RECONCEPTUALIZING CHILDREN'S SPATIAL EXPERIENCES

IN EARLY CHILDHOOD EDUCATION SETTINGS

by

SHIN AE HAN

(Under the Direction of Joseph Tobin)

ABSTRACT

This dissertation, presented in three articles, explores young children's spatial experiences in early childhood education settings. I focus particularly on children's experiences in marginal and invisible spaces and how they demonstrate agency in those spaces. In the first article, I identify four different approaches for understanding children's experiences of place and space: cognitive-developmental, sociocultural, critical, and posthumanist. My review of existing research suggests that each approach is useful in understanding certain elements of children's spatial experiences, but it is possible to gain a more comprehensive understanding of those experiences when the approaches are combined. Additionally, the review reveals a lack of research on children's place and space experiences in marginal and invisible spaces.

In the second article, as a response to the research gap identified in the first, I develop a conceptual framework for visualizing young children's spatial experiences. The framework uses the interdisciplinary concepts of sense of place and topophilia (Tuan, 1977), heterotopia (Foucault, 1986), and threshold (Benjamin, 1999) to focus the study of children's spatial experiences on marginal and invisible spaces, and children's agency in those spaces. Furthermore, this framework can support teachers in reconceptualizing and reshaping their

classroom management strategies by approaching children's spatial experiences from children's perspectives and needs.

Finally, in the third article, I analyze children's spatial experience using the conceptual framework. Using microanalysis on ethnographic video data, I examine young children's lived experiences in preschool classrooms by focusing on the framework's concepts. I find that young children demonstrated agency in their spatial experiences by showing their topophilia, creating heterotopic spaces, and occupying threshold spaces in preschool classrooms. I suggest that teachers should be supportive of children's sovereignty in their classrooms by encouraging children's marginal and invisible spatial experiences.

INDEX WORDS: Early childhood education, Young children, Place and space, Understanding of children's spatial experiences, Children's agency, Sense of place, Topophilia, Heterotopia, Threshold

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by

SHIN AE HAN

B.A., Chung-Ang University, South Korea, 2011

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SHIN AE HAN

Major Professor:	Joseph Tobin
Committee:	Allison Henward
	Stephanie Jones
	Leslie Rech

Electronic Version Approved:

Ron Walcott
Dean of the Graduate School
The University of Georgia
May 2022

DEDICATION

This dissertation is dedicated to young children in the hope that it will contribute to honoring children's agency in their lives so that they can explore this world creatively.

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CHAPTER 1

INTRODUCTION

My interest in children's experiences of place and space in preschool classrooms emerged out of my participation as a field observer in such classrooms. During my observations, I studied how young children played cops and robbers on the playground, and how they went about their show and tell activities at circle time. I realized that each of these activities only happened in their specific environments. As such, my interest shifted from studying children's activities to studying the various places where those activities were happening. I discovered that children's learning in preschool is not limited to adult-designated areas within the classroom or on the playground. Children were explorers, discovering and creating different spaces through creative play.

Figure 1.1. Young Children's Experiences of Place and Space

No matter what various marginal and imaginary spaces I found children occupying, I was always amazed at their lively appearance. Children expressed their agency vividly in their own spaces, whether they were by themselves or interacting with others. My growing awareness of the importance of focusing on space and place led to the decision to do my dissertation work on revealing children's agency in these marginal and imaginary spaces and, by so doing, help educators recognize the value of these places and of the vitality, creativity, and agency of children's interactions with these settings. I believe that new understandings of children's experiences of place and space can lead to reconceptualizations of classroom arrangements that would encourage children's exercise of agency. In order to facilitate new understanding, we need to develop new interdisciplinary tools and concepts that can take us beyond the approaches currently found in most early childhood education research.

In order to better understand young children's spatial experiences, I combined my own empirical studies in preschool classrooms with an extensive, critical review of research that focused on young children's relationships to place and space.

Statement of the Problem

Young children spend a significant amount of their waking hours at school. Much of this time is spent in a variety of spaces that adults do not regard as productive spaces because they were not intentionally constructed or arranged for children's learning and development. These spaces, usually marginal or imaginary, are in fact important for children's identity formation. Therefore, how can we begin to acknowledge these spaces? How might we conceptualize them, especially the invisible components? And, how can we analyze and interpret young children's spatial experiences in these spaces? I initiated this study to do research that acknowledges and values children's demonstrations of what places and spaces are important to them, especially

those that are marginal and imaginary. I aim to contribute to the literature by presenting a new conceptual framework that visualizes children's spatial experiences, specifically those that take place in marginal or imaginary spaces.

Significance of the Problem

Research on children's experience of place and space focusing on many aspects: the environment and the structure of the classroom, children's movements, and social behavior related to the educational setting (Abbas & Othman, 2010; Arnott, 2018; Fernie, 1988; Fredriksen, 2012; Onojeghuo et al., 2019; Rimm-Kaufman et al., 2005; Santos et al., 2008; Shultz & Florio, 1979; Torrens & Griffin, 2013; Wee & Anthamatten, 2014). Early childhood education researchers have investigated the educational environments in schools, classrooms, and playgrounds, and they have argued about what are the most beneficial spatial environments for young children's development (Edwards, 2002; Schmitt-Stegmann, 1997; Strong-Wilson & Ellis, 2007). For example, the famous early childhood program, Reggio Emilia, argues that the classroom environment is a "third teacher" by highlighting the importance of the environment on young children's learning (Strong-Wilson & Ellis, 2007). These arguments bring the importance of the environment in educational institutions to the forefront. However, these studies only engage with a portion of the spectrum of children's experience of place and space by only focusing on places and spaces specifically designed for educational purposes.

While most researchers have focused on classroom activity centers and playgrounds at school, some researchers have focused on other places where young children spend time, such as favorite places and secret places in school settings (Colwell et al., 2016; Corson et al., 2014; Korpela et al., 2002; Langeveld, 1983; Simkins & Thwaites, 2008; Simms, 2014; Skånfors et al., 2009). These researchers have described what they observe within children's secret places, what

kinds of play occurs, and how children interact with others within these places. For example, Colwell et al. (2016) studied young children's secret places in the classroom and focused on the materials used by children when they created their secret places. They highlighted what materials are important for preschoolers in the creation of secret places and why the materials are important. However, they did not closely examine the spaces considered important from young children's perspectives, such as marginal or imaginary spaces, or draw on theories that can help both explain and problematize these spaces.

My investigation of the literature has allowed me to find a gap in the research on children's experience of place and space and to consider how I might add a new perspective to the understanding of young children's spatial experiences. Children's engagement with the marginal and imaginary spaces that are typically overlooked in studies of early childhood education is the focus of my research.

Organization of the Dissertation

The dissertation is organized in manuscript style. Chapters 2, 3, and 4 are three potential journal articles. The contents of the dissertation are as follows.

Chapter 2 is a literature review of the research on young children's experience of place and space. It reviews and categorizes various conceptualizations of place and space, the trends in research on children's engagement with place and space, and different approaches to conducting research. This chapter also identifies gaps and limitations in the literature and suggests implications for new approaches to and understandings of young children's experiences of place and space.

Chapter 3 introduces and explains a conceptual framework drawn from theories not usually used in early childhood education, concepts that I argue can help us visualize and think

about the marginal and imaginary spaces that are part of young children's spatial experiences. To understand these experiences through an interdisciplinary lens, this study connects Yi-Fu Tuan's concepts of sense of place and topophilia (1975/1990, 1977) with Michel Foucault's concept of heterotopia (1986), and Walter Benjamin's notion of the threshold (1999). These concepts from geography, philosophy, and architecture, respectively, can help us acknowledge and understand aspects of young children's spatial experiences that prioritize their agency. Bringing these concepts together as a lens through which to observe preschool settings illuminates new pathways for researchers to understand why and how young children engage with place and space in certain ways.

Chapter 4 is an empirical study for understanding young children's spatial experiences by analyzing ethnographic video data using the conceptual framework that was described in Chapter 3. Specifically, I conducted a microanalysis of archives of videos, filmed by Joseph Tobin's research teams, of young children's daily lives in six different preschools in three countries: China, Japan, and the United States. Using a deductive approach, I investigate young children's place, space, and spatial experiences by looking beyond the physical environment and by focusing on young children's use and creation of other spaces. I apply the conceptual framework to identify young children's spatial experiences in marginal and imaginary spaces. As a result, I show how young children exercised agency in their spatial experiences by indicating topophilia, establishing heterotopic spaces, and occupying threshold spaces. Thus, I argue that teachers should encourage children's spatial experiences in marginal and imagined spaces in order to enhance children's sovereignty in the classroom.

To conclude, I summarize the findings of my dissertation study and discuss the implications for early childhood education research and practice.

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CHAPTER 2

YOUNG CHILDREN'S EXPERIENCE OF PLACE AND SPACE: A CRITICAL LITERATURE REVIEW [1]

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ABSTRACT

This article examines studies of young children's relationships to place and space to explore conceptualizations, trends, and approaches in the research across time. I note four dominant approaches in the existing literature: the cognitive-developmental, the sociocultural, the critical/postmodern, and the posthumanist. I then review these four approaches to identify gaps and limitations in the literature and suggest implications for further research on young children's experiences of place and space. As a critical review of the scope of existing research, conducted without strict parameters, I found a preliminary set of articles in ERIC, EBSCOHost, Academic Search Complete, PsychInfo, and Google Scholar databases with keywords such as *place*, space*, classroom, playground, preschool, kindergarten,* and *young children*. Based on these articles, I increased the sample by reviewing their reference pages and identifying common works cited. The total sample of papers ranged in time from the 1970s to 2020 and included 250 peer-reviewed articles and books written from a broad diversity of perspectives inside and outside the academy.

Keywords: Children, Place, Space, Literature review, Cognitive-developmental approach, Sociocultural approach, Critical/Postmodern approach, Posthumanist approach

INTRODUCTION

Young children live their lives in many places, from homes, schools, and neighborhoods to grocery stores, libraries, and museums. The lived experience of young children within these diverse places and spaces has been an important topic of research for decades, particularly as it relates to children's cognitive development (Seamon, 1980; Strong-Wilson & Ellis, 2007). Some scholars have argued that considering place as fundamental when researching human experience ensures a more holistic study of human experience's complexity (Tarr, 2001, 2004; Ellis, 2002, 2004). Extending this idea and applying it to early childhood education, Ellis (2004) argued that including place and space as central ideas in any study of children's experiences in the classroom or school is valuable because in early childhood, we begin to develop concepts and understandings of the spaces and places surrounding us (Gesell et al., 1949; Montessori, 1949/1967; Piaget, 1955,2013). When we think about the role of place and space in children's lived experience, we gain a deeper understanding of where and how children learn to communicate and navigate social life.

Conceptualizations of young children's experiences of place and space are largely grounded in studies in psychology, architecture, and geography. These studies have prioritized classroom configurations, the structural environment, and the sociocultural context of the place and space. Much of the research focuses on children's learning that occurs in places and spaces that are purposefully constructed for academic achievement and learning efficiency. Most of the well-known scholars in early childhood education—Froebel, Montessori, Waldorf, and Pestalozzi—emphasized the importance of a structured environment as a central setting for

learning (Edwards, 2002; Moore, 2017). As such, early childhood scholars have highlighted the significance of young children's relationship to place and space within a structured curriculum while overlooking a more holistic perspective on children's daily lives (Ellis, 2002; Hackett, 2015; Horton & Kraftl, 2006; Rasmussen, 2004). Most research on childhood concepts of place and space has been conducted within disciplinary boundaries with few attempts to bridge disciplinary divides. This literature review analyzes how children's experience of place and space has been defined, studied, and understood over time.

Literature Review Procedure

To conduct this study, I searched for scholarship in five databases (ERIC, EBSCOHost, Academic Search Complete, PsycINFO, and Google Scholar) with combinations of the following terms: *place*, space*, classroom, playground, preschool, kindergarten, young children, spatial*, material*, play*, place experience, space experience, behavior*, center, setting,* and *environment*. I then examined the articles and selected those most aligned with my topic.

Based on this initial search, I employed a snowball technique, consulting the books and theories referenced in key papers on young children's experience of place and space, thereby expanding the scope of this study. To summarize, I searched in a nonexclusive manner for literature related to place and space that included at least one of the keywords listed above. On identifying potential articles, I skimmed through them to determine whether they touched on the review topic and should be included.

This review also includes literature on young children's experience of place and space beyond the field of education in disciplines as diverse as philosophy, anthropology, sociology, geography, and architecture. The publication dates of articles reviewed in this study range from

the 1970s to 2020. Had I limited the years of publication to the past ten years, I might have excluded a number of insightful papers dealing with earlier concepts of children's experience of place and space. Through this process, approximately 250 books, magazine articles, peer-reviewed academic journal articles, and dissertations were retrieved from the databases. In organizing this material, I archived researchers' theoretical perspectives and documented how they conceptualized place and space in relation to young children. I also noted empirical studies that focused on young children's lived experiences in the places and spaces of their everyday lives, particularly early childhood education settings.

Before reviewing the literature on children's place, space, and spatial experiences in early childhood education settings, we need to step back and look at how scholars from a range of disciplines have conceptualized these topics outside the context of education.

Conceptualizations of Place and Space

There is no agreement in the literature on the definitions of the terms *place* and *space.* I find Chinese American human geographer Yi-Fu Tuan's (1977) distinction a useful starting point:

> Place is security, space is freedom: we are attached to the one and long for the other. . . Space and place are basic components of the lived world; we take them for granted. When we think about them, however, they may assume unexpected meanings and raise questions we had not thought to ask (p.3).

As Tuan's definitions reveal, the meaning of place in the humanities and social sciences goes beyond the common idea of place as just a location where something occurs. In particular, the discourse surrounding the concept of place has shifted over the past several decades under the influence of modernity and globalization (Ellis, 2005). Accordingly, in many cases in the social

sciences, the notion of place has been considered “the outcome of social practice,” in that “people determine its shape and meanings” (Berland, 2005, p. 258). Many scholars have argued that place must be understood as something that encompasses the element of human practice, beyond simply a matter of physical and geographic location.

According to Heidegger, a place is related to human existence in the world and must account for the profound and complex aspects of the human experience. He demonstrated that “place places man in such a way that it reveals the external bonds of his existence and at the same time the depths of his freedom and reality” (Heidegger, 1958, p. 19). In response, Tuan (1977, 1990) and Relph (1976) theorized place and space in geography from a phenomenological perspective. To conceptualize place, for example, Tuan argued that an undifferentiated space becomes a place when it gives concreteness to the abstraction. Emphasizing humans’ experiences of the meaning and value of place, Tuan claimed that place and space are complementary: “From the security and stability of place we are aware of the openness, freedom, and threat of space, and vice versa. Furthermore, if we think of space as that which allows movement, then place is pause” (p. 6). Although Tuan maintained the interrelationship of place and space, he clearly saw them as distinct. Relph (1976) also underlined the human experience in theorizing the concept of place. Relph described places as “fusions of human and natural order” and “the significant centers of our immediate experiences of the world” (p. 141). He likewise acknowledged how the inherent complexity of place makes it challenging to define. The concept of place is recognized not only as a formal academic theory but also as a general notion of geographic location. Therefore, from Relph’s (1976) perspective, it is necessary to understand place in terms of direct experience rather than as an abstract theory.

Some scholars have embedded social meaning and context into theories of place. Hammond (2013) stated that "place is the arena for social meaning and forms the basis for social action and identity formation" (p. 78). Similarly, Cresswell (2014) described places as all the spaces people have made meaningful and to which they are attached in some way, defining place as "a meaningful location" (p. 12). Tilley (2004) stated that "places gather together persons, memories, structures, histories, myths and symbols" (p. 25). These explanations explore the nature and concept of place and inform us that each place has not only its own meaning and value for each individual, but also should be understood in the socio-cultural context.

As indicated by the above definitions of place, space is viewed as distinct from place. Tuan (1977) divided space and place into two separate concepts, arguing that "space is more abstract than place" (p. 6), and he associated place with security and space with freedom. Relph (1976) made a similar distinction, arguing space is "amorphous and intangible and not an entity that can be directly described and analysed" (p. 8). To relate the two concepts, Relph claimed, "we feel or know or explain space, [but] there is nearly always some associated sense or concept of place… [and] it seems that space provides the context for places but derives its meaning from particular places" (p. 8). While we can perceive place and space differently, we still recognize their reciprocal relationship. Hirsch and O'Hanlon (1995) took a similar stance, describing place as something concrete that provides meaning to an otherwise abstract space. Space offers potential, which place then defines and imbues with meaning and purpose. Thus, place and space are distinct but complementary.

Many researchers have attempted to theorize place and space by describing the relationship between the two, but scholars appearing after the 1970s did not fully accept human geographers' argument about the distinction between place and space. Human geographers have

argued that space is not directly tied to people's lives and thus can be neutral; however, space is transformed into place by the meanings and practices of people. Researchers outside of this field, though, have felt that this ignores the inherent motivation of space's potential and space's inability to remain neutral even prior to its defining by place.

Definitions of place emphasizing human experience represent the hermeneutic and phenomenological views of humanist geographers. Since the 1970s, however, critical and feminist geographers have challenged such conceptualizations of place and space and redefined the terms (Casey et al., 1997; Helfenbein & Taylor, 2009; Massey, 1994, 2005; Anderson, 2013). For example, Helfenbein and Taylor (2009) problematized simplistic notions of place and space: "Commonly noted as space imbued with meaning, place remains a fundamental concept in a spatial analysis, yet the distinction between space and place is fluid in that space can no more be seen as neutral as any other social concept" (p. 237). Opposing the limited definitions of place and space posited by human geographers in favor of flexibility, these scholars emphasized the need to pay attention to additional complexities of place and space. They suggested that in order to understand place and space, we must consider not just how spaces are produced and places are defined, but also how spaces and places influence individuals who spend time there. In other words, simplistic or limited definitions would not suffice if researchers hoped to explore the entirety of the human experience of place and space.

Many scholars have suggested alternatives for the traditional definitions of place and space. Adams et al. (2001) argued that, although place has a long-held association with community and stability, it is increasingly recognized as dynamic and fluid. In this regard, Massey (2005) also contested the notion of place as settled, coherent, and pre-given, suggesting that place "pertains to how people live out everyday life in environments that are not fixed

localities" (p. 151). Thus, she argued that we need to consider the uniqueness of place because we face the unavoidable challenge of negotiating the here and now based on notions of place and space. These challenges to traditional definitions of place and space have enabled a wide range of new analyses and interpretations.

The Spatial Turn

The postmodern political geographer Edward Soja first used the term *spatial turn* in 1989 to describe the "response to a long-standing if often unperceived ontological and epistemological bias in all the human sciences, including such spatial disciplines as geography and architecture" (Soja, 2008, p. 12). For him, the spatial turn is a significant moment because "we are and always have been spatial beings, active participants in the social construction of our embracing spatialities" (Soja, 1996, p. 1). The spatial turn in social science research has had an impact on a similar "social turn" in other disciplines (Allweil, 2010, p. 1). It has influenced disciplines such as architecture, city planning, and design and opened doors to interdisciplinary opportunities for investigating the concept of children's place and space, which had previously been disregarded. In consequence, education scholars have become interested in the places and spaces where children live and stay, and children's place and space studies have flourished since the 1990s (Kernan, & Singer, 2010; Raittila, 2012).

Conceptualizations of Children's Place and Space (Children's Geography)

Since the 1970s, when human geographers started to focus on human experiences in place and space, attention to concepts of children's place and space followed, leading to the creation of children's geography as a subdiscipline of human geography (Aitkin, 2018). According to British geographer Stuart Aitkin (2018), Roger Hart was the first scholar to define children's geographies when he published *Children's Experience of Place: A Developmental*

Study, based on his 1979 doctoral dissertation. Following Hart's research (1979, 1984) on children's experiences of place, other interested researchers embraced the concept of children's geography (Aitken, 2000, 2018; Ellis, 2002, 2004; Valentine & Holloway, 2002; Holloway & Valentine, 2004; Horton & Kraftl, 2006; James, 1990; Kraftl et al., 2012; Matthew, 1992; Moss & Petrie, 2005).

To introduce children's studies to the field of geography, James (1990) called for more scholarly attention to children's perspectives in social science. In *Children's Geographies: Playing, Living, Learning* (2004), feminist geographers Sarah Holloway and Gill Valentine examined how children's identities are constituted in and through particular spaces and advocated for progressive understandings of place to overcome biased approaches to childhood. Previously, Holloway and Valentine (2004) had not only argued for such an approach to children's geographies but had also participated in debates about the spatiality of childhood and our understanding of children's competence as social actors in experiencing space and place. They had also argued for consideration of both children's and adults' perspectives on the significance of children's everyday lives in place and space (Holloway & Valentine, 2004).

Scholars gradually expanded the scope of studies of children's place and space. Moss and Petrie (2005) argued that the concept of children's space does not stop at physical settings. They suggested that children's space also carries "physical, social, discursive, and ethical components of meaning" (p. 10). Specifically, Moss and Petrie (2005) described children's space as follows:

> The concept of children's space does not just imply a physical space, a setting for groups of children. It also carries the meaning of being a social space, "a domain of social practices and relationships"; a cultural space, where values, rights, and cultures are created; and a discursive space for differing perspectives and forms of expression, where

> there is room for dialogue, confrontation (in the sense of exchanging differing experience and views), deliberation, and critical thinking, where children and others can speak and be heard. In this sense, the concept of "children's space" implies possibilities for children and adults to contest understandings, values, practices, and knowledge. (pp. 9–10)

Significantly, Moss and Petrie (2005) proposed a concept of children's space dealing with both physical localities and sociocultural practices. In addition, they claimed children's spaces are "characterized by particular ethics, relationships, and practices" (p. 106) and thus linked more closely to context than to the traditional notion of geographical space. In this sense, children's space suggests possibilities for children and researchers to contextualize understandings, values, practices, and knowledge. Similarly, Rasmussen (2004) described children's places as those "children relate to, point out, and talk about" (p. 165). He argued that young children do not talk explicitly about places, but their "bodies show and tell where and what these are" (p. 165). Rasmussen expanded the concept of children's place beyond children's conversation to include the locations of their bodies. To explore children's place in good faith, we should not assume we know which places are theirs. Rather, we need to follow where children go.

