

Inside We Learn, outside We Explore the World – Children’s Perception of a Weekly Outdoor Day in German Primary Schools

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Abstract

The observable new attention for space in social and educational sciences since the 1990s (*spatial turn*) exhibits an increasing focus on the spatial constitution of children’s learning and living spaces. In particular, the classroom as a learning environment is of relative importance, but the discourse about the socio-spatial opening of school also brings extracurricular educational facilities into focus. Two perspectives, however, remain largely neglected: 1) The children’s point of view concerning lessons at extracurricular learning places and 2) The analysis of the children’s practices of appropriation of the (outdoor) school space. The present article uses approaches of spatial and activity theory as well as group conversations with primary school children as an empirical basis in order to shed light on this topic by analyzing the children’s practices of appropriating space during regular instruction at extracurricular learning places in the German outdoor school (*Drau Benschule*).

Key Words: Appropriation of Space, Childhood Studies, Outdoor School, Qualitative Methods

1. Introduction and Research Question

The incorporation of extracurricular places of learning into teaching activities is currently regarded as a new advance in educational quality at schools that takes the life worlds of children and adolescents into account (cf. Fuhs and Brand 2014). Closely related to this is an enhanced concept of learning and education that is not restricted to school in the narrower sense, but encompasses the life contexts of children and adolescents in their entirety from a subject-centered perspective (cf. Ahrens 2009). In order to do justice to this enhanced idea of education, it is necessary for schools to be open to other educational institutions and places of learning. In practice, however, socio-spatial openness can be observed only to a very limited extent.

In contrast, the model project *DrauBenschule*² (“outdoor school”) aims to create close links between elementary schools and their socio-spatial environment. The outdoor school denotes a special form of education at extracurricular places of learning in which individual classes leave the classroom on one day of the week throughout the school year in order to visit nearby natural and cultural spaces (see source, anonym zed for the review process). This form of teaching allows students to develop academic, methodological, and social competences during their *outdoor days*: competences that are (also) entrenched in the educational curricula of the German federal states.

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² The outdoor school is a teaching concept originally distributing as a *bottom-up movement* in Norway and Denmark in the 1990s (cf. Gräfe et al. 2015). The pilot project “DrauBenschule” (outdoor school) is part of the programm “Schulwandern. Draußen erleben, Vielfalt entdecken, Menschen bewegen” (Hiking in school. Experience the Outside, Discovering Diversity, Moving People) - a joint research project of the Johannes Gutenberg-University of Mainz and the German Hiking Association. Within the federal program “Biological Diversity” this pilot project is financially supported by the German Federal Agency for Nature Conservation with the fundings provided by the Federal Ministry for Environment, Nature Conservation and Nuclear Safety.

In addition to transdisciplinary and interdisciplinary learning, this educational concept also permits close links between cognitive and physical-sensory processes of learning and education. Classroom teaching and experiences at extracurricular places of learning are very closely connected to each other. In the model project, the weekly outdoor days are prepared and guided by the teachers, who also supervise the follow-up activities and cooperate with extramural educational providers. Three elementary school classes from Baden-Württemberg, Brandenburg and the Rhineland-Palatinate are involved in the project.

This paper focuses on the perspective of the children, which is often neglected in studies. Children are viewed as competent social actors who contribute actively to their own development within the institutional context of the school (Honig et al. 1999, Heinzel 2012). Our specific research question is this: What are the practices by which elementary school children appropriate extracurricular places of learning in the outdoor school? In Section Two we present the current state of research, while Section Three is devoted to theoretical discussions in the context of new concepts of space and appropriation. Section Four will present the surveying and analysis methods used in the study. The empirical results will be presented in Section Five, followed by a discussion of the results in Section Six.

2. Current State of Research

School pedagogy and school studies began to display a growing interest in the school space as early as the 1990s, especially with respect to its historical development (see, for example, Göhlich 1993) and its significance for processes of learning and education (see, for example, Noack 1996, Rittelmeyer 1994). In recent years, works on the theory of sociology of space (especially Löw 2001, Schroer 2006) have significantly broadened and deepened the discourse, and an approach to school and educational studies based on spatial research is now beginning to emerge (see, among others, Böhme 2009, Schröteler-von Brandt et al. 2012, Westphal 2007). Nevertheless, *space* remains a peripheral category in educational theory and research (Ahrens 2009, Böhme 2009, Reutlinger 2009).

