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WALKING, CRAWLING AND RUNNING:
Children's physical experiences in museum space

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ABSTRACT

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Childhood is generally seen as a universal stage of life, where the child develops into adulthood. The way children are seen as part of the society and having possibility to participate in creating their environment through active agency effects on their experience of social participation. Instead of seeing children as active agents creating their communities and participating in the creation of society, they are often othered by the people and systems around them. To genuinely create a status of subjectivity children should be acknowledged as capable, and diverse group of participants ready to develop the society around them.

Children are often seen as the outcome of their learning. However, according to literature children's meaning making and understanding relies on experiences where space and movement intertwine. This study aims to shed light on the importance of acknowledging children as users of museum spaces whose experiences are more than the outcome of their learning. To achieve that, this thesis utilizes the APSE framework by Hackett and Procter (2015) and examines children's experiences in "The Quarry Workers Exhibition" at the Vehmaa local arts and crafts museum. This thesis understands childhood as a social construct and focuses on children's participation and children's making meaning in museums.

The data was collected by observing three children aged 3,5 and 7 at the exhibition. The observation was conducted on one afternoon for 1,5 hours. The children were accompanied by their grandmother, a local guide and me, the researcher. With the consent of the parents, the visit was video recorded, and the data analysed according to the APSE framework.

The museum space concentrated on fulfilling the educational purpose of local arts and crafts museum, by providing the option of exploring the museum space through physical experiences. The study shows how children utilize various methods of moving around in order to create meaning and explore the elements of a museum space. They expressed interest in handling objects, making sounds and sharing experiences with others during the visit.

Keywords: museum, space, social participation, construct of childhood, children's agency

The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

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1 INTRODUCTION

Everyone has a recollection of being a child, some of the memories are positive and precious as others might arouse negative feelings. These memories are created through one's experiences. Experiences that are shaped by the environment, culture, space, and time creating a context-specific construction of childhoods. These constructions are bringing forward the ideals and expectations, which are targeted to children and their behaviour. Children's position in the community has been and will always be dependent on the adult's interpretation of their value. Therefore, adults hold a responsibility in creating spaces for children's voices to be heard (Karlsson, 2020).

The Finnish National Core Curriculum for Early Childhood Education and Care (2018) specifies the role of an adult to be supportive and appreciative towards child's initiatives whilst reinforcing children's view of themselves as a confident and important part of their environment. This highlights the importance of the adults' facilitating role in children's participation. In the museum context, adults are responsible of creating spaces for children as well as ensuring accessibility for all. Children's agency, experiences and engagement should be recognized in places assigned for children by adults. (Hackett et al., 2020)

In recent years, museum research has emphasized children's experiences over learning in museum spaces, resulting in an atmosphere which supports children's unique ways of conceptualizing the space surrounding them. The adaptability and accessibility of space form a central concept of the understanding of children as users and creators of space that takes their abilities into consideration. As children utilize various methods of constructing knowledge of place, the central concepts have been recognized as physical experience and sensory entanglements. According to Hackett and colleagues (2020) children's versatile ways of moving together within the space creates an intertwining complexity of meaning making that should be acknowledged when creating space for children. **The research seeks to explore children's sense making**

in museum spaces along these two questions are: How should children be acknowledged as users of museum space at The Quarry Workers Exhibition? And how does “The Quarry Workers Exhibition” appear through APSE framework?

As a future early childhood education teacher, I feel obliged to consider my implicit construct of childhood to become aware of it. I wish to steer away from falling into the monotonous pit of stereotypes. This comprehension played a major role in the selection of the topic of this thesis. This thesis aims to shed light on the importance of acknowledging children as users of museum spaces whose experiences are more than just the outcome of their learning. In addition, the thesis aims to awaken thoughts on how constructs operate in society.

Chapter 2 provides an overview of children and childhood as a part of society, how childhoods are constructed and different perspectives of children’s participation. Chapter 3 defines museums as a place for children and summarizes the basis of children’s knowledge construction and sensory entanglements as part of their experiences. After these, I continue to describe my research methodology and methods and then proceed to data analysis and presenting the research findings. This bachelor’s thesis concludes with a summary of the results as well as presenting ethical considerations.

2 CHILDHOOD AS A SOCIAL CONSTRUCT

2.1 Construction of childhood

The UNCRC (1989) describes childhood as the period from birth to the age of 18. However, it is impossible to define childhood only according to one's age. Childhoods are formulated in the context of the society, community, and the perception of people. As childhood is a part of every person's life course, it should be clear that there is no one description nor expression of its manifestation (UNCRC, 1986; Kehily 2013).

The notion of childhood is constructed in social debates. The environment holds expectations, which are linked to the individuals age, race or social status. Therefore, one should recognize the construction of childhoods being created in a particular setting in a specific time as a reflection of the general view of children and childhoods in the society. (Kehily, 2013). The portrait of childhood is a part of a bigger picture, where culture, time, and place intertwine to create a composition of children. (Kehily, 2013; Karlsson, 2020). However, the artists of these compositions are the adults highlighting the children's subordinate role in the society (Karlsson, 2020).

The understanding of childhood development originates from a particular way of constructing childhood. For long, children's perspectives and experiences have been dismissed and replaced by the memories and reflection of childhoods from the adult point of view (Kehily, 2013). On one hand everyone has an experience of a being a child, but on the other hand the experiences are vastly different and can merely be a personal experience of the manifestation of the life phase called the childhood. However, these experiences form the core of one's personal ideal of childhood, which has an influence on how children and childhoods are viewed in society. This reflects the core of childhood research,

where the researcher must be aware of their own perception of childhood to truly be able to explore the child perspective (Kehily, 2013).

Childhood is not to be taken as a universal stage of life. Seeing children as one unified mass creates an understanding of children as a homogenous crowd with similar interests and abilities. Birch (2018) refers this phenomenon as “over-packaging” children and childhood, where the viewer neglects to realize that there might be something else outside the pre-described definition of these young people (Birch, 2018). When children are seen as possessing active agency and having the possibility to influence their own lives they are no longer seen as a homogenous group with identical views (Karlsson, 2020; Kehily, 2013) This being said, children can be described as rambunctious, noisy, and curious, but it is vital to remember that this is not applicable to all children.

2.2 Children’s social participation

Children are worthy of protection due to their age and development. In addition, they have the right to express their views on matters affecting them. The right to participate, has been ratified through The United Nations Convention on the Rights of the Child (UNCRC) in 196 countries around the world. (UNCRC, 1986) Protection can be considered as physical and mental entities, which ensure the safety of the children and the possibility for social participation in the society.

According to the Finnish National Core Curriculum for Early Childhood Education and Care (2018), social participation and involvement formulate the basis on which children understand themselves as having active agency in society. Social participation is a comprehensive concept, which entails not only participation and democracy, but also involvement, inclusion, and the possibility to influence (Karlsson, 2020). Social participation includes the child’s perception of the situation, by thus emphasising the fact that mere participation does not constitute social participation. (Kangas et al., 2014). Children have a leading role in both planning and creating their environment and society in co-operation with adults, who in turn, should create a context where all children can take part and

have their voice heard. (Finnish National Core Curriculum of Early Childhood Education and Care, 2018).

Social participation requires interactive communication, which relies on the possibility to take part and to have influence. All participants are required to have the possibility to be heard and to take initiative regardless of their attributes, such as their age, race, or skill. Declining to participate can also be seen as an act of participation. Whether the child is offered the opportunity to achieve the states of subjecthood (to be realised as someone), agency, or participation is dependent on the person in charge. The person in charge can either create or obliterate an equal, respectful, and trusted community where social participation manifests. (Karlsson, 2020)

To support social participation, it is crucial to think of methods which provide children the possibility to voice their opinions in their own environment (Pihlanen et al. 2019). When children are viewed as part of the community, they begin to build agency, power, and subjecthood. These attributes are born in context-specific interactions connected to changing relationships with people and matter. When a child is born, they begin to have an impact on their environment at the same time as their environment affects them. Therefore, we are obliged to acknowledge that any situation can display power relations where all actors are involved. For example, an adult in charge of an activity can either empower or discourage a child in that specific situation. Thus, adults are in charge of the creation of spaces for children's voices and places for their actions. (Karlsson, 2020).

The construction of childhood is a product of the society, creating a context-specific product, which reflects values, attitudes, and customs. In the different contexts these "products" are seen possessing different assets and challenges, which have an effect on the position they gain. The position determines the possibility to participate. To create social participation, we need to abandon the pre-described notions of childhood as a passive item and begin to see the potential in embracing children as equals in creating their environment. In the next chapter I will discuss children in museum settings from the point of view of place, knowledge construction, and observing sensory entanglements.