In addition to studies aimed at broadening the definitions and conceptualizations of place and space, scholars began to emphasize the importance of studying children's concepts of place and space as a tool for understanding children's lives. Ellis (2002, 2004, 2005) described the importance of attending to children's place, researching children's space and place, and focusing on place as a formative component of their lives. Further, she claimed that "children's place and space can be understood as a form of curriculum—the lived experience that shapes and enables their growth and learning" (2004, p. 69). In this context, the curriculum should be recognized not only as a written document but also as a physical location encompassing the places and spaces

where children experience life. Ellis (2002) also highlighted children's needs for their own places and spaces:

> A number of studies have identified children's needs for place as a source of security, stability, belonging, and identity and, within place, for space which provides opportunity for social or creative self-development. These findings can alert researchers to the significance of place and space when studying the lives, learning and identity formation of children and youth. (p. 73)

Furthermore, Ellis (2004) insisted on a pedagogical recognition of children's place and space, distinguishing them thus: "Place can be understood as a center of nurturance, especially through meaningful relationships, while space can be understood as opportunity for growth and creativity" (p. 33). Ellis (2005) also suggested that classrooms and schools can be understood and researched as places intended to support young children's growth and wellbeing because they "provide security, nurturance, meaningful relationships, and opportunities for positive identities while including space for students' creative self-development" (p. 59). Such scholarly understandings give us the flexibility to conceptualize young children's place and space and their experiences therein.

Based on these research trends, Horton and Kraftl (2006) pondered future directions in children's geography:

> The 'classic' canon of 'Children's Geographies' is undoubtedly a rich resource of observable, mappable, visual, cognitive data about childhoods (cf. Hart, 1979; Matthews, 1992; Moore, 1986; Spencer et al., 1989), but we might now ask: What *more* is there, beyond this cognitive and neatly mappable realm, and how might we work with this significant *more?* (p.78) [italics original]

Based on this, they provided several key topics that encourage future researchers to think critically and expand our understanding of children's geographies: "everydayness, material things, practices, bodies, affect, ongoingness and education, and spacing" (Horton & Kraftl, 2006). Focusing on these topics allows us to challenge assumptions about children's place and space and to explore children's geography in their everyday lives by highlighting the multiple ways we can approach the subject.

The literature on children's place and space demonstrates how researchers have defined place and space over time, including how children's geographies compare to adult geographies. Based on this conceptual understanding of young children's place and space, I describe in the next section four distinct approaches through which researchers have studied young children's experiences of place and space, discuss select studies that exemplify the features that stand out in each approach, and lay out the implications for future research.

Different Approaches to the Study of Children's Experiences of Place and Space

Given the many ways to conceptualize place and space, there are several perspectives that have been adopted in the study of young children's experiences of place and space. My review of more than 250 studies suggests four major theoretical approaches: the cognitive-developmental, the sociocultural, the critical/postmodern, and the posthumanist.

These four categories emerged as a result of analyzing the scholarship both historically and thematically. The historical analysis of changes in scholarship on space and place over the past fifty years suggested four distinct periods, and through the thematic analysis, I identified what I see as the central research interests and conceptual approaches most characteristic of the scholarship in each of those four periods. The following overviews of each approach do not

include all the studies I reviewed. Rather, I have tried to illustrate the conceptual core of each approach through a few studies that I found to be representative.

I acknowledge that my categorization of this literature, like all categorizations of a large set of writings, is imperfect. One problem with combining a linear and a thematic analysis in a literature review is that some publications are out of sync with the prevalent approaches of their time, as authors anticipated concerns and approaches that became typical of a later time, or returned to concerns of earlier decades. For example, some writings about space and place of the 1980s anticipated the posthumanist approaches that became more dominant in the next decade. And some recent work returns to concerns of earlier periods. There were quite a few studies that could not converge with just one approach. However, I attempted to categorize the research into one of the four approaches through the contents or keywords of the literature referenced by the researcher, even if the research takes several approaches. This was intended to give the reader a more straightforward idea by converging the problems of diversity that may arise when reviewing numerous studies at once. Nevertheless, despite the inevitable impreciseness of presenting a literature review in a form that combines a linear history with a conceptual taxonomy, without this or another grouping, patterns in such a large corpus of studies would be impossible to discern.

The Cognitive-Developmental Approach

Researchers using the cognitive-developmental approach have highlighted the impact of classroom design and layout for childhood learning and development. These researchers have explored how educational facilities and environments affect children's development and growth by studying the interactions of early childhood education's indoor and outdoor spaces with

patterns of children's behaviors and play, geographical perceptions, spatial knowledge, representational abilities, and dimensional awareness.

The influence of the indoor physical environment on children's behaviors has been well documented (Moore et al., 1994; Moore, 2008; Read et al., 1999; Sandseter, 2009; Zimoons, 1997). Researchers in this area have explored how aspects of geography including play area arrangements, crowding and privacy, spatial volume and wall colors, the design and equipment of playgrounds, impact the quality of instruction in kindergarten classrooms and the development of children's competency.

Several scholars have investigated how arrangements of space affect children's play (Azlina & Zulkiflee, 2012; Gibson & Pick, 2000; Stanković & Stojić, 2007). For example, Gibson and Pick (2000) analyzed children's movements on school grounds. Basing their classification system on the types of environments children occupied, they identified two major types of children's movements: exploratory and performative. They affirmed that children's environments affect children's play. Their findings give researchers insight into what the environment should provide according to what we expect children to learn. Azlina and Zulkiflee (2012) identified landscape features such as natural and manmade structures in outdoor play areas that afford challenging and stimulating play environments for kindergarteners. They measured children's performance through physical actions across a variety of spaces including a playground area, open-space areas, a covered open hall, and several small lawns. These examples showed how the physical environment affects types of play, which they connected to a child's cognitive-developmental stage.

The cognitive-developmental approach has also focused on the development in young children of dimensional awareness and spatial knowledge. For example, regarding spatial

awareness, Stanković and Stojić (2007) reported that if spaces are structured and equipped in an appropriate way, a child's developmental ability will be supported, which can improve the child's capability. Studies such as this one suggest the need to study children's conceptions of space and place and to recognize children's spatial experiences in early childhood educational facilities.

The cognitive-developmental approach is vital to understanding the relationship between environments and children's developmental thinking. Every child will find themselves in some type of environment that affects the ways they learn, interact with others, and form identities. With the theories put forth by scholars such as Tarr (2001), who argued that understanding young children's engagement with place and space necessitates understanding the physical component of educational facilities—design, construction, arrangement, materials, furniture, and walls—we are provided with a foundation on which to build new ideas about how children conceptualize place and space. The cognitive-developmental approach focuses on the child's psychological processes and development, laying the groundwork for a critical approach that attempts to incorporate the child's perspective of how they understand place and space, which, in turn, can help us more accurately understand the developmental stages through which children progress and create environments which best support their development.

The Sociocultural Approach

The sociocultural approach to children's geography is based on the premise that children's interactions with place and space affect their social and cultural development as well as their cognitive abilities. For example, the type of preschool classroom or playground is seen as affecting the quantity and quality of children's social interactions. Employing this point of view, a great deal of research has examined how the kindergarten environment (e.g., indoor space,

outdoor space, specific design features) affects social interaction (e.g., solitary or interactive, solidarity, group play), often with attention to children's play by gender (Karsten, 2003; Santos et al., 2008; Torren & Griffin, 2013).

The concept of proximity has been regarded as an important factor in children's sociocultural development. For example, Santos et al. (2008) found that physical environment and proximity to peers influenced the structural characteristics of children's social groups, such as linear hierarchies and nonlinear networks. This affected children's social dynamics and the processes underlying their social structures (e.g., dominance vs. friendship, avoidance or ambivalence vs. approach or contact) by providing possibilities for, as well as constraints on, children's behavior (Santos et al., 2008). In addition, Legendre (1999) found that furniture arrangement and playroom setup affected the quality and quantity of children's social interactions in kindergarten.

Studies that have investigated the influence of the spatial environment on children's play and interactions by gender include Torrens and Griffin's (2013) research. In this study, the researchers observed children's social and nonsocial interactions, tracked their movements, and recorded the locations of their activities to determine whether different genders use places differently. They reported that boys and girls exhibited different behavioral patterns no matter if researchers provided similar or different social and environmental contexts in the kindergarten classroom. Similarly, Karsten (2003) studied children's use of public spaces, finding that the public playground is a gendered world. According to Thorne (1993), the physical boundaries in the playground demarcate gendered boundaries; thus, certain places allow only certain types of gendered play. In agreement with Thorne, Karsten (2003) found that while general patterns of place usage could be discerned, a great deal of variation existed across spaces and activities

based on the social and ethnic context of the surrounding area and the size, number, and quality of play objects at the playground.

Studies exploring the effect of the physical environment on relationships with others have highlighted the variety of young children's interactions in the kindergarten classroom. Both Davis (2013) and Hutchinson (2004) argued that teacher-child relationships are influenced by the physical setting of the classroom and the teacher's implementation of the curriculum. Further, Gauci (2016) reported that classroom setups help children anticipate certain types of interactions with other children and teachers. Gauci argued that place-based meanings children make in their relationships with others affect their attitudes and feelings toward others and the school.

The sociocultural approach allows researchers to consider diverse aspects of children's space experiences in specific classroom and public contexts. Also, this approach can contribute to our understanding of how children's experiences of place and space reflect their perceptions of place and space. By attending to both the physical features and sociocultural variables of environments, the sociocultural approach supplements the cognitive-developmental approach.

Critical/Postmodern Approach

Critical researchers apply a postmodern lens to children's agency in shaping and utilizing their environments. While the sociocultural approach recognizes demographic and identity differences among children, such as gender, race, and ethnicity, it tends not to focus on power dynamics within children's places and spaces (Karsten, 2003; Morgan, 2000; Thorne 1993; Torrens & Griffin, 2013; Yoon & Henward, 2020). In addition, from the perspectives of cognitive developmentalism and sociocultural theories, preschool classrooms are conceptualized as idealized spaces for children's development. However, some scholars have argued that we need to reconsider this romanticized idea of classroom space and place in the cognitive-

developmental approach and instead pay greater critical attention to real-word manifestations of classrooms as places (Ellis, 2002, 2004), manifestations which often are not positive.

In addition, researchers from the critical perspective have argued that classroom configurations not only help foster child development and social relations, but also implicitly uphold specific societal and educational paradigms, values, and ideologies. Therefore, many research studies adopting the critical/postmodern approach have analyzed children's place through power dynamics and children's interactions with their peers and teachers within these spaces. For example, reflecting on young children's problematic behavior, MacLure et al. (2012) argued that "It emerged within, and was shaped by, the culture of the classroom and by wider educational and social discourses" (p. 448). They explained that the classroom environment not only fosters young children's development but also is a microcosm of the adult world, deeply immersed in, reflecting, and contributing to the reproduction of societal customs and culture (Morgan, 2000). Some scholars writing on life in preschools have drawn explicitly on Foucault's conceptualization of power and space, like Tobin (1995), who reconceptualized teachers' belief that they need to prioritize sight-lines in the spatial organization of their classrooms, aligning teachers with Foucault's prison guards who are compelled to enforce a disciplinary practice of surveillance. Although constant surveillance of children's spatial movements may seem like an effective and necessary strategy for classroom management, it does not account for children being attracted to spaces in the classroom where they are not visible.

Accordingly, several researchers have also pointed out the importance of increased awareness in various childhood education stakeholders of children's experiences of place and space. Brown et al. (2012) stated there was a need for "researchers, policymakers and practitioners working with children and young people [to] be more aware of how spaces are

important in/for their work" (p. 8). From a similar point of view, Jones et al. (2016) discussed the need to bring the notion of spatial justice into considerations of children's places. They argued that "education scholars [need] to engage theories of spatiality informed by critical human geography and new materialism to foreground the politics of space-making for and with children" (p. 1128). Acknowledging these needs lays the foundation for more in-depth research that puts children's desires and concerns at the center of their spatial experiences in preschools, which can ultimately have an influence on practice.

While few empirical studies have adopted the critical/postmodern approach to date, it nonetheless allows us to bring to empirical studies consideration of how classroom spaces are constructed by culture, society, ideology, and social beliefs. Based on this framing, we can uncover how these elements affect children's behavior, play, and experiences in place and space. Rather than view the critical approach as unrelated to the cognitive-developmental and sociocultural approaches, we should recognize how the two earlier approaches, which focus on observable factors of children's interactions in place and space, can complement the critical approach's focus on power dynamics internal to the social milieu of place and space.

Posthumanist Approach

Three of the four approaches reviewed in this paper—the cognitive-developmental, the sociocultural, and the critical/postmodern—acknowledge place and space as a backdrop to children's spatial experiences. From these perspectives, place and space set the stage for human interaction and experience. In contrast, the posthumanist approach foregrounds place and space as one of many agential actants in a network (Latour, 2005). Posthumanism and new materialism see the world as an entangled network of human and non-human actors (Latour, 2005; Barad, 2007). Viewing humans and non-humans as actants with equal agency, Latour (2009) argued that

every action is “the property of the whole association, not only of those actants called human” (p. 162). He argues that non-humans should be viewed as actants equivalent to human beings beyond the dichotomy of subject and object.

Since 2000, research in the field of early childhood education has moved into a posthumanist phase. Now, place, space, and materiality are increasingly regarded as actants in childhood research (Nordtømme, 2012), suggesting new implications for future research. In that context, childhood researchers Jones and Spector (2017) described the difference between the posthumanism approach and other approaches as follows:

> Posthumanism provides conceptual tools for making sense of the ways in which discourses (e.g., languages, ideologies, and ways of being) and materiality (e.g., human bodies, material objects, and space) enfold one another, creating something new through their connections. This is a shift from theories that are centered around humans and their individual actions and behaviors as if they are autonomous beings not shaped by and shaping the materiality and language/ideology practices around them. (p. 302)

In this way, the posthumanist approach moves away from an anthropocentric perspective on children’s spatial experiences toward a view of place and space as actants themselves.

According to posthumanist research on children’s spatial experiences, place and space take on various aspects and intensities depending on the entanglement of environmental elements, including humans’ re/actions. That is, spatial roles and meanings change fluidly according to the assemblages made or appearing in a given place. Duhn (2012) criticized traditional ways of thinking about place as “intently human-centric” (p. 101), calling out the insensitivity to place as a phenomenological assemblage of discursively constructed materiality. In considering the complexity of place as an assemblage including human and nonhuman actors,

posthumanist researchers have argued that we could better understand the multidimensional aspects of children's spatial experiences in a given place (Procter & Hackett, 2017).

Several empirical studies have used a posthumanist approach to examine children's spatial experiences in public and private settings. Using Barad's concept of intra-action, Mackley et al. (2015) studied children's sensory experiences in home settings and argued that adults should think of children as "knowers and makers of their environments" (p. 34) rather than passive participants in these "open and unbounded" settings (p. 34). Procter (2015) argued that the analysis of children's emotional experiences in public school could be extended by "recognizing the interplay between the material/immaterial environment and human/non-human entities within the thrown togetherness [i.e., assemblage] of place" (p. 133). In her ethnographic study, Hackett (2015) observed how children reacted to the physical and sensory elements of space, especially to a large stuffed bear in a museum exhibit. She described these interactions as an "embodied experience of place" (p. 81) as the children were drawn to the space because of the presence of the stuffed bear and engaged with the bear through their gaze and hugs. Her research showed that the posthumanist approach illuminates hidden aspects of how children engage in and navigate place and space through their sensory experiences.

The posthumanist perspective on place, space, and environment as an assemblage or network of materials represents a turn in educational research toward the active role of context in human experience. This posthumanist shift focuses on how place engages an individual into a network of entangled and intertwined elements. In this way, the posthumanist approach creates new opportunities to study and understand the lives of young children in and out of education settings by examining the agency of each place and space. Recognizing place and space as

actants within diverse assemblages provides a greater awareness of space as a relational network of things.

Conclusion

> *The space of life is essentially qualitative, fluid, contextual, dynamic and relational*.
>
> (Lefebvre, 2013, p. 97)

Most young children spend a great deal of their waking lives in early childhood education settings. For young children, a preschool classroom is a place to learn to navigate the world, negotiate power, and become who they will be in the world. Therefore, in our research, rather than thinking about the spaces of early childhood primarily in terms of territories with strictly defined boundaries or criteria, such as are laid out in architectural plans or teacher classroom plans, we should consider classroom spaces as places that children move through to know the world.

In this literature review, I reviewed various conceptualizations of place and space and examined different theoretical approaches for researching children's experiences of place and space. Early researchers' emphasis on cognitive development in children's place and space helps us reconsider the basic role of the classroom and the importance of the environment. Research that highlights children's communication with others allows us to consider not only children's cognitive development but also their social-emotional experiences within the preschool setting. Critical/postmodern critiques enable us to think critically about how children's place and space are constructed and how this affects young children's experiences. Posthumanist scholars have drawn our attention to the non-human actors that contribute to the construction of place and space and how these influence children's spatial experiences. The variety of studies conducted

from these four perspectives allows us to think about children's spatial experience in a myriad of ways.

Looking at place and space from the perspective of young children's relationships to peers, teachers, and materials refreshes our thinking and practice regarding the formation of young children's places and spaces, and experiences in those places and spaces, especially in preschool. Children's concept of place and space may be further defined by children's subjective perceptions (i.e., thoughts, feelings, and emotions) of the place or space. After a thorough review of the literature, I would argue that we need to consider not only how children's experiences of place and space are conceptualized by adults but also how they are conceptualized by children.

From these various approaches to space and place, there are several questions to direct future research: How do we apply different perspectives to space/place research? What do we hope to learn from new research on these topics? The possible goals of future research could be to understand children more and support them in the ways they live in this world by implementing child-centered place research and using an interdisciplinary approach that recognizes children's autonomy and agency in their daily lives and experiences. This recognizes all four approaches presented in this review and aims to combine their strengths to better support children in their development, learning, and experiences.

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CHAPTER 3

VISUALIZING YOUNG CHILDREN'S SPATIAL EXPERIENCES: CREATING A CONCEPTUAL FRAMEWORK[2]

[2] Han, S., 2022. To be submitted to a *Children's geographies*.

ABSTRACT

This article introduces and explains a conceptual framework that helps direct attention to young children's subjective experiences of space rather than the effect of space on children's behavior. The conceptual framework I develop integrates interdisciplinary concepts from geography, philosophy, and architecture to analyze children's spatial experiences. I focus on how young children engage with marginal and imaginary spaces by connecting Tuan's (1977) sense of place and topophilia with Foucault's (1986) heterotopia and Benjamin's (1999) notion of the threshold. This approach sheds light on unnoticed and invisible spaces not commonly considered in education research. Integrating this critical framework into preschool settings can offer early childhood educators new ways of understanding how young children explore space and place and engage with imaginary spaces in particular. Also, this conceptual framework gives educators a different perspective into the importance of designing spaces through responsive methods. I conclude by suggesting that this research into children's perspectives of place and space is essential to understanding young children's spatial experiences and explorations of the world around them.

Keywords: Children's spaces, Conceptual framework, Sense of place, Topophilia, Heterotopia, Threshold, Marginal spaces, Invisible spaces, Preschool classroom

INTRODUCTION

> *The everyday life of children takes place in concrete, physical spaces. Children's everyday life flows along because children live their lives in a stream of time that glides along as they find other places.* (Rasmussen, 2004. p.155)

To understand young children's daily lives more fully, we need to attend to children's relationships to the places and spaces where they live, such as their homes, neighborhoods, playgrounds, and schools (Clark, 2010; Hackett, 2015; Katz, 1991). Early childhood researchers typically conceptualize these sites in terms of their potential for supporting adults' expectations for young children's cognitive, social, and emotional learning. In other words, adults have prioritized constructing a classroom environment for preparing children for the future rather than honoring children in the present. Whatever intentions or expectations adults may have, children give meaning to space in their own unique ways (Ellis, 2002; Hart, 1979; Kellock & Sexton, 2018).

Young children spend much of their preschool hours in a variety of adult-designed spaces. Educators design preschool classrooms for young children to perform certain activities in certain spaces: a circle drawn on a rug for class gatherings, a dress-up corner for dramatic play, a block area for building, easels for art, and activity centers for writing, reading, science, and math. All of these spaces are intentionally designed for how children should use them. Although children do frequently use these spaces as intended, they also enact emergent play strategies that expand or altogether reject the initial intention for the space and the usage of surrounding materials.

My research focus is not on adult-intended uses of spaces, but on spaces in the preschool classroom not often noticed or named as spaces and how children use those spaces in unanticipated ways. These spaces can include the spaces in-between areas of clear intent and marginal spaces children carve out in their classrooms where they can act outside their teacher's intentions. When we conceptualize the preschool classroom only as a site for supporting children's cognitive and social-emotional development, we risk disregarding the existence of space for other meanings and desires; we might miss an opportunity to think about the ways in which children navigate space to meet their own needs.

Young children's classroom experiences include more spaces and places than are generally acknowledged by adults. For example, during my research, I observed young children in the corners of the preschool classroom, under desks, behind shelves and curtains, and in milk crates. In these cases, children were using their imaginations to create spaces for themselves in places not designed for educational purposes. Children build spaces of their own in the classroom setting by transforming the physical space both materially and imaginatively.