Empirical studies on school space essentially follow one of two theories. On the one hand, school is taken to denote a physical, material space that can be localized in the school building and/or the school grounds. Studies that take this approach examine the outward appearance and shape of the school with its topographical and architectural spatial organization and a variety of spatial objects (see, among others, Böhme 2012, Böhme & Hermann 2011, Hackl & Steger 2012, Rittelmeyer 2013). Böhme (2012) describes this “pedagogical morphology” as a specific field of school and educational studies based on spatial research. On the other hand, school is interpreted as a social and interactive space that comes into being through the behavior of the actors and acquires its specific meaning through the relationships among them (see, among others, Derecik 2011). However, differentiating between spatial structures and social interactions is more than a merely analytical distinction, since there is a relationship of interdependence between material and physical spatial structures and social actions (Böhme 2012, Löw 2001).

Although *opening the school* and *teaching at extracurricular places of learning* imply numerous questions and perspectives of spatial theory, both issues have so far been studied largely in isolation from school space research. Sauerborn and Brüche 2010 note that although space functions as a core concept in the didactics of extracurricular learning, the term tends to be used associatively and theoretical studies have hitherto been almost entirely lacking. The school pedagogy discourse centering on these issues is characterized primarily by terminological and didactical issues. The field of school didactics too appears to have little interest in studying extracurricular places of learning. In particular, almost no research has been conducted into teaching at non-didactic extracurricular places of learning (such as forests, ponds, cities, and businesses), a practice widespread at elementary schools (Niederhäusern et al. 2012). In Germany, no studies have been made of the concept of the outdoor school, whereas this has been the subject of applied research for the past 15 years in Scandinavia (see, for example, Bentsen et al. 2009, Jordet 2008, Stelter 2005). Very few studies apart from Mygind (2005), however, take the perspective of the children into account. A case study in Denmark comparing the effects of weekly outdoor days and traditional school days found that students who spent one school day per week in the forest were significantly more physically active and exhibited better social relationships (cf. Mygind 2007, 2009).

Empirical studies on socio-spatial appropriation tend to be limited to child and youth work (Deinet 2014, Deinet and Reutlinger 2014), while appropriation theory has been almost entirely disregarded by school space research to date (Derecik 2011). No explicit study of elementary school students’ spatial appropriation at extracurricular places of learning has so far been carried out.

3. Theory of Space and Appropriation

The most important theoretical frameworks for our line of inquiry are the spatial theory outlined by Martina Löw in her relational approach and Ulrich Deinert's concept of appropriation. The duality of material and social space, which has hitherto dominated school space research, is overcome by Löw (2001) through the development of a relational concept of space, so that space is described as "*a relational arrangement or order of social goods and people (living beings) in places*" (Löw 2001, 224).

The school space is established through the relational connections between different elements (e.g. teachers, students, the school building, the schoolyard, classrooms, blackboard, and chairs) which have specific functions and meanings. Löw develops a processual concept of space that takes into account the interdependency of spatial structures and subjective actions. The structures act upon the actors just as the actors create, reproduce, and modify patterns of spatial order. Thus, spaces and the meanings associated with them are in a state of constant flux as a result of social and individual change, and they are constituted by actions.

Deinet's concept of *appropriation*, rooted in the theory of action or activity, makes it possible to conceive the subject-related appropriation of space empirically and tie in with the current pedagogical discourse (Deinet & Icking 2009; Deinet 2014; Deinet and Reutlinger 2014; Hempel 2002). His point of departure is the classical concept of appropriation put forward by the Soviet psychologist Alexei N. Leontjev (1983), which he develops by exploring new approaches based in spatial theory. With reference to Löw's action-theoretical concept of space (2001), this expanded concept of appropriation eliminates the original separation of subject and space. Rather than positing simple adaptation to spatial structures, the appropriation theory describes an active, autonomous process by which the subject engages with his or her environment (Deinet 2009).