3 CHILDREN IN MUSEUMS

3.1 *Museum as a place for children*

International Council of Museums defines the museum as follows:

“A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment” (International Council of Museums, 2007)

Museums have been established as educational institutions which offer experiences for audiences of all ages but also aim to program exhibitions and activities that specifically address young audiences. (Hackett et al. 2020 p.1) Meghan Ann Lally (2013) summarizes the educational nature of museums and highlights the impact of museum programmes in the early years while cultivating future museumgoers. Jo Birch (2018, p. 517) suggests that one needs to abandon othering children through the ideas of universal child-friendly museum contexts. Hackett and colleagues (2018) summarize the fact that there is no one universal solution for creating a space for children. Instead, museums should be created as places where children and families can explore on their own terms. Jo Birch (2018) agrees with this notion and highlights the fact that as a designer of space, one should try to avoid creating a universal mould for children as experiencers.

When considering children’s experiences in museums, one needs to establish an understanding of the museum as a conceptual place. Karlsson (2020) describes a place as an environment that is constructed socially and through the individual’s emotions, memories, and actions. Thus, the museum as a place could be described as bridging the symbolic and material worlds (Sommerville, 2015). Since young children experience through their senses, more focus is required to discover what happens while children’s bodies enter the

museum building. In museums, objects, emotions, and discourses are combined to form a continuously changing personal meaning to every museumgoer. These unique places convey unique experiences, thus creating unique ways of experiencing. (Hackett et al. 2020)

The Finnish National Core Curriculum of early Childhood Education and Care underlines the importance of acknowledging the agency of children as part of creating and developing the environment they inhabit. Children are urged to investigate their environment and build their knowledge from their own point of view. (Finnish National Core Curriculum of Early Childhood Education and Care, 2018) Children's active involvement in constructing their own lives, spaces and places, and the society they inhabit, should be recognized and validated by adults. Seeing children as equal and worth listening to has already been recognized within the field of anthropology (Kehily, 2013), and other disciplines are encouraged to do the same. encouraging other disciplines to do the same.

When children are acknowledged as users of the space, the design must take into considerations their abilities. Mackley and colleagues (2015) set forth an understanding of children as perceivers, "knowers" and makers of their environment. As adaptability, aesthetics and accessibility are taken into consideration, exhibitors can create spaces that fulfil the recreational, informational, and educational needs of children. (Imhoff, 2011) However, children should be seen as legitimate museum goers as any others, creating their own individual connections to the space in addition to having an impact on the design of the museum (Wallis, 2020). Acoustics, lighting, and comfort play an important role in creating a functional space since architectural features play a key role in shaping children's experiences in museums. (Hackett et al., 2020)

Seeing children as capable of constructing their personal meanings instead of only learning according to predetermined outcomes has been an ongoing concern in childhood studies and early childhood education (Dicks, 2013; Grek, 2009; Hackett et al. 2018; MacRae 2007, MacRae et al. 2018, Yamada-Rice 2018, as cited in Hackett et al. 2020). Chang (2012) found out in her study how instead of teaching children about art, there should be constant urge to excite children in dialogue to create knowledge together with others. Educators tend to teach children about art from their own point of view. However, children should

be encouraged to listen and to represent their feelings, perceptions, and interests to construct their personal meaning based on their interaction. (Chang, 2012).

In the past decades, childhood studies have focused more on children as “beings” rather than “becomings” (Markley, Pink & Morosanu, 2012). Museum research has shifted from emphasising exclusively cognitive learning towards understanding the importance of movement and physical engagement in children’s museum experiences (Dicks, 2013; Grek, 2009; Hackett et al. 2018; MacRae 2007, MacRae et al. 2018, Yamada-Rice 2018, as cited in Hackett et al. 2020). This has resulted in understanding and focusing on the differences in adult’s and children’s meaning making processes through inhabiting places. Especially for children, the possibility for embodied experiences and connections to place play a crucial role in creating understanding (Hackett, 2016).

It is common for children’s words and social interaction to be monitored during museum visits and the place is often thought as a passive background for human-led action (Hackett, MacRae & Holmes, 2020). Karlsson (2020) concurs that no space can be seen as neutral backdrop nor merely a background as it entails cultural and collective views and ideas. Personal meaning is created through multiple ways by acting in the museum. Children and places should be seen as making meaning by intertwining together (Hackett et al., 2020). The diversity of a museum experience relies on the bodily and sensory encounters with the space and matter (Birch, 2018). As Hackett and colleagues (2020) point out, children utilize movement such as jumping, climbing, and running, as they get to know the layout of the place to make meaning.

Children’s possibilities to engage with objects in the museum space from their own point of view plays a crucial role in their meaning-making. Children should be encouraged to explore and become acquainted with the objects without guiding or submerging them in historical facts (Chang, 2012). These encounters with different kinds of objects and spaces create possibilities for children to imagine the world from their own point of view (Hackett et al. 2020) In Lindgren and colleagues’ (2015) research, they found out how children’s past experiences of fictional stories came to life as they met with an actor performing a character in a theme park. They found out that the past and present are in a continuous in flux in creating memories and experiences from the past as adults get to relive

their childhoods through their own children's experiences in the Astrid Lindgren World theme park.

3.2 Children constructing knowledge in museums

Young children are known to utilize multi-modal modes to connect with their surroundings, to observe, learn, and construct knowledge in interaction with the world around them (Laajarinne, 2011; Leftwich & Haywood 2016; Mackley et al., 2015). Children construct their knowledge through perception and sensory skills (Lifschitz-Grant, 2018), which is why Hackett and colleagues (2018) highlighted the central role of touch as part of children's museum experience. Utilizing their body movements, children create a mental picture of the layout of the place. It has been recognized that museum experiences are especially shaped by architectural features (Hackett et al., 2020, pp. 80-82) and adequate time spent in the facilities (Clayton and Shuttleworth, 2018; DeWitt et al. 2018, as cited in Hackett et al., 2020).

According to Hackett (2016) children's understanding and meaning making differs from adults as they connect stronger to their surroundings. Children create meaning in a dynamic process with their surrounding environment. This multisensory engagement creates an experience of place as well as memory (Hackett et al. 2015). Whitty (2020) summarizes young children's experiences in museums to benefit from a diversity of possibilities to move around. To run, walk, crawl, or to be carried around, serve as a way of becoming acquainted with the museum space and has proven to be beneficial while connecting with objects and beginning to make a meaning. To expand their experience, children, combine the unfamiliar to the already known (Whitty, 2020).

Identities are built through past experiences and museums offer multiple possibilities for museumgoers to connect with the lives of past generations and their lives. At the same time, museums should encourage the audience in creating personal interpretations (Kallio, 2007). This way, the museum programmes engage families in learning together through interaction and

connecting to one's individual experiences, thus promoting lifelong relationships between the museum and the visitor (Lifschitz-Grant, 2018).

3.3 Observing children's sensory entanglements

Museums tend to aim to provide learning experiences through visual experiences and detailed facts. However, according to Hackett (2014) children and families use multiple ways to move through the museum environment to construct meaning through sensory experiences (Hackett, 2014). Through movement, each museum space can be experienced in a unique way (Hackett et al., 2020).

As spaces shape the possibilities for movement, we are unable to imagine place without thinking of movement. Movement is of a particular value to children as it always happens in relation to the place. Literature shows how children experience place through sensory experiences, bodily memory, and movement (Hackett et al. 2020). Piaget described how children's knowledge construction develops through exploration and engaging with their environment. Utilizing the senses, mind, and body, the child's involvement can be deepened. (Krakowski, 2012) Lindgren and colleagues (2015) described in their article how a fictive character can come to life for a child when they are able to touch the character or something that belonged to the character. In this way, an imaginary character is brought to life. (Lindgren et al. 2015)

Children utilize various non-verbal modes of communication when constructing their understanding. The importance of paying attention to children's experiences and the fact that their understanding emerges through movements provide a useful tool to think about the conception of space and movement within a museum. Nevertheless, little attention has been paid to, for example, walking as a means of place-making and meaning making. Hackett (2014) focuses her research on young children who walk around in order to know and to make place. She found out that walking and running should be seen as way of children creating meaning (Hackett, 2014).

These modalities of engagement can be observed through Hackett and Procter's APSE framework, which was developed in 2016 to gain analytical insights about museum spaces for young children. This research-based tool was

developed together with Humber Museums as a part of Humber Museums Partners' Under Fives in Museums project. The project focused on identifying the strengths of existing programmes and to develop the engagement of children and their families in museum setting (Hackett et al. 2018). The findings of the research led to creating a tool to reflect and to record observations of the spatial environment while developing the museum sites for under-fives.

