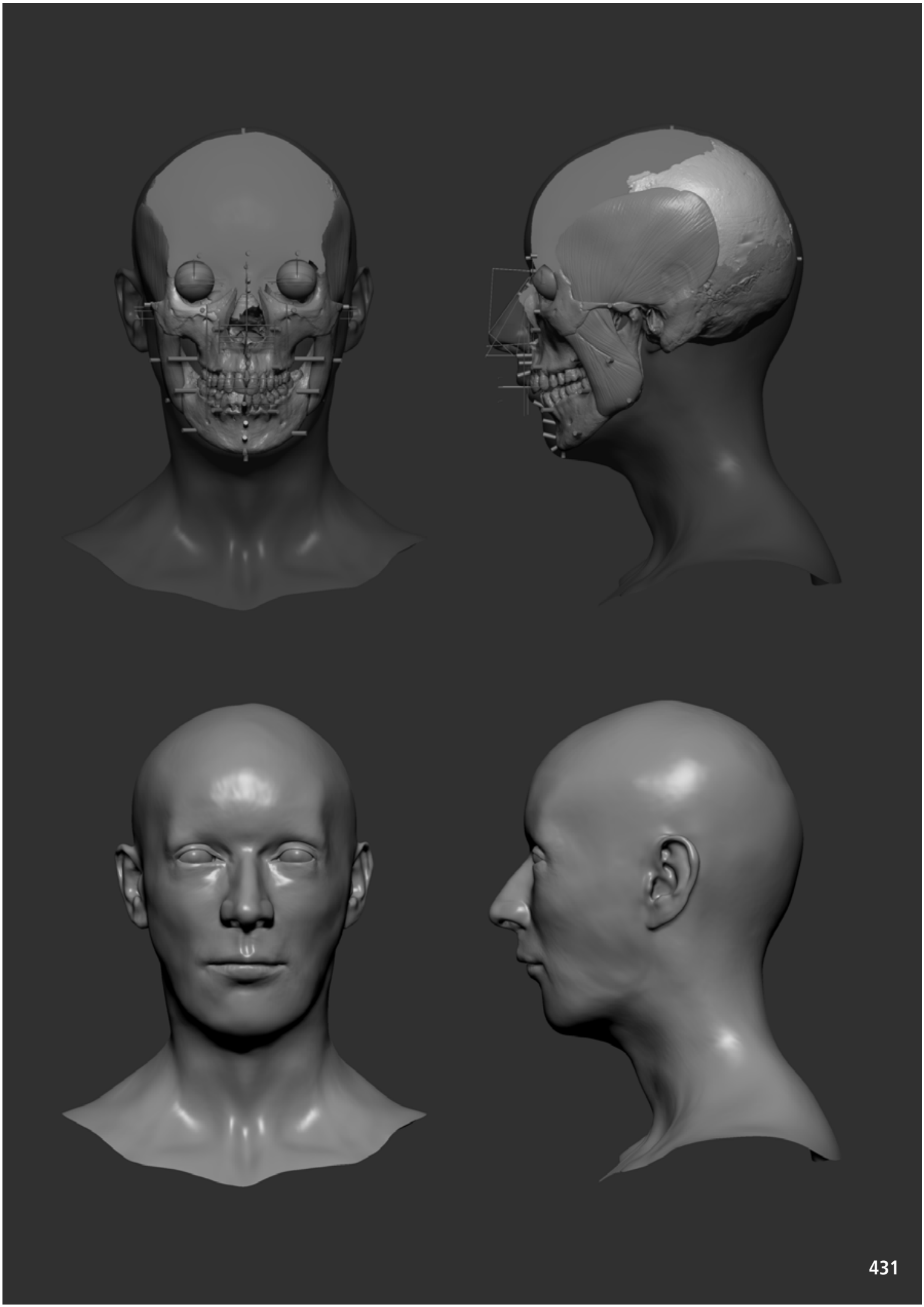




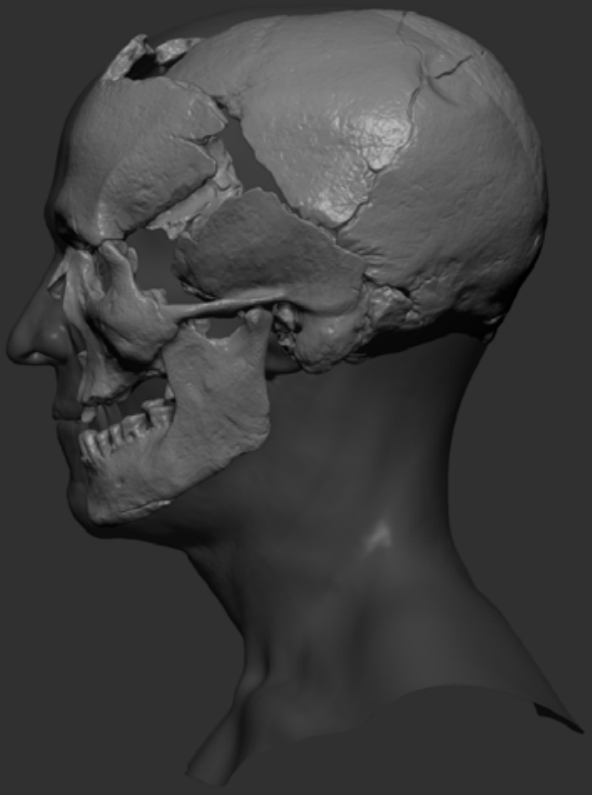
AY38 Female

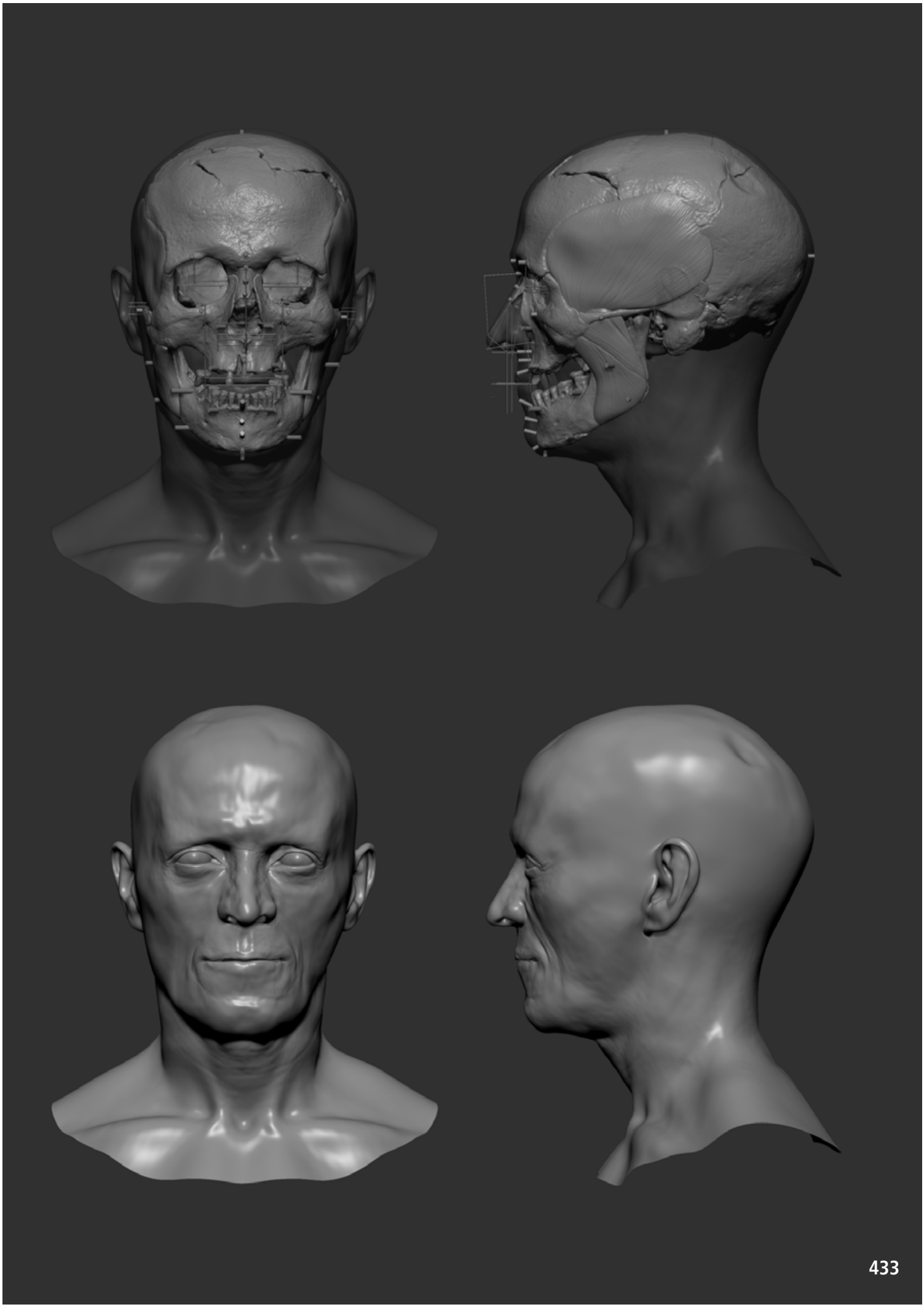




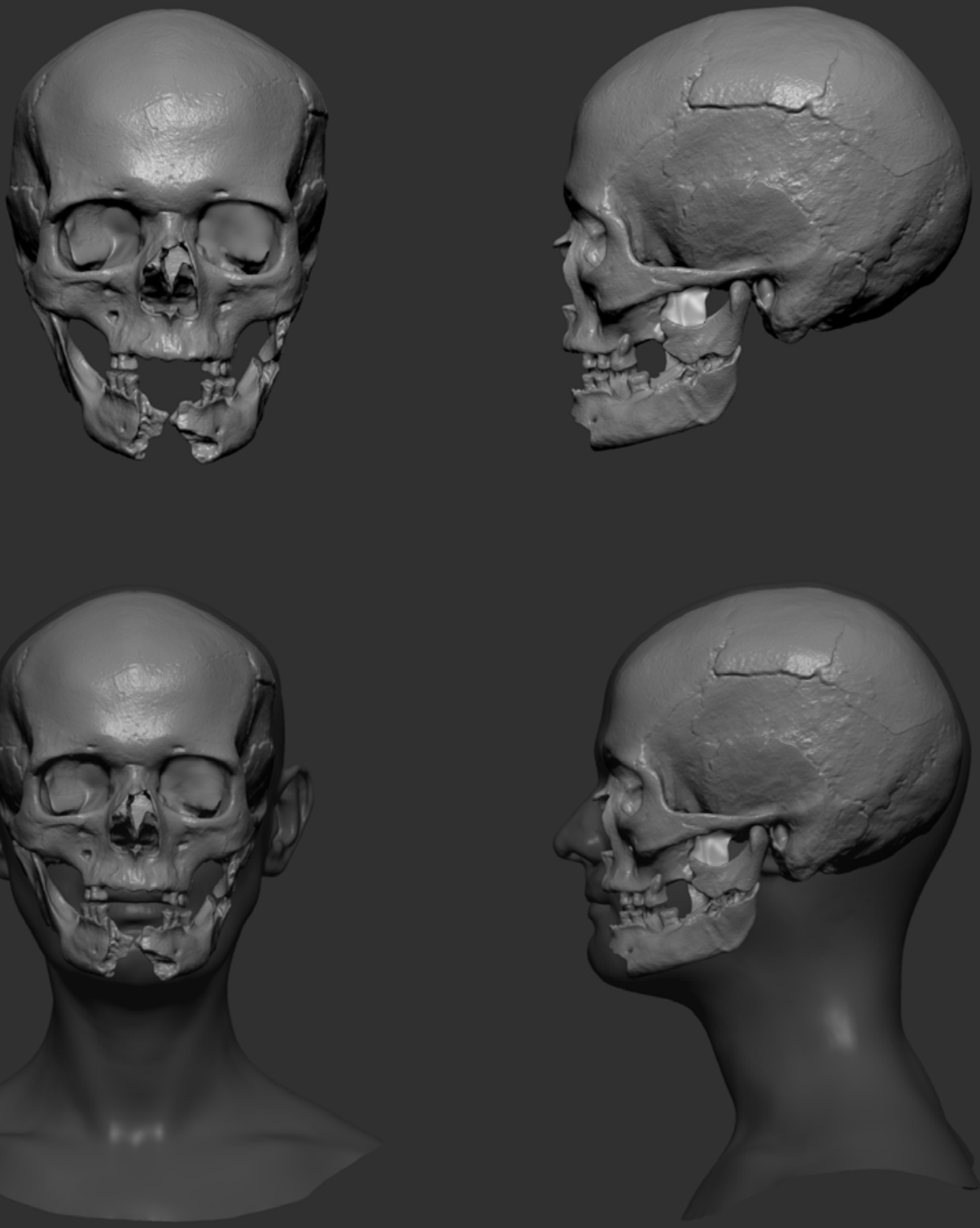


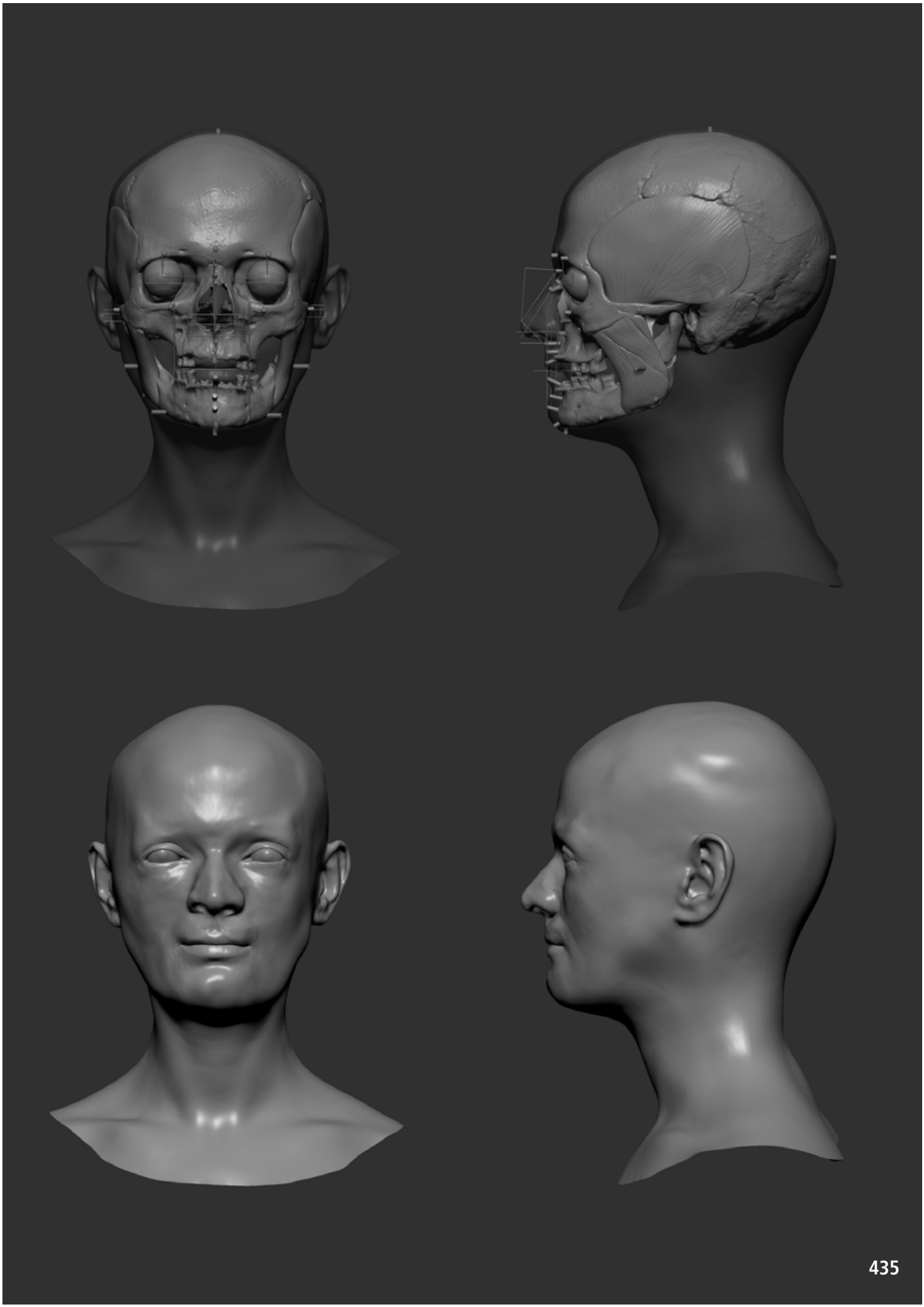
AY60 Male





