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**MONKEY BRAINS AND MONKEY BARS:
AN ECOLOGICAL APPROACH TO THE VALUES OF SCHOOL RECESS**

By

Emily L. Stanley

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the requirements for the degree of

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Dedication

To Margaret Byrd Rawson, for her enduring vision of the good life in childhood.

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For their continual support, wisdom and encouragement, I thank my dissertation committee members. I am especially grateful to Heidi Watts for urging me to study the fascinating phenomena that existed right in front of me and for taking as much pleasure in them as I did, to Louise Chawla for introducing me to a way of perceiving and describing the world of children's experience that was a perfect fit for this study, and to Libby McCann for accompanying me in this process with a sympathetic ear and a sharp eye for important details. I gratefully acknowledge as well the support of the other Antioch New England faculty and students who became my extended cohort.

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*Monkey brains and monkey bars:
An ecological approach to the values of school recess*

Abstract

Recess is a cherished part of the school day for countless children. Its value, however, has been increasingly questioned in many communities as academic performance standards and management of playground risks take precedence over play. This research examined the multiple outdoor play values held by constituents of a small, independent school for dyslexic students. Students have the choice of several recess options, including traditional playground equipment and a woodland with a stream. Ethnographic methods, including videotaped observations and interviews, were used to inquire into the values that children demonstrated through activity in their chosen play settings, as well as those expressed by their parents, teachers, school administrators and alumni. A theoretical framework of ecological psychology integrated the theory of affordances, behavior settings, and nested systems to describe the values of each group regarding outdoor play in school.

Over the course of the study, most elementary students, and some middle school students, followed a longstanding pattern of selecting the woods as their preferred play setting, where they established territory and participated in practices such as creating a barter economy, foraging for human and natural artifacts (such as wood, metal, and “monkey brains”), searching for animals, constructing forts, and engaging in other forms of fun. Children selecting the playground structures (including a sport court, swings and “monkey bars”) expressed the desire for a more managed space, or for larger peer group activity.

Presented as portraits of children's encounters with their play settings, results demonstrated that the appeal of the woods setting correlated with a far greater diversity of affordances (action possibilities) than the traditional fixed play structures, as well as providing a respite from adult expectations and the opportunity to establish both personal identity and friendships in a dynamic, ongoing social setting. Adult respondents expressed commitment to the experiential learning that occurs through recess play, particularly in the woods. As schools are increasingly identified as potential havens for nurturing competent, enduring relationships with outdoor environments, this study emphasizes that the complex ecological context of schoolyard play should be considered in policy decisions affecting recess design and practice.

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Preface: Valuing outdoor play in school

Recollections of my own childhood recesses evoke some painful images. There was a fairly traditional public school playground, with swings, slide, monkey bars and a monstrosity of centrifugal force called the “Ocean Wave,” which seemed designed to perpetually fling small children onto the hard, knee-scraping asphalt. I remember reluctantly lining up for jump rope competitions and enduring the blazing, seat-scorching surface of the slide. But mostly I recall what I couldn’t do, constrained by the cultural codes of that time and place: climb on the monkey bars (unthinkable in a dress), jump off the swings (ditto), and certainly never take part in touch football.

It was in the early fall when I was about nine that a friend and I, wandering off one day to the cool, wooded perimeter of the football field, discovered a patch of jewelweed growing taller than our heads. I knew how to make the swollen seed pods pop, and this fun led us to imagine that we had a secret arsenal to use against invading boys. With the urgency of knowing we were violating accepted recess behavior, we quickly collected rocks to lay out the perimeter of a house. Perhaps it was only a matter of days until we were discovered and chased out by our teacher, but the time spent in this spot expands in my memory to months of shared, secretive play.

I have been a teacher at the Jemicy School for 23 years, having arrived as a tutor trained in methods of helping dyslexic children cope with language-related disabilities. When a position teaching nature science became available, I immediately leapt for it, in spite of having had no formal training in science. Instead, I had spent my childhood outdoors developing a love and knowledge of nature, and this opening seemed meant for me. What I didn’t know, I assumed that I would learn along the way.

Over these years, I have learned a great deal about teaching science, yet of equal significance to me are the dimensions of children's lives that educators often neglect to see: interstices between the "real" venues of formal instruction in school. Recess is one of these gaps. When children leave our classrooms to go play outside, we adults often check out of our teaching brains. As long as the children seem happy and safe, we pay very little attention to what they are actually doing, and the meanings that their activities have for them. We may be excellent practitioners and researchers in our classrooms, but recess is often regarded in much the same way as when we were children: a break from work. This was precisely what I did for most of my teaching career at Jemicy. When I did not have recess duty, I was relieved to have a break. When I was on recess duty, I would step grudgingly onto the playground, or playing field, or stand at the top of the hill leading down into the woods, alert only to the fact that children were relatively happy and relatively safe. I am embarrassed to admit that I have few recollections from all those years of specific incidents, or discoveries, or interactions with or between children. I do recall hoping very much that there would be no conflicts that I would need to resolve, no injuries to account for, no problems brought to my attention. The woods, especially, seemed to harbor the potential for trouble during recess, and indeed, I have one vivid memory of dismantling in exasperation a series of tripwires and other booby traps set by members of some warring forts. During those years, recess was mostly about what I *didn't* want to happen.

It took a graduate class, in which I had to complete an extended ethnographic study of some phenomenon, to finally start drawing my attention to other dimensions of recess at Jemicy. I chose to focus on woods play, which struck me as unusual at the very least, if not unique to this particular school. I had always known that children at this school had many choices as to where

they could play (meaning more recess duty for more teachers – grumble), and that one of these choices was the woods. I had taken my students down to the stream during class, but had never really noticed how very much at home they seemed there, how familiar with the paths and plants and animals to be found there. I knew that many of them had forts, that they liked collecting monkey brains (Osage oranges – *Maclura pomifera*), and that there were sometimes disputes over territory and possessions. I knew that kids regularly raided the dumpster for treasures that they would then install in their forts, causing teachers like me to moan at the accumulating trash in the woods.

That I could have forgotten the magic of having such a childhood realm – the powerful pleasure of channeling a course of rushing water with mud and rock dams, the sudden thrill of a cardinal flitting out of a nest in the very bush that a friend and I had chosen for our secret den – did not occur to me until I began observing children in earnest, not just as their teacher, but as a regular participant in their daily discoveries and dramas. A new modular playground and sport court were installed at about this time, their gleaming surfaces, swings, slides, and monkey bars an obvious invitation to play, yet it struck me that very few lower school children were actually using them. Instead, they surged eagerly, as groups and lone individuals, into the woods each day for their 17 minutes of free play before lunch.

That fall, my study evolved into a fascination with nature play. As my interest grew, so did my desire to document this activity in a way that fully acknowledged its ecological qualities. Just as a music teacher might thrill to the sound of students singing in harmony, or a reading teacher get goose bumps when a kindergartener sounds out her first word, I am mesmerized by the sight of children scurrying along paths in the woods, helping each other carry logs, stuffing their pockets with buckeyes, or hovering motionless over a riffle in the stream, watching a

crayfish. Likewise, the sight of a group of small girls swinging and giggling on the monkey bars summons up my own childhood recess memories, and I wonder at their choices. What compels the selection of this place, and not that? Or this activity and not that one? Selecting suitable methods to obtain this information that held children's perspectives in the foreground became a simultaneous goal. "Why do you think more kids play in the woods than on the playground?" I asked a first grade girl one day as we stood at the top of the hill, watching others descend and disappear into the trees. "'Cause it's funner!" she replied enthusiastically, summing up in one word the complex terrain of meanings and values that I would traverse for the next several years. Rather than asking her to supply a simple verbal rationale for her opinion, I observed her actions as she played, asked about her experiences, interviewed her parents and teachers, and fit this information into a larger cultural framework. All this seemed essential to gaining a deeper understanding of the recess landscape that she inhabited.

This dissertation is thus both a necessity and a celebration. It is a necessary venue for the curious naturalist in me who seeks to understand and describe the phenomena of childhood experience, but it also celebrates the joy of outdoor play, and the wonder to be found in reliving recess through children's eyes.

CHAPTER 1

Introduction

Picture a child in elementary or middle school. Is the student in a classroom setting, complete with the traditional desks, pencils, books, teacher, chalkboard? This is the kind of place that seems to embody the purpose of school, an environment designed specifically for directed learning of a certain kind. What, then, do we picture when imagining recess?

Typically, we see children swarming over a traditional playground setting, with swings, a slide and a climber, and maybe a stretch of open space. We see children using these features as they were intended: swinging, climbing, sliding, running, playing games. This is an environment that appears to address a very different purpose than the classroom, and if asked what the purpose of recess is, most adults would respond automatically, “to blow off steam” or “to take a break.” Indeed, the very words “recess” or “break” clearly suggest the intended absence of purposeful activity.

For this reason, outdoor free play in school has come under increasing pressure from many quarters to vanish altogether from the elementary school day, or to be subsumed under some more directed or supposedly productive activity. What is its value, after all? For many policy-makers not directly involved with children, play is at best a waste of time in an ever-tightening schedule to meet mandated performance standards. It is an activity fraught with potential risk, as well, from bullying to health and safety hazards. The benefits that children might gain from taking a break from the classroom for free play are, for an increasing number of schools, outweighed by these other concerns. Even in schools that are committed to retaining recess as part of their curriculum, the value of outdoor play is rarely discussed beyond the assumption that it something that children need. Such a simplistic assumption is easily

challenged in a climate where successful performance is defined by quantifiable assessments of cognitive ability, and less by broader or long-term indicators of well-being, such as physical and mental health, or by a concern more recently arrived on the scene: environmental care and competence.

This study of outdoor play in school challenges the previously assumed single dimension of the question “What is the value of recess?” by reframing it in multi-dimensional ecological and contextual terms: “What are the values of recess?” The central focus is observing the choices children make about the places where they play and the kinds of recess activities they engage in. As an ethnographic case study, it examines the ecological relationship of elementary school children with their physical and social play environment, in the context of outdoor play at the Jemicy School, an independent school in suburban Baltimore. Central to the school philosophy of experiential learning are the choices that students have for recess play. These include traditional playground equipment (i.e., “monkey bars”) and spaces, which invite and promote certain behaviors, and wooded areas where children engage in other kinds of practices such as making and using tools, collecting and trading goods (such as “monkey brains”), and building forts. Data gathered through this study suggest that the popularity of the woods relative to the standard equipment is due to the diversity of opportunities for creative play that children directly perceive in the environment, and that their choices are mediated by the values held by peers in their play setting, and by the wider community.

Along with the many missions which schools now face, they are increasingly identified as potential havens for promoting healthy lifestyles and nurturing competent, enduring relationships with outdoor environments. Recess could be considered a vital component of this effort; however, evidence of positive, successful and sustainable models for outdoor play in

schools has been scarce. Perhaps recognizing successful recess play is not a current priority, given other demands on schools. It may also be that recess issues are more complex than many schools have time or resources to acknowledge, ranging from physical factors to parental fears to insurance demands. In fact, recess issues often have less to do directly with children than with these other matters well beyond the experience of play. This case study emphasizes that this complex ecological context of schoolyard play must be carefully considered in decisions affecting recess design and practice, and that recess values do, in fact, extend well into the overall fabric of school culture.

Very little current research exists that seeks to discover how children themselves view and value their recess circumstances, or the extent to which adult views of outdoor free play may coincide with or influence what children are thinking and experiencing. Approached so far primarily through adult lenses of child development, mobility, or health, the question of children's relationships with their outdoor play environments has tended to remain restricted to narrow, quantifiable channels of inquiry. The reality of play, however, is that children's experience exists at the heart of multiple, interconnected dimensions of environmental interaction, all of which contribute to the values that children develop. This research probes both the observed and reflected meanings of these different dimensions, yet remains grounded in those emanating from children's firsthand experience.

The implications for seeing recess values from this ecological perspective are many. Designing new or utilizing existing children's play spaces may begin to take into account previously overlooked structures, materials and other environmental opportunities that children perceive as important for play, not only the gross motor elements that adults traditionally view as essential (and more manageable) for children's physical and cognitive development during free

play. Spaces permitting children's independent exploratory and creative play in school have generally been limited, crafted according to early childhood designs, but the increasingly complex social and physical encounters that children have with outdoor environments in middle childhood emphasize revisiting this age group's needs and proclivities as well. Finally, it is widely assumed that play spaces are automatically and inherently "understood" by teachers, administrators, and parents, implying a common set of values surrounding the experience of recess. However, educating all members of a school community in how different spaces function for the children who choose them, and using these spaces to learn more about children themselves, are tasks that should become embodied in the fabric of a school's culture if outdoor play is to become a sustainable practice.

In the midst of what has been portrayed in popular media and recent research as the devastation of children's quality of outdoor life through vast systemic change, my goal is to examine Jemicy School as one place that uses its practice of outdoor play to promote, as depicted in its original philosophy, "the good life in childhood." It functions as a natural laboratory of sorts, in that it makes a claim to offer this good life by permitting children a variety of choices for their free time activity. The values that are revealed through immediate observation of and reflection on that activity by sources comprising different ecological levels provide a richly textured portrait of thriving outdoor play in school. It is my hope that others may use this account as validation for the kinds of play to which children perennially gravitate, yet which many school communities may have abandoned or never considered possible.

Research Questions

This study is framed around questions at three levels of inquiry:

- What values are associated with outdoor play at the Jemicy School?
- What is the association of these values to the child-environment relationship that occurs during and as a result of outdoor play at school?
- What is the significance of recess play values for sustaining relationships with outdoor environments?

The first level is empirical, requiring gathered evidence of the recess values at Jemicy School and answered primarily through the ethnographic methods of observation and interviews with members of the Jemicy School community. This methodology makes a case for regarding children as agents in their school's culture and in the kind of research that should inform a school's policies and practices. Therefore, it might have as a subheading, "What can *we* (educators or other adults) learn from observing what children do when they have a choice of outdoor play settings in school?" and challenges a standard assumption that adults' selection of play places and activities for children will invariably serve their best interest.

The second level of inquiry occurs with the interpretation of the collected data and centers on the nature of the relationship existing between children and their school play environment. Answering this question employs three fundamental concepts within the framework of ecological psychology: affordances (Gibson, 1979), behavior settings (Barker, 1968), and nested systems (Bronfenbrenner, 1979). It uses an ecological model for understanding the values of play as a function of environmental relationships interacting at and between individual, peer group, and community levels.

The third level of inquiry addresses how the values associated with outdoor play in school may affect the sustainability of recess practices. It extends the findings of this study to implications for the future of outdoor play in school culture and elsewhere, and offers recommendations for continued research.

Structure of the dissertation

The dissertation begins with an author's statement describing the path taken to this study. An introduction in Chapter 1 presents a conceptual overview and rationale for this research, along with the research questions. Chapter 2 is a review of the body of literature to which this study contributes, divided into three parts that illustrate different discourses connecting children, nature, school and play. Chapter 3 describes the theoretical framework of ecological psychology used throughout the dissertation. Chapter 4 presents ethnographic case study methodology and the use of portraiture as a descriptive and analytical tool. Chapter 5 contains study results, presented as descriptions of children's play settings, values of Jemicy community members, and portraits of eleven children's outdoor play values. Chapter 6 presents a discussion of findings, while Chapter 7 concludes the dissertation by describing limitations of the study and suggesting avenues for further research.

Case description: Jemicy School

Jemicy School was founded in 1973 with a very specific purpose: to meet the needs of students with dyslexia, a suite of characteristics that are now referred to as language-based learning differences. The International Dyslexia Association offers this definition: "Difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often

unexpected in relation to other cognitive abilities and the provision of effective classroom instruction... Studies show that individuals with dyslexia process information in a different area of the brain than do non-dyslexics... Many people who are dyslexic are of average to above average intelligence.” (www.interdys.org).

It is interesting to note that, given such a specific mission that has remained constant throughout the years of Jemicy’s existence, Jemicy’s founding philosophy makes no reference to such differences. Instead, it bears the hallmarks of the progressive, child-centered pedagogy that emerged from the pragmatic constructivism of the early 20th century. Direct, firsthand experience, the development of practical and intellectual skills, meeting individual needs in the context of developing community stewardship – all of these combined to create what founding advisor Margaret Rawson called “the experience of the good life in childhood.”

The early 1970’s were an era in which many such educational ventures were sparked to life by the urgent need to meet increasingly standardized demands, and the failure of public education to account for pervasive human learning differences, dyslexia among them. It was the good fortune and the wisdom of Jemicy’s founders to have available and incorporate both the new medical understanding of dyslexia’s diagnosis for a small minority of the school population, and the progressive philosophy that claimed equal and meaningful educational rights for all children. Jemicy was raised upon two complementary pillars: acknowledging and celebrating differences, and seeking to reconcile these differences with mainstream society. The dynamic that arises from the interaction of these two purposes has allowed Jemicy to carry out its stated mission: to harbor and nurture its different population, yet empower them to rejoin the “real” world where their different capabilities will no longer be a detriment, but an asset.

Jemicy's success at creating this experience of the good life for its children is ultimately based on the guidance of the founding philosophy: "A school should be designed for its children..." The vernacular form of this sentiment at Jemicy is "The kids come first," which arose directly from Jemicy's origins as a summer camp for dyslexic children. The qualities of a summer camp – informality, fun, spontaneity, relaxation, being "away" – all fed the early success of children who were struggling in formal school programs. The parents of those children recognized even in its rudimentary, experimental form the gift of happiness and progress that most others took for granted. They sought to establish a school where their children could thrive under the guidance of educators who understood dyslexia and its lifelong significance for children and their families.

Demographics

Jemicy's history has been marked primarily by incremental, rather than drastic change. Many of its early hallmarks – the singular focus on dyslexic students; the emphasis on hands-on, experiential learning; the informal, close relationships between students and teachers – are still evident. With a founding population of 51 students, Jemicy grew to accommodate 190 children on its Lower/Middle school campus where this study took place, with 80 of these enrolled in the lower school. A merger with another independent school in 2003 added a high school on a separate campus, bringing the total number of students to 274. The student-teacher ratio remains low, at four to one, necessitating a high tuition (\$28,600 for the current year). The school offers some financial aid, but generally attracts families who are able to afford this tuition, and who send their other non-dyslexic children to other private schools in the area. A very small percentage (five percent in 2008) of Jemicy students are racial or ethnic minorities. The school

draws students from a broad geographical area surrounding Baltimore, with most living in relatively affluent suburban neighborhoods.

Jemicy has always advertised itself as a transitional school, with the intention of mainstreaming its students as quickly as possible. The lower/middle school campus accepts appropriate students at any grade level through seventh grade when openings are available, creating a constant influx of new students in the elementary grades, but anticipates that students that enter Jemicy in these earlier grades will be prepared for mainstream settings by ninth grade. Most students who leave Jemicy transition easily into other private schools.

Class sizes range from one-to-one tutorials to groups of twelve for content classes, and in a typical seven-period day, a student traveling between classes, recess breaks, lunch and after school activities is likely to interact with at least nine different teachers. The school is structured around homerooms of children who fall into broad age groups. A typical homeroom could contain children whose ages are up to or even more than a year apart, but whose developmental, learning and social profiles indicate group appropriateness. The three youngest groups (ages approximately six-nine) are known as the “J-E Community,” and are taught in both small multi-age groupings that address their common skill needs, and in larger content classes. Homeroom grade levels are consecutively lettered J-E, M, I, *, C, and Y to spell out the name of the school, so that “M” is fourth grade, “Y” is eighth, etc. A strong effort is made to encourage interaction between the lower and middle school students, both through a “buddy” system that pairs older with younger groups of students for activities, and through informal play during recesses.

One of the major factors affecting Jemicy’s status and mission as a school is the addition of several other schools to the region serving children with language-based differences. Once the only local option for families with dyslexic children, Jemicy now finds itself in the position

of competing for students in a period of economic difficulty. Those who market the school seek to define Jemicy's unique history and long-standing practices that lead to the success of its students beyond graduation. These practices include the cultivation of its relatively informal, yet rigorous atmosphere. Practices such as students calling teachers by their first names, permitting faculty to bring their dogs to school (which must qualify as "therapy" companions), and the option of woods play during recess are often cited as features distinguishing Jemicy's "home-like" qualities from other programs for students with learning disabilities.

CHAPTER 2

Literature Review

Introduction

To place the phenomena of this particular case in a broader context, the following section offers a review of the literature that informs this study. It centers primarily on the relationship of children to outdoor environments and the meaning of play within these, addressing three questions relating to values associated with outdoor play in school that are pertinent to this study:

1) *What characterizes children's relationships with natural outdoor environments?* The child-nature connection has long been regarded as something special, a birthright vital to both a child's well-being and that of earth's natural systems. The review summarizes some of the major ideas that have gained this discourse current popular attention, along with the research that attempts to identify the crucial links between childhood experience outdoors and in nature, and adult environmental knowledge, attitudes and behaviors.

2) *How does children's well-being relate to outdoor activity?* Significant recent changes in how and where children engage in free time activity have been identified as leading factors affecting children's physical, cognitive, social, and emotional health. The review highlights research into both the causes and effects of these changes, specifically as they relate to children's outdoor play.

3) *What is the relationship between school-based outdoor play experiences, children's well-being, and their connection to nature?* This section brings the review into a tighter focus on the activity of play, specifically in schoolyards, as it relates to children's well-being and the development of a relationship with nature. It elaborates several perspectives on the nature of play and cites research into the current status of school recess and the effects of schoolyard

design on play. It concludes by discussing the implications of studies that examine outdoor play in school as a window into children's development of environmental literacy and competence.

Part 1: The child-nature relationship

What is nature?

In thinking about the child-nature relationship, it may be clear what is meant by "child;" defining "nature" is another matter. Is it pristine wilderness? A TV show with lions hunting wildebeests? A lush suburban lawn? An urban streetscape? A video game with a jungle survival theme? A drainage ditch? Because an experience with any one of these is decidedly different than any other, and because definitions can reflect a research orientation, the terms "nature," "natural," "environmental," and "green" in relation to children's activity are potentially problematic.

However, several areas of commonality emerge among the studies cited here which make a functional definition possible. One is the emphasis on outdoor – not indoor – environments, as epitomized by the current "No Child Left Inside" movement. The other is the quality of activity that occurs in these outdoor settings. Free play or other informal activity is generally considered more conducive to exploration, discovery, and the development of attachment to the natural elements in an environment than a highly structured activity such as organized sports. However, because each instance of examining children's relationship with nature is dependent on context, it is more useful to think of the literature cited here as referring to some point along a functional "enrichment" continuum. In terms of relative value, the following statements paraphrased from literature on children's play experience summarize demarcations along this continuum,

increasing from what are generally regarded as basic childhood needs to a level of ultimate enrichment:

- 1) Children need and have the right to play (Frost, 2006).
- 2) Outdoor play is potentially more enriching than indoor play (Rivkin, 1995).
- 3) Outdoor play should include manipulable components, or “loose parts” (Nicholson, 1971).
- 4) The “greener” (containing more vegetation) the setting, the better (Taylor et al, 2001).
- 5) A high level of biodiversity in the play environment offers greater enrichment than monoculture (Fjortoft, 2004).
- 6) Experience in pristine environments offers the ultimate relationship with nature (Shepard, 1998; Kahn, 2007).

These statements represent a range of increasingly ideal objectives for proponents of the child-nature movement, though environmental factors such as availability, degradation, toxicity, and other hazards (i.e., traffic, street violence) clearly play a role in determining the extent to which they can hold true.

The Louv Effect

“The children and nature movement is fueled by this fundamental idea: the child in nature is an endangered species, and the health of children and the health of the Earth are inseparable.”

R. Louv, 2005

Richard Louv’s influential book, *Last child in the woods: Saving our children from nature deficit disorder* (2005), propelled the child-nature relationship into popular awareness. A discourse on loss of experience in nature, begun many decades earlier among environmentalists such as Aldo Leopold (1949) and Rachel Carson (1962), gathered momentum through the 1970’s

and 1980's. With the advent of a formal environmental education movement, and with a generation of children growing into adulthood who had experienced relative freedom in exploring the outdoors, awareness of this loss began in the 1990's to center on the next generation and on their media-saturated, environmentally disconnected lives. Louv cited these trends and encapsulated the emotional response of the parenting generation to the changes occurring in the next generation: We must save our children from nature deficiency, or face the increasing dysfunction and likely demise of a society severed from its genetic heritage.

I intentionally single out Louv's work here as an extraordinary and unprecedented popular phenomenon that is based on much of the scientific discourse addressed in this review. The "No Child Left Inside" movement spawned by the book has now reached significant proportions, its momentum gaining energy from popular disillusionment with the singular focus on academic achievement and second-hand, rather than direct outdoor experience for children. Current legislation in support of child-nature initiatives, the strengthening of environmental education programs, and networked efforts to grow public participation in outdoor play in nature are all due in large part to the coalescing effect of Louv's work. The popular embrace of this book and its accompanying movement are signs that the topic of childhood environmental relationships is ripe for full discussion. This review, however, serves as a reminder that continued research is needed to verify and expand upon the underpinnings of the movement's claims.

Historical context: establishing the child-nature connection

The popular metaphor of "reconnection" or "reunion" with nature stems from the idea that humans – adults and children alike – have, in the course of several generations, managed to become disconnected from a vital source of sustenance. That this is of particular concern for

children is a theme dating back at least to the Romantic philosophers and poets. William Wordsworth's writing in 1798 epitomized this relationship with his belief that, according to Chawla (1992, p. 64), "...childlike vision is redemptive because children have a special bond with nature, receptively absorbing its inspirational patterns." Naturalist Rachel Carson echoed this belief in her book, *The Sense of Wonder* (1965), written for parents of young children, encouraging them to take their children outside and let them discover the wonders of nature as she had with her young nephew. She bemoaned the seemingly inevitable distancing of human adult experience from the inherent wonder that children feel when they are able to directly experience the phenomena of nature found outdoors. "If I had influence with the good fairy who is supposed to preside over the christening of all children, I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life" (p. 43). Carson's insightful commentary on the difficulties of sustaining this connection to the outdoors in a modern world has resonated with several generations of concerned adults.

Likewise, Edith Cobb's investigations into the backgrounds of highly creative people led her to the insight that most of these people had had transformative experience in nature as children (Cobb, 1977). This research, combined with her direct observations of children at play, provided the groundwork for many later child researchers and supported a variety of theoretical viewpoints regarding the importance of the natural world for human development. Cobb's contribution to the field of environmental education was the combination of a romantic notion of inspiration through nature with a pragmatic view of child development. "I would define genius as an evolutionary phenomenon, at biocultural levels, beginning with the natural genius of childhood and the 'spirit of place'" (p. 44). To develop this "natural genius" required an inspirational setting: a place in nature.

E.O. Wilson's biophilia hypothesis (Wilson, 1984), maintained that humans possessed a related evolutionary phenomenon: an inherent affinity with other living things. This hypothesis was drawn from a set of attributes and preferences common to human experience of natural settings. Having evolved in a world of natural phenomena, Wilson suggested, we possess both the genetic propensity and the emotional need to attend to diverse living elements of our ecosystem. This affinity is expressed in culturally common attractions and fears with regard to certain environmental features. Among these are preferences for certain savannah-like settings and phobias regarding potentially dangerous animals such as snakes and spiders. Kellert and Wilson's edited book, *The Biophilia Hypothesis* (1995), contained differing perspectives on these ideas, but the general notion of a "nature instinct" gained popular acceptance among those promoting children's direct engagement with nature (Lester & Maudsley, 2006). These common sensibilities, Wilson maintained, should not only lead us to gravitate to natural features, but also to learn to treat the world's biodiversity as a precious, essential resource. Thus, this hypothesis of an inherent connection with the living world is a keystone concept supporting both environmental education and the direct experience of the myriad life forms found throughout nature.

These theoretical perspectives on children's special connection to nature are supported by in-depth, naturalistic studies of children which reveal that, given the opportunity, children from six to twelve years old choose to spend time playing in settings on the "wilder" end of the nature experience spectrum. Children identify these places as "special," meaning that their experiences in these settings stand out both during childhood and in later recollection of childhood activity. Hart (1979), Moore (1986) and Sobel (1993) conducted ethnographic observations of children at play in their home and neighborhood environments and discovered that children's developmental

play patterns in natural outdoor areas extended across cultural boundaries. Fort and den building, use of locally found materials, and wide-ranging neighborhood exploration characterized the activities of many children, aiding the acquisition of in-depth geographical knowledge and close familiarity with plant and animal species and other natural phenomena (Chipeniuk, 1995). These activity patterns reinforced the idea that an evolutionary and instinctual relationship with natural systems was at work among children who had the opportunity to play outdoors.

Sustaining the connection

Establishing the existence of this vital connection involves recognizing changes affecting it over time, and identifying ways to sustain it. What happens when the elements and opportunities of experience in nature are altered or removed from children's lives? What if there were not only children, but an entire generation of adults as well who had never experienced the "wild" in outdoor settings? How could a romantic bond, the bud of natural genius, or even biophilia triumph over drastic, human-instigated cultural and environmental changes?