Such subject-related, autonomous processes of spatial experience enlarge the definitions of school and the processes of learning and education that take place there. The study of spatial appropriation can "*offer insights into the ways in which, from an action-oriented perspective, [...] subjective processes of human-environment engagement take place in human development*" (Deinet & Reutlinger 2014, 12). Extracurricular places of learning form part of the social environment of the school and are therefore subject to the spatial structures of the institution. At the same time, learning at extracurricular places of learning represents a dissolution of boundaries in the material and physical sense, and this dissolution may give rise to the reproduction or the modification of the relational arrangement and order between teachers, students, learning materials, and the environment.

4. Data Collection and Analysis

The children's perspective on the outdoor school as well as possible changes in perspective during the course of the project was recorded using a longitudinal study design with three survey dates. The empirical data were gathered in the course of group conversations with all the elementary school children in the model classes. Against the background of methodological considerations and practical research findings about interviewing elementary school children (see, among others, Heinzl 2012, Mey 2003, Michalek 2006, Nentwig-Gesemann 2002, and Vogl 2005), we prefer the term "*group conversation*" to the more commonly used term "*group discussion*". This term does not denote conversations that occur by chance in the course of ethnographic research (note the difference between group surveys, group conversations, and group discussions in Loos and Schäffer 2001).

Rather, we define group conversations as externally initiated linguistic interactions between several persons with a thematic framework that is specified by the moderator. As a tool of childhood studies, group conversations seek to discover the (group) opinions and (group) attitudes of primarily younger children whose communicative and social skills do not yet permit the levels of comprehensive linguistic interaction and argumentative engagement implied by the term *discussion*. However, the concept of group conversations does not preclude phases of lively discussion among the participants. The main advantage of this method is that it relativizes the intergenerational hierarchy between the researchers and the children (Heinzl 2012, Mey 2003).

In this paper, we present the results of *16 group conversations* that took place in October and November 2014 (survey date t1) after the classes had experienced three to five outdoor days. Each group consisted of four to five students in the first and second grades.

Thus, the groups were *real groups* which developed shared action orientations in the experiential space of the school and the outdoor school, with the class representing the community of shared experience. Some of the group conversations took place in the extracurricular places of learning (e.g. the forest, the playground), while others were conducted in the classroom. They were based on guidelines comprising general questions on the children's perception of school and the outdoor school and sought to elicit descriptions and opinions from the children and to assess their attitudes.³ The empirical material was analyzed by using content analysis (Mayring 2010). It was structured in terms of the theory of spatial appropriation in elementary school children (main category: activity). The sub-categories were compared, discussed, and consolidated by the research team in a multi-stage process.

5. Results

Practices of spatial appropriation occur in a wide variety of places, i.e. at geographically defined locations that were specifically named by the children (fig. 1).

Fig. 1: Places of the outdoor school named by the children during group conversations.

School	Location:	Places of the outdoor school
School A	Rural area	(School) forest; park; field; factory (biogas plant); mountain
School B	Rural area	Forest; meadow; stream; mountain; field; neighboring village
School C	Urban area	Forest; meadow; playground; castle; ruin; swamp

The places are fixed landmarks at which different spaces are produced during the appropriation process. At the time of the first group conversations (t1), the extracurricular places of learning—unlike the classrooms—had not yet acquired fixed spatial structures (for example seating orders, interaction patterns, rules). In this sensitive initial phase, spacing processes must be seen as negotiations between teachers and students in the course of practical action. The labels and descriptions applied by the children to the places provide initial insights into their space-constituting perception of the outdoor school. At School A, the institutionalized context turns the forest into the *school forest*, where students position themselves together with the teacher and where certain rules and norms develop.

"I'd like to climb the trees, but the teacher won't let me. Once when I was in the forest, in the school forest, the teacher said: get down from that tree" (School A, Gr. D, Z. 642f.).

The composite term *school forest* is a linguistic manifestation of the transfer of spatial structures during the transition from the indoor to the outdoor school. "*The nomenclature expedites the symbolic effect of places*" (Löv 2001, 199). Additionally, the students' statements and the observations of participants show that the children's imagination significantly influences their construal of space. From the children's perspective, small hills or rises turn into "*mountains*" that are unlocked through activity and movement: "*we went to the park, there was this kind of mountain, and we went up and down and up and down...*" (School A, Gr. F, Z. 1050f.).

