

**S4 Fig.** Quantitative 2D elemental chemical maps of the transverse section of elephant ivory. 2D maps of  $3 \times 3 \text{ mm}^2$  of major elements of ivory (Ca and P), minor element (Mg) and traces (Na, S, Cl, K, Fe and Sr) obtained by Proton induced x-ray emission. Concentrations are expressed in wt.%.

