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An anthropological investigation into the facial preservation of ceremonial tsantsa and commercial shrunken heads

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Award date:
2015

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Appendix 9

Facial creases (shrunken head collection)

Identified facial creases for each head are recorded in Table A9-1 (*appendix pp.1-4*) and summarised in Table A9-2 (*appendix p.5*) and Table A9-3 (*appendix p.6*). Identified spurious creases for each head are recorded in Table A9-4 (*appendix pp.7-9*) and summarised in Table A9-5 (*appendix p.10*).

Table A9-1: Facial creases identified.

Head ID	Processor origin	Weak creases	Prominent creases
A95789	Ceremonial	L&R infra orbital, L&R nasolabial (superior).	L&R alae.
A121104	Ceremonial	L&R nasolabial (superior).	L&R infra orbital, L&R alae.
A642550	Ceremonial	L&R nasolabial (superior).	L&R infraorbital, L&R alae.
A642560	Ceremonial	L&R infra orbital, L&R nasolabial (superior), L&R alae.	
E165119B0	Ceremonial		Forehead creases (3 across forehead), L&R vertical glabella, L&R infraorbital, L&R nasolabial (superior-central), L&R alae.
E403395-0	Ceremonial	L&R infra orbital, L&R nasolabial (superior).	L&R vertical glabella, L&R alae.
A38099	Commercial		L upper eyelid, R infra orbital, L&R nasolabial (superior-central), L&R alae.
A61492	Commercial	L&R infra orbital.	L&R nasolabial (superior-central), forehead creases.
A63428	Commercial	L&R infra orbital, L&R nasolabial (superior).	L&R alae.
A63429	Commercial	L infra orbital, L&R nasolabial (superior), R ala.	R infra orbital, L ala.

Head ID	Processor origin	Weak creases	Prominent creases
A68229	Commercial		L&R infra orbital, L&R nasolabial (superior), L&R alae.
A68231	Commercial	L&R infra orbital, L&R nasolabial (superior-central).	L&R alae.
A97275	Commercial	L&R infra orbital, L&R nasolabial (superior), L&R alae.	
A102935	Commercial	L&R nasolabial (superior-central), L infra orbital, L&R alae.	
A109084	Commercial	L&R nasolabial (superior).	L&R alae.
A119820	Commercial	R infra orbital, L&R vertical glabella, L marionette.	L nasolabial (superior-central), R nasolabial (superior), L&R alae, L upper eyelid, R lower eyelid.
A130409	Commercial	L ala.	L&R infra orbital, L&R nasolabial (superior), R ala.
A190320	Commercial	L infra orbital, L&R nasolabial (superior).	L&R alae.
A221683	Commercial	L&R nasolabial (superior).	L&R alae.
A230414	Commercial	L&R infra orbital, R nasolabial (superior-central).	L nasolabial (superior-central), L&R alae.
A642477	Commercial	L&R infra orbital, L nasolabial (superior-central).	R nasolabial (superior-central), L&R alae.
A642549	Commercial	L&R infra orbital, L&R nasolabial (superior), L&R alae.	
A642556	Commercial	L&R nasolabial (superior), L&R alae.	L&R infra orbital.
A642557	Commercial	L&R lower lid, L&R alae.	
A642564	Commercial	L&R upper eyelid, L&R infra orbital.	
A642565	Commercial	L&R infra orbital, L nasolabial (superior-central).	Forehead creases (2 central forehead), L&R alae.
378202	Commercial	L&R infra orbital, L&R nasolabial (superior-central).	L&R alae.
CONTROL 400206	Commercial	L&R periorbital, L&R nasolabial (superior-central).	L&R infra orbital, L&R alae.
E326930-0	Commercial	L&R infra orbital, L&R nasolabial (superior-central), L ala.	R ala.
E358641-0	Commercial	R infra orbital, L&R nasolabial (superior-inferior).	L infra orbital, L&R alae.
E358642-0	Commercial	L&R periorbital, L&R nasolabial (superior-central).	Forehead creases, L&R vertical glabella, L&R alae.
E378203-0	Commercial	L&R periorbital, L nasolabial (superior-central), L&R upper eyelid.	L&R infra orbital, R nasolabial (superior-central), L&R alae.
E378892	Commercial	R nasolabial (superior).	L infra orbital, L nasolabial (superior-central), L&R alae.
E382592-0	Commercial	R nasolabial (superior), L&R infra orbital, L&R alae.	L nasolabial (superior).
E387845-0	Commercial		L&R infra orbital, L&R nasolabial (superior-central), L&R alae.

