

## Capturing Situational Interest in the Past. The Salience of Children's Experiences in Open-Air Museums

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*Open-air museums are immersive learning environments disseminating ideas about the lifestyle and material culture of pre-modern times. Considering their significance and prevalence in Northern and Eastern Europe, little is known about how contemporary children perceive these cultural heritage spaces. This study scrutinizes how primary school pupils from Sweden and Belarus encountered visits to Skansen (Sweden) and the Belarusian State Museum of Folk Architecture and Rural Lifestyle (Belarus) and expressed experiences about their visits in drawings and in follow-up interpretations. To record the patterns in children's experiences, a mixed method was employed, including participant observation, thematic visual analysis of drawings and verbal analysis of interpretations. The findings demonstrate that despite the programmed itinerary of the guided tour, the institutional setting of the open-air museums determine a context-specific situational interest, which facilitates exhibit-, nature-, and socially-determined memorable experiences of the open-air museums. The paper contributes to the conceptualisation of children in museum research beyond the learning trope, emphasising the importance of physical settings of cultural heritage sites and situational interest in co-creation of meaningful experiences of the museum visit. [1]*

**Keywords:** open-air museums, children, situational interest, experiences, visual ethnography

## INTRODUCTION

Open-air museums constitute a museological genre that focuses on the exhibition of architectural heritage and ethnographic collections of pre-industrial times, embedded in vast natural landscapes and brought to life by interpretations and storytelling (Young 2006; Rentzhog 2007). These museums display a *tableau vivant* of a disappeared order, and offer a tactile experience of history in the pre-industrial era, where: “[...]authentic three-dimensional rudiments of the past create an atmosphere of standing in the middle of the ‘history’ ... By combining the visual impression and sounds, smell and the possibility to ‘touch the past’, the visitors through the use of all senses create images” (Zipsane 2009, 175). The incorporation of vast natural landscapes with flora and fauna in display blurs the traditional museological agenda, extending the diversity of visiting scenarios and promoting ethnographic open-air museums as child-friendly destinations.

In museum studies, children have been commonly conceptualised through the pedagogical rhetoric (Falk & Dierking 2000; Hooper-Greenhill & Moussouri 2000; Hein 2002; Piscitelli & Penfold 2015), promoting learning as the primary outcome of the museum visit. In the review of research concerning children in museum, Andre, Durksen and Volman (2017) conclude, that over the last decade the corpus of academic literature explicitly addresses educational agendas and the efficiency of curatorial activities to facilitate children's knowledge, neglecting the social and recreational benefits of the museum visit. In addition, most of the existing visitor studies have been predominantly conducted in science centers, history and natural history museums, and art museums (Anderson et al. 2002; Piscitelli & Penfold 2015; Andre, Durksen & Volman 2017, 53). Against the background of these trends, there is a need for further investigation on diverse museological environments and new methodological approaches to children as active participants and co-creators of the meaningful experience.

With this goal in mind, the paper adopts Birch's (2018) approach to children's conceptualisations in museum contexts, “[...] emphasising sensory and bodily encounters with space of museum and matter, moving away from prescriptions of written texts and educational encounters [...]” (Birch 2018, 517). It investigates the saliency and origin of the memorable experiences during the school visit to open-air museums in Belarus and Sweden. The study follows the principles of phenomenological approach, implying that experiences in museums are transacted through encounters with materiality of spaces (Falk & Dierking 2000; Wood & Latham 2011). As Hidi and Ainley (2009, 77) claim: “Whereas the potential for interest resides in the person, the content and the environment may determine the direction of interest and contribute to its development”. Therefore, investigating the effects of the museum's environment as antecedents of situational interest, that impacts the nature of memorable and meaningful experiences is important.

The article focuses on the following research questions: How salient are the children's memorable experiences from the open-air museum? What are the dimensional sources of situational interest in the context of open-air museum settings? How do the specific variables of situational interest facilitate memorable experiences? The hypothesis is that the institutional setting of an open-air museum determines the variables of situational interest, which is a strong predictor of memorable experiences. The insights into

children's experiences of the cultural heritage sites and sources of arousal of situational interest presented in this paper contribute to the advancement of meaningful museum programmes. For both schoolteachers and museum educators it is highly relevant to understand children's experiences of interactive guided tours, in order to be able to enhance the cultural, educational and recreational impact of the visit.

I begin by reviewing the existing literature on museum visitor experience and situational interest as important facilitators of a memorable recall. This is followed by outlining the research design; introducing visual ethnography as a relevant approach to promote active participation and grasp children's perceptions on open-air museums. The data consists of a corpus of children's drawings after a visit to Skansen (Sweden) and the Belarusian State Museum of Folk Architecture and Rural Lifestyle (Belarus). Moreover, the results of the visual data analysis are supplemented by follow-up talks [2] conducted in school on the next day after the museum visit and developed around the drawings to investigate the triggers of memorable experience. Finally, I reflect on the findings, focusing on the sources of situational interest derived from the museum setting and memorable experiences of the guided school visits.

## CONCEPTS AND EMPIRICAL CONTEXT

The research literature suggests that the visitor experience has proven to be a difficult construct to define and measure (Birch 2018; Roppola 2014). Packer and Ballantyne (2016, 137) define the visitor experience as “[...]an individual's personal and subjective response to an activity, setting, or event outside of their usual environment [...]”. Visitors act as active narrators, interpreters and co-constructors of their impressions and meaningful interactions with and within the museum space. Falk (2013, 111) claims that “[...] museum visitor experience is much too ephemeral and dynamic; it is a uniquely constructed relationship that occurs each time a person visits a museum”. Hence, in this study visitor experience will be explored based on participant observation conducted with the children in the museums, and the discussions of their memorable recollections from the guided visits.

