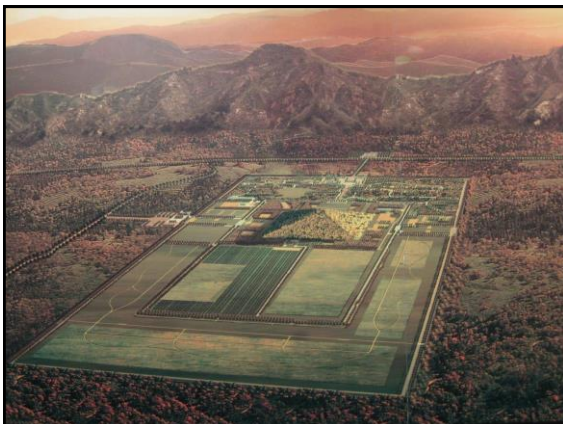
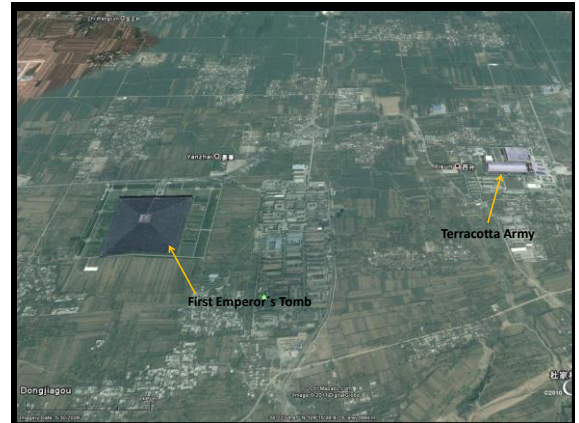
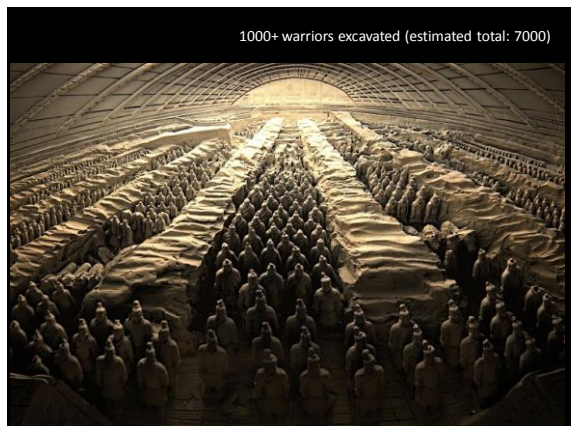
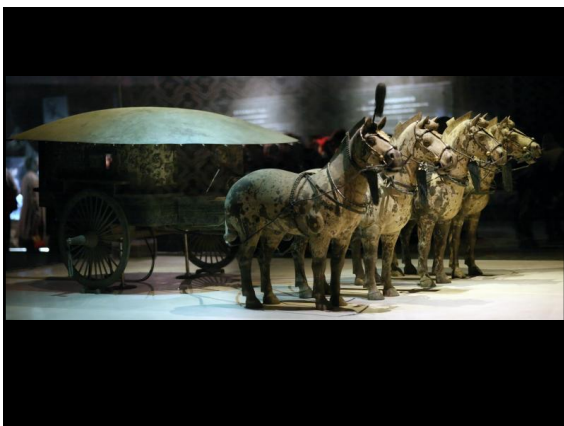
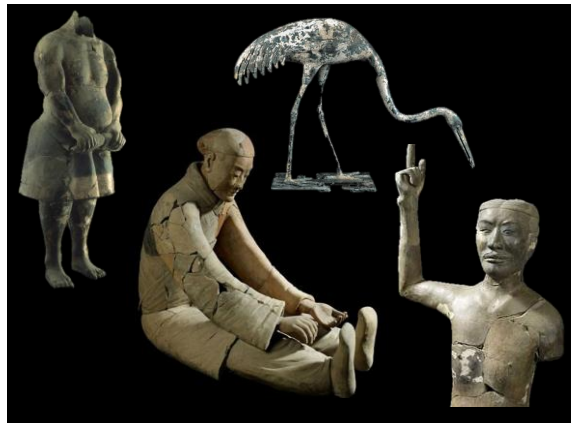
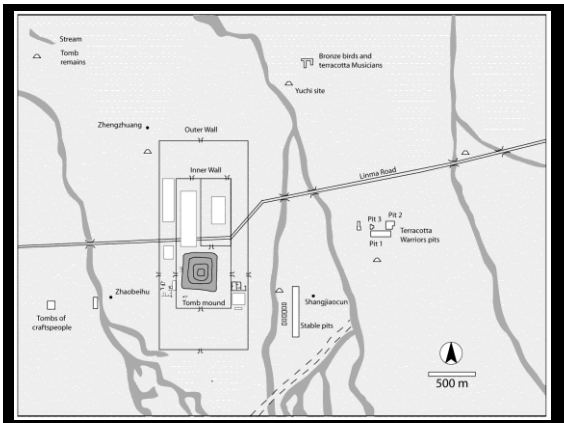
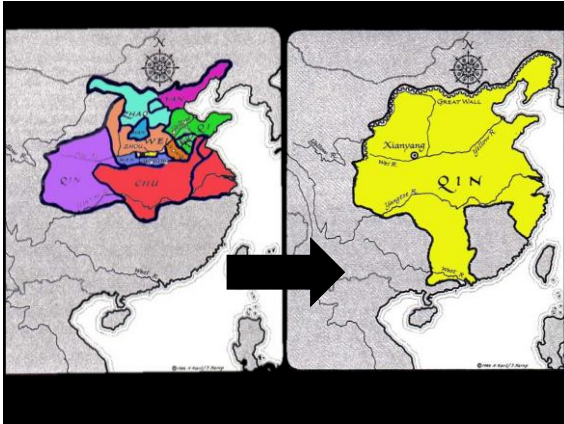
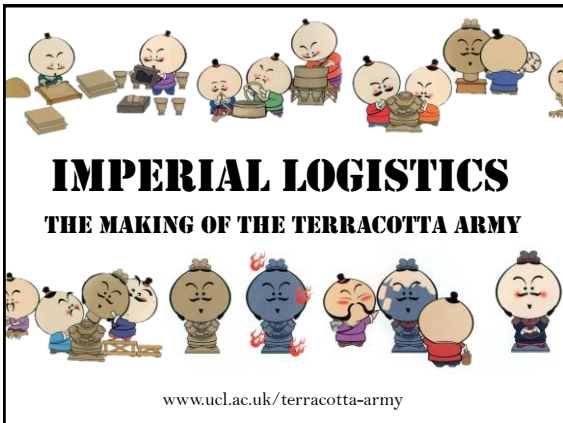
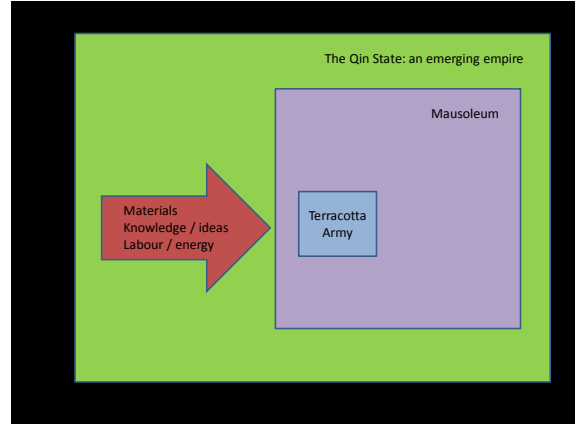