Head ID	Processor origin	Weak creases	Prominent creases
E397131-0	Commercial	L&R infra orbital, L&R upper eyelid, R nasolabial (superior).	L nasolabial (superior), L&R alae.
E411333-0	Commercial	L&R infra orbital, L ala.	L&R nasolabial (superior-central), R ala.
N387872-0	Commercial		L&R upper lids, L lower lid, L infra orbital, L&R nasolabial (superior), L&R alae.
P387657-0	Commercial	L&R infra orbital.	L&R vertical glabella, L&R nasolabial (superior), L&R alae.
P387659-0	Commercial	L infra orbital.	R infra orbital, L&R nasolabial (superior), L&R alae.
P387660-0	Commercial	L infra orbital, L&R periorbital.	Forehead creases, R infra orbital.
P387661-0	Commercial	L&R infra orbital.	L&R nasolabial (superior-central), L&R alae.
A36675	Ambiguous	R ala, L&R nasolabial (superior-central).	L ala.
A41122	Ambiguous	L ala, forehead (2 middle).	L&R infra orbital, L&R nasolabial (superior-central), R ala.
A44058	Ambiguous	L&R alae, L&R nasolabial (superior).	L&R infra orbital.
A95788	Ambiguous	Forehead (1 middle), L&R vertical glabella, R infra orbital, L&R alae, L nasolabial (superior).	
A121091	Ambiguous	L vertical glabella.	L&R infra orbital, L&R nasolabial (superior-central), L&R alae.
A155039	Ambiguous		L&R infra orbital, L&R nasolabial (superior), L&R alae.
A161722	Ambiguous	L nasolabial (superior-central).	L&R infra orbital, R nasolabial (superior-central), L&R alae.
A191643	Ambiguous	L&R infra orbital, L&R nasolabial (superior), R ala.	
A233681	Ambiguous	L&R infra orbital, L&R nasolabial (superior).	L&R alae.
A642548	Ambiguous	R infra orbital, L&R nasolabial (superior).	
A642551	Ambiguous	L nasolabial (superior), L&R alae.	L&R infra orbital, R nasolabial (superior).
A642552	Ambiguous	L&R nasolabial (superior), L&R alae.	L&R infra orbital.
A642553	Ambiguous	L&R infra orbital, L&R nasolabial (superior), L&R alae.	
A643554	Ambiguous	L&R infra orbital, L&R nasolabial (superior).	L&R alae.
A642555	Ambiguous	L&R nasolabial (superior).	L&R infra orbital, L&R alae.
A642558	Ambiguous	L&R infra orbital, L&R nasolabial (superior), L&R alae.	
A642559	Ambiguous	L&R infra orbital, L&R nasolabial (superior).	L&R alae.
A642561	Ambiguous	L&R alae.	L&R infra orbital, L&R nasolabial (superior).

Head ID	Processor origin	Weak creases	Prominent creases
A642562	Ambiguous	L&R infra orbital, L nasolabial (superior).	R nasolabial (superior), L&R alae.
A642563	Ambiguous		L&R infra orbital, L&R alae.
E039500	Ambiguous	L&R infra orbital, L&R nasolabial (superior-central), L&R alae.	
E315111-0	Ambiguous	L&R infra orbital, L&R nasolabial (superior-central), L&R alae.	
Elgin1	Ambiguous	Forehead (1 middle), L&R medial vertical glabella.	L&R infra orbital, L&R nasolabial (superior), L&R alae.

	L&R infra orbital	L&R nasolabial	L&R alae	Forehead creases	L&R vertical glabella	L&R upper eyelid	L&R lower lid	L&R periorbital	L&R marionette
Ceremonial									
Weak	3	5	1						
% of 6 heads	50	83.33	16.67						
Prominent	3	1	5	1	2				
% of 6 heads	50	16.67	83.33	16.67	33.33				
Total	6	6	6	1	2				
% of 6 heads	100	100	100	16.67	33.33				
Commercial									
Weak	19.5	18.5	8		1	3	1	4	0.5
% of 36 heads	54.17	51.39	22.22		2.78	8.33	2.78	11.11	1.39
Prominent	9	13	24	4	2	1.5	1		
% of 36 heads	25	36.11	66.67	11.11	5.56	4.17	2.78		
Total	28.5	31.5	32	4	3	4.5	2	4	0.5
% of 36 heads	79.17	87.5	88.89	11.11	8.33	12.5	5.56	11.11	1.39
Ambiguous									
Weak	10	15	10.5	3	2.5				
% of 23 heads	43.48	65.22	45.65	13.04	10.87				
Strong	11	6.5	11						
% of 23 heads	47.83	28.26	47.83						
Total	21	21.5	21.5	3	2.5				
% of 23 heads	91.3	93.48	93.48	13.04	10.87				
TOTAL									
Weak	32.5	38.5	19.5	3	3.5	3	1	4	0.5
% of 65 heads	50	59.23	30	4.62		4.62	1.54	6.15	0.77
Strong	23	20.5	40	5	4	1.5	1		
% of 65 heads	35.38	31.54	61.54	7.69	6.15		1.54		
Total	55.5	59	59.5	8	7.5	4.5	2	4	0.5
% of 65 heads	85.38	90.77	91.54	12.31	11.54	6.92	3.08	6.15	0.77

Table A9-2: A summary of identified facial creases.