Interest is considered an important element in the anatomy of memorable experience, as it is associated with the creation of expectations, value, and meaning, and with the facilitation of learning and engagement (Hidi & Renninger 2006; Mathisen 2012). Many approaches to interest distinguish between individual and situational interest (Schiefele 1991; Schraw & Lehman 2001). While personal interest is viewed as evolving along with previous knowledge and value system, it is difficult to alter (Hidi & Anderson 1992); situational interest, on the contrary, facilitates immediate affective reaction in the particular context (Reeve 1996; Krapp 2007; Vainikainen, Salmi & Thuneberg 2015), that could be designed and orchestrated by the museum curators. Moreover, Dohn (2011, 2013) identifies the following sources of situational interest generation at science centres: active involvement (hands-on activities), novelty, surprise, knowledge acquisition (through activities or provision of information), and social involvement (opportunities for socialisation). This paper will contribute to the knowledge about visitor experience and sources of situational interest as its antecedents in the particular context of open-air museums.

The study is a part of ongoing doctoral research project at Vilnius University, in which a large, multi-faceted investigation of mediation and diversity of visitor experiences was undertaken at open-air museums in Belarus, Lithuania, and Sweden. Skansen (Stockholm) and the Belarusian State Museum of Folk Architecture and Rural Lifestyle (Azyartso, Minsk region) were chosen as the case studies for this paper, as the assessment data for the Lithuanian case was not yet available at the time of writing. The study in Skansen was conducted in March 2017, while the research in the Belarusian State Museum of Folk Architecture and Rural Lifestyle took part in May 2017. Approximately four hours was spent doing participant observation of children during and after the educational tours.

The rationale for the selection of the museums was the similarity of the museums' institutional context and the genre of the museum visit – a guided school visit. From the museological perspective, both sites demonstrate tangible and intangible cultural heritage of the past through the wooden vernacular architecture and ethnographic collections, providing a time travel effect. They recreate a living image of folk culture, combining the natural landscape (geology, soil, biota), vernacular architecture and interiors, and ethnographic objects, which are revitalized by “[...] colors (from live sky to folk costumes), smell (smell of smoke in the live house, etc.), sounds (from bell-ringing [to] sounds of nature, [such as sounds of] birds, animals, etc.), live nature management processes and patterns of behaviour (working professionals, [such] as smith, miller)[...]” (Krstović 2017, 177). Thus, both open-air museums constitute a similar physical context (reconstructed full-sized buildings incorporated into natural landscapes) for children's mediation with the reconstructed past. The research was conducted with the children participating in interactive educational programmes as part of the school curricula.

### **Skansen and the educational guided tour “Children in Town”**

Skansen (Stockholm, Sweden), the world's first open-air museum, was founded in 1891 on the island of *Djurgården* in Stockholm. It displays relocated wooden buildings to show the different social conditions under which people lived in various parts of Sweden from the 16<sup>th</sup> until the first half of the 20<sup>th</sup> century. In addition to examples of vernacular architecture and ethnographic collections, Skansen houses an open-air zoo with Scandinavian animals, an indoor children's zoo. [3]

For the purpose of this study, the observation concerned an interactive guided tour “Children in Town”, which highlights childhood at the beginning of the 19<sup>th</sup> century and shows the daily life of working- and middle-classes. During the 90-minute tour, children are introduced to life in Stockholm in the past, familiarised with the materiality of the lifestyle, and encouraged to reflect upon the differences between children's lifestyles in past and present. [4]

### **Belarusian State Museum of Folk Architecture and Rural Lifestyle and the interactive programme “Wheat Spikelet”**

Belarusian State Museum of Folk Architecture and Rural Lifestyle (BSMFARL) is an open-air museum opened in 1977 in Aziartso village, located four kilometres from

Minsk (Belarus). The exhibit includes 40 examples of Belarusian vernacular architecture of the late 18<sup>th</sup>–early 20<sup>th</sup> centuries. The majority of the buildings have original or reconstructed interiors to reflect the rural lifestyle of the lower classes. [5]

The interactive programme “Wheat Spikelet” offers an imaginary journey to a reconstructed village of the early 20<sup>th</sup> century. The theme of the 90-minute tour centres on bread as a symbol of life, with visitors participating in the bread production process from seed to loaf. The itinerary includes visits to farmsteads, windmills, barns, and other buildings. The narrative of the tour is rooted in Belarusian mythology, telling the story of the adventures of a character called the House Spirit. [6]

## METHODS AND MATERIAL

The material was collected using a mixed-method approach (Creswell and Plano 2011), including participant observation, visual ethnography (Rose 2012), and the children's follow-up interpretations. Participants were recruited through museum educators as the gatekeepers of the visitor flow. Prior to the commencement of the project, I received official institutional permission from the administrations of the museums to conduct ethnographic research. Furthermore, teachers from both schools were informed about the research activities and expressed their consent via email. The children's right to withdraw from the study at any stage was articulated in the consent form, which was distributed to and signed by their guardians. Prior to any activity, children were instructed about the goals, tasks and contribution to the research. To ensure confidentiality, all participants have been given fictitious names. To maintain and support open access to research data, the material from this study is stored at the National Open Access Research Data Archive (MIDAS) at Vilnius University.