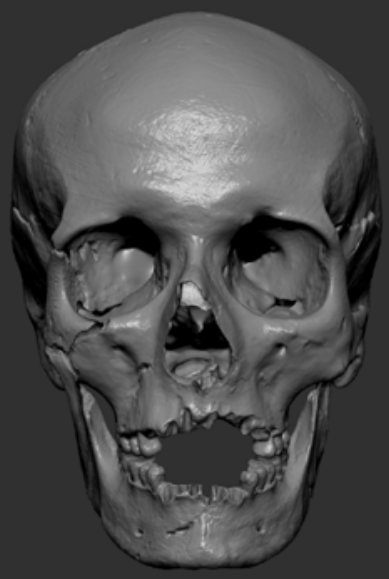
AY94 Female

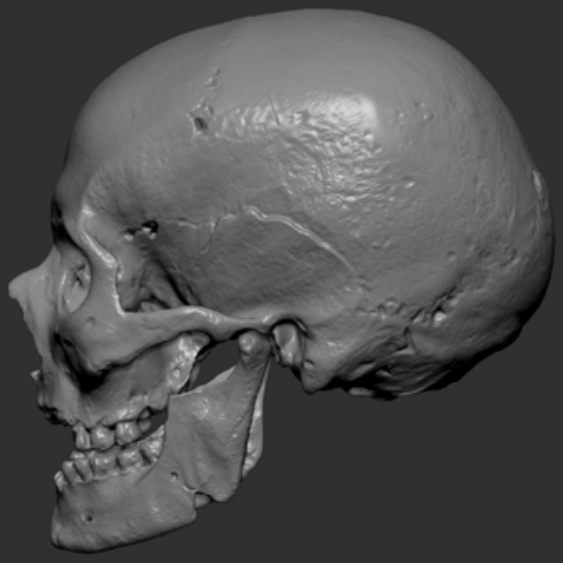


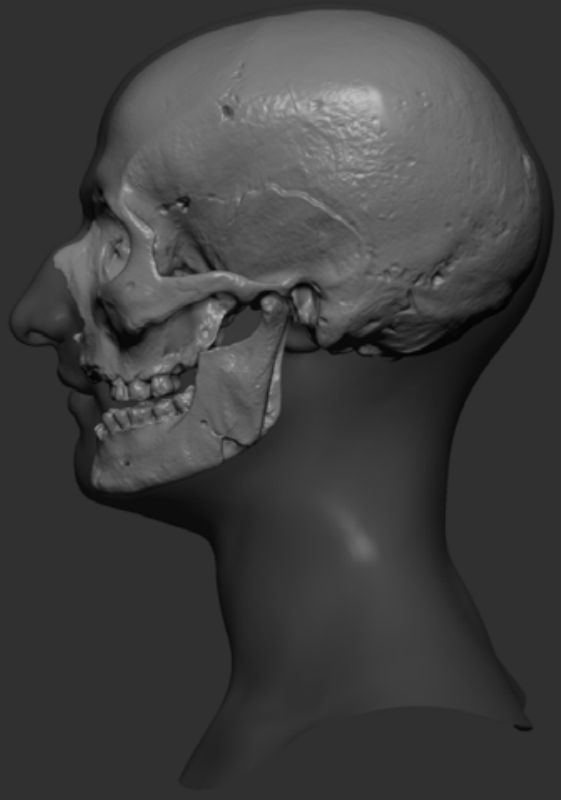


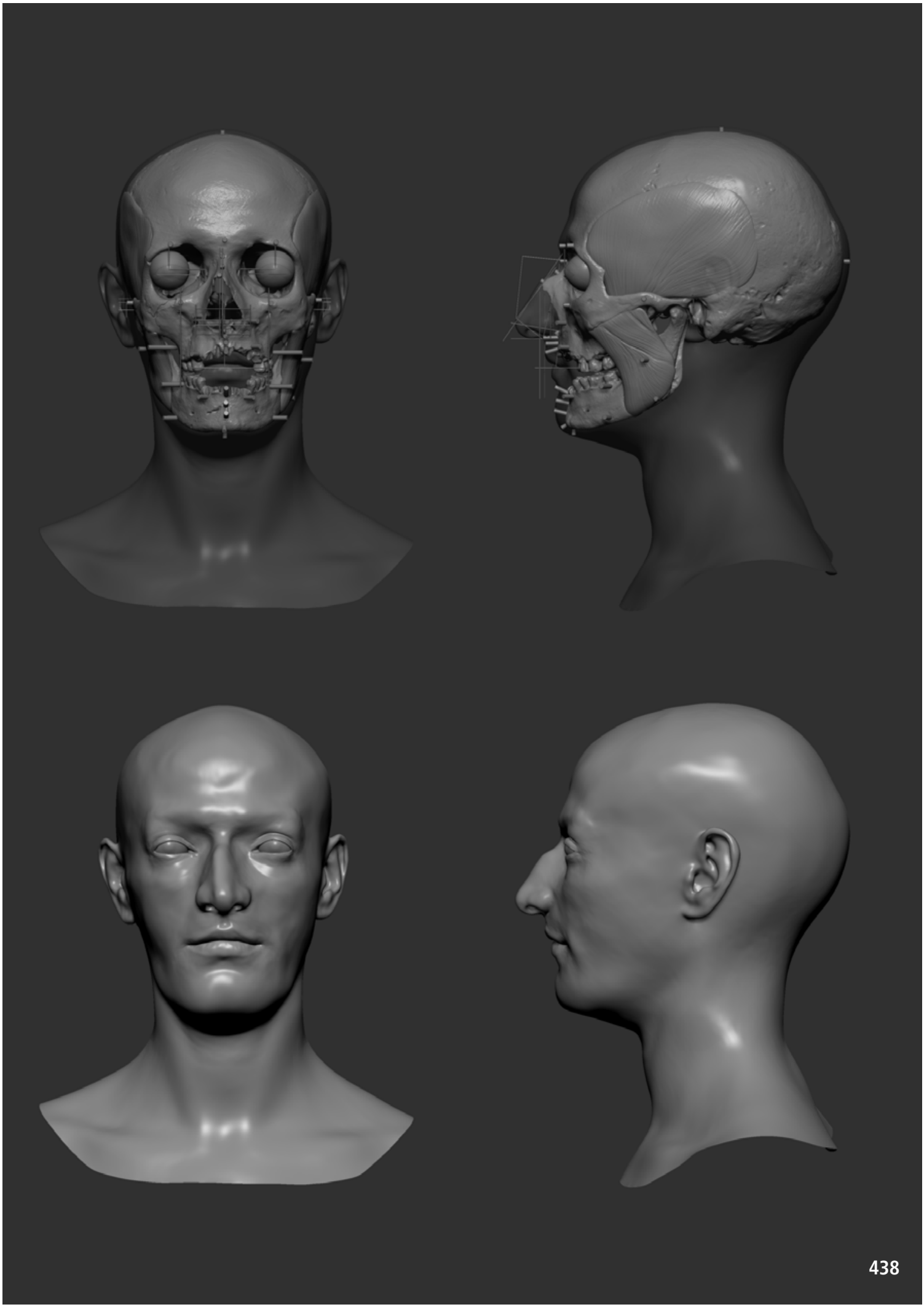
La Bastida

BA31 Female