This chapter portrayed children's meaning making as a multimodal process, which entails different aspects like moving around and touching. In the museum context children should be seen as more than learners and to emphasize their experiences, which are created in interaction with the space. This bachelor's thesis will utilize the APSE framework to observe the Quarry Workers Exhibition from the point of view of children's engagement. The framework will support my observation introducing the abstract, embodied, physical and social point of view. In this way, encouraging one to consider children's engagement as a complex process. Next, I will describe the methodology and method of this thesis.

4 METHODOLOGY AND METHOD OF RESEARCH

4.1 Research questions

The aim of the study is to form an understanding of how children should be acknowledged as users of a museum space at the Quarry Workers Exhibition and how this space could be seen to support or hinder children's social participation and engagement.

1. How should children be acknowledged as users of space in the Quarry Workers Exhibition?
2. How does the "The Quarry Worker Exhibition" appear through APSE resource?

The first question seeks to explore aspects that need to be taken into consideration while planning museum spaces for children and families. What are the core concepts that need to be taken into account in order to enhance children's social participation and to ensure children's active role in the museum? This question entails examining how children are seen as active or passive subjects in museums, and how that allow for social participation.

The second research question focuses on getting an overview of "The Quarry Workers Exhibition" through the APSE framework categories which are, abstract social, abstract physical, embodied social and embodied physical. I am interested in seeing how the framework guides the perception of the child's embodied engagement in the museum space.

4.2 Phenomenological research

Phenomenology is based on a philosophy by Edmund Husserl from the beginning of the 20th century. Phenomenological philosophy, from which phenomenology originates, was created to broaden the scope of human sciences. This philosophy highlights the fact that a human's life and experiences take place in a mutual relationship with subjectivity and objectivity (Vagle, 2018). Husserl emphasized the separation of phenomenological philosophy from positivist philosophy by creating a world of human experience, which is in flux, based on time, perspective, space, and relationships. The nature of this "lifeworld", as Husserl described his vision, would emphasize the experience as the thing itself. (Vagle, 2018)

Phenomenological research relies on the notion that an individual's worldviews are formed in interaction between that individual and the environment they inhabit. Everyone creates their own individual connection to people, place, and objects. In this way the individual perspective is created and is shaped by past experiences, values, and life history with respect to the environment they inhabit. According to Laine (2012) personal meaning is created through the environment one lives, every person's meaning making reflects that specific context. Therefore, the research of personal meaning can reveal something general at the same time.

4.3 Data management plan

According to Tampere University Library, a data management plan describes the life cycle of the data processed during and after the research process. This document should be made before the research process and revised during the process to describe the management of the data. The plan should include the general description, ethical compliance, documentation, and storage during the research project, as well as publishing and archiving the data after the research project and the responsibilities of data management. Regardless of whether the data was open or closed in nature, the student must provide a data management plan (Tampere University Library, 2021).

This plan concentrates on the research data generated, how it was processed and used as a basis for research findings by me in fulfilling the needs of my bachelor's thesis. The research is based on observation notes and video recordings of a group of children in a museum surrounding at "The Quarry Workers Exhibition" in Vehmaa. The data was collected through the observation notes made with APSE framework-focused exploration sheet and approximately 1-hour video recordings of the observation situation of three children aged 3 to 7 with their grandmother and the guide in the exhibition. The video was recorded with a handheld camera and the focused explorations sheet was completed by rewatching the video recording. The notes were used to analyse The Quarry Workers Exhibition through the APSE framework.

The participants were recruited by a personal contact and informed consent was obtained from the children as well as their parents and others involved. The data was considered confidential during the whole bachelor's thesis process. The video recordings were stored on my personal computer and in a separate fixed disc storage, called "OBSERVATION. DATE. The data was stored for the duration of the thesis process and destroyed upon the ending of the project.

4.4 Data collection

In qualitative research the data collection, analysis and additional data collection tends to be a cyclical process of data collection (Mukherji, & Albon, 2018). In my research, the data was collected through a single observation which was recorded. The recording was transcribed and viewed several times to observe the visit from different point of views. Every viewing revealed something new. Observation can be described as using all of one's senses to process information about the world surrounding us (Mukherji & Albon ,2018). For this research, the data was collected principally using visual information, in addition I utilized my sense of hearing and perception to analyse the museum space and the collected data. Observation is considered to be one of the typical methods of conducting qualitative research as it allows the phenomena to be seen in the genuine environment it takes place in (Vagle, 2018; Tuomi & Sarajärvi, 2018).

Observation as a research practise is designed to produce data related to the overall aim of the study.

My observation consisted of observing three children in the museum space. According to Booth and colleagues (2001), in non-participant observation, the researcher remains detached in order to capture action as it occurs (as cited in Caldwell & Atwal, 2013). As a non-participant observer, I remained distant from the group and did not participate actively in the guided tour. Observation can be used for multiple purposes, but it is important to remember that one child cannot stand for every child, they are all uniquely engaging the museum space.

As all the children were familiar to me, I was obliged to reflect on my own role as a researcher. As a researcher one needs to take into consideration one's relation to the observed individuals and the preconceptions which would inevitably have an effect on the observation (Fawcett & Watson, 2017). As one of the children being my own and the two other relatives, my presence as an observer was bound to effect on the children's behaviour and guide my own observation. The older children were well aware of the code of conduct and what was expected of them during museum visits, and this was visible in the recording. I had some expectations of what kind of behaviour the children were going to present during the visit which is why I did not give any instructions to them before the visit as I hoped not to influence their behaviour.

Observation is an effective and valued research method that enables the researcher to concentrate on the action. Observation can be combined with other methods of research and it can be supported by, for example, the use of video recording. When conducting a research involving direct observation, the researcher is required to detect, record, evaluate, and interpret the information they require during the observation. In direct observation, the researcher might be entering an unfamiliar setting which provides the possibility for a new perspective. The use of direct observation requires careful planning and implementation as well as thoughtful reflection to address challenging issues (Mills et al. 2010). During my observation, in addition to recording the group as a whole, I attempted to observe the child that was moving around the most. As soon as one of the children separated themselves from the group, I followed them with the camera. This behaviour might have encouraged the children to act more confidently in the situation and to act accordingly.

The data for my research was gathered during a single video recorded observation of three children in the local arts and craft museum in Vehmaa, South-West Finland. A video recording can capture the event as a whole and it enables the researcher to review the data multiple times to consider the issue from multiple perspectives (Hindmarsh, 2018). In addition, a digital recording brings on an additional ethical responsibility for the research (Mukherji & Albon, 2018) Since the observation was done with a group of children, the recorded observation gave me the possibility to view the footage several times and observe each of the children separately. However, a video recording can only preserve what is in the scope of the camera, which might lead to missing some crucial aspects (Kehily, 2013). It is inevitable that part of the children's visit was left undetected because I decided to use only one camera.

The continuous observation was conducted on a Saturday afternoon at the Vehmaa local art and craft museum. I was accompanied by the children Lola 3, Matti 5 and Alli 7 and their grandmother and the museum guide. Before the observation the children were explained the research and asked if they would consent to being filmed. The topic of the research was discussed before the observation started and the guide's, children's and the grandmother's consent were obtained before the visit.

First, the group was introduced to the museum facilities and then we headed to the exhibition. The group entered the main building first, where I realized very quickly that this space was not suitable for my observation due to the narrow space. As we moved on to the next exhibition space, I noticed it was spacious and the children were moving around instantly, I decided to focus my observation on the children in The Quarry Workers Exhibition. The video recordings were later examined through Hackett & Procter's (2016) Abstract, Physical, Social Embodied (APSE) framework (Appendix 1).

The APSE framework observes space through four overlapping categories. 1) Abstract physical category depicts the material design of space including different colours, lighting, and the materials used in the museum space. 2) Embodied physical category concentrates on embodied exploration and focusing on what parts of the museum are used the most and in what way. 3) Abstract social category describes the story of the gallery and focuses on the policy documents, curriculum, and how the space is intended to be used. 4) The last

category is the embodied social, depicting how space can be experienced, assessed, described, and understood by the children (Hackett et al., 2018; Hackett & Procter, 2015).

The observation recordings consisted of five separate videos, which were 53 minutes in total duration. All of the video recordings were reviewed and videos “OBSERVATION1.13.3.2021”, 26 minutes long and “OBSERVATION4.13.3.2021” 3:30 minutes long were examined using the APSE framework. The rest of the recording were discarded because of poor visibility of the children’s movements or because they were short in duration. From these two video recordings, OBSERVATION1.13.3.2021 and OBSERVATION4.13.3.2021, three vignettes were selected to be transcribed, because they showcased children’s engagement to the space (Appendix 2). The vignettes were printed out to make it easier to analyse the material.

