

Table summarising how the FAIR principles were linked to a practical set of criteria (questions) shaped specifically for phytolith research

FAIR	Set of questions	Phytolith science specificities	Changes made to the data collection from conducting the trial
N/A	General questions	Multiple fields of research are using phytolith studies. How to represent diversity without losing the specificities?	The collection of Period/Date information was simplified: 1. by adding what is stated at the start of the article and to use modern for non-archaeological and palaeoecological papers. 2. By choosing the most preeminent type of study as there could be several focuses of the study.
How easy is data to find?	<ul style="list-style-type: none"> ○ Is it in the paper/supplementary files/repository? ○ Is there a data availability statement? <ul style="list-style-type: none"> ■ What are the policies for these journals on data availability statements? 	Indication or description about the phytolith data are essentials for researchers to understand what the study is about and what kind of information are concretely available.	<ol style="list-style-type: none"> 1. We chose to include the full APA reference for articles and to get rid of separate title and DOI categories. 2. We are going to use an R package to get information about open access status.
Is data accessible?	<ul style="list-style-type: none"> ○ How accessible is the data? - Where is the data, what file format? ○ What are the repositories used for articles and data? 	Indication or description of where and how phytolith data is stored is indispensable for the research reproducibility	
How interoperable is the data?	<ul style="list-style-type: none"> ○ What nomenclature is used and how is it used? ○ Confirming use of nomenclature by providing pictures 	Phytolith naming is regulated by two nomenclatures (ICPN 01 and 02) but how much these descriptors (including	<ol style="list-style-type: none"> 1. We created a list of criteria for questions about use of ICPN 1.0 and

		<p>pictures) are used by phytolith researchers has to be concretely assessed to check the data interoperability</p>	<p>2.0 to avoid common misuse for each and to help us detect this.</p> <p>2. Other naming practices were recorded.</p>
<p>Is the data reusable?</p>	<p>Is there a licence on the data? Type of data? Format of data? Processing and counting methods Instruments used Statistics</p>	<p>The methods (processing and counting) and instruments used to carry on phytolith analysis are many and have to be fully described to be reproducible. The raw data (no graphs) should be presented in the results section.</p>	<p>1. We made more click down lists of standardised answers for standardising our own responses.</p> <p>2. We changed absolute presence for absence/presence click down list of answers.</p>