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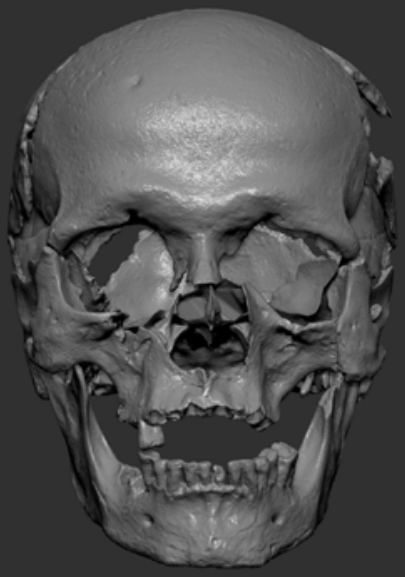
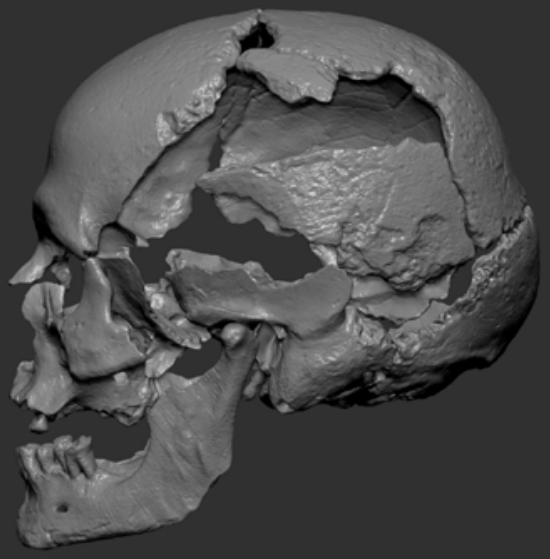
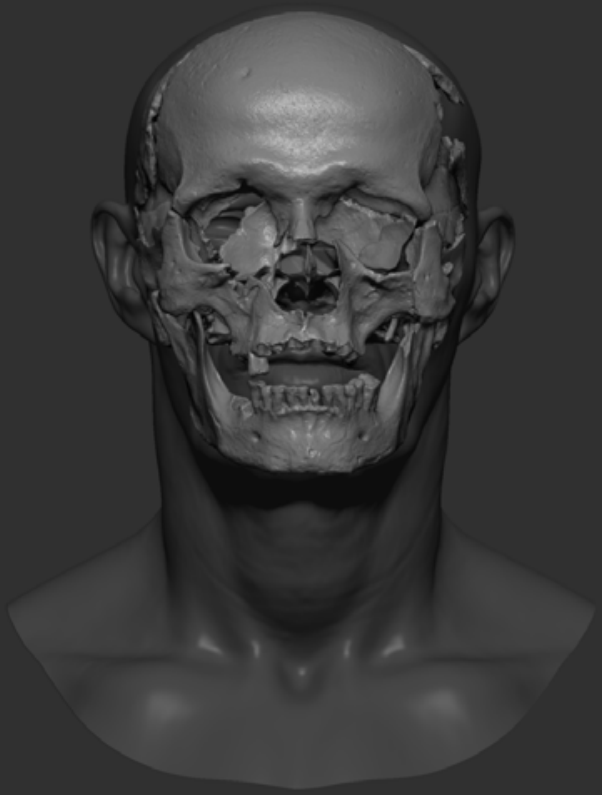
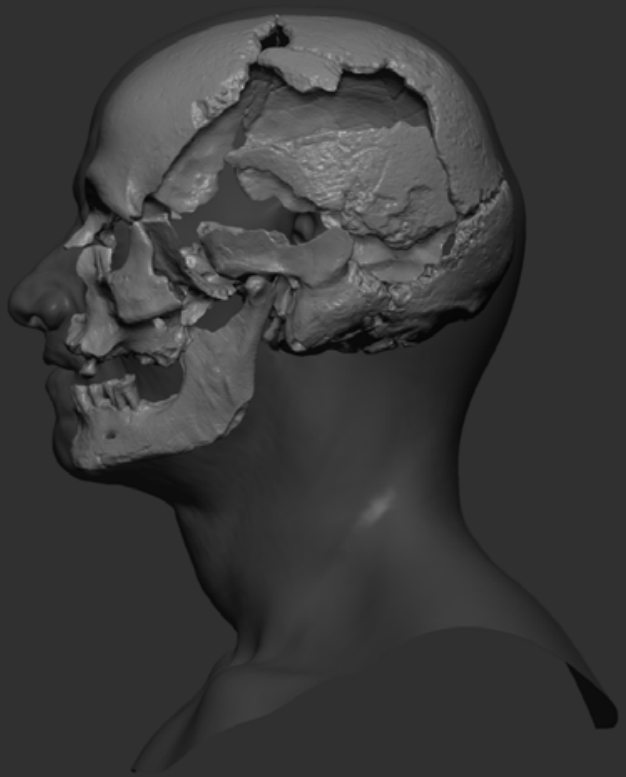
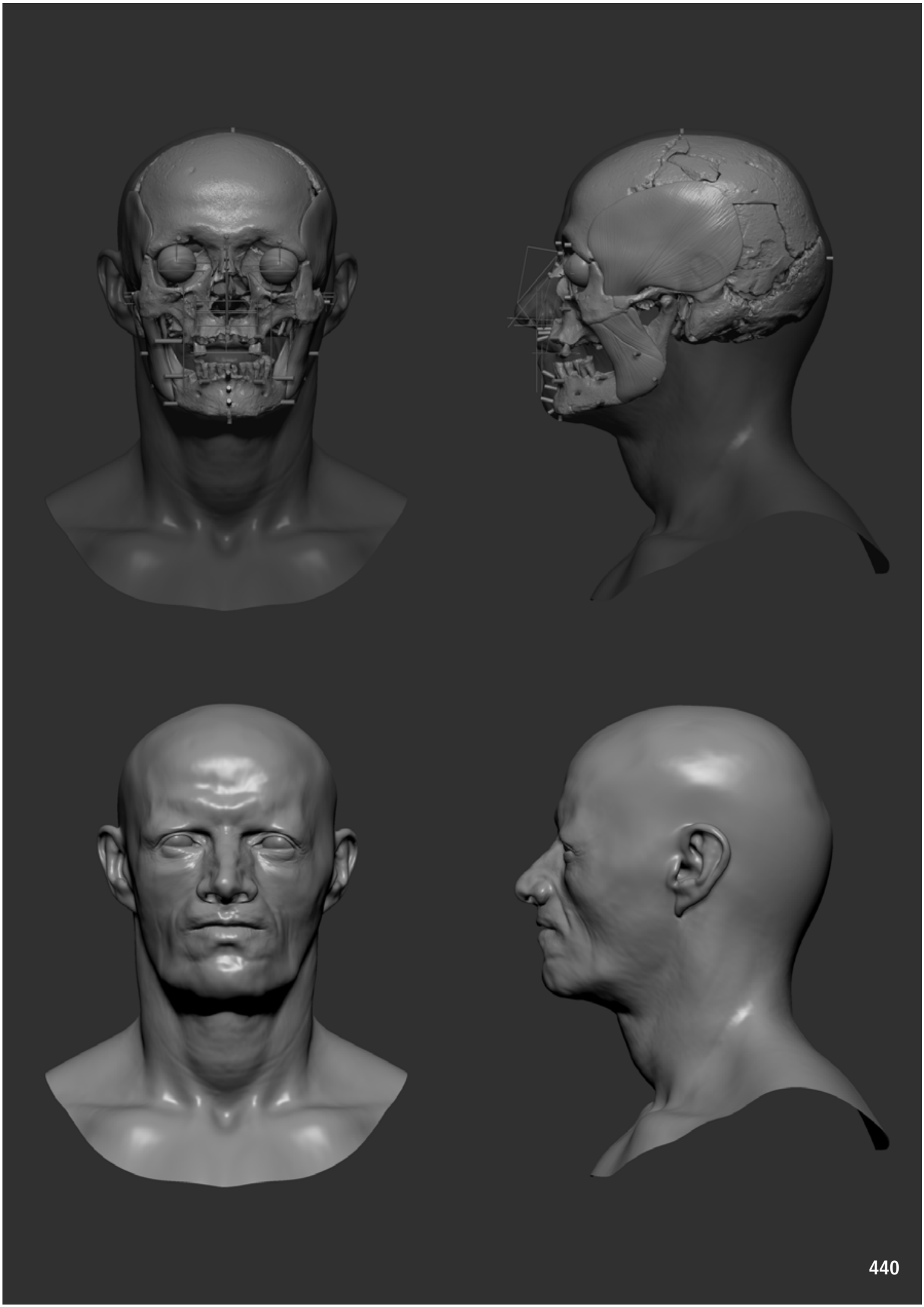


