

Interactive comment on “An insight into pre-Columbian raised fields: The case of San Borja, Bolivian lowlands” by Leonor Rodrigues et al.

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Referee #2 Dear Christian Prat, we highly appreciated your comments and constructive advices. We agree with almost all of them and have revised the paper accordingly. Please find below our response to each of your comments, which will be included in the next version of our manuscript.

1/ Change the word “ palaeo “ to “ paléo “ which is more correct, in all the text. Response: To our knowledge palaeo is more common in international literature.

2/ p4 first line, I dont understand the meaning of “ with crevasse occuring every few years “ if you are speaking of the river ! I guess that you are speaking of soils, so you

C1

should change the writing of your sentence. In other end, instead of “ crevasse “, you should use “ crack “ which is more usual for this soil feature description.

3/ Change the medical word “ avulsion “ by a technical one as “ lifting “ for instance

Response: The use of the words crevasse and avulsion is correct in this context. Crevasse and avulsion are common words used in the field of geomorphology and description of fluvial landforms. However to make it clearer for non-geomorphologist we added a short definition of each:

“The Río Maniqui is one of the most dynamic rivers in the LM with crevasse occurring every few years, leading to complete river avulsions on a sub decadal time frame (a crevasse describes the process when a river breaks though its river levee ; an avulsion is a natural change of river course that leads to theabandonment of the old channel and the establishment of a new one (Charlton, 2007)).”

Reference (Charlton, 2007) has been added.

4/ p5 line 15 : Add a space between Na+, and Mn2+

Response: Has been added.

5/ p7 line 14 : change “ ; “ by “ : “ after “ each year “.

Response: Has been changed.

6/ Change the capital of Goethite and Lepidocrite with a lowercase letter.

Response: Has been changed.

7/ p7 line 23 : change “ ; “ by “ : “ after “ major layers”.

Response: Has been changed.

8/p8 line5, join “ Fig “ and the number “ 4 “ in the same line.

Response: Has been changed.

C2

9/p8 line17, join “ 30-50 “ with “ cm “ in the same line.

Response: Has been changed.

10/p8 line20, put “ meanwhile “ before “ the content “.

Response: Has been included.

11/p8 line29, join “ 20 “ with “ cm “ in the same line.

Response: Has been changed.

12/ p9 line 15, Change the capital Quartz with a lowercase letter.

Response: Has been changed.

13/p10 line 5, Take off “ base saturation “. Response: Has been changed.

14/p10 line 12, Put a point at the end of the sentence.

Response: Has been included.

15/p10 line 25, Put a space before 270 cm.

Response: Has been included.

16/p11 line 15 same comments than above in point 2 and 3 .

Response: See point 2 and 3.

17/p13 line 13 same comments than above in point 2.

Response: See point 2 and 3.

18/p13 line 19 change “ This seems to be common “ by “ This is common “ , because it is just common!

Response: Has been changed.

19/p15 line 7, Replace the “ . “ after “ aluminium “ by a space

C3

Response: Has been replace.

REFERENCES

P18, line 8, Replace “ Dephine “ by “ Delphine “ P20, line 3, Replace “ hidraulicas “ by “ hydraulicas “ P20, line 21, Replace “ Nino “ by “ Niño “ P20, line 44, Replace “ Nino “ by “ Niño “ P21, line 5, Replace “ Acuático “ by “ acuático “ P21, line 18, Replace “ off Peru “ by “ of Peru “

Response: Have all be corrected.

TABLES

Replace the #DIV/0 ! which are appearing in some lines of the Ca/Al column by “ - ”

Response: Has been replaced. FIGURES Fig 1. Legend should explain the green color (= raised fields) Response: Has been added. Fig 3. The settlements (close to the pound) presents in Fig 1 is missing here ! Response: Has been changed. Fig 4 : I do not understand the second image of Ridge2 “ yellow oxidized . . . “

Response: This line is discussed in the text. To make it clearer we added (Fig. 4, Ridge 2) in the text.

Fig 8 : You must used the same deep scale for all the profile as well as the same X scale. The meaning of the dot line is not clear at all. They do not correspond to the soil description, for instance ! The boundary of infilling is +- 60 cm according to the profile description and here it is at 35 cm deep !