This paper is concerned with understanding young children's experiences in marginal and imaginary spaces, an area of study largely neglected in childhood education research, even when accounting for research on children's creation of secret and invisible spaces. One example of research on children's secret spaces is Hayashi and Tobin's (2009) study of the practice in Japanese preschools of allowing children to play in *ajito* (hideaways), where they feel they are not being watched by teachers. Hayashi and Tobin (2009) describe the *ajito* as follows: "*Ajito* is a space that children think is their own space. They think that teachers cannot see them when they are in an *ajito* area. … The key is that children *think* that it's their own private space" (pp. 31–32). While this study draws attention to children's enjoyment of places they consider hidden

from teachers, the *ajito* is designed by the teacher, not the children. In contrast, my research sheds light on places within early childhood education settings not designed by or recognized as sites of meaningful activity by adults. Such secret places include imaginary spaces and interstitial spaces between more clearly defined spaces, both of which fall outside the scope of traditional observational methods. Horton and Kraftl (2006) addressed the limitations of traditional observation by posing an important question:

> The 'classic' canon of 'Children's Geographies' is undoubtedly a rich resource of observable, mappable, visual, cognitive data about childhoods (cf. Hart, 1979; Matthews, 1992; Moore, 1986; Spencer et al., 1989), but we might now ask: What *more* is there, beyond this cognitive and neatly mappable realm, and how might we work with this significant *more?* (p.78) [italics original]

In response to this question, I introduce an interdisciplinary conceptual framework that can aid in revealing marginal spaces in a classroom and young children's spatial experiences within them. This approach draws on the theoretical concepts of Yi-Fu Tuan's (1977) *sense of place* and *topophilia*, Michel Foucault's (1986) *heterotopia*, and Walter Benjamin's (1999) *threshold*. I demonstrate how drawing on these concepts from outside the field of early childhood education can help us understand young children's perceptions of place and space and analyze their spatial experiences. I also describe how, by applying my proposed framework, adults can support children's holistic development and encourage their agency through an in-depth understanding of children's spatial experiences.

Sense of Place/Topophilia, Heterotopia, and Threshold

The concepts utilized in this paper did not originate in the field of early childhood education; however, the ideas presented in these theoretical arguments offer practical ways to

access and analyze young children's place, space and spatial experience. In my explorations of place and space in early childhood education settings, I have found most helpful the theories and concepts of Chinese American human geographer Yi-Fu Tuan (1930–), French historian and philosopher Michel Foucault (1926–1984), and German philosopher Walter Benjamin (1892–1940). With the goal of introducing a new theoretical framework to the field of early childhood education, I propose that we conceptualize young children's perceptions and uses of place and space through Tuan's sense of place and topophilia, Foucault's heterotopia, and Benjamin's threshold.

Sense of Place and Topophilia

In *Space and Place,* Tuan (1977) defines sense of place as a person's relationship with the places in their lives. Tuan (1990) calls a strong sense of place *topophilia*: an attachment to and affection for a place and emotional empathy between people and places. He explains how young children develop a sense of place, what the indicators of a sense of place are, and how sense of place impacts young children. A sense of place may lead to a sense of stability and belonging if the child has positive experiences in a place, or it may lead to isolation and alienation if the child has experienced anxiety in a hostile place. These experiences of place can inform and give rise to a variety of actions (Cresswell, 2014; Najafi & Shariff, 2011).

Tuan (1977) emphasizes the importance of considering infants' developmental characteristics in explaining young children's sense of place. He describes young children as "being dominated by fleeting impressions" because they do not have a conception of "permanent objects" (p.18). Tuan emphasizes several factors that affect how young children develop a sense of place. Children first gain spatial stability by naming the places that they experience. Their verbalizations of place names indicate and support their emerging sense of place. Secondly,

events, even minor ones, that a child experiences in a place contribute to the sense of that place. Thirdly, Tuan claims that a sense of place can be acquired through all physical senses. Tuan quotes Stark (1963) on sensory memories of sensation for remembering place:

> In smaller, more familiar things, memory weaves her strongest enchantments, holding us at her mercy with some trifle, some echo, a tone of voice, a scent of tar and seaweed on the quay… This surely is the meaning of home—a place where every day is multiplied by all the days before it. (p.55)

Tuan's analysis of how memory and spaces commingle suggests that young children's sense of place is enriched through daily embodied sensory encounters. This multidimensionality of sense of place provides researchers with guidance on what to attend to when investigating young children's sense of place in everyday locations.

Utilizing Tuan's concept, I attempt to understand how young children come to recognize their spaces in school as places and what that recognition tells us about children's perceptions of themselves and their environment. However, the form those places take will vary. When constructing places, children often carve them out from already existing environments. Furthermore, a place may mean one thing to one child and something totally different to another child or the teacher (Gauci, 2016; Kudryavtsev et al., 2012). This difference in meaning may also influence young children's use of space and their spatial experiences. Therefore, sense of place provides a starting point for investigating young children's individual experiences.

Heterotopia

Based on the above-mentioned sense of place, children experience the classroom space in creative ways by reconstructing existing spaces or creating new spaces of their own. In line with this perspective, Foucault (1986) proposed *heterotopia* as a counter-space to ordinary space. He

draws the concept of heterotopia into children's experiences of the world in his detailed description in "Les hétérotopies":

> Amidst all these different places [of a society] there are those which – in a way – differ completely from the others. Places that resist all the others and that are in a way destined to erase, replace, neutralize or purify. They are in a way counter-spaces. Children know these counter-spaces very well, these localized utopias. (trans. Unterhuber, 2014, para. 3).

Foucault applied the concept of heterotopia specifically to children's playfulness and described it as a special space a child uses in a way not intended or anticipated by adults. According to Foucault, young children know instinctively how to create a heterotopia:

> This is–on a Thursday afternoon–the parental double bed. On this bed you discover the ocean because you can swim between the covers. But the bed is also the sky because you can jump on the springs. It is the forest because you can hide in it. It is the night because you become a ghost under the sheets. (trans. Unterhuber, 2014, para. 5).

Children's use and experience of space transforms it into something uncommon and exceptional. A child's atypical use of classroom space or place designed for some other purpose allows heterotopic transformation: young children transform spaces and, in doing so, transform their own interiority.

For Foucault, this heterotopia contains otherness, heterogeneity, unique contexts, and discontinuity. Heterotopia is a site in which epistemes collide and overlap, enabling the emergence of new perceptions, thoughts, and perspectives on space (Johnson, 2006). A heterotopian interpretation of space destabilizes the categories of space and time by reflecting critically on the intermediary situation between them (Thrift, 2008). Such a convergence of space

and time allows us to shift from an adult-centric perspective to a child-centric one, giving us new insight into young children's use of place and space. The concept of heterotopia acknowledges children's altered spaces as counter-spaces so we may understand how young children transform adult-constructed spaces for their own purposes. Ultimately, the concept of heterotopia could help teachers better understand young children's need to transform space.

Foucault's concept of heterotopia has been applied to educational spaces such as classrooms, playgrounds, and to spatiality more generally (Pitsikali, 2018; Ingrey, 2013; MacRae, 2011; McNamee, 2000). Pitsikali (2018) examined playgrounds through the lens of heterotopia and suggested that we should perceive young children's spaces as multilayered, complicated, and not easily understood. MacRae (2011) reported that young children's artwork was created not in spaces provided by adults but in heterotopic space. According to MacRae, the concept of heterotopia forces us to confront the limits of our understanding of young children's ability to create their own spaces. McNamee (2000) claimed that children resist adult control by creating heterotopias in their everyday activities. In acknowledging young children's agency, the foregoing research shows us how we can adapt the concept of heterotopia to examine children's spatial experiences in settings constructed by adults.

Thus, scholars must recognize children's agency in creating heterotopias by approaching these important spaces from children's points of view. The concept of heterotopia allows us to understand young children's lives and the worlds they live in without the limitations imposed by a purely adult-centric perspective.

Threshold

While Foucault's concept of heterotopia leads us to pay attention to children's transformation of space and place by regarding it as "other space", Benjamin's concept of a

threshold allows us to focus on marginal spaces. Exploring the history of urban planning in Paris, Benjamin became fascinated with the possibilities of thresholds and other liminal spaces, as we can see in this passage from *A Berlin Chronicle* (1978): "just as there are plants that primitive peoples claim confer the power of clairvoyance, so there are places endowed with such power" (p. 25). Benjamin laid the foundations for a conceptual understanding of the threshold in *The Arcades Project* (1999) and *Berlin Childhood Around 1900* (1950/2006*)*. Typically, a threshold is recognized as a doorway separating outside from inside or one room from another. For Benjamin, however, a threshold is a space where one can indirectly experience the space beyond: "[The] threshold (die Schwelle) must be sharply differentiated from the border (die Grenze). The threshold is a zone. Change, passage, and ebb and flow are embedded in the word schwellen ['to swell']" (Benjamin, 1982, cited in Teyssot, 2005, p. 90). The notion of the threshold as a zone opens up possibilities for acknowledging experiences in that space. Unlike a border, the space surrounded or differentiated by a threshold does not exist in a self-completed state.

For example, Benjamin (2006) offered *loggia* as an example of a threshold space. The loggia, a terrace or patio arcade dividing the inside from the outside of a structure, does not belong to either of the sides it separates; it exists as its own space and acts as a space of observation suited to viewing either side. The threshold itself does not demand purposeful action, but rather, provides an opportunity to examine other spaces around the threshold. The acts of observation and examination are necessary to understand the role that the loggia and other thresholds play in our conception of space and time insofar as recognizing thresholds as liminal spaces allows us to observe the spaces bordering that threshold. These acts are also key to using this concept to shape our teaching practices. Teachers can observe the ways in which children experience thresholds and productively respond.

Benjamin's concept of threshold lets us view threshold spaces as places where children may experience change and emotions as they pause there or move into new spaces from there. Gilloch (1996) stipulates that, "according to Benjamin, the impermanence and fluidity of spatial and temporal boundaries facilitate spontaneous activity and mirror 'the most radiant freedom of thought'" (p. 35). The flexibility of the threshold space, whose boundaries are porous rather than fixed, provides an opportunity to maximize the sovereignty of children's spatial choices. The threshold is a space where children can imagine their own experiences. Young children may experience this freedom of thought as they navigate existing boundaries, identify thresholds, and transform them into purposeful and meaningful spaces. In other words, children purposefully develop these spaces to engage in activities meaningful to their overall developmental needs and interiority. A threshold, therefore, has a greater capacity for interpretation as a sovereign space than a border.

As a platform where spatial movement, conversion, and settlement are determined, the threshold incites change, mobility, and transformation of young children's thoughts and actions by allowing them to observe and experience shared spaces. In the same way, observing how children move across or pause on a threshold can indicate how they are interpreting and experiencing either demarcated spaces (e.g., lobbies or hallways) or unmarked spaces with no physical boundaries. In such threshold spaces, we may postulate that young children pause because they are forming unique relations to the boundaries that function for them. The concept of the threshold gives us an opportunity to interpret young children's pauses and waverings, which at first may seem meaningless to observers attempting to conceptualize children's spatial behaviors.

Benjamin offered an interpretation of why children pause in certain spaces when he reflects on his own childhood experiences. In *Berlin Childhood Around 1900* (1950/2006), Benjamin described a moment from his early childhood during one Christmas season when he became enamored with the infinite possibilities of holiday presents. Infinitely more fascinating to him than the gifts themselves was the brief moment "when the folding door was opened" (p. 91) to the dining room with the table piled high with Christmas presents. Deciding it was "better not to get too closely involved" with the presents, he "remained standing at the threshold as if rooted to the spot, on [his] lips a smile which no one could have read the meaning of" (p. 91). Like Benjamin in anticipation of an experience in a certain space, young children can have expectations, feel excitement, or experience tension or anxiety as they navigate their own sense of space from the position of the threshold. Additionally, preschool classroom arrangements may change over time, thereby creating new thresholds in which children can pause, observe, and navigate changes in their environments.

Creating a Conceptual Framework

In this section, I suggest how Tuan, Foucault, and Benjamin's concepts complement one another in the examination of young children's spatial experiences. Figure 3.1 presents an illustration of the relationship among these concepts. I do not suggest any implicit order here, nor do I intend to establish a hierarchy. However, Tuan's sense of place provides a useful starting point for recognizing other spaces, including Foucault's heterotopia and Benjamin's threshold.

Connecting the Interdisciplinary Concepts

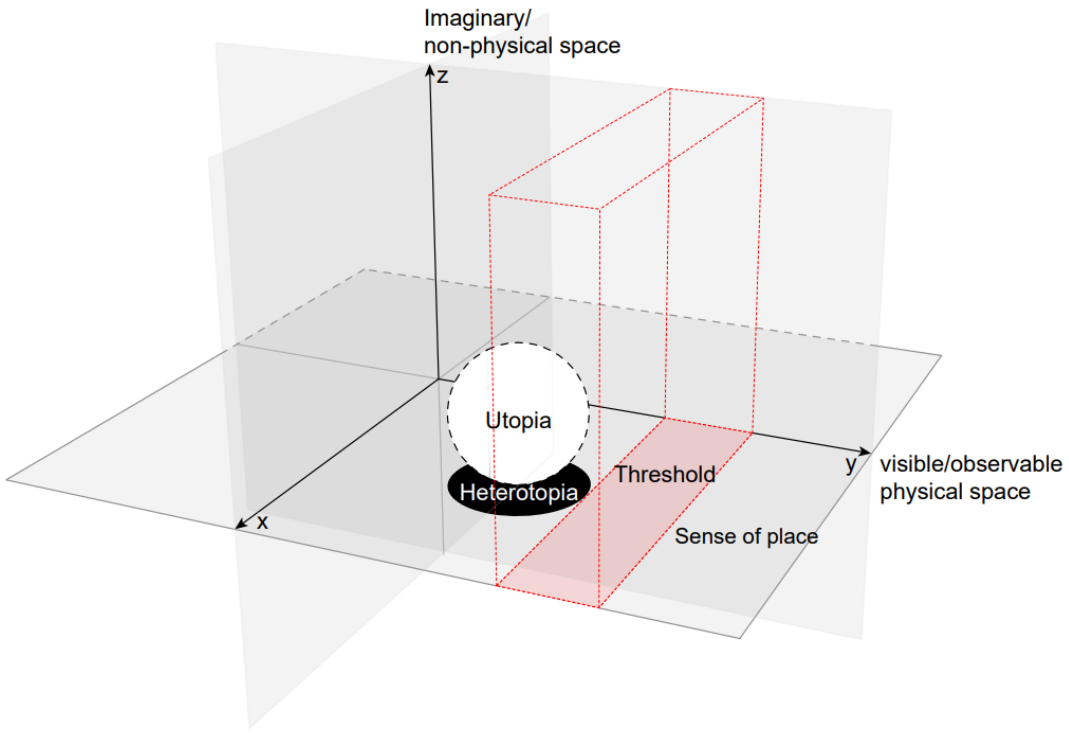

Figure 3.1. Conceptual Framework for Visualizing Young Children's Spatial Experiences.

Figure 3.1 displays my proposed conceptual framework along coordinate axes. The various shapes represent utopia, heterotopia, sense of place, and threshold in three-dimensional space. The sense of place is shaded in gray. To clarify this representation of sense of place, we can think of the xy-plane of Figure 3.1 as the classroom floor, an observable, physical space. However, the places and spaces young children experience are not limited to this observable, physical plane. A sense of place also extends into imaginary space, on the z-axis. Tuan (1977) argued that "human beings not only discern geometric patterns in nature and create abstract spaces in the mind, they also try to embody their feelings, images, and thoughts in tangible material" (p.17). It is important to acknowledge young children's creation of abstract spaces, constructed in the imagination and consisting of both material and immaterial components.

In this respect, Foucault's view of space can help us understand how children engage with metaphysical place and space. Foucault (1986) states that utopias "have a general relation of direct or inverted analogy with the real space of society. They present society itself in a perfected form, or else society turned upside down, but in any case, these utopias are fundamentally unreal spaces" (p.24). Thus, in terms of imagination, a utopia becomes a structural element defined and illustrated by a person's desires. For children, a utopia is not necessarily "society in a perfected form"; rather it can be the reality as it exists in a child's imagination. In other words, the real and the imaginary might not be mutually exclusive for children because their construction of and interaction with the imaginary can be just as real and complex as construction within and interaction with the physical space and place. Foucault describes heterotopia as "a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted" (p.24).

Thus, I position heterotopia as the shadow of utopia, as depicted in Figure 3.1. Although the idealized place of utopia definitionally cannot exist in the physical world, it can be partly manifested through heterotopia, which I conceive of as the result of the grappling between utopia and a sense of place that is grounded in physical space. That is, the real-world limits of physical space might trigger the need for the creation of utopia, which then casts a shadow on the physical world in the form of a heterotopia, its hidden but visible, habitable, and transient domain. In Figure 3.1, the dashed circle representing the concept of utopia exists only in the imaginary space (z-plane) but has a point of contact in the physical space (the xy-plane). Utopia does not have a fixed shape, so its boundary is porous to emphasize flexibility and liminality.

Children stay in or pass through a threshold, either consciously or unconsciously, as they move to other spaces, including heterotopias. Figure 3.1 illustrates how the threshold, the pink

rectangular prism, functions as a zone in the spatial transition from one space to another and marks an entrance to a heterotopia. However, as mentioned earlier, the threshold can exist anywhere as an in-between space leading to other places; it does not always appear in proximity to a heterotopia. Benjamin considered both physical and nonphysical spaces as thresholds open to possibility. Thus, in Figure 3.1, the threshold is shown as grounded in the physical xy-plane but extending up the non-physical z-axis. This orientation helps emphasize that, while some threshold spaces are easily observable because of physical elements in a classroom, other thresholds are immaterial and invisible until someone moves through the space.

Applying the Conceptual Framework of Children's Spatial Experiences

While topophilia, heterotopia, and threshold spaces are distinct concepts, we often observe the creation of heterotopia and topophilia in threshold spaces because they afford children the sovereignty needed to bring new spaces into existence. I express this idea in two examples below.

Example 1.

Classroom structures have built-in architectural thresholds as well as spaces and thresholds designed by the teacher. These parameters necessitate that children either comply, or resist by using existing thresholds for their own purposes or creating their own thresholds between real and imagined spaces in the classroom. These thresholds provide opportunities for children to create entrances to heterotopias. For instance, in a preschool classroom, a child drags her foot across the floor and announces, "You can't cross this line." We can say we observe the child creating a threshold in the middle of a space or between two spaces. This simple act allows the child to create her own sovereign realm, or heterotopia. In this example, the threshold is the in-between space of a line drawn on the floor, the observable physical reality shaped by adults is

the compartmentalized area beyond the imaginary line, and the heterotopia is the temporal and imaginary space with no boundary that allows a child to dream about what she wants to do there. According to Benjamin, such imaginative reflection on possibilities of action in a space on the other side of a threshold has meaning and pleasure in itself, even if the threshold is never crossed. The pleasure of the imagined place of future possibility in this sense can be described as an example of Tuan's topophilia. The child develops a sense of sovereignty over her imaginary realm grounded in her sense of and feeling for the physical place in the classroom. By occupying and redefining a space preconceived for certain functions, the child creates a heterotopia of her own dominion.

Example 2.

The time-out space in the early childhood education classroom is an excellent example of how young children can be alienated from their sense of a place and, in turn, rely on thresholds as coping mechanisms to deal with this alienation. Time-out is a punitive measure that involves restricting for a period of time the child's movement and participation in social activities. However, the child can create their own imaginary space in this new place. Children standing in the corner, for example, may imagine that their bodies are amorphous and can take the shape of the corner through sheer force of will. Or the children may engage in fantasy thinking during which they pretend they are counting down in preparation for playing hide and seek. These behaviors serve as distractions as the child contends with punishment and exemplify heterotopias of resistance. The imaginative creation of spaces allowing children to cope with unpleasant stimuli represents the deployment of thresholds in concert with topophilia and heterotopia. These spaces occupy a transitional place between the reality of punishment and children's desire to enter a heterotopia where they can escape the negative feelings that attend punishment.

Conclusions and Implications

Theories of space put forward by Tuan, Foucault, and Benjamin let us reconceptualize how young children experience place and space in early childhood education settings. More generally, concepts from human geography and critical theory can lead us to rethink how space in early childhood settings functions pedagogically and politically as seen, for example, in recent scholarly work on space and social justice (Thiel & Jones, 2017; Jones et al. 2016; Massey 2013; Satta, 2015). These studies critique institutional spaces that discriminate and exclude, investigate places that are commonly disregarded, and explore children's identity formation within those places (Pitsikali, 2018; Simkins & Thwaites 2008; Templeton, 2020).

The conceptual framework I develop in this paper brings together concepts from geography, philosophy, and architecture to examine young children's spatial experiences. Beginning with Tuan's topophilia and sense of place, moving on to Foucault's heterotopia as counter or alternative space, and concluding with Benjamin's threshold as the transitional boundary between two spaces with different purposes, this paper conceptualizes a framework that can be used to analyze a variety of spaces and places young children experience in their classrooms.

Attention to young children's sense of place can be the basis for research on the necessity of children's agency and sovereignty in their experiences of places and spaces. Each space exhibits unique characteristics, roles, and functions that produce different senses of place (Relph, 1976; Tuan, 1977). Feelings of happiness, pleasure, comfort, and familiarity in a place can aid in bonding with that place. In contrast, a sense of place characterized by fear, discomfort, and unfamiliarity might limit the range of young children's actions and movements within that place. Such feelings might also drive young children to create alternative spaces as a way of avoiding

the alienating or hostile spaces they currently occupy. In these situations, children do not passively accept the spaces constructed by adults but change and create new spaces of their own. Young children constantly negotiate the spaces they encounter, although the spaces where they do this important work have often been overlooked by teachers and researchers because they regard activity in those spaces as disruptions, non-compliance, or misbehavior according to traditional classroom management. We should pay attention to these disregarded heterotopic and threshold places according to children's perceptions of space and place in order to create environments that support meaningful engagement with spaces in the classroom and young children's agency in their spatial experiences.

Tuan's concept of topophilia (1976) lets us recognize that young children's perceptions of a place are diverse: a stronger or weaker sense of place will affect children's use of classroom space. Through the lens of topophilia, we can recognize that young children may feel special affection for and comfort in spaces otherwise considered common use. Cultivating special affection to any classroom space can be beneficial for children because it supports their holistic development. For example, children have different preferences for where they do their activities and, thereby, develop topophilia for a wide variety of places. This diversity means a given place will be perceived differently by different children, suggesting we should examine children's spatial experiences based on their individual emotional attachments to that place (Gauci, 2016; Kudryavtsev et al., 2012). Tuan's topophilia provides the foundation for understanding children's spatial movement in imaginary and physical settings and gives new insight into the power of individualized learning.