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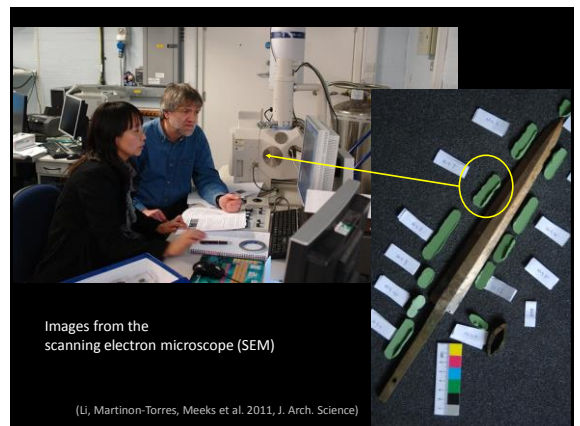
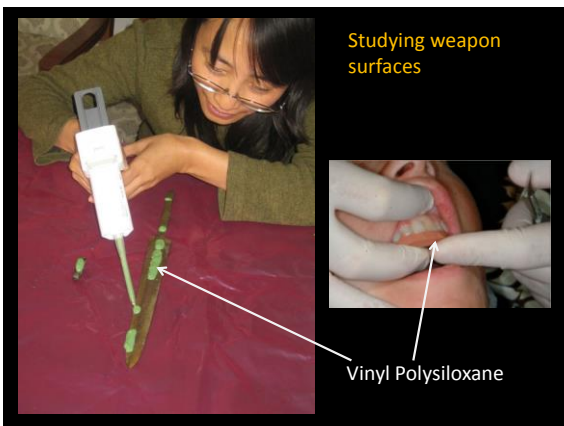
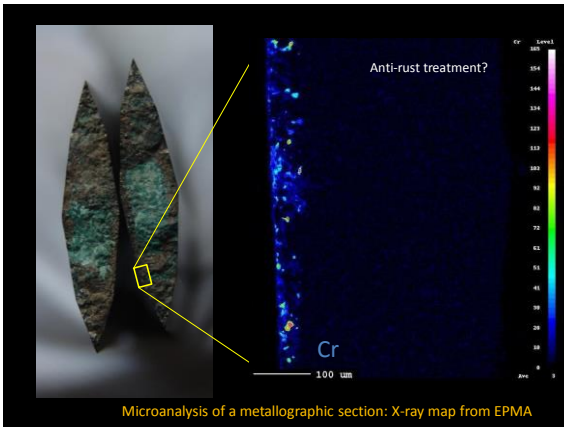
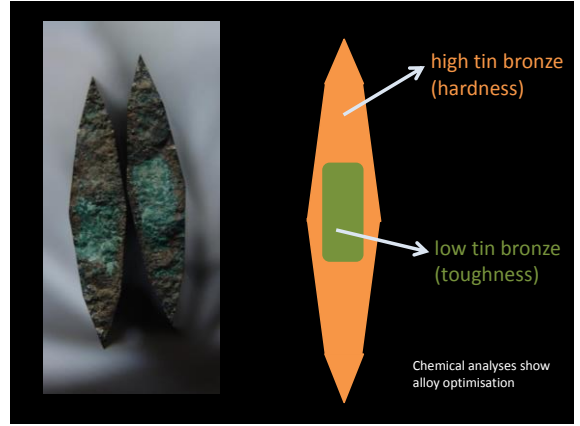
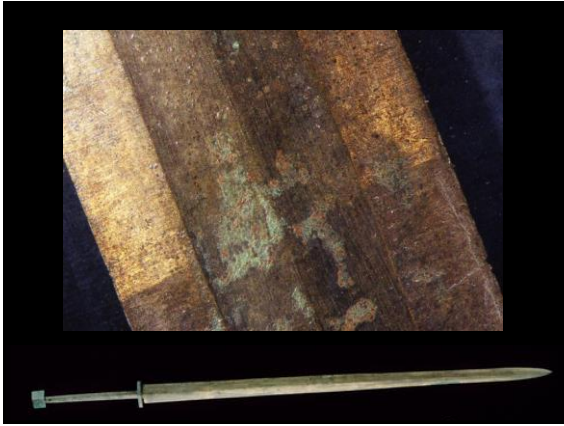


