

The paper entitled “A closer look at an eroded dune landscape: first functional insights into the Federmessergruppen site of Lommel-Maatheide” deals with quite debated matters in the field of the Use wear analysis: i.e. the influence of post-depositional processes on the kind of functional inferences; the identification of excavation that affect the preservation of wear traces and residues; the evaluation of what domestic tasks can be identified and to what extent preservation biases functional insights; the identification of the potential of the site for hunting activities and the propulsion mode used; the evaluation of whether a specific function can be proposed for each concentration of lithic artefacts analysed in the study.

This is a very interesting and interdisciplinary line of research, involving use wear analysis, residues analysis, experimental archaeology and obviously Upper Palaeolithic archaeology. The study proposed is very huge and interesting. In particular the comparison between the different concentrations of lithic tools, with similar chronology but selected in a big area (45 Ha) with different position in the landscape is very useful to understand if the different sites positions are linked with the different post depositional alterations recorded on the surfaces of the tools in the different sites. The article is well done, takes into consideration many problems and manages to deal with them with competence and prescription. I found very interesting both the study on excavation damage and, although it is only a preliminary study, the experimentation on hafted curved backed points.

I have a single doubt regarding the structure of the article, the topics covered are so numerous and well treated that I feel I can suggest dividing the article into two or more works.

In any case, the theoretical framework, the methodology and the results are clear and well exposed as well as the aims of the proposed research regarding the current issues about the disciplines taken into consideration. The bibliography is complete and correct.

The results are interesting, and a wider application of this methodology is desirable, especially for what concerns the interaction between the sites position and the post depositional alterations.

I have also some suggestions to improve the article.

In the introduction when the type and causes of post depositional alterations are briefly described, you may also consider conservation damage: the material analyzed also comes from collections made by non-professionals (167 curved backed points derive from the Caris collection, and 87 derive from the Janssens collection). How have the materials from these collections been preserved?

In section two, you should add a general map with the location of the site (I suggest a map indicating the location of the site with respect to Europe, the country and the region). Furthermore, I would move Table 1 to this point by adding an indication of how the materials were collected: excavation or surface collection; in the case of an excavation which methods were used (metal sieve, trowel, etc.).

In my opinion, should combine section 3 and section 4 to make a usual section of Materials and Methods. In this way it will be possible to merge the various subsections, for example 3.1 with 4.2. This will certainly make the text more readable. It should also indicate which programs have been used for image processing.

In section 4.1 the criteria used to select the lithic to be analyzed should be better explained.

In figure 3, first graph, the recognition letter is displaced with respect to the other graphs.

I suggest adding a table to indicate the various types of post-depositional alteration in relation to the sites. It would allow to notice the differences with a single glance.

In section 5.2: how the 506 lithic artefacts analyzed were selected?

In figures 7 and 8 please make arrows and other graphic elements more visible.

In the section 5.3.3: how the 23 lithic artefacts analyzed were selected?

In figure 10 a photo of the artifact under analysis could be added, as was done for figures 7, 11, 12 and 13

Tables 9 and 11 are unclear. Relate the fracture attributes with the individual elements examined.