Response:

1.We changed the Y-axes to the same scale. 2.We would prefer to keep the X-axes we kept as the chosen scale do best show the down profile differences discussed in the text. The values are all provided in the supplementary material (Table S3). 3.We added a description of the dotted line to the legend. The dotted line is the level of ferruginisation (relative accumulation of Iron) discussed in the text.

C4

Fig. 9 : Use the same scale for the deepness of soil profile

Response:

To improve the readability of the figure, we prefer to keep the original scale in Fig. 9. Figure caption and order of the profiles have been changed for improved understanding. Figure 9 Down-profile variations of available cations (CEC), base saturation (BS) and Phosphorous (Pav).

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C5

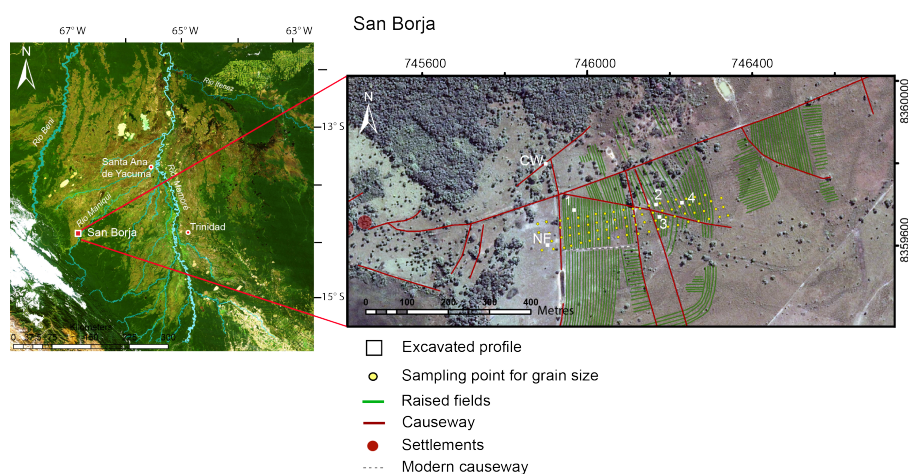


Fig. 1. Figure 1: Study site in the Bolivian Lowlands showing raised fields and causeways, including the location of the excavated profiles and locations sampled for grain size analysis

C6

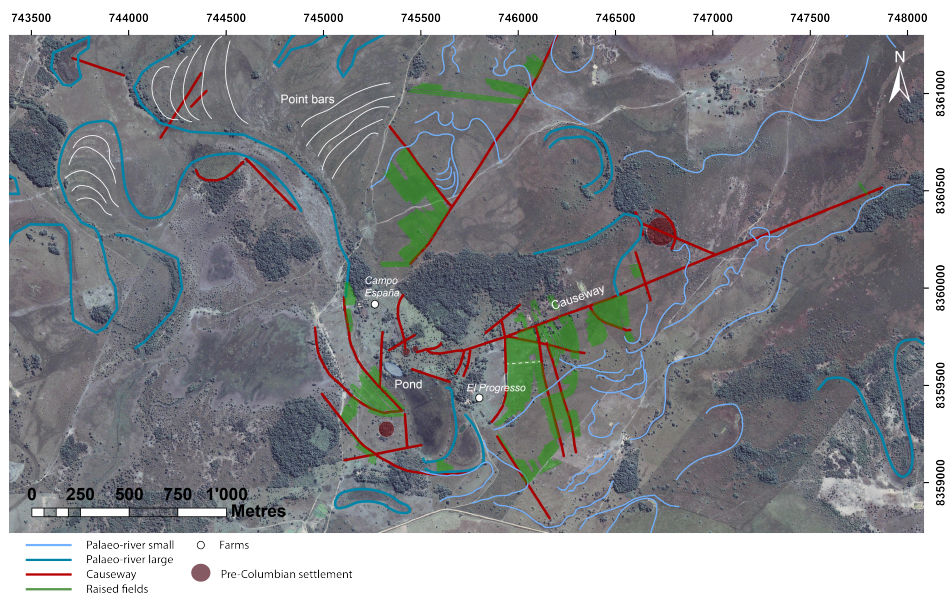


Fig. 2. Figure 3 Study area including anthropogenic earthworks, natural geomorphological features and the two farms Campo España and El Progreso.