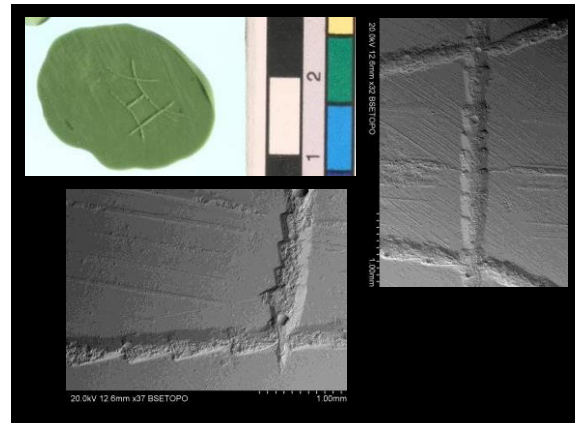
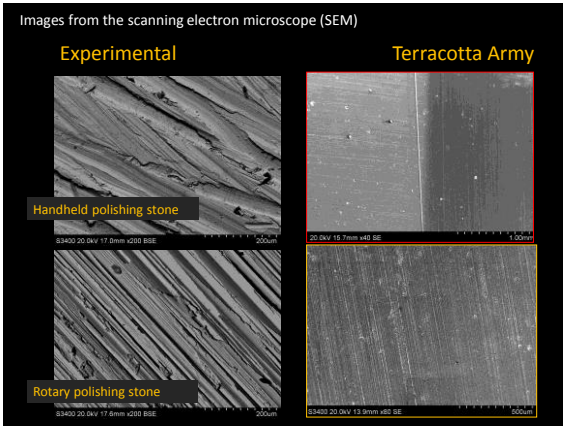
METHODS

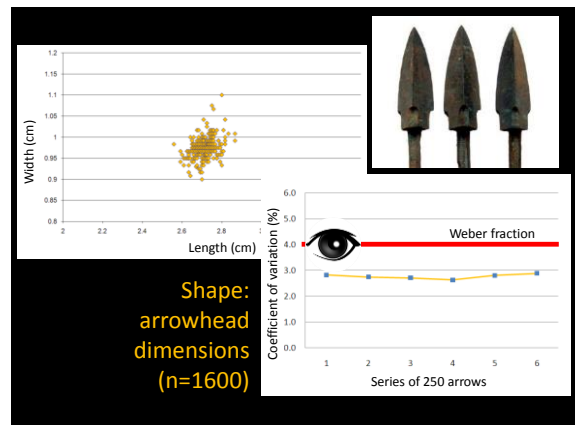
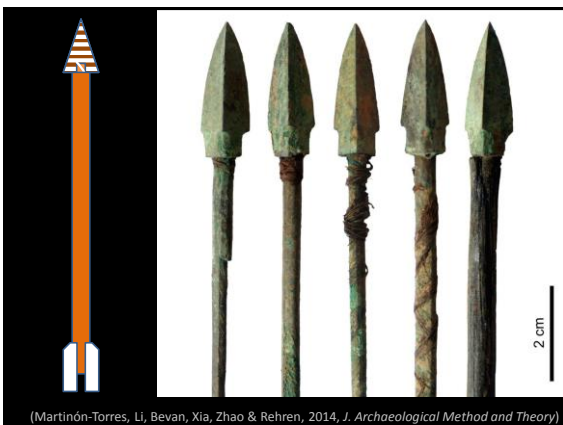
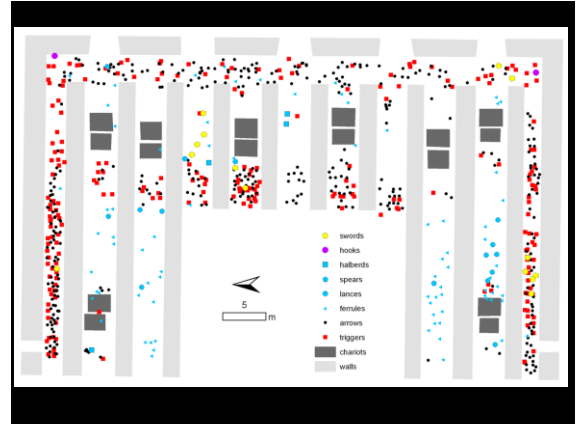
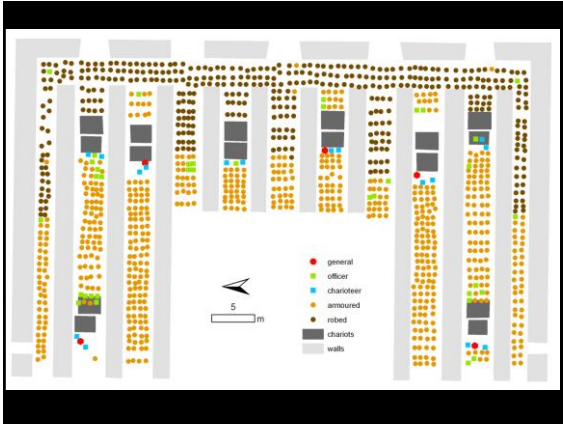
- ✓ Chemical analyses
- ✓ Microstructural analyses (metallography, petrography)
- ✓ Geometric morphometrics (typology, 3D modelling)
- ✓ Spatial statistics