4.5 Data analysis

According to Silverman (2013), data analysis should follow data collection as soon as possible (As cited in Mukherji & Albon, 2018). This thesis follows Denscombe’s (2014) stages of data analysis as follows: 1. Becoming familiar with the data by revising the collected video recordings and observation data for implied meaning or information that might be missing with regard to children engagement The Quarry Workers Exhibition. The first stage also consisted of selecting on the data for the analysis and writing the vignettes. Stage 2 consisted of coding the data through the written vignettes according to children’s engagement with place. In stage 3, the codes were categorized according to the APSE resource categories. Stage 4 was then dedicated to identifying themes connected to the literature and stage 5 focused on developing concepts and arriving at conclusions about the children’s engagement in The Quarry Workers Exhibition (As cited in Mukherji & Albon, 2018). The focus of the analysis is the sensory experience of the museum and movement in addition to modal choices.

The printed vignettes were colour coded according to the APSE framework categories, which provided the basis of the analysis. In the vignettes children

were given pseudonyms: Lola, Matti, and Alli in order to ensure their anonymity. In addition to the framework, the research questions guided the analysis on the data. The data was divided into four categories of APSE, abstract social, abstract physical, embodied social, and embodied physical. The key concepts arising from the literature review were children's social participation, meaning making, and embodied experience through which the data was considered. The research findings are discussed in the proceeding chapter in this work.

4.6 Ethical consideration of the research

I recruited the children who participated in this project through personal contact, one of them being my own child. The children and their parents were informed of the process of the research and the methods used. The consent from the children and families for observation and videotaping was obtained verbally and they were informed that they have the possibility to withdraw their consent at any point during the research if they so wish. Before the visit I talked to the children individually on how they would feel about participating into a research, which would consist of observing them in a museum surroundings. I told them I that would make a video recording of them in the museum and later take notes of their visit. I answered on their questions and told them that they could decline to participate if they wanted at any point before, during or after the visit.

As an inexperienced researcher my observation skills and notes might not have been sufficient in order to describe the observed situations thoroughly. This potential challenge and the question of reliability are overcome by using video recording to support the analysis. According to Mukherji & Albon (2018), the researcher's experience effects the focus on their observation. The use of structured forms and prior training, and in this case video recording, might help the researcher to overcome the hurdles of inexperience or other shortcomings (Mukherji, & Albon, 2018).

As one of the children was my own, the objectivity and non-participating role of a researcher might be hard or impossible to implement. The other children may also have been influenced by the presence of the researcher, their aunt. During the data reporting I made sure that the children's faces were not visible in the

pictures that were selected to the thesis and the children's names were changed to make sure they were not directly recognized. The children's engagement was described discreetly during the whole process to prevent any future harm for the children.

One's opinions and prejudice effect the observation process (Coffey, 1999). To increase objectivity, the researcher should avoid making impressions, judgements, and speculations while observing (Nicholson and Shipstead, 1998 as cited in Rolfe and Emmet, 2010, as cited in Mukherji, & Albon, 2018) As a researcher one needs to be aware of the powerful position held in regard to a child. (Mukherji, & Albon, 2018) During my research I made sure that I observed all of the children together and individually. During the observation I kept my distance to the whole group and followed the children discreetly. Before the observation I had decided I would try to avoid talking. I would answer questions, but otherwise stay in the background. All this was done to give space for the children to freely express and explore the space.

5 CHILDRENS EMBODIED EXPERIENCES

5.1 Children in the museum

According to my observations, children's engagement in the museum space can be displayed in multiple ways. In this chapter, I analyse my observations to discuss how "The quarry workers exhibition" in Vehmaa appears through the APSE framework and how contribute to children's acknowledgement as users of space. The first subsection consists of looking at the museum visit from the point of view of children's social participation, meaning-making, and embodied experience, which were chosen based on the literature review. The second subsection describes the museum space through the APSE framework. The observation concentrated on the children's embodied ways of experiencing the museum space.

5.1.1 Social participation and agency

Children build their social participation in co-operation with their surroundings. Social participation consists not only of participation but also agency, the possibility to be part of one's environment and creating it (Karlsson, 2020). Children should be regarded as active agents and equal members of the community, whose participation should be ensured by the people surrounding them (Karlsson, 2020; Finnish National Core Curriculum of Early Childhood Education and Care, 2018). During the observation, different elements of social participation were visible. Children's agency was visible from their freedom to move around freely and to explore their surroundings by touching, watching, handling objects, and asking questions. The children were able to participate in

the discussions verbally by asking questions and listening and they were in turn, asked questions during the visit as they were guided through the museum site.

During the observation, the children utilized their possibility to move individually and independently of each other. Lola, the youngest was the most eager to explore the space on her own as Matti and Alli kept close to the adults most of the time. This might be due to the guiding, which might have been too abstract for Lola or that the issues discussed interested the older children more. Vignette 2 describes Lola's quest to explore the museum space on her own.

"I want to go downstairs" says Lola (looking at the researcher) Then she turns towards the stairs and starts descending towards the museum space located on the ground floor of the museum. As she reaches the end of the stairs, she begins to scan the ground floor by running around the space. (Vignette 2) (OBSERVATION1.13.3.2021/16:39-17:39)

The older children were more interested in asking questions and clearly trying to form a picture of the exhibition through the historical facts, thus they were operating with their minds rather than their bodies to explore the museum space. The children were interested in why, how, and with what the objects in display had been used and for what purpose. During the observation of the visit, the guide asked the children questions, and the children were encouraged to reflect and ask questions of their own. This can be interpreted as the supporting role of an adult in promoting the children's social participation and meaning making in addition to highlighting the role of dialogue in creating experiences and understandings. (Chang, 2012; National Core Curriculum of Early Childhood Education and Care, 2018). Vignette 3 describes the situation where the children are introduced to the rock sled. The guide uses questions to evoke the children's interest in the big object in the middle of the museum space.

"This is an old barn, cows used to live in here" The guide begins the tour.

"Really?" Matti replies

"Yes. Can you see that?" The guide points at the rock sled.

...

“Do you know what this is?” -Says the guide, again pointing at the rock sled in front of them. “Sled” answers Alli. “You know, they used to have horses pulling this sled.” The guide continues. “In this?” Matti says and looks at the rock sled with his head tilted to the side. (Vignette 3) (OBSERVATION1.13.3.2021/00.03-00.20)

All interaction presents an element of power, which creates a need to make sure children’s voices are heard (Karlsson, 2020). The guide and the children represent a power relation of adult-child interaction. The interaction between the guide and the children depicts the concept of seeing children as learners (Hackett et al. 2020). The guiding in museum can take different forms and the guide is expected to plan their guiding according to the audience. The guide’s role in the museum is to showcase the environment and the history around it to the public (Museoalan ammattiliitto, n.d.), and this position produces an authoritative status for the guide. In Vignette 3, the guide highlights her “leading” role of a as she calls for the kids to move on to the next object.

In the meantime, Lola has wandered further to the back and starts climbing the step as the guide calls for the kids. “Now let’s continue this way” (Vignette 3) (OBSERVATION1.13.3.2021/00.30-00.38)

According to Lindgren and colleagues (2015), just as adults should endorse children’s experiences, the children also need to be allowed to collectively re-live and create their own experiences of the materialized and fictional world. During my observations, the children shared experiences between their peers and with adults. Among peers the sharing could be verbal, like telling the other children to come and look, or non-verbal by pointing at an object or mimicking each other’s movements or sharing and experiencing by manipulating a common object. Lola was especially interested in the small details, such as bird feathers or butterfly wings that could be found around the museum site. I was also included in this interaction when Lola told me she wanted to go downstairs just before the events described in Vignette 2 took place. She also kept looking towards me as she was running and exploring the space downstairs on her own.

