Nielsen, Sigurd Solhaug 2018. Developing global awareness among young students: A study of students' experiences with the museum exhibition *A World at Stake*. Doctoral theses at NTNU, 2019. Norwegian University of Science and Technology, Faculty of Social and Educational Sciences, Department of Geography, Trondheim. 133 pp. + Articles. ISBN 978-82-326 (printed ver.), ISBN 978-82-326-3635-8 (electronic ver.).

In his PhD thesis Sigurd Solhaug Nielsen explores how a museum can stimulate students' curiosity for global poverty and inequality. Concurrently, he takes up the question of global challenges as part of a museum agenda. The study is based on an empirical investigation of young students' expressed experiences while visiting the museum exhibition *A World at Stake*, a 250 square meters scaled-up board game dealing with issues of global poverty and inequality. The exhibition was developed with inspiration from UN's Millennium Development Goals, and was first presented in Copenhagen in 2009. The young students visiting the exhibition were given the role of active participants in the game. By throwing a dice, they faced different tasks related to challenges of global poverty.

Originating from the exhibition the main question raised in the thesis is: 'What characterizes young students' experiences in a World at Stake, and how can these experiences be related to students' global awareness?' (p. 7). The empirical study took place from August 2013 to June 2014 while the exhibition was displayed at Glomdalsmuseet in Norway. The author has been and is a curator in the field of cultural diversity at Glomdalsmuseet. The thesis is article-based, dividing into two parts. In the first part the author outlines the work's overall theoretical and methodological reflections and establishes the thesis as a coherent work. The second section consists of four publications developing the core analytical argument of the thesis.

In the first chapter Nielsen carefully guides the reader into the thesis. It is easy to get excited about the work by reading this section which is presented in an inspiring manner, constantly following good academic practice. We learn about the researcher's motivation to the subject matter and the specific case study, the theoretical starting points and conceptual grounds of the research, the interdisciplinary nature of the study, and the researcher's aims to develop further an emerging research field of 'museum geographies'. He continues in the second chapter by introducing the empirical context of the study, the *A World at Stake* exhibition and game. Nielsen delivers a rich, and essential, description of the context, including photos of each exercise that usefully provide the reader a better access to the museum space and the activities analysed in the thesis.

The overall theoretical and methodological understanding is presented in chapter 3 where the two key concepts – 'global awareness' and 'experience' – are introduced and justified. 'Global awareness' is explored through outlining notions of citizenship and social justice. Citizenship is discussed in a rather critical light and engaging with pertinent literature only briefly, while social justice is considered more in-depth, developing further Kirkwood's themes of global awareness. Altogether, Nielsen identifies suitable theoretical perspectives that have helped him to analyse and discuss global awareness as experienced by students. Except from a deficient discussion on citizenship, and lack of engagement with some recent theorisation in geography, the presented theoretical framework is sound. Experience, as the second key concept, is divided into 'mastery', 'affect and emotion', and 'negotiation'. The author largely draws on Dewey and, even if partly a bit dense and perhaps difficult to follow, the description of Deweyan pragmatist approach is of good level. The section on affect and emotion brings in some heavy concepts, perhaps unnecessarily, regarding their role in the overall analysis. An alternative and straighter forward route of reasoning would have been to engage a bit more with the concept of experience, also beyond the inspiration from Dewey.

In chapter 5 we get insight into researcher positionality, methods and materials. We particularly appreciate the way in which Nielsen describes his positionality as a researcher *and* a professional curator. Only regarding affect, researcher positionality is not explained, which would have been useful as the idea of affectivity includes that the researcher is importantly part of the studied assemblage and event (as portrayed in article 3). Otherwise, the research design and strategies are adequately presented, as is the use of mixed methods including data gathering and methods of analysis. The overall impression is that Nielsen has mastered his research design and applied methods well and in a solid way.

Part I ends with conclusions and a brief and concise discussion where the author portrays the key arguments that he makes in his thesis. Even if brief, it is a strong line of reasoning, demonstrating the capacity to integrate empirical findings and theorising.

The first paper presented in Part 2 is a book chapter written with Jørgen Klein, titled 'A World at Stake – Global citizenship, justice, and the role of museums'. In all, as the first paper of the dissertation, the chapter is a well written and academically solid. It appears as a critical contribution to interdisciplinary discussions

on global awareness, developing citizenship, and museum as a provider of critical pedagogy. The paper makes use of a selection of pertinent literature, even if not extensively, and is based on the key concepts of global awareness, as introduced in Part 1.

The second paper – ‘Stimulating curiosity for global poverty and inequality – An explorative study of students’ experiences with the exhibition A World at Stake’ – is a journal article in *Nordisk Museologi*, written by Nielsen alone. Here we turn to student’s expressed experiences, yet keeping the museum in focus as a stimulator of curiosity. Conceptually, the paper is grounded in ‘experience’, specifically through mastery. The article is theoretically structured around the concepts of global awareness, curiosity and mastery. It engages with some previous research on science centres and curiosity stimulation, clarifying that the focus on curiosity comes from this field. The discussions are good, and as the journal is not a geographical one, we understand the lacking literature from this discipline. In conclusion, this article is an important part of the thesis as it presents results from the quantitative sub-study, thus showing Nielsen’s competence in mixed-methods research.

The third publication ‘Affect and emotion with ‘A World at Stake’ is a journal article under review and is co-authored with Stuart C. Aitken, whose main contributions have been in the theory section. With the interest in affect and emotion, this paper follows a methodological path different from the other three papers. The article includes three interesting empirical analyses (called ‘tensions’) investigating the specific performances of students in the exhibition, analysing in detail how students get involved in specific situations. However, for the purpose of the present thesis, is a problem that the paper includes too many references, bound to other claims and projects than that of the present thesis. Still, read in the right way, the article does in fact provide insight into sub-question 3 about ‘in what ways the exhibition affects student’s understanding of “poor others”’ (Part 1, p. 8.).

The last paper, ‘Producing global awareness? A visual analysis of young students’ negotiations of images in a museum exhibition’, is a journal article in review, co-authored with Gunhild Setten and Jørgen Klein. We see this publication as a higher-level continuation of the first paper focusing on how global awareness was portrayed at the museum, and how the students interpreted the exhibition and co-created ideas about global awareness alone and collectively, in connection with the museum. This time, the focus is on the images, and methods of visual analysis are properly used. Most importantly, it differs from the first paper in actually investigating ‘what is produced at the site of audiencing’ (p. 18). This article portrays important outcomes from the study, and it is well balanced between the thesis work and scholarly collaboration. It is very well written, concentrating in depth with selected materials, reaching paradoxical points in a very much to-the-point style.

Together, the four papers deploy a clear development of a researcher. The thesis concludes by stating that the exhibition to some degree contributes to develop students’ sense of global awareness. He further suggests that, by offering experiences of mastery and a high degree of participation in an unusual concept, the exhibition enabled young students to see themselves and significantly relate to the challenges represented by global poverty, like access to clean water, education, health and security. Conclusions also includes practical suggestions, based on his findings, as well as explicates and assesses how the research contributes to the targeted research fields.

To conclude, Sigurd Solhaug Nielsen has authored a very well written and comprehensive PhD thesis. It is carefully composed and exceptionally well written. Based on its detailed empirical investigations and discussions of pertinent literature, it contributes with original findings on a high international level into the combined field of geography and museums studies.

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