The mixed-method approach adopted determines the design of the study, which includes three successive phases generating different forms of visual and verbal data. In the first phase, the ethnographic observation was conducted as participant observation *in-situ* (Hammersley & Atkinson 1995). The field notes from the observation provide the structure of the guided tours and children's immediate reactions to different scenes and happenings during the visit (Rose 2012). The following criteria guided the selection of the respondents: first, in order to avoid the noise of the previous visits and former associations with the cultural heritage site, all of the children were participating the interactive programmes for the first time; second, the visit was arranged by the schoolteachers as an extra-curricular activity and connected with history lessons defining the thematic scope and social context of the visit; third, the participants met similar socio-demographic requirements as they belonged to the same age group, lived in large urban centres (Minsk and Stockholm), and had limited knowledge about the lifestyle in the countryside.

Table 1 outlines the research design and characteristics of the participants and collected data. A total of 53 schoolchildren, 5–7 years old, 21 from Stockholm (Sweden) and 32 from Minsk (Belarus), attended educational programmes at the museums. There were altogether 25 boys and 28 girls. During the initial survey, eight children from Stockholm reported previous unguided family visits to Skansen and the zoo. However,

since it was their first educational guided visit to Skansen with the focus on cultural heritage, they were also included in the research sample.

**Table 1.** Research design and sample characteristics. Source: Author.

Attribute	Description	Belarusian State Museum of Folk Architecture and Rural Lifestyle (Belarus)	Skansen (Sweden)
<b>STAGE 1: Participant observation, N = 53</b>		<b>N = 32</b>	<b>N = 21</b>
Age	5	0	5
	6	22	14
	7	10	2
Gender	Male	14	11
	Female	18	10
Previous visit	First time	32	13
	Repeat	0	8
<b>STAGE 2: Visual material, N = 47</b>		<b>N = 30</b>	<b>N = 17</b>
Response rate, 89%		94%	81%
<b>STAGE 3: Verbal material, N = 47</b>		<b>N = 30</b>	<b>N = 17</b>
Response rate, 100%		100%	100%

In the second stage (Table 1, stage 2), the children were invited to draw a picture of memorable experiences associated with their visit. For this stage, I applied the participatory method of visual ethnography to empower the children as interlocutors (Pink 2013) and engage them in a meaningful way. Driessnack (2006) argues that the act of drawing shifts the focus away from the adult researcher and provides a child-centred way for children to express their experiences (Horstman et al. 2008, 1002). To facilitate the unique personal responses and eliminate the impact of group dynamics on visual material production (Stewart & Shamdasani 2014), the children were asked to make the drawings at home and bring them to school the next day. Because the children's participation in the research was voluntary, 47 drawings (17 from Sweden and 30 from Belarus) was received from 53 initial participants, generating a 89% response rate (Table 1, stage 2).

In the third stage, I invited the children to provide interpretations of and comments on their drawings in order to enhance the validity of the visual material (Rose 2012). The discussions took place in a familiar environment – on the school premises with the teacher present. As is shown in Table 1 (section 3), 47 participants provided interpretations of their drawings. Thus, the general sample decreased from 53 participants observed during the field trips to the museums to 47 who expressed a desire to participate in the research and provided both visual and verbal data for the analysis.

The material was collected in the Russian and Swedish languages, recorded, transcribed verbatim by the researcher, and translated into English.

## DATA ANALYSIS

Following the logic of deductive analysis, the study comprises of two phases and operates on visual and verbal data collected during the second and third stages of the research. In the first phase, the tentative themes of the children's experiences inherent in the drawings were established based on thematic qualitative analysis following Kuhn (2003) and Kisovar-Ivanda (2014), who specify the categories of people, space, objects, text, symbolic elements and social interactions. In the second phase, transcripts of the interpretations and comments associated with the drawings were structured by open coding. The coding was performed in two steps. An initial coding was done to identify passages concerning the themes of memorable experiences that emerged from the visual analysis. The second step was determined by the factors of situational interest previously discussed in museum research by Dohn (2011, 2013; see page 11). The focus of the following analysis is consequently on the institutional context of the open-air museum as the particular milieu for the development of situational interest as a positive predictor of memorable experiences.