The group has moved to upstairs of the exhibition space. This part is dedicated to clothes and everyday articles of the quarry workers. Lola looks at the doll and turns away to walk away. She is stopped by the bigger children. Lola stops and walks past the bigger kids. "I want to go downstairs" Lola says as she is turned towards the researcher. (Preface of Vignette 2)

Vignette 1 describes Lola's shared experience with an adult as she finds a bird feather:

Lola has just spotted a bird feather below the sleigh. She signals the others to come and look at her finding. "**Look! A bird feather...Come and look!**" Says Lola at the same time as **she looks towards her grandmother**. "I see" the grandmother answers as she looks down. (Vignette 1) (OBSERVATION1.13.3.2021/3:20-3:38)

During the observation, several non-verbal and verbal interactions were recorded between the children and the adults. During the observation I took special interest into the interaction happening between the children. On several occasions, the children guided each other either verbally or non-verbally towards a certain action. According to Hackett (2014), children co-construct and negotiate their social relationships. Alli especially, took the role of a guide with respect to Lola. During the guided tour of upstairs section of The Quarry Workers Exhibition, Alli moves her hands in front of Lola, who tries to move closer to a life size mannequin. Vignette 3 describes a situation where Alli initially tries to verbally guide Lola and then continues looking at Lola in order to guide her towards the rest of the group:

Alli reaches towards Lola and says: "We need to go" Lola looks at Alli and Alli looks back and they start walking towards the guide. (Vignette 3) (OBSERVATION1.13.3.2021/00.37-00.45)

Children' social participation and agency was visible in multiple ways in the data. During the visit, children displayed engagement through visual, tactile, audible, and embodied ways on their own as well as with the support of peers and adults. They utilized individual ways of constructing knowledge of the space and the exhibition. Next, I will discuss the embodied meaning making in the light of the data.

5.1.2 Embodied meaning-making

Children’s meaning-making should be seen as a multimodal process, which utilizes all of children’s senses (Hackett, 2014; Krakowski, 2012; Laajarinne, 2011; Lifschitz-Grant, 2018). Hackett and co-authors’ (2018) APSE pilot study showcased how children could shape families’ experiences by making different kinds of repeated movements in stairs or in open spaces (Hackett et al. 2018). This summarizes the relation between movement and place as they are known to be intertwined during children’s meaning-making (Hackett et al. 2020; Krakowski, 2012).

The children’s physical modalities were in the focus of this study. Children moved in different kinds of ways in the museum space. Several earlier studies have shown children’s meaning making to be connected to the possibilities they have to move around (Hackett et al. 2020; Karlsson, 2020;). Table 1 demonstrates the multiple movements and their duration during the observation recordings “OBSERVATION1.13.3.2021” and “OBSERVATION4.13.3.2021” in total of 29:30 minutes. The duration of a movement is recorded whenever it appears in the video recording.

Table 1

Duration of the movement in seconds

Movement	Observation1.13.3.2021	Observation4.13.3.2021
Running	48	14
Jumping	27	11
Walking around	374	113
Kicking	17	0
Dancing	18	0
Dragging one's feet	22	0
Stomping	12	0
Climbing the stairs	78	26
Total	596	164

OBSERVATION4.13.3.2021 recording was in total 3 minutes and 30 seconds long from which the children were moving for about 2 minutes and 44 seconds. OBSERVATION1.13.3.2021 recording was 26 minutes long, from which 9 minutes and 56 seconds consisted of movement. Especially OBSERVATION 4.13.3.2021 included movement for all most the entire recording, on the other hand, OBSERVATION1.13.3.2021 recording was longer

and entailed more guiding and as the video was focused on one child the movement of the other children was not recorded, which could explain the less time spent moving around. In both recordings more than third of the time included movement.

During the observation, the children moved around in different ways such as: running, jumping, kicking, lunging, dragging their feet, dancing, climbing the stairs, and tiptoeing, to mention a few. An example of these vigorous movements can be seen in Vignette 2 as Lola moves downstairs to explore the museum space:

Lola starts walking... She starts running towards the sleigh, but suddenly she stops on the gravel and starts stomping her feet. She turns to her right stomping her feet and heads out to make a big circle around the exhibition space. When her feet hit the pavement, she starts running towards the stairs. In order to get to the place where she started her walk from, she needs to walk over a gravel ledge, completing a circle. She walks through the ledge with determination, looking straight ahead, as if stomping her feet towards the stairs. She walks halfway up the stairs and peeks through the window and then turns around to walk back down the stairs. She jumps down the stairs and tumbles. She gets up and instantly turns to her right to walk towards the gravel ledge. She takes a few running steps and begins to jump on the ledge. Suddenly she starts smiling while jumping and turns towards the pictures on the wall. Few seconds later she starts dragging her feet on the gravel making a spiral shaped form in the square area filled with gravel. Little by little she makes the shape of her drawing wider and wider, while walking faster and faster. Then she suddenly exits the ledge towards the stairs and starts climbing. After saying "I would like to go home" she turns back to head towards the ledge to kick the gravel and to make a circle. She notices a big tool on the ground and starts kicking it, she steps on the tools standing on the ground and then turns towards the researchers and smiles.

(Vignette 2) (OBSERVATION1.13.3.2021/17:09-19:35)

Vignette 2 describes Lola's engagement with the exhibition space as everyone else, except the researcher, have stayed upstairs. During the time Lola was getting to know the downstairs exhibition, she was drawn to the gravel ledge connecting the two sides of the old barn. This ledge provided the possibility to create and destroy her own piece of art as she used her foot to draw on the gravel. She was able to experiment how faster movements would create shorter lines and at the same time as how the pressure applied through her toe would influence the intensity of the print line. Picture 1. is a still shot of Lola's artwork. (OBSERVATION1.13.3.2021/19:02)



Picture 1. Lola “drawing” in the gravel

During the observation it became clear that children are eager and interested in touching different kinds of objects and artefacts. Very early on, the children’s interest was caught by an old sleigh that was used to move the stone around. The sleigh was moving on a track for few meters and the children were trying to move it around individually and together. This was clearly something they were interested in perhaps because it was moving and could be touched. The other children climbed on while one of them was pushing the sleigh. Children’s possibilities to engage and get acquainted with the object plays a crucial role in imagining the world from the child’s point of view (Chang, 2012; Hackett et al. 2020).

During the observation, as the guide was telling the children about the tools and how to process stone, the children were touching the different kinds of tools and objects on display (OBSERVATION1.13.3.2021/03:31-04:25). The children were drawn to a large and heavy object which required strength to handle. One example can be seen in the Vignette 3 when Alli handles the big hook next to the rock sled:

Lola touches a big chain lying on the floor. Alli comes next to her and grabs a hold of a big hook sitting in the end of the chain. “Be careful” the guide says quickly, “it might fall on your toes.” Alli sets the hook back to the floor. (Vignette 3) (OBSERVATION1.13.3.2021/00:28-00:34)

Different types of space arouse different kinds of physical movement. As the different elements come together, the physical experience also creates

memories (Hackett, 2016; Hackett et al.2018). The open spaces attracted the children to run around. They moved on to the different spaces, quickly accelerating and then slowing down and picking up their pace once again. In the same manner, the stairs were used to climb up and then down. The different ways of ascending and descending the stairs were meaningful for Lola's exploration of downstairs exhibition.

She starts running towards the sleigh, but suddenly she stops on the gravel and starts stomping her feet.... She walks halfway up the stairs and peeks through the window and then turns around to walk down the stairs. She jumps down the stairs and tumbles. (Vignette 2)
(OBSERVATION1.13.3.2021/17:09-18:20)

According to Elwick and colleagues (2020), sound making engage children and families in productive ways. During the observation, children were drawn to producing sounds in the museum. Kicking the gravel, stomping their feet, singing, and talking were the behaviours that were most seen. It seems the children were fascinated by the sounds in the otherwise rather silent museum space. Lola especially seemed interested in creating sounds during her explorations by kicking the gravel underneath her feet. At one point during the observation, she seemed to seek for the gravel to make a sound with her feet. It was almost as she tried to find every grain of gravel and step or kick it to make the sound.

Every child explored and utilized the space differently. Moving around, touching the objects, and asking questions emerged as the most important ways of creating meaning. During the visit it was clear that the children's experiences were built in verbal and non-verbal interactions and moving around objects and playing with, moving with and by, and manipulating objects together or alone. The next part of the analysis concentrates on The Quarry Workers exhibition through the APSE framework.

5.2 *The Quarry Workers Exhibition through APSE framework*

5.2.1 Abstract physical

This category considers the material properties of the space. Lighting, colours, ground plan and shapes and sizes that can be measured and objectively understood and described (Hackett & Procter, 2015).

The museum space is an old barn, which is divided into two floors, where the ground floor represents the quarrying industry and the machinery while the upstairs concentrates on the everyday life of a quarry worker and the history of quarrying in Vehmaa. The visit was conducted in March, when the museum was not open for the public and since we were the only ones in the museum, the space was quiet and felt cold. The big windows let in light, but in addition there were electric lights upstairs. The downstairs area was filled with different kinds of stones, rocks, and machinery. The upstairs area is covered in warm and softer materials, such as wood and fabric. The exhibition space is filled with textures like hard metal, rocks, soft fabrics, spiky gravel, cold metal, and stone and the air is moist, cold, dusty, and musty. The quarry workers exhibition consists of two spaces which are in the same building. The same museum has different showrooms, all are of different sizes. The objects in reach are to be touched. If the object was not to be handled, it was either out of reach or behind a glass. This made it possible for the children to freely touch and engage with the object according to their preference.