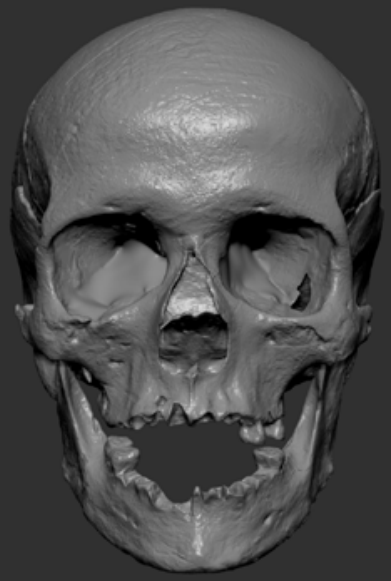


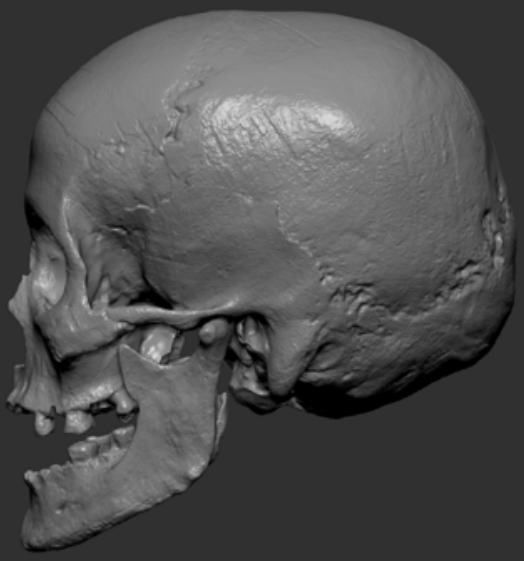


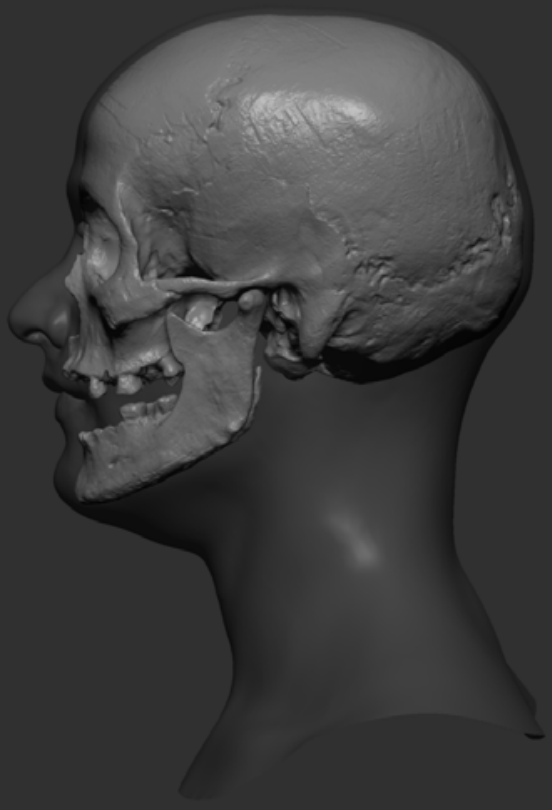


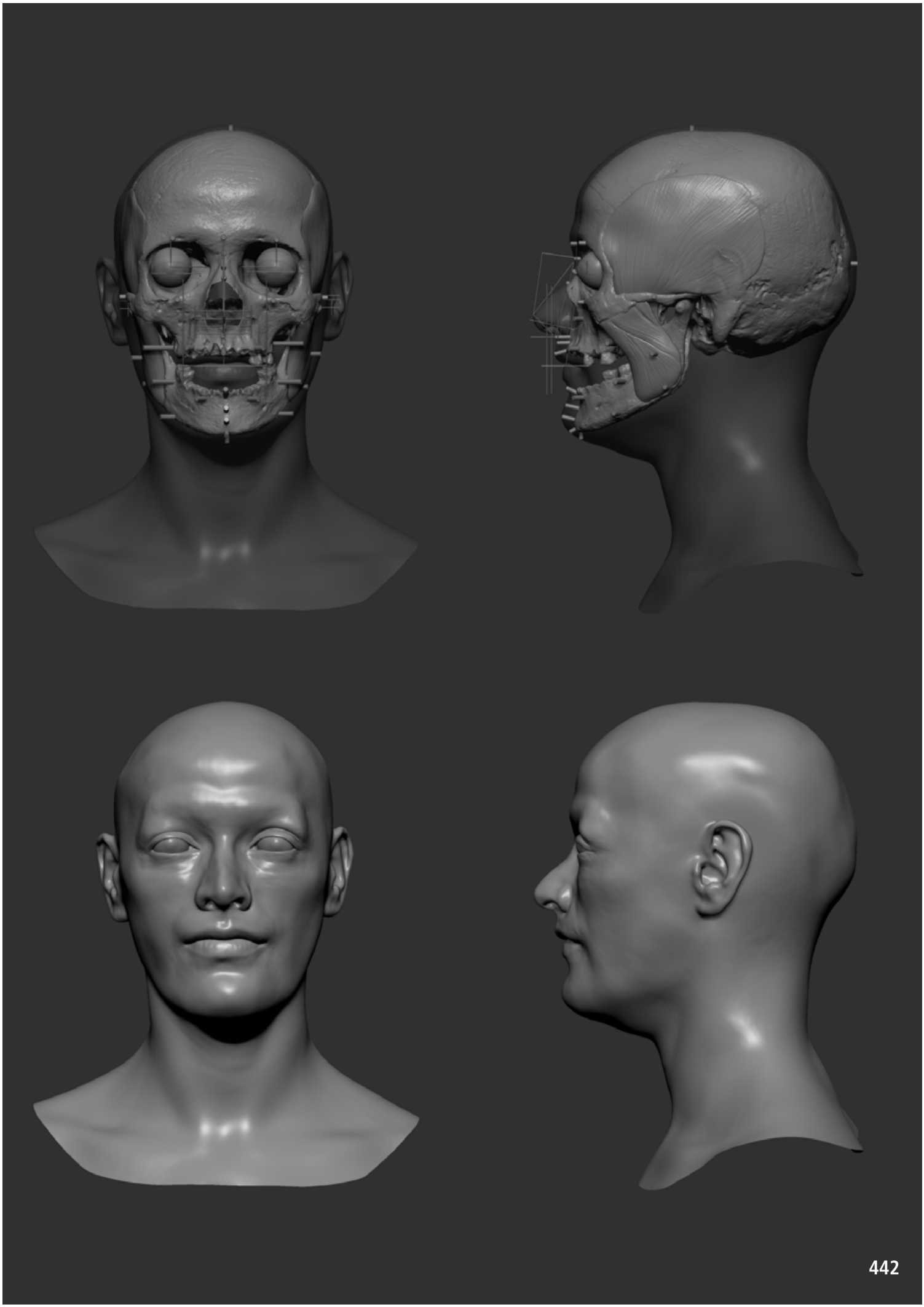


BA63

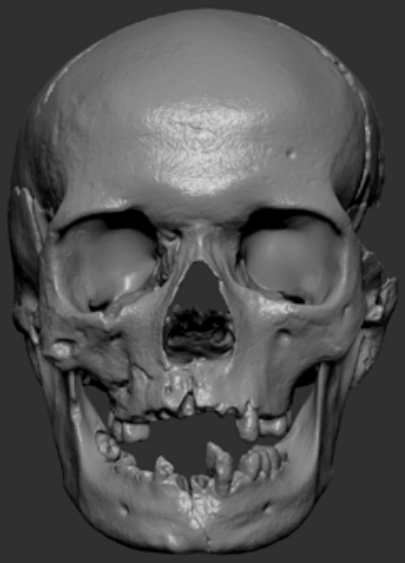


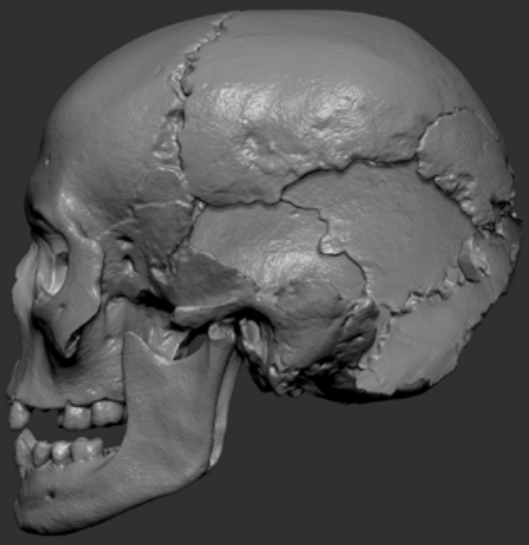


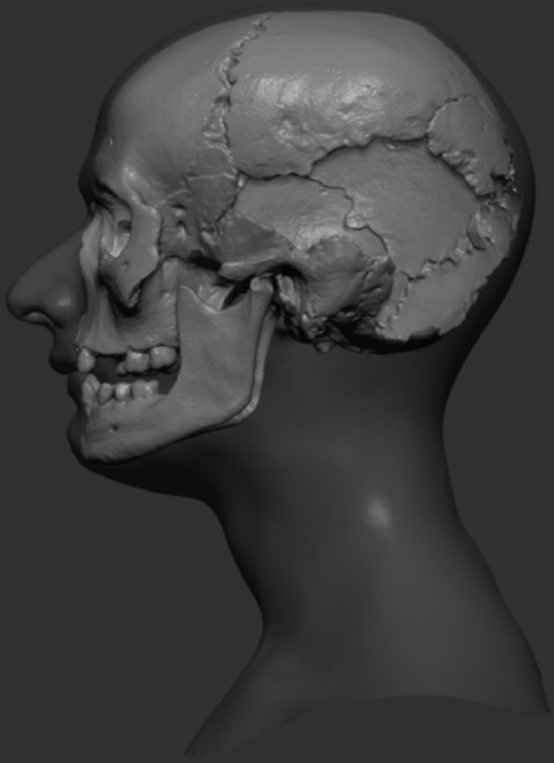


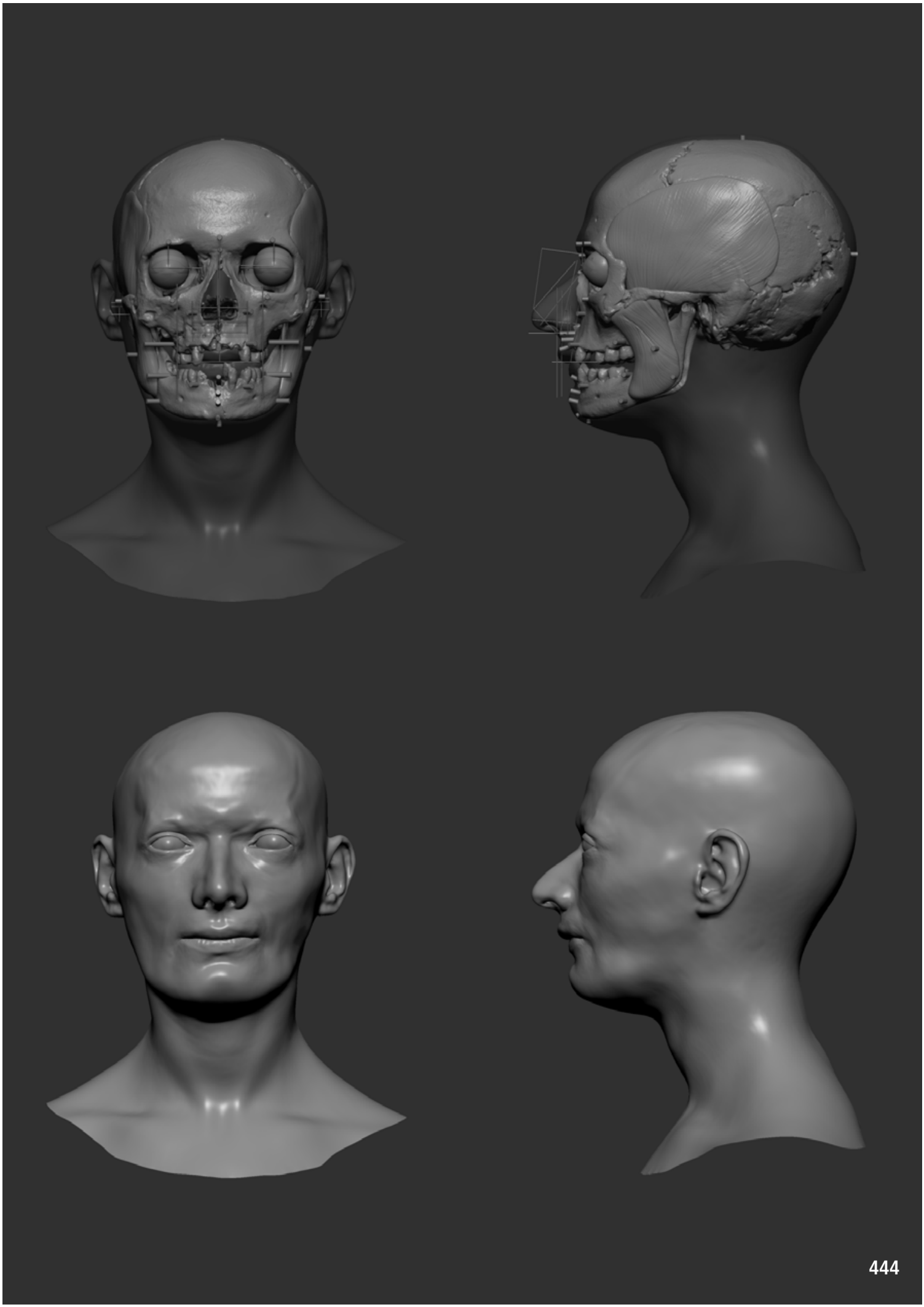


BAM-6









Appendix C

Morphometric analyses
(supplemental material)