Foucault's (1986) heterotopia allows us to conceptualize young children's imaginary spaces. Young children often create spaces adults cannot easily locate or understand but play a

key role in their spatial experiences. Unknown to outsiders, these spaces may be invisible to adults, including teachers, but have physical locations for the children who create them and offer the opportunity for constant exploration. The physical conditions in which heterotopias are created and utilized allow us to weigh different factors that affect young children's creation of imaginary spaces and their varied usage of a given space in the classroom setting. With the concept of heterotopia, teachers and researchers can acknowledge and honor in greater depth the imaginary spaces in young children's minds, children's projections of those spaces onto the physical realm, and why they are necessary for children.

Finally, Benjamin's (1978; 1979; 1986; 1999; 2007) notion of threshold helps us perceive liminal spaces not just as borders, but also as spaces children can occupy. We typically regard a threshold as a transition from one space to another. Based on this simplistic definition, researchers have not extensively investigated the function of the threshold in young children's spatial experiences. Young children have meaningful experiences in marginal spaces that the teacher inadvertently or intentionally disregards, including threshold spaces between more traditional spaces. Focusing on the threshold as an essential element for experiencing space and place allows teachers to develop new perspectives on young children's spatial experiences. In addition, integrating this new perspective into practice prompts teachers to consider what adaptive or supportive methodologies might be cultivated to deepen a child's relationship to space and place, and to distinguish what spatial changes might be needed in the classroom to allow for more freeform exploration.

Implications

The primary goal of visualizing children's spatial experiences is to develop a deeper understanding of how young children engage with all spaces, both physical and imagined. The

conceptual framework discussed above will help us move beyond a limited, adult-centric perception of young children's experiences of place and space to one in which we acknowledge young children's sense of place as the foundation for their daily lives. From here, we can perceive young children's previously unrecognized heterotopias and thresholds as significant spaces. Thus, the conceptual framework for visualizing young children's spatial experiences has three important implications: first, the value of an interdisciplinary approach to early childhood education; second, the need for additional research on children's perspectives of place and space; and third, the reconceptualization of classroom space.

First, interdisciplinary approaches to young children's experience of place and space, such as my framework offers, enable insights that a single-disicpline approach would exclude. As seen with my interdisciplinary framework for visualizing children's spatial experiences, the scope of research on children's place and space experience can be broadened beyond children's behavior management in physical space. An interdisciplinary approach to children's experience of place and space will illuminate their hidden experiences in the classroom and provide a deeper understanding of the context of their experiences in school settings.

Second, future research directions of place and space in early childhood education should start from children's perspectives. The conceptual framework developed in this study highlights the need for spatial research that prioritizes an individual child's subjective spatial experiences. No matter how objectively we attempt to observe children's spatial experiences with positivist methodology, it is impossible to study a place separately from subjective experiences of that place. Analytical methods only partially explain and cannot comprehensively reveal children's spatial experiences. Accordingly, studies should pursue an overall understanding of children's lives rather than narrowly mapping their behavior in physical places and spaces. To achieve this

holistic outlook, researchers must attend to children's subjective points of view and diverse experiences of place and space.

Lastly, teachers can use the conceptual framework to reconceptualize classroom space because it provides a new lens through which teachers can examine the relationship between children's environment and their subjective experience of place. By establishing more spaces that are child-centered and child-directed, teachers can encourage new norms of student behavior, such as agency in spatial exploration. In configuring classrooms, teachers need to consider the hidden spaces young children use in their own ways that teachers often overlook. To acknowledge those spaces, teachers must provide opportunities for children to take ownership of their spaces free from constraints on movement and time.

Overall, young children deserve to be able to exercise their agency in designated spaces as they explore the world. Particularly in spaces dedicated to their growth and development, such as classrooms, children should have opportunities for self-expression in spaces of their own making. One way to enable this self-expression is to acknowledge their creation and navigation of physical and imaginary spaces in the classroom. The conceptual framework for visualizing children's spatial experiences allows us to acknowledge children's perspectives and, in turn, incorporate them into the physical arrangement and management of early childhood education settings.

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CHAPTER 4

CLOSE READINGS OF YOUNG CHILDREN'S SPATIAL EXPERIENCES IN EARLY CHILDHOOD EDUCATION SETTINGS[3]

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ABSTRACT

Little research exists on how children explore places and create their own spaces in education settings, even as we increasingly acknowledge the significance of place and space in understanding children's lives. This paper contributes to the literature by exploring how young children experience and engage with place and space in early childhood education settings. In particular, I examine young children's spatial experiences in marginal and imaginary spaces using interdisciplinary concepts: Tuan's (1977) sense of place and topophilia, Foucault's (1986) heterotopia, and Benjamin's (1999) threshold. I apply these concepts to microanalyses I conducted of a set of videos that document young children's daily lives in six different preschools in three countries: China, Japan, and the United States. I investigate young children's spatial experiences in the classroom by looking beyond the physical environment and focusing on young children's use and creation of other spaces. As a result, I show how young children exercised agency in their spatial experiences by indicating topophilia, establishing heterotopic spaces, and occupying threshold spaces. These findings can help teachers honor individual children's strong affection for certain places in the classroom (topophilia), acknowledge children's unique spatial experiences (heterotopia), and support children's choices to occupy in-between spaces (threshold).

Keywords: Preschool classrooms, Sense of palace, Topophilia, Heterotopia, Threshold, Children's experiences of place and space

INTRODUCTION

The importance of the spatial environment has been emphasized in many studies in early childhood education (Strong-Wilson & Ellis, 2007; Tu, 2006; Dowda et al., 2009). Some researchers consider the environment as the third teacher and conceptualize space as a key catalyst for learning. However, most of this research has not focused on young children's individual experiences of interacting with space. The experience of environment and sense of place manifests differently for each individual, and, even for the same place, each child may have different experiences, feelings, and emotions associated with that place (Relph, 1976; Tuan, 1977).

In early childhood education settings, children play in learning centers, areas designated for planned learning activities. Common learning centers include art, blocks, manipulatives, science, dramatic play, literacy, and sensory (Bottini & Grossman, 2005; Kostelnik et al., 2007; Tu, 2006). Each learning center offers a variety of activities and opportunities for learning. During free playtime, children are encouraged to move from one learning center to another, either at their own pace or as directed by their teacher. During center time, teachers are free to walk around the classroom, introduce new materials to children, facilitate and support children's learning, and evaluate children's learning experiences and use of materials.

Children have their own subjective experiences in different places within an educational institution. For some children, the outdoor playground may be especially meaningful as a place to run around with friends, for others a place to test their physical strength and agility, for others a place to build a relationship with nature. Some children are especially attracted to a specific

area within the classroom. Understanding children's experiences of place can be deepened by giving more attention to how children individually and in groups interact with properties of a place, including its location, size, and auditory and visual character. To date, most research on place in educational institutions has taken an adult's point of view and focused on efficient and effective uses of space in children's activities. Focusing on efficient uses of space in early childhood education settings is valuable for creating and implementing new curricular ideas, but so too are studies that foreground attention to spatial experiences from children's points of view.

Young children experience places concretely and holistically by forming thoughts and emotions about those places through their everyday spatial encounters. In early childhood education settings, children give their own meanings to existing spaces in the classroom as well creating new spaces according to their own intentions and purposes. Children form a sense of place through mechanisms such as attachment to a place and a sense of belonging, and this sense of place influences the formation of children's identity, which in turn affects their quality of life. For those reasons, to better understand children's lives, we need to investigate young children's spatial experiences in depth.

In the preschool classroom, young children's daily lives are full of vitality. This is important to recognize, as we can understand children's lives through the places where they are energized and how they express their vitality in space. These expressions can be explained in terms of spatial transformation and (re)creation. These manipulations of space allow us to look deeper into children's lives and help us better understand them. The purpose of this study is to understand children's lives more deeply from their perspectives by examining the characteristics and meaning of children's sense of place, and highlighting different kinds of spaces children shape and occupy in preschool classrooms. Accordingly, I intend to carefully explore children's

subjective actions in the classroom and the spatial experiences where children's sense of place is expressed.

In particular, I attend to young children's spatial experiences in marginal and imaginary spaces. In studying preschool classrooms, we often focus on learning centers. However, rather than just focusing on the assigned academic purpose of places in the classroom, I aim to show how young children experience the classroom space as malleable to their needs and desires. I investigate young children's spatial experiences by looking beyond the physical environment, focusing on young children's use of space, their transformation and reconstruction of a given space, and their creation of other spaces, including imaginary space. Based on this research, I suggest implications for early childhood education providing examples of how new understandings of children's experience of place and space can contribute to improving the quality of children's lives in early childhood education settings.

Conceptual Framework

I use concepts not usually used in early childhood education studies to analyze young children's spatial experiences. This conceptual framework focuses on young children's perception of place, their transformation of space, and their spatial experiences in marginal and imaginary spaces. The conceptual framework uses several concepts from multiple disciplinary backgrounds, thereby providing a more comprehensive approach to investigating young children's spatial experiences. In this section, I briefly introduce the conceptual framework and provide the rationale for how the framework will be used in this research.

Sense of place and topophilia

Sense of place refers to how humans perceive place and space, and more specifically, refers to feelings and emotions toward a place. According to human geographer Yi-Fu Tuan

(1977), feelings and thoughts about a sense of place are not determined by the function or purpose of the place. The sense and feeling can be different, changeable, and flexible depending on who is there, when they are there, and what they are doing there. With their unique experiences of a place, children's different senses of place can be the motivation for moving to other spaces or disengaging from the designated places in the classroom. This view of place by human geographers is different from the positivist geographer's view, which regards human experience as a minor component in understanding place (Brillante & Mankiw, 2015). Furthermore, human geographers question the idea of place as independent from people's experiences and emotions in that place (Taylor, 2013). Their perspective highlights the significance of considering the human experience in understanding place.

Based on the notion of a sense of place, Tuan (1977) conceptualized *topophilia* as an affection for a place. Tuan described how, for children, places can be thought of non-moving objects: "Place, to the child, is a large and somewhat immobile type of object. . .The child may develop ambivalent feelings toward certain places—large objects—that are his" (p.29). Thus, a high chair or crib can be a place for a young child. In other words, a sense of place and topophilia are not only related to physical place. These concepts can also be extended to objects that children have affection for, and to "other spaces" (Foucault, 1986) where children want to be, where they feel safe and comfortable, and where they can control situations.

Drawing on these concepts of Tuan, I focus on children's subjective spatial experiences to explore how children perceive the classroom, and how topophilia can be constructed in the classroom. Applying these concepts, I argue that children's behavior and their movements can be influenced by their sense of place and topophilia in the classroom, while the diverse spaces can simultaneously affect and transform children's interests and behavior.

Heterotopia

This concept was developed by French philosopher Michel Foucault. According to Foucault (1984), a *heterotopia* is "other space" and an enacted utopia, a real, performed, lived space. Examples Foucault gives of heterotopias include gardens, cemeteries, fairgrounds, and even prisons. Heterotopias are "absolutely different from all the sites that they reflect and speak about" (Foucault, 1984, p. 4). This space might be considered both physically and conceptually, as a reproduction or illusion and site of otherness (Kaplan, 2014). Somerville (2014) articulated heterotopia as a place that has "the power of hybridity in cultural contact zones" (p. 190). This means it is necessary to consider heterotopia as a space with layered meaning. In doing so, we can better understand the complexity of space and children's spatial experiences.

Foucault's concept of heterotopia has a variety of properties. In his essay "Of Other Spaces," Foucault (1986) suggested six main principles to systematically describe his concept of heterotopias, which he called heterotopology: 1) Heterotopias arise in all cultures, but in diverse forms. 2) Heterotopias have specific functions and can be converted at different points in history. 3) Heterotopias juxtapose in a single real space several elements of incompatible spaces. 4) Heterotopias encase accumulation of time or temporal discontinuity. 5) Heterotopias presuppose a contradictory system of ritual linked to opening/closing and isolated/penetrable. 6) Heterotopias have a function in relation to all the space that remains, either by creating a space of illusion or of compensation. These properties eventually lead to singularity. In other words, a heterotopia is an absolutely different space that is distinguished in some way from other spaces in society, in some cases by deviating from society's idea of normalcy. This heterotopic space is a plural, distributed, or heterogeneous space "imbued with ideals" (Kaplan, 2014, p.55). Thus, a heterotopia is a unique space, but one into which our lives can be projected. According to this

view, a heterotopia is not a space separate from our lived lives, but one that is always interdependent and intertwined with our lived experiences. Thus, a heterotopia has a co-dependency with other spaces.

In terms of heterotopia creation, Pitsikali (2018) describes the contexts of how "other spaces" can be constructed. He explains that "heterotopia emerged as the product of participants' (inter)actions and practices in space, as a condition 'co-authored' by those actors" (p.361). Based on Pitsikali's argument, the process and even the consequences of children's creation of heterotopias cannot be determined or anticipated solely by teachers' intentions, curricula, or the designated functions of spaces themselves. Thus, I argue that both the process and the consequences of heterotopia creation emerge from children's intentions, their desires for other spaces, and the material world in which they are situated.

As such, the concept of heterotopia allows us to focus our attention on the complexity, mutability, and multiplicity of young children's created spaces. In particular, it helps us attend to the imaginary components of children's spatial experience. Therefore, children's creative spatial experiences in their daily activities can be analyzed through the concept of heterotopia.

Threshold

A *threshold* literally means a boundary dividing one space into two, or a median between two different spaces. This term is most often used in the field of architecture. In this study, I use this concept as defined by Walter Benjamin (1999). Benjamin differentiates between a threshold and a border: "[The] threshold *(die Schwelle)* must be sharply differentiated from the border *(die Grenze)*. The threshold is a zone. Change, passage, and ebb and flow are embedded in the word *schwellen* ['to swell']." (Benjamin, 1982: vol. 1, konvolut O2a, 1, 618, cited in Teyssot, 2005, p. 90). In other words, Benjamin interprets the threshold as a three-dimensional space rather than a

simple two-dimensional line. It is a space of potential, exploration, and action (Benjamin, 1969; 1978).

We generally think of space in early childhood education settings as divided into distinct parts of a classroom with specific functions. In doing so, we neglect the in-between spaces. Benjamin's threshold allows us to call our attention to in-between-ness. For example, when children stop one activity and move to another one, they are not just crossing a border. They are moving through and occupying a threshold zone. Whereas adults might perceive this threshold space as one of inaction, for children it can be a zone of rich possibilities. The concept of threshold can lead us to recognize a previously ignored classroom space and, thus, a new space in which to observe children's spatial experiences. To cross a threshold (physically or mentally) in the classroom is to move from one sort of space to another, with different affordances, constraints, expectations, and possibilities. At the moment of change, we can observe what choices young children make.

Method

This study of young children's spatial experiences in preschool classrooms requires a research method that can provide examples of children's spatial movements and bodily and non-verbal behaviors in classroom settings. Joseph Tobin (2019) suggests that, for studies of classrooms, "video methods are well suited to capture spatiality" (p. 123). Following this advice, I analyze scenes from a video archive of films shot for Tobin, Hsueh, and Karasawa's study of *Preschool in Three Cultures* (Tobin et al., 2009). This corpus of video data allowed me to analyze not only young children's movements but also their non-verbal behaviors as they engaged with peers and dealt with materials in the context of their daily preschool routines. Details of these videos are presented in Table 4.1.

Table 4.1.

Video Footage Used in This Study

Country	Preschool (City)	Total run time (Total number of video clips)
Japan	Komatsudani (Kyoto)	1hr 53mins (236 video clips)
	Madoka (Tokyo)	43min (161 video clips)
China	Daguan (Kunming)	59min (240 video clips)
	Sinan Road (Shanghai)	4hr 32min (795 video clips)
U.S.	St. Timothy's (Honolulu)	4hr 39min (887 video clips)
	Alhambra (Phoenix)	5hr 2min (308 video clips)

This archive contains the raw footage shot in each preschool during a typical day from the arrival of the teachers and children to their departure. Tobin's research team divided their more than ten hours of footage, shot with two cameras in each preschool, into clips. This produced hundreds of clips for each of the six preschools, which in the original study were edited into scenes, producing the 20-minute videos for each preschool that were used as video-cues for interviewing (Tobin et al., 2009; Tobin, 2019; Adair & Kurban, 2019). In contrast, for my study, I analyzed the pre-edited footage from each preschool. (The number and length of the clips from the six videos varied according to which member of the research team did the initial digitizing and logging of the raw footage, with some team members doing more clumping of shots into longer scenes and some more disaggregating).

In the *Preschool in Three Cultures* study (Tobin et al., 2009), the focus was on cultural practices in young children's daily lives and on children's relationships with peers and teachers in preschool. Tobin and his colleagues recorded daily routines, both in the classroom and on the playground. They adjusted the location, angle, and framing of the video cameras in order to follow and capture the children's facial expressions; their movements to different locations, such

as the restroom, the cafeteria, and outside; and their interactions, including fights on the playground. Although the researchers did not directly address space and place, the videos include not only young children's activities in and out of the classroom but also the preschools' physical environment. Thus, this video data provides a unique opportunity to re-analyze raw data with a new focus that can provide deeper insight into children's spatial experiences. That being said, such re-analysis of videos shot by others for different purposes has limitations because the videos may not capture everything I would have found valuable.

The video data analysis was divided into three stages. The first step was to watch all the clips and, as I went, exclude materials that were not related to children's spatial experiences. As my purpose was to examine young children's spatial experience in marginal and imaginary spaces, I excluded videos that did not include children's spatial movement or playing, such as meals, the scenery of the preschool, and teachers' commutes to the school.

In the second step, I selected videos that focused on children's movement and space and that were relevant to my conceptual framework. After excluding the videos that did not include any children's spatial activity, I focused on children's movements in the remaining videos. These movements included going purposefully from one space to another space within the classroom, going from inside to outside and vice versa, wandering around the classroom, and staying still on the thresholds between spaces. In these videos, I carefully watched a child's or a group of children's behaviors to analyze their experiences by using my conceptual framework. The scenes that I looked for in the videos were ones that connected to the three concepts—topophilia, heterotopia, and threshold—that I apply to the analysis of children's spatial movement and utilization. For example, related to heterotopia, I looked for children's construction of space, a transformation of space designed for another purpose, and space utilization in a variety of ways.

Also, in connection with applying threshold space to children's spatial experience, I focused on children's meandering or the moments where a child lingered in a particular space in the classroom. As a result of the second viewing, I selected several video scenes to analyze in detail.

In the third step, I used a variety of microanalysis strategies for working with visual data, including reframing and cropping. I looked to identify spaces in scenes that had previously gone unnoticed in earlier studies. In order to identify these overlooked spaces, I attended to children's movement and spatial experiences and did microanalyses of these scenes. For example, I utilized functions such as speeding up and slowing down a video; watching a video with and without sound to focus on children's movement; and zooming in and out to discern the details of children's posture. This process involves frame-by-frame viewing and analysis of scenes of importance (Hayashi & Tobin, 2015). The frame-by-frame viewing entails watching the videos over and over again. Repeat viewings allowed me to focus on places and spaces and describe the objects or environments that constitute those places and spaces. I also took screenshots of the videos to make the process of a child's spatial experience more noticeable, because some moments I analyzed are hard to recognize in a video because of their short durations and abstract nature. The screenshots were focused on the child's actions, posture, materials used, and environmental settings. Often, this analysis required not just a single screenshot but a series of screenshots in order to create a sort of animated presentation of the children's spatial movement.

While analyzing the videos, I had to pay particular attention not to exclude videos that contained the characteristics of the threshold space. In the case of children who appear to be standing on a threshold, the children were rarely in the center of the frame. Usually, the children in the process of moving or occupying the space between other spaces were located on the edge of the frame. Because these children were not the main subjects in the videos, they often quickly

disappeared from the screen in short video clips. Therefore, when selecting the videos to be analyzed, I was careful to include the videos in which the threshold space was captured through the behavioral characteristics of children in the threshold space. By watching the videos closely, I found the threshold space that Benjamin (1999) spoke of and established its definition and characteristics with empirical data. Using the empirical data as evidence, I was able to delineate the range of the features of the threshold space and the behavioral aspects of children in that space.

The distinctive data analysis in this study originates from the need to defamiliarize these scenes in order to see details that may be overlooked when observers watch the scenes in real-time within a narrative structure. For example, narrative structures contain dramatic events, character development, and tensions, which are the typical focus of attention. If I only focused on narratives and the figures in the videos, I might not find a unique understanding of children's spatial experiences or the meaning behind those experiences. However, my focus was on the spaces and how young children used them. So, it was useful to identify an approach that facilitated analyzing the video data in a different way from that of the original researchers. I found the deconstructive analysis approach to be most valuable for making familiar scenes unfamiliar.

Deconstructive analysis provides the possibility of new interpretations outside of a fixed context by breaking down the elements from the whole (Gough, 2008; Kouri, 2012). Applying the deconstructive approach allows us to reveal meanings beyond the obvious. Through a deconstructive approach, I focus on marginalized spaces and examine what we have historically missed when exploring young children's relationships to space and place. This examination then enables me to dismantle and reconsider some of the conventions in early childhood education

research. Thus, in the next section, through deconstructive microanalysis of the video data, I show children's spatial experiences through the use of three concepts—topophilia, heterotopia, and threshold—by identifying moments that highlight children's agency in their spatial experiences.

My larger project includes analyses of videos from all six of the preschools in the *Preschool in Three Cultures* study (Tobin et al., 2009). However, for the purposes of this paper, I present findings based on analyses of the videos of two preschools: St. Timothy's in the U.S. and Sinan Road in China. Furthermore, I intentionally chose examples that would most clearly convey children's experiences of places and spaces in relation to the framework's three concepts. For example, because children's sense of place and topophilia can be connected to any space or place in an early childhood education setting, I provided several examples in order to illustrate the expansiveness of the concepts as well as the variety of different visual signs of topophilia. Alternatively, because there are specific criteria used to recognize and analyze heterotopia and threshold, especially the invisible components, I selected one example each that would best enable readers to visualize those types of spaces and engage with each concept in depth. In addition, the examples presented in this paper were selected based on a sense of universality. In other words, I included examples that transcended cultures and countries, thereby showing how my conceptual framework can be applied to any early childhood education setting.

Findings

In my video microanalysis, I found that children (a) wanted to stay in places for which they demonstrated topophilia, (b) rearranged existing spaces and constructed new spaces to create heterotopias, and (c) lingered in threshold spaces while exploring other spaces. Through

these findings, my research reveals children's agency in their spatial experience. I describe each of these findings below.