As the children stepped into the old barn, the space was lit by the natural light coming from the windows, which created a silhouette of the big objects in centre of the exhibition space. As the electric lights were switched on, the children could clearly see the mighty rock sled in front of them. Immediately after the lights were switched on, the guide led the children to the sled. The left corner of the exhibition space had an old furnace. This corner was a much darker than the other areas of the exhibition and as the children drew closer to the furnace, they got more cautious and grew quieter.

The barn where the exhibition was held was cool and damp and all of the objects were covered in dust and stone dust. As the children walked around the space whenever their hands brushed against the walls or window ledges it left a grey mark on their mittens. The children were looking at broken and dusty safety goggles, which looked like an ordinary pair of eyeglasses. The children located a grinding mill close to the furnace, that had a small brush, which was used to brush the grains of sand away from the mill. The children took turns in brushing the sand from side to side.

The space was filled with different kinds of materials. The most dominant materials in the downstairs were hard materials such as gravel, pavement, metal, sand, and glass. The children were drawn to touching the objects and to mimic their use for example, by hitting the pins into the block of stone, brushing the sand off the mill, moving the tools to the furnace or by kicking the sand to the ground. Lola particularly had to put more effort to see all the pieces because of her height. This also redirected her interest towards the walls and floor of the space, where she was able to find softer and organic materials like butterfly wings and bird feathers. In addition to the hard materials, the upstairs had some softer materials, which were left aside for the most part. Instead, the children were inspired to mimic the poses of the statues and pictures on the wall. Picture 2. presents Alli mimicking the plaster statue.



Picture 2. Alli and the plaster statue

Display boards are scattered across the museum walls to provide information for children who can read as well for the parents. During the visit, Alli

was looking at the boards and trying to find familiar letters as the same time as she was looking at the pictures. It was clear that the older children (Alli and Matti) were more interested in the people and their stories behind the pictures. They were eager to know why the men were pulling the stones by hand, how did they manage to get the flat rock to stand on its own? Or why is the man in the plaster statue holding his hand above his head? These questions depict the way children create meaning by using stories behind the picture. They want to find an explanation of what is happening outside the frame of the display board. They were interested of the context of the situation.

5.2.2 Abstract social

This entails the conception of space as the designers would describe how the space was meant to be used. This category is often described through documents and learning outcomes and different kinds of narratives of the purpose of the space (Hackett & Procter, 2015).

The museum had different exhibitions in different building and so moving around could be seen as challenging with a stroller or with smaller children. The museum cite of Vehmaa local museum was not built originally as a museum. The main building has served as an old farmhouse, and the courtyard included the other two buildings the barn, where The Quarry Workers Exhibition situated and the shed, where they show case old everyday items. The fourth building was located 500 meters away from the main building, which used to be an old housing for file men. All spaces had steps or uneven surfaces when entering the space. In the very beginning of the observation, as the group entered the main building, the children were met by the steep stairs and the guide cautioned the children about them. Upon entry to the Quarry Workers Exhibition Alli indicates something on the otherwise flat floor in Vignette 3, which catches her attention but remains unnoticeable for the rest of the group:

...Alli, the oldest of the children points at a yellow and black tape on the floor and asks. "What is that? What is it here for?" The rest of the kids turn their heads and look at the small threshold on the floor rimmed with a tape. The guide answers "It is there so that you don't trip." Matti kicks the tape.... (Vignette 3) (OBSERVATION1.13.3.2021/00.03-00.15)

The snippet of Vignette 3 describes Alli paying attention to a detail that looks like a minor security matter, which in fact should be seen a good example of a children's meaning making. The tape represents something interesting and out of the ordinary on the floor of the exhibitions space. On one hand the tape is set in its place to draw attention to mind the threshold, but on the other hand it is designed to be ignored, as it is not part of the exhibition. However, for the child the tape seems to be of the same value as any other item in the exhibit.

During the visit the children were welcomed, and the guide gave some basic information about the museum upon entry. The exhibitions were divided among different buildings according to the themes. The main building replicated an old farmer's house with furniture and everyday items like a wooden oven and toys that could be played with. In addition to the main room, the same building had a room with war artefacts like medals, shell fragments, and uniforms. The same room had a corner which had a school desk with a bell to call for the children to school. These items evoke questions and thoughts about the life of children in the past.

The children handled the objects during the visit. As the guide explains the use of a specific tools, the children engage with the objects in using them as they would be used in real life. The wooden toys interested the children and they engaged in play with the objects. However, the children needed help from their grandmother to show how the toys were to be played with. The children's played side by side, each concentrating on their own object.

The different rooms and areas as well as the separate floors provided the children the possibility to explore the exhibition on their own or accompanied by others according to their wishes. The smaller rooms and corners provided the children with moments of peace and quiet or an individual experience. Vignette 1 describes an example of personal exploration in which Lola stays behind and finds a bird feather. In addition to this, the guide creates the description of the way the space is designed to be used. Vignette 3 describes the guide's style to engage the children with the story of the quarry worker.

The upstairs of The Quarry Workers Exhibition was built to be a museum space. This space was wide and open. The front of the space showcased the everyday items of the quarry workers, which also included for example life-size mannikins and statues. This space did not include any object that could be

touched. The far end of the space was open and as the guide talked about barn dances during the war time Alli started dancing on the big empty floor of the barn. IN the beginning of the visit the guide mentioned a story about the men moving the stones with the sleigh, the children got inspired by a sleigh next to the furnace. They tried to move the sleigh, and while it did not budge, they came up with a plan to push and pull the sleigh at the same time to get it moving. After they got the sleigh moving, Lola decided to climb onboard, and the older children pushed her.

5.2.3 Embodied physical

Space can always be used in many ways. All of these are not planned nor are they expected. This category tries to shed light on how the spaces are used in practice (Hackett & Procter,2015).

The big and more open space downstairs seemed to serve as a space for dwelling, walking, and running around as the upstairs was narrower and the guide's presence seemed to lead the children to walk alongside her, stop to look at what she was explaining, or to use smaller movements. All the children moved around in different manners in the museum space. The biggest difference was the extent to which they moved around. Lola, the 3-year-old girl, wandered away from the group to explore the space on her own as the older children repeated the stories they heard.

During the observation all the children seemed to be interested in the surfaces covered by gravel. During the guided tour, each of the children were kicking the gravel, however, some did so loudly and others more discretely. At the end of the visit, the guide stayed upstairs with the children's grandmother and all of the children moved on downstairs to head out. When the children descended the stairs, Lola began to speed up and run towards the other end of the building, the two older ones immediately followed her and started kicking and stomping gravel together. The downstairs exhibition space had gravel covering several areas, as I would have imagined a quarry workshop would have. Lola was particularly drawn to play with the gravel. I addition to kicking and stomping

on it, she used it like paper and sketched on it with her foot, jumped on it, carefully stepped, and ran over it. Similar actions appeared in Alli's behaviour towards the end of the visit.

The space is filled with tools, rock, mills, and old quarry machinery. The children touched the objects, tried to lift heavy hooks, chains, stuck pins to the rocks, listened to the sound of gravel beneath their feet, and paying attention to what kind of sound come from stomping their feet against the concrete floor. These actions took place either in parallel or by themselves, with little to no co-operation among the children. However, an element of embodied social interaction was visible when the children started imitating each other's actions, which I discuss below.

5.2.4 Embodied social

The interaction between the space and people's behaviour is reciprocal. Space influences a person's behaviour and the way a person acts in a space shapes it. This category focuses on the interaction, roles, and the sense of the place for the visitor (Hackett & Procter, 2015).

During the observation, we had a guide that walked with children and their grandmother for the whole time. The two older children followed the guide during the visit and asked questions about history, the space, and objects. The grandmother was following the guide and talking to the children during the visit.

A special interaction between the grandmother and Lola was described in Vignette 1, when the 3-year-old girl notices something under the wooden sleigh. She calls for the others and her grandmother instantly replies and walks up to her. They spend a moment looking at the bird feather she found. This feather represents something unexpected and strange indoors. Lola wants to share her finding and shows it to her grandmother, thus creating a shared experience in finding something hidden. It is the object that brings them and their attention and meaning making together.

The children were communicating verbally and through facial expressions with peers and the adults accompanying them. Across the different generations, child-adult, child-grandparent, child-guide, and grandparent-guide, information

focused mainly on the education, with the exception of Lola and her grandmother who have a shared experience described in Vignette 1.