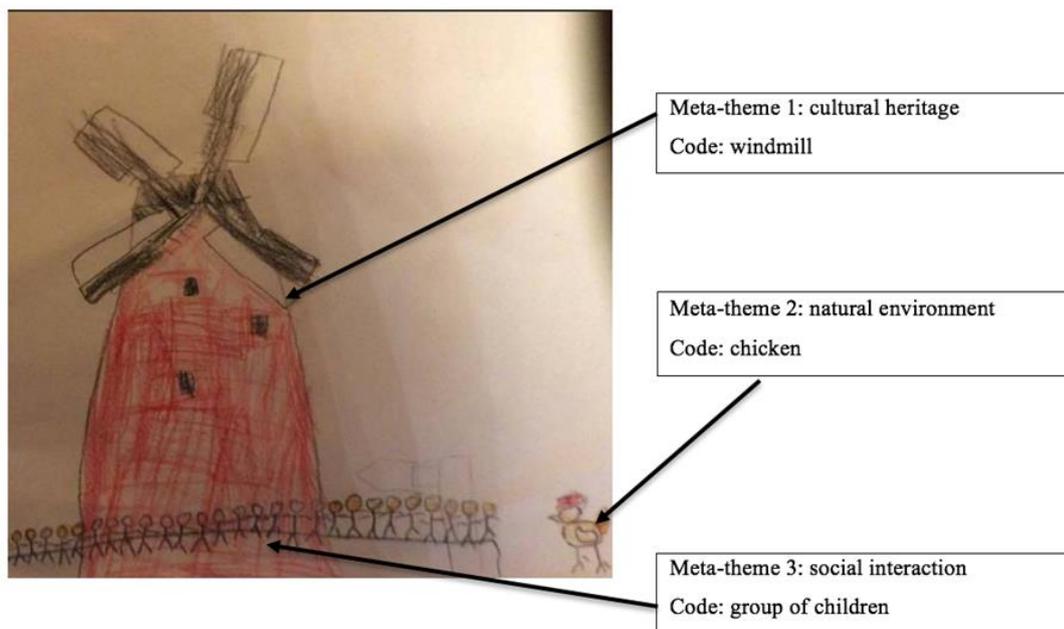
The example of coding process is presented in Figure 1:

*Author: Could you please explain your drawing to me [Figure 4]? What is that?*

*Niclas (interview 6, Stockholm): This is our group, playing [Meta-theme 3: ENTERTAINMENT] near the red windmill. It's incredibly huge [Meta-theme 1: MATERIALITY/ PHYSICAL ATTRIBUTES]! It got my attention.*

*Author: Why?*

*Niclas (interview 6, Stockholm): Because it's big and red, and wooden... Chickens live there [Meta-theme 2: LIVE ANIMALS]. I liked it!*



**Figure 1.** Example children interpretation (verbal data) of drawing (visual data) and related coding.

This approach to coding made it possible to enhance the validity of the results by discussing a wider set of sub-codes associated with the variables of situational interest that were expressed in the children's interpretations. Drawings and texts were analysed using Atlas.ti, as well as being carefully and repeatedly examined to identify relevant features and codes.

## FINDINGS

The visual thematic analysis of 47 drawings and interviews generated three broad meta-themes: cultural heritage objects (exhibit-determined experiences), natural environment (nature-determined experiences), and socially determined experiences. These were subsequently divided into 14 codes. The revealed meta-themes were determined by the institutional context of the open-air museum and the attributes of the visit. Of the 47 drawings produced, 43 depict cultural heritage objects and 26 the natural environment, while only 18 depict participants and their activities during the visit (Table 2). The codes represent the visual elements of the architectural and ethnographic objects, people, flora, fauna, meteorological phenomena, entertainment, natural landscape, self, group, "the others", etc.

**Table 2.** Meta-themes, codes, sub-codes, and frequency. Source: Author.

Visual analysis, C = 47		Verbal analysis, S = 47	
Code	Frequency	Sub-code (The definition is in the Appendix, Table 3.)	Frequency
<b>Cultural heritage (43)</b>			
Windmill	23	Materiality/physical attributes	35
Church	15	Novelty	30
House	13	Contrast	33
Stove	18	Hands-on interaction	25
Newspaper	10	Knowledge acquisition	10
Stile	5		
<b>Natural environment (26)</b>			
Bird (chicken, stork)	8	Live animals	26
Trees and plants	17	Surprise	20
Meteorological phenomena (sun, rain)	22	Interaction with flora and fauna	16
Butterfly	3		
Natural landscape	12		
<b>Social interactions (18)</b>			
Group of children	10	Social involvement	15
People or characters from the past	12	Programme scenario	12
Guide/teacher	5	Entertainment	22

The data from the verbal analysis of the follow-up interpretations add relevant details about the meta-themes of memorable experiences and exemplify 11 sub-codes, which serve as anchor points for situational interest. Table 2 displays the information about the foci of meta-themes that determine memorable experiences and the codes and sub-codes that serve as the determinants of situational interest variables, and the frequency of their appearance. Table 2 sums up the final list of meta-themes and sub-codes, and the frequency of their appearance in the collected visual and verbal data. Overall, the findings support previous research by Dohn (2013) claiming that strong interest is stimulated when several variables are in play simultaneously.

## The salience of exhibit-determined experiences

In relation to the exhibit-determined experiences, the analysis reveals that memorable recall is fostered by combinations of the following variables that trigger situational interest: materiality and physical attributes of the cultural heritage objects, novelty, contrast or surprise (cognitive personal domain), and hands-on interaction and knowledge acquisition (Table 2). The findings from the visual thematic analysis suggest that windmill is the most frequently occurring object in the drawing sample ( $C = 23$ ), serving as an iconic artefact of the visits with a strong impact on the memorable recall (Figure 2 and Figure 3). Children recall that windmills, due to their shape and size, facilitate memories. They describe the windmills as “big”, “beautiful”, “impressive”, “wooden” constructions with “huge wings”. Respondents express astonishment over unknown physical attributes of the cultural heritage objects:

*Olga (interview 22, Minsk): I was impressed by the beautiful wooden windmill during the visit...*

*Author: Why? Please, explain.*

*Olga (interview 22, Minsk): It's very big, with huge wings. I've never seen it before.*



**Figure 2.** Drawing # 2 from BSMFARL.



**Figure 3.** Drawing #7 from Skansen.

In this case, emotional recall derives from the specific novel attributes of constructions (shape and size), which are uncommon in contemporary settings. This demonstrates that physical attributes of exhibits in combination with novelty facilitate strong

situational interest and curiosity within the domain of culturally determined experience (Table 2: materiality,  $S = 35$ ; novelty,  $S = 33$ ). This confirms earlier research by Anderson, Piscitelli, Weier, Everett, and Tayler (2002) claiming that children commonly remember and recall the life-size or large-scale exhibits in diverse museum settings. Furthermore, the life-size examples of vernacular architecture and ethnographic collections displayed *in situ* with reconstructed interiors create the familiarity of living environments and provide maximal immersive context (Young 2006).