Wilson (1984) acknowledged that biophilia's "softness" as a cultural influence (as opposed to something "hard-wired" like caring for our young) might force it into the recesses of our social psyche, allowing other pervasive influences, such as the lure of technology-based experience, to win out over our inborn affinities. Many others have signaled this disappearance of the human-nature evolutionary heritage. Robert Michael Pyle (2002) used the term "extinction of experience" for this dilemma, describing how the present rapid loss of species eliminates the crucial human experience and understanding of biodiversity. Each of these losses represents decreasing human interaction with nature, which has direct impact on the experience that children will acquire. That this is already occurring has been illustrated by ethnographers

such as Nabhan and Trimble (1994), who examined the loss of generational knowledge of native people in the American southwest. They found that understanding of natural phenomena had diminished significantly along with the specific language used to describe them.

Kahn (2007, p. 203), after studying the environmental values of inner city children in Houston, concluded that "... if one's only experience is with a polluted environment, then that condition appears not as pollution, but as the norm, or baseline, against which more polluted states are measured... The psychological phenomenon that appeared in the Houston children can occur any time individuals lack an experiential comparison by which to judge the health and integrity of nature." Referring to this state as "environmental generational amnesia," he suggested that most people are not even aware that their environmental baseline has changed from that of their parents or grandparents. If each generation considers its existing environmental state as normal, then gradual degradation and loss of diversity are taken for granted. Efforts to counter this trend, suggested Kahn, should begin with the "rewilding of the child," or restoring the experience of wild nature to that part of the human lifespan where it can be most effectively assimilated.

This discourse of loss also contains the issue of bringing a particular cultural bias to bear on problem identification and remediation. As Kahn demonstrated, those who live in urban settings, in poverty, or in vastly altered environments (including many rural settings), particularly over the course of several generations, may hold different views and priorities for environmental relationships than those who live in affluence and who have easy accessibility to natural settings. Studies of children's experiences in places that do not mirror the Romantic image of nature and childhood challenge the idea that the "nature instinct" serves all in the same way (Aitken, 2001). As Bixler (2002, p. 796) pointed out, most of the studies that have occurred

surrounding favorite places indicate that natural settings are favored, but “If it were not for several studies that provide evidence that some portion of the general population actively dislikes being in wild environments, one would conclude that preference for wild settings was ubiquitous.” Such studies make clear that, like researchers’ definitions of nature, children’s feelings about nature experiences represent a continuum of preferences and values.

Environmental literacy and environmental competence

The skill set known as environmental (or ecological) literacy is a formal iteration of the human-nature bond. Recognizing that a modern, balanced, reciprocal environmental relationship required direct education, the concept of environmental literacy was developed with the goal of equipping citizens with the necessary knowledge to promote sustainable natural systems.

Environmental literacy has been variously interpreted and defined; for the purposes of this review, I offer the definition from the Children’s Environmental Literacy Foundation:

“understanding the unique and complex systems that support the natural, as well as the human-built environments, and having the knowledge, the desire and the ability to save the integrity of those systems” (www.celfoundation.org).

This definition includes both cognitive and affective dispositions (i.e., knowledge and desire), as well as competence (ability). All have been examined through research for their role in childhood development of environmental skills and attitudes. Several studies have focused on children’s familiarity with common animals and plants, hypothesizing that such a knowledge base reveals the extent of a child’s connection with nature. Balmford et al (2002) discovered that children were more likely to know the names of Pokémon cartoon characters than local wildlife. This discovery coincides with findings in studies of children’s use of free time, which reveal that children spend significantly more time engaged with electronic media than they do in the outdoor

environments that might provide exposure to important environmental information. (Playday 2005, 2006; Hofferth, 2001). Bebbington (2005) discovered a similar lack of local environmental knowledge related to plant species among teenagers in the United Kingdom. Chipeniuk (1995), who found that childhood foraging increased teenagers' awareness of biodiversity, suggested that "...by foraging or perhaps otherwise engaging with or informally cataloging one's local environment, children build a framework for understanding the world around them" (as cited in Wells & Evans, 2003, p. 17).

This emphasis on the power of informal, everyday encounters with nature to enhance the development of environmental literacy over the lifespan is supported by a body of research into the influential childhood experiences of adults. Tanner's work (1980) into the source of pro-environmental values of adults was followed by many others (Chawla, 1999; Ewert, 2005). In a review of several retrospective studies, Chawla (1998) found that the results were strikingly similar: childhood time spent in natural places was cited as a primary influence in later behavior and attitudes. These "many childhood hours spent alone or with a few friends in a more or less pristine environment" (Tanner, p. 21) appear to have been a common feature of many environmentally literate adults' lives, a finding which stands in stark contrast to present-day experiences of many children. While formal programs designed to enhance environmental literacy attempt to achieve both the affective bond and the experiential knowledge that may lead to later environmentalism, it is clear that the early informal encounters cited in the research of significant life experiences are vital to pro-environmental values held over one's lifespan.

Wells and Lekies (2006) conducted a similar retrospective study of childhood influences on adult behaviors and found that while "domesticated" contact with nature (gardening, picking flowers, etc.) was positively associated with pro-environmental behaviors, it was the "wild

nature” experiences of childhood that had the greatest effect: hunting, camping, hiking, etc. An important component of these experiences was the presence and activity of specific adult figures. These findings are consistent with those of Palmer et al (1999), who concluded that both family members and teachers played significant roles in encouraging the long-term growth of environmental care. Chawla (2007) described this important relationship between adult, child, and the environment as one of “joint attention,” and emphasized that play experiences in natural settings are the ideal medium for making lasting emotional connections.

Vadala et al (2007) took this theme a step further by inquiring into the specific outdoor play activities recalled by young adults. Their findings supported earlier research about the importance of outdoor play, but suggested that it not be regarded as homogeneous. Respondents in their study described their play experiences as either “child-child” or “child-nature” oriented and appeared to hold adult environmental attitudes that were characterized by these divisions. Those who recalled their experiences as being primarily oriented toward their natural surroundings were more likely to have strongly pro-environmental attitudes than those who recalled spending time playing in nature with friends. Based on these results, the authors determined that childhood play experiences are both more complex than had previously been considered, and could enhance the experience of formal environmental education. Thompson et al (2008) further reinforced the pervasive influence of these childhood experiences by examining adults’ use of and attitudes toward natural spaces, concluding that the frequency of visits to and time spent in natural settings was positively correlated with time spent in such spaces as children.

The first section of this review focused on identifying the ways that the relationships between children and natural settings have been characterized. The values associated with these relationships may be summarized as recognizing an essential, evolutionarily significant

connection between children and natural outdoor settings. In western societies that emphasize the utility of nature in the service of humans, however, the concept of a “special bond” may lack the necessary substance to justify spending time, energy and money on understanding it. Issues of children’s health, on the other hand, often receive greater attention, especially when benefits and hazards can be quantified. The next section examines the utility of outdoor environments for children’s well-being, along with some of the obstacles facing efforts to get children outside.

Part 2: The relationship between children’s well-being and outdoor environments

Fitness and outdoor experience

“All children deserve to grow up in an environment where they can flourish – where they can develop physically, socially, emotionally, and cognitively to reach their full unique potential.” This statement from “Children and Nature Network” (www.childrennature.org) summarizes the view that time spent outdoors, particularly in natural areas, can provide a comprehensive set of developmental services to children. Assuming, as discussed in the first section, that natural outdoor settings are optimal play environments and that children are inherently drawn to these places, what is the evidence that time spent there does in fact enhance “fitness?” Fitness can be thought of in several different ways, such as the physical capability to convert energy efficiently, or the extent to which an organism is adapted to a particular environment. Though it is the first definition that drives most of this discussion, it merges with the second in arguments for a holistic view of the health benefits of nature.

Documentation that children in western cultures are spending more of their free time indoors and less time outdoors points to a now frequently identified trend (Louv, 2005). While other studies (Worpole, 2003; Burke, 2005; Rasmussen, 2004) cite children’s preferences for

outdoor environments, there are clearly factors at work sustaining this indoor trend. This shift over the last several decades has been linked to declines in children's overall physical health and mental, emotional, and social well-being, as described in the following section. This represents a change as well from regarding children's nature and outdoor experiences primarily as essential for the health of the planet (i.e., nature-experienced children grow up to be concerned stewards) to essential for the health of children themselves. "This is not the environmentalism of the past, which usually argued that children need to appreciate nature so they will help protect it. Instead, the new sales pitch is based on self-interest..." (Dizikes, 2007, www.boston.com). Efforts to counter and reverse the trend toward indoor activity thus rely on data demonstrating behavioral patterns of change over time, as well as on evidence of improved health through outdoor activity. This section describes some of the functional qualities, or services, which research has determined to be associated with time spent outdoors in childhood. It examines an opposing side of outdoor activity as well: a discourse on perceived risks to children's safety associated with outdoor play, and the extent to which this limits children's activity.

Physical fitness is often the first consideration when thinking about children's well-being. In an era and society where obesity has reached epidemic proportions (Troiano et al, 1995), the connection between time spent in sedentary indoor activities and lack of physical fitness seems obvious. Research supports the idea that children who spend more time outdoors tend to be more physically active (Hinkley et al, 2008). In fact, suggested one researcher, "Opportunities for spontaneous play may be the only requirement that young children need to increase their physical activity" (Dietz, 2001, p. 314). Frost (2006) cited endurance, flexibility and an improved ratio of lean body tissue to fat as evidence of the physical benefits of play. These benefits may be acquired through regular free play opportunities on playgrounds that offer

sufficient challenge and play value (Frost, et al, 2004; Clements, 2005; Jarrett, 2003; Pellegrini, 1995).

With the decline of informal outdoor play has come a call for activity to be restored through various sports and fitness programs for children. Burdette et al (2005), while acknowledging the critical importance of combating inactivity, argued that public perception of outdoor activity might be better enhanced through changing the language used in promoting it. They urged a return to play – especially outdoor, unstructured play – as a means to attract and retain involvement in physical activity, rather than the more demanding and possibly charged notion of participating in structured sports or exercise regimens. This would address cognitive functions (i.e., creativity, problem-solving, self-discipline), social improvements (cooperation and flexibility), and emotional qualities such as reduced stress and aggression, and promote greater levels of happiness. The authors concluded that parents and caregivers were more likely to support outdoor play when convinced that it is good for the brain on many levels. “We should enthusiastically promote it on its traditional merits -- that play allows children to experience the joys of movement, creativity, and friendship” (p. 5).

These comments were echoed in a pediatric report (Ginsburg, 2007) emphasizing that unstructured play is increasingly challenged by parents’ performance expectations for their children. The report cited many of the same benefits of play already noted, but stressed the role of the professional health community in supporting both play and parents in an age of high competitive stress. It acknowledged that play is valued by children simply as joyful activity, but that adults should also view it as developmentally essential on cognitive, social, physical and emotional levels.

Lack of time spent outdoors is not only pertinent to issues of physical fitness; it has been accompanied by increasing diagnoses of attention disorders among children. Faber Taylor, Kuo and Sullivan (2001), studying the effects of different environmental settings on children's attention, found that parents' assessment of their ADD/ADHD children's attention correlated positively with time spent in "green" settings. Likewise, studies by Wells and Evans (2003) and Faber Taylor et al (2001) demonstrated that stress was reduced and self-discipline improved when study participants had even just a view of green space. Other research on stress reduction (Ulrich, 1993, Korpela & Hartig, 1996; Bingley & Milligan, 2007) supports the idea that time spent outdoors in natural settings can be restorative. Meanwhile, how to best prepare children both cognitively and socially to meet academic standards is a related leading concern. Research has increasingly demonstrated a connection between improvement in academic performance and time spent outdoors. Children who participate in outdoor or environmentally based programs show consistent improvement in both socio-emotional areas and academic achievement (Lieberman & Hoody 1998; Basile, 2000; SEER, 2005).

Risk and outdoor activity

Given the evidence supporting the utility of outdoor experience for children's well-being, what factors impede attempts to get children outdoors and engaged in activity that promotes physical, cognitive, social, and emotional health? The popular claim that modern children in western societies generally prefer being indoors has not been fully substantiated, and in fact is contradicted by data showing outdoor preferences (Playday 2005, 2006). The answer lies with another cultural change – this one toward a belief among a current generation of parents that there are now more obstacles to outdoor play than a generation ago. In a survey of 800 mothers in the US, Clements (2004) confirmed that children not only spend less time outdoors, but that

responses consistently cited electronic media as factors keeping children indoors, along with concerns about safety. This is clearly a two-edged sword – what attracts children to the indoors, alongside the barriers that prevent them from going outdoors – but this review will focus on the latter, as the discussion of risk and safety relates directly to schoolyard play.

This current state of western society has been called a “climate of fear,” “wrapped in cotton wool,” (Tovey, 2007), “risk-averse” (Gill, 2007), and “bubble wrap generation” (Malone, 2007), among others. Numerous factors influence parents’ beliefs about their children’s safety at home, including the fear of abduction (“stranger danger”), traffic, and accidental injury. Blakely (2004) found that urban parents believed, contrary to statistical data, that their child was safer in their home than outside. Valentine (2004) corroborated this finding with another survey of parent attitudes, which revealed parents’ belief that children are generally at greater risk now than in the past. Tovey (2007), in discussing the effects of these changing attitudes and values, commented that one primary effect is the reduction of children’s autonomy. A study by Veitsch et al (2006), which examined parental views of their children’s play, found that parent concerns about safety were coupled with those about their children’s level of independence – that they felt their children were not capable of playing both independently and safely. This issue of independent functioning, or competence, lies at the heart of the discussion of risk and safety. As Tovey pointed out, it presents a vicious cycle: as adults lower their expectations for children’s competence, children’s competence becomes correspondingly reduced, thereby further decreasing parental expectations. In terms of the relationship of this phenomenon to children’s outdoor activity, Malone (2007) cited research in Australia and elsewhere documenting the powerful influence of the “protectionist paradigm” of parenting, which carried over into children’s school experiences. She argued that it is counter to children’s best interests that they

are prevented from taking normal risks that can help them develop a range of skills, among them resilience, self-efficacy and environmental literacy. She noted that the current emphasis on developing this latter skill, or ability to “read” the environment, must be complemented by environmental competency: ability to maneuver effectively within that environment. “... We know that resilience is built through the ability of an individual to adjust and adapt in the face of a crisis situation; experience builds knowledge and confidence. The irony is that by restricting children’s movements many parents are actually adding to children’s anxiety and lack of competence in assessing environmental hazards, therefore putting them in more danger should they find themselves alone in the environment” (p. 523).

The implications of this cycle are dire, especially when compounded by the putative “nature deficit” effects previously mentioned. Is it possible to restore the benefits of outdoor activity without a simultaneous shift away from the protectionist paradigm? What may then be lost in terms of play value? When outdoor environments are sanitized of all apparent risk, they lose play value for children, which may lead to further disenchantment with outdoor activity (Frost, 2006). Ultimately, the question of “What is best for children’s well-being?” must be answered by considering the different levels of an activity, and not only one side of the risk-benefit balance. Because of the existing tilt toward predominantly seeing risk, it is often granted a far greater measure of validity than is realistically warranted (Gill, 2007). Some have gone so far as to deem this removal of risk from children’s lives a deliberate and unethical maneuver. In fact, in perhaps the ultimate irony, a report issued by the UK Mental Health Foundation (1999) specifically linked certain children’s health issues to the lack of risk in play.

In the final section of this review, the issues previously introduced of children spending time outdoors, in nature, engaged in free, unstructured activity come together in the context of

school settings. Often identified as one of the few remaining sites where such play could occur in relative safety, schoolyards and recess times are nevertheless beset by many of the same pressures visited upon playtime in neighborhoods and family homes. Most important, they play a role in accomplishing the educational mission of a school, and as such are usually regarded through a pedagogical, adult-focused lens that rarely applies to more informal settings.

Part 3: Children's experience of outdoor environments in school

Discourses of play

If, as previously established, children's outdoor activity is essential to well-being on both personal and environmental levels, what different perspectives exist regarding play activities when they occur in a school setting? American schools have seen a gradual evolution in play activities such as recess over the last century, but only recently have schools begun to seriously question the value of play as it contributes to specific achievement goals. Advocates for play in school have responded vigorously: "Play is integral to the academic environment. It ensures that the school setting attends to the social and emotional development of children as well as their cognitive development. It has been shown to help children adjust to the school setting and even to enhance children's learning readiness, learning behaviors, and problem-solving skills" (Ginsburg, 2007, p. 183). But what is the essence of that play? What does it mean to children, and how do those adults who observe it identify its particular positive or negative qualities? What makes us respond to observed play among children as we do?

Brian Sutton-Smith's lifelong study of play led him to identify a set of play discourses: "the rhetorics of play" (2001). These are the perspectives which we bring to our understanding of what play is, what it means in differing situations, and how we value it. Among commonly

recognizable types of play, he listed the following: mind (subjective) play, solitary play, playful behaviors, informal social play, vicarious audience play, performance play, celebrations and festivals, contests (sports), risky or deep play. Sutton-Smith applied a taxonomy of rhetoric to these activities and delineated the values and beliefs that accompany them. He identified seven discourses, all of which have some bearing on the play activities that will be described in this study.

The rhetoric of *progress* is by far the most powerful and pervasive rhetoric of Western approaches to children's play. It holds that juvenile animals, including human children, both adapt to their environment and develop through the process of play. Thus, even though a child might view the reason for play as simply "fun," this rhetoric views play primarily as being about development. Play is regarded solely as an activity of immature organisms, though a "tutor" may play a crucial role in stimulating new, developmentally appropriate types of play. Sutton-Smith's critique of this "play ethos" is similar to those in other fields who regard developmental maps as serving the needs of adults more than children, and as being prone to an emphasis on accelerating maturity rather than respecting children's present state.

Another play rhetoric is *fate*, regarded as the oldest, and characterized by such activities as gambling. This rhetoric may seem to have little bearing on children's play activities in school, but it plays a role in adults' perspectives on the degree of acceptable risk involved in allowing children to engage in certain kinds of play. Not only is risk assessed through probability measures, but the idea of fate continues to affect the degree to which adults are willing to relinquish full control of children's activities.

The rhetoric of *power* is ancient as well, taking the primary form of sports and athletic competitions. The power rhetoric is necessarily social, involving the contest of one or more

people against others. The rhetoric of *identity* may appear related to the rhetoric of power, but it is less focused on competition and more on play as a bonding mechanism for members of a group. This may take the form of community festivals, parades or carnivals, or as the deliberate celebration of communal spirit. In a schoolyard, this rhetoric is evident in the identity of social groupings, particularly as they engage in regular public affirmation of their group. Sutton-Smith regards both power and identity rhetorics in relation to children's play as under-valued; that is, as expressed by children (in their folklore and assumption of control over play activities), both power and identity tend to be regarded as potential threats to adult control, and "disjunctive" with adult forms.

Sutton-Smith describes the rhetoric of the *imaginary* as that which we think of as "playful," tending to disregard rules and follow unscripted forms, inventive, and creative. This rhetoric is one of the most-studied aspects of children's play – in fact, it essentially defines what most consider play, at least among young children. The rhetoric of the *self* is regarded by Sutton-Smith as a fairly modern discourse, focusing on expression of personal pleasure and interest. This rhetoric has been employed by modern generations of adults to support the rights and needs of individuals, and to define play as a self- rather than socially-constructed practice. It includes an emphasis on solitary activity, hobbies, and relaxation, as well as escape from social demands.

The rhetoric of the *frivolous* essentially upends all other rhetorics, calling their purpose, standards, and practices into question. It inverts traditional power structures as epitomized by the court jester or fool who takes otherwise unheard-of liberties. For children's play, this is a rhetoric that is most consistently demonized by the rhetoric of progress, as it bears no

resemblance to developmental motives or other adult agendas, and calls such agendas consistently into question.

When all of the rhetorics proposed by Sutton-Smith are considered, it is the rhetoric of progress that takes the foreground in school settings. This is, after all, what most schools are about: ensuring proper development of students. The role of recess is intended to support this role of schools in our society. What this can also mean, though, is that a predominant definition of progress and development, promulgated by influential sectors of society, can take hold in school environments. The following review offers recent literature that demonstrates the state of play in schools, presents the often deleterious effects of an overwhelming emphasis on student progress, and critiques the paradigm that promotes it. As Sutton-Smith notes, “Play as progress is an ideology for the conquest of children’s behavior through organizing their play. What is put to one side, forgotten, neglected, denied, trivialized or suppressed are all the *other ways* in which children play by themselves or together with other children. Treating all of this play as frivolousness, as something to be put aside, illustrates and adds momentum to the idea that adults should organize the kinds of play through which children are believed to develop properly” (p. 205). Organization of children’s outdoor play in school, or recess, can take several forms. It is most readily apparent in the physical design of the schoolyard. This is directly connected to the types of practices which are deemed acceptable or are promoted there. School philosophies are literally played out within this setting. “This space denotes that adults recognize that children should have some type of dedicated environment in which to express their culture and behavior. However, it has to be remembered first and foremost that it is an institutional space governed by adults’ perception of appropriate behavior” (Thomson, 2007, p. 487).

The final section of this review addresses the following questions: What is the play value of different kinds of settings? How much choice is available to children during recess? How often does recess occur? The studies of school recess settings and practices provided by this section of the review were selected and organized to aim toward a view of the “other ways” that children’s play may occur and be understood. In particular, this section illustrates an emerging synthesis of the previously described discourses of the child-nature connection and the outdoors as a contributor to children’s well-being.

The evolution of recess

Whether childhood play is considered an instinct, a fundamental right, a developmental yardstick, or even an impediment to “real” learning, its presence in a school setting represents that school’s (and its broader community’s) commitment to certain goals. One of these is certainly the promotion of children’s well-being, but this state has no comprehensive definition. Damasio (2003, p. 35) identifies play as an evolutionary urge toward achieving well-being: “to seek a better than neutral position, to place ourselves in favorable situations that enhance our lives ... A state of joy defines a greater ease to act...” For Sutton-Smith, the school playground provides a kind of circus tent for dramatic enactment of emotion. It also serves as a refuge for a festival-type practice that is now impossible elsewhere: “The schools now remain one of the few places in which access to other children is in sufficient numbers for playmate choices in age and disposition to be available.... where a distant and nonintrusive supervision is possible so that children’s political rights can be guaranteed consistent with an adult concern for their safety... the one assured festival in the lives of children” (Sutton-Smith, 1990, p. 7).

The modern realities of school recess settings stand in stark contrast to this ideal. Frost (2006) identifies two influential branches of theory that first characterized American schoolyard

and recess practice: the experiential, developmental “kindergarten” movement inspired by Friedrich Froebel (2003 [1899]) and continued through the Child Study movement into the present day early childhood sector; and the physical fitness movement begun in the early 1900’s, which promoted the socialization of immigrant children in public playgrounds with large-scale apparatus, first in cities and then more broadly in public schools across the nation. The look and function of such schoolyards continued to change with the varying influence of industry, awareness of safety considerations, becoming more modular and standardized. The goal of recess in such settings, still the most frequently cited among adults, followed a classic, hydraulic, industrial-age metaphor: “blowing off steam” (Pellegrini, 2005). Released from classroom settings in which their academic activity had been ostensibly causing them to build up pressure, children burst out of classrooms and onto the playground, releasing pent-up energy and regaining the composure to re-enter the classroom ready to learn. For such self-driven dynamos, these industrial strength schoolyards, with heavy, fixed equipment and durable surfaces were intended to handle this explosive force. Frost (2006) points out that, in contrast, many preschool playgrounds based on the original child study model have retained their orientation toward child-directed, exploratory play, and the development of diverse skills.

Critics of the current state of school recess focus on several major changes in educational philosophies and accompanying pedagogy in American schools over the last 20 years. Recess, once considered an unassailable fixture of most school curricula, has been severely altered (turned into physical education instruction, for example) or eliminated (Pellegrini, 2005; Frost, 2007). The International Play Association (Clements, 2005) reported that 40 per cent of American schools were abolishing recess or denying or reducing recess time to prepare for tests. Citing a report that 40,000 schools no longer have play times, Frost (2006) attributed this shift to

a new emphasis on high stakes testing, unrealistic safety standards, and unregulated lawsuits stemming from playground incidents, the latter two of which have left schools in a “protectionist” state, as discussed in the prior section.

Arriving at conclusions through accurate data on the existence and quality of recess requires common definitions, yet there are few standard measures available for this undervalued part of the school day. In one recent extensive report on children’s physical activity and food intake, Parsad et al (2006) reviewed public elementary schools’ records on recess, physical education, and food services. Based on the recognition that the relationship between food intake and energy output in school is a critical balance in maintaining children’s health, the report revealed that, while still a prevalent practice (87%), recess was not available for all children, particularly those in low income and minority areas. Based on self-reported school data, and emphasizing the increasing lack of attention paid to children’s physical fitness overall, the report did not, however, provide details of the quality of outdoor play that occurs during recess. The report concluded with the recommendation that schools promote an “active lifestyle” that included at least 60 minutes/day of physical activity, but did not specify the forms that this should take. While such a report is valuable in establishing the prevalence or lack of outdoor play in a broad sample, it failed to make a distinction between “stringent instructional regimens,” as would be found in a physical education dominated recess, and true free play, which represents a break from such instruction. Pellegrini’s (2005) research demonstrated a clear connection between having frequent, regular recess breaks, and children’s capacity to pay attention. Barros et al (2009) conducted a study comparing classroom behavior among groups of children who had and didn’t have recess. Although the quality of the recess periods was again not documented, the

authors found that teachers consistently rated the behavior of children who had some recess higher than those who had no recess.

Pellegrini (2005) referred to the relatively sudden shift in attitudes toward recess as the “recess debate,” and cited two unsubstantiated claims for the elimination of recess: the belief that it was a waste of time, and that recess encouraged bullying. Citing research data to refute both of these claims, Pellegrini noted that the “cult of efficiency” that spawned the first belief was based on a paradigm that any activity involving pleasure and leisure is suspect, and therefore devalued by most schools in industrialized societies. He also cited conflicting developmental theories that contribute to the debate over recess. One holds that children are capable of acquiring academic skills at an early age, albeit at a slower rate than older children, and that their time should therefore be carefully structured to support more advanced learning. Recess, in this context would be a waste of valuable learning time. In contrast, other theorists maintain that the attributes of childhood itself are the mechanism by which children face the demands of growing. Pellegrini emphasized that these attributes – the instinct to play chief among them – should be regarded as inherently valuable and not dismissed to fulfill adult agendas.

Schoolyard design

Even if recess does occur in a school, its quality and the benefits that it may provide are very much dependent on factors beyond children’s control. Schoolyard design figures heavily in the recess debate. One approach to analyzing the value of recess is to examine the relative value of the components that children play with, both their value to children and their value in the eyes of adults. These values are often at odds, suggested Thomson (2007), who examined children’s perceptions of their primary school playground. “...Adults, with the best of intentions, attempt to create an orderly, safe, equitable, hospitable environment for children at playtime. However,

often the children see these good intentions in a negative light” (p. 487). In fact, Thomson argued, having observed adults squelching children’s spontaneous activities, the dominance of adult values during children’s play often prevents children from gaining the most of exploratory opportunities.

Several studies have established the importance of diverse structural components and access to natural areas in schoolyards. Nicholson (1971) developed a theory of “loose parts,” which posits that children’s preferences for an environment are directly related to the number and kinds of elements found in an area. The more diverse and manipulable these elements are, the more children will engage with them. A beach, for example, offers a wide array of objects to find and play with, as well as a moldable sandy surface, water, and the constant change of environmental conditions. Many schoolyards, in contrast, offer children only fixed, inflexible structures on an unchanging substrate.

This theory has been employed in several iterations, often with the behaviors of children playing in natural areas compared to those who play in standard, fixed equipment areas. Fjortoft (2004) conducted a study of the effect of landscape features such as slope, uneven vs. even terrain, and diversity of features such as trees and shrubs on preschoolers’ play behavior and fitness. He compared these effects to those on children playing on traditional playground surfaces, concluding that those who spend most of their time in the natural settings showed improved coordination and agility, along with other preventive health benefits. Kirkby (1989), in investigating how children use different aspects of schoolyards, found that natural elements in a schoolyard provided them with “refuges” which they used for both imaginative and developmental play. Kirkby concluded that the value of this play depended on the plasticity of the environment (how manipulable it was) and the diversity of loose parts within it. Likewise,

Herrington and Studtmann (1998) investigated the effects of changing the structure of a playground from fixed play structures to natural, planted elements. Children's behavior shifted from emphasizing physical advantages in creating social hierarchy to one in which fantasy play and social skill were employed.

There is a growing recognition, supported by such research, that natural, or green schoolyards provide multiple benefits to students beyond appearance. Seeking to address the dearth of information about what American schoolyards actually contain, Schulman & Peters (2008) discovered that, covering an average of 68% of school grounds, most schoolyards in their study of 258 urban schools contained mostly impervious surfaces and turf grass. Tree cover, the authors concluded, was inadequate at less than 10%. The effort to remedy such conditions by greening school grounds has taken several forms. The "schoolyard habitat" movement (Rivkin, 1997) focuses on the restoration and creation of wildlife habitat within schoolyards, both as an opportunity for environmental education, and as an effort toward encouraging children to interact with natural environments. As David Orr suggested, "Landscape ... shapes mindscape." (Orr, 1992, p. 130). The effort to green school grounds has also been included in a broader campaign of "health-promoting" schools. "Greening represents a opportunity for health-promoting schools to move beyond the traditional focus on health-related curriculum and to adopt an approach that addresses the physical and social school environment as well as the need for community participation in health promotion" (Bell and Dymont, 2006, p. 86). That student participation plays a crucial role in designing, creating and using these greener, more interactive schoolyards has likewise been well documented (Moore & Wong, 1997).