Figure 2 provides an overview of the different *activities* at the outdoor school's extracurricular places of learning in terms of the children's own descriptions. The main category in terms of the analytical evaluation is the "activity", which can be differentiated into additional subcategories (SC 1–9), described by us as *practices of spatial appropriation*.

³ This was preceded by *participating observation* at all the schools in order to make an initial ethnographic assessment of the field, to capture the actions of teachers and students, and to gain insights into the socio-spatial environment of the school.

Fig. 2: Practices of spatial appropriation.

	Main category: Activity	Typical example
SC 1	Playing	<i>"We played history"</i> (School A, Gr. A, Z. 420)
SC 2	Investigating and discovering (exploring, searching, finding)	<i>"And the outdoor school is fun because there's so many things we can investigate"</i> (School A, Gr. G, Z. 29)
SC 3	Moving	<i>"And outside we can run around instead of just sitting in one place"</i> (School B, Gr. D, Z. 1779)
SC 4	Looking, observing, seeing	<i>"So yesterday we saw like three deer and that was the first time in my whole life that I saw deer"</i> (School A, Gr. E, Z. 1219f.)
SC 5	Talking, telling	<i>"And we can also talk about nature"</i> (School A, Gr. C, Z. 204f.)
SC 6	Constructing, crafting, making	<i>"Once we built this house out of sticks, real big, long sticks, this round triangular house"</i> (School C, Gr. B, Z. 1063ff.)
SC 7	Drawing	<i>"What we did on the outdoor day, we have to write it down on a piece of paper or draw it or both"</i> (School B, Gr. C, Z. 1498f.)
SC 8	Reading, arithmetic, writing	<i>"Outside you can do arithmetic with birds when they go by"</i> (School C, Gr. C, Z. 273)
SC 9	Eating and drinking	<i>"We eat and drink a bit and we have fun"</i> (School C, Gr. B, Z. 641f.)

Three of the subcategories (SC 1: Playing; SC2: Investigating and discovering; SC 3: Movement) occupy a place of special qualitative and quantitative dominance in the children's narratives. These categories will therefore be presented and discussed on the basis of the empirical material.

5.1 Playing

One of the fundamental ways in which children experience themselves and the world is through play. The classical concept of appropriation describes play as a *dominant activity*⁴ of childhood (Deinet 2009). Oerter (1993) in his action-theory approach treats play as a special type of action which is characterized by its self-purpose, the intrinsic motivation of the player, the experience of flow, a shifting relation to reality (the second, imagined reality), as well as by repetition and ritual.⁵ The group conversations revealed that play is a significant activity in the outdoor school:

"I like the outdoor day because we, um, play, we're outside for longer, we aren't in the classroom, and we [...] like to play new things and play with our friends. I always like that and playing with puddles and mud" (School B, Gr. C, Z. 1615ff.).

The outdoor school is perceived as positive by the children largely for the opportunities it offers for playing out of doors. This play takes place in a spatial environment that contrasts with familiar school spaces and opens up new and/or different experiences while also being characterized by social interaction within the peer group. The various objects are appropriated by the children through play:

"you can play tag or hide and seek because there's lots and lots of trees there" (School C, Gr. C, Z. 400f.)

"On the outdoor day we're there on the playground, and we can play there, that's fun" (School C, Gr. A, Z. 756f.)

⁴ *Dominant activities* are the forms of appropriation that successively dominate at various stages in the child's development (Deinet 2009).

⁵ Einsiedler (1999) recommends explaining rather than defining the game. Because of its complexity, it is only possible to work out salient characteristics that may be differently weighted in different contexts. These characteristics exhibit parallels to Oerter's characterization (1993): *Intrinsic motivation* (free choice), *means before ends* (the game's process before its result), *positive emotions*, *make-believe* (activity divorced from reality).

The children's statements also show that the objects in the space crucially define their methods of spatial appropriation and imply an invitation to appropriate the space in certain ways. Thus the playground prompts play, while the trees present an opportunity to hide.

