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Corrigendum: Using eruption source parameters and high-resolution grain-size distributions of the 7.7 ka cleetwood eruption of mount mazama (Oregon, United States) to reveal primary and secondary eruptive processes

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KEYWORDS

magma fragmentation, tephra dispersal, grain-size distribution, eruption source parameters, fractal dimension, explosive volcanism

A Corrigendum on

[Using eruption source parameters and high-resolution grain-size distributions of the 7.7 ka cleetwood eruption of mount mazama \(Oregon, United States\) to reveal primary and secondary eruptive processes](https://doi.org/10.3389/feart.2022.853021)

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In the published article, there was an error. The authors interpreted a tephra layer as the initial phase of the Cleetwood eruption (called “Phase 1” in the manuscript), when this layer is part of the Llao Rock tephra fall, an eruption that preceded the Cleetwood by ~200 years. None of the raw data in the paper are incorrect (thickness, grain size, componentry, etc.), rather just the interpretation of that layer. All mentions of Phase 1, Phase 2, and Phase 3 have been changed to Llao Rock, lower Cleetwood, and upper Cleetwood, respectively. All calculations related to Phase 2 (now referred to as “lower Cleetwood” following Young, 1990) and Phase 3 (“upper Cleetwood”, also following Young, 1990) of the Cleetwood eruption are still valid and interpretations do not change. The isopach map and subsequent erupted volume calculations for Phase 1 (now interpreted as being Llao Rock) become irrelevant because, although our thickness data are consistent with Young’s (1990) measurements of Llao Rock, they were calculated with the incorrect vent location. Removing “Phase 1” from the total calculated volume (non-DRE) of the Cleetwood eruption now gives a volume of 1.18 km³ (as opposed to 1.44 km³ previously), all other interpretations and conclusions remain unchanged.

A correction has been made to the following sections in the article: **Abstract**, **Geologic Background**, *The Cleetwood Eruption*, **Results**, *Field Observations and Measurements*, **Results**, *Componentry*, **Results**, *Eruption Source Parameters*, **Discussion**, *The Cleetwood Eruptive Sequence*, **Conclusion**.

Corrections were also made to **Figure 1** and **Figures 4–13**. A correction was made to **Tables 1 and 2**. An error was also corrected in **Supplementary Figure S4** and **Supplementary Table S3**.

The updated article content and supplementary material can be found in the original article.

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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