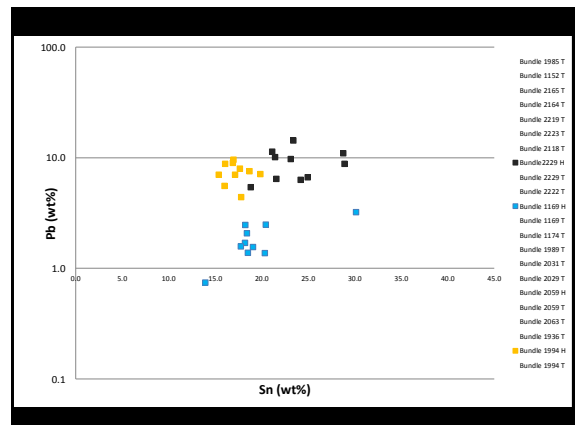
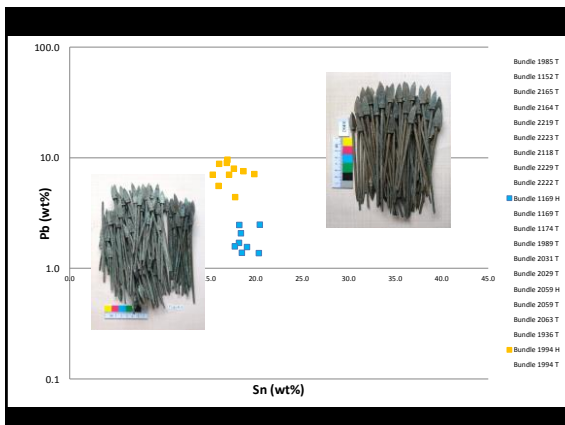
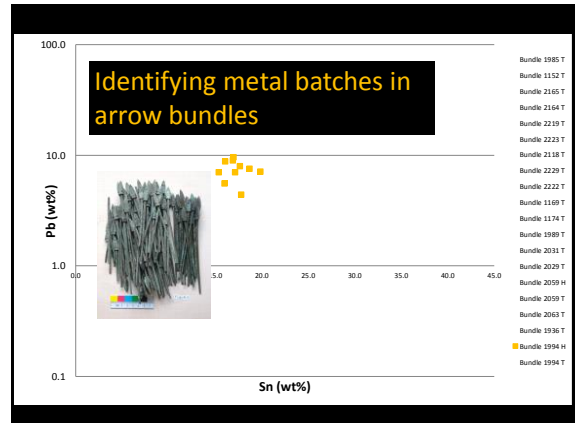
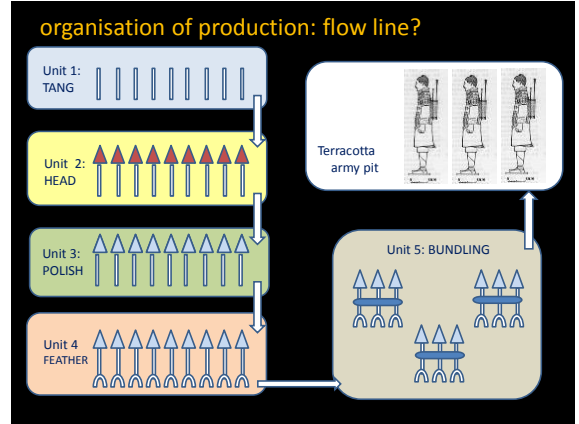
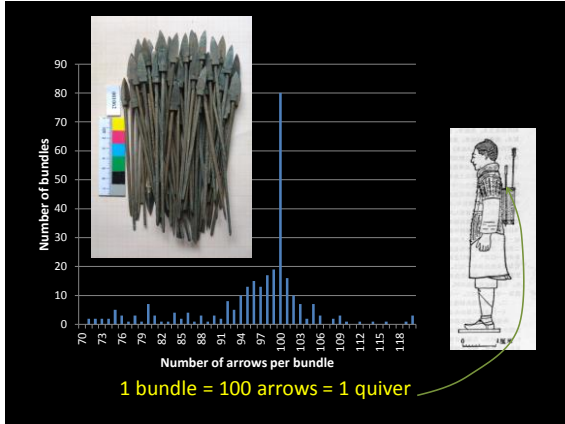
(in addition to survey, remote sensing, excavation, conservation...)