The kinds of play that are freely chosen by the children and that are either rule-less or governed by rules made up by the children themselves, include rule-bound, movement-based games like *hide and seek* or *tag* as well as fantasy and role-playing games.

I: What's that you're playing? Explain it to me.

S1: The two of us are the muscleteers. Here's our swords [S1 points to sticks] (School C, Gr. C, Z. 394ff.)

The boy (S1) explains that he and his peers are playing the role of "*muscleteers*". The process of symbolic concretization turns the sticks into swords. "*Objects become particularly significant in play because they undergo remarkable transformations and no longer seem to be what they are in the context of the action*" (Oerter 1993, 4). The children move on an alternative level of reality which they generate through their fancy or their imagination. At the same time, the real-life function of this alternative reality is that of "*orientating the subject [the child] in the objective world*" (Leontiev 1982, 40). For the schoolboy quoted above, the sticks serve as *instruments of spatial appropriation* (Deinet 2009, 59) in the spontaneous role-playing game of the "*muscleteers*", so that the game functions as an independent area between the real world of the forest and the child's interior world (ibid., 60), within which the two schoolboys appropriate part of the outdoor space in a typical socialization contest. Thus the outdoor school gives the students *play* in more than one sense of the word—it offers the scope for unimpeded movement in which they can engage in informal processes within the peer context.

Children distinguish between forms of free play and didactic games initiated and supervised by the teachers. They articulate the difference between the two by talking about *playing* on the one hand and *doing games, playing games, or replaying* on the other:

I: Tell me, what exactly is the outdoor school?

S1: Thaaaat's where we're outside aaaand we do games.

I: What kind of games?

S2: Rabbit runs and hunter shoots (School A, Gr. C., Z. 224ff.)

When explaining their idea of the outdoor school, the two students (S1 and S2) describe it both as an outdoor space and a play space. *Rabbit and hunter* references a didactical game that serves a certain purpose (such as social learning or knowledge acquisition) in the view of the teacher. The children are generally unaware of this purpose and often confine their statements to a largely descriptive plane as well as reconstructing individual sequences and rules of the game. Although the game is externally initiated, it remains an end in itself in the children's view. However, these activity games with their fixed rules are not always given a positive evaluation by the children.

S1: Outdoor school [...] I think it's nicer outside because we always play something cool and it's really, really fun.

S2: And I think lessons are better. ((laughs)) [...] Because when it's outdoor school, we, we play games all the time. And I don't want that [...] because playing is boring. (School A, Gr. B., Z. 488ff.)

Student S2 is referring to the statement by student S1, constructing a difference between the outdoor school and classroom lessons, and expressing a contrary opinion. Student S2 dislikes the outdoor school because it involves too much play. The boredom expressed by this student deprives the game of the crucial characteristics—its status as an end in itself, intrinsic motivation, and the experience of flow—that constitute the nature of the game in the first place (Einsiedler 1999, Oerter 1993). Thus, although playing is an action by which elementary school children appropriate the outdoor space, the perspective of student S2 shows that not every available kind of game automatically initiates an active, autonomous engagement with the socio-spatial environment and that an oversupply of intentional games may even inhibit such engagement.

In summary, it emerges that playing is of paramount significance for children at all three model schools. "*Children broaden their skills by playing and appropriate the objective and symbolic culture by internalizing the rules and norms of human interaction in the course of the game*" (Derecik 2011, 61). However, the remarks of the first and second graders do not reflect the meaning of their playing; rather, they are limited to short and general descriptions of these activities.

Children appropriate objects in their spatial environment in play—for example, by using sticks as swords in a role-playing game. As a *dominant activity*, free play receives positive responses from the children (*I think that's cool, that's fun, I like that*). Other widespread forms of playing are didactic games, which many children perceive in a positive light, but which are rejected by others (*that's boring, I think that's dumb*).

5.2 Moving

Movement plays a central role in the construction and appropriation of spaces. “*Movement and space mutually constitute [...] each other, so that movement is an indispensable medium of specific spatial experience*” (Derecik 2011, 48). Spatial appropriation is linked to the corporeality of human beings—to their movement and physical-sensory experience of the world around them. The human body in motion serves as a mediator between the interior and the exterior world, and children use movement to engage actively with social goods and objects.