Children's demonstration of topophilia

Children interact with spaces through their experience in their world. Through these interactions, children form a sense of place as they develop feelings, emotions, and thoughts about the place (Steele, 1981; Tuan, 1990). The sense of place is an emotional and experiential trace that binds humans to a specific environment (Anderson, 2009).

Children pick certain spaces as their favorite places for various reasons. We might not know their reasons unless we ask them and, even then, children most often cannot describe their reasons. How, then, do we conclude certain places (or spaces) are their favorite? In the videos, we can see children physically and verbally indicate their emotional connection for a place in various ways. Through my video analysis, I found six indicators of children's topophilia: 1) the speed of their movement to the place/space, 2) their facial expressions while in the place/space, 3) the length of time they spend in a place/space, 4) the frequency of the visits to the place/space, 5) postural ease, and 6) bringing special objects to the place/space. The following photos show the six indicators of topophilia, respectively, of individual children in preschools in different countries.

Figure 4.1. Children's Sense of Place
4.1-a. A child's image is blurry because of his quick pace (St. Timothy's at Hawaii, U.S.) 4.1-b. Smiling children on a tire swing (Madoka, Japan) 4.1-c. A child who stays in the book center for more than the allowed time (Alhambra at Arizona, U.S.) 4.1-d. Children keep visiting the classroom pet (St. Timothy's, U.S.) 4.1-e. Children on a comfortable sofa in the library area (Alhambra, U.S.) 4.1-f. Children standing at the bins with their belongings (St. Timothy's, U.S.)

As can be seen in Figure 4.1, there are many places in preschools for which children have strong affection. Young children develop a strong bond with the centers in which they prefer to play, either by themselves or with others. In this way, the children in the videos displayed topophilia

toward the places where they engaged in their activities. In addition to these centers, which were designed for specific educational purposes, I identified places outside of the teacher-designed centers for which children also displayed topophilia, as we can see in Vignette 1.

Vignette 1: Children's personal bins by the classroom door at St. Timothy's

> Early in the morning at St. Timothy's, children arrive at school with their parents and enter the classroom together. When they come inside the classroom, the children head towards their personal bins which are labeled with the children's names and they put their belongings in. After staying there for a while to organize their belongings, the children leave for another place in the classroom.

Bins can be a special place for young children. Even children who showed hesitation to let go of their parents in front of the classroom seem unafraid to go to this place that stores their personal belongings. Among the various places in a classroom where children can feel a sense of security and warmth are their bins. In the St. Timothy's video, we see many children spend time by their bins, stopping by to take something out of their bin or put something in, such as their blankets for nap time. They often linger by their bins, briefly holding a possession close or sorting through and reorganizing their things, as we see in Figure 4.2.

Figure 4.2. Children's Bins at St. Timothy's.
4.2-a. A girl briefly holds her blanket up to her face before placing the blanket back in her bin and joining the classroom. 4.2-b. A boy sits in front of his bin.

While analyzing the video, I looked for evidence of how this place, which the children stop by several times a day, is meaningful to them. For some children, this place could be a place of special affection that provides stability. This is a place where children's private objects are located in the public space of the classroom, which validates the child's existence in the public space. For this reason, where there are children's bins, children can give this place a special meaning, such as the girl with the blanket in Figure 4.2. She appears to be soothing herself with the blanket, and having her blanket in her bin makes this place a comforting refuge for her.

However, the bins, which store children's personal objects, such as backpacks or a toy brought from home, can also be a place of ambivalence that evokes a desire to go home. Visits to their bins may become a distraction for children, impeding their connection to their life in the preschool classroom. Indeed, Tuan (1977) articulated that a "child may develop ambivalent feelings toward certain places" (p.29). A place that gave a child a sense of security today may not give them security tomorrow.

Having a sense of place and a sense of familiarity in their classroom is essential to young children, allowing them to feel comfortable and secure so that they can explore the public space.

These topophilic places help children feel relaxed and help build their confidence. By increasing confidence, topophilia enables children to explore new spaces and activities in the classroom, take risks, overcome challenges, and explore new practices in their everyday lives.

Tuan (1977) underscores that young children have different kinds of affection for places compared to adults. According to Tuan, when adults talk about affection for a place, they have a kind of nostalgia, but children do not have enough experience to have nostalgia. As Tuan writes:

> Place can acquire deep meaning for the adult through the steady accretion of sentiment over the years. Every piece of heirloom furniture, or even a stain on the wall, tells a story. The child not only has a short past, but his eyes more than the adult's are on the present and the immediate future. His vitality for doing things and exploring space is not suited to the reflective pause and backward glance that make places seem saturated with significance (p.33).

As Tuan argues, a young child's attachment to a place is less likely than an adult's to be sentimental or nostalgic attachment, but it can be equally or even more strong.

For a child, comfort in a place may mean it is a place where they do not have to follow as many rules and are less restricted and monitored. Comfort in a place can also mean feeling cozy and safe. I suggest that topophilia can be developed within a place where children are allowed to entertain themselves in a wide variety of ways and feel comfortable and secure doing so. Ellis (2002) observed that "a number of studies have identified children's needs for place as a source of security, stability, belonging, and identity and, within place, for space which provides opportunity for social or creative self-development" (p.37). I argue topophilia can satisfy children's need for a place by providing security, stability, and belonging, and making identity formation possible within it. Thus, acknowledging children's topophilia and helping them to

develop it in a classroom can satisfy children's need for place and encourage children's agency in those places.

Children's creation of heterotopia

In order to implement child-centered, play-centered education that respects the individual interests, needs, and curiosity of young children, early childhood educational institutions often organize spaces for each center of interest in an indoor classroom environment and provide toys or learning materials for each center. Young children experience a space with a prescribed message to play appropriately for each center of interest. In general, in early childhood education settings, young children use spaces with meanings already defined by teachers, indicating that children are in a subordinate position and lack agency. However, while engaging with spaces not of their own design, young children nevertheless bring their own experiences and desires to these spaces and remake them accordingly.

Children transform the predetermined spaces of their classrooms creatively, often in unexpected or unique ways, creating what Foucault (1986) called heterotopias, "other spaces" that did not exist before. The creation of heterotopic space is directly related to the matter of recognition of where someone is. In other words, it is connected to the question of how we recognize the time and space of nowhere. When we recognize that there is nowhere like a heterotopia in reality, a heterotopia can be created. Following this sense, I view children's engagement with spaces where they create their own meaning and construct new worlds for themselves within a given context as the creation of heterotopias. Children's play and creativity allow the existing space to be used for other purposes, giving the space a new meaning through the use of imagination or role play. Expressed through the construction, deconstruction, and

transformation of spaces in their classrooms, children's diverse spatial experiences increasingly become the focus of their play. The following vignette is an example.

Vignette 2: Children constructing a block castle in the St. Timothy's classroom

> In the block center, a group of children are building with big blocks. A girl holds up a wooden block and says, "This castle will be great." Children begin to give shape to the architecture by moving blocks of various shapes: short, long, thick, and thin, from place to place. After working for a while, the children have constructed their castle. It has walls on all sides and, in some places, a roof. In the places covered by the roof, we cannot see what the children are doing inside. The height of this building is low enough that children have to crouch. To the teacher who stands in front of the castle and watches the children's creation of a new space, a boy says, "You're not get [sic] in," and repeats the phrase again. The teacher says, "Okay, fine." Then a girl outside of the castle says to the teacher, "You just can go home," and the teacher copies her and replies, "I just can go home."

A children's castle was built in a corner of the classroom where different blocks were scattered. This place is both a classroom activity center and a castle. In other words, two places with different purposes are juxtaposed in one space. The classroom is a place for learning, but the purpose of the castle might be different; its purpose might be to entertain or to allow children to be out of the teacher's sight. At the same time, places for learning and places for entertainment or hiding may not be mutually exclusive. In addition, the composition of the space and the transformation of the structure are very flexible. The space seemed to have its functions

subdivided. For example, the hidden space inside the castle was for cooking food, and the children brought the cooked food to a space that communicated with the outside. As such, the space inside the castle appears to be flexible for the members who use it. But this castle could not last. When the children's playtime was over, the children had to tear down the castle. As such, this castle has the characteristic of being a space that is temporary.

Figure 4.3. Children's Castle

The children's creation of a castle shows children's agency to construct their own heterotopic space. The children are in a subordinate position in the classroom, monitored and guided by adults, and yet they are constructing a space that can be meaningful for them through play. That play reveals that children put themselves in active stances in building their own space within a previously designed place. In addition, it can be seen that the space that children create while playing reflects the children's thinking and experience of the world in that space. Langefeld (1968) emphasized the importance of children having secret places, hidden retreats where children become immersed in free interpretation of the world and the world is processed and captured in a space of their own. The children's construction of a castle in the vignette could initially be interpreted as a secret place.

But I interpret this castle as even more than the secret place defined by Langefeld. Foucault's concept of heterotopia (1986) explains the transformation and creation of space beyond a secret place. Children's heterotopias do not need to be secret places; they can also be places exclusively for children that have been constructed in public. In this castle, children are the gatekeepers, deciding who is allowed to come in and out. In the vignette, we become aware of the rule that adults are not allowed to come into the castle. Figure 4.4 depicts the moment the boy tells the teacher that she cannot enter the castle. The boy's stance and voice are assertive. Foucault explains the occasions and conditions for transforming existing spaces and creating new ones: it is not a passive transformation of space, but an active and proactive act of remaking and creation. The castle building provides an example of the children's active and proactive creation of such a heterotopic space.

Figure 4.4. A Castle for Children that Adults Cannot Enter, A Heterotopia of Resistance.

According to Harvey (1989), Foucault's heterotopia means "the coexistence in 'an impossible space' of a 'large number of fragmentary possible worlds' or, more simply, incommensurable spaces that are juxtaposed or superimposed upon each other" (p.48). The children's castle, which only children can enter, exemplifies this impossible space. In other words, it is clearly impossible to deny the presence of teachers in the classroom or a teacher's ability to enter the block center if they choose. At the same time, the children have created a space where they display a sense of sovereignty. While such a space might be temporary, other impossible spaces – "nowhere" – will be repeatedly created in the future.

In vignette 2, I identify two core characteristics of children's spatial experiences relevant to heterotopia. First, children's space is a heterotopia of deviance and quiet defiance (Foucault, 1986). The block area in which children created their own space can be understood as a place that allows children's valid construction of a space that is usually thought of as deviating from the norms or standards of the classroom. The construction of the castle in the classroom provides

a place where the power dynamics of the classroom shift, from the children's perspective, giving them the right to set the rules and temporarily allowing them to escape their submissive position in the student-teacher dynamic.

Second, the children's space has characteristics of being isolated yet penetrable. The castle in this vignette has a "system of opening and closing that both isolates it and makes it penetrable" (Foucault, 1986, p.26). According to Foucault, the heterotopia of the fifth principle is premised on the opening and closing of places with restricted access. The closed space of a heterotopia requires specific permission or action to enter or exit. Foucault presents an army or prison as an example of such a closed space heterotopia. On the contrary, the open space heterotopia is a space that is accessible to anyone.

In this vignette, a castle for which permission is needed from some children in order to go inside can be interpreted as a closed space, but at the same time, for other children this space is a totally open space to visit. As can be seen in the vignette, the teacher was not invited into the castle. But this castle was not closed only to teachers. Analyzing the video, I found that the castle was open to some children, but closed to others, as the guard gave permission to children to enter and leave. Figure 4.5 below shows the castle as both isolated and penetrable. After a boy beckons to a girl to come out, the girl escapes to the world outside the castle, and the boy closes the door.

Figure 4.5. A Boy/Guard Opens A Gate for A Girl to Exit.

In this example, I highlight the context in which a heterotopia was created: the time (i.e., free playtime that must happen in an activity center), the place (i.e., the block center), the materials (i.e., wooden blocks that are easy for children to manipulate), and the power dynamics (i.e., the presence of a teacher who does not have authority over the castle and children's agency running the space). In the above-mentioned vignette, I identify two characteristics of heterotopia suggested by Foucault: deviant, and isolated yet penetrable. A heterotopia created by children may have all of Foucault's six characteristics, or it may have only one of them. The point is that the context of creating heterotopia varies and the function of heterotopia constantly changes according to children's intentions and circumstances. Thus, in order to comprehend young children's heterotopias, we need to think about their perspectives. By looking at what children are capable of within the heterotopia and how it exists differently compared to other spaces, we can understand the role and meaning of these enacted utopias in children's lives.

Children occupying the threshold

A threshold is an in-between space and a passageway. A threshold has no function, purpose, or meaning except in relation to other spaces that it both separates and potentially connects. In understanding children's spatial experiences, a threshold has historically been perceived as secondary rather than primary. In other words, the threshold is regarded merely for

architectural function, not for educational purposes. It is rarely taken into account as one of the important sites for conceptualizing children's spatial experiences. However, in my analysis, I found that many children often find a threshold as a zone of possibility and linger in that space.

In the threshold space, children often took poses that facilitated the change of direction of movement. Some children hesitated to commit to any of the defined spaces of the classroom, and, therefore, occupied threshold spaces instead. For example, a child leaning on the low shelves separating one play center from another, entering neither. On a smaller scale, children fiddled with their fingers and scratched their bodies while walking around the classroom. The following vignette was composed after watching a series of videos of a child's spatial behavior in a threshold space from the video footage filmed at Sinan Road in Shanghai, China.

Vignette 3: A boy standing on a threshold

> A boy, who has just entered the classroom through the classroom door, is holding the edge of a drawer. Then he leans his body to one side of the drawer, watching the other children play far from his space. The classroom is divided into seven different activity centers. The boy does not enter any of the centers, and there is no signal of active movement on his part to enter any center. Without entering the compartmentalized spaces, the boy meanders between those spaces.

The boy's movements can also be seen in Figure 4.6. In the figure, the boy's facial expressions are neither excited nor sad. Instead of showing any extreme emotions, such as happiness, joy, or irritation, he has a look on his face suggesting that he does not know where he wants to be.

Figure 4.6. A Boy Meandering in a Threshold Space.

The boy is walking through a threshold space. He seems to be controlling his pace, going past without belonging to any of the learning centers where he is supposed to be. The boy wanders around the various centers where other children are active while staying for a while in this non-compartmentalized threshold space. By staying in the threshold space, he resists the status quo of the classroom by not participating in any of the designed activities.

From Benjamin's (1999) view, the boy shown in this vignette can be considered as a *flâneur*, which is French for a stroller, lounger, or saunterer. The boy is dressed well, a characteristic of the flâneur, in a button-up dress shirt and brown slacks. He seems to command his space and is not afraid of his surroundings. He seems confident in the threshold space. He knows he does not have to be in a rush. The boy continues to appear in the video clip that lasts for five minutes, sometimes stretching his body toward the inside of a space without entering. According to Benjamin:

> "Performed in the figure of the Flâneur is that of the detective. The Flâneur required a social legitimation of his habitus. It suited him very well to see his indolence presented as a plausible front, behind which, in reality, hides the riveted attention of an observer who will not let the unsuspecting malefactor out of his sight. [M13a, 2]" (Benjamin, 1999, p.442)

Transversing the threshold spaces of his classroom as a flâneur gives this boy a social legitimation of his behavior. Because he does not belong to any center in the classroom, he can freely move to other spaces within the classroom. While he is enjoying staying in the threshold space, he is detecting other spaces and observing other children. Figure 4.7 provides a more visually detailed view of the boy's expression and posture, and the context of the space around him.

Figure 4.7. A Classroom Flâneur.

As can be seen in Figure 4.7, the boy puts his hands behind his back, a behavior displayed several times throughout the video. In this way, while exploring the space, the boy observes but does not intrude on the girls' space. I interpret the characteristics of his behaviors as representing the characteristics of the threshold mentioned by Benjamin. As humans move from one space to another, they connect and merge spaces from two or several spaces, consciously and unconsciously accepting the change between the spaces. Along these lines, children's spatial experiences are multidimensional and multilayered.

Close analysis of these scenes suggests that when children wander and linger in thresholds they find meaning in their pauses in these in-between spaces. From the perspective of a teacher, a child standing in the space between two classroom centers may be viewed as them occupying a space lacking meaning. But for the child, they might consider themselves as standing on a threshold of opportunity. As Benjamin suggests, such threshold experiences can be

moments of expectation, where anticipating the pleasures of an observed space can be as or more pleasurable than crossing the threshold and joining the observed activity. A threshold can be a place from which to look, from a distance, at friends who are playing in different spaces. For children, the threshold space can be a place of pause and coordination to evaluate the surrounding situation and the current status of their peers. The threshold can also be a space from which children reach out to their friends.

Children's spaces are not objectified spaces grasped only visually, but also embodied, tactile, subjective spaces that are experienced through direct feeling. As Malpas (1999) writes: "Subjective space is perspectival, but also has a certain orientation and extension to it—it is a space that 'gives space' for action" (p. 55). Threshold spaces allow children to have space for action. Watching the videos of scenes of children occupying a threshold, I could not assume in which direction the child may head next, but with careful viewing, I could get a sense of how they are continuously orienting themselves to somewhere. Their trajectories as they move or stay in place in the classroom result from the interactions of many factors including the appeal of different possible activities, friends they want to hang out with, materials they find intriguing, and classroom rules and routines they must navigate.

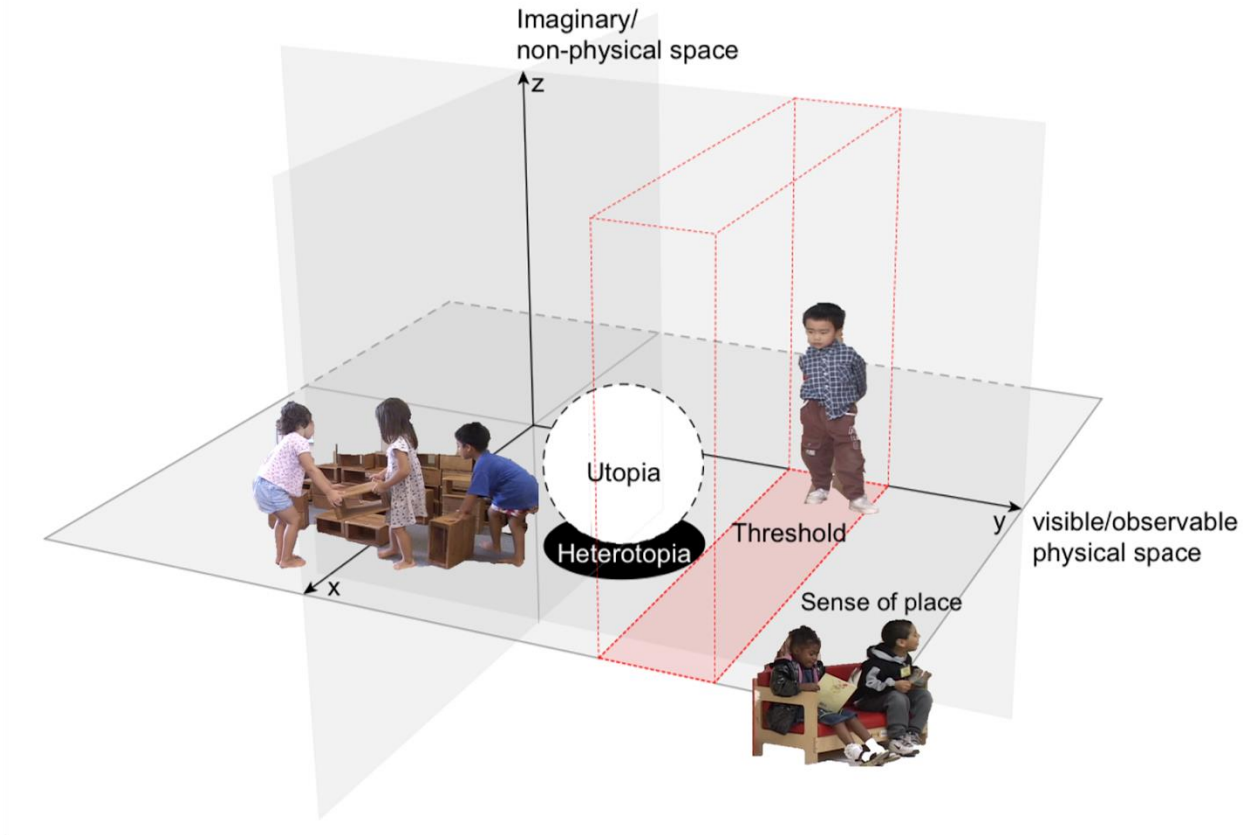

Figure 4.8. A Comprehensive Overview of Children's Spatial Experiences.

Based on the conceptual framework I developed in Chapter 3, this figure is an overlay of the research findings I found in this section. As can be seen in figure 4.8, children's sense of place, children's heterotopic space creation, and children's occupation of threshold space can overlap and occur simultaneously. The fact they can overlap suggests the need to look at the power dynamics of the classroom, not only between these spatial experiences, but also of the classroom space as a whole.

Place, space, and power dynamics

Different spaces and places in educational settings have different power dynamics depending on who is in the space/place, how long one can remain in the space/place, and the physical components of the space/place. Additionally, the power dynamics in a given space or

place can shift over the course of the day, week, or school year. Therefore, there are times and spaces/places where teachers have more control, and times and spaces/places where children have more freedom. Children's ability to recognize these opportunities of freedom and assert their agency varies according to the degree of force, power, and oppression acting on the space or place. For example, during lunchtime, children are expected to sit in their seats and eat their lunches without moving around. By making children remain in their seats, teachers are restricting children's movement to other spaces. Furthermore, by only giving the children a certain amount of time to eat lunch, teachers are restricting children's creative use or transformation of their lunchtime spaces because there is not enough time to both eat and play. Therefore, the time and space/place associated with eating lunch is an example of when and where children's agency is more limited. Lunchtime clearly contrasts with children's free playtime, which occurs at a time and in spaces/places specifically designed to enable children's creative use and transformation of space and place. Even while there are more opportunities for children to exert their agency than during lunchtime, teachers still designate the temporal and spatial parameters of free playtime by deciding when it begins and ends and designing the activity centers. In other words, children's agency in using and transforming space is always circumscribed by adult power.