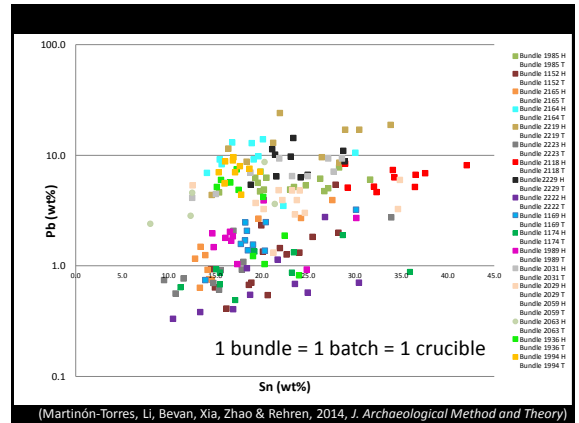
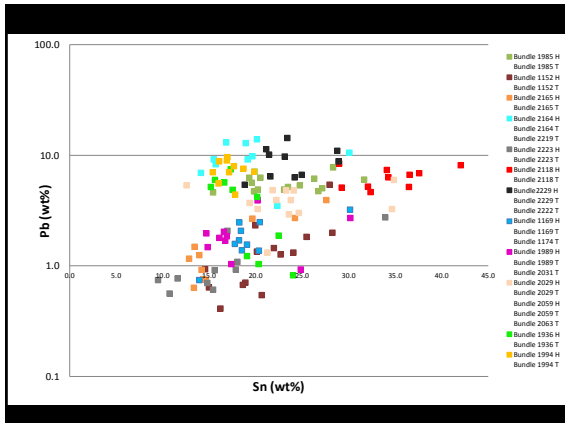
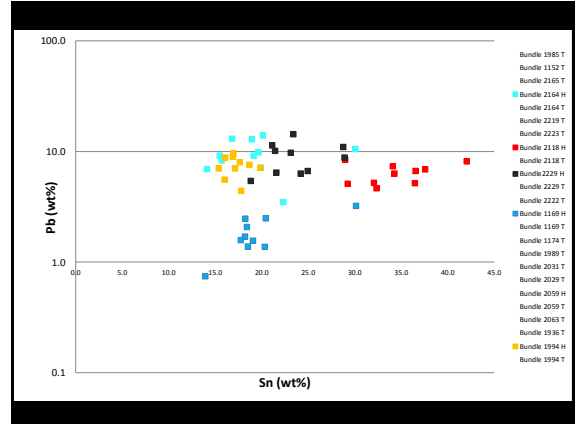
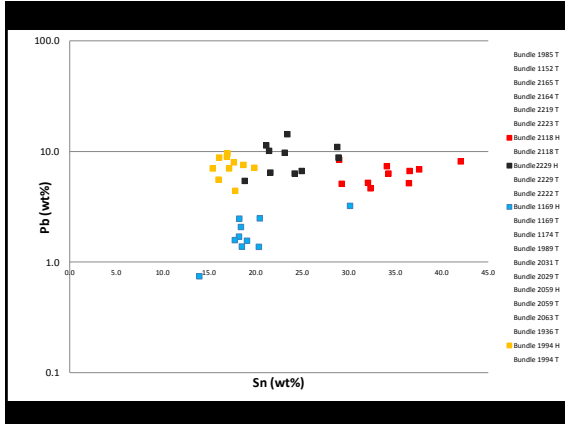




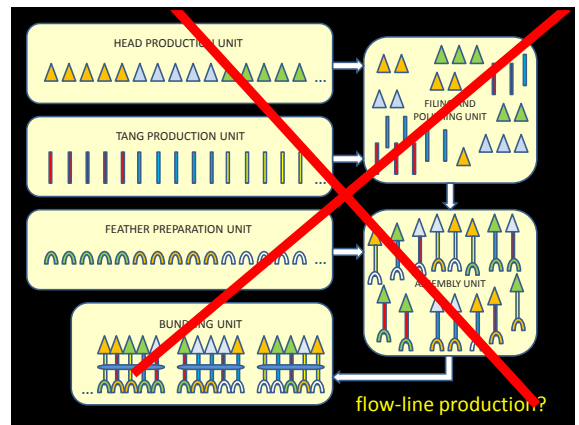
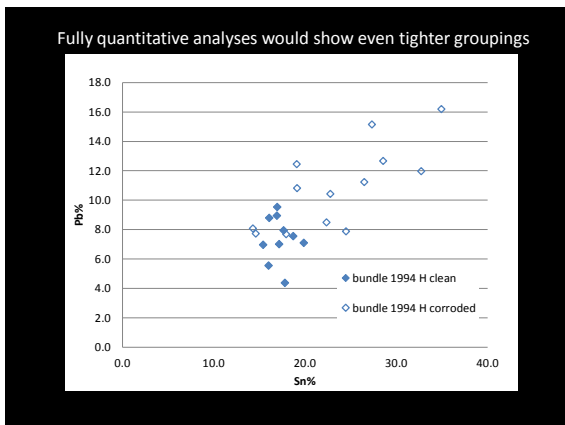


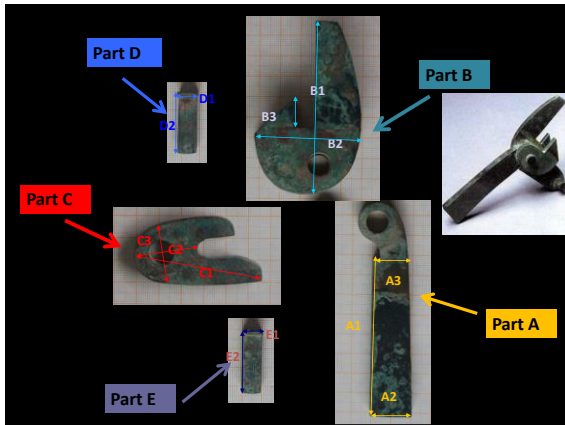
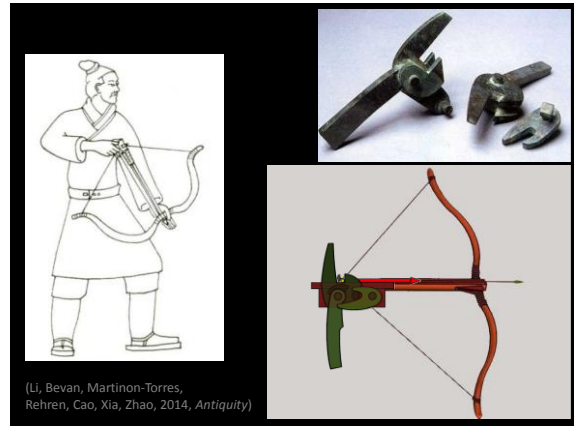
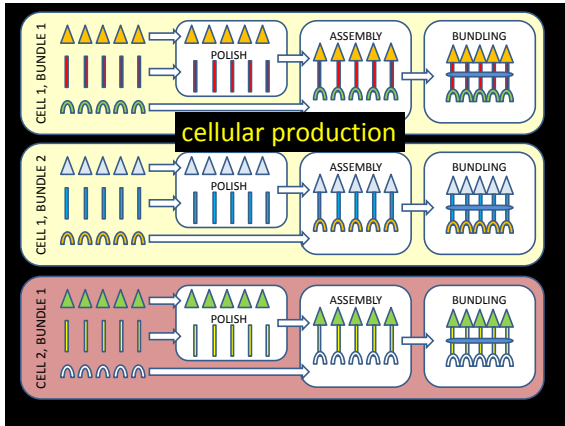