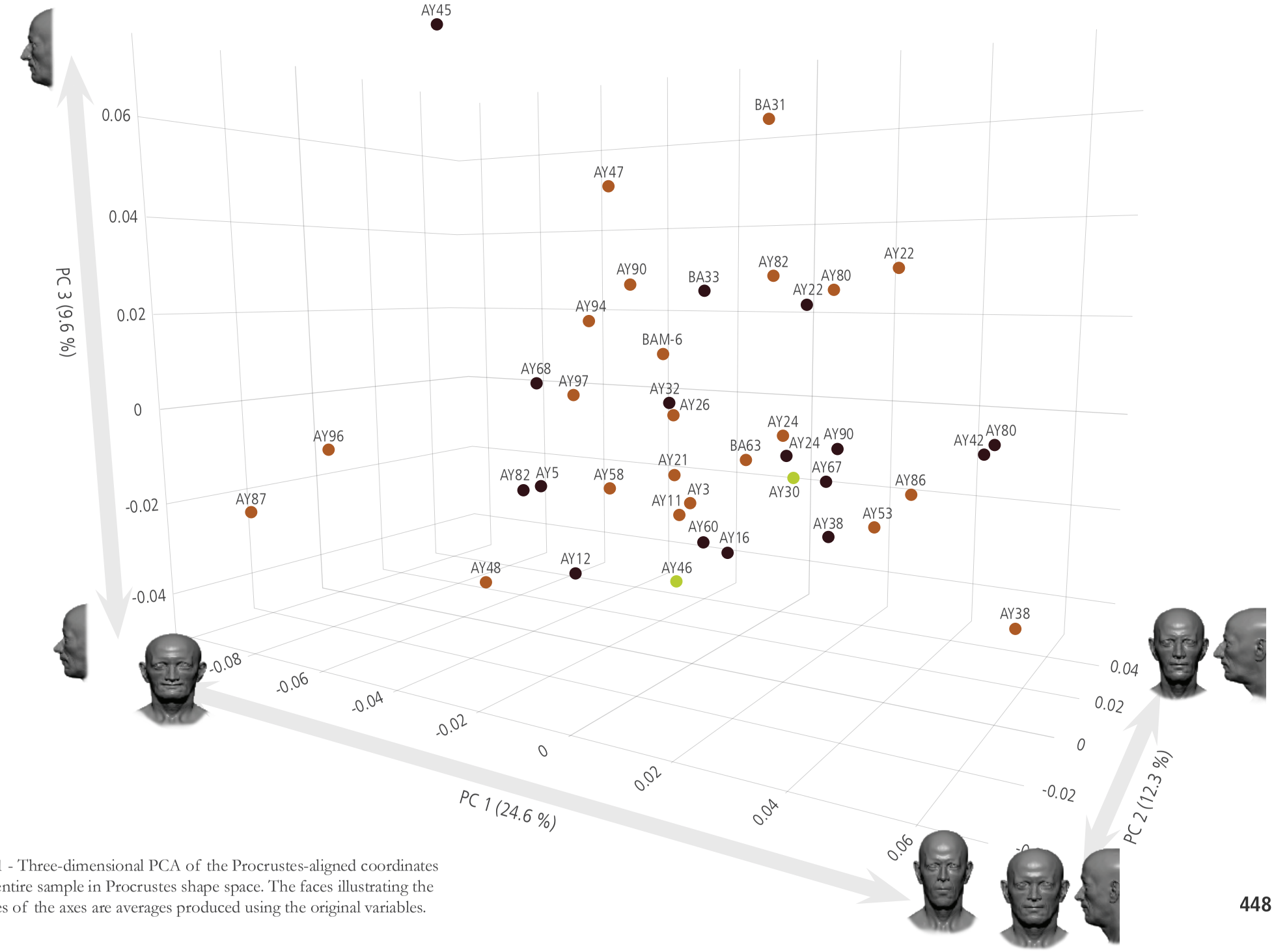


Figure 1 - Three-dimensional PCA of the Procrustes-aligned coordinates of the entire sample in Procrustes shape space. The faces illustrating the extremes of the axes are averages produced using the original variables.

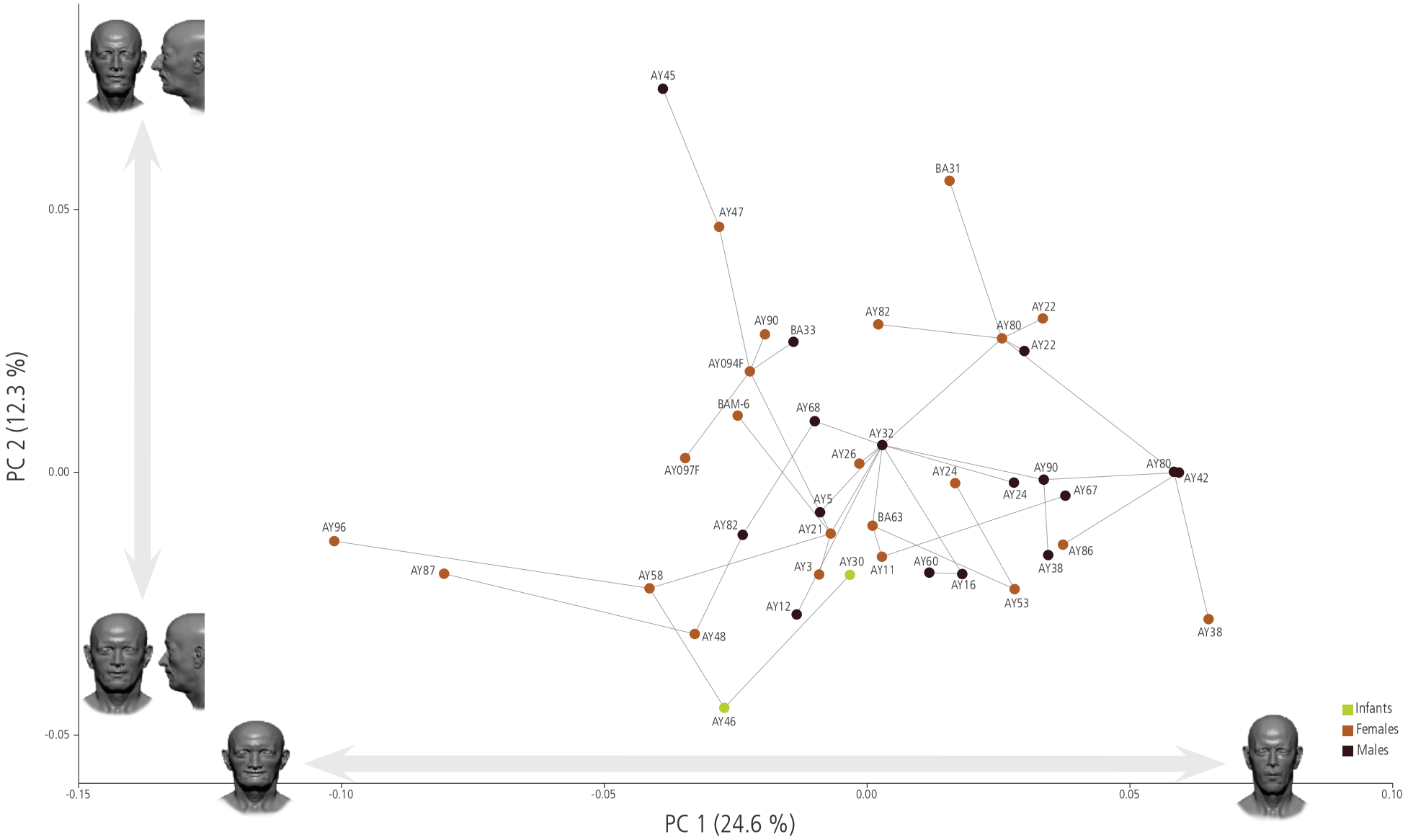


Figure 2 - Two-dimensional PCA of the entire sample illustrating the closest similarities between pairs of individuals.