Because children do not really have that much agency in their classroom settings, heterotopias and thresholds can be attractive as spaces to exert some agency. Even in these spaces that ostensibly disrupt the adult-child power dynamic, children still operate in power dynamics with other children. Several variables may contribute to these power dynamics, including race, gender, language ability, body size, and children's personalities. For example, even in the process of building a heterotopia in the block center, only some children had the

power to contribute to and occupy the space. In the vignette of building the castle, the gatekeeper who opens and closes the door seems to have the most power. Not only did this boy forbid teachers to enter the castle, but he also monitored the entrance and controlled opportunities to enter and exit the castle. This example allows us to analyze the politics of space more deeply by considering who has the power to govern the area. Not only did children create a space that reversed the adult-child power dynamic, but they went on to create new power dynamics among themselves when the children took up different roles in the new space, some of which appear to have more power than others (e.g., the gatekeeper).

The threshold provides space for an individual's subtle resistance to the teacher's power. The boy in the vignette visibly resists the set of choices provided by the teacher (e.g., choose one of the designated activities) by creating his own set of choices enabled by the threshold: to participate or not participate. By occupying the threshold and suspending his decision to participate, the boy can imagine different scenarios of how his time would be spent once he chooses to play and control those imaginings. Thus, the threshold as Benjamin describes it might be a more pleasing and powerful site than the actual spaces of the activity centers, where there are constraints from teachers, rules, and other children's desires. My application of Benjamin's threshold responds to and nuances the dominant discourse about power in educational settings, which draw on Foucault's panopticon and de Certeau's tactics.

Foucault's (1975) notion of the panopticon is a useful concept for thinking about power in school settings, specifically oppression of the students by the teacher. The panopticon is a circular prison which contains a central tower with a single guard, and the guard can observe everyone's behavior from their position. In a classroom, the teacher is in the guard's position, where they are able to observe each child, and they are able to utilize this power to influence the

children's behavior. This discipline is generally effective because the children realize that they are constantly under the watch of the teacher, and the children adjust their behavior according to the expectations and standards of the teacher. The concept of the panopticon allows us to think about the classroom as a space of oppressive surveillance, thereby providing the necessary context for examining children's responses to and navigation of that space, including their occupation of threshold spaces. As a space of agency, the threshold not only allows for projecting desired futures without disappointment, but also for stepping into different positions of power. For instance, the boy, as a classroom flaneur, recreates the teacher-child power dynamic of surveillance by surveying his own classmates.

Drawing on de Certeau's (1984) notion of tactics, we can also think about power in the classroom, specifically children's strategies as a force to resist that power. For example, de Certeau's (1984) idea of "tactics of the weak"(p.37) —the tricks of the less powerful that allow them to operate and communicate in defiance of those in power —allows us to think about the context of children's implementation of agency.

Under the oppression of power, the weak conceive a way to survive. In previous studies using the concept of de Certeau (1984), children's tactics challenge the established order of classroom norms and peer culture and are used to gain control of their lives in spite of their seeming weaknesses and disadvantages. These tactics are more recognizable and meaningful to those who do not have power and would use such tactics themselves, since the idea is that these tactics go undetected by the authority figure. The use of tactics is largely motivated by external factors, such as fear of authority, whereas the establishment and occupation of a threshold is mainly internally motivated, particularly through the imagination and anticipation of pleasure. This internal motivation could explain why exercising agency by occupying a threshold, unlike

using tactics, is more visible to the authority figure. The movement of the boy in the vignette would be quite obvious to the teacher, though the teacher would likely classify it as misbehavior, because he is not engaging in a designated activity, rather than an agential creation of space.

Considering the power dynamics of the classroom is important for understanding children's experiences of place and space, especially in relation to their agency. Recognizing these power dynamics, how they are constructed, and how they influence children's spatial experiences is the first step to creating classroom environments that deconstruct those dynamics and support children's agency more.

Implications

Children's spatial agency and classroom space

Combining close analyses of classroom videos and theories not usually applied to studies of early child education has allowed me to bring a new perspective to how young children engage with their classroom spaces. My findings show how children in their classrooms exhibit topophilia, or strong affection for a place. Additionally, I found that children playfully utilized their classroom spaces in ways to create heterotopias, by building their own spaces and transforming the given spaces for their different purposes. Moreover, children did not simply follow the teacher's instructions to go to specific spaces but observed their surroundings and took their time before choosing by staying in threshold spaces. These findings move us closer to answering the question that will shape our future classrooms: How can early childhood education classroom spaces support a democratic learning environment in which children can further exercise agency?

First, the compartmentalized and specialized "activity" or "learning" centers with their particular functions and purposes that are characteristic of contemporary early childhood

education can be reconceptualized, and seen as not necessarily the only or best ways for supporting young children's life in preschools. Children's heterotopias, which are comprised of the juxtapositions, conversions, combinations, and contradictions of spaces that I have described above, can create a new condition of fluidity that begins to break down the separate, specialized, and hierarchical structures of the classroom spaces. Educators need to think about how they can open up the possibilities for the transformations of given spaces that have been designed for particular purposes.

Furthermore, marginal, in-between spaces, such as thresholds, can be sites of liberatory potential for children. New possibilities in the preschool classroom become visible when children are standing on a threshold. Therefore, it is important to recognize these peripheral spaces of children's daily lives. This recognition can help to break down some of the strict boundaries of teachers' conceptualizing of spaces in their classrooms for learning and participation. Recognizing children's experiences in marginal spaces can contribute to recognizing and promoting children's rights in the classroom.

Lastly, the most important thing we need to consider in understanding children's spatial experiences is to acknowledge (or give) children's rights to their spaces, otherwise known as spatial sovereignty. Children have limited rights to their time and space in the classroom because of educator concerns about safety and pedagogy. But even as we consider those limitations, we should also think about how we incorporate children's experiences in constructing classroom spaces and supporting and restricting children's spatial movement. Children's spatial movement on a threshold can be interpreted as interest-oriented action rather than task-oriented movement. Instead of instructing children to choose a place to perform a given task, or leading them to move to a place based on the task, we should allow space and time for children to choose to go where

they are interested. Doing so can affect classroom space organization, while also affecting our instructional and behavior management strategies. By recognizing children's spatial experiences in which they have more agency in the classroom, we can begin to frame a new conceptualization of children's spatial experiences, one in which we are no longer preoccupied with resistance or inactivity in children's different space usage, but instead see those spaces as filled with possibility.

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CHAPTER 5

CONCLUSION

The chapters presented in this study have explored the history of conceptualizing place and space in relation to early childhood education (Chapter 2), developed a conceptual framework to visualize young children's spatial experiences (Chapter 3), and, using the conceptual framework, presented empirical evidence to demonstrate and understand children's lived experiences in preschool classrooms (Chapter 4). The purpose was to examine children's spatial experiences in order to better understand and support child-driven experiences in early childhood educational settings. By exploring young children's space usage, particularly in the marginal and imaginary spaces that have previously been neglected, this study foregrounded children's agency and sovereignty in their experiences.

In Chapter 2, a literature review of the conceptualizations of place and space described the different definitions of place and space that have characterized research over the past five decades and presented a categorization and critical summary of different perspectives on place and space research related to early childhood education. This paper categorized the research into four approaches to children's experience of place and space: cognitive-developmental, sociocultural, critical/postmodern, and posthumanist.

In the early studies of children's experience of place and space, the emphasis on the relationship between children's cognitive development and the environment raised people's interest in the role of the classroom as an important environment. Additionally, many scholars with a sociocultural perspective highlighted children's social-emotional experiences by studying

children's interactions with others in educational settings. Researchers with a critical/postmodern perspective recognized the significant role of place in children's lives. Their research challenges us to think critically about the physical arrangement of classroom space, the power dynamics within that space, and how those dynamics affect children's experiences. Finally, posthumanist scholars have presented a new paradigm in understanding children's place and space experiences, focusing on spatiality, matter, and the networks between them. These four perspectives are not mutually exclusive. Through research from these various perspectives, we can understand children's complex spatial experiences in multiple layers.

In Chapter 3, I created a conceptual framework that incorporates interdisciplinary concepts from geography, philosophy, and architecture. For the conceptual framework, I connected Tuan's (1977) sense of place and topophilia with Foucault's (1986) heterotopia and Benjamin's (1999) notion of the threshold to investigate how young children engage with marginal and imaginary spaces. This framework illuminates previously ignored and overlooked spaces that are rarely examined in education research. The framework helps to visualize children's complex interactions with place and space, providing new insight into children's experiences. Applying this conceptual framework to preschool settings can provide early childhood educators with new perspectives on how young children investigate space and place, particularly in relation to invisible and overlooked spaces. The conceptual framework allows us to obtain a more in-depth understanding of the context of children's place experiences and consider variables beyond those which are visible.

In Chapter 4, I applied the interdisciplinary conceptual framework to the analysis of children's spatial experiences in video data of six preschools in three countries. The framework enabled me to analyze children's lives beyond comparing the differences of their culture, to

prioritize children's points of view, and to acknowledge the importance of marginal and imaginary spatial experiences. By bringing children's perspectives to the center of the research, this research supports not only early childhood educators, but also all people who seek to understand children's lives and support their development. In addition, understanding how young children engage with place and space in preschool classrooms provides new ideas for understanding the potential of children's experiences in other places. The conceptual framework developed in this dissertation can be used to visualize children's spatial experiences in many places, such as playgrounds, parks, museums, and homes. Conducting further research on children's experience of place and space outside the classroom using these concepts of Tuan's, Foucault's, and Benjamin's can provide additional insight into the power dynamics of other places and reveal variables not explored in this study. Furthermore, showing how applying a new framework to old data reveals new understandings of children's engagement with space and place in the classroom shows the value of returning to archival material and doing additional analyses.

At the end of each chapter, I discussed some implications of the research described in that chapter. In the next section, I will describe briefly the overall significance of my study for early childhood research and practice.

Implications

This research contributes to the literature by providing an extensive literature review on space, place, and early childhood education. In Chapter 2, I provided a comprehensive literature review about conceptualizations of children's places and spaces. First, I outlined the definitions of place and space over time from different disciplines by comparing several scholars' opinions. Then, I emphasized how the research on young children's experiences of place and space has

been conducted by scholars in many disciplines. In doing so, I suggested four dominant approaches to examining children's place, space, and spatial experiences in early childhood education. While people might disagree with the categories I suggested, I found this to be the best way to highlight trends and changes over time in such a large corpus of scholarship. Finally, this literature review on space, place, and early childhood contributes not only to the field of early childhood education but also to other disciplines, such as geography and architecture, whose research may be related to educational settings. Such an extensive literature review provides a valuable starting point for future researchers interested in the history of scholarship on space, place, and early childhood educational settings, whether they are interested in tracing certain trends and approaches, or arguing for additional approaches.

Next, in Chapter 3, this research introduces concepts on space and place that have not been applied much or at all to early childhood education, namely Tuan's of *topophilia,* Foucault's concept of *heterotopia,* and Benjamin's of *threshold.* This framework can open up new questions, perspectives, interpretations, and implications for practice by getting researchers and educators to think beyond what is visible. Also, this interdisciplinary approach to the practice of early childhood educational settings may have implications for other disciplines, such as architecture, geography, sociology, aesthetics, and psychology, which are also related to young children and educational settings.

In addition, this research used a creative method of doing a new analysis of an archive of videos. The research method used in Chapter 4, which analyzes previously collected data with a new conceptual framework, indicates the value of looking at old data to find new meaning. Revisiting data brings new perspectives that allow us to see things we had not noticed before. The cultural differences in the *Preschool in three cultures revisited* videos (Tobin et al., 2009)

were the focus of the original researchers. My research, however, focuses on introducing concepts that can be applied to children's experiences of place and space regardless of the country and culture. The examples included in this study, for instance, were chosen on the basis of their universality. In other words, I used examples that cut across cultures and countries to demonstrate how my conceptual framework can be utilized in any early childhood education context. This universality is the unique advantage of my research, which differs from the research conducted before. These differences provide direction for future research. In other words, research applying my conceptual framework could take country and culture into account in the future to see if different cultures might shape thresholds and heterotopic spaces differently.

Future research could also investigate other intersections with children's experience of place/space, such as school locations (urban/suburban/rural), race, gender, ethnicities, socioeconomic statuses, ideologies, and disabilities. More specifically, I suggest an extension of the subject of research. First, it is necessary to examine teachers' perceptions of the classroom and school environment focusing on children's spatial experiences. Regarding diversity and equity, we need to examine how teachers promote justice and equity-oriented approaches in their instruction for children's locations/positions in the classroom. Additionally, researchers can explore how young children of all abilities negotiate their space and place with others in educational settings. Furthermore, we can examine how teachers intervene in the negotiation of space. Lastly, by collaborating with classroom teachers, local organizations, and school districts, researchers can consult on creating inclusive educational environments for enhancing young children's autonomy in early childhood education settings.

Using this dissertation research as a foundation, I will continue to study young children's spatial experiences in places and spaces that this study did not explore, including those places and spaces that have appeared or become more obvious during the recent pandemic. Because this research can be expanded and applied to diverse settings, I am looking forward to many opportunities to extend this line of research in ways that can contribute to the field of early childhood education.

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Appendix A: Overview of Reviewed Empirical Research for Literature Review

	Author	Title	Journal/Book	Participants	Setting	Duration	Research Approach	Method	Keywords
1	Abbas, M. Y., & Othman, M. (2010).	Social behavior of preschool children in relation to physical spatial definition.	Procedia-Social and Behavioral Sciences, 5, 935-941.	494 Malaysian preschool children, aged 5–6 years, of both genders	10 preschool classrooms	12 weeks each for the preschools	Qualitative research, case studies	Personal natural unobtrusive observations, video recordings, behavioral mapping, and interviews	Developmental psychology, preschool children, social behavior, classroom design
2	Argent, A. L. (2014).	Dogwood room entanglement.	International Journal of Child, Youth, and Family Studies, 5(4.2), 847-853.	children (ages 18 months to 29 months), parents, and four educators	Children's centre on a university campus	-	Qualitative research, case studies	Observations, photos	Early childhood education, curriculum, pedagogical documentation, assemblage, intra-activity, artistic processes
3	Arnott, L. (2018).	Children's negotiation tactics and socio-emotional self-regulation in child-led play experiences: the influence of the preschool pedagogic culture.	Early Child Development and Care, 188(7), 951-965.	Approximately 90 children aged 3–5 years	Two preschools in central Scotland	A nine-month period	Qualitative research, interpretivist epistemology	Exploratory qualitative observations, interviews and child-centred play-based methodologies	Socio-emotional, self regulation, pedagogic culture, child-centred play, negotiation
4	Azlina, W., & Zulkiflee, A. S. (2012).	A pilot study: The impact of outdoor play spaces on kindergarten children.	Procedia-Social and Behavioral Sciences, 38, 275-283.	Seventeen children between four to six years old	Outdoor play areas in kindergarten	-	Qualitative research, Participatory case study	Interviews, observations and behavior mapping	Children, outdoor play, playgrounds, children and environment
5	Bartos, A. E. (2013).	Children sensing place.	Emotion, Space and Society, 9, 89-98.	19 children aged 9-11 years	Elementary school in rural New Zealand town	Nine-months	Ethnographic study using feminist and humanistic frameworks	Ethnographic methods-participant observation, semi-formal interviews with the children's parents, children led tours classroom,	Children, Emotional attachment to place, Sensory geographies, New Zealand, Photo journals, Embodiment

								journals, role-playing, drawing, and photography	
6	Burke, C. (2005).	"Play in focus": Children researching their own spaces and places for play.	Children Youth and Environments, 15(1), 27-53.	40 children in total, Half 6-8 years; half 9-11 years	Primary school from two schools situated in east Leeds, Yorkshire, England	Over a one-week period in the autumn of 2002	Qualitative research	Mosaic approach, photo elicitation	Play, children's participation, visual research methods, England
7	Burke, K. J., Greene, S., & McKenna, M. K. (2016).	A critical geographic approach to youth civic engagement: Reframing educational opportunity zones and the use of public spaces.	Urban Education, 51(2), 143-169.	middle and high school–aged youth	A community center	Once a month for six months	Qualitative research, participatory action research	Photovoice, youth's photographs, narratives, and maps	Race, identity, cultural responsiveness, social, urban, literacy, urban education, youth development
8	Carr, M., Clarkin-Phillips, J., Beer, A., Thomas, R., & Waitai, M. (2012).	Young children developing meaning-making practices in a museum: The role of boundary objects.	Museum management and curatorship, 27(1), 53-66.	25 children aged from three months to five years	A kindergarten, housed in a museum building in the centre of the capital city of New Zealand	-	Qualitative research, action research	observations, recording of children's conversations and children's assessment portfolios	Museum education, early childhood education, meaning making practices, boundary objects, boundary-crossing, dialogue
9	Cekaite, A. (2010).	Shepherding the child: embodied directive sequences in parent–child interactions.	Text & Talk-An Interdisciplinary Journal of Language, Discourse & Communication Studies, 30(1), 1-25.	Eight families, including 23 children of 3–16 years of age in Sweden	Each Family's house	A week	Qualitative research	Each family was filmed for about a week using two cameras, and a third team member made notes, tracking family members' activities and locomotion within the house.	Directives, parent–child interactions, embodiment, shepherding, tactile engagement, spatial formation
10	Colwell, M. J., Gaines, K.,	Space, Place, and Privacy: Preschool Children's Secret Hiding Places.	Family and Consumer Sciences	Ten children between 3	Interview room with a variety of	About a week	Experimental research using	Interview with a variety of materials on	Children's secret spaces, early childhood

	Pearson, M., Corson, K., Wright, H. D., & Logan, B. J. (2016).		Research Journal, 44(4), 412-421.	and 5 years of age	materials on the table at university child development center		grounded theory	the table (i.e., drawing materials, modeling clay, puppets), Audio and video recordings	classrooms, social relationships
11	Cone, C. A., & Perez, B. E. (1986).	Peer groups and organization of classroom space.	Human organization, 45(1), 80-88.	Two older (grades 4-6) rooms and two younger (grades 1-3) rooms	Elementary Classroom	Total of about six hours of observation per room	Qualitative research	Classroom observation, interviews with students at their homes	Gender, peer groups, space, schools
12	Corson, K., Colwell, M. J., Bell, N. J., & Trejos-Castillo, E. (2014).	Wrapped up in covers: Preschoolers' secrets and secret hiding places.	Early Child Development and Care, 184(12), 1769-1786.	3- to 5-year-olds (n = 17)	A variety of settings such as classrooms or families' homes	-	Qualitative research, phenomenological case study	Observation, semi-structured interviews, children's drawing, role play and videotape	Secrets, secret hiding places, preschool children, sociocultural, interpretive phenomenology, intimacy
13	Cosco, N. G., Moore, R. C., & Islam, M. Z. (2010).	Behavior mapping: a method for linking preschool physical activity and outdoor design.	Medicine & Science in Sports & Exercise, 42(3), 513-519.	Preschool children	Two preschool centers at the Research Triangle region, NC	Outdoor playtime (2 sessions, about 2 hours)	Qualitative research	Behavior mapping data, including outdoor environmental characteristics and children's physical activity levels	Childcare, outdoors, prevention, built environment, behavior coding
14	Curtis E. (2015).	The Place of Time in Children's Being.	In Children's Spatialities (pp. 39-53). Palgrave Macmillan, London.	Children aged between 5 and 12	Small rural primary school in north-eastern Scotland	Between April and June 2012	Ethnography	Observations, took photos	-
15	Dachyshyn, D. M., & Kirova, A. (2008).	Understanding Childhoods In-Between: Sudanese refugee children's transition from home to preschool.	Research in Comparative and International Education, 3(3), 281-294.	Three Sudanese refugee mothers and their four-year-old sons	Playroom settings	-	Qualitative research	interview both individually and as a group, observation of children's play	-

16	Drown, K. K. C., & Christensen, K. M. (2014).	Dramatic play affordances of natural and manufactured outdoor settings for preschool-aged children.	Children Youth and Environments, 24(2), 53-77.	Twenty-four 3- to 5-year-olds	Natural playground and an equipment-based manufactured playground	Daily playtime for 7 weeks	Quantitative and qualitative research	Observation, fieldnotes and behavior mapping	Early childhood, natural playscapes, dramatic play, playground design, social play, preschool outdoor settings
17	Duhn, I. (2012).	Making 'place' for ecological sustainability in early childhood education.	Environmental Education Research, 18(1), 19-29.	Early childhood teachers	10 early childhood centres and kindergartens across in New Zealand	Two-year study	Qualitative study	Analyzing teachers' narratives	Early childhood, pedagogies of place, sociology of childhood, global/ local, indigenous knowledge
18	Edwards, J. (2012).	The classroom is a microcosm of the world.	In Children's spaces (pp. 88-122). Routledge.	7- to 11-year-olds	Primary schools in the north of England	-	Qualitative study	Participant observation, Behavior mapping, Teacher questionnaires	-
19	Eilam, E., & Garrard, G. E. (2017).	Perception of space among children studying their local grasslands examining attitudes and behavioural intentions.	Sustainability, 9(9), 1660.	A group of urban primary students	A local grassland reserve in western Melbourne	Eight-months	Qualitative study	Two sets of surveys and a focus group activity	Space perception, place-based education, attitudes, environmental planning
20	Fernie, D. E. (1988).	Becoming a student: Messages from first settings.	Theory into practice, 27(1), 3-10.	Preschoolers	Preschool	-	Qualitative study	Field-notes and videotape data	-
21	Fredriksen, B. C. (2012).	Providing materials and spaces for the negotiation of meaning in explorative play: Teachers' responsibilities.	Education Inquiry, 3(3), 335-352.	Young children (aged 3–5)	Norwegian early childhood education and care (ECEC) institution.	Three times a week throughout the autumn of 2009	Arts-based qualitative inquiry	Observations and discussions with the ECEC teachers, recording video camera and analyzed with NVivo software	Visual arts, early childhood education, materials, intersubjectivity, meaning negotiation
22	Gordon, T. (1996).	School is Like an Ant's Nest': Spatiality and embodiment in schools.	Gender and education, 8(3), 301-310.	13 to15-year-old students	Two secondary schools in Finland and Britain	-	Ethnographic study	Observations, questionnaires, and students' artifacts	-