Factor (2004), who investigated children's use of their playground in Australia, confirmed that children's voices and inclinations were rarely considered in determining

schoolyard policy, even in the use of existing spaces. After observing that playground monitors regularly denied children the opportunity for spontaneous and innovative play with found objects and in spaces deemed “off limits,” she concluded that a great deal of additional training was required of playground staff in order to provide children with legitimately child-driven play experiences. Factor cited Moore (1986, p. xvi) in emphasizing that the most important aspect of returning recess to children was to first discover what was meaningful to them: “It is the young inhabitants of the playground who are our teachers when it comes to play.”

Fort play

Fort play is one aspect of play that has been documented both outside of and in several schools and analyzed for its multiple benefits to children’s environmental learning (Kylin, 2003). David Sobel (1993) identified the practice and culture of fort play across several cultures, and found striking similarities in children’s participation in this activity. While younger children tend to choose play environments closer to home, those in middle childhood (ages six to twelve) gravitate to spaces somewhat removed from adult supervision, where they create structures (forts or dens) in conjunction with invented or adopted cultural practices, often including social and economic standards. The rare instances where children’s fort cultures exist in school settings, Sobel (1993; 2008) suggested, all bear the following common characteristics: twenty or more children in middle childhood, a wooded area adjacent to the school that is accessible to children, “loose parts” for construction, and open-minded adults who support this kind of play.

Blizard and Schuster (2004) and Powell (2007) observed children as they developed and played in such fort cultures in natural areas at schools. While Blizard and Schuster’s study theorized that such play can result in a strong personal emotional attachment to a particular place, and to more generalized concern for the environment, Powell focused on fort play as an

important component of a social curriculum. By the creative and sensitive manipulation of environmental elements in a social setting, Powell found, children developed a sense of both personal agency and social cooperation that was uniquely linked to their fort culture experience. In discussing the implications of their study, Blizard and Schuster emphasized that the opportunity for creative play afforded by the woods engendered a bond with nature that play elsewhere could not. The children's strong response to the loss of these woods, furthermore, is suggestive in light of findings that the loss of a beloved space in childhood can have a lasting influence in adult life (Tanner, 1980; Chawla, 2007). Formal documentation of school fort cultures is very sparse, though anecdotal evidence suggests that the "recipe" for maintaining a successful fort culture in a school is one that has declined with urbanization, the consolidation of small schools, and the pressure to comply with student performance standards.

Conclusion

This review was intended to describe and integrate the constellation of ideas, issues and current research surrounding outdoor play in school, and its connection to children's experience of their environment. Ideally, school settings offer the opportunity for children to experience the diversity of natural and built environments through play, on their own terms, with the supervision of sensitive adults. Such experience has been demonstrated to produce immediate benefits for children on many measures of well-being, and while long-term implications await further study, the evidence offered by recollections of significant childhood experiences suggests that outdoor play in school may have a formative influence on adult relationships with outdoor environments.

CHAPTER 3

Theoretical framework: Ecological approaches

The principles of ecological psychology, as described by James Gibson (1979), Roger Barker (1968), Edward Reed (1996) and Urie Bronfenbrenner (1979) offer a way to examine childhood play experiences, choices and values in terms of a direct and meaningful environmental relationship. The field of ecological psychology, arising from William James' radical empiricism (James, 1984 [1912]), is based upon evolutionary principles. It asks us to consider how the human animal evolved in relation to its environment, and specifically how human sensory (particularly visual) perception of the environment is linked to action. The bodies of theory that constitute the following section share the belief that human behavior can only be adequately described if it is regarded as situated in and attentive to a specific environmental context. Beyond this similarity, the particular ecological orientation of each provides a different theoretical cornerstone of this study.

Affordances

James Gibson's theory of affordances views human action as primarily related to perception of what the physical environment can provide (Gibson, 1979). An affordance can be thought of as an "action possibility" for an individual in relation to the environment, dependent on that individual's capabilities. This notion of direct perception stands in contrast to traditional psychological views of how information in the environment is dealt with – which generally assume that individuals do not perceive the environment directly, but rely instead on internal constructs to make sense of incoming information.

Children's play behaviors are a particularly graphic enactment of the theory of affordances. Climbing, collecting, hiding, and running all clearly require attention to and action

upon environmental elements such as slopes, rocks, trees, and surfaces by an individual who perceives and is able to make use of them. The theory of affordances implies a direct and personally significant relationship between child and environment based on perception of what is available to be acted upon in a particular setting.

The dynamic, reciprocal nature of this relationship stands in stark contrast to the way that human behavior had been previously (and still often is) described. Rather than being an object that passively responds to stimuli coming from the surrounding environment, an animate organism was seen by Gibson as actively seeking information in the environment. Gibson felt that the animal and its environment were inseparable. An animal's actions directly correspond to what it perceives, and as it makes adjustments in its behavior (often altering the physical state of the environment in the process), so too does its perception of the "ambient array" of available environmental information shift. A child contemplating using a heavy log in his fort construction uses this direct perception, in conjunction with knowledge gained from experience, to determine whether "move-able" is a quality of this particular affordance as it relates to his abilities. If it is too heavy for that child to lift, it may instead afford "building upon" or "hiding behind" or any number of other useful actions.

The theory of affordances is of particular use in this study that explores the values that children apply to choosing play settings and activities. It permits exploring questions such as, "Which kinds of affordances attract different children?" "Which kinds or sets of affordances are associated with different kinds of play behaviors?" The word "value" as used in connection with affordances refers specifically to the perceived utility of an affordance (Reed, 1996). For instance, a child perceives the structure of the climber, noting information such as the height of the steps, the steepness of the slide, or the number of children already on the swinging bridge.

This information provides *meaning* to the child about this particular set of affordances, but *value* is attached when the child determines whether she can reach the height of the steps (are they climb-able?), considers her descent (is the slide slide-able?) and assesses her peer group (are they join-able?). These values demonstrate the reciprocal relationship between a child and her environment, as each information-seeking encounter with an element requires direct spatial judgment and physical adjustment to a given set of circumstances. For this study, the theory of affordances permitted me to view a child's play behaviors – and accompanying values - in terms of the environmental elements that they were associated with (see Heft, 2001).

Behavior Settings

Roger Barker's work paralleled that of Gibson, being based on similar principles of ecological psychology, yet extended the ideas of individual perception to how human activity occurs in a social context (Barker, 1968). In their classic *One boy's day: A specimen record of behavior*, Barker and Wright (1951) demonstrated the sensitive attunement of a child's behavior to different social contexts. When examining detailed records of children's behavior, Barker and his associates discovered that, even though immediately observable behaviors were connected to immediate social influences only 50% of the time, over the course of a day children's behavior fell into more predictable patterns (Heft, 2001). In following children's behavior over an extended period of time, noting behaviors in minute detail, Barker found that behavior was more predictable in certain social settings. In fact, specific settings showed predictable behavior more than specific social interactions outside these settings did. Heft summarized this finding: "The environment considered independently of an individual's experience is structured and ordered" (Heft, 2001, p. 253).

Behavior settings arise from the collective activity of a group, in relation to specific environmental features. Heft also notes that, in addition to being created by social activity, “reciprocally, behavior settings structure the actions of those individuals who participate in them” (p. 260). The description of each of Jemicy School’s play settings contains a specific, bounded, identifiable place (what Barker called “the circumjacent,”) along with the participants who establish and maintain its social dynamic. The particular details of a setting (the “interjacent” components), and the specific meanings that its participants develop in relation to their immediate environment, are situated within still larger cultural spheres of influence.

Nested Systems

Gaining a deep understanding of children’s experience requires consideration of the larger world beyond the immediate play setting. Urie Bronfenbrenner’s ecological approach to

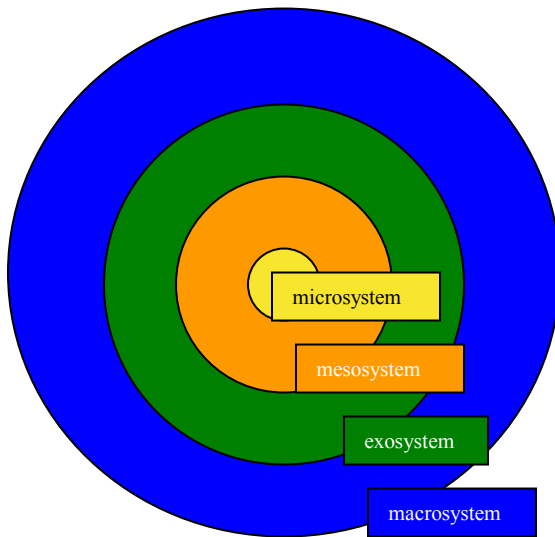


Figure 1: Bronfenbrenner’s nested systems

understanding human-environment relationships offers a contextual framework in which to locate broader influences on immediate behavior settings and on the experience of affordances that occur there (Bronfenbrenner, 1979). Following the ecological models of Lewin (1951), which situated human psychological processes within sets of external, non-psychological

influences, Bronfenbrenner theorized that human development occurs within multiple, nested social systems. This contrasts with Gibson’s focus (which was primarily, though certainly not exclusively, on individuals’ perception) and extends beyond the bounds of Barker’s behavior

settings. Where Gibson's theory of affordances explains the structures enabling action on an individual level, and Barker's concept of the behavior setting describes the social phenomenon of specific outdoor play settings, Bronfenbrenner's model provides a structure for understanding the interaction of multiple socio-cultural dimensions with a child's behavior and development.

An example of a child's experience serves to illustrate how this model is applied in my research. Seven-year-old Alex plays in the woods every day, both during recess and the after-care hour. Alex's presence in the woods environment during these play times can be regarded as the innermost layer of Bronfenbrenner's model – the *microsystem*. According to Bronfenbrenner, the microsystem consists of the organism (Alex) and the immediate environment – that which is directly perceived and physically experienced. Within this microsystem there exist affordances such as a stream, trees, animals, a steep slope, and rocks which Alex explores, hides behind, hunts, climbs and trades. Alex's peers are also a part of this microsystem, helping to create the behavior setting in which Alex participates.

Alex's microsystem in the woods exists in tandem with the other microsystems of his world: his school classes, his family and home on a small farm, and his extra-curricular activities, among others. The intersections between these various microsystems comprise what Bronfenbrenner calls the *mesosystem*. The mesosystem's social and psychological significance lies in the compatibility of the different intersecting microsystems. If Alex's family harbors doubts about whether Alex should spend his time at school building dams in the stream, then the mesosystem may impact Alex's experience of the woods microsystem. Likewise, if Alex's teachers threaten him with missing recess if he doesn't complete his classwork, his experience of the woods microsystem is directly affected. Children's school experiences may be powerfully influenced by this system, perhaps to an even greater extent than by the immediate microsystem

(Tranter and Malone, 2003). It is in this realm that a school's philosophy and culture are enacted, translated into the practices that make accessible (or deny) many of the affordances that students may experience.

The *exosystem* of Alex's world consists of larger cultural influences that he does not directly experience, but that nevertheless exert pressure on his meso- and microsystems. Alex has little or no interaction with the school administration, but their policy decisions to shorten recess, introduce school uniforms, or sell off a portion of school property would significantly alter Alex's experience of the woods microsystem. Alex's parents' jobs and lifestyle are also a part of his exosystem; their salaries make it possible for Alex and his twin sister to attend Jemicy. Another exosystem element that affects Alex indirectly is Jemicy's relationship with its insurance company, which stipulates that children's outdoor play conditions meet state safety standards. Alex would love to climb trees, but this activity falls outside the parameters of what would be covered by insurance if Alex were to be injured, and so is not permitted.

The broadest, encompassing system of Alex's world is the *macrosystem*. This sphere refers to extended cultural and even global influences. In Alex's culture, making a good business deal and owning land are prioritized; in the woods, Alex is known for driving a hard bargain for "crystal rocks" and acquiring prized fort territory. He is also attuned to global environmental messages that he hears. An inventor, Alex often brings to school items from home to add to his fort's "water filtration system," which he claims eliminates pollution from the woods stream water. Global climate change, habitat destruction, terrorism, and other seemingly far-removed concerns enter children's worlds through the now pervasive influences of television and computer-accessed information (Sobel, 1996). In addition, all manner of ideas and icons from popular culture make themselves available through these channels for children's fantasy

play. Alex's microsystem in the woods teems with children's conceptions of characters and issues drawn from concerns and practices of an adult world.

The final sphere of influence that Bronfenbrenner suggests is the *chronosystem*, which refers to the environmental events and changes occurring within the outer system levels and affecting individuals over their lifespan. Because this study follows Alex for a relatively brief period, I use instead the experiences of Jemicy alumni – individuals who were once Jemicy students like Alex – to illustrate the values that accompany a practice over time. The significance of the chronosystem in this regard lies in how outdoor play changes both in practice and in the perception of those who once experienced it.

Play as Environmental Experience

Ecological psychology thus permits a multi-dimensional perspective on how children's play behavior is shaped by their relationships with the immediate physical environment, their peer group within that setting, and a larger complex of socio-cultural factors. It can also offer a means of assessing those relationships in light of concerns presented earlier regarding children's apparent decline of direct outdoor environmental experience. In an argument for the necessity of direct experience, Reed (1996a) defines ecological information as "the kind of information that we acquire from our environment through our senses – that allows us to experience things for ourselves" (pp. 1-2). This kind of primary information has been devalued for centuries, Reed maintains, while secondhand knowledge, coming to us in "processed" forms such as prescribed curricula and telecommunications, has taken precedence. "Daily life in our schools and workplaces is increasingly dominated by secondhand experience, and many of the rules in such institutions are specifically designed to limit exploration of our environment and independent interaction with others – or both" (Reed, p. 4). Experience, Reed observed, was considered by

Gibson to be a process rather than a product of action, and one that occurred mostly outside of school. The kind of learning that can occur through outdoor free play, however, reinforces the idea that schools may be ideal venues for gaining firsthand environmental experience, and for providing opportunities that are truly engaging.

Children learn a great deal through the meaningful actions of others – what Reed called “the field of promoted action.” This might include behaviors that are specifically intended to instruct, as when I show children how to identify poison ivy or an edible plant in the woods, or it might mean one child observing the actions of another (smashing open rocks, for instance, or navigating a tricky part of the climber). While Reed considered certain types of physical play to be “movement for its own sake” (Reed, 1996, p. 93), serving no definable function for an organism, he also acknowledged that a great deal of cognitive development is served by children’s attention to “unfilled meanings.” By recognizing the symbolic or social meaning of another’s action, and seeking to fill that meaning with their own actions, children engage in what we often call symbolic or imaginary play. Having the opportunity to develop such meanings through the context of outdoor play meets Reed’s definition of a “field of free action,” or that which is chosen autonomously. Such free action is critical, Reed felt, for the healthy development of a society whose members had evolved to perceive and engage directly with opportunities in the environment surrounding them.

Kyttä (2006) built upon this conception of social interaction by theorizing a “field of constrained action” as well: activity that is restricted by a number of factors, such as parents’ perception of danger or a society’s disapproval of children ranging freely. In demonstrating that differing degrees of child mobility in relation to different numbers of actualized affordances yield distinctly different levels of “child-friendliness,” Kyttä suggested an ideal model, referred

to as “Bullerby.” This is a place of rich affordances where children are able to move about and explore freely, and mirrors the “experience of the good life” model envisioned in Jemicy School’s philosophy.

Framing this study around theories of ecological psychology enabled me to view a school-based practice through dimensions that focused primarily on enacted values: children’s behavior in relation to affordances, actions taken by adults to support these behaviors, and those both recalled and sustained by individuals who had once been students at Jemicy. The following chapter describes how these principles of ecological psychology are employed in developing the research methods for this study.

CHAPTER 4

Methods

Introduction

I embarked on this study with two driving interests: first, to observe and record the activities of Jemicy children at recess, and second, to describe these activities so as to authentically reflect the values of their play environment. The first objective was modeled on Barker and Wright's seminal book, *One Boy's Day* (1951), in which observers meticulously detailed the activities of an eight-year-old boy for a day, and by so doing, revealed the vast array of interactions that he had with the people and places of his daily experience. Barker summarized the primary question guiding his behavioral investigations as "What goes on here?" Likewise, I wanted to know what was going on in the behavior settings of Jemicy recesses. Videotaped observations and reflective interviews with children were the methods that I selected for this task. However, in wanting to further understand how the values of their play environment were connected to those of parties outside of the immediate play context, I needed to expand the scope of my research by collecting interview data with people at different system levels who had connections to recess: alumni, parents, teachers, and school administrators. Furthermore, my own recess values as an experienced teacher at the school figured significantly in how I viewed children's experience, and I used reflective journaling and records of my daily impressions to clarify the lens through which I made my observations and considered my research questions.

Portraiture

The data gained through these methods in the effort to answer "What goes on here?" provided the material for answering another question that is central to creating a compelling

description of the practice of recess: “What is good here?” Lawrence-Lightfoot and Davis (1997), in describing ethnographic portraiture, emphasized that description of the behavioral qualities of a cultural practice must be accompanied by the meanings attached to them.

Portraiture as a research method refers to the deliberate, complex process of gaining insight into the subject being studied through the search for “goodness.” As noted earlier, education research has often employed a lens of pathology and dysfunction rather than one which seeks to document resilience and health. Goodness, however, should not be an idealized concept, but regarded as a set of variables which institutions and individuals work with and through to achieve balance.

It is this similarity between Jemicy’s philosophy of helping children experience “the good life in childhood” and the effort to illustrate this good life that made portraiture an ideal mode for this research. “Portraiture... is an intentionally generous and eclectic process that begins by searching for what is good and healthy and assumes that the expression of goodness will always be laced with imperfections.” (Lawrence-Lightfoot & Davis, p. 9). This focus on the good is far more closely aligned as well with children’s perceptions, I feel, than with the typical adult perception of potential risk. Children are more likely to value a play space in terms of its positive affordances (“What are the possibilities for fun here?”) while adults are vigilant about problems (“What could possibly go wrong here?”). So, in addition to providing close description of children’s play and identifying the values held by constituents of the Jemicy School community, my analysis examined the fit between Jemicy’s stated philosophy of “the good life” and its practice of outdoor play on multiple ecological levels.

Case study and Ethnography

Portraiture shares features with both case study and ethnography, and I selected appropriate aspects of each of these to use in this study. “Portraiture seeks to document and

illuminate the complexity and detail of a unique experience or place...” (Lawrence-Lightfoot & Davis, 1997, p. 14). Through the careful, close description of unique phenomena of the single, clearly bounded case (Miles and Huberman, 1994), universal themes are made apparent. Perhaps the most salient quality of case study which portraiture addresses is its holistic unity (Punch, 1998). To achieve this, portraiture aims to record subtle details, but also seeks to tell a comprehensive story of the whole. This is similar to explicating a case, which, in the process of this research, went from the identification of recess activity, through the interpretation of its attached values, and on to the broader significance of its meaning as a school practice. The overarching story of recess is like a quilt pieced from a set of portraits, each comprising a different aspect of the case, such as descriptions of behavior settings, vignettes of children’s recess play, and the recollections of alumni. These pieces are joined by their common focus on conceptions of value and bounded by the research parameters set forth in the following section, which maintained a tight focus on specific people, places, and processes.

If the case study presented here is the creation of a quilt composed of many pieces of social interaction, then ethnography is the process of carefully describing the qualities of those pieces and how they fit together. In essence, ethnography provides the answer to Barker’s question, “What goes on here?” by using “detailed accounts of the concrete experience of life within a particular culture and of the beliefs and social rules that are used as resources within it” (Hammersley and Atkinson, 1995, p. 10).

These accounts are based on data collected through methods designed to gain entry into a culture that is unfamiliar, yet it also notably requires long, intensive exposure to a culture in order to gain the deepest possible understanding of it. Such an approach was ideal for this study, as I investigated the activity of a culture in which I have participated as a teacher-observer

for over twenty years, yet now regarded with a new observational lens. Fine and Sandstrom (1988) emphasized that while such long-term interaction might imply deep understanding, the assumption of knowing our children well reflects a certain ethnocentrism, which may be aggravated by not perceiving it as a problem. An “adultcentric” view of the world necessarily limits us in ways that we must acknowledge and directly confront if we are to profess any valid understanding of our subjects (Goode, 1986).

“Doing ethnography is like trying to read a manuscript...written not in conventionalized graphs of sound but in transient examples of shaped behavior,” wrote Geertz (1973, p. 10). This characterization of ethnography closely matched the daily processes of conducting this study. Children’s play behaviors, even when they fleetingly conform to some recognizable pattern, are notably ephemeral, often changing from day to day, and most significantly over longer expanses of time. Simply collecting and reiterating the behavioral data gained through observation or interviews is only the first step toward the kind of ethnographic “reading” that Geertz referred to as “thick description.” This kind of reading involves gaining enough experience to recognize patterns, developing the skill to make sense of them when they are layered with meaning, and then developing an interpretation that plumbs the depth of these multiple layers.

Participant observation

Participant observation – “social interaction between the researcher and the informants in the milieu of the latter” (Taylor and Bogdan, 1985, p. 24) – was the mode in which I conducted many of the ethnographic aspects of this study. I was both science teacher and daily recess monitor, and while I could not compromise these roles by adopting any other, I became increasingly aware of the need to adjust my own presence so that children’s play might continue relatively unaffected. Over time, my interventions in play activity decreased markedly, both in

terms of encouraging and discouraging certain behaviors, and in children's requests for my involvement. I became aware that what I had regarded initially as an active mentoring role had evolved into that of active observer. This distinction and its significance in relation to environmental learning will be addressed in the discussion section.

William James said, "We begin our study with our own experience since other experiences can be intelligible only in these terms" (James, (1990 [1890]), p. 361). I am, as previously acknowledged, particularly drawn to natural outdoor settings, and have cultivated the identity of a committed naturalist within my school community. This personal preference informed every relationship that I had with study participants, both young and older. It also required me to pay particularly close attention to the values that I brought to recess, and to the interviews with participants, as I wanted to avoid imparting judgment on children who preferred the playground instead of the woods, as well as on other adults who might not share my views.

One way of addressing the inherent limitation of being an adult outsider with my own set of environmental values was to regard children as co-researchers. Children's role in research has most often been as an object of study by adults. However, there is significant and increasing scholarship to support an approach that views children as vital agents in the research process. This is a matter of both acknowledging children's rights and increasing the insights that research involving children hopes to achieve. "Recognizing children as subjects rather than objects of research entails accepting that children can speak 'in their own right' and report valid views and experiences" (Christensen and James, 2000, p. 243). Regarding children as experts on their own play activities was the rationale for reflective interviews that I conducted with them, but this expertise was also valuable in an earlier stage of collecting observational data. As Kellett (2005, p. 3) notes, "Children ask different questions, have different priorities and concerns and see the

world through different eyes.” Because this study aimed to discover children’s meanings in their play activity, Jemicy students joined me as co-researchers in this endeavor through relating recess-related stories informally, and by videotaping their peers at play. The details of this process are described more fully in the following section.

In summary, this study was crafted to adhere to the characteristics of ethnography suggested by Punch (1998): 1) learning the shared meanings of a group, 2) gaining and maintaining the sensitivity of an “insider,” 3) existing in the natural setting of the group, 4) an evolving, rather than highly pre-structured process, 5) use of multiple, field-based methods, 6) extended and focused on repetitive activities. However, having merged ethnography with portraiture, it is important to recognize some of the differences that exist between these methods. Among the characteristics of portraiture that ethnography does not necessarily share, according to Lawrence-Lightfoot and Davis (p. 14), are the explicit combination of empirical and aesthetic description, the use of narrative as analysis, addressing a broader audience than the academy to achieve public discourse and transformation, holding authenticity – rather than reliability or validity – as a standard, and using oneself as the primary research instrument. Lawrence-Lightfoot and Davis also characterize a primary difference between the two methods as how each treats the idea of the “story” embedded in the data: “Ethnographers listen *to* a story while portraitists listen *for* a story” (p.13). In other words, portraitists selectively combine narrative strands to present what appears to be the most compelling story emerging from the research, while ethnographers describe as fully and precisely as possible what they see in their data. I determined that the nature of this study required full effort toward ethnography’s empirical precision; likewise, I felt that the collected data compelled certain stories to be told in describing the good life in childhood at Jemicy.

Table 1: Selection criteria and data sources for participants

Participants			
Students	Alumni	Parents	Administrators
(9) “woods players” (2) “playground players” Represent age range of lower school students (ages 6-12) Approximately even numbers of girls and boys (5 girls, 6 boys) Include both new (3) and returning (8) students Include racial/ethnic diversity (1 African-American, 10 white) Represent commitment to either woods (9) or playground areas (2)	(24) respondents to online survey (8) interviewees Represent all eras of the school’s history Male and female alumni evenly represented Mirrored current student numbers of preferring woods/playground Include alumni with children currently attending Jemicy (2) Include alumni currently teaching at Jemicy (2)	(10) parents of either “woods” or “playground” players Teachers (5) teachers of key informants (math, language arts, homeroom, art) Taught student for at least one year, had observed child at play	Head of lower school Assistant head of school School nurse Business manager Director of buildings and grounds
Data sources	Data sources	Data sources	Data sources
student videos, reflective interviews, drawings, maps	Online anonymous surveys, interviews, personal and school communications	Interviews, personal and school communications	Interviews, personal and school communications

Description of research methods

I first conducted a videotaping study of recess play at Jemicy in the fall of 2006, followed by several pilot observations and interviews over the next two years to test different data collection methods and interview instruments. Formal research using video observation and interviews began in the summer of 2008, and extended through the spring of 2009. Continued informal observation of students occurred during recess through the spring of 2010, with data

collection limited to field notes. The following descriptions focus on the methods used with different participant groups.

The children who were the primary focus of this study were current Jemicy students who fell into one of two groups, based on where they spent the majority of their recesses: “woods” and “playground.” These children, ranging in age from six to twelve years old, were self-selected, as they were free to choose their own play setting. Within these two groupings, I selected several key informants whose activities I observed more closely and interviewed, and whose parents and teachers I also interviewed.

The “Woods” players

My primary focus was on the activities of nine individual key informants who appeared committed to participating in the woods behavior setting. I determined which children to observe within the first few weeks of school in the fall of 2008, after new students had the chance to become adjusted to routines, and play groups and friendships were becoming established. Selected students (and their parents) agreed to participate in follow-up interviews. Each selected student was observed and his or her play activities recorded for at least five full recess periods.

After observing and videotaping these children, I asked each to participate in a reflective interview, either alone or with a friend present, which was audio-recorded. Reflective interviews occurred in private sessions in the science room during an interlude between classes (early morning, lunch, or after school). Before each interview, I showed a short segment of video featuring the child playing during recess within the past year.

The “Playground” players

In addition, I conducted observations of and interviews with two children who chose to spend their free time in locations other than the woods, such as the playground and sport court. The procedure for observing and interviewing these children (and their parents and teachers) occurred in a similar fashion to that of the woods group, though observations were fewer (three, rather than five). This smaller proportion of playground to woods players represented the typical proportion of lower school children choosing the playground as opposed to the woods at Jemicy (see Fig. 3, p. 81).

Parents, teachers, and administrators

Parents, teachers and administrators represented wider systems of interaction with children’s experience beyond the immediate play environment. To gain their perspective on children’s recess activity, I conducted interviews with one or two parents of each of the key informant children observed (ten interviews total). Parents (five of whom were interviewed in person, and five by telephone) received a brief verbal description of a play vignette. An audio-recorded, semi-structured interview followed. Parent interviews lasted approximately 30 minutes, and focused on the parents’ understanding of their child as a participant in outdoor play, as well as family history relating to outdoor play activities.

In order to gain a perspective on a child’s play from teachers, I interviewed five teachers, each of whom was familiar with and had taught at least two of the children involved in the study. These included children’s homeroom teachers from current and previous years and content teachers (i.e., social studies, language arts) who had daily contact with the children. The teachers, two men and three women, represented a range of experience at Jemicy from two to fifteen years. During in-person interviews, these teachers received a brief verbal description of a

play vignette involving the child in question. An audio-recorded, semi-structured interview followed, in which they were asked to comment on a particular child's social profile and typical behavior, particularly in play settings.

An administrative perspective on children's play helped to reveal the dynamic between the school's stated values and official policies, and those of its members. I conducted interviews with the head of the lower school (who has been at Jemicy for 14 years) and with the assistant head of school (at Jemicy for 35 years), both of whom have held multiple roles in the school (one as a parent of a Jemicy student, and both as teachers) and who have long-term perspectives on children's experiences at Jemicy. In addition, I interviewed the school nurse, who became associated with Jemicy 30 years ago as a parent, and has been the nurse for 20 years. An initial formal interview with each occurred early in the fall, followed by informal conversations in the spring focusing on preliminary findings and their responses to these. Conversations with the business manager and director of buildings and grounds regarding specific policy issues (i.e., insurance, risk and safety, land use) contributed to broader understanding of Jemicy's operations as an institution.