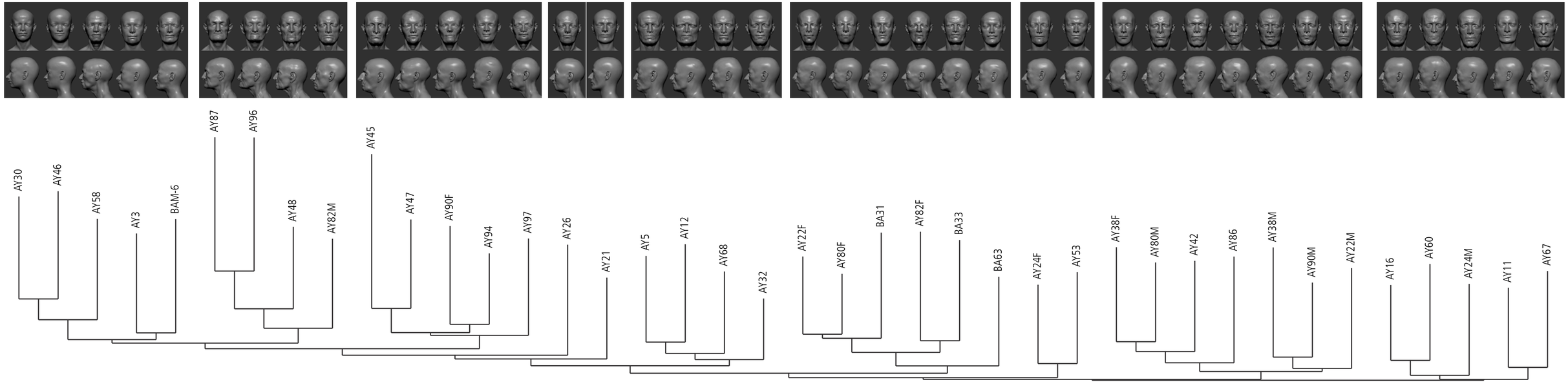


Figure 3 - Phenetic tree of the entire Argaric sample.

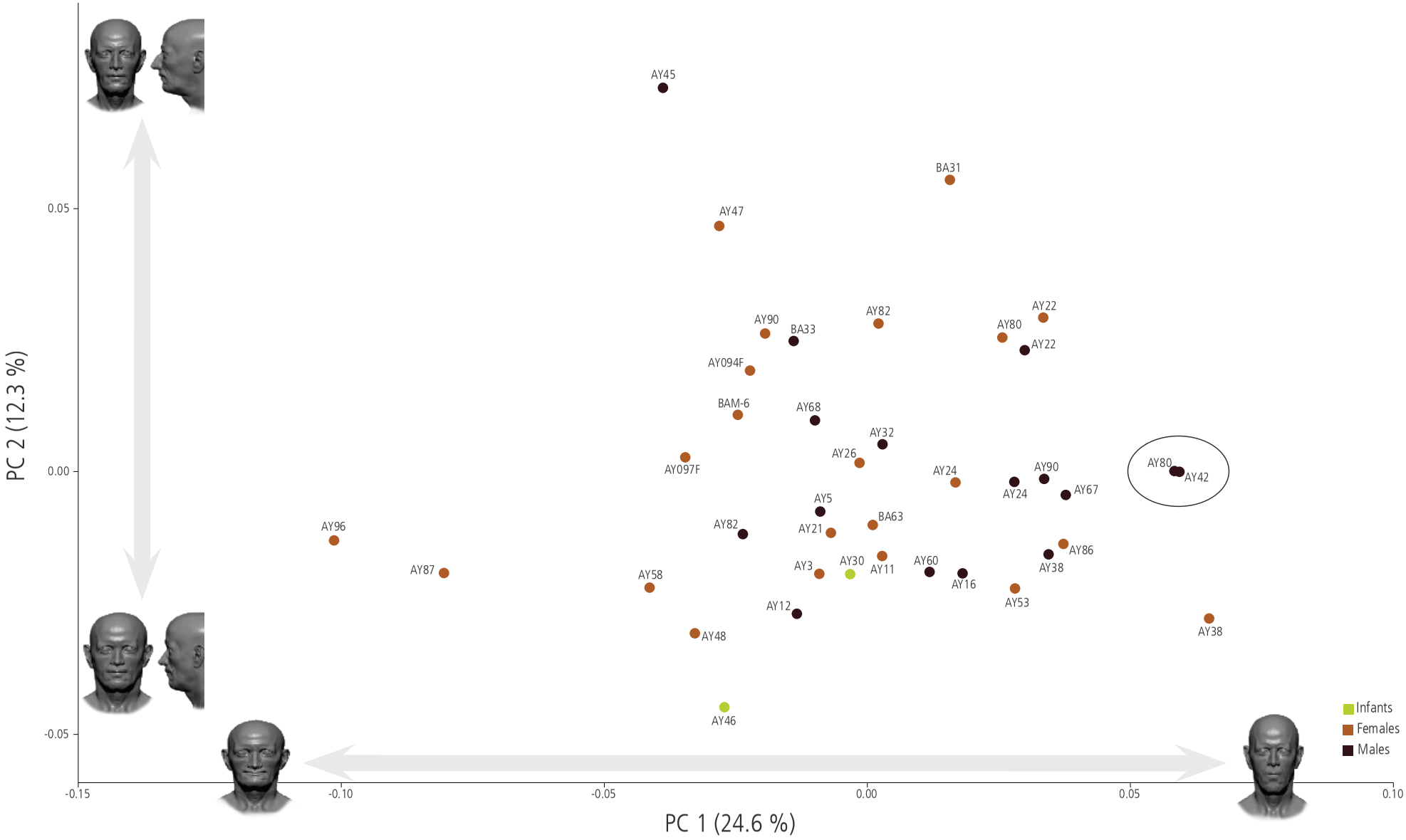


Figure 4 - Position of AY80 Male and AY42 Male in the two-dimensional plot of the entire sample.

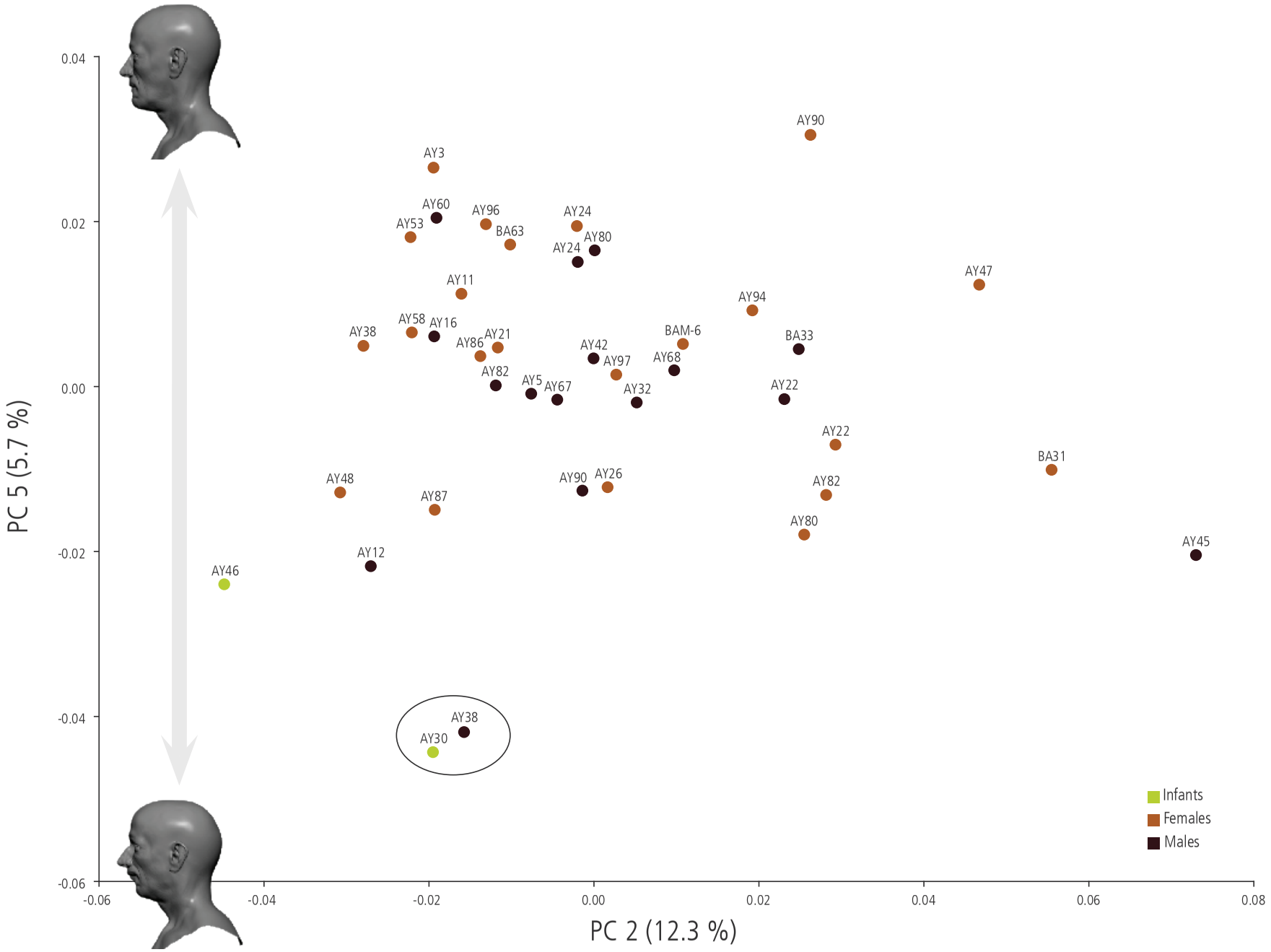


Figure 5 - PCA of the entire sample displaying the variation of facial width and depth (PC 2) and maxillary projection (PC 5). The position of individuals AY38 Male and AY30 is emphasized.

Table 1 - Similarity matrix (Euclidean distances) of the entire sample.
The most similar pairs of individuals are annotated in bold.