		L&R nasolabial (superior)	L&R nasolabial (superior-central)	L&R nasolabial (superior-inferior)
Ceremonial	Weak	5		
	% of 6 heads	83.33		
	Strong		1	
	% of 6 heads		16.67	
	Total	5	1	
	% of 6 heads	83.33	16.67	
Commercial	Weak	8.5	14	1
	% of 36 heads	23.61	38.89	2.78
	Strong	6.5	6.5	
	% of 36 heads	18.06	18.06	
	Total	15	20.5	1
	% of 36 heads	41.67	56.94	2.78
Ambiguous	Weak	11.5	3.5	
	% of 23 heads	50	15.22	
	Strong	4	2.5	
	% of 23 heads	17.39	10.87	
	Total	15.5	6	
	% of 23 heads	67.39	26.09	
TOTAL	Weak	25	17.5	1
	% of 65 heads	38.46	26.92	1.54
	Strong	10.5	10	
	% of 65 heads	16.15	15.38	
	Total	35.5	27.5	1
	% of 65 heads	54.62	42.31	1.54

Table A9-3: Intensities and lengths of nasolabial creases. Superior creases are positioned close to the alae. Superior-central creases extend from the alae, level to the mouth corners. Superior-inferior creases extend from the alae down below the mouth corners.

Table A9-4: Spurious creases identified.

Head ID	Processor origin	Artefact creases
A95789	Ceremonial	Weak false transverse nasal ceases, Weak false L&R periorbital, Weak tension creases at mouth, Weak false bifid nasal tip, Weak false mental crease.
A121104	Ceremonial	False transverse nasal ceases, False L&R periorbital, Weak tension creases at mouth, Weak false mental crease.
A642550	Ceremonial	False transverse nasal ceases, False L&R periorbital, Buckling creases L&R lateral mouth, Weak tension creases at mouth, Weak false bifid nasal tip, Weak false mental crease.
A642560	Ceremonial	False transverse nasal ceases, False L&R periorbital.
E165119B0	Ceremonial	False transverse nasal ceases, False L&R periorbital, Buckling creases L&R lateral mouth, Weak false mental crease.
E403395-0	Ceremonial	False transverse nasal ceases, False L&R periorbital, Buckling creases L&R lateral mouth.
A38099	Commercial	False transverse nasal ceases, False L&R periorbital, Fine wrinkled texture across face.
A61492	Commercial	Buckling creases lateral mouth, Vertical superciliary arch lines.
A63428	Commercial	Weak tension creases at mouth.
A63429	Commercial	Buckling crease R cheek, Weak false transverse nasal ceases.
A68229	Commercial	Weak false transverse nasal ceases.
A68231	Commercial	Weak false L&R periorbital.
A97275	Commercial	Buckling creases L&R cheek.
A102935	Commercial	False transverse nasal ceases/splits in tissue.
A109084	Commercial	Weak false transverse nasal ceases.
A119820	Commercial	Weak false transverse nasal ceases, Vertical buckling creases at forehead.
A130409	Commercial	False transverse nasal ceases, Buckling creases L&R lateral mouth.
A190320	Commercial	False transverse nasal ceases, Vertical buckling creases at forehead.
A221683	Commercial	False transverse nasal ceases, Buckling creases L&R lateral mouth.
A230414	Commercial	
A642477	Commercial	False transverse nasal ceases.
A642549	Commercial	False transverse nasal ceases, Weak false bifid nasal tip.
A642556	Commercial	False transverse nasal ceases.
A642557	Commercial	
A642564	Commercial	Weak false transverse nasal ceases.
A642565	Commercial	Weak false transverse nasal ceases.
378202	Commercial	False transverse nasal ceases, False bifid nasal tip.
CONTROL 400206	Commercial	