Alumni

Jemicy School now has alumni ranging from fourteen years old to adults in their late forties. To investigate how outdoor play was recalled and how it may influence students after they leave the school, I conducted interviews (four by telephone, four in person, each lasting approximately forty five minutes) with eight alumni representing three different eras of the school's history. These alumni were drawn from a group of 24 who had responded to an internet survey, indicating that they would be willing to be interviewed for this study. At the beginning of the interview, alumni received a brief verbal description of a play vignette. An audio-

recorded, semi-structured interview followed. The different eras were determined by consultation with alumni, and are based on perceived major shifts in school culture due to staff changes, construction, board decisions, etc. This group contained two alumni whose children now attend Jemicy, as well as two alumni who have become Jemicy teachers.

Having spoken with numerous alumni about their experiences over the years of my own time teaching at Jemicy, I felt that both interview and survey responses were representative of the range of values that alumni have expressed regarding play, their time as students, and the changes that have occurred in the intervening years. “Outdoor recess at Jemicy is one of my fondest memories of the school,” was a sentiment expressed by a survey respondent that effectively summarized the general response. It should be noted, however, that all of the responses for this study were the direct result of an open invitation to alumni to share their experiences, and that responses were overwhelmingly positive with regard to the past, if not always the present. It is to be expected that alumni with positive memories of the school would volunteer responses and dominate this group, and that any former students who felt negatively about any aspect of their time at Jemicy would likely decline participation.

Videography

Videotaping was the primary method of collecting observational data of children’s outdoor play. This served several purposes, including allowing me to hold the multiple roles of participant-observer, teacher and recess monitor while maintaining a wider view of the activity occurring in each behavior setting and, if necessary, to leave the camera recording activity in one area while attending to children’s needs in another. It also offered the flexibility of postponing review and field notes until later in the day. Videotaping permitted the transcription of children’s activity in greater detail than I could possibly have achieved through memory, and

enabled me to review the data multiple times for accuracy. The most important value of this tool, however, was that it literally gave me a new lens through which to consider a very familiar activity. Qualities of play which I had never before attended to, such as the way children moved through a space, the manner in which objects were manipulated, or even the development over time of one child's ability to navigate terrain, were able to be captured, replayed, and closely examined. Nuances in expression, the unfolding of a story, the heightening or resolution of conflict: all of these became available for reconsideration after recess was long over.

There were two modes in which I tended to operate the video camera. In the first mode, I used it simply as a recording device attached to my hip, and ignored its existence. When replaying footage from these times, I was often surprised to find images and actions that I had not been aware of at the time – even my own. In the second mode, I used the camera to record specific activity, framing it intentionally, and was able to accurately anticipate later what I would find. These two modes – the incidental and the intentional – are not so different from the way in which we make observations without benefit of a recording device. The primary difference is that in the “incidental” mode, which I believe is the default mode for teachers on recess duty, very little information is retained. Our attention is rarely focused, but diffused over a broad field, where it is the anomalies (usually the problems) that capture our attention. In the intentional mode, we are purposely directing our attention, and this action embeds both the act and the subject in memory.

The protocols used for videotaping aimed to protect children's privacy as much as possible while capturing the essence of their primary activities. I always asked permission before beginning to videotape any activity, and usually remained in one location for an entire recess period so as to gain a sense of extended activity. Children sometimes asked to see

footage of their activities, and I permitted them to do this when time allowed by viewing the playback on the camera. The videos were used only within the context of this research.

As noted earlier, children also participated in collecting observational data for this study. Five student videographers, all boys ranging in age from eight to thirteen, indicated interest in response to an inquiry of lower and middle school students. Each was instructed in how to use the camera and did a trial run during one recess period to ensure that 1) they still wanted to videotape once they knew what was involved, and 2) they understood and were comfortable and capable with the video camera and research protocols. The research protocols were the same as those that I followed: remain unobtrusive; respect children's right not to be recorded if they so requested; record natural activity, rather than have children act for the camera. Each student videographer completed one 20-minute session during recess and was given free rein to choose what to focus on for that time. I conducted a follow-up joint viewing of the video shot with each student videographer to discuss his perceptions of the activities observed and to make sure that I recognized participants, understood any dialogue, and could clarify ambiguous actions. These student-generated videos were transcribed and incorporated into the rest of the research data.

Data analysis

The nature of this study required both close observation and sensitive interpretation of others' experience. All observational and narrative data for this study (including approximately 50 hours of digital video and 32 interviews) were transcribed and coded both by hand and with qualitative research software. The codes that I identified were checked by two other individuals on data samples. These were then coalesced into central themes around which I constructed the different portraits. Data analysis remained closely aligned with the original research questions in

addressing the concept of values at each of the three levels of inquiry: identification, interpretation, and implications.

The literature of ecological psychology has offered little direction, so far, in terms of methods for interpreting play behavior, as its emphasis has been primarily on the descriptive. However, As Roger Barker noted in the introduction of *One Boy's Day*, the book “is an objective record because it describes the actions of Raymond and the physical and social conditions of his life that could be seen and heard by skilled observers. It is an interpretive record too because it reports what these observers inferred as to the meanings to the boy of his behavior and of the persons, things and events that he saw and felt throughout the day. *One Boy's Day* is a specimen of the behavior and of the cultural and psychological habitat of a child” (1951, p. 1).

What makes *One Boy's Day* so unusual in a modern context is that it completely lacks an “analysis” section. The implication is that this “specimen” study should be available for any further analysis by any interested party, much as a flower, as Barker noted, has one kind of value while in bloom, but when pressed and dried is of value as well for future examination. That the observers who made this record did so not with the intention of serving the imagined values of other researchers, but of being true to the observed meanings of the boy, stood as one model for how I analyzed and presented my own observational findings of children at play.

The other model for analysis was that of portraiture. Lawrence-Lightfoot and Davis offered these five means of analyzing the data collected through ethnographic methods:

1. Listen for repetitive refrains.
 2. Listen for resonant poetic and symbolic metaphors.
 3. Listen for themes expressed through rituals.
 4. Use triangulation from a variety of sources.
 5. Identify the themes and patterns that actors experience as contrasting and discordant.
- (Lawrence-Lightfoot & Davis 1997, p. 193)

Each of these methods was congruent with the structure and objectives of this study. Throughout the coding process, repetitive refrains and metaphors frequently alerted me to potential themes, which I was then able to verify through triangulation with other sources. Observations of a child negotiating for monkey brains or other goods in the woods, appearing to enjoy the process as much as the end result, might coincide with a teacher's comment about that child's diplomacy, or a parent's reflection on the child's isolation at a previous school with few recess opportunities. These multiple intersections lent support to my selection of a central theme for each portrait, and to the ideas which formed the basis for discussion and conclusions.

Listening for "discordant themes" might seem the antithesis of the effort toward congruence. However, it was this aspect of analysis which became especially vital to maintaining authenticity in a setting which has become as familiar to me as my own home, and to whose well-being I am dedicated. "Authenticity," as conceived by Lawrence-Lightfoot and Davis (1997), is a standard comparable to the reliability or validity characteristic of other research methods, in that it asserts that what is stated in a research report is true. A report that focuses on goodness or on congruence is highly susceptible, however, to what Lawrence-Lightfoot and Davis call the "seductions of plausibility," in which inconvenient anomalies or dissonance are ignored (Miles and Huberman, p. 263), compromising the standard of validity. Naming discordant themes as a crucial feature of analysis, however, permitted me to examine the ways in which Jemicy's recess values had to be negotiated in order to remain sustainable. It also provided evidence for one highly significant quality of Jemicy recesses; namely, that they permit individual children with disparate needs and desires to find refuge, security and pleasure.

Authenticity is achieved when the three parties involved in the study – author, actors, and audience – can read a portrayal and feel an immediate sense of recognition. This instinctive

resonance elicits what Lawrence-Lightfoot and Davis describe as “a ‘yes, of course’ response instead of a ‘yes, but’ response.” In order to ensure this kind of interpretive authenticity, as well as the accuracy of the empirical data, I employed triangulation and member-checking. The reflective interviews with children were intended to address one aspect of this issue, by having them attest to what they saw, and what they regarded as important. Once I identified the primary themes for student portraits, I had students verify their accuracy by reading the vignettes containing their activity to them, and asking whether these seemed accurate. Likewise, having parents, teachers, and administrators of these children, as well as alumni, offer their perspectives on the significance of outdoor play provided triangulation of data as well as verification of values across groups. Interviewees were offered the opportunity to review interview transcripts for accuracy, and two non-Jemicy educators reviewed preliminary analyses to ensure that the case and its interpretation were comprehensible to those outside the school community. An administrator who had been interviewed for the study was asked to read and comment on the authenticity of the dissertation in its final draft.

Ethical considerations

Fine and Sandstrom (1988) identified several issues related to research with children, including the researcher’s role in dealing with potentially risky situations, and the necessity of gaining informed consent and explaining the research to children. My intended priority in any situation involving children was to take full responsibility as a teacher and school employee first, with my participant-observer role secondary. Being a recess monitor, where I was required to specifically keep an eye out for children’s physical and social well-being, was an important factor in how well I could access “natural” behavior. Over the three years in which I observed children for this study, I recognized a significant shift in my own behavior and attitude toward

identifying and dealing with problems. Though never an interventionist, I nevertheless found myself increasingly pausing to weigh the risks and benefits of permitting certain play activities to continue which other adults might have immediately halted, and which I might not have condoned either in earlier years. When in doubt, I sought the opinion of other teachers on duty, to ensure that my researcher role, or my commitment to providing children with opportunities, was not clouding my responsibilities as a faculty member of the school.

I was particularly sensitive to children viewing the video camera as an intrusion, and routinely put it away whenever a problem arose. This allowed me to set my “researcher” role aside to deal fully with children’s issues, as well as to maintain their trust that I was videotaping not to “spy,” but simply because I was interested in what they did. This was my response whenever children asked why I was videotaping, and eventually they seemed to see the camera (which I also offered to them to document their valued possessions or constructions) as simply an extension of my normal role.

Parental and child consent were gained for any process considered beyond normal curricular activity. This pertained only to the participation of key informants in reflective interviews, as recess play activities, among other school-wide events, are routinely videotaped at Jemicy for purposes of school presentations and archives. However, the wishes of any children who were uncomfortable being recorded on video were respected, and their activities documented in written field notes. All participants who chose to participate as key informants or as interview respondents were identified by pseudonym. Videotaped observations became part of the Jemicy School archive following transcription.

One of my primary concerns was the protection of anonymity of responses in this small, close-knit community. When any party revealed personal or otherwise potentially sensitive

information during an interview, I would specifically ask how the interviewee would like to have it treated. For sensitive details that I felt were important to include as data or for purposes of analysis, I presented them in general terms, unassociated with any individual. For this same reason, I chose to mute the highly detailed physical and personal descriptions characteristic of portraiture in order to preserve the confidentiality and anonymity of interview respondents and the children who were key informants.

CHAPTER 4

Results

The behavior settings of recess

Behavior settings are directly observable behavior-environment entities defined by their structural and dynamic properties. Classic examples of behavior settings are baseball games and church services; the behavior that occurs regularly in these places is bounded by time and place, and contains predictable behaviors extending beyond individuals, within specific environmental parameters. Barker's discovery (1951) that human behavior was more predictable in given social settings than it was on an individual basis led to the development of a system of identifying these settings and their specific qualities.

In spite of the differing emphases of the affordance and behavior setting concepts (affordances – individuals; behavior settings – groups), they actually support and inform each other (Heft, 2001). Affordances are part of every behavior setting, and behavior settings create circumstances in which affordances can be actualized. Socio-cultural practices, particularly those involving object use and built or other structural features, can best be understood as interacting functions of these two entities. As Reed (1996, p. 106) emphasized, “Human survival has...depended upon the ability of individuals to learn to experience the properties of soil, wood, stone, minerals and plants and to make our lives by means of these skills. Human survival has also depended on our skill at experiencing what others are thinking and feeling and shaping our actions to fit this knowledge...”

The “action-shaping” that occurs during outdoor play can be illustrated by describing affordances as vital elements in the play settings at Jemicy. Using the framework of the behavior setting, I am able to depict observed qualities of play as a set of standing behavioral relationships

between children and their environment. The importance of describing several distinct behavior settings, and documenting both their structural qualities and the actions of individuals within them, lies in the differing opportunities for meaningful play found in each, and in the values attached to different settings.

My purpose in applying the behavior setting model to the case of Jemicy recess is twofold: to achieve an integrated description of place and practice for each of three distinct recess play settings, and to compare the affordances and associated socio-cultural practices that typically occur there. This section will present the structure and social dynamic of the playground, woods, and pine grove settings as the context for the selective processes described in the individual children’s portraits that follow.

Defining qualities of a behavior setting

Behavior settings are characterized by typical, or “standing patterns” of behavior. These patterns occur within clear temporal and spatial boundaries (see table and map).

Table 2: Jemicy recess observation times and places

	Time	Season	Location
Playground	Monday-Friday 12:40-12:57 PM	Fall, Winter, Spring	Back field, sport court, playground, picnic area
Woods		Fall, Spring	Hillside between back field and stream
Pine grove		Winter	Behind tutoring building

Jemicy has two daily, all-school, outdoor recess periods: one mid-morning, and the other just before lunch, each scheduled for 17 minutes. Middle school students have an hour of organized sports following the end of the academic day, while fourth and fifth graders have ten

minutes of play time after school followed by a homework study hall. The children in first through third grade have the option of staying after school for an additional 45 minutes of outdoor free play. Most take advantage of this “after care” time, during which children may play in the pine woods where many have established forts.

Table 3: Activities of Jemicy School’s play settings

Playground	Lower Woods	Pines
Conversing	Moving up, down and along the hill	Constructing forts
Swinging	Collecting objects	Collecting objects
Climbing	Trading objects	Digging pits with shovels
Chasing	Hiding objects	Manipulating objects
Sliding	Constructing forts	Trading objects
Playing Football	Stream-walking	Raking paths
Playing Basketball	Hunting	
Playing 4-square	Digging holes with sticks	
Sitting and watching	Working in the stream	
	Patrolling with walkie-talkies	
	Manipulating objects (rocks, artifacts, etc.)	

This study focused solely on “second recess” play, which occurs Monday-Friday, September-June, just before lunch. A bell rings to signal the beginning of recess, and another rings 17 minutes later to signal the end. “Playground” recess play officially occurs within the boundaries of the back field area, playground, and sport court, and includes a grassy, tree-shaded area on one side and some adjacent picnic tables on a concrete slab. There is a short slope down from the buildings to the field; otherwise, the ground is relatively level. “Woods” recess play in fall and spring is bounded by the back field and maintenance area on the west, the property line

fence running through the woods on the south, the stream on the east, and a path through an open, grassy area in the woods on the north. “Pines” play in the winter takes place in a planted pine grove that lies between the property line fence on the south and the tutoring building on the north, extending down to the playground.

Barker specified certain forces that acted to maintain internal cohesiveness, or “synomorphy,” within a behavior setting. These forces include: physical, social, physiological, physiognomic, learning, self-selection, selection by the behavior setting, and the influence of behavior on the milieu. The descriptions that follow detail some of the most frequently observed behaviors in each setting.

Playground

The playground serves as the “default” setting for recess, as it is available during all seasons and all recesses, is highly visible, and is central to both lower and middle school. In this behavior setting, the dominant physical forces take the form of structures created specifically for children’s recess play. These include a flat, grassy area; a modular jungle gym with slides, monkey bars and various climbing apparatus; a set of six swings; a small sandbox and a hard-surface sport court. The jungle gym and swings are painted in bright, attractive colors and are situated in such a way as to suggest a menu of options. They stand in a bed of wood chips within a plastic border. The sport court is surrounded on three sides by high, flexible netting and open to the “back field.” This is a flat, central, grassy space bordered by concrete sidewalks, the sport court, playground, garden, and lower school buildings. The picnic area is located at the lower entrance to the middle school building.

Figure 2: Jemicy School outdoor play areas



Playground Vignette

On a typical winter day (with the lower woods closed for recess), students pour out of both the middle and lower school buildings at 12:40. Middle school students (approximately even numbers of boys and girls, to a total of around 25) run for the sport court, where they divide into half-court, student-led groups for playing basketball or four-square. A few middle schoolers head for the swings, where they pair off and sway slowly back and forth as they talk. Lower school students who choose the playground setting divide themselves into small groups of

friends. Those who find swings still available jump on and pump themselves into high arcs, talking in high-pitched, excited voices. A group of younger boys plays tag on and around the climber, ducking under and around the different poles and structures (a swinging bridge, a spiral staircase, two twisting slides), calling out taunts to each other. The mulch that fills the playground area is packed down along frequently used paths between climber elements. A teacher sits on the lone bench and observes the activity before and on both sides of him.

A seven-year-old boy involved in the tag game tries to scramble up a slide to get away from a chaser. The teacher calls his name, and he reluctantly slides down, gets tagged, and begins to run after the others. Two teachers stand talking on the sidewalk by the vegetable garden, where the entire field is visible. A football game is underway among fourth graders on the field. They throw, run, slide and skirmish in the patches of mud and grass, calling out each other's names to receive a pass. Two boys direct the others' activity between passes, telling them which direction to run and who to cover. When the ball flies into the playground or swing area, it is ignored by the children in those places, while one football player immediately runs to retrieve it.

A middle school boy enters the tag game, teasing the younger boys to try and get him. He runs out of the playground and circles the perimeter of the field, darting around the vegetable garden beds, the tall oak trees, and behind the swings. The younger boys yell to each other as they chase him, trying to head him off. He runs onto the playground but has to slow and duck to fit under the bridge, and they catch up with him, leaping onto and piling on top of him and each other. He frees himself and darts away, with the younger boys again in pursuit. In every area of this back field/playground area, aside from the bench where the teacher sits, there is movement. Balls bounce on the sport court, children pass and run after them, leap toward the baskets, evade

each other. The swings are in constant motion, with children either swaying slowly sideways or pumping themselves strenuously ever higher. A group of younger girls, led by the smallest among them, makes a swinging chain along the circular set of monkey bars, following each other from one side to each other.

The bell rings, and the sport court empties slowly, a few boys lingering to shoot baskets. The tag group pauses to decide who will be it tomorrow before going inside. The football players trudge up the slope and sidewalk, their shoes leaving chunks of mud behind them. The older girls on the swings slide off and, still deep in conversation, make their way toward the gym for lunch. The last younger child on a swing waits until the teacher leaves his bench and has his back turned and then, at the highest point of his swinging arc, launches himself into the air, landing with a thud on hands and knees in the mulch. He brushes himself off, dashes past his friends, and squeezes through the crowd of children entering the lower school building.

Woods

The “woods” is a two-acre area on an east-facing hillside sloping steeply away from the school down to a small, spring-fed stream. It has been generally available for children’s recess play since the school opened 35 years ago. The most apparent physical forces present here are the slope itself, which requires careful adjustment of motion to navigate, the stream at the bottom of the slope to which children gravitate as if they were water themselves, and the trees and other thick vegetation that cover the hillside. These primary elements give the impression of a world hidden and apart, as opposed to the centrally located, highly visible playground area. Three teachers monitor this area during recess. Also in contrast to the playground, which has physical elements primarily designed to be conducive to play, the woods setting was not designed for such a purpose. This is not to say that it is pristine, uninfluenced by human touch. The hillside

and valley were used by previous occupants of this landscape (a farm, followed by a school) primarily for the deposition of old foundation materials, such as concrete, steel reinforcement, and drainage tile. These now riddle the substrate, along with other remnants of former habitation.

The opportunistic vegetation that took hold on this steep, unstable ground has grown into a mature stand of woods, with a canopy of various hardwoods, an understory of shrubs and vines, and a ground layer of tough and resilient herbaceous plants. These plants produce seasonal fruit and other materials that attract children's attention, such as sticks, Osage oranges, yellow buckeyes, berries, and vines. Many trees are hollow or have fallen, producing cavities either within or beneath their trunks, or creating bridges across the stream, and the shrubs likewise feature additional hollow spaces, growing in a form with branches hanging to the ground.

At the base of this hillside runs a small stream, which has its source on school property in a woodland seep several hundred yards to the north. In recent years, it is often seasonal, drying up in the fall after a summer drought and recharging enough in winter to flow steadily throughout the spring. The stream is between two and three feet at its widest, and no more than a few inches deep over most of its course through the play area, though it pools in places behind logs or rocks. There is a silt/gravel substrate to the stream, along with many rocks (mostly quartzite) and logs of varying size which alter its channel. At various points along its course, it is fed by seasonal springs, which are apparent along the flat path that follows the stream at its upper end.

Different animals comprise part of the physical aspect of the play area as well. Deer frequent the woods, though they are rarely seen during the day, and have made trails that cut

horizontally along the hillside (which are also used by children). Their scat is often found, as well as hoof prints and hair. Raccoons, foxes, squirrels, chipmunks, mice and voles are other mammals whose presence is noted either through direct sightings or by evidence such as tracks, hair, or skeletal parts. Snakes are sometimes observed on warm days. Numerous birds inhabit the woods, as evidenced by sightings and the discovery of feathers, eggs and nests. In the stream, salamanders and frogs are abundant, and salamanders are also often discovered farther up on the hillside under rotting logs. Crayfish and aquatic insect larvae are found frequently in the stream as well. Beetles, ants, worms, pillbugs, centipedes and numerous other invertebrates live under the debris on the hillside, and caterpillars are often discovered feeding on vegetation.

Woods vignette

On a typical fall day, children flood from the school buildings at the recess bell. While most of the middle school children head for the sport court or swings, most lower school students swarm around the sides of the sport court and begin to descend the hill into the woods. The primary path down the hill makes a sharp, steep descent past a large oak, which anchors one end of a thick rope. The other end of the rope lies thirty feet down the rocky hillside, and one by one, younger children grasp the rope and begin to step cautiously on and over the rocks, steel rebar and old concrete pieces that protrude from the eroded path. Older children rush past them, ignoring the rope, grabbing at the trunks of saplings for support as they dash toward the stream.

Once down the hill, children scatter along the stream, many wearing rubber boots borrowed from a bin outside the science room. Some find sticks and begin digging channels in the deposits of silt left by a recent heavy rain, while others crouch in the current, carefully turning over rocks and logs to find animals. Still others pick up and examine rocks from the

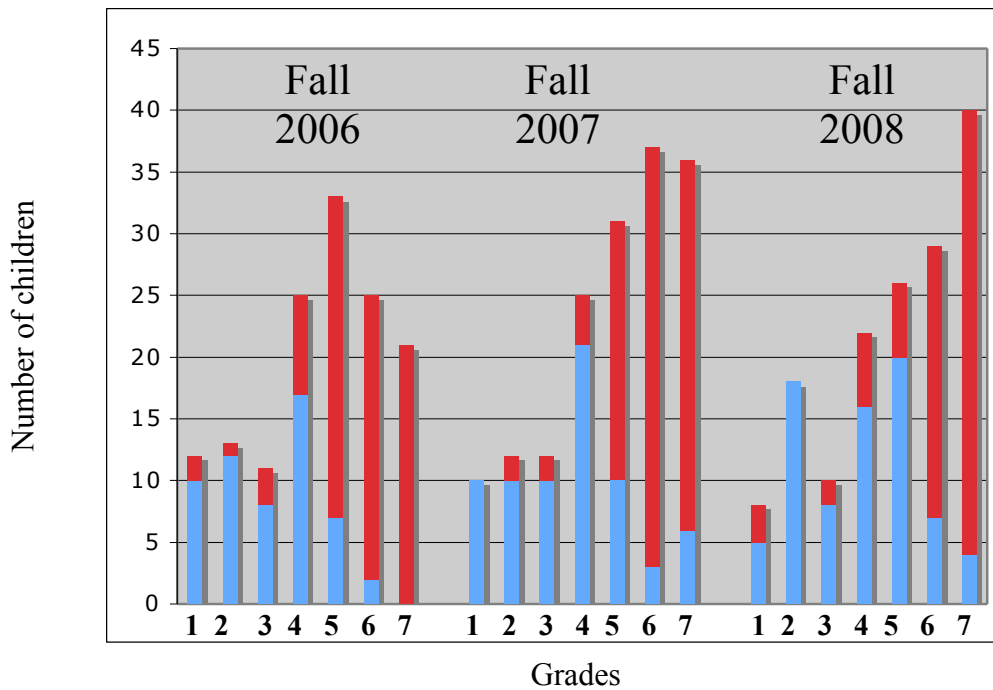
stream, then haul them away to forts. A cry goes up – “Frog!” and there is a rush of movement toward the caller. Many hands grope at once in the muddy water hoping to find the elusive frog.

At a streamside fort between two trees, construction is underway. Two boys have collected a pile of sticks and small logs and are beginning to lay them into the form of a wall. Another boy passing by declares that one of the sticks is his, and an argument ensues. It is resolved only when one of the fort builders offers a piece of broken quartzite in exchange, and the complainer runs off with it to his fort. One of the fort builders uses the broken point of a stick to drill a hole in the soft, rotted wood of a log, thrusts another stick in this hole, and ties a scrap of cloth to the end as a flag. Another boy comes by, examines the new fort, and asks if he may join. After a quick, whispered discussion, the original two agree, but inform the newcomer that he will have to be a “worker,” as the “boss” position is already filled. He happily complies, running off to find more sticks for the fort.

A narrow trail cuts horizontally across the steep vertical path, winding through thick stands of privet and spicebush shrubs, leading to a spot suddenly clear of undergrowth. Here, in a triangle formed by three fallen trees, there is a store. With a steady stream of customers already starting to arrive, the fifth grade girls who own this fort quickly organize and array their sale items along the tops of the logs: green apples piled into a large knothole, next to bunches of mint and parsley from the garden. Jagged quartzite chunks line another log. One of the store owners rattles a dried honey locust pod invitingly, while the other protectively cradles in her arm the most valuable commodity of the day: a fresh, bright green “monkey brain,” or osage orange. She chews on a strand of onion grass. Trade begins, with customers offering to barter a range of goods from the woods: crystals, handfuls of spicebush berries and sunflower seeds, artifacts such

as wire, baling twine, ceramic tile shards and bits of plastic. Once a deal is made, these items are quickly stashed in hiding holes and camouflaged with bark, dirt, or rocks.

Figure 3: Woods/Playground preference



A third grade boy comes to find me, to ask whether the fort treaty (see Appendix B) says anything about kids damming the stream. The fort upstream

from his has apparently created a dam so effective that it has almost entirely blocked the flow downstream and created a large pool which the dammers are intending to release only if paid enough monkey brains. I send the boy back down to the stream with instructions to the offenders – “Water belongs to everyone” – and soon hear a loud whoop of glee – the dam has been broken.

Pines

“The pines” setting is a grove of mature white pines originally planted as a privacy screen along the fenced property line between Jemicy and its closest residential neighbors. It consists of two rows of trees 20 feet apart, extending down the gentle slope on the southernmost edge of Jemicy’s property. The branches of the largest trees have been trimmed clear of the ground, and

there is no understory layer of vegetation, so that the effect is of a park-like expanse of green canopy over a soft brown carpet of pine needles. Because of these qualities, the smaller area, and the fact that the pines are situated at a level above the playground, there is greater visibility here than in the woods. However, their location behind the taller tutoring building lends them a more isolated quality than the exposed playground.

The pines have only been made “officially” available for winter recess play for the past two years. Prior to this, when the woods were closed during the winter (ostensibly due to the increased danger of navigating the steep hillside in ice and snow), children were restricted to the playground for recess. Children had sometimes used the pines for tag games during recess, but in an effort to consolidate play to areas that could be closely monitored by fewer teachers, play in this area was restricted in recent years. Last winter, in response to a parent’s request that an area be found where children could continue fort play, the pine grove was officially designated as the winter alternative to the woods, monitored by one teacher. The transformation of this area into a recess behavior setting has been an unfolding process. Rather than vignettes of play based on “standing patterns,” the description of the pines setting given here is meant to provide the basis for understanding how behavior settings become established and develop the structures that sustain them.

The Pines, Winter 1

When play activity was shifted to the pines for the winter, the social dynamic of fort play accompanied it – for a time. Children selected territories under specific trees and embarked on construction activities, to the extent that they were able given the relatively limited resources. Sticks immediately became a commodity in great demand. After several weeks of attempted construction, in which one pair of boys successfully created a den-like structure completely

covered in pine needles (much to the admiration of others), some children abandoned their forts, joined other forts, or left the pine grove altogether. A group of fifth grade boys who had requested permission to dig out a “pit fort” wielded their shovels feverishly for several weeks, but the frozen ground eventually deterred this effort as well.

The lack of construction appeal in the pine grove extended to other activities which normally dominate the woods setting. There were few objects that children identified as valuable, aside from some human artifacts; therefore, the activity of trading, in spite of strong efforts on the part of one fort to encourage it by collecting pine cones, never took hold. The pines lacked a stream channel to work in, rocks to smash and collect, and other valued items such as fruit and wildlife, which meant that the social exchange revolving around them in the woods could not be maintained in the pine grove.

One fort group composed of fourth graders engaged in barter for work in order to have a large stump rolled up the slope to their fort. The moving of the stump took many weeks to accomplish and involved the help, at different times, of at least five older boys. The negotiations surrounding this activity comprised much of the social contact between older and younger children in the pines. In an effort to “earn money” in the form of the few rocks present, this same entrepreneurial fort offered “Limbo Wednesdays,” in which children could come to their fort, pay to take a limbo challenge, and compete with other children for a prize (their choice of the rocks collected as pay). After one such session, the organizers abandoned the activity, claiming that it hadn’t worked, that everyone had cheated, and no one had any good rocks to pay with anyway.

