

**A 100-year record of climate change and human activities inferred from the geochemical composition of sediments in Chaiwopu Lake, arid northwest China**

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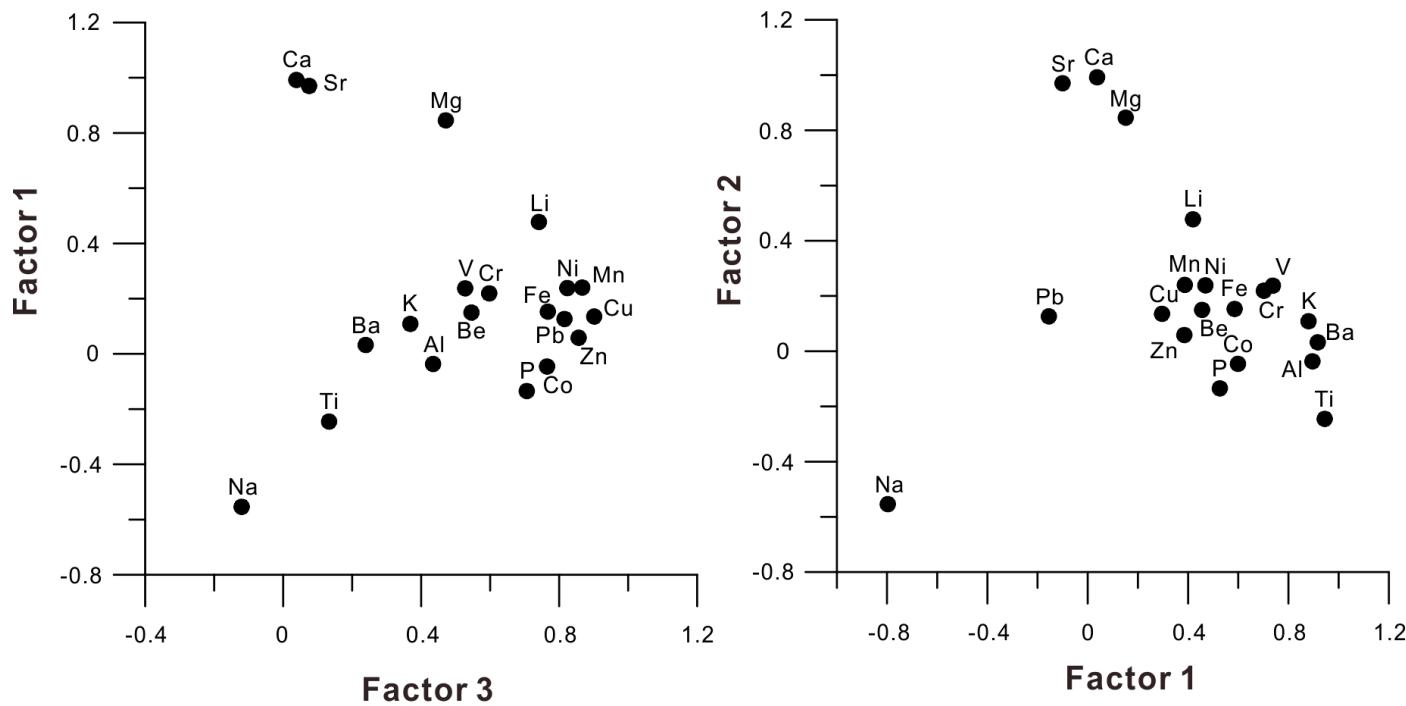
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**Supplementary Tab. 1.** Total variance explained for element contents in Chaiwopu Lake sediments.

Component	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	12.827	64.133	64.133	12.827	64.133	64.133	7.440	37.198	37.198
2	3.227	16.134	80.267	3.227	16.134	80.267	7.007	35.037	72.234
3	1.966	9.830	90.097	1.966	9.830	90.097	3.573	17.863	90.097
4	0.767	3.836	93.933						
5	0.504	2.519	96.452						
6	0.182	0.910	97.362						
7	0.175	0.877	98.239						
8	0.096	0.478	98.717						
9	0.065	0.324	99.041						
10	0.052	0.261	99.302						
11	0.034	0.168	99.470						
12	0.030	0.152	99.622						
13	0.021	0.107	99.729						
14	0.014	0.070	99.799						
15	0.013	0.063	99.862						
16	0.011	0.054	99.916						
17	0.009	0.044	99.960						
18	0.004	0.022	99.982						
19	0.003	0.013	99.995						
20	0.001	0.005	100.000						



**Supplementary Fig. 1.** The component-loading plot of element composition in the Chaiwopu Lake sediment core.