During the observation of Lola, there were a few moments when she engaged in a direct interaction with the researcher (me). The Preface of Vignette 2 describes the first act of communication as she says she wants to go downstairs. She continues by looking at me and waiting for an answer. As the observation continues and Lola goes downstairs, occasionally, she glances at me, as if making sure I am watching and filming her, making a connection and drawing my attention to her and creating a togetherness, experiencing the space together through her movements that I observe. In the end of Vignette 2, Lola's grin can be interpreted as a message she wants to send me, as if to say, "See, wasn't that fun?"

Several social experiences between the children were visible during the observation. Towards the end of the visit, as the guide and grandmother had stayed upstairs, the children moved downstairs to head out of the museum. As the children headed for the stairs Lola took a special role in relation to the other children. As if to invite the two older ones to explore what she had found earlier, she jumped the line and started running towards the far end of the exhibition space to showcase the butterfly wing she found earlier and to invite the older children to get to know the rest of the space following her example.

During the observation it was clear that the different features of the space evoked different kind of behaviour and movement. The space provides a possibility that is utilized differently by each of the visitor creating their own personal experience through interaction with their surroundings. As well as the physical environment the interaction between the visitors creates new meaning.

According to APSE framework categories The Quarry Workers Exhibition can be seen as an exhibition, which provides possibilities for unique explorations. The possibility to engage with different kind of materials, textures of space, lights, smells and sounds shape the museum goers overall experience. Since the space can be used in multiple ways, it was clear that the children were able to utilize the materials and layout of the space to create their personal meaning during the visit. Next chapter will summarize the results of my study.

6 CONCLUSIONS

6.1 *Summary*

This bachelor's thesis aimed to find out how children should be acknowledged as users of museum space at The Quarry Workers Exhibition. Previous research has demonstrated that children's meaning making benefits from moving around in museum spaces (Whitty, 2020). The research data revealed several different physical modalities children engaged in by being in interaction with the museum environment. These different ways of moving, experiencing, and making meaning should be considered as creating their own web of understanding. According to Whitty (2020) the different ways of moving should be seen as beneficial to children's museum experience. The research data highlighted walking and running as one of the most frequently used modalities when exploring the museum space. Either moving alongside with the guide or by themselves, the children seemed to walk around to make sense of their surroundings.

My observation reflecting what Hackett and colleagues (2018) found through developing the APSE framework as well, that the more open the space, the more children were invited to engage in bigger and quicker movements. In addition, it was clear that the children returned to a specific space where the movements grew bigger and faster, exploring the space in a circular manner. This could be understood as while children got more familiar with the space, the knowledge created a new possibility to experience and create the environment in a new way.

According to Hackett and colleagues (2018), staircases were found to be significant for children and families. The observation data revealed that the stairs seemed interesting to the children during this visit as well. Lola in particular kept returning to the stairs to walk or jump on them and in between, and to dash around in the museum space. In the location where the observation was carried out, the

stairs functioned as a gateway between the two floors. While the upstairs gave a place to interact with the guide and other visitors, the downstairs offered the possibility to explore the space more freely on one's own terms. In this way, the staircase can be seen as a gate between the two worlds.

During the observation, I was able to see different variations of possibilities to make meaning. When walking alongside the guide, the children were able to obtain information about the guided tour as well as handle objects on display. According to Hackett and colleagues (2018), handling the objects is an important part of children's museum experiences. This was also visible during my observation as the children were eager to touch, push, lift, and handle different objects in the museum. They were interested in big objects that required strength and small objects that needed to be manoeuvred with precision.

One of the most distinctive aspect of the observation was centred on the gravel that was present in the different locations around the museum. The gravel evoked the children's interest in drawing with their feet and making the accompanying sounds. It looked like the children were trying to find every grain of sand to walk or step on and to hear the sounds which were generated. Some of the tools were also used to make sounds by banging them on the big blocks of stones. The children looked like they were enjoying creating different kinds of sounds. According to Elwick and colleagues (2020), museums can serve as a good platform for experimenting using sound-making as a means of engagement for children and families.

Children create meaning and structure knowledge through interaction with others (Kehily, 2013). The children were interacting with peers and relied on the support of adults to explore the premises. As a researcher, I was also included in this interaction when Lola told me she wanted to go downstairs and continued her exploration of the place while being attentive of my presence. This highlighted the fact that even in non-participant observation, the researcher can never be considered as invisible, and they will always have an impact and effect on the observed situation.

The presence of a guide highlighted the established role of the children and adults as learners. This study also underpins that children in museums are easily seen as learners above all and their other kinds of experiences might be ignored (Hackett et al. 2020). This standpoint was amplified as the older children were

interested in asking questions in order to find out more. The possibility to interact and ask questions can also be regarded as sign of social participation, where the child has the possibility to enter the discussion to enhance their own understanding.

The other focus point of my research was to examine the museum space more specifically in regard to the APSE framework and its four categories: abstract social, abstract physical, embodied social and embodied physical. This was done with the help of the focused exploration sheet enclosed in Appendix 1. The APSE framework was developed to remind designers of museum exhibits to consider the embodied ways of knowing which are fundamental to children's meaning making. (Hackett et al. 2018). The analysis of the museum grounds was done afterwards partly relying on the video recordings.

The APSE framework functioned as a useful frame for the observation of the museum visit, however, I feel like more practise in using it would have been beneficial. In addition to this I feel that it would have worked better if there was another researcher. Another pair of eyes observing in the same situation could have provided more detailed and broader point of view to the events as well as for the analysis. The APSE framework guided me to pay attention to the materials and layout of the exhibition which might have otherwise gone unnoticed. In retrospect, I feel like the videorecording worked as an important tool to accommodate the APSE framework, since it provided the option to view the data several times.

The APSE framework guided my observation to concentrate more on the physical side of children's meaning making and exploration of the space. In addition, I might have overlooked aspects like natural light, children's own observations and their exploration without the guidance of the framework. The literature concerning the APSE framework and children's spatiality's guided me to the direction of observing how children engage with objects and space in co-operation with one another. I have come to realize how important it is to see the value in moving around, as it can reveal how children make meaning.

The APSE framework could be utilized by the museum staff to draw attention to and underline the complexity of museum visits. I feel that especially with children, one often overlooks the potential and the importance of the ways in which children experience museum spaces. In addition, getting to know the

frame would already serve as 'an eye-opener' for children's modes of engagement. On one hand, getting to know and to utilize the framework is time consuming, but on the other hand, the benefits of observing how the space is used in practise will provide important insight for the personnel. Therefore, the effort and time put into the framework's usage will pay off with a more multifaced, inviting and enjoyable museum experience.

This bachelor's thesis has provided me with a new perspective on children and childhood, how their subjecthood, position in society, social participation, and ways of existing in the world are all connected to the attitudes, people, and culture around them. During the research process, I have realized how many expectations are set for children's behaviour and meaning making from the point of view of the environment. In addition to this, I have noticed how easy it is to neglect children as noteworthy users of facilities and services. Through the analysis of the observation, I have also realized my own incompleteness as an educator and a parent. Therefore, I have tried to realign my thoughts on perceiving the potential of children as equal partners in creating their environment.

The limitations of this research concern mostly the method that was chosen. Since the APSE framework and observation as a research method was new to me, I feel a lack of my ability to conduct the data collection as efficiently as possible might have affected my results. In regard to the videorecording, a video can only capture the event to an extent and some of the children's experiences have not been recorded. In addition, all the participants were familiar with me and my presence might have influenced the children's behaviour in the museum.

One of the fundamental ideas behind this research was that children should be seen as more than the outcome of their learning, which highlights the need to create spaces for children's experiences. In order to re-evaluate the idea of children only as learners, I have had to pay special attention to how I think about children and their experiences. As a soon-to-be early childhood education teacher, I want to focus on creating an environment that will work for learning purposes as well as for enabling children to experience things on their own terms. This requires the support of children's social participation, constant evaluation, and taking different viewpoints into consideration in order to even begin to understand the complexity of children's experiences. This understanding should

contribute to creating more complex learning environments that account for children's different abilities, competencies, their backgrounds, and respect their individual ways of making meaning.

This research has made me think about my own position as an adult in relation to children. Seeing children solely as a learner of new skills, language, and customs of the society neglects to realize the potential of their abilities. In addition to this, learning requires adapting to something new and, in a way, pushes one forward. Children and childhood should be seen as a part of human life, in which they create important meaning and experiences that will follow them throughout their lives. In my opinion, seeing children only as a result of their learning will place them as recipients of teaching thus creating a picture of a passive participant of the action. Therefore, I feel like seeing children capable and worthy of agency will work towards creating true social participation, where children will be seen as experiencers above all.