Other social activities which had not played a role in the woods did appear in the pines, however. Several younger boys brought trading cards and plastic action figures into the pines,

where they would sit on the ground under a tree (an action that the woods did not easily afford, due to the rough substrate and slope) and play with them for the duration of recess. A large, flat, central oak stump became a stage for dance performances by two first grade girls who had played exclusively on the playground in the fall. These girls began their dance ritual first for me, as the adult present, but eventually they attracted a larger, more diverse audience.

By the end of the winter season, only a few children continued to come to the pines for recess, and these children spent most of their time talking with me or playing tag through the trees. When the woods reopened in the spring, several children expressed their relief at finally having a “good” place to play again. As summer approached, I received a message from the director of buildings and grounds requesting that we not allow children to play in the pines any more, as the neighbors across the fence had complained about unsightly “erosion” (from the pit fort) and “messy sticks.”

The Pines, Winter 2

Behavior settings must have certain pervasive qualities if they are to be resilient to changes in community commitment. I had serious doubts, based on the lackluster response to the pine woods setting during the winter of 2008-2009, that children would find their way to and stay at play during this alternate setting during the next winter. The school administration had placated the concerned neighbor, however, and the younger children in the after-school program began to establish several fort areas there during their play times early in the fall. When the pines were re-opened for recess in the winter of 2009-2010, up to 20 children quickly entered and began to establish territory. Several older boys who had played in the pines last year set up a new fort and immediately began assigning jobs, working out trades, locating resources, and even attempting to install a centralized fort government. After three weeks, six forts were well

established. The youngest children with forts at the top of the slope found a broken rake and began raking a wide pathway in the pine needles down the entire slope, which had the visual effect of joining all of the forts in a village along a common boulevard.

Another significant change in the pines setting this winter was the extension of play into a narrow wooded gully below the playground and swings. This area held a small stand of young hardwood trees and was accessible from the pine grove area or by a steep, muddy descent below the swings. The decision to add this area, which had previously been out of bounds for recess play, was based on observations that children naturally headed there during the less structured after-school time. It was somewhat hidden, offered variation in ground cover, bushes and trees, and effectively doubled the pines' play footprint. Though previously overgrown in mostly invasive vegetation, the children's activity quickly trampled and subdued its growth, broken branches were carted away as fort material, and small hollows and downed logs quickly turned into places to hide treasures.

The lack of meaningful projects, which had been the primary complaint of the previous year, no longer appeared to constrain activity in this second winter. Tools such as shovels were not permitted in the lower woods due to the relative instability of the highly eroded hillside, and the potential for large numbers of avid hole-diggers to destroy what remained of intact natural structures. However, in the pines I had made the decision, with the permission of the head of buildings and grounds, to permit digging on the relatively shallow slope, and in a location where holes would not be either obvious or an impediment to the maintenance crew. In the second winter, the original "pit fort" was taken over by fourth graders, who continued to work on it, adding a roof of branches and pine needles. In addition, several other fort groups consisting of boys concentrated on digging deep holes at their fort sites. When I asked one group about their

intentions, one mud-covered boy looked up from his work and said cheerfully, quoting the “boss” of his fort, “Well, as Lincoln says, you never know when you’re going to need a pit!”

By early spring, the membership of the pines behavior setting had become well established. Nearly two dozen children, ranging in age from six to fourteen, either participated regularly in five primary forts, or spent their recesses moving from one to another engaged in trade. A massive winter snowstorm brought down numerous limbs, which were immediately employed in constructing forts. Rocks appeared, dug out from the now ubiquitous pits, and were duly bartered for sticks. The lack of projects which had plagued the setting and its participants in its first year was no longer an issue, and several of the younger girls came to ask me, in the final days before the lower woods reopened for play, “Can we just stay here this spring?” After a lengthy discussion it was decided that the pine woods would be reserved in the fall and spring for the younger children to use during their play time after school, but that it would be closed for recesses during the school day, allowing me to return to monitoring the lower woods. The neighbor across the fence once more complained to the administration about the unsightliness of the fort projects, and the students eagerly agreed to help resolve this by filling the pits back in and turning the bare ground on top of them into shade gardens. The older boys accordingly spent their final day caching their valuables in their pit (now a time capsule), and reported with satisfaction that THIS was what a pit was for.

These three areas – playground, woods, and pines - were identified as behavior settings due to physical and social parameters that consistently shaped the behavior of participants. Opportunities to move freely from one play setting to another permitted me to observe the choices that children made, the direct value attached to the affordances present, and the effect that participation in the setting had on behavior over a limited time span. In order to understand

how Jemicy's play settings and ethos contributed to longer-term value development, I asked alumni of the school to reflect on how their time spent at Jemicy had contributed to the experience of the good life when they were younger, and to their present perspective on outdoor play in school.

Alumni values: The chronosystem of outdoor play

Interviews with eight Jemicy alumni, along with the results of 24 on-line alumni surveys, helped to create a living history of the experience and evolution of play at Jemicy. The alumni represented three different eras of the school's history, with individuals having attended the lower and middle school from its earliest years (the mid-1970's) through 2007. Of the eight alumni who were interviewed, two are currently students in the Jemicy Upper School, which is housed on another campus, and two others are currently Jemicy teachers. One (who works in finance) is a parent of a current and past student, and one (who practices alternative medicine) has a nephew attending the school. Two alumni have moved out of the area (one a computer specialist; the other, a school psychologist) and have only rarely visited Jemicy since their eighth grade graduations.

Prior school experience

Alumni almost invariably cited negative or damaging prior school experiences as part of their journey that led to Jemicy. They mentioned instances of being picked on by other children and being held back or separated from their peer group. Their treatment in these school settings usually coincided with the schools' recommendation that parents seek an alternative setting. The emotional result of this experience (or nightmare, as one called it) was for some a feeling of inferiority and frustration, and for all a sense that they were fundamentally different than their

peers and that this difference was not a good one. “My mom was actually told when I left the public school that I was retarded and would not be functional,” Jamie recalled.

For those alumni of the earliest years, the diagnosis of dyslexia was not fully accepted as a rationale for a child’s learning differences and rarely included a complete understanding of what dyslexia entailed – its gifts as well as its drawbacks. Even after attending Jemicy and having compensated for his learning differences well enough to enter a mainstream school, Sam observed that the public school system continued to stigmatize dyslexia as a learning disability comparable to mental retardation. When applying for ninth grade in a public high school, “They put this big stamp on my folder, and when I asked what that meant, they said, ‘Oh, since you went to Jemicy you’ll have to be grouped with the low functioning kids.’ I said, ‘I’m out of here,’ and ended up at a private school that could let me learn the way I needed to.”

The Jemicy difference

When parents seeking an appropriate alternative came to visit Jemicy during this era, they often were surprised, and sometimes shocked, by their first impressions. “I remember driving into Jemicy when I first got there,” recalled Sam. “It was second grade, and the chickens were running across the driveway coming in, and I remember my father turning to my mother and saying, ‘There’s no way my son’s going to this school.’” Marcia had a similar experience. “My father was in the Marines, so he took one look and went, ‘Do we really want to give our child to this school?’ Because one headmaster was in cutoffs, and the other headmaster was in patched-up jeans...and hippie shirts...and he was just like, ‘This is a *school?*’” In both of these cases, and in the vast majority of similar visits that other students made to Jemicy with their parents, the families were soon persuaded by the other qualities that made Jemicy a different kind of school,

and learned to value its informality. “By the time we walked out of there,” Sam chuckled, “my father’s like ‘OK, when can he start?’”

What made the difference for these families, and the quality that persisted throughout their years at the school, was the sense that Jemicy cared deeply about children. “It felt like a small family,” said Kristen, who attended the school for eight years, followed by her brother. “It wasn’t so much a real world,” observed Marcia. “It was a safe place where you could come in, you didn’t have to worry about people teasing you, you didn’t have to worry about being different... Everybody was on a level playing field.” One of the younger alumni recalled that he had felt accepted from the beginning for who he was, and that faculty regularly made accommodations for students’ specific needs. He described a classmate with attention deficit disorder who, “during the randomest times, he would just stand up and go down to the gym and play basketball. He just needed that break. He’d be down there for like 15 minutes and then come back up. And he could work for the rest of the period.” Many alumni noted that their individual needs were met with understanding and acceptance as a matter of course, and that, in contrast to schools with an emphasis on student conformity, Jemicy offered places for students to discover and apply what they could do well. Kristen described experiencing a feeling of safety throughout her time at the school, and attributed this to the mutual respect that was cultivated between adults and children, creating close, trusting relationships.

Intentionally unconventional

Much of this trust was experienced as freedom: to choose activities, to play in unconventional and adventurous ways, to have fun while learning. “I felt like I could really do what I wanted to do, within reason,” Kristen commented. For some, this meant being able to step outside typical boundaries of age, gender and cultural expectations into new experiences.

For many, it meant being able to choose playing in the woods with friends or transforming a septic tank into a submarine with a teacher, rather than being confined to a sports field or conventional playground. For kids from the city or suburbs, it meant exploring the novelty of a barnyard, with chickens, goats, and horses to tend. As an administrator from the early era remarked, “Sometimes the kids gravitated to teachers who were doing interesting things, and other times teachers went where the kids wanted to go.” This could mean hiking the local woods in search of monkey brains for bowling, hunting for artifacts at a dump dubbed “Bottle Hill,” or going sledding down the soccer field hill (“in a kayak with Lou!” or “on my school binder!” as various alumni jubilantly recalled).

Alumni of the first twenty years of the school invariably attributed the pervasive atmosphere of adventure to one person: Joe, a former engineer turned science teacher. Under Joe’s guidance, alumni reported, they engaged in “freeform learning,” which included many of the following activities: rebuilding and driving vehicles such as go-carts and mini-bikes, building and playing on a ropes course and zipline, rappelling and rock climbing, and constructing (by welding) a variety of play structures including a geodesic climber and human-sized hamster wheel (two children were strapped inside, opposite each other, while Joe spun it). Adventures with Joe, both in and out of school, became the stuff of school legend. As Richard recalled, “There was a lot of learning, but we didn’t know we were learning.”

Importance of outdoor play

Alumni recognized numerous benefits of their outdoor play opportunities at Jemicy. Kristen, now a psychologist, viewed its importance in retrospect as the chance to “burn off steam” through vigorous physical activity, as well as helping to modulate the emotional balance of students who struggled to attain competence in the classroom. “I really think it helped me

return to the classroom with better focus,” she said. Another cited the value of these moments of true autonomy - “times to take control of their own lives” - to develop independent thinking and problem-solving skills. “When we played outside,” noted Marcia, “ we created little communities where we had to work together with each other.” She felt that the conflict resolution skills learned at an early age translated into greater success for students as they transitioned out of the Jemicy community.

The development of a sense of competence that extended beyond classroom walls was a direct result of solving concrete, authentic problems first-hand. “We had jobs,” recalled Marcia. “Feed the chickens, collect the eggs.” Along with the pleasures of driving go-carts and building play structures went the duties of cleaning up and maintaining machinery. There was a sense of shared responsibility that accompanied the privileges of play. Alumni spoke with pride of the skills they had acquired under the tutelage of teachers who set them to solving practical challenges. “It was pure hands-on... I remember building dams down at the stream and trying to figure out how to build a dam correctly to hold up enough water so that water wouldn’t go over the top of the dam. Those things stick with you. You use that in the real world nowadays. It’s just figuring stuff out,” Sam said. Marcia observed that while many of the activities that children once engaged in would seem dangerous now, in those days they were deemed important for developing competence. “Kids weren’t as breakable as they are nowadays,” she said, attributing an apparent increase in accidents to the fact that children were no longer learning the skills they needed to *not* injure themselves. Richard emphasized that it was not only these practical skills that were essential in later years, but also the self-confidence and sense of accomplishment that came with having successfully met an authentic challenge.

Woods play

When alumni were asked which outdoor recess activities they had enjoyed while at Jemicy, they overwhelmingly responded with two categories: the kinds of activities mentioned above, with Joe, revolving around construction and engineering challenges, and playing in the woods. Playing on the swings or engaging in games or sports such as lacrosse, 4-square, or basketball, though rarely mentioned, were noted primarily as middle school activities, a phenomenon that still holds true today. More recent alumni were more likely to elaborate on woods play, with the table below depicting the activities that they remembered occurring there, classified according to whether specific affordances were mentioned, or whether they were recalled in a social context.

Table 4: Woods recess activities recalled by alumni

Affordances	Social play
<ul style="list-style-type: none">• walking on trails• playing in the stream• finding salamanders and frogs• collecting treasure: rocks, sticks, plants, leaves, monkey brains, insects, tires and other artifacts• chewing onion grass• making dams• swinging from vines• looking for 4-leaf clovers• jumping in leaf piles• looking for roly polies	<ul style="list-style-type: none">• imaginary play of all kinds• building forts• having fort battles• playing house• running around with friends• playing tag• playing hide and seek• playing “man hunt”

Most of these recess activities in the woods came with a story. “In third grade there was a fad where we would harvest spring onions and chew on the stalks in class. We smelled AWFUL!” “I remember we would collect monkey brains and bomb other forts with them.” “We built castles and imagined that there were magical creatures that lived in them.” Themes of fun and freedom ran through the narratives of alumni interviews. Erica, who returned to Jemicy as a teacher, believed that playing in the woods, “an imaginary, different world,” released children from preconceived ideas of performance and thus from anxiety about meeting adult expectations. “Down there it’s like a carefree area. They’re not as nervous. They’re able to escape their fear and speak their mind more.” Erica suggested that, if she were to ask a child to talk or write about his woods experiences in the classroom, she would receive a minimal response: “I like the woods. It is fun.” But in observing children at play, “They really interact with you and tell you what’s going on. They say, ‘I have these monkey brains and I’m going to trade them for rocks!’”

Kristen felt that the social aspect of woods play was crucial for children’s development. “It felt like just me and my little group of friends, and that was our whole universe.” She acknowledged that she would not have cared to spend time in the woods alone, or without her friends there. Erica, who said that she and her friends had played house, creating elaborate imaginary scenarios to work out all of the roles that each girl wanted to have, recognized from a teacher’s perspective the value of interaction with children of other ages. She pointed out that there always seem to be children who in some way have difficulty socializing with their immediate peer group, but who are more at ease with either younger or older children. The woods offered these children a place to create social bonds on their own terms. It was also a play option that, in combination with the traditional playground and sports fields, offered a continuum

of developmentally appropriate spaces. When asked to recall how she had used each of these in her eight years as a student at Jemicy, Erica replied, “The playground was more for the little kids, and then you had the older kids playing 4-square. I think a lot of the third, fourth and fifth graders were always in the woods. It’s that time frame when you’re...using your imagination and wanting to run around in dirt!”

Teacher roles

Alumni spoke of the role of adults in children’s experience of outdoor play in two seemingly opposite ways: as sympathetic mentors, and as supervisory figures whose watchful eyes children wanted to evade during recess. While all alumni hailed student-teacher relationships as extraordinarily close and trusting, those of the earlier years reported that their play experiences tended to revolve around one or two teachers – usually Joe – who were doing fun things, and who used these times as informal teaching opportunities. In more recent years, alumni regarded woods play in particular as an opportunity to remove themselves from school. “Teachers stood at the top of the hill,” several alumni recalled, but the thickly wooded, visually impenetrable nature of the hillside meant that children had the sense that “we were watched by teachers, but not *overly* watched by teachers. We may have been *lightly* attended, but we were never *unattended*.”

This arrangement gave children the sense, according to both Erica and Kristen, that they “were really able to get *away*.” As Erica observed, “They feel like they’re leaving school – and us – and they’re not really being watched over like hawks. They’re not surrounded by teachers and rules.” At the same time, Erica noted, when she was on recess duty in the woods, “I’m being pulled in all directions because they all want me to see what they’re doing.” Kristen called this sense of teachers’ dual role as representatives of school policy, and as supportive observers of

children's free play, "collaborative," evidence of the mutual trust that existed in her experience of woods play.

Changes at Jemicy

In the evolution of school culture over time, outdoor play at Jemicy has undergone changes perceived by alumni both directly and indirectly, depending on their current association with the school. For the older interviewees, such change was viewed as inevitably, but regrettably, linked to changes in risk perception and a tendency toward aggressive litigation in the larger society. They mourned the vanished spirit of bold risk-taking and adventure associated with their teacher, Joe, in the early years of the school. "Times have changed and rules have changed, and there isn't somebody there to be like, 'Oh...those are the rules, but I'm gonna go do this anyway,'" Jamie said. Sam concurred, adding, "Back in the '70's there was no such thing as a waiver. There were no people suing other people. I think back to the stuff we did then and I wish the world was like that still." He added, "I kind of feel bad because I don't know how I'm going to help my son experience some of the things I went through. The stuff that we did at that school, in today's terms? People would be like, 'Oh my god, I can't believe you did that. I can't believe you guys even *thought* about doing that!' And that's missing from today's world. You know, people *need* to do that."

Several alumni who are still involved with the school viewed Jemicy as having abandoned the celebration of "being different," along with its uniquely playful stance toward learning, in the increasingly heated competition for students. "A lot of hands-off is now taking place, where it was once very hands-on," commented Richard. Other changes that alumni noted affecting play included the distinct separation between lower and middle school students, a shift away from informality and toward more rigid guidelines for teacher monitoring and student

behavior, and a reduction in areas where students could spend their recess time. “It’s an institution trying to figure out what direction to go in,” said Richard, who, as both an alumni and a Jemicy parent, acknowledged the difficulty of achieving a balance between former and current cultural standards. “If you lose the old school, you’re going to lose a lot of what kids value the most, which is that big hug.”

Summary

When alumni described their experience at Jemicy, it was nearly always in the context of comparing it to the “real” or “outside” world. At Jemicy, children who were regarded by that outside world as fundamentally different were encouraged to do things that would be unimaginable or unacceptable elsewhere. The memories of these qualities of difference – both the positive and the negative – held lasting significance. There was a sense among alumni that Jemicy had offered them both acceptance and nurture, and that play of a very unique, experiential quality was effectively interwoven throughout their school day.

These Jemicy alumni recalled and placed great value on the development of competence that would eventually lead to adult capabilities, as well as the uncompromised experience of free play. When asked directly whether their time at Jemicy had influenced how they felt about being outdoors, they uniformly agreed that engaging in “free-form learning,” as one called it, had left them with positive feelings about outdoor experiences. Alumni with children of their own, or who worked with children, felt that their Jemicy play experiences, while impossible to fully replicate in the present, gave them an ideal to aspire to. “Specific training is obsolete before it is mastered,” the school’s philosophy points out, “but intellectual curiosity, skill and learning, and creative flexibility in the face of new problems are dependable resources with which to meet whatever the future may hold of challenge and opportunity.” Having seen some of what the

future would hold for them, the Jemicy alumni interviewed for this study affirmed the role of outdoor play in their development of these qualities.

Administration values: The exosystem of outdoor play

The administrative level of interaction with outdoor play at Jemicy School fits primarily into the “exosystem” described in Bronfenbrenner’s model. Administrators serve as policy makers and implement decisions that affect children both directly and indirectly, yet operate for the most part outside the microcosms of children’s immediate play activity. They also comprise the interface between external, public perception of the school, and internal matters, and as such are the mediators between many community stakeholders. Added to this set of necessary decision-making perspectives are the personal experiences that have influenced their lives and careers as members of the Jemicy community. In the case of the two administrators and staff nurse interviewed for this study, those personal experiences are deeply connected with the school’s history.

Alan came to Jemicy as one of its original teachers in 1973. His grandmother was an influential figure in the then rapidly expanding world of dyslexia specialists, and Alan was dyslexic himself. He had struggled with academics throughout his school years, seeking refuge in other strengths such as visual arts and sports. When invited to join Jemicy’s first teaching staff after having served as a counselor for some of the students during a summer camp, he felt initial trepidation: “Education was one of the last things I thought I was going to go into, because... it wasn’t always the easiest thing. I’ve got the dyslexic gene running through me and my whole family. But the first week of school...we just went on field trips every day. An outdoor theme and this kind of free-wheeling attitude evolved, and it was just great. I thought,

‘Man, if this is what a school could be all about, I’m all for it.’” After many years of teaching in the lower and middle schools (and watching his own daughter progress through Jemicy), and initiating and running a new summer camp, Alan became the head of the middle school. Several years later, he moved into the position of assistant head of school, and then, when Jemicy added a high school, Alan served as its interim director.

Karen began her career at Jemicy through family connections as well. Her younger brother attended the school, and Karen described her attitude during those years as “the jealous sibling.” She was struck at a relatively young age by the opportunities for creativity and innovative learning at the school and was determined to become a part of it herself. As soon as she had acquired teaching credentials, she immediately applied to teach at Jemicy. “As I got older, I saw the beauty in the way Jemicy taught children. And getting in at the ground level with the little guys that first year, it gave me a very good perspective of really being true to its mission and being a fun, engaging place to teach these bright kids.” After seven years of teaching at several different levels, Karen took on the job of Lower School Head, which she has held for seven years.

Paula (Karen’s mother) became connected with Jemicy when her son attended the school in the 1980’s. After he left the school, Paula, a registered nurse, accepted the position of school nurse, which she has held for more than 20 years. In this capacity, Paula holds a direct line of interaction with parents as well as students. Her perspective on children’s health and safety informs the decisions and policies made by the administrative staff.

Early influences

For each of these administrators, the experience of Jemicy’s early years still resonates strongly. As Alan sees it, Jemicy’s origins as a camp set a tone that has evolved, but never

vanished over the intervening years. He attributes this to the influence of one of its founders, a highly creative educator who loved the outdoors. “Joyce would take the classroom outside the walls and use nature as a backdrop to education.” Alan recalled the role of animals in children’s daily school lives, as well as the regular explorations that would occur through the woods and to the infamous Bottle Hill. “It was a gold mine. Of discovery, of history.” He also attested to the natural integration of play with work, of the flow of activity from the classroom to the playground. As a shop teacher, he had students who chose to continue working on making a totem pole, for example, during their recess time, or perhaps to practice specific sports skills with a coach. He noted that parents readily accepted Jemicy’s informal approach. “It was an outgrowth of a camp that had a huge impact early on, and so that camp feel, that outdoor feel – they knew what they were in for.”

Alan described the play relationship between students and teachers during that era as one of reciprocal interest. Teachers let students lead them to activities of interest during their free time, and often teachers joined in with a fervor that delighted the older students: participating in snowball fights, football games and sledding. Likewise, teachers often initiated projects that captivated students’ imaginations and drew them together. “There was a social dimension to that, because usually the kids that had similar interests would gravitate to a similar location and then friendships would result. The kids that loved electricity or science were known as ‘Joe kids’ [after their science teacher]. He had all these derelict cars around with the hoods up. The kids could just crawl right over top and you’d look up and there’s another kid looking you in the face, and you’d say, ‘What do you think that is?’ ‘I don’t know – let’s tear it up!’”

The informality of this era was noted by all three interviewees, and was discussed as a major element of change at Jemicy. Paula noted, “In the early days, the outdoor play was more

permissive from the perspective of the head of school, from the parents' perspective, the insurance company's perspective... That was part of the charm." Over the years, she has observed that the parental eye on the school has become more critical, and that parents now demand more information than they used to. "Whether we didn't tell them, or they weren't as interested, or we didn't think it was necessary to tell them, I don't know, but they need more communication now than they used to need. Parents trusted us implicitly, I think, then. Now there's a consumerism that says you have to be informed about a lot more things, so you have to be a lot more careful. Not that we weren't careful before, but there were things that we just didn't think were necessary to tell parents. But parents need to be told now."

The good life

One of the things that hasn't changed, the respondents noted, was the emphasis in Jemicy's philosophy on the necessity for free play time as a component of "the good life in childhood." "The spirit of the school, I think, is found in that free play in many ways," Alan observed. "Getting to make choices. The choices aren't made for them. They can follow their own hearts and desires." For a school that is centered on providing this good life to dyslexic students, having choices in play appears especially critical. "It's allowing our children to find what makes them happy, to experiment and find that thing that they enjoy doing, and then to allow them to do it," Karen emphasized. "That involves children of all ages working together, playing together, experiencing their world together. And I think when they're in that situation, they *are* learning: how to deal with peers, how to deal with older and younger children, how to compromise, how to problem-solve." Alan noted that children having choices provides unique information to teachers. "It's like the studies where they put a lot of toys in one room and you sit by a one-way mirror and watch to see where kids go. Well, that is the whole school, and kids

gravitate to places that just attract them and interest them.” For the dyslexic child who tends to be a global thinker, Alan observed, “Play is an opportune time for them to become adventurous with thinking. And step outside of *required* thinking... You get them outside the restrictions or confines of something called school, and that’s when they’re at their best. That’s when they conceptualize. That’s when they can really develop ideas and be innovative and creative.”

Karen pointed out that play supports numerous academic and social skills as well. “You can get more educational benefit from a half hour of free play that you probably can from an additional half hour of language instruction... Children work on their expressive language skills while playing... There is a bundle of social skills that play provides for social navigation in the world. They’re doing math. When they’re playing in the woods, it’s three acorns equal one monkey brain... It’s mathematics in its best form. And it’s something they created, so they’re impassioned about it.” Karen also emphasized that play is important not just for actively acquiring skills, but for the relief it offers from the intensity of an academic program. “Because of the nature of our program, and the fact that our kids have learning issues, and they are in very small classes where there’s no hiding, there’s no respite from engaging and learning at any other time during their day here. They are forced to engage and do those things that are so difficult for them. They have two opportunities to look forward to a respite, a ‘Whew! I don’t have to do that decoding anymore, I can go collect monkey brains!’ That’s important for them to have that respite, that exhale moment.”

The administrative role

Having made the transition from teachers and Jemicy family members to administrators, Alan and Karen reflected on how they must now juggle their perception of what is best for students with what is expected of them by parents and the community at large. Karen said,

“What I’m able to do now is take this overall structure of the school and make sure that structure continues to adapt and shift to meet the needs of all these kids as the world shifts. That requires constant alteration in the overall structure, I think, and in what we do and how we teach these kids. You’ve got all these constituents – parents, teachers, children – but the guiding force in everything we do is always the children, and what is in the best interests of the children. And yes, sometimes we make changes that parents or teachers may not always agree with, but the changes are made for the sake of the children. For what is in their best interest when we look at program changes or the structure of how things run... That remains the heart of everything we do. Always.”

Alan offered the example of making difficult decisions about how much time to allot in the daily schedule for recess, given the demands of academic classes and parents’ expectations of student progress. In the end, he felt, it came down to respecting the spirit of the activity. “Is there a critical amount of time that allows us to develop into joyous free play? If it’s on the shorter end, it’s just like time away from class... just time to stand outside. Do you really get to engage in something other than conversation? But once you take it the next step further, you gauge the activity, the fort-building or stream play, building a dam, working on a little project. You can really use that time to develop and look forward to the next day when you get to pick up on the next part of that. That’s critical. There’s a line where anything less becomes a different kind of free time. Then they don’t get the full benefit of what that play is all about.”

Karen noted that recent changes in Jemicy play that occurred as a result of policy decisions were made very deliberately, with the children’s best interests in mind. Centralizing play in the back of the school, rather than allowing children to roam the entire campus freely was intended, she felt, to create a more cohesive and safer atmosphere for students. “It became a

little difficult for our homeroom teachers to keep their finger on the pulse of what was going on with these children and how to help them. So we're trying to make more of a play area where it's easier for us to be able to monitor and just help our children. We're there as facilitators making sure that they're staying safe, and helping with any sort of unkindness that comes at recess time. We're centralizing the equipment so that our eyes are where they need to be. But we're not limiting *what* they play – it's just *where* they play is going to be more localized, more centralized.” She added that since the implementation of the “fort treaty” several years ago, woods play has also become more popular among students. This treaty (Appendix B) was created in response to persistent conflict in the woods setting that children were unable to resolve alone. She noted that the treaty was a student-driven initiative, arising during a time of confusion about what was acceptable behavior in the woods. The rules that students collaboratively generated for the treaty, she suggested, made children feel safer and increased the social stability of this activity.

One of the most difficult parts of the administrative role is assessing the risks involved in play, and communicating to parents the school's justification for what can appear to be extraordinary play activities. In the early years, as Alan and Paula noted, this was not nearly the issue that it has become with the advent of a more risk-averse society. “Just over these years, thinking of the things we used to do, would I do those now?” Alan reflected. “No WAY! It seems to me there were times when we did things and we really didn't think about risk. We kind of governed ourselves. And therefore it was out of our minds and we were just kind of loose and free-wheeling with certain things. There was a natural dome of safety that took place. Common sense rules, not thinking of legalities, like ‘Uh oh, I better not do this.’ When you don't concern yourself with these things, for some bizarre reason they don't happen. But when you start

concerning yourself with them, you tighten up in some manner. Then things can happen or do happen.” Alan noted that, in the case of introducing some risky elements to Jemicy’s play opportunities, such as a ropes course, common sense still prevailed. More critically, though, risk management required “knowing well who your subjects are, knowing what they’re capable of doing and not capable of doing.” Such knowledge requires a level of trust that can be gained only by maintaining the traditionally close relationship between Jemicy students and teachers.