The great importance of movement during childhood is also revealed by the group conversations among the first and second graders. The spaces of the outdoor school are opened up or appropriated by *walking, hiking, running, driving, climbing, romping, rolling, throwing, swinging, jumping, seesawing, and balancing*. In particular, the children perceive walking, romping, and running in spacious surroundings as a contrast to their familiar school and classroom settings, where discipline and sitting still is required:

“In school we can't run really far and the park is bigger than the schoolyard. And here I can walk across the whole park and it's as wide as the whole school” (School A, Gr. E, Z. 1091 ff.).

“Yes, I kind of think outdoor school is better because [...] the others have to sit inside and do arithmetic and writing and we get to run around outside. I think that's better” (School B, Gr. D, Z. 1773ff.).

The children perceive walking around as an autonomous, self-determined, active activity that differs from the heteronomous activity of sitting in the classroom and constitutes an *extension of the space of action* (of the school) (Deinet 2014): “*Then we just go somewhere else every time*” (School B, Gr. B, Z. 196). Walking, running, and romping are associated with *having fun* and with *free time*: “*At least there you can walk around like at home when you go outdoors*” (School B, Gr. A, Z. 458). In contrast, the students associate sitting down with various learning activities like arithmetic and writing. While they have internalized sitting down as part of the spatial structure of school, they perceive it as a heteronomous activity that does not fully satisfy their need for movement: “*On a normal school day we have to learn and we can't run around enough*” (School C, Gr. A, Z. 886ff.).

Outside of the autonomous activity of running around, however, there are activities initiated by the teachers, i.e. *hiking* or “*walking far*”, which may meet with the children's disapproval: “*I hate hiking. I can't stand it*” (School A, Gr. E, Z. 771). Contrary to the frequent tendency of adults to assume that children have a need for movement, individual students prefer sitting in a classroom to moving about in the outdoor school. These children experience walking around as a heteronomous activity:

“Well I kind of like the indoor lessons [...] because there you can, um, write and [...] sit down and you don't have to walk around” (School A, Gr. E, Z. 1459f.).

This contrast between the seated order of bodies in the classroom and the standing and moving order of bodies in the outdoor school is pointed out by many of the children in the study and constitutes a fundamental characteristic of the outdoor school. Along with *walking around, running, and hiking*, spatial objects and things in the outdoor school are appropriated by the children by means of a varied range of additional types of movement: “*We also climb the trees*” (School C, Gr. B, Z. 1415). “*Once me and the others went on the seesaw—to see how high you can fly*” (School C, Gr. D, S. 31). Climbing trees offers the children a change of perspective and a new physical position relative to the people and the social goods in their environment. With this experience, they can test the options for and the limits to their own movements in space. One schoolgirl gave a vivid account of an exciting experience of movement in a wooden cart, which the class always takes along on outdoor days:

“And on the outdoor day it’s cool too, my classmate (S3) was once riding on the cart ((laughs)) down the hill and then me at the back, I almost went on, ((laughs)) I nearly did a handstand in the cart. It almost just happened like that, because I’d lost my balance because it was going so fast” (School B, Gr. C, Z. 733ff.).

The children’s movements in the outdoor school can also be interpreted as an aesthetic-sensory access to the world—as self-sufficient perception of and lingering in the moment.

“It’s also fun to throw piles of leaves around” (School B, Gr. A, Z. 343).

“So when the sun is shining and there’s still puddles there, I jump in and I watch, and the drops of water go flying high and then it’s so pretty to see how the drops go flying in the sunlight” And I think that’s so pretty” (School B, Gr. C. Z. 731ff.).

Natural objects and natural phenomena present particularly strong stimuli for the children. Their exploratory and productive relationship to the objects in their surroundings sets them apart from adults, many of whom have lost the ability to interpret and use these objects non-functionally (Grupe 1992, 29). The weekly outdoor days spent in different locations increase the significance of the children’s physical-sensory spatial experiences.