C7

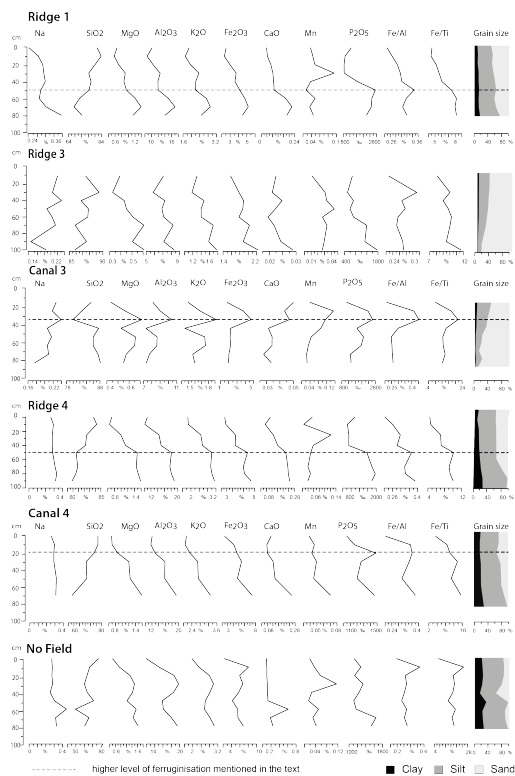


Fig. 3. Figure 8 Down-profile variations of selected elements and grain size.

C8

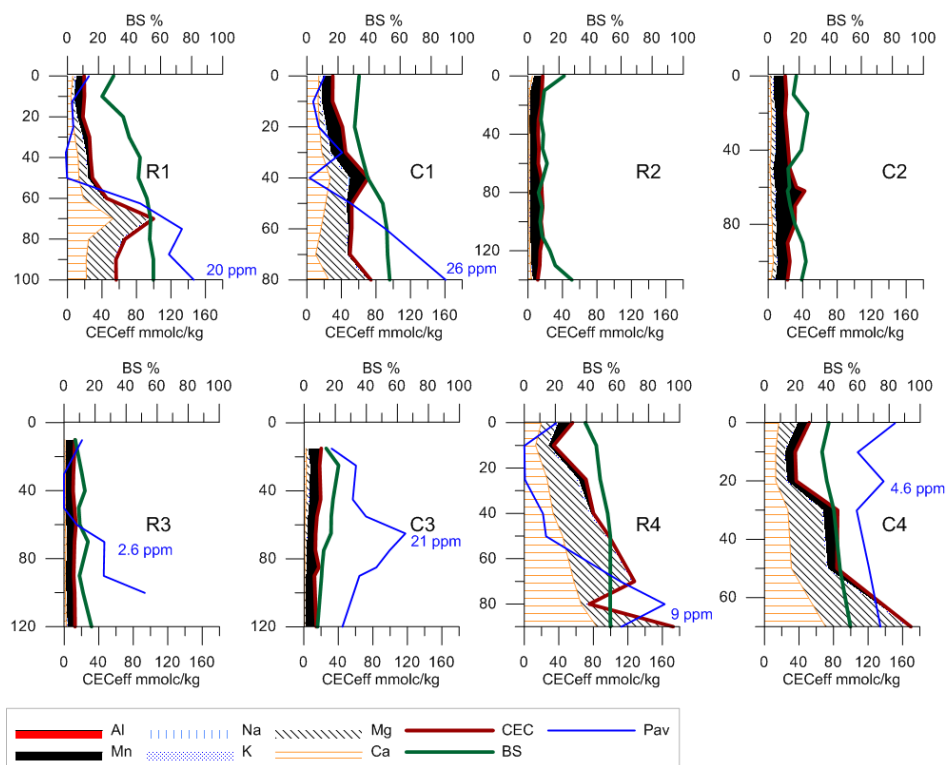


Fig. 4. Figure 9 Down-profile variations of available cations (CEC), base saturation (BS) and Phosphorous (Pav).