Paula offered this summary of what is ultimately required of an administrator overseeing play policies at Jemicy: “From thirty years ago to now, the kids still want the same thing. They want the outdoor play, and the higher the risk, the better. They can’t foresee any complications or any problems. Kids want to go out and have fun, and lead with their head. There are still the drama queens and there are still the stoic kids, but everybody loves to play outside. Everybody. The people that are in charge just have to anticipate the problems, and take care of the risks as far as they can.”

Administrative summary

Whether administrators are making policy decisions for their schools, promoting them to the public, or working to ensure congruence between different constituent groups, the values they bring to the task are attributed to a variety of influences. The administrators interviewed here had multi-faceted relationships with Jemicy, providing them with the additional perspectives of family, educator, and parent. They had also witnessed and participated in changes at the school over a lengthy period. Their roles in the exosystem were thus deeply integrated with those of other system levels, yet at the heart of administrative decisions lay commitment to understanding and serving the specialized needs of their dyslexic students. Many of the policies and practices that were generated in the creative, informal spirit of a camp,

including an expansive attitude toward outdoor play, became fixtures in the more formal setting of a school. The research that drove teaching methods was based on students' proven success; likewise, the effectiveness of a practice such as offering play choices was noted both in terms of its benefits for children, and the insights it could provide to teachers.

The necessity of aligning the school's history, traditions, mission, and philosophy with current demands for accountability makes the administrative perspective on free play a crucial one. However, unlike many institutions where administrative control extends into the microsystems of children's direct experience (quite literally "micromanaging" them), Jemicy's structure and traditions have permitted and encouraged children to retain considerable autonomy in terms of play. How has this balancing act been maintained? As the business manager (who I consulted regarding the school's liability insurance) emphasized, the predominant model employed by insurance companies (occupying the macrosystem level) is event-driven. In general, Jemicy's director of buildings and grounds is responsible for ensuring that play areas meet state safety codes, and the insurance company periodically inspects play facilities to check for compliance: a certain depth of mulch, structures positioned at correct heights and distances, etc. The safety of play areas outside the playground structures (i.e. woods, pines) is checked by the head of buildings and grounds, who in turn relies upon teachers who spend time monitoring these areas with children to let him know if there is a perceived risk. This has occurred in the past regarding precarious trees, erosion on the hillside, and sightings of possibly diseased animals. An accident could precipitate a series of safety investigations, which would then force the school to reevaluate its policy with regard to play in unconventional areas.

That this has not happened in nearly 40 years could be attributed to simple good fortune acting within a relaxed atmosphere, or perhaps, as Alan suggested, there is a more active

dynamic at work that is focused on deep understanding of how students think, feel and act. With this focus, teachers may attend more to what children naturally are inclined to and encourage the development of common sense, rather than emphasizing what they should not be doing when playing, or potential dangers. This is not to say that administrators would not expect teachers to be alert to hazards, but they do expect them to know their students, and to be able to anticipate problems, yet not craft play experiences around fear. Likewise, administrators recognize that Jemicy students require times in their day when they can be free of adult demands for learning.

Giving students autonomy and multiple play options, justifying these to parents and other constituent groups, and meeting the legal and ethical requirements of systems beyond the school itself are actions which require adept alignment of values. In the words of Jemicy's philosophy, "The planning and operation of the school requires not only teamwork on the campus but consultation with outside experts when needed, cooperation of parents, and most important, a spirit of involvement on the part of the students as they grow toward taking full responsibility for their own behavior and learning." Maintaining an exceptional quality of play is a direct result of this coordinated effort toward achieving the experience of the good life for Jemicy's children.

Student Portraits

The results presented thus far have provided an ecological context for what I consider the heart of this inquiry into recess values: how current Jemicy students themselves experience recess. Documenting how children define the "goodness" of their play environment through their behavior within its immediate context, and weaving these behavioral narratives together with children's reflective comments and those of parents and teachers, is also the heart of the effort toward creating an authentic portrait of play. This documentation focuses on the meanings

and values that are discovered and created through children’s encounters with the affordances of their selected behavior settings. As noted earlier, *meanings* (as defined by Reed, 1996, p. 7) “are

Table 5: Student portrait themes

<i>Alex and Jenny</i>	“Organized chaos”	Finding meaningful structure in the environment
<i>Elizabeth</i>	“Wonder”	Entering a world of possibilities
<i>Brian</i>	“The outside child”	Inhabiting different places at different stages
<i>Maria and Henry</i>	“Just fun”	Enjoying activity for its own sake
<i>Lincoln</i>	“Having the forest in mind”	Learning to navigate a social landscape
<i>Michelle</i>	“Leveling the playing field”	Exercising competence through experience
<i>Abby</i>	“Common ground”	Negotiating fears and friendship
<i>Mark</i>	“Free to be my own self”	Locating an identity within the behavior setting
<i>Jonathan</i>	“Almost like the real world”	Establishing a refuge for fantasy

embodied in the experience of animate, sentient beings, which includes...their behavior or its effects. And *value*...is the result of the utilization of the meanings thus made available by the information.”

These portrayals of children’s values stand in contrast to several traditional stage-based typologies (see Kellert, 2002; Margadant-van Arcken, 1996; Kahn, 2002), which suggest that a child’s environmental values can be generalized and sorted into one of several, often hierarchical categories of moral, cognitive, or social development. The goal of these portraits presented here, however, is not to classify behavior, but to describe it in terms of its relational qualities. The

relationships in question are the selected reciprocal encounters with the microsystem's environmental features, or affordances, in conjunction with the social connections between a child and his or her immediate peer group in the behavior setting, and the extended links to other microsystems, such as home and classroom (the mesosystem). The themes which are described in the values summary following each portrait are not the only ones which could be selected to illustrate a child's values; they were simply the most compelling to me in the time frame of this study, and the ones for which I had the most supporting data. What I am suggesting is that these portraits be read not as rigid characterizations of these or any other children's values, but as glimpses into what Susan Engel (2005) calls the "messy jungle," the vast, perhaps infinite range of values which develop and emerge when children can make autonomous play choices that are, literally, meaning-full. These portraits are illustrations of their natural histories in the habitats of recess.

Alex and Jenny: "Organized chaos"

Alex and Jenny were selected as participants for this study not only because they met the previously established criteria, but also because they were twins who played together extensively outdoors at home and during school recesses. I was curious to observe differences and similarities in their behaviors, as well as in their own and others' reflections about their play. This portrait is designed to illustrate the twins' experience as siblings, classmates and individuals in the same play setting.

Jenny and Alex arrived at Jemicy in the fall of 2006, six-year-old twins who had been in the same class at a small private school for the past two years. At Jemicy, they remained together in the same homeroom group for the next three years, which meant that their immediate

circle of peers was generally similar as well. In watching Jenny and Alex's play patterns over this time span, it became clear that their common family and school experiences provided a unifying context for two children who may appear to have similar encounters with their environment, but who recognize very different meanings and attach different values to these experiences.

The twins' family lives on a large farm, with rolling fields of hay and corn, woods, a pond, and numerous animals including horses, goats and dogs. I met with their mother, Sue, and the twins at their farm one day during summer vacation when the children had just turned eight. The interview followed a tour of the farm conducted by Alex and Jenny, who took turns driving the family's small all-terrain vehicle (ATV) with their mother and me as passengers. We bounced over the fields, bushwhacked through the woods, and arrived back at the house an hour later for lunch. On this remarkable excursion, Alex delighted in attempting to drive the ATV as fast as possible through numerous apparently impenetrable stands of brush. At one point, when he had gotten the ATV stuck between several trees in the woods, Alex surveyed the situation from several angles, then called out breezily, "No problem!" and spent the next five minutes gradually working the vehicle free. Jenny took a more sedate approach when it was her turn to drive and rarely strayed from a well-traveled path. Both children displayed delight and confidence in navigating the vehicle, and in pointing out to me some of their favorite features in the woods (the fort they had built, deer tracks). They appeared to take special pleasure in their unusual role as both drivers and guides on this tour.

In our subsequent interview, Sue and the twins responded to my questions with equal authority, though Jenny typically remained more reserved and often allowed Alex to speak for her. Sue began by describing her own upbringing in a suburban part of California, in a family

with a small “hobby farm.” “We were always outside, barefoot, and the whole summer we’d be gone on our bikes or just running around the back yards from house to house,” she recalled. Sue joined 4H and quickly learned the realities of raising livestock. We discussed how this affected Sue’s decision to become a veterinarian and a vegetarian, and to raise her own children with an awareness of humane values. After telling stories of having to see her 4-H animals sold for slaughter, Sue wound up, “That agricultural experience was pretty interesting. So I’m glad they get to have it.” Alex, who frequently interjected comments or asked questions as his mother spoke, wondered aloud why she so forcefully encouraged her children to be aware of their eating habits. “You were in your twenties when you decided to become a vegetarian – not eight!” Sue paused, considering this, and then replied, “It’s *good* to think about things. You’re smart – you should be able to think about stuff now.”

Encouragement to use their intelligence and resourcefulness to broaden their experience of the world was reflected in the twins’ relationship with their father as well. Chris, who grew up on a farm in South Africa, wanted to provide his children not only with a rural childhood, but with a kind of freedom and encouragement that other children of their peer group would rarely, if ever, experience. As Rachel, the twins’ homeroom teacher at Jemicy described their relationship, “He has brought as much of his boyhood and his life to Maryland as he could, and put it in his backyard for his kids to enjoy. He is like their big brother in the sense that he shares a lot of adventure with these kids. If they want to do it, he will guide them.” This encouragement extended to developing skills that most parents would regard as appropriate only for adults. During our interview, Alex’s first response when I asked what they liked about playing outside was, “I know why I like the *farm* – cause I can drive around!” “Yeah!” echoed Jenny. Alex also boasted that his father let him drive their large pickup truck, at which Sue

rolled her eyes in exasperation, and said, “Only down the driveway. He can’t even reach the pedals properly!”

Rachel related this story as well, since it is a feature of visiting the family’s farm that most of the twins’ other classmates have experienced. The parents of these classmates have voiced apprehension, often making comments (according to Sue) such as, “You have a tree fort *that* high up in a tree?” and showing concern about children going off in the woods alone. Sue described this as a major difference between her and other Jemicy parents, who she felt seemed to guard their children closely. Rachel agreed that this sort of freedom and difference in risk perception is unusual among Jemicy parents, but maintained that these, in contrast to many parents, “offer their kids the world, using their imagination. They feel... you have this property – so, what are you going to do with it?”

When I spoke with the twins and Sue about their school experiences prior to coming to Jemicy, their responses focused on how play was constrained. “At our other school we had to wear long sleeves and uniforms,” said Jenny, shaking her head. “It was just a very *serious* school,” clarified Sue, to which Alex added an emphatic “Yeah!” I asked about the playground, and Alex, in a tone of disgust, said, “They had this big dragon and it had a tongue and you slid down it and – BORING! And then a slide and monkey bars. And that’s it.” Jenny nodded her head in agreement.

When they first looked at Jemicy, however, Sue was struck by how different it was than most schools. “You go to Jemicy, and it’s like ‘Wow, what’s going on? There’s so much noise and chaos and color, and people are busy and...’ I thought it was great – organized chaos!” At this, Jenny smiled and quietly murmured, “Beautiful.” Sue added, “I thought it would engender a lot of independence and...be safe. A safe environment to just be who you are instead of having

to be quiet all the time.” I asked how she felt about their recess time. “It’s great, because they get to explore. They get to be dirty. They get to be kids.”

I asked Rachel how she imagined the twins would fare in a school environment that was more traditional than Jemicy in terms of play. “I think that anywhere else, they would not be the happy kids that we have,” she reflected. “We offer them this wonderful setting, the woods. They’re not confined to a cement playground or hardtop.” She felt that Jenny was the more flexible of the two in adapting to her circumstances, essentially “making do” with what she had, while Alex, being highly creative and a divergent thinker, would respond to limitations by “making up” ways to get beyond those constraints. In the Jemicy setting, however, she felt that they were each emerging as individuals and showing particular gifts. Jenny, Rachel felt, had initially felt compelled to do more “girly” things with the few other girls in her class, while Alex had found himself somewhat on the outside of a group of highly athletic peers. By the middle of the year, however, Alex had begun to show quiet leadership among his peers, particularly with those who, like Alex, were creative and enjoyed taking greater risks. Jenny, meanwhile, was starting to display a stronger sense of self and to become more adventurous in school, rather than acquiescing to stronger personalities around her.

When asked why they initially chose to play in the woods for recess, Alex shook his head, saying, “When I went down to the woods for the first time last year, I had no clue. ‘Cause everybody had these logs that are fallen down and it’s like, ‘OK, you can make a fort.’” In the following vignette which illustrates Alex’s “first time” experience, six-year-old Alex and his friend Eli were supposed to be getting a “tour” from their classmate Andy, who was already familiar with the woods. Eli and Alex resisted Andy’s guidance, having decided that they were ready to begin creating their own fort. Eli began hauling logs and sticks out of the stream, while

Alex wandered around, appearing uncertain about what to do. He paused, faced the other children who were busy digging up rocks in the stream, and pleaded, “But guys, guys, how do you make *forts*?” gesturing emphatically, but no one paid attention to him. Andy searched for broken glass by a tree, while Eli joined the others in the stream. In exasperation, Alex muttered to himself, “How *do* you build a fort?” He shook his head and then ran over and began to climb on a log that crossed the stream. “How do you build forts?” Alex repeated, directing this to Andy as he stood and gained his balance on the log. Andy replied vaguely, not looking up, “Oh, you just build and build and build...”

Eli soon left the digging group and, with Alex right behind him, began cautiously to make his way on a different log that crossed a deeper part of the stream. He paused midway, trying to navigate around a protruding knot, and snapped in nervous irritation at Alex, “Stop, Alex! You’ll make me fall!” Eli wobbled unsteadily, while Alex playfully mouthed “No!” behind him, balancing easily. As Eli finally stepped off the log, Alex ran across, pausing briefly to examine the hole inside the knot. On the other side, the boys looked around uncertainly. Alex approached an older girl who was searching for frogs in the stream, asking, “Can you help me build a fort?” Obliging, she walked downstream with the boys in search of a suitable fort site.

Meanwhile, Jenny was making her own fort explorations. She and her classmate, Molly, decided to join a fort begun by some older girls. In this vignette from her first week at Jemicy as a six year-old, Jenny had begun to establish herself socially in the new play setting. She began this recess by crouching on the stream bank, watching an older girl hunt for frogs, but as she crept closer and closer to the water, she slipped in, making a splash. The older girl groaned and moved to a spot further upstream. Jenny ran off to join Molly at the fort which some eight-year-old girls had invited them to join, where they began looking over the cache of treasures the girls

had collected. Jenny dug through a pile of yellow buckeyes, and then removed and examined a cracked plastic ball. She continued to look over the treasures, touching each in turn, and then held up a metal ring to show me. She commented that it was good they had shoes on, or they would cut their feet, and told me about a time this had happened to her at home. Then she carefully picked up another shard of glass from the ground and added it to the collection. “Sometimes,” Jenny informed me, “if there are thunderstorms we put things in the glass bottle.” She continued to arrange the treasures, and then said to Molly, “Let’s clean their fort.” Molly reminded her that it was theirs too, and the two girls set about picking up and rearranging items. One of the older girls returned and asked what they were doing. Jenny explained that they were just cleaning the fort, then announced she would go to find more buckeyes to add to the collection, and ran off up the hill.

Not long after this, Jenny and another friend, Chelsea, decided to join Alex and Eli’s fort. Jenny found me and announced with delight, “Guess what? Eli and Alex allowed me in their fort any time I want.” Alex nodded and gestured to Chelsea and Jenny. “They belong to it now.” From this point in the fall of 2006, until the spring of 2009, Jenny remained with Alex and several of their classmates in the same fort. The relationship was primarily boss (Alex) and worker (Jenny), with both parties seeming comfortable with this arrangement for most of the two years that they shared the fort. When I asked about their respective “jobs” in the woods, Alex said, “I like to see where there’s nice places to shop and tell Jenny where it is. And then she goes and shops...’Cause she always shops at the spot I tell her to.”

“I like to shop,” agreed Jenny, “and I like to collect things and put it in the fort so the fort can be so cool.” “Yes, but once she sold two monkey brains for a rock,” recalled Alex, with exasperation, “And I’m like, ‘Jenny, what did you get for it?’ She showed me a big rock and I’m

like – ‘It’s just a rock!’” I asked Jenny what had attracted her to that rock, and she replied, “I liked it, it looked cool, and it just looked like what the forts like Alex’s and Andy’s were looking for and breaking.” “Yeah, but we tried to break it open, and it was just more of the same rock,” Alex grumbled. “And they wouldn’t let us get our monkey brains back.” At this, Jenny smirked, and Alex shook his head.

Jenny identified herself on several occasions as a “worker,” a “cleaner,” and “a finder.” She frequently found interesting rocks, artifacts, feathers, berries, and insects, which she often brought to show me. Jenny spent most of her time with a friend or two, often standing and talking on the periphery of the fort area. While the boys worked in the stream, she and her friends minded the “store.” Jenny was protective of the fort territory, joining into and helping to spread occasional narratives of subterfuge (“Carl was sniffing around our fort!”), and closely questioning the membership of new arrivals. At the same time, she was generous with younger students, offering them “cracking rocks” from her fort territory, and sharing other goods that her fort had collected.

Observations of Alex over this same time period show him less absorbed in collecting, trading, and negotiation, and more in designing, creating, and problem solving. He was very intrigued with water filtration and had brought in a small homemade filter that he would rig up daily somewhere in the stream, and then remove for safekeeping. He built elaborate bridges of logs and rocks, requesting the strength of older and bigger boys to help manipulate larger components. Upon discovering a pipe several yards long buried under the stream sediment, he carefully examined the situation and then set about organizing a crew to help dig it out. His father eventually drove the pipe home for Alex in their truck. Alex also had an eye for new resources, discovering that the neighbor’s land on the other side of the stream (outside the school

play boundaries) held a treasure trove of baling twine, interesting logs, and other artifacts. He and a team from his fort surreptitiously collected the artifacts and twine, hung their treasures in their fort, and enlisted the help of older boys to bring back an enormous stump. This, he claimed, resembled a turtle. When confronted about straying off school property, Alex quickly replied that he thought they were doing the neighbors a favor by “picking up their trash.” Like Jenny, he was very protective of his fort territory, questioning anyone who tried to pass through, yet frequently offered younger children items such as bamboo, crystals, and other objects.

When the woods closed for the winter, both children briefly investigated the pine grove in the company of their friends. With another boy, Alex began construction on a teepee-style fort, but abandoned this when they failed to find enough sticks to complete it, and subsequently left the pines altogether. Jenny spent time on the swings with several other girls during this time, while Alex moved on to playing chase games with other boys. Both children spent time on the sledding hill whenever possible. In the spring, they both returned to play in the woods, each with one or two close friends, but abandoned the original fort that they had shared for two years. Alex and two other boys moved their fort a few yards upstream and onto higher ground (“where we won’t get flooded”), and where they constructed rock and stick walls and displayed their treasures from their old fort. Jenny and another girl, meanwhile, selected a spot at the far upstream end of the play area as their new fort and spent their recess time wading in that part of the stream in boots, searching for, capturing and releasing salamanders.

Values summary

Alex and Jenny brought with them to the woods behavior setting a set of values strongly influenced by prior experiences at home and with family. Freedom to explore, to get dirty and, in Sue’s words, “to be a kid,” initially attracted the family to Jemicy, and were further affirmed

by the twins' recess experiences. These shared values also included being in close contact with natural phenomena. In Jenny's case, the structure of the woods afforded exploration, while the animals, plants, and rocks that she discovered in the woods gave her opportunities for direct contact, collection, and participation in the economy of the woods culture. Alex, on the other hand, spent more of his time engaged in manipulating different aspects of his environment so as to achieve an interesting effect or solve a problem. Both children noticed and valued unusual artifacts, with Jenny's interests tending toward the aesthetic ("Look at this cool feather!") while Alex was more pragmatic (interested in trade value, or in an object's functional qualities).

Both children enjoyed and relied upon the social aspects of the woods setting to support their activities. Jenny, who rarely initiated an activity, nevertheless became intrinsically involved in managing the fort "store." Her "shopping trips," while not always as lucrative as Alex might have preferred, placed her in constant interaction with other fort members, with whom she was required to negotiate. Her role as worker gradually evolved into more autonomous, yet still socially based behavior as the initial fort dissolved. Alex, who had focused almost exclusively on different ways of filtering, damming and channeling the stream, expanded his activities in the company of other boys. Both children took advantage of the diverse environment of the woods to find places and activities that suited their own developmental changes.

The term used by Sue, "organized chaos," summarizes a value that most parents (and many children) would not necessarily find attractive in a school or even a play setting. When children pour out of school buildings and onto a playground, their activity can appear initially chaotic, with organization provided by the available equipment, intended to be used in very specific and limited ways. What Alex and Jenny found at Jemicy was that the environment of

the woods held its own diversity, structure and organization, to which they were free to adapt their previous experience and current interests. Whether “making do” with the perceived affordances or “making up” activities to add value to the setting, their choice of these activities showed recognition of an inherently meaningful and (to use Jenny’s word) “beautiful” sense of order within the play environment.

Elizabeth: “Wonder”

Elizabeth, an eight-year-old girl, spent most of her recess time during her first year at Jemicy playing in the woods. Elizabeth’s participation in this study provided a glimpse of how someone who is an only child at home encounters a new play setting as an individual and as one highly sensitive to peer and adult interactions. Elizabeth was present and actively participated in my interview with her parents, offering her own perspective on their comments. This reflected something that I saw frequently with Elizabeth during my recess observations: a close relationship with adults and a heightened maturity in reflecting on her experiences.

Until she was four, Elizabeth lived on what her parents described as a “huge, wonderful piece of property,” where they had anticipated that the family could spend much of their time outdoors gardening, playing in the spacious yard, using the playhouse, swingset and pool. They found that this apparently idyllic spot offered few playmates for Elizabeth, however, so they moved to a new community where there were many young families. Unfortunately, as her mother recalled, this meant living in a “totally denuded” area with a large lawn that had no trees and was too hot to play in during the summer. In this community there were a few more children for Elizabeth to play with, but her parents were concerned about the apparent gender segregation

that occurred during play and felt that most of the girls acted overly mature. Elizabeth, in contrast, “doesn’t want to grow up too fast,” her mother explained. Elizabeth nodded vigorously.

Fortunately, Elizabeth made friends with a neighboring girl who enjoyed “doing a lot of fun stuff” in her family’s woods, like building teepee forts. Though she briefly mentioned her own back yard and enjoying her swing, Elizabeth spent much of her interview describing details of playing with this friend: begging her to go to the woods, the route she took to get there, raking paths, constructing a teepee for her friend’s younger brother. Elizabeth’s parents agreed that this friend’s home was a focal point of their daughter’s outdoor experience. Her mother listed its attributes with a wry smile. “They live on 64 acres, and they have a stream, and they have goats, you name it. When she goes over there, there are no rules and she’s on tractors...” Elizabeth described how she and her friend had persisted in building forts, even in the winter – “They’re out there for hours in the freezing cold!” exclaimed her mother – and in spite of the development that had begun to move into the area. “The sad thing is they’re cutting down trees to put houses in the back,” Elizabeth said, regretfully. “We’re trying to make a couple more forts down near there, but it’s not really working out ‘cause the workers keep knocking them down. But it’s worth a try.”

Elizabeth’s description of her school recess experience prior to Jemicy contrasted starkly with that of her play at home. “Recess was not very fun,” she recalled. “It was longer than Jemicy’s, but it felt like torture, ‘cause there was nothing to do. I just hung out with my friends.” The play schedule made no sense to her. “I only liked the days where we could fool around on the jungle gym. Oh, it was terrible. And then they came up with this new thing: On Fridays and Tuesdays you could go down on the field and play *soccer*. Or *football*.” Elizabeth’s mother, who had volunteered for lunch and recess duty at this school, added, “They took turns on

concrete and asphalt pads. The jungle gym, which wasn't big enough for all those kids, was dangerous because it was so high and had no padding. Kids used to fall and get injured. Mostly, kids just stood around on the asphalt, with no toys or games." "Like a prison break yard," added Elizabeth's father. "Elizabeth's favorite parts of the day were recess and lunch," continued her mother, "so that tells you how that school was. The way it was run, it was totally different than it is here, where everything is kind of a fun part of your life."

In her first introduction as a student to the woods at Jemicy, Elizabeth joined her class in a hike. Heading down a steep slope, Elizabeth paused and stared at the rope winding around the tree, at her classmates clinging to it as they descended into the unfamiliar woods below them, and then turned to me, eyes shining. "How did this place get to be so *amazing*?" she exclaimed.

Elizabeth spent the first few weeks of school "trying out" different forts before joining two boys, Lincoln and Joey, in theirs. She recalled, "I was kind of wandering around in the fall, 'cause I didn't know what was going to happen. I wanted to see whether it was good or not before I joined." Elizabeth also identified herself as a "helper" with several forts, clearing the stream in one and helping construct another. "Basically, I just...work!"

Elizabeth often came running to find me as I entered the woods, calling, "I want to show (or ask) you something!" Though there were times when her inquiries were of the "Is this or that OK to do?" type (sometimes about the activities of other forts), more often she simply wanted to share her pride in work that she had done. On one occasion, she led me to the fort that she shared with Joey and Lincoln in the pit left by a toppled tree, its upended roots forming the back wall, telling me on the way that they were working on a bridge. "We're building new surroundings!" she exclaimed, ducking under branches and moving easily along the maze of trails. When we arrived, Lincoln was showing Joey a monkey brain that he had acquired, while

Joey used a stick to dig a lateral hole through the soil packed into the tree roots, “to make more storage.” Another boy arrived to ask if they had any bamboo for sale. When I asked him how his fort was coming along, Elizabeth quickly added that she was his helper. Lincoln, sounding concerned, interrupted, “But you belong to *this* fort.” Elizabeth responded in a placating tone that she just liked to help other forts sometimes.

Then Elizabeth asked who the area between their fort and the stream belonged to. I said that if they wanted, they could regard a part of it as theirs, and indicated a triangular area. “Yea!” shouted Elizabeth, and told the others. Just then, a boy showed up to give away an armload of free monkey brains, and Elizabeth, after politely accepting one, announced, “We’re becoming rich!” The bell rang for the end of recess, and as the children began to make their way up the hillside, Joey pointed out “a nice step that Elizabeth made for us,” which consisted of a rock wedged between two roots and packed in with soil. Elizabeth beamed, and Joey repeated, “It’s really nice.”

This sort of “fort support” was often in evidence when I observed Elizabeth’s fort interactions. She enjoyed reporting on them as well, telling me that Joey had discovered a way to slice moss off of the tree bark in their fort, which they were using for plates and to cover their dam in the stream. “It leaves this dust that we’re gonna mix in with mulch and hopefully we’ll find something to plant, like pretty flowers.” Elizabeth had also brought a clump of onion grass down to the fort to plant, intending it to be a resource they could later harvest. Joey acknowledged this with appreciation.

When she did not agree with her fort-mates on the use of resources, Elizabeth maintained an attitude of amused tolerance. A flattened stick that Joey saw as the perfect trap for monkey brain-stealing chipmunks, and which he set as a catapult to send them flying, was regarded

instead by Elizabeth as an ideal canoe. Now that they had acquired “streamside property,” she wanted to sail the stick in their pool. She begged Joey dramatically – “PLEASE, Joey, PLEASE!” – not to destroy the stick by turning it into a chipmunk catapult, and he, grinning, shouted in response, “They EAT our MONKEY BRAINS! Haven’t you NOTICED?” This made her giggle, and she abandoned her efforts toward gaining ownership of that particular stick, proceeding to test the buoyancy of numerous others.

When winter arrived, Elizabeth’s previous fort-mates began construction on their own forts in the pine grove. Elizabeth helped them out occasionally, but quickly set about establishing her own fort under a pine tree. She was initially frustrated by the shortage of materials, and by the tendency of “her” sticks to vanish when she wasn’t there. Eventually, however, she created a simple structure: a stump as a chair, an “A” stone (one of several highly prized pieces of broken concrete stamped with the letter “A”) and an old flowerpot with a dead azalea as her treasures, under a teepee-like framework of sticks. She alternated work on her own fort with helping her friends with theirs, and kept an alert eye out for others’ activities. One day she arrived in the grove in time to see Julian, a classmate with a notorious appetite for foraged food, stripping off a piece of the inner bark from a broken pine branch, and shoving it in his mouth. “Oh no, they’re eating pine bark!” she shouted to me in alarm. I replied that it was OK (having previously shown this boy and several others how to make “pine bark gum”). Elizabeth’s tendency to immediately report to adult authority, rather than to trust a value emerging among her peers, was repeated often throughout her time in the woods and pines.

Elizabeth’s mother had voiced concern about her apparent lack of interaction with other girls through the winter, but by spring, and with the addition of two new girls to her class, Elizabeth had established regular recess play patterns with other girls. They created a fort

together near the stream, where they monitored the progress of tadpoles in a vernal pool and spent time stream-walking in boots. Her circle of peers who were girls was further expanded in the coming year, and Elizabeth was observed regularly spending time during recess with one new girl, walking the trails in the woods and talking together, rather than participating in a particular fort.

