Geochemical study of carbonate concretions from the aqueduct of Nîmes (southern France): a climatic record for the first centuries AD?

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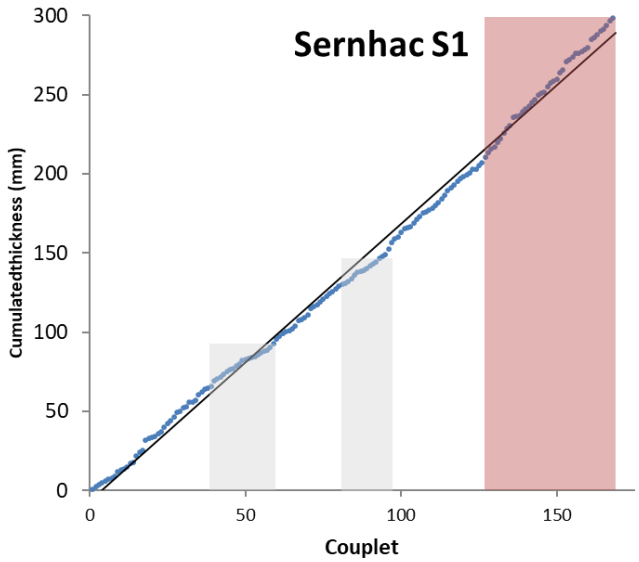
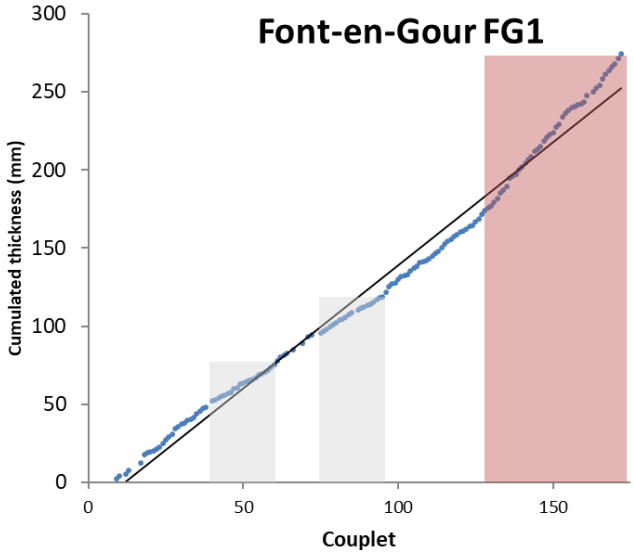
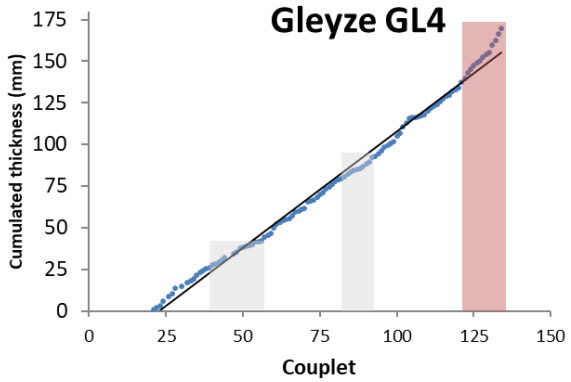
Supplementary Information







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18 Figure S1: Cumulated laminae growth curves. The blue dots correspond to the cumulated thickness
19 of the successive laminae couplets. The solid black line is the long-term linear trend of the series. The
20 remarkable phases of slower and faster growth visible across the samples are indicated in grey and
21 red respectively.