23	Hackett, A. (2014).	Zigging and zooming all over the place: Young children's meaning making and movement in the museum.	Journal of Early Childhood Literacy, 14(1), 5-27.	Four young children aged 24–26 months with their parents	Five museums in northern England	A year (between December 2010 and November 2011)	Ethnographic approach	Observations, field notes, video recordings and walking maps	Multimodality, literacy, young children, museum, place, walking
24	Hackett, A. (2015).	Children's embodied entanglement and production of space in a museum.	In Children's Spatialities (pp. 75-92). Palgrave Macmillan, London.	Anna, 48 months Natasha, 52 months and Miriam, 16 months Izzy, 36 months	Museums	A one-year study	Ethnographic study	Observations, field notes, taking photos	-
25	Harden, J. (2000).	There's no place like home: The public/private distinction in children's theorizing of risk and safety.	Childhood, 7(1), 43-59.	51 children, secondary school (34 were aged 9-11, 17 were 12-15)	One school in urban area and four schools in rural areas in Scotland	-	Qualitative study	Interviews	Children, private, public, risk, safety
26	Holmes, R., & Cunningham, B. (1995).	Young children's knowledge of their classrooms: Names, activities, and purposes of learning centers.	Education and Treatment of Children, 433-442.	40 Euro-American children (20 girls and 20 boys) ranging in age from 35-68 months	Preschool classrooms	Two weeks	Mixed method study	Interviews, Drawings, 1-Way ANOVA, A series of Chi-Square tests	-
27	Ihmeideh, F. M., & Al-Qaryouti, I. A. (2016).	Exploring kindergarten teachers' views and roles regarding children's outdoor play environments in Oman.	Early Years, 36(1), 81-96.	Thirty kindergarten teachers from 15 private kindergartens	Kindergartens	Over one semester (mid-February–late May, 2013)	Mixed method study	A semi-structured interview and a structured observation checklist	Outdoor play environments; kindergarten teachers; Oman
28	Jones, S., Thiel, J. J., Dávila, D., Pittard, E., Woglom, J. F., Zhou, X., ... & Snow, M. (2016).	Childhood geographies and spatial justice: Making sense of place and space-making as political acts in education.	American Educational Research Journal, 53(4), 1126-1158.	Young people within a working-class community	A local community center	Eight months (from January to August of 2014)	Post-qualitative study	Analyzing published artifacts, participant observations, narrative writings, photographs, audio	Spatial justice, children's geographies, feminist new materialisms, Reggio Emilia, social class-sensitive pedagogies

								recordings, and notes about informal interviews, small group discussions, activities and ongoing group dialogue	
29	Kaplan, H. (2014).	Visualizing spaces of childhood.	Occasional Paper Series, 2014(31), 53-65.	Children	Public playground	Several weeks	Visual ethnography	Photographs, observations, and field note	-
30	Karoff, H. S. (2015).	Reconceptualising Children's Play: Exploring the Connections Between Spaces, Practices and Emotional Moods.	In Children's Spatialities (pp. 112-127). Palgrave Macmillan, London.	Primary and middle school students (grades 3-4, ages 7-9)	Primary and middle school	Six months of empirical work	Phenomenological approach	Participatory observation, photography-based method: photo elicitation, semi-formal interviews with children	-
31	Karsten, L. (2003).	Children's use of public space: the gendered world of the playground.	Childhood, 10(4), 457-473.	Children	Eight playgrounds in Amsterdam	-	Qualitative research	Interviews, informal observations, and structured observations	Children, gender, playground, resident behaviour, urban space
32	Katz, C. (1991).	Sow what you know: the struggle for social reproduction in rural Sudan.	Annals of the Association of American Geographers, 81(3), 488-514.	Eighteen children, ten boys and eight girls, ten years of old	-	A year-long study	Ethnographic study	Observations	Children, Sudan, environmental knowledge, social reproduction, household labor, socioeconomic change
33	Kellock, A., & Sexton, J. (2018).	Whose space is it anyway? Learning about space to make space to learn.	Children's Geographies, 16(2), 115-127.	Eight children aged between 8 and 10 years old	Semi-rural primary school in the north of England	Three months at the beginning of the school year.	Qualitative research	A qualitative mixed approach (children's participation in the activities, the photographs, annotations and further discussions)	Lefebvre, children's perspectives, visual narratives, space, primary school, belonging

								Visual narratives	
34	Korpela, K., Kyttä, M., & Hartig, T. (2002).	Restorative experience, self-regulation, and children's place preferences.	Journal of environmental psychology, 22(4), 387-398.	Girls and boys (n = 55) aged 8-9 or 12-13	Downtown Tampere or Helsinki	-	Quantitative approach	Children's questionnaire, structured interviews with open- and closed-ended questions	-
35	Lam, M. S. (2009).	Crossing the cultural boundary from home to kindergarten in Hong Kong: A case study of a child's strategic actions.	European Early Childhood Education Research Journal, 17(1), 125-145.	Three-year-old children	A kindergarten classroom located in a working class neighborhood in Hong Kong	An academic year of 11 months	Comprehensive and exploratory case-study	participant observations, semi structured interviews, photovoice and review of documents	Strategic actions, transition to kindergarten, play and learning, sociocultural theory, adaptation
36	Lewis, T. E., & Phillipsen, L. C. (1998).	Interactions on an elementary school playground: variations by age, gender, race, group size, and playground area.	Child Study Journal, 28(4), 309-309.	88 first and second graders and 76 fifth and sixth graders	Public elementary school playground	Several weeks	Quantitative approach	A time sampling observation	-
37	Lyttleton-Smith, J. (2019).	Objects of conflict:(re) configuring early childhood experiences of gender in the preschool classroom.	Gender and Education, 31(6), 655-672.	20 three- and four-year-old children in the class in the U.K.	Preschool classrooms	A year-long study	Ethnographic study	Participant observation, field notes	Early years, childhood, heteronormativity, materiality, nursery and preschool, difference and diversity
38	Mackley, K. L., Pink, S., & Moroşanu, R. (2015).	Knowing the world through your body: Children's sensory experiences and making of place.	In Children's Spatialities (pp. 21-38). Palgrave Macmillan, London.	Primary school-age children	20 family households in Midlands (UK)	Between 2011 and 2014	Sensory and visual-ethnographic approach	Video recordings and visiting households	-
39	MacLure, M., Jones, L., Holmes, R., & MacRae, C. (2012).	Becoming a problem: Behaviour and reputation in the early years classroom.	British Educational Research Journal, 38(3), 447-471.	4- to 5-year-olds	Four primary/infant schools in Greater Manchester	Visiting each school once a week for a year	Ethnographic study	Field notes, interviews, video recordings, and meetings	-

40	MacRae, C. (2011).	Making Payton's rocket: Heterotopia and lines of flight.	International Journal of Art & Design Education, 30(1), 102-112.	Young children	Early years classroom	-	Qualitative research	Analyzing videos, children's artifacts	-
41	McNamee, S. (2000).	Foucault's heterotopia and children's everyday lives.	Childhood, 7(4), 479-492.	Children aged between 8 and 18 (N=1600) in one primary and two secondary schools	-	Between 1994 and 1998	Mixed method study	Questionnaire, in-depth interviews, children's artworks	Childhood, Foucault, gender, heterotopia, video games
42	Monsur, M. (2013).	Transitional Space and Preschool Children's Play & Learning Behavior in Childcare Environment	In ARCC Conference Repository.	Preschool age (3-5 years) children	Childcare settings	-	Quantitative approach	Behavioral Mapping, qualitative questionnaire data analysis	Transitional space, behavioral mapping, preschool age children, play and learning behavior
43	Nordtømme, S. (2012).	Place, space and materiality for pedagogy in a kindergarten.	Education Inquiry, 3(3), 317-333.	Two groups of 2- to 5-year-old children	Two Norwegian kindergartens	-	Ethnography, Socio-cultural perspectives	Participant observation, field notes, conversations with children and employees, photos and video recording	Space, materiality, meaning-making, learning, power, kindergarten
44	Onojeghuo, A. R., Nykiforuk, C. I., Belon, A. P., & Hewes, J. (2019).	Behavioral mapping of children's physical activities and social behaviors in an indoor preschool facility: methodological challenges in revealing the influence of space in play.	International journal of health geographics, 18(1), 1-16.	Preschool children	3 preschool facilities (one urban and two rural) in Canada	From September 2014 to June 2015	Quantitative approach	Observational System for Recording Physical Activity in Children-Preschool version (OSRAC-P), video recordings	Free play, GIS, Social behaviors, Gridding, Indoor environments, Physical activity
45	Paulus, M. (2018).	Preschool Children's and Adults' Expectations About Interpersonal Space.	Frontiers in psychology, 9, 2479.1-8	Experiment 1. 49 kindergarten children and 20 adult	Day care centers in German	-	Experimental research	ANOVA, t-tests	Social space, reasoning, preschool children, social distance,

				participants, Experiment 2. 35 kindergarten children and 40 adult participants					social cognition, action prediction
46	Pitsikali, A., & Parnell, R. (2019).	The public playground paradox: 'child's joy' or heterotopia of fear?.	Children's geographies, 17(6), 719-731.	Children in public playground	Three public playground sites in Athens, Greece	Five months in 2016 and 2017	Ethnography	Ethnography, ethnographic observations, field notes, informal discussions and 61 semi-structured ethnographic interviews	Playground paradox, heterotopia, fear, Athens, ethnography, public realm
47	Plowman, L., & Stevenson, O. (2013).	Exploring the quotidian in young children's lives at home.	Home Cultures, 10(3), 329-347.	A three- or four-year-old child	Children's home in UK	A total of more than eighty visits to their home throughout the sixteen-month	Ethnography	Observations, field notes	Children, families, learning, home, everyday, research methods
48	Prochner, L., Cleghorn, A., & Green, N. (2008).	Space considerations: materials in the learning environment in three majority world preschool settings.	International journal of early years education, 16(3), 189-201.	Preschool children	Three semi-rural ECEC in Canada, India, and South Africa	Four-year study	Qualitative approach using third-space theory and hybridity theory	Observations and video tapings of preschools in action, interviews with teachers, and analysis of documents pertaining to early childhood curriculum, teacher training, and policy in the three countries.	Comparative education, international education, pedagogy, curriculum, preschool

49	Procter, L., & Hackett, A. (2017).	Playing with place in early childhood: An analysis of dark emotion and materiality in children's play.	Contemporary Issues in Early Childhood, 18(2), 213-226.	Two-year-old boy and three girls (aged 7 to 11)	Museum and junior school (for children aged 7 to 11) in northern England	Eight-month period	Ethnographic case studies with new materialist perspectives	Observations, video recording	Cultural studies, emotion, materiality, new materialism, place
50	Procter, L. (2015).	'No, You've Done It Once!': Children's Expression of Emotion and Their School-Based Place-Making Practices.	In Children's Spatialities (pp. 128-143). Palgrave Macmillan, London.	Five children (age 9-10)	Primary school	-	School Context Institutional Space	Ethnographic fieldwork	-
51	Raittila, R. (2012).	With children in their lived place: children's action as research data.	International Journal of Early Years Education, 20(3), 270-279.	4–6 years old, a total of 36 children	Kindergarten in Finland.	One year	Ethnographic case study	Ethnographic tours around a city block with children and the children's spontaneous chat and actions	Children, relational, environment, everyday action, urban, ethnography
52	Ramsey, P. G., & Myers, L. C. (1990).	Salience of race in young children's cognitive, affective, and behavioral responses to social environments.	Journal of Applied Developmental Psychology, 11(1), 49-67.	41 preschool and kindergarten children in the northeastern region of the United States	Racially integrated preschool classrooms	Two months	Experimental research	Interviews, recording	-
53	Rasmussen, K. (2004).	Places for children–children's places.	childhood, 11(2), 155-173.	88 children and 60 children, 5–12 years of age	Homes, schools and recreational institutions at 13 different locations in Denmark	During one week in 1998–9	Qualitative research	Photovoice, interviews	children's places, everyday life, neighbourhood, photo-elicitation, places for children, 'the institutionalized triangle'
54	Rautio, P. (2014).	Mingling and imitating in producing spaces for knowing and being: Insights from a Finnish study of child–matter intra-action.	childhood, 21(4), 461-474.	12 Finnish children of ages four to seven	Non-space (Augé, 1995) such as a non-categorizable half-empty room	One half-year period	Qualitative research	Video recording, photographing, note taking, audio recording or a	Children, everyday life, intra-action, materiality, post-humanism

								combination of all of these	
55	Rautio, P. (2013).	Children who carry stones in their pockets: On autotelic material practices in everyday life.	Children's Geographies, 11(4), 394-408.	Children	Children's everyday lives	-	Empirical participatory research	Observation	Children's everyday life, new materialism, posthumanism, autotelic practices
56	Rimm-Kaufman, S. E., La Paro, K. M., Downer, J. T., & Pianta, R. C. (2005).	The contribution of classroom setting and quality of instruction to children's behavior in kindergarten classrooms.	The elementary school journal, 105(4), 377-394.	Kindergartners and their teachers.	Kindergarten	The entire observation took 3 hours	Quantitative approach, 250 1-Way ANOVA, A series of Chi-Square tests	Classroom Observation System for Kindergarten (COS-K)	-
57	Sandseter, E. B. H. (2009).	Affordances for risky play in preschool: The importance of features in the play environment.	Early childhood education journal, 36(5), 439-446.	29 four- and five-year-old children (21 girls and 8 boys)	Two Norwegian preschools, (ordinary, nature and outdoor preschool)	A total of seven days	Qualitative research, A content analysis	Observed and videotaped while playing.	Risky play, Affordances, Preschool, Play environments, Children
58	Santos, A. J., Vaughn, B. E., & Bost, K. K. (2008).	Specifying social structures in preschool classrooms: Descriptive and functional distinctions between affiliative subgroups.	Acta Ethologica, 11(2), 101-113.	A total of 343 older children (i.e., children between 48 and 60 months of age	Head Start centers	A year-long study	Quantitative research	Observations and interviews, ANOVA, hierarchical clustering and chi-square procedures	Peer relations, Affiliative structure, Stratification
59	Sarafino, E. P., & Helmuth, H. (1981).	Development of personal space in preschool children as a function of age and day-care experience.	The Journal of Social Psychology, 115(1), 59-63.	101 preschoolers ranging from 25 to 62 months of age	Day-care centers	-	Experimental research	Observations, interviews, and statistics	-
60	Satta C. (2015).	A Proper Place for a Proper Childhood? Children's Spatiality in a Play Centre.	In Children's Spatialities (pp. 178-197). Palgrave Macmillan, London.	Four- to six-year-old children	Play centre in a medium sized city in the centre of Italy	-	Qualitative research	Participant observation, formal/ informal observations with play-	-

								assistants, children and their parents, and fieldnotes	
61	Shultz, J., & Florio, S. (1979).	Stop and Freeze: The Negotiation of Social and Physical Space in a Kindergarten/First Grade Classroom 1.	Anthropology & Education Quarterly, 10(3), 166-181.	Kindergarten and first grade students	Classroom in a suburb of Boston	Over the two school years	Qualitative research	Videotapes, field notes	Ethnography of classroom interaction, acquisition of social competence, kindergarten/ First grade children, face-to-face interaction
62	Simkins, I., & Thwaites, K. (2008).	Revealing the hidden spatial dimensions of place experience in primary school-age children.	Landscape Research, 33(5), 531-546.	68 children, primary school-age children	Three primary schools in UK	A longitudinal study	Environmental psychology, case study using ground theory	Practice-based fieldwork individual semi-structured interviewing Paired small group mapping and drawing	Participatory tools and techniques, routinely encountered outdoors, children's place perceptions, Grounded Theory, sense of place
63	Skånfors, L., Löfdahl, A., & Hägglund, S. (2009).	Hidden spaces and places in the preschool: Withdrawal strategies in preschool children's peer cultures.	Journal of Early Childhood Research, 7(1), 94-109.	Two-to five-year-old children	Preschool	Four months (2007–08)	Ethnographic study	Ethnographic observations, through field notes and video recordings	Children, inclusion and exclusion, interactions, peer culture, withdrawal
64	Sunday, K. (2020).	Dinner theater in a toddler classroom: The environment as teacher.	Contemporary Issues in Early Childhood, 21(3), 197-207.	Toddler	Preschool classroom	-	Qualitative case study based on Reggio inspired pedagogy	Narrative methodologies within qualitative research, field notes, audio and visual recordings, and journal entries	Diffractive methodology, early childhood teaching, environment as third teacher, performance
65	Taguchi, H. L. (2011).	Investigating learning, participation and becoming in early childhood practices with a relational materialist approach.	Global Studies of Childhood, 1(1), 36-50.	Children who are three to five years old in mixed-age groups	Preschool classroom	-	Qualitative research	Analyzing data from books	-

66	Templeton, T. N. (2020).	'That street is taking us to home': young children's photographs of public spaces.	Children's Geographies, 18(1), 1-15.	11 children between the ages of 2 and 5	A university-affiliated childcare center in upper Manhattan	10-weeks	Ethnography	Participatory research, ethnographic methods such as participant observations, child-directed interviews, and photo elicitation interviews (PEIs)	Children's geographies, photography, visual methods, young children, urban childhood, participatory research
67	Thiel, J. J. (2015).	Vibrant matter: The intra-active role of objects in the construction of young children's literacies.	Literacy Research: Theory, Method, and Practice, 64(1), 112-131.	Three early childhood aged children from working poor families	A summer enrichment and an after-school program	A yearlong study	Ethnography	Feminist new materialism, The data presented are part of a yearlong ethnographic study in the multimodal literacy play work	New materialisms, multimodal literacies, embodied literacies, muchness
68	Thiel, J. J. (2015).	"Bumblebee's in Trouble!" Embodied Literacies during Imaginative Superhero Play.	Language Arts, 93(1), 38-49.	20 to 40 children between the ages of 2 and 13 years of age	Community center	Three-hour summer sessions in June and July 2014	Participatory action research	Observations	-
69	Thiel, J. J. (2018).	'A Cool Place Where We Make Stuff': Co-curating Relational Spaces of Muchness.	In Communities of practice: Art, play, and aesthetics in early childhood (pp. 23-37). Springer, Cham.	Children	The community center (affectionately known as the Playhouse)	Over the 4 years	Participatory action research	Observations, interviews	-
70	Thiel, J. J., & Jones, S. (2017).	The literacies of things: Reconfiguring the material-discursive production of race and class in an informal learning centre.	Journal of Early Childhood Literacy, 17(3), 315-335.	Children	An informal learning centre (the Playhouse)	-	Participatory action research	Observations	Feminist new materialisms, out-of-school literacies, place-making, thing power, race, social class

71	Thomas, G., & Thompson, G. (2004).	A Child's Place: Why Environment Matters to Children: a Green Alliance.	Green Alliance.	10- and 11-year-olds	Three primary schools and one center in UK	In February and March 2004	Qualitative approach	Interviews with children, tours of children's spaces with children, Informal talk and observation in the playground, A paper survey of parents in each school, Filmed interviews with head teachers	-
72	Thomson, J. L., & Philo, C. (2004).	Playful spaces? A social geography of children's play in Livingston, Scotland.	Children's Geographies, 2(1), 111-130.	Three groups of eight and nine-year-old children	Three primary schools in Livingston in Scotland	Two visits each school	Qualitative approach	Children's questionnaire, mental map, focus group discussion, audio record	-
73	Torrens, P. M., & Griffin, W. A. (2013).	Exploring the micro-social geography of children's interactions in preschool: A long-term observational study and analysis using geographic information technologies.	Environment and Behavior, 45(5), 584-614.	Preschool, Participants (n = 84)	Preschool	3-year observational study	Geographic information systems, spatial analysis, social networks, behavioral geography, human geography, children, playgroup	A 3-year observational study, Graphical User Interface (GUI)	Geographic information systems, spatial analysis, social networks, behavioral geography, human geography, children, playgroup
74	Valentine, G. (1997).	"Oh Yes I Can." "Oh no you can't": Children and parents' understandings of kids' competence to negotiate public space safely.	Antipode, 29(1), 65-89.	Parents of children aged 8–11	Metropolitan, non-metropolitan and rural areas in the UK	-	Qualitative research	In-depth semi-structured interviews, focus group discussions with children, questionnaire survey of nearly 400 parents and	-

								ethnographic work with community police officers and teachers	
75	van Liempd, H. I. M., Oudgenoeg-Paz, O., Fukkink, R. G., & Leseman, P. P. (2018).	Young children's exploration of the indoor playroom space in center-based childcare.	Early Childhood Research Quarterly, 43, 33-41.	Mixed-age groups, with ages ranging between 11 and 48 months, 61 children (49.2% girls)	Ten child day care centers in Netherland	Free-time play periods on two different mornings, with one to two weeks	Qualitative research	Observation, video recordings	Day care centers, Exploration Task-orientation, Spatial characteristics
76	Waller, T. (2006).	"Don't come too close to my octopus tree": Recording and evaluating young children's perspectives on outdoor learning.	Children Youth and Environments, 16(2), 75-104.	80 young children aged three and four years	A local country park in United Kingdom	Over a period of seven months during the school year	Participatory research	Observations, interviews with practitioners, research reviews and questionnaires for parents. Mosaic approach for children- photo elicitation, child-led tour, and "learning story"	Children's perspectives, participatory research with young children, United Kingdom, outdoor environment, learning environments, participatory methods
77	Walsh, D. J. (2002).	The development of self in Japanese preschools: Negotiating space.	Counterpoints, 180, 213-245.	Preschools	Japanese preschools ranged in size from 50 to 190 children	Over an eight-month period	Qualitative approach	Fieldwork, observation	-
78	Wee, B. S. C., & Anthamatten, P. (2014).	Using photography to visualize children's culture of play: A socio-spatial perspective.	Geographical Review, 104(1), 87-100.	Thirty-seven Latino and Latina elementary (K–5) school students	Elementary (K–5) school located in a low-income, urban southwest corridor about three miles from	-	Qualitative approach	Participatory research, focus group interviews were conducted	-

					downtown Denver				
79	Welsh, M. E., Miller, F. G., Kooken, J., Chafouleas, S. M., & McCoach, D. B. (2016).	The kindergarten transition: Behavioral trajectories in the first formal year of school.	Journal of Research in Childhood Education, 30(4), 456-473.	22 full-day kindergarten students (six at risk, 12 male)	Kindergarten	80 school days between November and March	Quantitative research	The SSRS (Social Skills Rating System) the Direct Behavior Rating Single Item Scales (DBR-SIS), multilevel modeling approach, consistent with single-case design research	Behavior, early childhood, multilevel modeling, schooling
80	Yoon, Y., & Henward, A. S. (2020).	Re-examining and Re-assembling the Gendered Worlds of Preschool Girls.	In Rethinking Young People's Lives Through Space and Place (pp.107-120). Emerald Publishing Limited.	17 children	A progressive, multiage preschool classroom in the northeast United States	A six-month study: three hours a day, four days a week	Qualitative approach	Observations, field notes, informal interviews with children and a teacher, and collecting photos of drawings and art projects, and buildings	Preschool, space, gender, assemblage, posthumanism
81	Morrissey, A. M., Scott, C., & Wishart, L. (2015).	Infant and toddler responses to a redesign of their childcare outdoor play space.	Children Youth and Environments, 25(1), 29-56.	Infants and toddlers	A not-for-profit childcare center in an outer suburban Melbourne, Australia	-	Quantitative research and qualitative research	Behavior mapping and child tracking observations	Natural play spaces, affordances, infants/toddlers, childcare
82	Cox, A., Loebach, J., & Little, S. (2018).	Understanding the Nature Play Milieu: Using Behavior Mapping to Investigate Children's Activities in Outdoor Play Spaces.	Children, Youth and Environments, 28(2), 232-261.	Total of 826 observations of children	Santa Barbara Museum of Natural History	A seven-day period in the summer of 2017	Case study	Behavior mapping	Children, outdoor play, nature play spaces, behavior mapping, child-friendly research methods