Values summary

One of the qualities noted by Elizabeth's teacher, and reinforced by observations throughout the year, was Elizabeth's deep appreciation for both the natural wonders of the woods environment, and for the kind of school where she now found herself. "How did this place get to be so *amazing*?" was a question that characterized Elizabeth's wide-eyed wonder at the opportunities available here, which she had previously experienced only with her neighborhood friend.

This immediate assessment of visible affordances was joined in the following days by assessment of the woods as a behavior setting. Elizabeth gravitated to different areas of fort activity, but did not attach herself exclusively to one at first. She displayed a characteristic "helper" attitude, migrating from one fort to another, which permitted her to discern (as she described) "whether it was good" before making a commitment. For Elizabeth, the "good" of Joey and Lincoln's fort seemed to be the value that they all placed on creative use of resources, and their ability to get along with hard work, humor, and mutual appreciation. Elizabeth's shift to spending time with girls at recess reflected both her own and her previous fort-mates' developmental changes, and a changing set of priorities with regard to social activity. The behavior setting of the woods permitted Elizabeth to move easily from accessing one set of affordances – sticks and other collectible, manipulable items – to another: trails removed from

the bustle of the playground, where she could walk and talk with a new friend. Elizabeth's initial amazement at her new school and its opportunities evolved into heightened social competence in a variety of areas, a development which gave both Elizabeth and her parents a deep sense of satisfaction and appreciation.

Brian: "The outside child"

Brian, an eleven-year-old boy, had attended Jemicy for the last five years. Always very physically active, with a characteristic restless energy, Brian spent most of his recess time in his first few years in the woods absorbed in hunting salamanders and frogs in the stream. His intense concentration resulted in frequent captures, which he would admire and then release, moving on to new territory. Brian was selected for this study because he eventually left the woods at the beginning of fifth grade, as many children typically do, and spent his free time on the playground engaged in his primary passion: sports. This portrait describes the various contexts of Brian's outdoor experience to illustrate the process of his transition between behavior settings.

"Brian is my outside child," said his mother, Andrea, in our interview. His gravitation to the outdoors stemmed, she felt, both from his own interests and skills, but also from exposure to the outdoors and nature at an early age. She reported that both she and her husband had grown up in rural areas. Living in a relatively remote place, she and her many siblings "made their own fun" outdoors, yet at the time she had longed for the amenities of a small town neighborhood: friends close by, sidewalks for roller skating, etc. It was ironic, she felt, to watch her children growing up in precisely that sort of neighborhood, while she now longed to give them the kind of extended outdoor freedom in natural settings that she once had. She reported that Brian and his

siblings – a twin brother and younger sister – had spent considerable time at their grandparents’ property near Baltimore, playing in woods and a stream. The family also purchased land in a rugged part of Pennsylvania, where they spent long weekends and the children could explore the woods.

Brian particularly loved these excursions, his mother noted, using his notorious “eagle eye” ability to find interesting things in the wild. At home in suburban Baltimore, this preference for the outdoors persisted, though with an orientation toward sports. “He just always has been that way. He *needs* to be outside, so come wintertime, when the weather’s bad and it’s icy, he’s hating it,” Andrea commented. His interest in sports was evident from an early age, and his parents encouraged this by turning their yard into an area for practicing soccer and football, and by arranging for him to play at friends’ houses or in a nearby park. As for indoor play attractions, Andrea emphasized that she and her husband had only recently allowed video games in the house, but that they still imposed strict constraints on their children’s time spent with TV, video games and computers. While the kids were able to entertain themselves outdoors independently, “I feel like I’m constantly telling them what they *can’t* do inside,” she said.

Andrea admitted that, though there was little access to wild spaces near their home, Brian’s interest in sports was more easily accommodated by living where they did. Andrea’s only concern about his time spent playing outdoors was the risk of crime in the neighborhood. Both she and Brian referred to a recent incident in which Brian had been invited into a neighbor’s (unfamiliar) house without Andrea’s knowledge, and she was unable to locate him for several hours. While Andrea was still shaken days later from having believed he’d been kidnapped, Brian shrugged it off. “I just told my mom I wouldn’t do it again,” he said.

Brian's response to my question about his prior school recess experiences was, "What a rip-off!" His urban parochial school allowed younger children access to a heavily used grass field once a week, but this use was denied if it was rainy or wet. The only other option was a small blacktop space, where running was prohibited, as was the use of balls (which might roll away into traffic). "The kids complained a lot," said Andrea. "That's why coming to Jemicy was an unbelievable difference. You're allowed to do *anything*, in Brian's mind."

When speaking with Brian about his play experiences at Jemicy, he recalled that he "used to play forts and stuff." He remembered catching salamanders, and the fact that he had shared a fort with his entire homeroom class in his first year, but also that he had spent time on the playground when he first arrived. He reported that ever since fourth grade, he had exclusively played sports at recess, usually lacrosse or football. One of Brian's teachers agreed, commenting, "Brian is hungering for sports. His big thing now has been playing basketball. When he has the woods versus basketball or soccer, he'll choose one of those sports." Andrea agreed that he had also started to become more self-conscious. "He would think the *little* kids are down in the woods, and he's too old for that. I can see him thinking, that's for newer kids, not where he wants to be now."

In spite of Brian's own transition out of woods play, he said that he regarded it as an important choice for younger children to have, and would never want Jemicy to lose that play option. "What makes recess different at Jemicy is you get to go wherever you want." According to his mother, "When people ask him what he likes about his school or what's so great about Jemicy, he'll always mention the woods as something that's very unique and cool."

Two vignettes illustrate Brian's use of different behavior settings at different ages. The first occurred in the fall of 2006, when he was nine years old. Brian was at the stream, crouching

over the bank, hunting for salamanders. Several other boys were scattered along the banks, also peering into the water. Someone had just caught a frog, and excitement ran high. Brian called out, "I saw a salamander here. It was like *this big* (he indicated a six inch length with his hands)." An older boy, new to Jemicy, immediately joined him and stared intently where Brian was looking. A moment later, Brian called out, "Hey look what I found! I found a slug! It's a HUGE slug!" He prodded it with a stick to get it to move. And then, calling to me and pointing to some thick mud by the stream, he indicated some bees emerging from an underground hive, wanting to know what kind they were. He warned some other boys away from the bees' hole, "... unless you want to get stung!" he chuckled. A few minutes later, continuing to walk slowly along and scanning the bank, he muttered to himself, "I saw a frog. Frogs are sneaky."

Later, Brian captured a salamander and held it carefully in his hand. "Dude, where'd you find that?" exclaimed the older boy who had been watching him before. "Hey, he's got a salamander!" he announced and ran to tell his friends. Brian came up to me and opened his hand slowly. "What kind of salamander is this, Emily?" I identified it as a slimy salamander. "That's what they call them?" asked Brian, incredulous. "Why? 'Cause they get away from anything? Oh-!" The salamander suddenly squirmed out of his hand and fell to the ground, disappearing in the vegetation. "What?!" grumbled Brian, parting the leaves in a vain attempt to find the salamander. "Stupid creature..." he muttered.

Sean, the older boy, returned, and the two boys searched for the escapee. "Hmm, he's there, and he's gone," mused Brian, gazing at the spot where he last saw the salamander. "He's right there!" Sean called out, pointing. "Where? Get him!" yelled Brian. "I'm afraid to pick up salamanders," admitted Sean. Brian reached down and made two swift grabs. "Got two!" he called. "Dude, be careful with them!" warned Sean as Brian casually cupped the salamanders in

his palms. “Help me! I’m loaded!” Brian yelled, as one of the salamanders slipped out of his hand. Without hesitating, Sean bent down and picked it up. “I got one! Josh! Hey Josh!” he yelled, running downstream with it to show another friend. Brian continued to move along the stream bank, adding to the collection of salamanders that he held in his hand. “You can run, but you cannot hide!” he sang out. When the bell rang for the end of recess, he released all of the salamanders back into the stream, watching them disappear into the water before turning to head up the hill.

In the spring when he was twelve, Brian had firmly established himself on the playground, playing football during the first recess and joining whatever games were happening on the sport court during the second recess. Joining a large group consisting mostly of his classmates (most of whom had also made the transition from woods play over the course of this year), he regularly engaged in games of basketball and 4-square. On one day during recess, he waited first in a line along the edge of the court as Dan, the physical education teacher, initiated the first round of a 4-square game. “Hello, ladies!” called Dan, standing in one square, to the girls who stood in the other three squares, before making the first toss. The girls dove for the ball, and as they batted it from square to square, Dan called out commentary: “Oh no! Yes, you got it!” And then, “Sorry, Amy!” as one girl missed and stepped out of her square.

Brian stepped into her place. “Ahhh, Brian!” called Dan, eyeing his new opponent with a challenging smile. Brian looked down and grinned, but kept a vigilant eye on the ball, which immediately came his way. He leapt to slap it back into another square, dashed back to get a return bounce, and rocked back and forth at a series of volleys between two of the girls. He kept his balance low, and when the ball finally bounced into and then out of his square at a high angle, he jumped high to get it, but was only able to swat at it with the tips of his fingers. The

ball sailed off the court, and Brian ran to retrieve it, with Dan calling, “Oh! Nice try, Brian!” He tossed the ball back to Dan, and then ran to rejoin the line at the end, where one of his friends pointed out to him that one of the girls seemed to be cheating. “Whatever,” said Brian offhandedly, shrugging and turning away from his friend to watch the basketball game going on at the other end of the court.

Values Summary

Brian’s recess play choices changed from immersion in the woods setting as a younger student to a concentration on sports opportunities as he grew older. This transition coincided with the simultaneous shift of many of his peers to playing sports, as well as the creation of a hard-surface court between the woods and the back playing field. Brian’s view of available affordances thus eventually placed the presence of balls, hard surfaces and teammates above salamanders, frogs and fort-mates.

It is possible to see the value of “sport” even in Brian’s early encounters with animals in the woods. For him, capturing a frog or salamander, or even evading a bee’s nest, held an element of physical challenge and competition. His mother noted that he had always been adept at spotting special objects outdoors, and Brian’s quick responses in hunting for wildlife translated easily to coordinated movement on the playing field.

Brian was also sensitive to the kinds of opportunities and constraints placed upon certain activities outside of Jemicy. The kinds of play that he gravitated to at home, and the disgust he felt at the seemingly arbitrary constraints on recess play at his old school, revealed the inherent physicality of his environmental encounters. Brian simply wanted to be, as his mother put it, an “outside child” and highly active in that outdoor environment. The fact that his identical twin brother was not also identified this way speaks to some of the fundamental differences in values

that individuals bring to their experiences. Brian's transitional experience from the woods to the playground also emphasizes the manifold ways in which children can express connections to outdoor environments over the course of their development. If Brian's dominant values with regard to outdoor play were "high degree of physical activity" and "sport," and if those values for this fifth grader at Jemicy found an easy transition from woods to playground, this attests to the importance of having both options – two different behavior settings for play – available.

Maria and Henry: "Just fun"

Henry and Maria were two eight-year-old children who came to Jemicy in the fall of 2008, joined the same homeroom, quickly became close friends and spent nearly every recess together playing in the woods. This portrait, while describing the mesosystem of each child individually, focuses on the microsystem – the behavior setting of the woods – as a place where myriad affordances are made available through the activity of encountering and enjoying them with a friend who has similar sensibilities. As new students, these encounters further helped to establish the identities of Henry and Maria as members of a particular setting, a position from which they each launched themselves in different directions after this three-month moment in time.

Her homeroom teacher and mother offered these descriptions of eight-year-old Maria: independent, athletic, helpful, daring, and "not a girly-girl." Maria's mother, relating the story of how she came to Jemicy, said that her former school "just didn't get" who Maria was. She was considered a behavior problem due to constantly asking questions, moving about the room at inappropriate times, and falling off her chair. When it became clear that Maria was not progressing academically as her twin brother was, her parents considered alternatives, including

Jemicy, which Maria's father had attended. On her way out the door after visiting another local school for dyslexic students, Maria announced, "This isn't the place for me!" Arriving at Jemicy, her mother said, it was immediately evident that "this was *her* atmosphere: free-spirited." Her homeroom teacher attested to this quality after observing her in the fall, saying that Maria, while friendly and resilient, was more likely to split off from what others were doing in search of "what is enjoyable to me right now."

In describing her impressions of recess at Jemicy during our interview, Maria began by comparing it to her previous school which had only one short recess, limited space and few activities ("You could just bounce a ball") and no opportunities to play with older children (as she enjoyed doing at home) or those outside her small class. When she arrived at Jemicy, she was one of only three girls in her homeroom of eight students, and she quickly showed a preference for spending time with the boys, and with another new classmate, Henry, in particular. Now, her mother said, "Recess is all she talks about – the forts and playing in the woods." When I later asked Maria how she felt about coming to Jemicy, she sang "Happy! Really really happy!" and danced about with her hands in the air.

Henry, also eight years old and the eldest of three boys, grew up in a Baltimore city neighborhood. His father described this area as "a throwback" to the days when families formed a close-knit community with common values regarding how their children played. According to his parents, Henry spent his time playing in his back yard or at friends' houses, where imaginative (rather than computer/TV-centered) play was the norm. A nearby park with a stream was a favorite place for Henry to explore with his family. His parents had recently begun allowing him to walk alone to nearby friends' houses for play dates.

Henry's lack of progress in local mainstream schools brought him to Jemicy. Upon his arrival, he immediately gained a reputation for being "a funny guy," which evolved over the course of the year into his status as "the one everyone wanted to sit next to." His teacher said that Henry's style when approaching new situations was to wait and observe what others were doing before committing himself to an action, but that often this action seemed intentionally different; i.e., "If everyone is collecting monkey brains, he'll collect rocks."

Henry's impression of his previous school recess was that it was very short and took place once a day on a hot field where there was no shade. His father noted that there were actually two recesses, in which children would alternate playing on standard playground equipment and on a grass field. The play he observed was limited to "just running around," with no balls or other equipment available. "It was like, this is what you can do, and this is where you can do it, and go have fun *now*."

When Henry arrived at his new school, he brought home laconic, yet intriguing reports of his outdoor activities. His parents pieced together a picture of a place where there were many play options, and children could choose to fit in where they wanted. When I noted that Henry had spent his first several weeks filling his backpack with rocks, his father said, "Yeah, I think he's doing that because rock collecting is familiar and safe to him." Henry corroborated this sense of a transitional, introductory period: "I had no idea what we *could* do, so I just looked around..." The woods play intrigued his parents, reminiscent as it was of their own opportunities to explore freely as children. They were excited that he was able to have this experience, since it wasn't possible in their current home setting. Henry's father related a story of taking Henry and a friend canoeing and letting them play in the woods along the shore – something that he himself had taken for granted as a boy, but that Henry was experiencing for the first time. He was struck

that “They knew exactly what to do. You just had to let them go do it. So, for me, that’s kind of how the play at Jemicy is – they get to do what they want to do, and they know how to do it, if you just let them, if you give them enough space.”

On a warm, sunny day in October, Henry, Maria, and their classmate Diana headed down into the woods for recess. They arrived at the top of the hill together, each wearing tall rubber boots and brightly colored plastic goggles borrowed from the science room. Henry had chosen green goggles and camouflage-design boots, while Maria wore a heavy navy sweatshirt and blue boots, with orange goggles. Diana’s goggles were pink, matching her pink shirt and flowered pink pants, a point which she made several times to the others, receiving no response. Henry led the way down the steep path toward the stream, scrambling deftly over rocks and concrete slabs, with Maria immediately behind him. Diana picked her way carefully, clinging to tree trunks, moaning that it was hard to go down the hill in boots. They paused together to examine the fort belonging to another classmate and discussed the items that he had collected. Then Maria rushed past Henry to arrive at the stream first, and when the others arrived, they all lined up and looked at the pool of water that formed the center of their fort territory. “A frog!” Henry called out, spotting a quick splash in the water, but remaining where he was. Maria quickly reached into the water, pronounced it cold, and then cheered – “Yea!” The girls both stepped gingerly into the pool, the water reaching to the tops of their boots. Henry remained on the bank, squatting to look for the frog. “I want to try and get it somehow,” he said to the girls, who continued to step carefully around in the water.

The group had requested that I “flag” their fort, marking it as their territory with a scrap of bright cloth, so I asked where the boundaries were. Henry pointed to a branch just downstream: “From this log right there…” and Maria finished the sentence, pointing to a spot

upstream, “all the way up to here.” They settled on using both pink and brown cloth to flag their fort. “Cause there’s two girls and one boy in here, so that makes it fair,” reasoned Diana.

“Actually, there’s one *boy* and two *girls*,” Henry corrected her, reversing the order.

“Can somebody come here?” he asked. “Somebody that the water doesn’t go over their boots?” Diana and Maria, who had stepped out of the pool, obligingly waded back in from opposite sides. “Stick your hand right under there!” Henry directed, indicating a large rock. Diana began to push up her sleeve. Maria yelled, “No, look how dirty it is, the water!” Diana smiled at her, and said to Maria, in a cajoling tone, “Then you just do it!” Maria bent low and plunged her hand into the water, then yelped and pulled it out quickly. “Ack! That scared me!” She stepped away, shaking water from her hand. Henry made a disparaging gesture: “Why? Are you afraid of a *frog*?” “No!” she shouted. Henry, still standing on the bank, squatted and reached gingerly into the water. “Oh, froggie ran away,” he said, sounding disappointed. “Somebody scared the frog.”

“You wanna walk?” called out Maria. “Get something for our fort?” She was already heading downstream, not waiting for the others or looking back. Diana followed slowly, still looking at the water. Henry, still bent over the water, picked up a flat, oval rock and examined it. He turned to watch Diana and Maria leave. “Follow Maria. So what?” he muttered, and dashed after them.

The children continued on down the stream, Maria pausing at one point to sit and empty her boots of water, muttering about her soaked socks while Diana giggled. Henry stopped to watch another fort group at work, and then noticed another frog in the stream. Maria and Diana joined him to help lift up a rock. Maria fished around under it, her goggles falling off into the stream in the process, causing gales of laughter among the other two and prompting Henry to

say, “We’re going scuba diving today!” “I’m soaking wet!” shrieked Maria, also laughing, shaking her goggles to dry them.

At a fort at the lower end of the stream, the three watched a large group of older children engaged in dam-clearing operations. At Diana’s urging, the two girls returned to their fort while Henry stayed, searching the stream for rocks. An older girl, who was doing the same, handed him one – “Here, you can crack this.” Henry took it and ran back upstream, rubbing the rock on his shirt. “Pretty little cracking rock,” he observed. On the way back to his fort, he paused to investigate a place where mud was thick enough to get his boots stuck (“Super mud!”), picked up another rock (“A good black one!”), and was disappointed when the end of recess bell rang (“Dumb bell!”). He asked permission to return his rocks to his fort, and then headed up the hill, taking a steep, debris-covered route (“I like going up complicated ways”) and grasping tree trunks to haul himself up. On the way, he often paused to examine rocks. “You find quartz in most rocks,” he observed, “And blood rock is easy to find.” He explained that blood rock had lots of red in it. He took off his goggles and wiped his forehead. “I like my fort a lot. My fort’s cool. My fort...” he chuckled, “My fort practically *is* the stream!”

Several days later, the three were joined by two other classmates, Carl and Laura. While Carl searched the bank for frogs with Henry, Laura joined Diana in creating a storage area for their treasures. Maria stood in the pool and let her boots fill with water, then strode about with her boots squelching loudly. “I have slushy boots!” she yelled. Suddenly, numbers of monkey brains began tumbling down the hillside, discarded by a fort above, and the children called out in delight. Carl, trying to hand one across the pool to Diana for storage, dropped it instead with a large splash. The girls squealed as the water splattered them. Attempting to get it, he stepped into the pool, where the water reached to his knees, soaking his pants. “Not funny!” Carl

shouted, laughing as he climbed out of the pool. “I’ll save it!” shouted Henry. “Try some of this!” He flung another monkey brain into the pool, aiming it so that its splash would elicit more shrieks from the girls. “How about this?” asked Carl, heaving a large rock into the water. At this, the girls began yelling at Carl that he had disturbed their “drying rock,” and the splashing game ended for the day.

For the next few weeks, these became regular features of the fort activity: Maria walking about in her water-filled “slushy” boots, Henry splashing the girls, and Diana trying to collect and trade items while immersed in fits of giggling at the others’ antics. In reflecting on this activity during their interview, they emphasized these activities as comprising their roles in the fort. They agreed that Diana had different priorities than they did: “She wanted to sell stuff, but we just wanted to buy stuff!” recalled Maria. They both identified the “pet frog” as the most valuable item in their fort, claiming that their fort was selected by the frog because it had walls where it could hide safely when the kids weren’t there. “And why the goggles?” I asked. They looked at each other and giggled. “It was just fun to put them on!” Maria answered, as Henry nodded and smiled.

When winter came, Henry spent most of his recesses in the pine grove, where he established a fort with some boys in his class and continued to collect and smash rocks. He also joined into games centered on plastic action figures and trading cards with a group of boys who situated themselves on the soft, dry pine needles, using the tree trunks as backrests. Maria, however, spent her recesses during the winter playing on the playground equipment with other girls. When spring arrived and the woods reopened, Henry, Maria and Diana returned to their fort. They were delighted to find that their “pet frog” still inhabited the pool. Over the course of the spring, the threesome gradually dispersed: Diana to play with Laura on the playground,

Maria alternating between games on the field and rapid forays through the woods, and Henry expanding his explorations in search of interesting rocks.

Values Summary

Maria and Henry's activity in the woods during the year of this study revealed both individual values and those crafted from time spent together in the behavior setting of the woods. Maria, an impulsive, physically restless and fast-moving girl, clearly relished the affordances that permitted her to navigate the hillside and stream at speed, yet with a certain challenge to her dexterity: steep slope; narrow, winding trails; unexpected obstacles such as rocks, logs and overhanging bushes. She was also sensitive to the sensory/kinesthetic qualities of play, dressing habitually in loose-fitting sports clothing that permitted full freedom of movement, yet enjoying the sensory stimulation of filling her boots and trudging up the hill every afternoon to the feel and sound of squelching water (and the amusement of those around her).

Henry was equally attracted to opportunities to scramble through the tangle of brush, over rocks and chunks of concrete on the hillside, but had an even greater interest in what he could find in the woods. He brought with him an interest in rocks and was attuned to their distinctive qualities and, as his teacher noted, paid close attention to what other children were collecting, and how these items were valued. His tendency to get responses through making and playing jokes, and his constant muttered dialogue about what he noted in his surroundings, revealed a strong sense of interpersonal and verbal connections with his environment.

Henry and Maria shared a sense that playing in the woods was "just fun," and their activities often centered on this "activity for its own sake" quality (Reed, 1996), as opposed to the value that other, often older children sometimes evinced of regarding play as work – or as activity with an apparent, definable purpose. They took pleasure in a variety of physical actions:

freely running, sliding and scrambling on the hillside; splashing and wading in water, moving up and down the stream bank. Though Maria was more impulsive and Henry more reflective in conversation, they appeared to modify their ideas to voice a shared set of stated values (their identities as “splasher” and “slusher,” their concern for their pet frog, what value their traded goods had). They also appeared to support each other’s rejection of the “norm” – rules and constraints such as Diana’s insistence on selling and buying like other older children were doing, of wearing boots to keep one’s feet dry or going up a path the easy way. This adherence to doing things differently made their activity appear “frivolous” (Sutton-Smith, 2001), or taking pleasure in inverting expectations.

The behavior setting of the woods, which often seemed dominated by the older children’s orientation toward “work” and commerce, nevertheless easily accommodated the activities of Henry, Maria, and the friends who joined them at their fort. The fact that they had officially flagged an area as their fort territory meant that they could do essentially whatever they chose in this space, whether that meant filling their boots or splashing each other with water, or any other fun activity. I occasionally observed other children passing by this fort on their way to make a trade or for some other mission, and pausing to watch Henry and Maria’s antics. “Is this a fort?” one boy asked, searching for the usual signs of construction or collections, and was quickly assured, with a gesture to the flag on the tree, that it was. Establishing a fort permitted the actualization of affordances for children of similar inclinations – affordances which might have been restricted had they joined a fort where “work” was prioritized. Here, “just having fun” meant using the resources of the setting in unexpected, but highly pleasurable ways.

Lincoln: "Having the forest in mind"

Lincoln came to Jemicy as an eight year-old, after several previously frustrating school experiences. As a highly verbal and intellectually precocious child whose prevailing difficulties involved social interactions as well as dyslexia, his parents considered Jemicy a last resort for Lincoln. Lincoln immediately gravitated to the woods for recess, where he joined a small group of classmates in creating a fort. Lincoln's adaptation to both the school and the woods behavior setting had a profound effect on his emotional stability, according to his parents. This portrait illustrates the broad span of social meanings that one boy's play experience held for himself and those who care for him.

Early in the fall, several weeks after the opening of school, Lincoln asked me to come see something special in his fort. As we approached, his three fort-mates, Joey, Ronnie and Mitchell, were standing in the stream. Joey explained that the boys were adding "clear crystal" to the water to take out the dirt. "You see," said Lincoln in an officious manner, "we have to clear out the stream AFTER the clear crystals, and it kicks up a bunch of muck." He squatted to show me, as Joey continued, "So Lincoln's finding a bunch of clear crystals for us and putting it in. "But no one buys them," noted Lincoln, stirring his fingers around in the stream water. "And we have a bullet shell!" Mitchell offered, holding up a rusted red shotgun shell. Lincoln interjected, sounding horrified, "No, we don't sell *that* bullet shell!" "We have *two* bullet shells, Lincoln," Joey said, trying to calm him down. "Ohhh!" responded Lincoln. "Because bullet shells are really rare, you know."

Lincoln directed my attention to the stream and crystals again. "See? It really picks up dirt. If you follow the dirt... it gets clear." He pointed to the stream flowing past a pile of crystals. "What I think is happening is that, basically, the clear crystal, when the muck hits it, the

muck sort of sticks to the clear crystal, and then the clear crystal sort of absorbs it.” Lincoln examined the crystals more closely, and then remarked, “You know, it’s not particularly efficient, because it only can clean when water *hits* it. And then it makes less dirty water. Now, when we try to clean out this area, it kicks up more muck, which goes downstream.” He gazed down the channel where the water was flowing, and then resumed arranging the crystals, placing them so that they extended farther across the width of the channel. Mitchell, meanwhile, was preparing to go barter some of the fort’s goods, and asked whether he should trade some of their 60 “chestnuts” (buckeyes). “You know,” Lincoln informed me, “the chestnut worth was way down this year mainly because people found a *bunch* of chestnuts. Because there are more going around and it’s easier to get ‘em, they’re worth less.”

I had interviewed Lincoln in the spring of his first year, and began by asking why he chose to play in the woods. His reply was immediate: “For me, it’s like making my own business or small country. I think it gives you a sense of power. And maturity.” Asked what particular activities he enjoyed there, he responded, “I like digging in dirt for crystal – quartz, I mean – and finding animals.” Almost as an afterthought, he added, “And it’s definitely a good way to make friends.”

Lincoln went on to tell me that he enjoyed the trading aspects of the woods, and described the items that he and his fort-mates deemed most valuable: “We sell stuff. Our fort deals with metal and lost stuff and wood. We buy things like pieces of metal and piping – mostly found stuff and valuable, rare, collectors’ items. How valuable it is depends on the piece of metal and how old it is. We may trade it, or use it for other purposes. For instance, we have a broken pipe, and we store other valuables in it. And we have a special piece of wood that scoops out dirt, and you can use it for prying.”

Lincoln said that his fort also worked on different projects. “We build storage, and take leaves and rocks out of the stream. It helps the stream flow and helps the environment, I’m pretty sure.” Lincoln said that his fort location was ideal, because “it’s open and easy to decide where it ends and starts, and it’s out of the way, so it decreases robbery and fights over territory.” In terms of the fort’s purpose as a “shop,” Lincoln said that this too made the location a good one, due to local resources. “It’s next to a place where a lot of people would buy stuff, but not too accessible. It’s also a place that’s rich in quartz and other valuables, so you can find it without having to buy it.”

Over the course of the school year, I observed Lincoln making a gradual transition from the hands-on “work” of primarily moving and manipulating objects within his fort to a focus on the larger woods behavior setting dynamic. Whereas his frequent concerns addressed to adults in the fall had once centered on ownership of certain items (sticks, monkey brains, crystals), they now focused on landscape. He was intent on establishing and enlarging his own fort territory, and he spent considerable time negotiating disputes over land and water rights with other children and with me. In one instance, Lincoln “bought” a large fort adjacent to his whose owners were about to abandon it, and argued that he should be allowed to annex it. This would have effectively given him control over half of the stream territory in the woods, a fact which I heard him pointing out to his fort-mates. I countered that the fort rules stipulated only one fort per owner, and, after further consultation with his friends, Lincoln returned to announce that two of his current fort-mates would be officially leaving his fort to move into the new one. “And we’ll continue to work together with them,” Lincoln added. This kind of strategic maneuvering for goods and territory was typical of Lincoln, who requested his own copy of the fort treaty and had a lawyerly grasp of many possible loopholes. In the fall, Lincoln had difficulty modulating

his emotions and often had tearful outbursts when he felt that an injustice – stealing, unfair accusations, or other rule violations – had been perpetrated. By springtime, he actively avoided situations that might call undue adult attention to problems and tried to work them out himself through negotiation.