As the group conversations reveal, the outdoor school offers a varied range of opportunities for the children to experience their bodies in motion; opportunities that differ markedly from those available in the classroom and the school grounds. These experiences expand not only the children’s motor skills, but also the sphere of action of the school (Deinet 2014). The students unlock the spaces through different modes of movement, from climbing trees to jumping into puddles and hiking to nearby villages. These movements manifest not only conceptual references tied to a specific purpose, but also existential physical experiences which, as shown by the hiking example, can also provoke resistance. Movement represents an active mode of spatial appropriation in the material and symbolic environment. *“Children comprehend their world through movement; each new movement, via new and enlarged spaces of motion, also opens up enlarged experiential spaces that connect familiar things with new stimuli. Their touching is also understanding; their grasping is also comprehending and is thus involved in the development of knowledge, judgement, and insight”* (Grupe 1992, 17).

5.3 Investigating and Discovering

Together with *playing* and *moving*, *investigating* is another core activity by which children appropriate their space in the outdoor school. Both its everyday use and its etymology point to the close relationship of the word with the idea of space. *“While it is possible to investigate topics or epochs, the most common meaning of the word ‘investigate’ refers to the spatial, concrete realm”* (Laux 2002, 133). “Investigating” denotes examining a piece of ground, a new or unknown place that one desires to study and explore. The terms *discovering*, *exploring*, and *finding (out)* are used in a similar sense as *investigating*. Laux (2002, 138) regards investigating and discovering as two reciprocally related activities: *“‘Investigating’ refers to the actual process of searching, while ‘discovering’ denotes the moment of finding facts.”* In the group discussions, the children mentioned numerous situations of investigation and discovery, of searching and finding:

“And the outdoor school is fun because there’s so many things we can investigate” (School A, Gr. G, Z. 29f.).

“So that’s like really fun. Then we could like explore new paths” (School B, Gr. D., Z. 1071f.).

The children perceive this explorative engagement with their school environment in a very positive light. By exploring new paths, children engage with the world in a spirit of inquiry and expand their spheres of action. Investigations of the social environment provide new opportunities for the students to create new (spatial) relationships between the school and out-of-school lifeworlds. The class as a community gets to know itself in other socio-spatial contexts. Like playing and moving around, investigating and discovering are perceived by the children as active and self-determined activities:

“I discovered a squirrel, a really cute one [...] it had this really like fuzzy tail, I discovered it all by myself” (School A, Gr. F, Z. 742ff.). Unlike didactically prepared educational trails that aim to focus the children’s perception in a certain direction and to impart traditional knowledge, “naïve” encounters with objects and living organisms allow them to develop independent questions and trains of thought:

S3: Once we found a feeding area in the forest.

- S4: It stank like crazy.
 S2: I bet the hunter wanted to attract them.
 S4: Yes the animals.
 S1: Wild boars.
 S2: And then I bet he wanted to bang bang bang shoot them. (School B, Gr. A, Z. 35ff.)

The children's appropriation of the forest continues during the group conversations, in which they mention and process their shared experiences. Investigation and discovery cause the children to feel an emotional involvement or *awareness of the world* in relation to the spatial objects, which forms an important basis for subsequent processes of knowledge acquisition and abstraction (Nießeler 2007), as they experiment with various things they find in the forest. Living organisms in particular attract the children's attention and interest, which is shared with the group:

"The other boy (S2) and I found a tree on outdoor day, it had a hole in it and inside there was a frog in the dirty water. ((Grins)) I chucked a beer bottle in [...] and then we saw them hop. The other boy (S2) yelled: I found a frog. But I found it first and then all the others came to see." (School B, Gr. B, Z. 153ff.)

The children do not perceive the act of investigating as a learning activity; rather, they construct a difference between school and out-of-school spaces and assign different activities to each. Whereas the classroom is a place where one *"can learn nicely [...] outside you can investigate the world"* (School A, Gr. F, Z. 1178). Along with independent investigation and discovery on the children's own initiative, spatial exploration is also initiated and guided by the teachers:

"But sometimes we also have to do tasks [...] like discovering animals" (School C, Gr. A, Z. 928ff.). "We still have to find the yaffle" (School C, Gr. D, S. 23). "Sometimes we have to find leaves that the teacher showed us before" (School A, Gr. D., Z. 521).