Head ID	Processor origin	Artefact creases
E326930-0	Commercial	Weak buckling creases L&R cheek.
E358641-0	Commercial	Weak buckling creases R cheek.
E358642-0	Commercial	Weak false transverse nasal ceases.
E378203-0	Commercial	False transverse nasal ceases.
E378892	Commercial	False bifid nasal tip.
E382592-0	Commercial	Weak false transverse nasal ceases, Weak false bifid nasal tip.
E387845-0	Commercial	Weak false transverse nasal ceases.
E397131-0	Commercial	Weak false transverse nasal ceases.
E411333-0	Commercial	Weak false transverse nasal ceases, Weak buckling creases L cheek.
N387872-0	Commercial	False transverse nasal ceases.
P387657-0	Commercial	Buckling creases L&R cheek.
P387659-0	Commercial	Weak false transverse nasal ceases.
P387660-0	Commercial	
P387661-0	Commercial	Weak false transverse nasal ceases, Weak buckling creases L&R cheek.
A36675	Ambiguous	False transverse nasal ceases, False L&R periorbital, Buckling creases L&R lateral mouth, False bifid nasal tip, Weak false mental crease.
A41122	Ambiguous	False transverse nasal ceases, False L&R periorbital, False bifid nasal tip, Weak false mental crease.
A44058	Ambiguous	False transverse nasal ceases, False L&R periorbital, Strong/dense buckling creases L cheek, Weak tension creases at mouth, False bifid nasal tip, Weak false mental crease.
A95788	Ambiguous	Weak false transverse nasal ceases, False L&R periorbital.
A121091	Ambiguous	False transverse nasal ceases, False L&R periorbital.
A155039	Ambiguous	False transverse nasal ceases, False L&R periorbital, Weak buckling creases R cheek.
A161722	Ambiguous	False transverse nasal ceases, False L&R periorbital.
A191643	Ambiguous	Weak false transverse nasal ceases, Weak false L&R periorbital, False bifid nasal tip.
A233681	Ambiguous	False transverse nasal ceases, False L&R periorbital, Buckling creases L&R cheeks, False bifid nasal tip.
A642548	Ambiguous	False L&R periorbital.
A642551	Ambiguous	False transverse nasal ceases, False L&R periorbital.
A642552	Ambiguous	Weak false transverse nasal ceases, Buckling creases L&R cheeks, Weak false bifid nasal tip, Weak false mental crease.
A642553	Ambiguous	Weak false transverse nasal ceases, Weak false L&R periorbital, Strong/dense buckling creases L&R cheek, Weak tension creases at mouth.
A643554	Ambiguous	Weak false transverse nasal ceases, Weak false L&R periorbital, Weak tension creases at mouth, Weak buckling creases L&R cheek.

Head ID	Processor origin	Artefact creases
A642555	Ambiguous	Weak false transverse nasal ceases, Weak false L&R periorbital, Weak tension creases at mouth, Weak buckling creases L&R cheek, Weak false bifid nasal tip, Weak false mental crease.
A642558	Ambiguous	False transverse nasal ceases, Buckling creases L&R cheeks, Weak false bifid nasal tip.
A642559	Ambiguous	False transverse nasal ceases, False L&R periorbital, Buckling creases L&R cheeks, Weak false mental crease.
A642561	Ambiguous	False transverse nasal ceases, False L&R periorbital, Weak tension creases at mouth, Weak false mental crease.
A642562	Ambiguous	False L&R periorbital, Weak false mental crease.
A642563	Ambiguous	False transverse nasal ceases, False L&R periorbital, Strong/dense buckling creases L&R cheek, Weak tension creases at mouth, Weak false bifid nasal tip, Weak false mental crease.
E039500	Ambiguous	False transverse nasal ceases, False L&R periorbital, Weak buckling creases L&R cheek, Weak false mental crease.
E315111-0	Ambiguous	False transverse nasal ceases.
Elgin1	Ambiguous	False transverse nasal ceases, False L&R periorbital, Buckling creases L cheeks, Buckling creases R lateral mouth, Weak false mental crease.

	Vertical superciliary arch lines	Weak false transverse nasal	False transverse nasal	Weak false periorbital	False periorbital	Buckled lateral mouth	Weak buckling of cheeks
Ceremonial		1	5		6	3	
% of 6 heads		16.67	83.3		100	50	
Commercial	1	12	11		1	1	2
% of 36 heads	2.78	33.33	30.56		2.78	2.78	5.56
Ambiguous		6	15	4	16	1.5	3.5
% of 23 heads		26.09	65.22	17.39	69.57	6.52	15.22
TOTAL	1	19	31	4	23	5.5	5.5
% of 65 heads	1.54	29.23	47.69	6.15	35.38	8.46	8.46

	Buckled cheeks	Strong/dense buckling creases at cheeks	Weak tension creases at mouth	Weak false bifid nasal tip	False bifid nasal tip	Weak false mental crease
Ceremonial			3	2		4
% of 6 heads			50	33.33		66.67
Commercial	3		1	2	2	
% of 36 heads	8.33		2.78	5.56	5.56	
Ambiguous	4.5	2.5	7	4	5	10
% of 23 heads	19.57	10.87	30.43	17.39	21.74	43.48
TOTAL	7.5	2.5	11	8	7	14
% of 65 heads	11.54	3.85	16.92	12.31	10.77	21.54

Table A9-5: Summary of spurious creases identified.