Interactive comment on “Low Water Stage Marks on Hunger Stones: Verification for the Elbe River in 1616–2015” by Libor Elleder et al.

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Corresponding author Libor Elleder (CA): Answers to unknown reviewer (R1)

CA: An error in the text, which I found, was corrected in the text independently from the reviewers. The beginning of Magdeburg record is 1727 not 1726 (it is an end of not monitored water level period). I am sorry for the mistake. I hope, all your comments were accepted

1/R1: Particularly on the first part of the paper, it is not very easy to read, and some sentences are too long English use may need some improvements. I cannot help on this because I am not native speaker, but I have provided some editing comments. CA: I hope, the proofreading by native speaker (It was done by a professional proof-reader Erin Naillon, please see the acknowledgments) improved the English and facilitated better understanding and reading (R1: not very easy to read) of the text significantly.

2/ R1: Specific comments:

R1: Lines 97-98. Suggested modification of the sentence. A remaining issue is to verify the credibility of the information on low water levels, and its transformation to provide robust information on runoff previous to 1825 and even before 1726.

CA: It was changed after proofreading as follows: But what credible documents of low water levels existed before 1851 (the start of record-keeping in Děčín), 1825 (the start of record-keeping in Prague) or 1727 (the start of record-keeping in Magdeburg)?

R1: Lines 104-106. Suggested change: These palaeoflood indicators comprise various type of sedimentary (e.g. slackwater flood deposits) and botanical evidences such as impact marks and damages on trees (Benito et al, 2004, 2015).

CA: I fully accepted, I change the texty accordingly (included the sugestation of Reviewer2) These palaeoflood indicators comprise various types of sedimentary (e.g. slackwater flood deposits) and botanical evidences such as impact marks and damages on trees (Benito et al., 2004, 2015, Wilhelm et al., 2019, Schulte et al. 2019).


CA: I have included the citation with coments, the sentence after proofreading.

Low water levels and flow rates for preinstrumental hydrology are seldom addressed, with some exceptions. For instance, Shamir et al. (2013) presented methodology to identify field-based geomorphologic marks of low flows in ephemeral arid streams that
can be indicative of minor flash floods. Unfortunately, the motivation is different and the potential for indicating historical low flows in humid climates has low utilisation.

R1: Line 107-108. Therefore, low water level indicators available through documentary sources are unique data records (Brazdil et al., 2018) for recording past hydrological droughts, with the precision given by physical imprints provided by epigraphic marks.

CA: I fully accepted, I change the texty accordingly to you

R1: Line 129 Objectives.

The specific issues and questions addressed are: Line 133. Are there consistent relations in the heights of stage minima among different stones?

CA: I fully accepted, I change the texty accordingly Are there consistent relations in the heights of stage minima among different stones?

R1: Line 136. Suggest change the title 2. The Elbe river region in the Czech Republic

CA: I fully accepted, I change the text accordingly The Elbe River region in the Czech Republic and the city of Děčín

R1: Line 145. Delete “rock”

CA: I have deleted the expression "rock", "the sandstone formation" remaine here Below Děčín, it then flows through a landscape of sandstone formations.

R1: Line 167. Ploucnice River and Jilovsky stream should be placed on map in Figl 1

CA: Is done

R1: Line 174. Insert in brackets like this (1 ell=59 cm)

CA: I have inserted in the text: of the Prague ell units of length (1ell = 59 cm)

R1: Line 183. (see chapters on methodology and documentary sources).

CA: I modify this and replace by more suitable (see chapter 3.5.). It still bears the orig-
of Bacharach.

R1: Line 513. . . . water levels of the Elbe River occurs typically from June to.. Line 571. Add space after between.
CA: o.k.

R1: Line 649. Perhaps you meant August 2017
CA: o.k.

R1: Line 666. In the locality opposite to Prossen. . .
CA: After proofreading: I included "to", the proof-reader excluded it, I respected the proofreading In the locality opposite Prossen village is a stone that is most often mentioned.

R1: Line 678. Marked DM minima includes years 1893..

R1: Line 738. . . . than marking the flood mark, due to the following reasons:
CA: I accepted it fully, after proofreading: It is more difficult to make a mark of the minimum water level than to make a flood mark, due to the following reasons:

R1: Line 763. Insert in brackets the translation of the inscription, otherwise we cannot follow the meaning of the popular inscription.
CA: In connection with the 1904 mark, the popular inscription â˘A ˙ZWenn du mich siehst dann weine', (If you see me, you will weep) was created.

R1: Line 916. Perhaps you meant "phenological" CA: OK

Please also note the supplement to this comment: https://www.clim-past-discuss.net/cp-2019-113/cp-2019-113-AC2-supplement.pdf