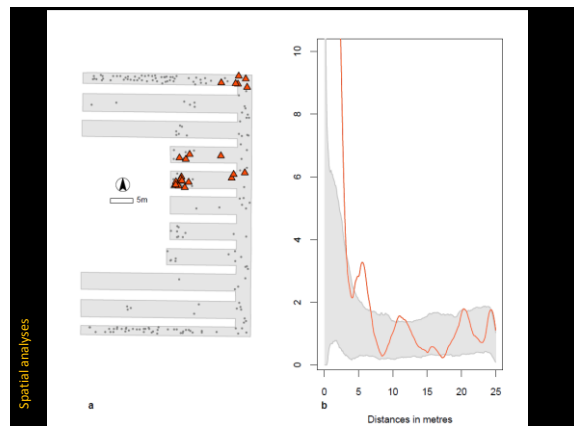
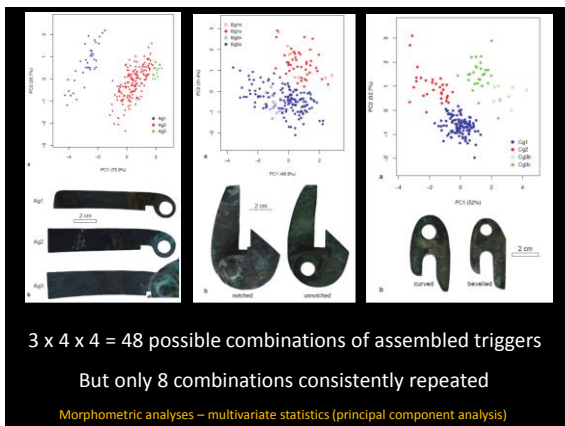


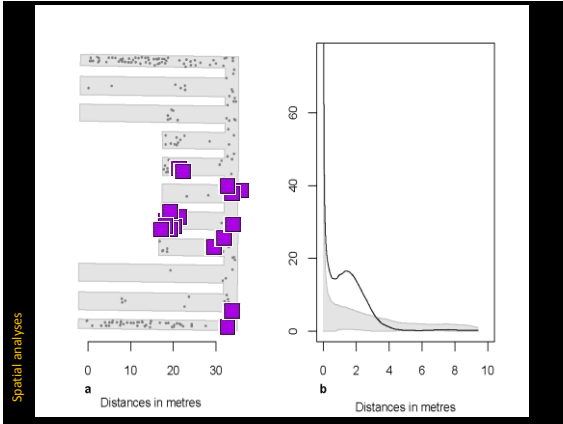
(Martín-Torres, Li, Bevan, Xia, Zhao & Rehren, 2014, *J. Archaeological Method and Theory*)



