Interactive comment on “Built From the Crater Up – Site Museums in Geosciences Communication and Outreach” by Jaime Urrutia Fucugauchi et al.

Anonymous Referee #2

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General comments

The manuscript addresses an interesting and important museum and research centre dedicated to the probably most famous known asteroid impact in the world. It also describes geological and research data, infrastructure aspects and outreach initiatives, as well as educational and tourism use. It also addresses the public support by local government.

However, all this information is randomly distributed along the text, making it difficult to follow the various elements that compound the whole scenario regarding the establishment and the importance of the centre and, moreover, the importance of this kind of museum in the global context.
Mu suggestion is to reorganize completely the manuscript following an order that allows the reader to go through the different aspects starting from basic data regarding the place to the outreach facilities, proposals and comparisons with other places in the world.

Specific comments

Title – The whole paper is based on a specific place – the title should name it.

Introduction – As proposed, the main aim of the paper is to use the example of that specific site museum and research centre to address the role of this kind of place in geoscience outreach. This general contextualization should come first, as well as the information about the relevance of the place.

Items 2, 3 and 4 – Instead of describing these places separately, including facilities, research aspects, information on visitors, and so on, it would be better to describe them according to specific themes. So, the reader would have a complete idea of: 1) How the place is and what kind of facilities it has; 2) What kind of information it shows and its relevance; 3) What kind of public it has; 4) How is the interaction of this public.

From this information, it would be easier to compare it with other exhibitions that are mentioned in the text and finally to discuss their relevance.

No quantitative or, at least, semi-quantitative data are shown regarding the public interaction. It is important to address the discussion.

Discussion - The discussion is confused and the various subjects (relevance of the museum regarding mass extinction and K/Pg boundary, relevance of natural history museums, integration with other aspects such as flora and fauna, common misconceptions, among others) are all mixed with information on specific findings about impact craters and their global importance. I think the prime proposal of the paper (which is in the title) is mixed along the text and did not receive the proper attention.

Conclusions - The conclusions should not be a synthesis of the paper, but contain re-
flexions and proposals that come from it. Also, normally it does not contain references.

For the figures: some of them are really technical (for example, fig 6 and 10) and should be a minor part of a paper addressing geoscience outreach aspects.

Technical corrections

GeoPark – if this refers to an UNESCO Global Geopark, it should be written with no capital letter