In addition, the detailed analysis of the structure and thematic focus of the programmes reveals that the most popular large-scale, three-dimensional architectural objects (for example, a windmill,  $N = 23$ ; or a church,  $N = 15$ ) were only implicitly addressed or even omitted from the itineraries. For instance, in Belarus, children pass by the windmill on the way to another object during the interactive programme “Wheat Spikelet”. In Skansen, the windmill is not included in the educational programme as a place to visit, but children paid attention to it while playing on the nearby playground. For example, the following interview excerpt and drawing from Niclas demonstrate that the peculiarities of the unknown three-dimensional, architectural cultural heritage object captured the children's attention and triggered fascination:



**Figure 4.** Drawing # 6 from Skansen.

*Author: Could you please explain your drawing to me [Figure 4]? What is that?*

*Niclas (interview 6, Stockholm): This is our group, playing near the red windmill. It's incredibly huge! It got my attention.*

*Author: Why?*

*Niclas (interview 6, Stockholm): Because it's big and red, and wooden... Chickens live there. I liked it!*

Another important variable of situational interest is hands-on engagement with cultural heritage objects (Table 2: hands-on,  $S = 25$ ) that are related to the materiality of contemporary socio-cultural contexts, but possess different attributes or features triggering contrast (Table 2: contrast,  $S = 33$ ). For example, during the guided tour at Skansen, children played with replicas of toys from the early 20<sup>th</sup> century, tried on clothes, and made a hat from a newspaper. Likewise, in the Belarusian open-air museum children learned how to use the stove and bake bread. The visual analysis indicates that the newspaper ( $C = 10$ ) and the stove ( $C = 18$ ) are the most frequently appearing ethnographic items.

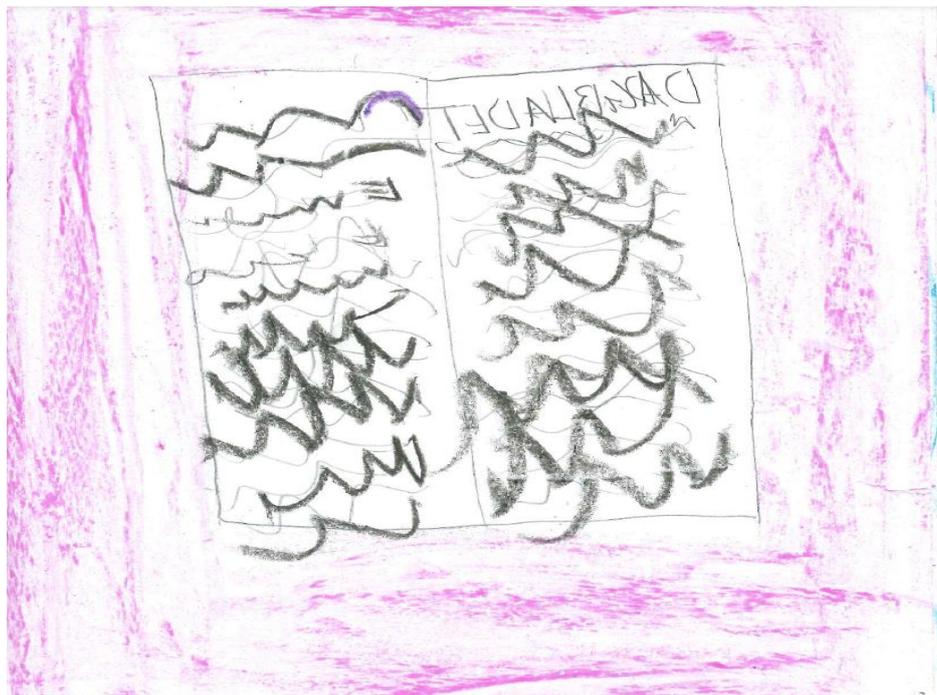
Furthermore, the verbal material emphasizes the importance of children being able to construct meaning and make use of their prior experience in order to acquire knowledge about the exhibits. For example, Helga from Stockholm (Figure 4, interview 4) recalls the visit through her engagement with a newspaper. She highlights her previous familiarity with the item ("my father usually reads this newspaper, we have plenty of them at home"), and at the same time stresses the surprising features ("doesn't have any pictures") that caught her attention and made it memorable. She asserts the importance of hands-on engagement (play) as part of the co-creation of meaningfulness:

*Author: Let's talk about drawing and experiences from Skansen. Please, describe your drawing for me.*

*Helga (interview 4, Stockholm): I drew the newspaper Dagbladet, because I played with a newspaper at the museum. It was fun! My father usually reads this newspaper, so we have plenty of them at home, but this one is different from those we have at home.*

*Author: How is it different?*

*Helga (interview 4, Stockholm): Well... The Dagbladet from the past doesn't have any pictures at all.*



**Figure 5.** Drawing # 4 from Skansen.

Thus, stories, interpretations and re-enactments help children bridge the cognitive gap, facilitating meaning-making and generation of knowledge (Mathisen 2012). Despite the myriad of stories about cultural heritage and historical lifestyles provided during the guided tours, the most memorable experiences are derived from objects that are familiar to the child, but include elements of contrast or difference that resonate with the child's general perception of the object (for example, the newspaper *Dagbladet* or the stove) and provoke cognitive dissonance. I therefore wish to emphasize that the element of contrast triggers situational interest in the cultural heritage objects and in phenomena that are meaningfully incorporated into the existing cognitive framework.