The use of "we have to" shows that the patterns of spatial order of the school are transferred to the outdoor school as well, both with respect to the hierarchical relationship of teachers and students and to the institutional standards and duties. The students do not always perceive the tasks and exercises as personally significant; occasionally they describe them as monotonous and tedious activities:

"I think it's dumb [...] that all we can do is look for stuff. We could do something else for a change and not just look for leaves and leaves and leaves and leaves. I think that's dumb about the outdoor school" (School A, Gr. D., Z. 315f.).

This also shows that a change of scene alone does not trigger creative appropriation processes on the part of the children without the use of teaching methods that are appropriate to the setting and able to stimulate the children to engage autonomously with the space. On the whole, the children's statements show that investigating spaces and things is a "primal urge" of child development (Laux 2002). "Investigating" therefore denotes an active appropriation of the world that takes place on the children's own initiative. *"And by searching and investigating, children also discover themselves within the environment of things, situations, people, relationships, and nature that surrounds them"* (Grupe 1992, 18). Familiar perspectives and points of view can shift with the location. In the course of free and guided investigations in spaces close to the school, children can experience how they are embedded in wider social and cultural contexts, and this can change their self-image and their worldview. However, the statements quoted in the previous paragraph show that the success of the children's appropriation and education processes is significantly dependent on a subjective engagement with the outdoor space. A stimulating didactic staging of the out-of-school learning space is a crucial prerequisite for evoking this subjective engagement.

6. Discussion

The spatial theory approach taken by this study broadens the conventional conception of the school as a physical, material space. In terms of the relational concept of space (Löv 2001) and the concept of appropriation (Deinet 2014), the school can be viewed as a mutable space that is constituted by spatial structures and the activities of the actors. The spatial structures are embedded in the institution in the form of rules and resources and can both facilitate and limit action (Löv 2001, 166ff.). While traditional teaching takes place in interior spaces, regular visits to extracurricular places of learning in the outdoor school represent a departure from the teaching routine.

New forms of teaching call for corresponding new practices of arrangement and placement. The ensemble of the outdoor school, the institutionalization process of which has yet to be fully understood, offers various discursive and non-discursive arrangements that may be sharply distinct from classroom teaching, but at the same time adopts other arrangements almost unchanged.

Thus the children's statements reveal changes in the materiality of the school—for example, in the appearance of new relevant things and objects—as well as changes in the order of movements, glances, and activities in the school space. At the same time, the outdoor school reproduces certain institutionally entrenched school structures, especially the ways in which the teachers didactically arrange the space.

A comparison between the practices analyzed here shows that, in play, movement, and investigation/discovery alike, the children distinguish between free (i.e. largely autonomous and active) forms of activity and heteronomous active processes that are initiated from the outside. The dichotomy thus communicated by the children is based on the fact that the spatial appropriation of extracurricular places of learning remains integrated into the spatial structures of the school.

Their statements show that the teachers substantially influence spatial appropriation by allowing the children freedom on the one hand while making rules, assigning tasks, issuing prohibitions, controlling, and sanctioning on the other. The teachers thus function as “translators” of the institutional order into the outdoor school. While forms of self-determined appropriation of the environment go hand in hand with high satisfaction and motivation on the part of the children, didactically guided activities occasionally meet with indifference and rejection. The children's accounts and descriptions show that the spaces of the outdoor school offer scope for numerous activities that may be perceived as contrary to the order of the school. Some students emphasize the difference between conventional school days and outdoor school days (including sitting vs. moving, learning vs. playing).

Thus the outdoor school also emerges as a space of divergent sensory and activity patterns which provide opportunities for individual activities, some of which are associated with the out-of-school life world, but which are simultaneously practiced within the school space. The activities of *playing*, *moving*, and *investigating/discovering*, which have the highest relevance from the children's perspective, show that the relationship between the school's *backstage* (a peer culture predominantly focused on the present) and the *front stage* of the learning culture, which is more strongly focused on the future, undergoes a change of dynamics in the outdoor school that is characterized by a new interleaving of the two spaces.

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