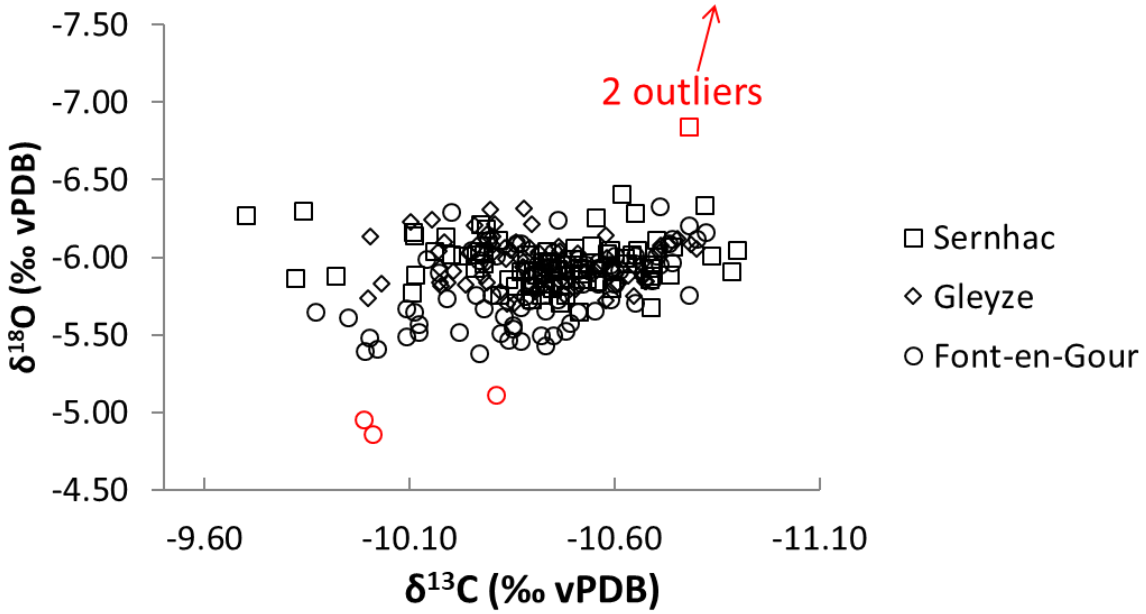
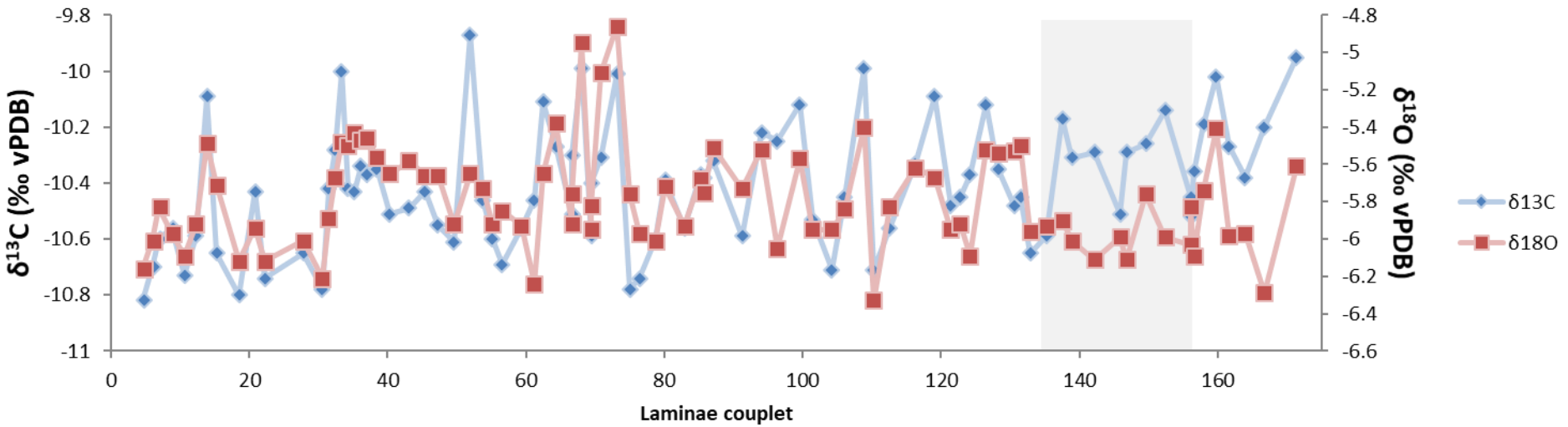