In addition, Daria (interview 27, Figure 6) and Karina (interview 35, Figure 9) explain their reasons for depicting a stile (for keeping cattle in the yard) as a core part of the visiting experience to the Belarusian State Museum of Folk Architecture and Rural Lifestyle in terms of meaningful engagement and knowledge acquisition (Table 2: knowledge acquisition, S = 10) about the object:



**Figure 6.** Drawing #27 from BSMFARL.

*Author: Please, tell me about your drawing. What is it?*

*Daria (interview 27, Minsk): It's a stile next to the house. I climbed over the stile with other children... and it was such a fun! The guide told us that it was used to keep domestic animals close to the house. Besides, it has magic power and will make my dream come true, because I climbed over it.*

This episode supports previous findings of Anderson et al. (2002) emphasizing the role of physical interactions and cultural mediation in bridging the gap between past and present. In spite of the myriad of stories, ideas and concepts that are communicated during the interactive programmes, the analysis reveals that situational interest can be shaped either through the contextualization of the artefacts by means of haptic interaction, or through the specific surprising attributes (size, shape, materials) of the exhibits that stimulate situational interest and co-create meaningful exhibit-determined experiences.

The results demonstrate that children expressed their curiosity and fascination about the size and shape of the windmill, which served in many drawings as an iconic representation of their museum experience. However, I argue that materiality of an exhibit in itself is not always sufficient to capture interest, and should be enhanced by highlighting other factors, e.g., novelty, variety or contrast. This is in line with previous

research about situational interest by Dohn (2009, 2013), and Vainikainen et al. (2015), indicating that hands-on interaction, social involvement, novelty, and knowledge acquisition are the main variables of situational interest generation in the context of out-of-school environments.

### The salience of nature-determined experiences

The second sub-theme of memorable experiences is derived from the natural environment of the museums. The visual analysis indicates that 26 (55%) documents depict living animals, plants or meteorological phenomena. The detailed visual analysis of these 26 drawings suggests the following thematic categorization of the elements: birds (storks and chickens) appear eight times, trees 17 times, butterflies three times, and meteorological phenomena (sun, rain) 22 times. The majority of the drawings (30 documents) include both cultural and natural components, while four drawings (Figure 7) exclusively portray natural environments, omitting the cultural heritage objects. The verbal data demonstrate that surprise ( $S = 20$ ), real live animals and birds ( $S = 26$ ), and interactions with flora and fauna ( $S = 16$ ) are the main factors in nature-determined experiences, as shown in Table 2.

In the interviews, children commonly expressed their fascination about unexpectedly encountering (surprise,  $S = 20$ ) live birds and animals in their natural habitat on the site of the museum:

*Author: What is your highlight from the visit? What is on the drawing [Figure 7]?*

*Ivan (interview 29, Minsk): I saw storks walking on the field and hunting for frogs. I've never seen storks in real life. I know them from books.*



**Figure 7.** Drawing #29 from BSMFARL.

This finding points to a previous study by Scheersoi (2015) proposing that children readily identify and interact with animals in their natural habitat within museum environments, due to the ability to identify animals and plants they have acquired from toys, books, pictures, and popular media. Similar comments were reported from Skansen, where children encountered chickens for the first time. For example, Niclas (Figure 4, interview 6) expresses a feeling of surprise due to the unexpected situation of encountering chickens at the museum. This exemplifies how cognitive disequilibrium, enhanced by interactions with live animals during the visit, produces immediate cognitive connection and strong situational interest, promoting the benefits of playing, socializing with peers and engaging with heritage outdoors. In addition, 16 interviews mention interaction with live animals in the museum context as being a source of situational interest.

The incorporation of natural environments into the open-air museums promotes a more wide-angle gaze on the open-air museum, with children drawing panoramic views where the cultural heritage objects are embedded in the vast natural landscape (Table 2, Natural landscape: C = 12) as shown in Figure 8:

*Author: Tell me about your memorable experiences from the museum. What is on the picture?*

*Darina (interview 33, Minsk): It was a nice summer day. We spent the whole day outside in the open air.*

*Author: What is on the picture?*

*Darina (interview 33, Minsk): I drew the landscape, beautiful forest, meadows, blue sky and a windmill. The museum is huge; it's full of greenery and colours.*



**Figure 8.** Drawing # 33 BSMFARL.

Because the visit to Skansen was conducted on a cold day in early March 2017, the children spent most of their time inside the buildings. Thus, their drawings mostly depict the interiors of houses (10 drawings) and/or ethnographic objects (7 drawings). In contrast, the children from Belarus visited the open-air museum on a warm, sunny day in May 2017. The observation showed that this group spent most of the time outside, which resulted in 25 drawings depicting a wide-angle view of cultural objects embedded in the vast natural landscape, and only five drawings with a focused gaze on the particular exhibits.

