Interactive comment on "The object-specific flood damage database HOWAS21" *by* Patric Kellermann et al.

Anonymous Referee #2

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The paper presents the flood damage database HOWAS21, and its use to support both forensic flood investigation and flood damage models. The topic is significant and has a great scientific interest. Nevertheless, I think that the paper should be organized in a more strict way, reducing the long descriptions, avoiding randomized examples and clearly dividing different features discussed using bullet points.

The parts of the paper describing the db are not very clear and the link with floods that caused damage is missing. Moreover, I suggest to describe the procedure more clearly because it is not clear how other researchers could easily implement the same kind of analysis.

In the following the points that in my opinion could be improved:

âĂć Section 2 is long and sometimes confusing. It should be rearranged. I think that, in order to help the reader to follow the description, table S1 should be included in the paper (formatted in a more concise way, by clustering groups of similar db). I also suggest to introduce some bullet points or sub-headings, because currently this section is long and dispersive.

âĂć Section 3.1: I suggest to schematize this part in order to be more effective. Firstly, the type of users should be clearly divided and not described altogether (also a diagram could be useful). At line 176: "In total, HOWAS21 incorporates a broad range of hazard variables" and after this the Authors presented examples randomized of these variables. I suggest to list in a table all the variables. This is a paper based on a db: it is impossible for the reader understand the discussion without a clear idea of the variables included. I understand that the db has been presented in previous papers, for this reason a simple and clear table can be easily prepared and can be more explicative than a series of examples.

âĂć Section 4.1. This section starts with damage described per type of damaged element without talk about the events that caused damage. How many flood events are included? What types are the most frequent? What the regions affected. This focus on the effects (damage) neglecting the causes (floods) also affect figure 1.

âĂć Fig. 1 is not homogeneous. On the Y axis I see "flood 2013; Elbe 2006; GW flooding 2006". What is the criterion to name the events analyzed? The basin? I don't think, because it is not reported in all the records. The year? I don't think, because there is one record without the year. The type of flood? I don't think, because it is not specified in all the cases. This is an important point to homogenize because if the events are well known to the authors, they can be unknown for readers. It is also unclear what the x axis reports. Maybe the number of cases of damage? "Number of data records" is very vague. In the map: what "community" means? Village? Town? Municipality? Prefecture?It is unclear what the colored areas represent.

âĂć Concerning the variables reported in fig 3, it is not clear how some of them are measured. For example to me it is not clear how "building shape" or "roof type" are represented as numerical variables.

âĂć Conclusions are not very representative of the contents of the paper, I suggest to review.

âĂć Fig. 6 is absolutely not readable.