Earth Surf. Dynam. Discuss.,
https://doi.org/10.5194/esurf-2020-21-RC1, 2020

Earth Surface Dynamics Discussions
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Interactive comment on "Holocene sea-level change on the west coast Bohai Bay, China" *by* Fu Wang et al.

Anonymous Referee #1

Received and published: 6 May 2020

This manuscript entitled "Holocene sea-level change on the west coast Bohai Bay, China" by Wang et al. reports a number of sea-level index points of the Holocene Bohai Bay area with sound and careful reconstructions. Such a data set is valuable to the scientific community. This manuscript can be accepted after improving the presentation quality. Detailed comments are listed below. In addition to addressing the comments, the authors also need to ask a native English speaker to go through the revised paper to correct and refine written English.

Title: the west coast of Bohai Bay?

Abstract: The shoreline retreat and advance rates are never reported and discussed in the main text. They just pop up here.

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L26. The rapid rise of the sea?

Introduction: I suggest authors rewrite this section which is weakly organized. The structure had better come in an order of a brief review of related sea-level studies leading to specific scientific questions targeted by this study and finally the solution of this study.

L33-38 is vague and basically makes no sense.

L41-44. What's the link between these two issues and this study? I did not see they were further discussed. "allow approximating"? It would be clear to say far-field sites usually have a sea-level history similar to IESL. "affect the sea level by up to 10 m" is also an unclear description.

Section 3.4. It is necessary to point out the radiocarbon testing lab to which the samples were sent. The IntCal13 is a dataset independent from Calib program. So, it is not "IntCal13 of Calib". L119, "attained from bulk organic samples"?

L122: Change to "To develop SLIPs, salt-marsh. . ."

L126-128. This sentence is too complicated to follow.

L152-176. Why not set an independent section talking about lithostratigraphy?

L166. Holocene maximum transgression limit?

L169-172 is hard to follow.

Section 4.2 provides limited information of the SLIPs, which need detailed explanation combined with the lithostratigraphy, facies and foram results. More importantly, the reasons why they are chosen and what indicative meaning they are assigned should be given one by one. I suggest reorganizing Section 4. The modern analogue and indicative meaning can be put into new section 4.1. While the lithostratigraphy and SLIPs can be grouped in section 4.2. The comparison of reconstructed and modeled sea-level histories can be moved into the discussion.

L182. There are plus symbols before elevations, so the “above” is redundant.

L221. I have a doubt about making the sample with a date of 9718 cal. a BP in core Q7 as a SLIP. This could be biased by the old carbon effect. In this section, authors need to compare their results with qualified sea-level records from other far-field regions, which were at a much lower height possibly below -25 m in 9700 cal. a BP. Not to mention that the SLIPs from this study have not been calibrated to remove the significant tectonic subsidence.

This conclusion is nearly void.

Figure 1a should be zoomed out to display the entire East China Sea shelf, which also needs a label. Currently, it is similar to figure 1b.

Figure 5. What does the bar chart mean? If the authors want to keep it, it deserves a name like “E”. The caption missed the transect A. In addition, please also keep a uniform format for the names of sub-figures. All in upper case or lower case.

Figure 7. Age error bars should be plotted for each SLIP.

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