As the thematic scope of the educational programmes “Children in Town” and “Wheat Spikelet” primarily focused on cultural heritage and knowledge dissemination about the past, the children’s interaction with the natural environment and live animals often happened during non-structured parts of the visit. Hence, it is noteworthy that children repeatedly expressed their fascination and desire to engage with chickens, horses, storks and frogs. This exemplifies the previous findings by Dohn, Madsen & Malte (2009) that animal encounters generate an immediate sense of connection and strong emotional feedback, resulting in a memorable experience. In this study, participants from Belarus support this statement when sharing their experience of observing a real stork in its natural habitat for the first time. Therefore, the development of memorable nature-

determined experiences is associated with live animals and is facilitated by surprise and cognitive disequilibrium between expectations and onsite encounters. Since children do not associate the outdoor activities with a traditional indoor museum visit, the interviews demonstrate the importance of interactions with nature as a meaningful component of the open-air museum visit.

### **The salience of socially determined experiences**

The third sub-theme of the children's memorable experiences derives from social interactions that took place during the visit. The thematic visual analysis finds depictions of a group 10 times; children socialising with fictional characters (e.g., the House Spirit) 12 times, and teachers and guides five times. The verbal analysis reveals three main types of situational interest triggers: social interaction (S = 15), the programme scenario (S = 12), and entertainment (S = 22) (Table 2).

The majority of the drawings of the third sub-theme (10 out of 18) contain imagery that resembles the activities and social interactions that were enacted during the visit and were structured according to the scenario of the educational programme. For example, Karina shares her experiences of the visit as follows (interview 35, Figure 9):

*Author: Let's talk about your visit to the museum and the drawing [Figure 9] that reflects your visit.*

*Karina (interview 35, Minsk): I divided the picture into four sections to show the most enjoyable and memorable moments of the visit. The first section shows me climbing over the stile. It was interesting to find out that in the past it was used to keep the domestic animals enclosed in the yard. In the second section, I draw our group playing games outdoors [play, entertainment] together with the cute House Spirit, who had baked bread together with us earlier. The third part shows me and O.P. [a teacher]. And on the last one you can see souvenirs [entertainment].*

*Author: What was the most memorable and interesting activity during the visit?*

*Karina (interview 35, Minsk): Uh... I liked playing games out-of-doors and buying souvenirs. I bought a cute dog for my mum and an ice-cream for myself.*



**Figure 9.** Drawing #35 from BSMFARL.

The data from the discussion confirms the clear division of the museum experience into parts relating to the sequential flow of the visit. In the above transcript and drawing, it is evident that the complexity of the programme scenario leads to a fragmentation of the child's experience, and that the best recalled activities involve socializing and entertainment tapping into familiar socio-cultural aspects of daily life (for example, buying souvenirs) that are easily retrieved from memory. Moreover, Karina's example demonstrates the importance of personal interest: the dogs and ice creams have been drawn with an impressive level of detail (Figure 9). This observation corresponds to previous research by Birch (2018) and Piscitelli & Penfold (2015), who state that children often recall the experiences of a visit in accordance with the flow and scenario of the visit, highlighting the importance of personal interest. It is through the recognition and performance of familiar practices from modern daily life (e.g., shopping or cooking), which are replicated in the reconstructed context of open-air museums (e.g., by baking bread), that children most readily memorise and make meaning of the cultural heritage. The verbal analysis shows the act of buying souvenirs – as entertainment – repeatedly appearing in the sample from the Belarusian State Museum of Folk Architecture and Rural Lifestyle. Considering the resemblance between the structure of the visit and the visual data, the sample includes nine (20%) drawings made by the participants from Belarus recalling the act of buying souvenirs as an important part of the museum's visiting agenda, although this part was after the guided tour. Similarly, in the case of Skansen, the children recall the outdoor play and group interactions (as mentioned by Niclas in interview 6, figure 3).

The findings from Skansen demonstrate that the children repeatedly draw and recollect the characters who were portrayed during the guided tour. The analysis of the drawings as well as the subsequent verbal interpretations show that children depict the childhood and lifestyle of the past through third-person interpretation, describing “the others” – protagonists from the past. Figure 10 demonstrates the poor historical living conditions, with an entire family sleeping in a single bed.

*Author: What was the most memorable experience of the visit to Skansen? What is displayed in the drawing [Figure 10]?*

*Jan (interview 11, Stockholm): I made a drawing about life in the past. Due to the lack of space, the people sleep together on the couch.*



**Figure 10.** Drawing #11 from Skansen.

Although hands-on interaction has been recognized as an important mean of enhancing students' interest and motivation in learning environments, the findings of Dohn et al. (2009) and Holstermann, Grube & Bögeholz (2010) have shown that even if students enjoy interaction with objects during informal learning sessions, interest and memorable experiences are not fostered if there is a lack of relevance. For example, the children from Belarus recollect the act of climbing over the stile as a core memorable

experience of the visit because it involves physical interaction, provides meaning, new information and knowledge, and stimulates relevance.