	AY3	AY5	AY11	AY12	AY16	AY21	AY22F	AY22M	AY24F	AY24M	AY26
AY3	0	0.09479	0.08526	0.09966	0.08578	0.06374	0.09697	0.08726	0.08302	0.10300	0.10297
AY5	0.09479	0	0.08501	0.07117	0.08021	0.06738	0.10288	0.08575	0.09260	0.07909	0.08446
AY11	0.08526	0.08501	0	0.08440	0.06850	0.07312	0.08414	0.08933	0.07168	0.07615	0.08984
AY12	0.09966	0.07117	0.08440	0	0.09471	0.07751	0.11290	0.10265	0.09397	0.09310	0.09192
AY16	0.08578	0.08021	0.06850	0.09471	0	0.07496	0.08459	0.07912	0.07542	0.07415	0.08271
AY21	**0.06374**	0.06738	0.07312	0.07751	0.07496	0	0.08354	0.07789	0.07009	0.08806	0.07790
AY22F	0.09697	0.10288	0.08414	0.11290	0.08459	0.08354	0	0.06697	0.07991	0.08872	0.09637
AY22M	0.08726	0.08575	0.08933	0.10265	0.07912	0.07789	0.06697	0	0.07792	0.07761	0.08796
AY24F	0.08302	0.09260	0.07168	0.09397	0.07542	0.07009	0.07991	0.07792	0	0.06774	0.08399
AY24M	0.10300	0.07909	0.07615	0.09310	0.07415	0.08806	0.08872	0.07761	0.06774	0	0.08849
AY26	0.10297	0.08446	0.08984	0.09192	0.08271	0.07790	0.09637	0.08796	0.08399	0.08849	0
AY30	0.10367	0.12355	0.10117	0.10891	0.10296	0.09550	0.09415	0.11083	0.10110	0.11707	0.11045
AY32	0.07800	**0.06319**	0.06848	**0.07096**	**0.06231**	**0.06091**	0.08128	0.06885	0.07321	**0.06686**	**0.07699**
AY38F	0.10696	0.10894	0.08461	0.10886	0.07655	0.10164	0.09149	0.08594	0.08641	0.07568	0.09644
AY38M	0.11400	0.07813	0.09462	0.08517	0.08711	0.08622	0.08989	0.08805	0.10239	0.09039	0.08712
AY42	0.10797	0.09695	0.09339	0.10347	0.08421	0.09009	0.07949	0.07358	0.08307	0.07593	0.09873
AY45	0.12722	0.11808	0.12561	0.13191	0.12827	0.11622	0.11724	0.10533	0.12602	0.13182	0.12143
AY46	0.10140	0.10827	0.10380	0.09888	0.10359	0.09199	0.12272	0.12296	0.11065	0.11162	0.10207
AY47	0.10327	0.10170	0.09714	0.11854	0.10251	0.08974	0.08787	0.09315	0.09639	0.09826	0.08957
AY48	0.09307	0.08554	0.07582	0.07658	0.09097	0.08436	0.11230	0.10546	0.09862	0.09728	0.10018
AY53	0.07405	0.10331	0.07719	0.10116	0.07145	0.07047	0.08451	0.08562	**0.06587**	0.08172	0.09209
AY58	0.08809	0.09956	0.09166	0.09840	0.10535	0.07548	0.10929	0.11269	0.09608	0.10846	0.09384
AY60	0.09939	0.07405	0.06980	0.09665	0.06641	0.08302	0.09716	0.09447	0.09455	0.07461	0.09971
AY67	0.10659	0.09083	0.06806	0.09286	0.07743	0.08647	0.08317	0.08166	0.07571	0.07886	0.09298
AY68	0.09206	0.07102	0.06654	0.07234	0.07151	0.07745	0.08993	0.07357	0.07748	0.07663	0.08008
AY80F	0.09857	0.09281	0.08057	0.09721	0.07694	0.07720	**0.05340**	**0.06451**	0.08013	0.07337	0.08016
AY80M	0.09725	0.10586	0.08529	0.11052	0.07763	0.09016	0.07533	0.07572	0.08067	0.07329	0.11131
AY82F	0.11680	0.10369	0.09463	0.11189	0.10151	0.09382	0.07677	0.10283	0.09499	0.09572	0.09450
AY82M	0.08181	0.08105	0.08493	0.08918	0.08141	0.07780	0.10366	0.08579	0.09080	0.10123	0.08992
AY87	0.13678	0.11962	0.11225	0.11659	0.12547	0.11627	0.15181	0.14716	0.13550	0.13801	0.12787
AY86	0.10902	0.10452	0.08964	0.10606	0.09680	0.08263	0.08572	0.09518	0.09024	0.08861	0.10365
AY90F	0.10888	0.09221	0.09397	0.10835	0.10088	0.08920	0.09868	0.09805	0.08922	0.08975	0.08519
AY90M	0.09484	0.08346	0.08089	0.07851	0.07439	0.07296	0.07561	0.06958	0.07058	0.07711	0.09088
AY94F	0.08780	0.06458	0.08379	0.08654	0.09688	0.06332	0.09136	0.08646	0.08989	0.08849	0.08294
AY96	0.11830	0.11715	0.12432	0.11740	0.13462	0.11540	0.15475	0.15363	0.13696	0.14565	0.13474
AY97	0.09302	0.09456	0.08517	0.08376	0.09801	0.07490	0.10495	0.10139	0.08618	0.09642	0.08378
BA31	0.12033	0.10508	0.09900	0.11018	0.10581	0.10409	0.07328	0.08227	0.09550	0.09097	0.10586
BA33	0.10005	0.10003	0.08761	0.09467	0.10482	0.08125	0.09009	0.10732	0.09215	0.10038	0.10034
BA63	0.07677	0.09051	**0.06552**	0.08610	0.07704	0.07026	0.07326	0.09000	0.07565	0.08006	0.09832
BAM-6	0.08245	0.10272	0.09377	0.09361	0.11390	0.08228	0.09700	0.09405	0.09028	0.11423	0.09443

	AY30	AY32	AY38F	AY38M	AY42	AY45	AY46	AY47	AY48	AY53
AY3	0.10367	0.07800	0.10696	0.11400	0.10797	0.12722	0.10140	0.10327	0.09307	0.07405
AY5	0.12355	0.06319	0.10894	0.07813	0.09695	0.11808	0.10827	0.10170	0.08554	0.10331
AY11	0.10117	0.06848	0.08461	0.09462	0.09339	0.12561	0.10380	0.09714	0.07582	0.07719
AY12	0.10891	0.07096	0.10886	0.08517	0.10347	0.13191	0.09888	0.11854	0.07658	0.10116
AY16	0.10296	0.06231	0.07655	0.08711	0.08421	0.12827	0.10359	0.10251	0.09097	0.07145
AY21	0.09550	0.06091	0.10164	0.08622	0.09009	0.11622	0.09199	0.08974	0.08436	0.07047
AY22F	0.09415	0.08128	0.09149	0.08989	0.07949	0.11724	0.12272	0.08787	0.11230	0.08451
AY22M	0.11083	0.06885	0.08594	0.08805	0.07358	0.10533	0.12296	0.09315	0.10546	0.08562
AY24F	0.10110	0.07321	0.08641	0.10239	0.08307	0.12602	0.11065	0.09639	0.09862	**0.06587**
AY24M	0.11707	0.06686	0.07568	0.09039	0.07593	0.13182	0.11162	0.09826	0.09728	0.08172
AY26	0.11045	0.07699	0.09644	0.08712	0.09873	0.12143	0.10207	0.08957	0.10018	0.09209
AY30	0	0.09962	0.11803	0.10788	0.12176	0.13769	**0.08128**	0.11754	0.10648	0.09477
AY32	0.09962	0	0.08815	0.07951	0.08288	0.09956	0.09613	0.08410	0.08487	0.07613
AY38F	0.11803	0.08815	0	0.08835	0.07139	0.15973	0.12409	0.13399	0.11400	0.07803
AY38M	0.10788	0.07951	0.08835	0	0.08189	0.14187	0.11281	0.12543	0.10442	0.09782
AY42	0.12176	0.08288	0.07139	0.08189	0	0.14347	0.12820	0.12048	0.12200	0.08338
AY45	0.13769	0.09956	0.15973	0.14187	0.14347	0	0.15188	0.09408	0.12462	0.14173
AY46	**0.08128**	0.09613	0.12409	0.11281	0.12820	0.15188	0	0.11424	0.09945	0.09859
AY47	0.11754	0.08410	0.13399	0.12543	0.12048	**0.09408**	0.11424	0	0.10798	0.11070
AY48	0.10648	0.08487	0.11400	0.10442	0.12200	0.12462	0.09945	0.10798	0	0.10774
AY53	0.09477	0.07613	0.07803	0.09782	0.08338	0.14173	0.09859	0.11070	0.10774	0
AY58	0.09319	0.09380	0.12677	0.11821	0.12679	0.13114	0.08212	0.09071	0.08144	0.09893
AY60	0.11387	0.06877	0.08950	0.09148	0.09312	0.13735	0.10929	0.10775	0.09567	0.09053
AY67	0.11854	0.07620	0.07509	0.08560	0.07901	0.13639	0.12607	0.11340	0.10269	0.08787
AY68	0.11618	**0.05661**	0.10090	0.09836	0.09215	0.09451	0.11330	0.08466	0.07746	0.09199
AY80F	0.09089	0.06408	0.08640	0.08274	0.07815	0.10706	0.11135	0.08068	0.09911	0.08271
AY80M	0.11643	0.07990	**0.06719**	0.09629	0.07360	0.14010	0.13264	0.11790	0.11415	0.07313
AY82F	0.10166	0.08105	0.11792	0.09587	0.11179	0.12504	0.11302	0.08821	0.11766	0.09884
AY82M	0.11319	0.07430	0.10995	0.10226	0.11240	0.10970	0.11003	0.10462	**0.07520**	0.09303
AY87	0.14141	0.12043	0.16866	0.14758	0.16111	0.13492	0.12786	0.12265	0.09441	0.14877
AY86	0.10666	0.08894	0.09190	0.08773	0.07581	0.15487	0.11646	0.11417	0.11165	0.08614
AY90F	0.12314	0.08362	0.12372	0.11557	0.10663	0.11980	0.11407	0.07441	0.11268	0.10565
AY90M	0.10400	0.06183	0.07879	**0.07124**	**0.06689**	0.12320	0.11625	0.11283	0.09865	0.07361
AY94F	0.11553	0.06576	0.11931	0.09563	0.10008	0.10380	0.10518	**0.07128**	0.08866	0.09985
AY96	0.14145	0.11975	0.17616	0.16015	0.17508	0.13523	0.12287	0.12053	0.10166	0.14631
AY97	0.10066	0.07772	0.12426	0.11067	0.11710	0.11174	0.09752	0.07724	0.07944	0.09768
BA31	0.11705	0.07886	0.11255	0.10894	0.10022	0.10272	0.13368	0.08701	0.11554	0.11212
BA33	0.10618	0.08106	0.12907	0.10964	0.11053	0.11627	0.10997	0.08430	0.11264	0.09157
BA63	0.08992	0.06537	0.09288	0.10024	0.09066	0.12697	0.09311	0.09225	0.08767	0.06756
BAM-6	0.10416	0.08768	0.12348	0.11938	0.12134	0.11592	0.10871	0.09830	0.10498	0.09414