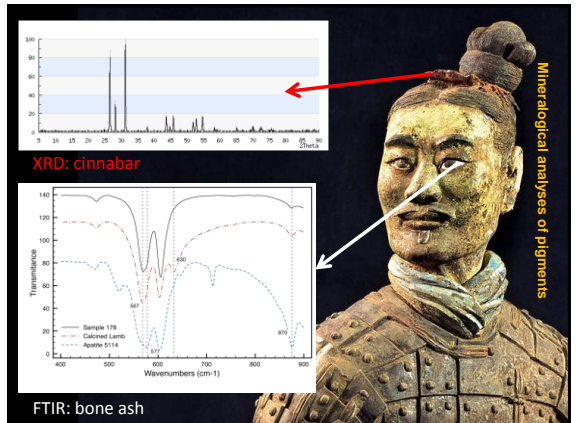


0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68	0.69	0.70	0.71	0.72	0.73	0.74	0.75	0.76	0.77	0.78	0.79	0.80	0.81	0.82	0.83	0.84	0.85	0.86	0.87	0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95	0.96	0.97	0.98	0.99	1.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
0.57	6.35	10.81	44.05	1.17	27.94	0.45	0.06	0.14	8.17	124	515	52	121	19	48	266	27	81	44	0.87	2.87	10.52	34.54	1.02	14.25	0.46	0.01	0.10	7.72	82	46	118	107	15	15	308	28	49	52	0.63	3.97	10.82	41.35	1.19	33.84	0.45	0.05	0.12	7.22	93	423	93	104	17	47	537	27	76	33	0.60	4.05	10.80	41.34	1.20	33.71	0.45	0.05	0.12	7.20	101	431	85	121	17	46	509	28	80	33	0.49	2.30	8.20	20.08	0.38	24.54	0.34	0.03	0.08	4.05	52	185	98	88	11	38	283	21	69	41	1.20	5.01	12.58	47.33	1.62	24.43	0.55	0.04	0.12	7.65	77	163	85	108	19	54	622	27	83	29	1.36	6.16	17.49	47.13	1.63	4.88	0.35	0.08	0.18	11.28	179	236	182	164	22	11	244	19	37	42	0.54	2.81	8.18	17.48	0.79	21.14	0.36	0.04	0.09	5.58	71	281	102	77	12	38	243	25	73	18	0.53	2.68	8.70	13.71	0.85	21.15	0.38	0.04	0.09	5.59	89	262	106	84	13	40	254	21	83	17	1.65	4.61	15.00	56.60	1.77	7.19	0.73	0.01	0.19	12.21	186	59	139	167	29	29	368	48	68	28	1.13	3.81	12.22	43.69	1.68	28.04	0.50	0.05	0.14	7.84	87	401	76	101	20	73	374	27	99	47	0.66	2.48	8.50	20.90	0.82	22.53	0.36	0.04	0.09	5.66	66	215	126	75	13	47	235	19	71	31	0.78	2.64	10.15	44.67	1.11	32.76	0.45	0.04	0.11	6.41	88	328	105	108	17	54	435	28	84	45	0.53	3.20	10.80	42.79	1.00	22.87	0.47	0.05	0.13	6.51	87	330	99	99	18	62	407	27	100	36	0.70	2.65	7.41	25.87	0.74	26.29	0.32	0.03	0.08	4.70	59	211	79	59	13	49	234	17	49	48	1.07	3.84	10.01	49.72	1.18	24.88	0.42	0.05	0.10	6.48	75	319	131	126	15	51	579	24	74	30	0.83	2.70	7.12	28.23	0.85	23.94	0.30	0.04	0.11	4.76	73	232	67	95	11	37	389	14	57	35	0.93	4.28	11.67	45.85	1.27	27.32	0.48	0.06	0.13	7.16	96	383	80	106	17	63	428	29	89	33	0.83	3.21	8.67	34.18	0.93	20.12	0.35	0.05	0.09	5.14	71	266	53	78	12	44	358	21	68	24	0.81	3.32	8.62	34.14	0.98	20.13	0.35	0.04	0.09	5.18	61	261	57	79	14	46	324	22	67	23	0.85	3.45	9.21	35.13	0.98	19.18	0.37	0.04	0.09	5.16	66	267	67	85	14	49	296	23	71	22	1.00	2.61	7.96	32.81	0.81	22.23	0.33	0.04	0.12	5.14	73	315	79	71	14	36	350	19	66	26	1.17	3.19	9.78	40.45	0.96	36.65	0.40	0.05	0.12	6.45	90	329	89	89	15	46	480	24	77	42	0.85	3.31	7.86	33.03	0.83	20.24	0.32	0.05	0.10	5.59	63	322	57	72	13	38	295	20	68	28	0.96	4.31	11.27	44.99	1.18	28.84	0.46	0.06	0.13	6.82	100	355	76	101	16	60	469	27	85	25	1.09	3.43	9.93	39.98	0.82	27.53	0.41	0.06	0.11	6.01	88	271	70	98	13	43	401	20	78	44	0.83	3.23	8.60	33.58	0.98	22.83	0.35	0.05	0.09	5.11	69	245	72	110	11	46	304	21	73	36	0.74	3.29	7.09	32.24	0.74	26.48	0.29	0.03	0.08	4.76	69	234	68	78	11	21	312	18	54	41



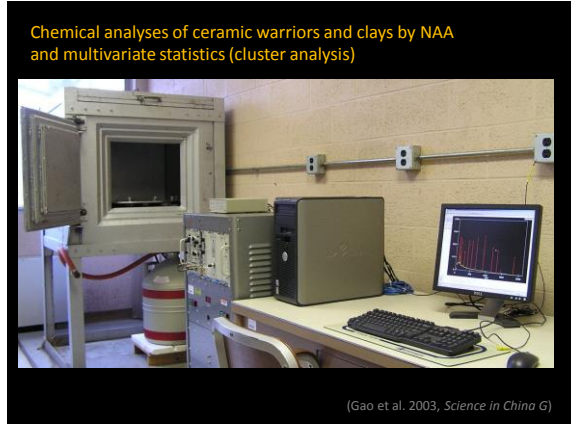


One question unanswered:
Where were the metals sourced?
 A question for isotope studies





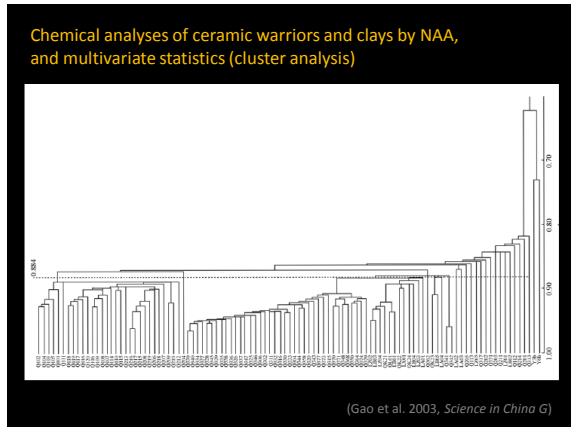
© National Geographic



Chemical analyses of ceramic warriors and clays by NAA and multivariate statistics (cluster analysis)

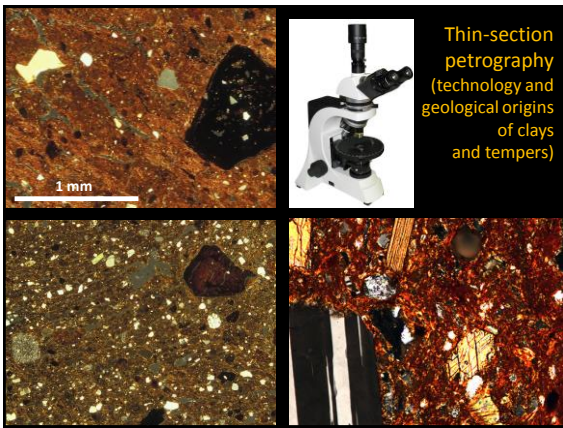
(Gao et al. 2003, Science in China G)

Table with 20 columns and 20 rows of numerical data, likely representing statistical results from the analysis.