It is generally recognized that social involvement is an important source of interest (Dohn 2011, 2013, Isaac, Sansone & Smith 1999). According to Krapp (2007), people have a basic need for social contact, which is why interpersonal involvement can trigger interest. In this study, group activities and entertainment (e.g., baking bread, playing with the House Spirit) trigger interest and memorable recall. Group dynamics provide a form of social stimulation by encouraging children to collaborate and co-create ideas about new facts, ideas and gain new knowledge in a meaningful and entertaining way.

## CONCLUSIONS AND FURTHER IMPLICATIONS

The purpose of the present study was to investigate the salience of memorable experiences from open-air museums and to identify the sources that stimulate situational interest as antecedents of memorable experiences. Nearly 50 primary-school pupils from Sweden and Belarus participated in educational programmes at Skansen and the Belarusian State Museum of Folk Architecture and Rural Lifestyle, and expressed their memorable experiences in drawings and verbal interpretations. Despite the guided scenario of the visits, the study reveals that three-dimensional wooden vernacular architecture incorporated in a vast natural premise, and children's interactions with the peers and the immersive environment constitute the factors of situational interest that serve as triggers of memorable experiences.

The analysis of the children's drawings outlines particularly salient findings that contribute to the understanding of children's emotional responses to objects, settings and spaces in the context of open-air museums. The exhibit-determined experiences are associated with encounters with architectural objects and ethnographic cultural heritage. Children recall the exhibits that trigger sensory and haptic engagement and resonate with their aesthetic, cognitive and affective frameworks, as well as incorporate the elements of contrast, novelty and physical engagement. The incorporation of natural environments and live animals revitalizes the reconstructed cultural settings, prompting immediate positive emotional recall of the nature-determined experiences. Although the ecological and environmental themes are excluded from the thematic focus of the analysed guided tours, children emphasize the value and relevance of interaction with flora and fauna, outdoor play and recreation as key factors of meaningful experiences. Thus, ethnographic open-air museum should broaden the thematic scope of the guided tours from cultural heritage to environmental issues, including human-nature encounters *in situ*.

The findings contribute to existing knowledge about the situational interest development in the context of cultural heritage sites. Specifically, the results demonstrate the importance of haptic engagement with immersive cultural heritage settings and real-size objects of vernacular architecture as well as natural environment that facilitate surprise, novelty and memorable recall. These realms can enable museum professionals to better design and orchestrate special programmes and themes that enhance children's understanding of, and meaningful interaction with the past during a visit to an open-air museum.

The study shows that in order to bridge the cognitive gap between past and present, children apply contemporary optics to facilitate entry into the unknown settings and concepts. As the study demonstrates, participants are more likely to develop situational interest in the settings of open-air museums when they can apply familiar behavioural patterns and cognitive frameworks from their usual contemporary environment. Therefore, museums should provide a variety of anchor points enabling children to construct personal attachment and develop situational interest, and emphasize the continuity between past and present. Moreover, to foster memorable recall and interest in the past, the thematic scope and content of guided tours should be relevant for the children, outside of the museum visit.

The findings and conclusions need to be evaluated in the light of the paper's limitations. First, the study is based on a small sample of participants. Further research with more children, carried out in different open-air museums will strengthen the arguments for generalisation of the results. Secondly, more research is needed in different types of museums with diverse institutional context and layout, for example in indoor ethnographic museums, natural history museums, or art galleries. Nevertheless, the findings can offer valuable theoretical insights into how variables of situational interest foster meaningful memorable experiences and capture interest in cultural heritage.

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## Appendix

**Table 3.** Meta-themes and sub-codes definitions.

Code	Definition
<b>Cultural heritage</b>	A combination of material objects (architectural and ethnographic artefacts) and intangible practices (for example, milling the seeds).
Materiality/physical attributes	A material quality or features of an object, including size, shape, materials.
Novelty	A quality of an object being new, original, or unusual.
Contrast	A state of object being strikingly different from the familial and usual context.

Hands-on interaction	An active participation in a direct and practical way, haptic engagement with an object.
Knowledge acquisition	A process of creating new knowledge about an object, relating to prior knowledge.
<b>Natural environment</b>	A combination of natural premises, landscapes, flora and fauna.
Live animals	A living organism that feeds on organic matter, typically having specialized sense organs and nervous system and able to respond rapidly to stimuli.
Surprise	An unexpected or astonishing situation, resulting from the difference in expectations and events.
Interaction with flora and fauna	An active participation in a direct and practical way, haptic engagement with flora and fauna.
<b>Social interactions</b>	A dynamic sequence of social actions between participants, teacher, guide, other visitors.
Social involvement	A socialisation with the peers and museum docents.
Scenario	A structure and itinerary of the visit and social interactions.
Entertainment	An action of providing or being provided with amusement or enjoyment.

## Sources

The interviews with children were conducted on March 23, 2017 in Stockholm and on May 25, 2017 in Minsk. There are altogether 17 interviews from respondents in Skansen and 30 from respondents in Belarusian State Museum of Folk Architecture and Rural Lifestyle. Transcriptions and recordings are in the possession of the author.

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[2] In order to preserve the anonymity of the informants they have been assigned aliases.

[3] *Skansen official website*, [www.skansen.se](http://www.skansen.se) [Accessed October 15, 2018]

[4] Skolvisning Barn i stan på Skansen, *Skansen official website*, <http://www.skansen.se/sv/skolan/barn-i-stan> [Accessed September 10, 2018]

[5] *Belarusian State Museum of Folk Architecture and Rural Lifestyle official website*, [www.etna.by](http://www.etna.by) [Accessed October 19, 2018]

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