	AY58	AY60	AY67	AY68	AY80F	AY80M	AY82F	AY82M	AY87	AY86
AY3	0.08809	0.09939	0.10659	0.09206	0.09857	0.09725	0.11680	0.08181	0.13678	0.10902
AY5	0.09956	0.07405	0.09083	0.07102	0.09281	0.10586	0.10369	0.08105	0.11962	0.10452
AY11	0.09166	0.06980	**0.06806**	0.06654	0.08057	0.08529	0.09463	0.08493	0.11225	0.08964
AY12	0.09840	0.09665	0.09286	0.07234	0.09721	0.11052	0.11189	0.08918	0.11659	0.10606
AY16	0.10535	**0.06641**	0.07743	0.07151	0.07694	0.07763	0.10151	0.08141	0.12547	0.09680
AY21	**0.07548**	0.08302	0.08647	0.07745	0.07720	0.09016	0.09382	0.07780	0.11627	0.08263
AY22F	0.10929	0.09716	0.08317	0.08993	**0.05340**	0.07533	0.07677	0.10366	0.15181	0.08572
AY22M	0.11269	0.09447	0.08166	0.07357	0.06451	0.07572	0.10283	0.08579	0.14716	0.09518
AY24F	0.09608	0.09455	0.07571	0.07748	0.08013	0.08067	0.09499	0.09080	0.13550	0.09024
AY24M	0.10846	0.07461	0.07886	0.07663	0.07337	0.07329	0.09572	0.10123	0.13801	0.08861
AY26	0.09384	0.09971	0.09298	0.08008	0.08016	0.11131	0.09450	0.08992	0.12787	0.10365
AY30	0.09319	0.11387	0.11854	0.11618	0.09089	0.11643	0.10166	0.11319	0.14141	0.10666
AY32	0.09380	0.06877	0.07620	**0.05661**	0.06408	0.07990	0.08105	0.07430	0.12043	0.08894
AY38F	0.12677	0.08950	0.07509	0.10090	0.08640	**0.06719**	0.11792	0.10995	0.16866	0.09190
AY38M	0.11821	0.09148	0.08560	0.09836	0.08274	0.09629	0.09587	0.10226	0.14758	0.08773
AY42	0.12679	0.09312	0.07901	0.09215	0.07815	0.07360	0.11179	0.11240	0.16111	**0.07581**
AY45	0.13114	0.13735	0.13639	0.09451	0.10706	0.14010	0.12504	0.10970	0.13492	0.15487
AY46	0.08212	0.10929	0.12607	0.11330	0.11135	0.13264	0.11302	0.11003	0.12786	0.11646
AY47	0.09071	0.10775	0.11340	0.08466	0.08068	0.11790	0.08821	0.10462	0.12265	0.11417
AY48	0.08144	0.09567	0.10269	0.07746	0.09911	0.11415	0.11766	0.07520	**0.09441**	0.11165
AY53	0.09893	0.09053	0.08787	0.09199	0.08271	0.07313	0.09884	0.09303	0.14877	0.08614
AY58	0	0.10359	0.11689	0.09735	0.10339	0.12497	0.10584	0.08774	0.11679	0.10161
AY60	0.10359	0	0.09364	0.08628	0.08907	0.08746	0.10173	0.10229	0.12847	0.08478
AY67	0.11689	0.09364	0	0.07588	0.08152	0.07848	0.10407	0.09764	0.14234	0.08751
AY68	0.09735	0.08628	0.07588	0	0.07825	0.09791	0.10070	**0.06958**	0.10739	0.10778
AY80F	0.10339	0.08907	0.08152	0.07825	0	0.07023	**0.07626**	0.09948	0.13904	0.07977
AY80M	0.12497	0.08746	0.07848	0.09791	0.07023	0	0.10516	0.10958	0.16617	0.08319
AY82F	0.10584	0.10173	0.10407	0.10070	0.07626	0.10516	0	0.10716	0.14068	0.09794
AY82M	0.08774	0.10229	0.09764	0.06958	0.09948	0.10958	0.10716	0	0.11295	0.11835
AY87	0.11679	0.12847	0.14234	0.10739	0.13904	0.16617	0.14068	0.11295	0	0.14812
AY86	0.10161	0.08478	0.08751	0.10778	0.07977	0.08319	0.09794	0.11835	0.14812	0
AY90F	0.09299	0.08636	0.11017	0.08833	0.09389	0.11765	0.08910	0.10372	0.12595	0.10048
AY90M	0.11074	0.09499	0.07161	0.07643	0.06809	0.07061	0.09466	0.08136	0.14843	0.08788
AY94F	0.08495	0.08273	0.10406	0.07737	0.08168	0.10867	0.08450	0.09174	0.11511	0.09308
AY96	0.09538	0.13319	0.15699	0.11678	0.14778	0.16873	0.13389	0.10133	0.10344	0.16258
AY97	0.07928	0.09794	0.10583	0.08280	0.08954	0.11240	0.09723	0.09183	0.10376	0.09746
BA31	0.12313	0.10742	0.09176	0.08953	0.06502	0.09736	0.08600	0.11196	0.14918	0.10613
BA33	0.09896	0.10696	0.10264	0.09097	0.08268	0.10809	0.08111	0.11102	0.13335	0.10179
BA63	0.07895	0.07622	0.08861	0.08006	0.07794	0.08070	0.08445	0.08414	0.12743	0.08144
BAM-6	0.08428	0.11996	0.11265	0.09056	0.10129	0.12152	0.09861	0.08333	0.14249	0.12168

	AY90F	AY90M	AY94F	AY96	AY97	BA31	BA33	BA63	BAM-6
AY3	0.10888	0.09484	0.08780	0.11830	0.09302	0.12033	0.10005	0.07677	0.08245
AY5	0.09221	0.08346	0.06458	0.11715	0.09456	0.10508	0.10003	0.09051	0.10272
AY11	0.09397	0.08089	0.08379	0.12432	0.08517	0.09900	0.08761	0.06552	0.09377
AY12	0.10835	0.07851	0.08654	0.11740	0.08376	0.11018	0.09467	0.08610	0.09361
AY16	0.10088	0.07439	0.09688	0.13462	0.09801	0.10581	0.10482	0.07704	0.11390
AY21	0.08920	0.07296	**0.06332**	0.11540	0.07490	0.10409	0.08125	0.07026	**0.08228**
AY22F	0.09868	0.07561	0.09136	0.15475	0.10495	0.07328	0.09009	0.07326	0.09700
AY22M	0.09805	0.06958	0.08646	0.15363	0.10139	0.08227	0.10732	0.09000	0.09405
AY24F	0.08922	0.07058	0.08989	0.13696	0.08618	0.09550	0.09215	0.07565	0.09028
AY24M	0.08975	0.07711	0.08849	0.14565	0.09642	0.09097	0.10038	0.08006	0.11423
AY26	0.08519	0.09088	0.08294	0.13474	0.08378	0.10586	0.10034	0.09832	0.09443
AY30	0.12314	0.10400	0.11553	0.14145	0.10066	0.11705	0.10618	0.08992	0.10416
AY32	0.08362	**0.06183**	0.06576	0.11975	0.07772	0.07886	0.08106	**0.06537**	0.08768
AY38F	0.12372	0.07879	0.11931	0.17616	0.12426	0.11255	0.12907	0.09288	0.12348
AY38M	0.11557	0.07124	0.09563	0.16015	0.11067	0.10894	0.10964	0.10024	0.11938
AY42	0.10663	0.06689	0.10008	0.17508	0.11710	0.10022	0.11053	0.09066	0.12134
AY45	0.11980	0.12320	0.10380	0.13523	0.11174	0.10272	0.11627	0.12697	0.11592
AY46	0.11407	0.11625	0.10518	0.12287	0.09752	0.13368	0.10997	0.09311	0.10871
AY47	0.07441	0.11283	0.07128	0.12053	0.07724	0.08701	0.08430	0.09225	0.09830
AY48	0.11268	0.09865	0.08866	0.10166	0.07944	0.11554	0.11264	0.08767	0.10498
AY53	0.10565	0.07361	0.09985	0.14631	0.09768	0.11212	0.09157	0.06756	0.09414
AY58	0.09299	0.11074	0.08495	**0.09538**	0.07928	0.12313	0.09896	0.07895	0.08428
AY60	0.08636	0.09499	0.08273	0.13319	0.09794	0.10742	0.10696	0.07622	0.11996
AY67	0.11017	0.07161	0.10406	0.15699	0.10583	0.09176	0.10264	0.08861	0.11265
AY68	0.08833	0.07643	0.07737	0.11678	0.08280	0.08953	0.09097	0.08006	0.09056
AY80F	0.09389	0.06809	0.08168	0.14778	0.08954	**0.06502**	0.08268	0.07794	0.10129
AY80M	0.11765	0.07061	0.10867	0.16873	0.11240	0.09736	0.10809	0.08070	0.12152
AY82F	0.08910	0.09466	0.08450	0.13389	0.09723	0.08600	0.08111	0.08445	0.09861
AY82M	0.10372	0.08136	0.09174	0.10133	0.09183	0.11196	0.11102	0.08414	0.08333
AY87	0.12595	0.14843	0.11511	0.10344	0.10376	0.14918	0.13335	0.12743	0.14249
AY86	0.10048	0.08788	0.09308	0.16258	0.09746	0.10613	0.10179	0.08144	0.12168
AY90F	0	0.10856	0.06546	0.11611	0.07940	0.09175	0.08488	0.08578	0.09873
AY90M	0.10856	0	0.09484	0.14664	0.09962	0.08914	0.09192	0.07502	0.09455
AY94F	**0.06546**	0.09484	0	0.11042	**0.07035**	0.08811	**0.07637**	0.08255	0.08717
AY96	0.11611	0.14664	0.11042	0	0.10188	0.14791	0.12070	0.11455	0.11219
AY97	0.07940	0.09962	0.07035	0.10188	0	0.10090	0.08167	0.08315	0.09509
BA31	0.09175	0.08914	0.08811	0.14791	0.10090	0	0.09152	0.09075	0.10624
BA33	0.08488	0.09192	0.07637	0.12070	0.08167	0.09152	0	0.07813	0.08760
BA63	0.08578	0.07502	0.08255	0.11455	0.08315	0.09075	0.07813	0	0.08417
BAM-6	0.09873	0.09455	0.08717	0.11219	0.09509	0.10624	0.08760	0.08417	0