Appendix B: Overview of Reviewed Conceptual Research for Literature Review

	Author	Title	Journal/Book/Conference paper	Keywords
1	Aitken, S. C. (2018).	Children's Geographies: Tracing the evolution and involution of a concept.	Geographical Review, 108(1), 3-23.	n/a
2	Akkerman, S. F., & Bakker, A. (2011).	Boundary crossing and boundary objects.	Review of educational research, 81(2), 132-169.	Boundary, boundary crossing, boundary object, dialogicality, learning theory
3	Alves, N., & de Oliveira, I. B. (2002).	Research on everyday life of schools in Brazil.	Taboo, 6(2).	n/a
4	Appleby, R. (2009).	The spatial politics of gender in EAP classroom practice.	Journal of English for Academic Purposes, 8(2), 100-110.	English for academic purposes, Gender, Space, Teacher narratives
5	Bansel, P., Davies, B., Laws, C., & Linnell, S. (2009).	Bullies, bullying and power in the contexts of schooling.	British journal of sociology of education, 30(1), 59-69.	Bullying, schools, violence, poststructuralist
6	Bartos, A. E. (2013).	Children sensing place.	Emotion, Space and Society, 9, 89-98.	Children, Emotional attachment to place, Sensory geographies, New Zealand, Photojournals, Embodiment
7	Betrián Villas, E. A., Jové Monclus, G., & Ryan, C. (2019).	Becoming rhizomatic: Researching flowing in/between striated and smooth space.	Deleuze and Guattari Studies, 13(3), 355-376.	Deleuzo-Guattarian thinking, qualitative research methods, smooth space, striated space, rhizoanalysis, rhizovocality
8	Blaise, M. (2016).	Fabricated childhoods: Uncanny encounters with the more-than-human.	Discourse: Studies in the Cultural Politics of Education, 37(5), 617-626.	Childhoods, experimentation, more-than-human, post-qualitative inquiry, provocation
9	Blazek, M. (2015).	Children's emotional geographies: Politics of difference and practices of engagement.	In Children's Spatialities (pp. 95-111). Palgrave Macmillan, London.	n/a
10	Brillante, P., & Mankiw, S. (2015).	Preschool Through Grade 3: A Sense of Place: Human Geography in the Early Childhood Classroom.	YC Young Children, 70(3), 16-23.	n/a
11	Brown, D., & Kelly, J. (2001).	Curriculum and the classroom: Private and public spaces.	British Journal of Sociology of Education, 22(4), 501-518.	n/a
12	Carr, M., Clarkin-Phillips, J., Beer, A., Thomas, R., & Waitai, M. (2012).	Young children developing meaning-making practices in a museum: The role of boundary objects.	Museum management and curatorship, 27(1), 53-66.	Museum education, early childhood education, meaning-making practices, boundary objects, boundary-crossing, dialogue
13	Charitos, D. (1997).	Designing space in virtual environments for aiding wayfinding behaviour.	In Department of Architecture, University of Strathclyde. The fourth UK VR-SIG Conference, Brunel University, 1st November.	Virtual environment design, human factors of virtual environments.
14	Churchman, A. (2003).	Is there a place for children in the city?.	Journal of Urban Design, 8(2), 99-111.	n/a
15	Clark, A. (2005).	Ways of seeing: Using the Mosaic approach to listen to young children's perspectives.	Beyond listening: Children's perspectives on early childhood services, 29-49.	n/a

16	Clark, A. (2007).	A hundred ways of listening: Gathering children's perspectives of their early childhood environment.	YC Young Children, 62(3), 76.	n/a
17	Clark, A. (2012).	Talking and listening to children.	In Children's Spaces (pp. 23-35). Routledge.	n/a
18	Clark, A., & Gallacher, L. A. (2013).	Children in and out of place.	In Childhoods in Context (pp. 1–52). Bristol: Policy Press.	n/a
19	Cook, M. (2005).	'A place of their own': creating a classroom 'third space' to support a continuum of text construction between home and school.	Literacy, 39(2), 85-90.	Third space, role play, text construction, pedagogies, classroom practice, family learning
20	Correia, N., Aguiar, C., & Amaro, F. (2021).	Children's participation in early childhood education: A theoretical overview.	Contemporary Issues in Early Childhood, 1463949120981789.	Children's right to participate, early childhood education, participation, quality, rights
21	Drown, K. K. C., & Christensen, K. M. (2014).	Dramatic play affordances of natural and manufactured outdoor settings for preschool-aged children.	Children Youth and Environments, 24(2), 53-77.	Early childhood, natural playscapes, dramatic play, playground design, social play, preschool outdoor settings
22	Duhn, I. (2012).	Places for pedagogies, pedagogies for places.	Contemporary Issues in Early Childhood, 13(2), 99-107.	n/a
23	Edwards, C. P. (2002).	Three approaches from Europe: Waldorf, Montessori, and Reggio Emilia.	Early Childhood Research & Practice, 4(1), n1.	Classroom Environment, Comparative Analysis, Educational Philosophy, Montessori Method, Parent Teacher Cooperation, Preschool Education, Reggio Emilia Approach, Student Evaluation, Teacher Student Relationship, Teaching Methods Montessori Schools, Waldorf Schools
24	Edwards, J. (2012).	The classroom is a microcosm of the world.	In Children's spaces (pp. 88-122). Routledge.	n/a
25	Einarsdottir, J. (2011).	Reconstructing playschool experiences.	European early childhood education research journal, 19(3), 387-402.	Children's perspectives, transition, playschool, Nordic
26	Ellis, J. (2002).	The importance of attending to children and place.	International Journal of Educational Policy, Research, and Practice, 3(3), 69-88.	n/a
27	Ellis, J. (2004).	Researching children's place and space.	JCT, 20(1), 83-99.	n/a
28	Ellis, J. (2004).	The significance of place in the curriculum of children's everyday lives.	Taboo: The Journal of Culture and Education, 8(1), 23-42.	n/a
29	Ellis, J. (2005).	Place and identity for children in classrooms and schools.	Journal of the Canadian Association for Curriculum Studies, 3(2). 55-73.	n/a
30	Faure, B. (1987).	Space and place in Chinese religious traditions.	History of religions, 26(4), 337-356.	n/a
31	Fernie, D. E. (1988).	Becoming a student: Messages from first settings.	Theory into practice, 27(1), 3-10.	n/a
32	Gieryn, T. F. (2000).	A space for place in sociology.	Annual review of sociology, 26(1), 463-496.	Place and space, built environment, architecture, material culture, design

33	Golbeck, S. L., & Liben, L. S. (1988).	A cognitive-developmental approach to children's representations of the environment.	Children's Environments Quarterly, 46-53.	n/a
34	Gruenewald, D. A. (2003).	Foundations of place: A multidisciplinary framework for place-conscious education.	American educational research journal, 40(3), 619-654.	Accountability, ecological education, pedagogy, place, place-based education, school reform
35	Gulson, K. N., & Symes, C. (2007).	Knowing one's place: space, theory, education.	Critical studies in education, 48(1), 97-110.	n/a
36	Gustafson, P. (2001).	Meanings of place: Everyday experience and theoretical conceptualizations.	Journal of environmental psychology, 21(1), 5-16.	n/a
37	Hart, R. (1984).	The geography of children and children's geographies.	Environmental perception and behavior: An inventory and prospect, 99-129.	n/a
38	Helfenbein, R. J., & Taylor, L. H. (2009).	Critical geographies in/of education: Introduction.	Educational Studies, 45(3), 236-239.	n/a
39	Hemming, P. J. (2008).	Mixing qualitative research methods in children's geographies.	Area, 40(2), 152-162.	Qualitative, mixed-method, children, research, triangulation, United Kingdom
40	Holloway, S. L., & Valentine, G. (2000).	Spatiality and the new social studies of childhood.	Sociology, 34(4), 763-783.	Childhood, children, internet, place, space, spatiality
41	Horton, J., & Kraftl, P. (2006).	What else? Some more ways of thinking and doing 'Children's Geographies'.	Children's geographies, 4(01), 69-95.	n/a
42	Jack, G. (2010).	Place matters: The significance of place attachments for children's well-being.	British Journal of Social Work, 40(3), 755-771.	Child Welfare, Children and Families, Looked After Children
43	James, S. (1990).	Is there a 'Place' for Children in Geography?.	Area, 278-283.	n/a
44	Jones, L. (2013).	Children's encounters with things. Schooling the body. Qualitative inquiry, 19(8), 604-610.	Qualitative inquiry, 19(8), 604-610.	Material, young child, the body, pedagogy
45	Jones, S. (2015).	Making a place for Spencer: Place-making as a political act.	The teacher you want to be: Essays about children, learning, and teaching, 124-139.	n/a
46	Jones, S., & Spector, K. (2017).	Becoming unstuck: Racism and misogyny as traumas diffused in the ordinary.	Language Arts, 94(5), 302.	n/a
47	Jones, S., Thiel, J. J., Dávila, D., Pittard, E., Woglom, J. F., Zhou, X., ... & Snow, M. (2016).	Childhood geographies and spatial justice: Making sense of place and space-making as political acts in education.	American Educational Research Journal, 53(4), 1126-1158.	Spatial justice, children's geographies, feminist new materialisms, Reggio Emilia, social class-sensitive pedagogies
48	Lam, M. S. (2009).	Crossing the cultural boundary from home to kindergarten in Hong Kong: A case study of a child's strategic actions.	European Early Childhood Education Research Journal, 17(1), 125-145.	Strategic actions, transition to kindergarten, play and learning, sociocultural theory, adaptation
49	Langeveld, M. J. (1983).	The secret place in the life of the child.	Phenomenology+ Pedagogy, 181-191.	n/a
50	Langeveld, M. J. (1983).	The stillness of the secret place.	Phenomenology+ Pedagogy, 11-17.	n/a
51	Løkken, G., & Moser, T. (2012).	Space and materiality in early childhood pedagogy–introductory notes.	Education Inquiry, 3(3), 303-315.	n/a
52	MacLure, M., Holmes, R.,	Animating classroom ethnography: overcoming video-fear.	International Journal of Qualitative Studies in Education, 23(5), 543-556.	Deleuze, classroom ethnography, early childhood, video recording, affect

	MacRae, C., & Jones, L. (2010).			
53	MacRae, C. (2011).	Making Payton's rocket: Heterotopia and lines of flight.	International Journal of Art & Design Education, 30(1), 102-112.	n/a
54	Mannion, G. (2007).	Going spatial, going relational: Why "listening to children" and children's participation needs reframing.	Discourse: studies in the cultural politics of education, 28(3), 405-420.	n/a
55	McDermott, R., & Raley, J. (2009).	The Tell-tale Body: The Constitution of Disabilities in School.	Handbook of social justice in education, 431-445.	n/a
56	McNamee, S. (2000).	Foucault's heterotopia and children's everyday lives.	Childhood, 7(4), 479-492.	Childhood, Foucault, gender, heterotopia, video games
57	Meyer, J. H., & Land, R. (2005).	Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning.	Higher education, 49(3), 373-388.	Threshold concepts, troublesome knowledge, identity, liminality, mimicry, pre-liminal variation
58	Morgan, J. (2000).	Critical pedagogy: The spaces that make the difference.	Pedagogy, culture and society, 8(3), 273-289.	n/a
59	Mullholland, T. (2012).	Between Illusion and Reality,'Who's to Know': Threshold Spaces in the Interwar Novels of Jean Rhys.	Women: A Cultural Review, 23(4), 445-462.	Jean Rhys, threshold space, interwar Europe, female identity, women writers
60	Obaki, S. O. (2017).	Impact of Classroom Environment on Children's Social Behavior.	International Journal of Education and Practice, 5(1), 1-7.	Early childhood education, Environment, Classroom, Classroom materials, Classroom design, Teacher
61	Olson, C. (2017).	Place, play, escape, and identity: a reconsideration of the thought of Yi-fu Tuan in light of the work of Rāmānuja and Zhuangzi.	International Communication of Chinese Culture, 4(1), 35-51.	Play, Place, Escape, Identity, Dao, God
62	Olwig, K. F., & Gulløv, E. (2013).	Towards an anthropology of children and place.	In Children's Places (pp. 8-26). Routledge.	n/a
63	Philo, C. (2003).	'To go back up the side hill': Memories, Imaginations and Reveries of Childhood.	Children's Geographies, 1(1), 7-23.	n/a
64	Plowman, L., & Stevenson, O. (2013).	Exploring the quotidian in young children's lives at home.	Home Cultures, 10(3), 329-347.	Children, families, learning, home, everyday, research methods
65	Pons, F., Laroche, M., & Mourali, M. (2006).	Consumer reactions to crowded retail settings: Cross-cultural differences between North America and the Middle East.	Psychology & Marketing, 23(7), 555-572.	n/a
66	Ramsey, P. G., & Myers, L. C. (1990).	Salience of race in young children's cognitive, affective, and behavioral responses to social environments.	Journal of Applied Developmental Psychology, 11(1), 49-67.	n/a
67	Rousseaux, F., & Thouvenin, I. (2009).	Exploring informed virtual sites through Michel Foucault's heterotopias.	International Journal of Humanities and Arts Computing, 3(1-2), 175-191.	Imaginary space, Informed virtual environment, Immersive art, Artificial presence, Michel Foucault's heterotopias, Realism vs. Provocation, Ancient abbey of Compiègne-France

68	Seamon, D. (1980).	Body-subject, time-space routines, and place-ballets.	The human experience of space and place, 148-165.	n/a
69	Seymour, J. (2015).	Approaches to children's spatial agency: Reviewing actors, agents and families.	In Children's Spatialities (pp. 147-162). Palgrave Macmillan, London.	n/a
70	Simms, E. M. (2014).	The invisibility of nature: Garbage, play forts, and the deterritorialization of urban nature spaces.	In Ecopsychology, Phenomenology, and the Environment (pp. 237-250). Springer, New York, NY.	n/a
71	Somerville, M. (2007).	Place literacies.	Australian Journal of Language and Literacy, The, 30(2), 149-164.	n/a
72	Somerville, M. (2014).	Entangled objects in the cultural politics of childhood and nation.	Global Studies of Childhood, 4(3), 183-194.	n/a
73	Strong-Wilson, T., & Ellis, J. (2007).	Children and place: Reggio Emilia's environment as third teacher.	Theory into practice, 46(1), 40-47.	n/a
74	Taguchi, H. L. (2011).	Investigating learning, participation and becoming in early childhood practices with a relational materialist approach.	Global Studies of Childhood, 1(1), 36-50.	n/a
75	Thiel, J. J. (2014).	Privileged play: The risky business of language in the primary classroom.	Perspectives and Provocations, 4(1), 1-15.	n/a
76	Tsui, A. B., & Law, D. Y. (2007).	Learning as boundary-crossing in school–university partnership.	Teaching and teacher education, 23(8), 1289-1301.	Lesson study, Boundary crossing, Activity system, Expansive learning
77	van Liempd, I. H., Oudgenoeg–Paz, O., & Leseman, P. P. (2019).	Do spatial characteristics influence behavior and development in early childhood education and care?.	Journal of Environmental Psychology, 67, 101385. 1-12.	Early childhood care and education, Indoor play environment, Social behavior, Cognition
78	Woglom, J. F., & Jones, S. (2016).	Playground futurities: Enacting freedom through Reggio, a neighborhood, and relational aesthetics.	Talking back and looking forward: Poetry and prose for social justice in education, 103-112.	n/a
79	Yan, Z. (2019).	Grasslands as transitional spaces of play: Mongol children's reimagination of the world in cinematic representation.	Children's Geographies, 1-12.	Transition, otherness, film, ethnicity, representation, children's geographies

Appendix C: Overview of Reviewed Books for Literature Review

	Author	Title	Publisher
1	Adams, P. C., Hoelscher, S. D., & Till, K. E. (Eds.). (2001).	Textures of place: Exploring humanist geographies.	University of Minnesota Press.
2	Aitken, S. C. (2005).	The geographies of young people: the morally contested spaces of identity.	Routledge.
3	Algra, K. (2016).	Concepts of space in Greek thought.	Brill.
4	Anderson, J. (2021).	Understanding cultural geography: Places and traces.	Routledge.
5	Bachelard, G. (2014).	The poetics of space.	Penguin.
6	Benjamin, W. (1999).	The arcades project.	Harvard University Press.
7	Blazek, M. (2016).	Rematerialising children's agency: Everyday practices in a post-socialist estate.	Policy Press.
8	Blazek, M., Kraftl, P., & Blazek, M. (2015).	Children's Emotions in Policy and Practice.	Palgrave Macmillan.
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64	Siraj-Blatchford, J., Mogharreban, C., & Park, E. (2016).	International research on education for sustainable development in early childhood.	Springer International Publishing.
65	Skelton, T., & Aitken, S. C. (Eds.). (2019).	Establishing geographies of children and young people.	Singapore: Springer.
66	Somerville, M. (2015).	Children, place and sustainability.	Palgrave Macmillan.
67	Spencer, C., & Blades, M. (2006).	Children and their environments.	Cambridge: Cambridge University Press.
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69	Taylor, A. (2013).	Reconfiguring the natures and cultures of childhood.	Routledge.
70	Thomas, G., & Thompson, G. (2004).	A child's place: Why environment matters to children.	Green Alliance.

71	Thrift, N. (2008).	Non-representational theory: Space, politics, affect.	Routledge.
72	Titman, W. (1994).	Special Places; Special People: The Hidden Curriculum of School Grounds.	Green Brick Road.
73	Tuan, Y. F. (1977).	Space and place: The perspective of experience.	University of Minnesota Press.
74	Van Manen, M. (2016).	Researching lived experience: Human science for an action sensitive pedagogy.	Routledge.
75	Valentine, G. (2017).	Public space and the culture of childhood.	Routledge.
76	Weigel, S. (2003).	Body-and image-space: re-reading Walter Benjamin.	Routledge.

Appendix D: Overview of Reviewed Dissertations for Literature Review

	Author	Title	Publisher
1	Cele, S. (2006).	Communicating place: methods for understanding children's experience of place.	Doctoral dissertation, Acta Universitatis Stockholmiensis
2	Drown, K. K. C. (2014).	Dramatic play affordances of natural and manufactured outdoor settings for preschool-aged children.	Master thesis, Utah State University
3	Fredriksen, B. C. (2011).	Negotiating grasp: Embodied experience with three-dimensional materials and the negotiation of meaning in early childhood education.	Doctoral dissertation. Oslo School of Architecture and Design
4	Garella, J. S. (2010).	Geographilia in children's urban spaces: Investigating how children explore outdoor places and connect with natural object.	Doctoral dissertation, University of Montana
5	Gauci, K. T. (2016).	Exploring preschoolers' sense of place and early childhood placed-based education in Hawaii.	Doctoral dissertation, University of Hawai'i at Mānoa
6	Ingrey, J. C. (2013).	The Public School Washroom as Heterotopia.	Doctoral dissertation, The University of Western Ontario
7	Knight, K. (2014).	Real places and impossible spaces: Foucault's heterotopia in the fiction of James Joyce, Vladimir Nabokov, and WG Sebald.	Doctoral dissertation, University of East Anglia
8	Monsur, M. (2015).	Does Childcare Architecture Matter? Investigating how Indoor-Outdoor Spatial Relations Influence Child Engagement and Teacher Motivation.	Doctoral dissertation, North Carolina State University.
9	Pitsikali, A. (2018).	The Boundaries of Heterotopia. Examining the Playground's "Public Value" in Contemporary Athens.	Doctoral dissertation, Northumbria University
10	Shaw, L. J. (2017).	Heterotopia and hauntings: troubling the spaces and artefacts of early years' education and care in England.	Doctoral dissertation, Manchester Metropolitan University
11	Smith, S. (2018).	Spaces of early education and care: exploring ethos, choice and parental engagement.	Doctoral dissertation, Loughborough University
12	Stern, A. (2017).	Sense of place, sense of self.	Doctoral dissertation, Saybrook University
13	van Liempd, H. M. J. A. (2018).	Exploring childcare spaces: Young children's exploration of the indoor play space in center-based childcare.	Doctoral dissertation, Utrecht University
14	Wagner, K. A. (2017).	Dead places: American horror, placelessness, and globalization.	Doctoral dissertation, University of Louisville