

Review Comments:

Technological Analysis of Lithic Assemblages from Surface Collections. First Evidence of a Palaeolithic Frequentation of the Po Plain in Piedmont: The Case of Trino (North-Western Italy)

Recommendation

I recommend this manuscript be *published* in PCI Archaeology *after major revisions*.

I greatly appreciate the authors efforts to extrapolate behavioral interpretations from the many surface collections on Trino hill and fill in a regional knowledge gap. I have extensive experience working with palimpsest surface lithic assemblages and am admittedly jealous that they have multiple temporally diagnostic artifact types that enable them to characterize technological strategies through time. I do, however, think the data presentation could be better organized to improve flow and allow for additional interpretations in the Discussion. Organizing the Discussion section by temporal unit (separate headers), using the detailed patterning highlighted in the description of each RIT, might achieve this.

General Comments

- The manuscript contains many grammar, syntax, misspelled words, and less than ideal word choices. I'd encourage the editor to assist the authors with this endeavor.
- The text has several single sentence paragraphs. My training was to avoid such paragraphs, so I'd encourage the authors to consider linking those to another paragraph or adding another sentence. Just a consideration as there might be other perspectives on paragraph configuration.
- When describing artifacts in the text it would be helpful to note the figure number and associated letter so the reader can more easily find that image without searching the figure caption.
- The figure and table captions should be closely reviewed for consistency and punctuation.
- Most graphs lack y-axis labels (i.e., "Frequency" for the bar charts and, I presume, millimeters ["mm"] next to Width). "Length" is misspelled on the scatter plot. The scatter plots might also benefit from statistical copy (e.g., R^2) so it's clear how much emphasis to place on the interpretation.
- "70s", "80s", and "90s" should be converted to "1970s", "1980s", etc.
- Artifact descriptions for the RIT's are sometimes awkward. Many paragraphs begin with a statement of interpretation before the data are presented. I suggest writing more inductively such that the data are presented in a way that leads to the conclusion/inference. Another way around this is to improve on the topic sentence of each paragraph.

Specific Comments

Lines 1-5 – the title is really long and should be shortened. Having a two sentence title is awkward and unnecessarily increases the length. Perhaps the first sentence could be dropped with a little additional editing to the second sentence for clarity.

Line 50 – consider adding country boundaries to Figure 1. This will make it easier to follow the text, especially for those who are unfamiliar with that part of Europe.

Line 88 – what does “W-E” refer to in relation to “S2? I assume west-east but am unsure and don’t see it on Figure 4.

Line 201 – add Munsell color for the soil descriptions. The Munsell colors are provided in the Discussion section, but not here. I suggest in a later comment that the associated paragraph in the Discussion be moved to this section.

Line 218 – I don’t see the location of the biface marked on Figure 5 and it isn’t clear from the text.

Line 223 – I’m wondering whether the section beginning Line 798 might fit better here as a summary of expectations. That is, this text could be used to generate expectations for where the different age artifacts should be found. Doing so would provide more context for the artifact descriptions by RIT and would allow the authors to “test” the model. Also, the paragraph beginning Line 798 is a bit tough to follow but could possibly be easier to understand if it were closer to the original discussion.

Line 229-230 – please better justify why you are including artifacts away from the RIT. I think it would make a stronger case if the artifact analysis was entirely related to RIT. I think you include these data so that later in the paper you have something to compare to, but I think this just confuses the issue and I would rather see the analysis focused solely on RIT. Perhaps in the discussion you could include basic findings from outside the RIT to make your point OR just more clearly indicate why the non-RIT artifacts are included here/now and that’s probably OK.

Line 250 – please briefly define or describe what S.S.D.A is as not everyone will know what this is.

Lines 274-290 – is your method/criteria for identifying artifacts to time period established protocol or is this a novel approach? I think this should be clarified. I also think that creating a simple table that stipulates which artifact types represent direct evidence for each temporal period would be helpful. This is clear enough from the text and descriptions, but having a simple reference table would help the reader keep track of the expectations. Also, how do temporally nondiagnostic artifact types fit in this (e.g., debris)?

Lines 321-327 – I think this paragraph could be deleted. It’s hard to understand this summary without more context and without data to support the finding.

Line 597 (and elsewhere) – by “large” flakes do you by chance mean “wide”? If not, please clarify.

Lines 636-651 – this paragraph should be reorganized so that it focuses on the MP assemblage, which seems to be the topic sentence of the paragraph but rather the focus is on the Neolithic. Is “collocation” the right word in this paragraph?

Line 704 – “siret”??

Lines 717-723 – Any way to include more behavioral interpretations like this paragraph in the other RIT sections. Here the authors infer interesting behaviors that follow from the detailed descriptions of the artifacts. Including more such behavioral interpretations would improve the manuscript and provide more context for the detailed artifact descriptions. I know that sample size of this RIT allows for this, but are there others that could be interpreted similarly?

Lines 856-860 – it would be helpful to provide the percentage of and/or frequency of artifacts assigned to each of the 5 groups. These data could also be summarized in a table and perhaps even a pie chart or similar type of figure to visually display the patterning. The paragraph below might possibly work better if attached to this paragraph.

Lines 867-872 – I agree with the implications of this paragraph but think it should be expanded or elaborated on a bit to better describe the patterning. One way to do this might be to tie the temporal results into the proposed temporal model expectations that currently begin Line 798.

Lines 949-952 – you suggest that Trino hill functioned mainly as a residence/hunting camp through time. I am wondering, however, if that's the case, then why are there so few tools? My experience is that residential sites tend to have a somewhat high proportion of broken/exhausted tools, though length of occupation and specific site activities affect this pattern. Thus, I am wondering, given the seemingly high proportion of tool production debris and presence of raw stone, whether a quarry and workshop function also should be considered for the locally outcropping materials? That is, perhaps these surface collection areas/sites, as palimpsests (artifacts from different occupations and/or time periods), represent different functions through time (i.e., perhaps some periods of time represent quarry/workshop activities but other periods of time residential sites) or even by raw material type? It seems like the authors have these data and could address this, especially as a way to try and disentangle the palimpsest nature of these assemblages. That could prove interesting.