Figure S2: Comparison of the ranges of the isotopic ratios for the three samples. The $\delta^{13}C$ is indicated on the horizontal axis and the $\delta^{18}O$ on the vertical axis. The isotopic ratios are reported in ‰ against VPDB. The axes are reversed. The analytical uncertainty on the ratios is ±0.05‰ or better. The data points considered outliers and removed from the analyses and interpretations are drawn in red. Two additional outliers are way out of the range displayed and not shown.



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30 Figure S3: Compared evolution of oxygen and carbon ratios measured on sample FG1. An almost point-by-point correlation can be observed along the sample,

31 except between laminae 135 and 155.

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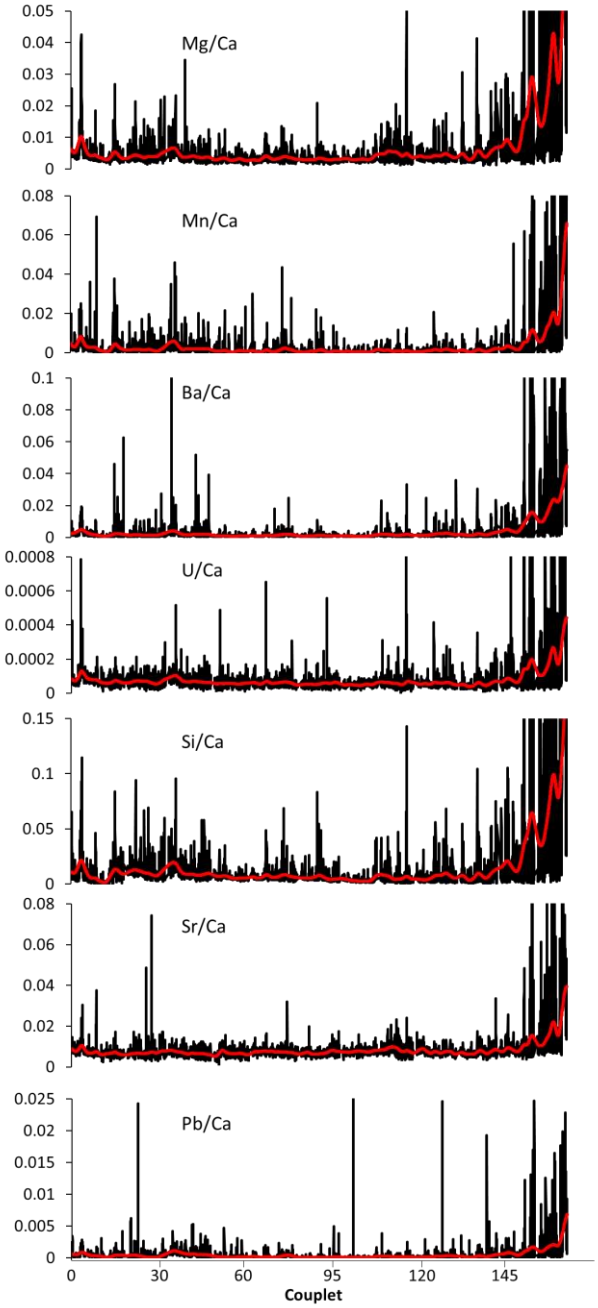

Figure S4: Raw variations of trace elements measured on Sernhac deposit. Thickness 0 corresponds to the contact with the channel wall. The smoothing applied for Fig. 8 is shown in red on some elements. The entire dataset can be found as Supplementary Table S5 online.

Location	Sample code	Coordinates (lat; lon)	Thickness (cm)
Sernhac	S1	43.904 N; 4.545 E	28
Font-en-Gour	FG1	43.896 N; 4.534 E	28
Gleyze	GL4	43.887 N; 4.528 E	22

Table S1: Location and thickness of the samples studied.