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APPENDICES

Appendix 1: APSE resource: General and Focused checklist

GENERAL CHECKLIST

WHERE?	WHEN?	HOW MANY FAMILIES?	WHO FILLED IN THE FORM?

ABSTRACT PHYSICAL

ABSTRACT SOCIAL

APSE: AN ANALYTICAL FRAMEWORK TO USE DURING MUSEUM SITE VISITS

- What is the welcome like? (i.e. information, general experience)
- What facilities are there specifically for families with young children? (i.e. toilets and baby change, food and drink, space and storage)
- How are objects displayed?
- What role do objects play in the overall physical layout?
- How are people encouraged to encounter objects?

Things to collect:

- What pre-visit information is provided? (i.e. online)

- Which frameworks, if any, inform the planned use of space and activities? (i.e. EYFS)

Things to collect:

- What marketing materials are aimed at early years audiences? (i.e. collect a selection in order to get a sense of the ethos)

Things to observe:

Questions to ask:

APSE: AN ANALYTICAL FRAMEWORK TO USE DURING MUSEUM SITE VISITS

EMBODIED PHYSICAL	EMBODIED SOCIAL
<p>Questions to ask:</p> <ul style="list-style-type: none">• What are the most significant spaces for families?• Is the space used differently by different generations?• Can you give any examples of ways in which visitors use the place which was surprising or not originally planned?	<p>Things to observe:</p> <ul style="list-style-type: none">• What types of visitor groups include young children?• What is the welcome like from staff?• How do staff support visitor groups with young children?
<p>Things to collect:</p> <ul style="list-style-type: none">• What do meaningful engagements with the museum space and its objects seem to be for young children and their adults? (captured through writing vignettes/short narratives about interactions with the material space and objects)	<p>Things to collect:</p> <ul style="list-style-type: none">• What do meaningful practices seem to be for young children and their adults? (captured through writing vignettes/short narratives about interactions with each other)

FOCUSED EXPLORATION

APSE: AN ANALYTICAL FRAMEWORK TO USE DURING MUSEUM SITE VISITS

ABSTRACT PHYSICAL

DESIGN CONSIDERATIONS	NOTES
What is the spatial layout of the building? What spaces are there, what are their shapes and sizes, how do they connect?	
What are the noise levels like? Does the space use sound purposely?	
How are the spaces lit? Is there any natural light? Is light used to create atmosphere?	
What materials are the surfaces made from? What are the textures like to touch?	
What colour is the space? Is colour used to create particular effects?	
What smells are there? Does smell seem to be considered as part of the user experience?	
Are there spaces of different scales? Is scale used to create different experiences?	
Do the spaces make users want to wander, run, move or dwell? Why might this be the case?	
What objects are on display? Are users able to interact with these?	
Are display boards used? What is the role of them? Are users engaging with them?	

APSE: AN ANALYTICAL FRAMEWORK TO USE DURING MUSEUM SITE VISITS

ABSTRACT SOCIAL

DESIGN CONSIDERATIONS	NOTE
Questions for the organisation	
What approaches do you take to managing competing use of the site? E.g. are there any tips regarding planning, timetabling, multiple use of spaces?	
What approaches do you take to staff training in order to ensure young children and their grown ups feel welcome?	
Are there any specific organisational policies or procedures which help to ensure your venues are particularly welcoming or suitable for young children and their grown ups?	
What are the biggest challenges with regards to young children coming into and being in this place?	
Something to reflect on	
We talked about the learning versus experiencing in a museum — which word do you think applies more in this organisation's ethos? Why?	

EMBODIED PHYSICAL

DESIGN CONSIDERATIONS NOTES

Questions for the organisation

Where do people dwell?

How do people move and navigate around the space?

Architects talk about how spaces are planned to be used, and then how they tend to be 'appropriated' by people actually using the space. Can you give any examples of that happening in your place?

How do families and young children tend to engage with the collections themselves
(visual, tactile, talk, movement)?

Observations/reflections

Observations/reflections

Where are the most popular places for families with young children?

Where do people dwell?

How do people move/ navigate?

Is the space used differently by different generations?

APSE: AN ANALYTICAL FRAMEWORK TO USE DURING MUSEUM SITE VISITS

EMBODIED SOCIAL

DESIGN CONSIDERATIONS	NOTES
Observations	Spend time hanging out in the gallery, observing what children and their grown ups do there. Aim to write four vignettes (short narratives) addressing some of the questions

What do the meaningful practices seem to be for young children and their grown ups in this place?

How are objects interacted with / made sense of?

What kinds of verbal and non verbal communication are taking place in this place?

What kinds of interactions happen across generations? What kinds of interactions happen between peers?

Have you noticed any examples of visitors feeling ownership or visitors feeling nervous / unsure? Can you draw any conclusions about the emotional experience of this place?

Structured session observation

What is happening?

How is involvement facilitated?

APSE: AN ANALYTICAL FRAMEWORK TO USE DURING MUSEUM SITE VISITS

What are the key behaviours of adults and children during the session?

NOTES



Appendix 2: Vignettes

Vignette 1 describes what happened as Lola was left to explore the sleigh on her own.

Vignette 1

“As everyone else had moved on Lola the youngest of the group stayed behind. She gazed at the sleigh. She had just sat on it as the other kids took turns pushing it. She walked closer and tried to push the sleigh. The sleigh was not moving. She looked at the sleigh again. She leaned on to the side of the sleigh and hang from the edge by bending her knees as her feet were slowly lifted from the gravel. She softly sat her head in an empty space between two wooden planks. After a few seconds of hanging, she lifts her head and shouts: Look! A bird feather...Come and look! (She looks towards her grandmother) The grandmother comes to see and the two of them look together under the sleigh where the feather is. “I see” the grandmother answers as she looks down. Then she lifts her head and walks towards the other kids.”

The following vignette (Vignette 2) is written close to the end of the children’s museum visit. The group has moved to upstairs of the exhibition space. This part is dedicated to clothes and everyday articles of the quarry workers. Lola looks at the doll and turns away to walk away. She is stopped by the bigger children. Lola stops and walks past the bigger kids.

She turns towards the researcher and says: I want to go downstairs.

Vignette 2

“Lola looks down the stairs and starts walking, halfway down she turns as to ask if it is ok to go on. She continues after she does not get an answer and walks down the stairs. She starts running towards the sleigh, but suddenly she stops on the gravel and starts stomping her feet. She

turns to her right stomping her feet and heads out to make a big circle around the exhibition space. When her feet hit the pavement, she starts running towards the stairs. In order to get to back where she left, she needs walk over a gravel ledge. She walks through the ledge with determination towards the stairs. She walks halfway up the stairs and peeks through the window and then turns around to walk back down the stairs. She jumps down the stairs and tumbles. She gets up and instantly turns to her right to walk towards the gravel ledge. She takes a few running steps and begins to jump on the ledge. Suddenly she starts smiling while jumping and turns towards the pictures on the wall. Few seconds later she starts dragging her feet on the gravel making a spiral shaped form on the gravel. Little by little she makes the picture wider and wider, while walking faster and faster. Then she suddenly exits the ledge towards the stairs and starts climbing. After saying "I would like to go home" she turns back to head towards the ledge to kick the gravel and to make a circle. She notices a big tool on the ground as starts kicking it, she steps on the tools standing on the ground and then turns towards the researchers and smiles. "

The children walk into the barn and the guide turns on the lights.

Vignette 3

"This is an old barn, there used to live cows in here" The guide says. "Really?" asks one of the children. Yes. Can you see that? the guide points at the rock sled. At the same time Alli, the oldest of the children points at a yellow and black tape on the floor and asks. "What is that? What is it here for?" The rest of the kids turn their heads and look at the small threshold on the floor rimmed with the tape. The guide answers "It is there so that you don't trip." Matti kicks the tape. The guide continues "You know what this is?" again pointing at the rock sled in front of them. "Sled" answers Alli. The guide continues: You know, they used to have horses pulling this sled. "In this?" Matti says and looks at the rock sled with his head tilted to the side. Yes, with this. During the conversation, the girls have wondered a little further away towards the end of the barn towards a gravel step on

which the sled stays. Lola touches a big chain lying on the floor. Alli comes next to her and grabs a hold of a big hook sitting in the end of the chain.

“Be careful” the guide says quickly, it might fall on your toes.” Alli sets the hook back to the floor. In the meantime Lola has wandered further to the back and starts climbing the step as the guide calls for the kids. As Lola continues her quest towards the other end of the barn Alli walks towards her and reaches for her saying: “We need to go”. The girls glance at each other and they start walking towards the guide.