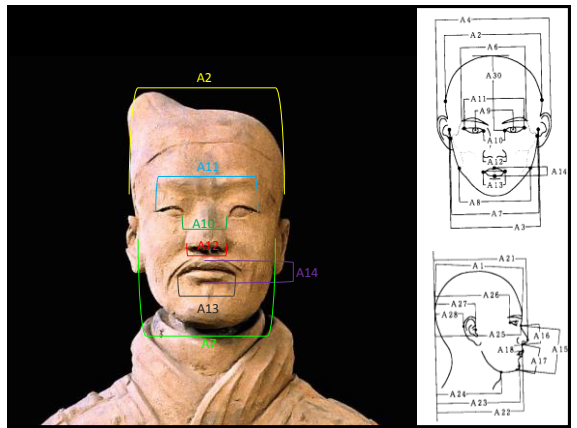


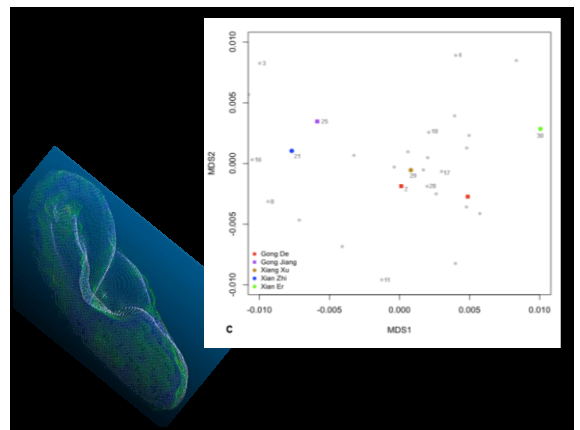
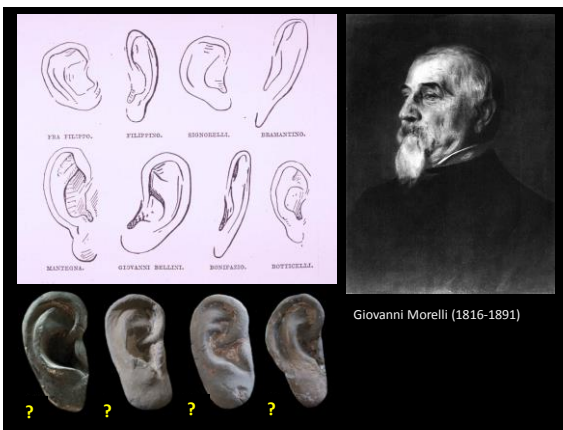
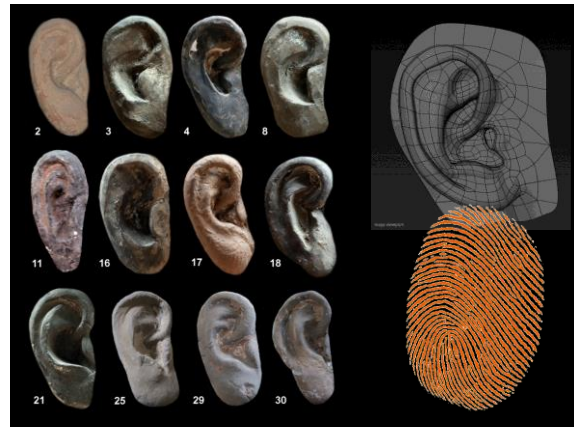
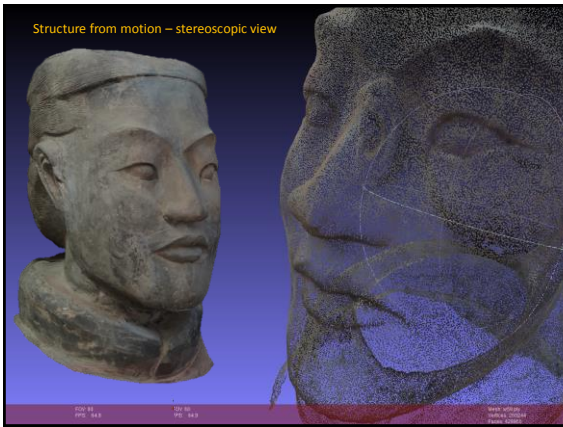
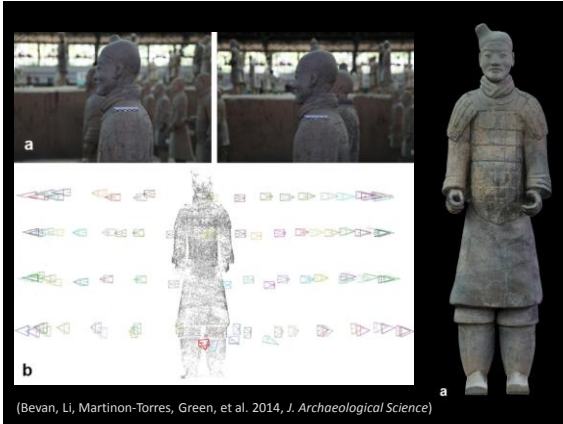
Chemical analyses of ceramic warriors and clays by NAA, and multivariate statistics (cluster analysis)

(Gao et al. 2003, Science in China G)



Thin-section petrography (technology and geological origins of clays and tempers)





IMPERIAL LOGISTICS

Decentralised production,
centralised supervision

A real army for the afterlife?