In speaking with Lincoln's parents, Eric and Kate, over the course of his first year, they emphasized the important role that they felt Lincoln's recess time in the woods was playing in making this his first truly successful school year. We began our interview during the summer after this year by talking about Lincoln's development from infancy as a child who both reflected some of his parents' attributes in encounters with his environment, while possessing a set of qualities uniquely his own. His mother pointed out that Lincoln shared her love of the beach, of digging in sand, of moving water, of the sensual pleasures of tactile engagement with his world. There was a side of Lincoln as well, she felt, that was very much like his father – oriented to how things work, a fascination with different processes.

Both parents acknowledged that they saw Lincoln's play as focused more on thinking than acting. His mother commented, "When he's playing, he's inventing things, and so for him, play is all about what's going on in his head and what he's making out of it. He enjoys the part of creatively thinking while he's playing." "He talks more about the ideas that he's having than about what he observes," noted his father. "Or if he notices something, it will lead into some idea, and then he gets absorbed in that. I often find myself in the position of trying to point things out to him as we're going along. He tends to just be more intellectual about things. Lincoln may not be noticing the trees, but he's got the forest in mind at all times. He's also very geared toward being green. I think it is because he sees the beauty of nature and he's rule-oriented, so for him, he wants to preserve it and he wants to do it in the right way."

When I asked his parents whether Lincoln's play in the Jemicy woods had an equivalent outside of school, they acknowledged that, though they spent as much time as possible outdoors with him, Lincoln faced constraints outdoors at home. They both emphasized, with regret, the differences in play opportunities since they were children. His father noted that he had spent his own middle childhood exploring and building forts with friends in a nearby canyon. "We try to go out now as much as possible, but Lincoln doesn't go out unsupervised – ever." Eric explained that he and Kate were particularly vigilant because Lincoln tended to pay little attention to his surroundings. "We've always had this fear that if he's out, he will all of a sudden space out and go in the street or something. So that also leads us to want to supervise him more. Even though he knows what the rules are and cares about following the rules very precisely, he will not pay attention. He'll be thinking about other things."

We talked about what coming to Jemicy meant to Lincoln, particularly playing in the woods. Eric remarked, "He's always trying to design or calculate something. So I think this is a really stimulating challenge for him. That's always the most exciting part of his day." Kate agreed, adding, "When I pick him up, he does a radio broadcast in the car. He has a little intro tune, and then he'll say, 'This is the daily fort report. Reporting in from Jemicy forts, it's Lincoln Ellsworth!' It's very standardized, like news blasts from the woods – who did what, and how and why."

Most important, his parents felt, was the vast social improvement they had noticed since Lincoln's arrival at Jemicy. Kate said, emphatically, "For us, this is a really big deal. He is a child who does not socialize easily with his peers. So this is his huge opportunity. He's in a comfort zone there in the woods that he wasn't in before. This has been *the* most successful social interaction we've ever seen. If you saw him before this experience, or even outside of it...

He kept himself in isolation, or he had all these conflicts and it was not easy for him. So for us, this is *huge*.”

Eric added that Lincoln had always been a person who preferred to do exactly what he wanted by himself, as opposed to adjusting to the wishes of others in order to play with peers. “When they had to go to the playground, if the kids weren’t doing what he was interested in, he wouldn’t play with the other kids.” However, now that he had a choice of play settings, the opportunities offered by the woods setting had drawn Lincoln into new relationships with his peers.

Lincoln’s teachers had also observed this tendency on the playground. “The woods have a network,” his homeroom teacher, Robert, observed, “but the free play minus the woods...? I don’t see much social engagement.” He pointed out that Lincoln had earlier made a gallant attempt to join the other boys in the class in playing football. “Afterward, he said, ‘It’s *interesting*, but I think I’ll find an alternative activity.’” Lincoln’s math teacher added, “He always says, ‘I don’t want to partner. I’m fine being by myself.’ Socially, he *can* adapt – he can play with the kids and he can talk to the kids and he can understand jokes and social interaction - but in terms of that group *need*, it’s not entirely there.” Instead, both teachers reported, Lincoln often retreated into his mind when the class went out to play during their afternoon break, wandering around the playground while others were swinging or playing football. “His imagination’s always running. You can see him pick up sticks when he’s by himself, and he’s using them to fight, or role play. His mind is always going.”

“Being at Jemicy offers a freedom that is so enjoyed,” Lincoln’s mother emphasized, “and is *instrumental* to our time here. I don’t know if we would have made it through last year without the forts. You know, for us the forts are the safe haven for Lincoln socially. It took a *lot*

to get to, ‘Oh yeah, these people are safe,’ or ‘These people listen to me,’ or ‘I *can* do this somehow.’ And that is really unique to the forts. He doesn’t really have that to the same degree anywhere else.” But, Kate concluded, “When the forts were closed, we saw a real depression this year. And we were back to a rise in anxiety. There’s a direct correlation for us between the forts and Lincoln’s happiness. It’s that straightforward. When they opened again in the spring, it was (snapping her fingers) like that.” She and Eric wondered, and worried about, what would happen in the coming year when the forts were once again closed for the winter. “I know he’s happier outdoors, I know the value of having this unsupervised freedom, and the second piece for us is having this interaction with other kids.”

Primarily as a result of Kate and Eric’s advocacy, the pine grove was opened for play during the following winter after the woods were closed. Lincoln was excited about the prospect of the new territory and the possibilities for establishing the same kinds of trade and work arrangements as existed in the woods. He joined forces with several other boys to construct a fort at the very top end of the grove under a large pine, directly next to a pile of landscaping rocks. Lincoln’s role in this fort appeared to be primarily that of organizer, or manager. He came to me early on to report excitedly that they had just created “the very first democratic fort.” What this meant, according to Lincoln, was that every decision would be voted upon, with the majority vote to rule.

Noticing that the pine grove needed a foundation for an economy, Lincoln determined that they could use pine cones. Given their prevalence, however, they wouldn’t be considered valuable unless his fort managed to collect all of them first. They set about doing this, and then announced another venture: “Limbo Wednesdays.” By paying in pine cones, crystals, or other valuables, contestants could try for the chance to win even more valuable resources. “Lincoln

says it was a bust,” his father reported to me after the event. “Kids were able to find too many pine cones.” I observed this effort in action one day as Lincoln approached a younger student with a large pine cone and offered to trade it for the rock the boy was holding. “Why would I want that?” the boy asked. “They’re everywhere!” Lincoln turned away, muttering, “Well, so much for trying to stimulate *this* economy!” Having abandoned this enterprise, Lincoln seemed at a loss for what to do. “Can I interest you in this precious, ornate, decorative crystal?” he asked Jonathan another day, holding up a large white rock. Jonathan was not interested. Later, Lincoln came up to me and said, despondently, “I think we need a project here. All there is left to do is build more of a structure, and there aren’t enough materials to do that.” We discussed possibilities for projects, none of which Lincoln felt were viable.

He busied himself for a time by attempting, with a fort-mate’s help, to move an enormous log from the lower end of the grove up to their fort. Finding that it was too much for them to manage alone, they recruited a series of older boys to move it for them, offering to pay them in crystals. Each of the boys employed different mechanisms to move the log – levers, shoving together – to no avail. One day Lincoln and a friend challenged their homeroom teacher to move the log – and the next day it sat next to their fort. Once this endeavor was accomplished, which so far had taken nearly three weeks, there was little else that Lincoln found to do. Each of the aspects of the lower woods culture that he so enjoyed – trading, building, clearing, negotiating territory, discovering new artifacts – was missing from this setting, along with the large numbers of children to keep the setting dynamic with their activity.

When spring arrived, and the lower woods reopened, Lincoln joined a fort with Andrew, a 13-year-old boy with whom he had become friends, and who was quite similar to Lincoln socially and intellectually. The boys discovered that a large tree had blown down just next to

their fort, with its roots exposed and its canopy extending far down the hillside. Lincoln immediately began collecting artifacts that he unearthed from the root mass: bricks, ceramic shards, various pieces of metal, pipes. Soon a crowd of other children, including many of the previous football players in his homeroom, began to gather each recess, working to extricate the artifacts from the roots of the tree. Lincoln recruited a teacher to help remove some branches that were impeding progress, organized a team to remove a length of pipe, and sent other children up to borrow tools such as saws and hammers from the science room. Andrew used the bricks to construct a sturdy wall in the fort, and Lincoln proudly showed me the items that they had collected, “that are like 100 years old!” Furthermore, he announced a detailed plan for re-establishing this fort as his territory, with Andrew, the following fall, effectively ousting the previous owners with whom he had sometimes locked horns. “We all agree,” he said, “that they weren’t very good bosses.”

Values summary

Lincoln’s recess experiences attest to a set of values that might never have emerged in another, more traditional play setting. As described by his parents and teachers, Lincoln’s choices during free play time outside of the woods were dictated more by an internal, imaginary script than by his social milieu. Once involved in fort play, however, this script gave way to active, real-time interactions with the affordances surrounding him and with his peers.

On the affordance level, Lincoln often chose to engage directly with water, rocks, sticks, and especially artifacts. The “unawareness” of his surroundings noted by his parents, and which caused them concern for his safety, was not apparent while Lincoln played in the woods. He often located items which he deemed valuable, found his way easily along paths and through the brushy tangle of the hillside, and was always aware of where a teacher was located.

He relished attaching theoretical and symbolic significance to objects, but even more, Lincoln enjoyed analyzing the systematic processes and structure of this behavior setting. He moved from the more hands-on process of how “cleaning crystals” improve water quality to negotiating fort territories within the bounds of the fort treaty. His understanding of his peers’ behavior was approached similarly. When the “democratic” process of his pine grove fort broke down, he was forced to choose between holding fast to his ideals, and salvaging a friendship (he chose the latter). This constant practice of social flexibility, which he had managed to avoid in previous schools but now embraced in the context of fort play, helped Lincoln develop new resilience over the course of the year.

When environmental educators envision a populace that embraces “green” thinking, someone like Lincoln would appear to be a poster child. He readily grasped the larger, abstract concepts of environmentalism, of problems and their solutions, and was primed to follow any rule that might help to improve the world. Having the opportunity for daily outdoor encounters within a behavior setting centered on peer interactions, however, permitted Lincoln to practice essential social skills with other individuals in a highly motivating context. It also gave him, as he attested, a sense of authority and power that he had to learn to mediate with his newfound skills. By playing in the woods, Lincoln learned to see and navigate, both literally and figuratively, through the individual trees comprising the forest that he valued so highly.

Michelle: “Leveling the playing field”

Michelle came to Jemicy in the fall of 2005 as a seven-year-old and transferred to another school after the spring of 2008. Michelle’s intense interest in nature, supported by a strong family ethic of outdoor activity, was expressed through her recess activities at Jemicy as well as

through her stories about time spent in a family camp in the Adirondacks. This portrait frames Michelle's play in the context of life experiences that accompanied her to and beyond Jemicy.

In my first observation of Michelle at recess, she was in the second day of creating a fort on the far side of the stream in the company of five classmates, all eight-year-old girls. When I arrived, the girls were busily arranging some of the treasures they had found around the base of the large tree at the center of their territory. Michelle showed me a glass bottle with a round hole in its side, and said, with assurance, "This is like 100 years old. We dug it up. We also found a lacrosse ball!" Another girl commented that they should be careful because of all the glass on the ground. Michelle considered this, turning to a friend who was gathering some of the broken pieces of glass from the ground and saying, "I don't think we're supposed to pick up glass in the woods," but then assured me that they kept only unbroken glass.

Pointing to some small branches that had been placed end to end on the ground, Michelle asked whether they could lay out their fort on this spot, since the neighboring house had a fence nearby. "It's OK if it goes an inch over, right?" she persisted. "They won't notice. I mean, they never come down here, do they?" She eyed the neighboring property, and I replied that if they were careful it should be fine. "Yeah," Michelle replied, "and we just found some good materials while we were hiking around the woods."

"Hey look, I can stick this in the ground!" she called to the others upon finding a long forked stick. As she worked on trying to twist it so that it would stand upright, one of the forks broke off. "Yea!" she commented quietly to herself, and then twisted it some more into the ground, pushed dirt with her feet against its base, tested to see whether it would stand up, and braced it with more dirt. Murmuring to herself, Michelle looked around. "OK, now we need a stick that is...like this!" She picked up a stick half the size of hers, considered it, and then asked

me to hold the upright stick in place while she ran to get another stick. She tried unsuccessfully to break it, threw it away, and went to look for another.

Michelle picked up one stick, then another, assessing them, looking all around, appearing to have something definite in mind. She found a shorter, forked stick, called out “This one!” and came over to prop this against the long one that I was holding up. She pressed the shorter stick into the ground firmly, and I let go. Throughout this process, she talked quietly to herself: “Like this...and like this...” I asked, “So you just wanted it to stand by itself?” “Yeah,” Michelle replied, going off and coming back with more small sticks. “Cause we’re gonna make a fire under it.” She began scraping away the leaves from beneath her sticks, pausing only to ask if a small plant was poison ivy, and to identify and examine with curiosity and some disgust the remains of a cicada’s abdomen.

Just before the end of recess, Michelle finished her fire pit and proudly showed it to several of her friends, who admired it and offered to help gather more firewood. As the bell rang, Michelle and a friend stumbled upon a rusty, four-inch diameter pipe protruding from the ground and, after determining that they could thrust a stick all the way in without touching the bottom, ran up the hill to lunch, shouting, “You guys! You won’t believe what we found!”

A year and a half later, I interviewed Michelle, first in a group of her friends, and later by herself. The girls focused on what they felt were the best parts of recess at Jemicy. When one girl offered that working together was one of the best parts of playing in the woods, Michelle immediately responded, “Yeah, but it’s also one of the hardest.” After a moment she added, “When I first came to Jemicy, I thought it was the coolest thing that we were allowed in the woods. Because really, I had never been in the woods here – *real* woods – without an adult standing right next to me holding my hand.” The other girls nodded in agreement.

When I spoke with Michelle alone, her foremost recollections of playing in the woods centered not on fort play, but on spending time at the stream, making channels and dams. “And trying to catch crayfish! We didn’t catch any,” she said, “but I’ve gone crabbing before!” This comment led Michelle, who had been somewhat reticent in her responses thus far, to launch into an enthusiastic stream of reminiscences surrounding time spent with her grandparents. Speaking of dropping food for crabs in the Chesapeake Bay led her to recall tossing food to fish in Tupper Lake, at their summer cabin in the Adirondacks. She related stories of upending canoes with her younger brother; of keeping her guinea pig warm by the woodstove when visiting in the winter; of her younger sister wearing a huge bullfrog on her head; of building igloos when the snow was higher than her head; of how her parents and grandparents built their cabin themselves; of how they called a neighboring vacant cabin “the House of the Three Bears.”

When speaking of her Adirondack activities, Michelle divided them into those that she could do unsupervised, and those with which she was gradually gaining independence. “My favorite thing to do down there by myself is go stream walking, ‘cause we have all these logs, and there will be just frogs all over the logs that go, ‘Croak, croak!’ and jump, and then ‘Croak, croak!’ and then jump. There’ll be thousands of them. And once the frogs are kind of used to someone petting them, like this [she mimed stroking a frog], they don’t hop away from you and go places – they just sit there. And they will come out the next morning.” Michelle was also excited and proud about gaining expertise with boats. “I can canoe, I can kayak, I’m gonna learn how to sail this year, and I can row, row, row! Our pond is kind of in the shape of a peanut, like this [showed me] and there’s a canoe carry here and here. And I can sometimes go here, or I can go here. That’s my favorite thing.”

Louisa, Michelle's mother, also told stories of her own childhood in the Adirondacks. She recalled her father, a guide, taking her in a backpack up the high peaks. Louisa made frequent references to the intergenerational nature of Michelle's experience there, from the stories that she had heard her own grandparents tell of the rugged early days in the mountains, to their present concerns. "My dad is not a conservationist," Louisa explained. "He was a Depression baby, so they were hunting out of season and feeding their family on that and Depression gardens, and a cow tied up in the yard. So he's not like, 'Let me teach you about conserving the land.' He's like, 'This is a good thing to start a fire with,' as Michelle can tell you. Very practical. How to catch a fish with a hook and a piece of line if you don't have a pole." Louisa emphasized that her own knowledge of this place was deeply rooted in her early experiences. "I know the lake, I know where the dead trees are, where the turtles hang out. I know exactly where you put your boat in the water, which canoe carry has the good beach. We spent a lot of time in the woods, getting in a canoe and camping out on an island... It gave you a lot of self-confidence."

In talking with Louisa about how and where Michelle spent her time playing, she immediately returned to this theme of competence. "Yeah, being in the Adirondacks is a big confidence builder for Michelle. I think for her it levels the playing field. You know, she's extremely dyslexic, but when you're out in the woods or you're in a kayak or in a canoe or going down the rapids... she knows a LOT. And I think she's aware of that and part of that is why she constantly wants to be building her base knowledge." Louisa noted that she tried to support Michelle's strengths. "When she's interested, I'm saying, go for it. So much is hard for her. *This* – being in the woods – isn't hard for her. She loves it. We have no conflicts when we're out there. She's kind of living with a level of frustration all the time. Because she's so smart

and things are hard, she sort of has her back up and she doesn't want to learn anything from *me*. But if you're out in the woods with her and you're just kind of talking, 'Oh man, look at this,' and you're giving her information, she's like a sponge. The more you tell her, the more she loves it, and the more questions she has. It's always been like that."

Louisa also noted that Michelle's play focuses intensely on what exists in her immediate world, and that she has tried to fully support Michelle's early interest in wildlife. She related a story about making a special trip to a nature center in the Adirondacks, in order for Michelle to attend a presentation on amphibians. "He had creatures from all over the world, but nothing indigenous. I thought it was interesting, but Michelle wasn't that interested. She *loves* frogs, and I thought a frog would be of high interest to her. But she was sort of like, 'Yeah, it was a frog that they had developed, and they pulled out some serum from him and they could cure diseases. That's all.' She's more interested in asking 'How does it live? What does it need to live? Where does it live?' rather than 'How can we use this for doing experiments or save the world?' She's much more interested in just the *living*." Louisa continued, "Now, they had this poster there that showed the huge mass of salamanders on an average acre in the Adirondacks, but we have *never* seen a single salamander! So Michelle is *determined* to find one. We're looking under rocks and everywhere!"

I asked how Michelle spent her outdoor time at home in suburban Baltimore. Louisa responded that she tried to get her kids out and into nature as much as possible, but noted that there is only one wooded park in their area where she would feel comfortable on trails, and even then, not by herself. "I won't even go on the bike trail by myself!" she laughed. She said that Michelle would like to explore her neighborhood more and that during the day, if she is with a friend, she is allowed to go only a short distance from home. In contrast, when Michelle and her

family are in the Adirondacks, Louisa said, “There is still a lot of freedom. I probably have a false sense of security in the mountains, but I *want* them to feel like they can do things on their own. I don’t want to put any fear in them.”

Values summary

The values that surrounded Michelle’s play revealed the strong, active support of her family for Michelle’s inclination to outdoor activity, and specifically to experiences that could further her knowledge of the natural world. Michelle, like other children with considerable outdoor experience, was immediately attuned to the meaning of the affordances surrounding her, and likewise recognized the value potential for each encounter: sticks are plant-able, break-able, burn-able, etc., while frogs are catch-able, stroke-able, etc. The recess behavior setting of the woods gave her the opportunity to continue gaining practical experience with local affordances, but it also allowed her to express and share her knowledge with others through imaginary play. This evolved over the course of a year from the more isolated pretend campsite of the vignette above to a centrally located “store,” where she and her friends invented and sold edible items collected from the garden and woods.

In her actions and responses in interviews, Michelle’s values were couched in practical, action-oriented terms. She was decidedly a rule-follower, yet questioned what appeared to be arbitrary guidelines (unclear boundaries, “risky” treasures) of the behavior setting, attempting to establish instead her own common sense rules for behavior. This practical approach complemented her sense of ease and familiarity with the woods setting during recess. Not only did she bring prior experience to bear on her encounters with the affordances of the woods, but she continued to enhance the meanings of these encounters with additional knowledge, often gained from the adults in her life. When stocking her “store,” Michelle would often seek me out

to ask about the edibility or other use of a plant that she had found. The values that Michelle had experienced in the Adirondacks merged with her play at Jemicy; i.e., that there were plentiful “goods of the woods,” that these were available to all and that there was inherent worth in sharing them, and that deeper knowledge of natural phenomena through firsthand experience was intrinsically pleasurable.

Another value that emerged from observing Michelle’s play and listening to her stories of the Adirondacks was a sense of continuity. She often phrased her descriptions of prior experiences as also occurring generally, or in the future: “There *will be* frogs sitting all over the logs.” This sense of a place holding its affordances in perpetuity was important not only for the multi-generational value of her family experiences, but also for her daily encounters in Jemicy’s woods. Michelle had learned what to expect from this environment and looked forward to these interactions with confidence.

This is the value of the “level playing field” that Michelle’s mother referred to: the feeling of competence and ability to navigate an environment utilizing one’s areas of strength. To the extent that they are able, individuals select the playing field that most suits their skills and interests. A woods environment does not necessarily provide a level playing field for all children, certainly – particularly those whose prior experience or family context had not prepared them for the encounters they would have here. For Michelle, however, having this field of competence provided not only respite from the challenges of an uneven academic field; it gave her a sense of continuous and consistent possibility that fueled her passion and kept her in the game.

Abby: "Finding common ground"

I interviewed eight-year-old Abby in the late fall of 2008, along with her friend, Erin, a new student that year. At this time, Abby, who had come to Jemicy two years before, played exclusively in the playground area during recess, having ventured "only once or twice" into the woods with a friend in the past. "I'm just not a woodsy kind of person," she said offhandedly, when I asked her about her play preferences. This contrast with her peers' behavior was the primary reason for selecting Abby for observation in this study. Abby remained on the playground while nearly every other child of her age chose to play in the woods, at least during the first few seasons in which most observations were made. This preference for the playground in her first two years included, in her third year, a clear aversion to the woods. This was noted during science classes in the fall, when she would display anxiety about taking a group hike in the woods, and would request an alternate activity. Privately, Abby confided that she was fearful of ticks and insects. Accommodations were made for Abby during outdoor classes, but her mother, contacted about this issue, was primarily concerned about her apparent self-isolation from most of her classmates during recess.

During our interview, Abby reported that she usually played at home in her front yard with her siblings or a friend from school. When asked about her younger siblings, Abby said that they sometimes fought over using a rope swing hung in a tree. "I usually run around with my dog, or I go on my swings. But I have a lot of yard – a *lot, a lot* of yard. It's kind of like a little field in my front yard." She also had "a really good neighbor with a lot of open lawn." In addition to this emphasis on open space, she noted the importance of trees: "We have one big tree in our yard that I like to climb. It's a really good tree. It's old and it's starting to break, but it's still basically the only tree that I trust to climb...the branches are as thick as the table." She

added that, as it was not too tall, she could climb to the top of this tree where there were “flat branches” to play in.

Abby also spoke about how much her mother trusted her with her younger sister and brother. “We have a woods, we know where it is, we know all around there, and my mom’s taken me down there. She trusts us. Like, pretend I just wanted to go down there, and I asked my mom...? I can go down by myself, but I have to ask first. But if I have a friend over, like if Erin came over, and if we go in the woods, I don’t really have to ask. My mom really trusts me in that woods a *lot*.” When asked to describe the playground at her previous school, which she attended through kindergarten, Abby depicted it as designed for much younger children. “So, recess wasn’t that fun,” she concluded. “I usually played in the sandbox or played tag with my friends on the playground, but there wasn’t as much time, and it didn’t give me as much air.” Asked if she could clarify this, she said simply, “I like to go out.”

During recess at Jemicy, Abby reported in our interview, she spent time on the playground and felt that the newly installed swings were a great improvement. “It made a *huge* difference,” she replied. “The other ones were all chains and they were like all greasy, and they were really rusty and I didn’t go on them as much ‘cause I thought they were dangerous.” Erin agreed that playing on the swings was a favorite activity for her, too. Abby added that when they weren’t on the swings, they usually “just played catch and stuff.” Since I had already broached the topic of going to the woods with Abby in an earlier conversation, I asked Erin whether she had ever played there. She replied, hesitating and glancing at Abby, who looked down at her knees, that another girl “took me down there once, but I don’t go down there anymore.”

Erin was the only girl who consistently stayed with Abby on the playground. On several consecutive days in mid-October, they were usually found on the swings, side by side, or

walking around, watching some of the other children playing on the climber. One day, as the bell rang for the beginning of recess, a group of older, middle school students ran to claim the swings before the lower school students were dismissed. Erin and Abby emerged from the building and stood by the garden watching the activity on the swings and talking. Abby gestured in the direction of the climber, where several girls were swinging on the monkey bars, and moved toward it, Erin behind her.

When they reached the plastic border of the climbing structure, they paused. Abby whispered something to Erin, and they both turned toward the swings, where one of the middle school girls had gotten off and was running over to the sport court. Abby dashed over to the swing, grasping one of the chains just before a younger boy did, who had also apparently been waiting. She held the swing away from him, pulling it toward Erin, who immediately grabbed both chains and jumped onto the seat. The younger boy stood back, watching as Abby pushed Erin from behind to get her moving. He said something to Abby, but she ignored him, turning instead to the older girl on the swing beside Erin's and asking whether she would be done soon. The girl jumped off without answering and walked away, while Abby caught the swing and hopped onto it, immediately pumping herself into motion. The younger boy leaned against one of the support poles and watched Erin and Abby as they worked to coordinate their swinging and bring themselves side by side, without a word. The bell rang for the end of recess just as they managed this, and they both slowed and jumped off simultaneously, then ran quickly toward the back entrance of their classroom.

In the winter, Abby followed a similar pattern at recess, though the addition of two new girls to her class increased the size of her play group. One of the girls actively initiated games on and around the climber, which Abby eagerly joined. On one occasion, Abby and Erin played a

game of tag with some of the boys from her class, along with several girls from one of the younger classes. Abby and Erin ran and hid behind the tutoring building, which was off limits for recess. Then, when the others in the game were being reprimanded by a teacher for being outside the boundaries, they quietly emerged from their hiding place and surreptitiously walked around the building to return to the playground, unnoticed by the teacher on duty.

In the spring, Abby's science class worked on a project that involved studying a vernal pool in the woods by the stream. Unlike the reluctance of the fall, Abby now showed enthusiasm upon entering the woods in the company of her friends. This held true for recess time as well, when the new girls in the class initiated the creation of a new fort under a privet bush near the pool. Nearly every day, Abby and her friends – “her pack,” one teacher called them – would pull on rubber boots and head into the woods. There they would work on clearing brush from around their fort, collect items to decorate it, monitor the development of tadpoles in the pool, and take walks in and along the stream. During one recess, the group located some deep mud and spent much of their playtime sinking their boots ankle deep into it, and then clung to each other for support, shrieking as they tried to extricate themselves. Abby remained in the midst of this activity, laughing and tugging at her friends, until finally an older boy came by and offered to help them, pulling them one by one to dry ground.

Abby was talking with these friends one day as we walked down to the stream for science class, telling them about her woods at home, and the waterfall in her stream. I asked her to describe the waterfall, and she gestured, holding her hands as high as her head to illustrate its size. Erin nodded her head and affirmed, “It really is!” The girls discussed what kind of woods each of them had to play in, with Abby offering the final word on hers: “It's so *cool*.”

I spoke with Abby's mother in the spring, asking her to comment on how she viewed Abby's play activities in relation to her own as a child. Claire, who had grown up in a small town on the beach, said that she had spent most of her own childhood playing outdoors, was given considerable freedom compared to today's standards, but still felt as though adults had kept a watchful eye on her.

She felt that she had clear, reasonable boundaries for her own children, although she encouraged exploration. "Abby has always been a very quiet child who is not always a risk-taker by any means. So now, when she likes to take a risk like going into the woods, I encourage those things." She described their immediate neighborhood as small and safe, a place where Abby was allowed to ride her bike a short distance, but also as adjacent to very busy roads. "I'm not ready to let her ride around the neighborhood, even though I know she is *the* rule follower and she knows her limits pretty well. I think she makes very good decisions. She's very responsible. I'm just a worry wart – I think I got that from my mom," Claire added. Abby had friends that she played with outside of school, but they lived on the other side of the larger neighborhood. Usually Abby played at home with her sister and brother, especially in and under nearby trees in their yard.

Claire went on to talk about the transition that Abby had made in the spring, from playing only in the yard to now going into the woods at the edge of their property. She was most surprised that Abby's previous fear of ticks had apparently vanished. On a recent family walk through a friend's woods in New Jersey, several of the children had returned with numerous ticks on them. "But she wasn't freaked out by it, which surprised me. I think in the fall, she would have talked about it for weeks. Like, 'You know, when we went for that walk and there were all these ticks?' Not a word has been said about it." Talking through her fears was Abby's way of

overcoming them, Claire pointed out, and perhaps that was how she had managed to arrive at her present state of being able to play in the woods. “There’s really nothing I can do until she reaches her comfort zone. She has to come to the conclusion herself.” She added that this often takes more time than she herself would like to allow. “It just takes her time to warm up. ‘All in good time’ – that’s always been her personality.”

Her mother saw this approach to the unfamiliar in the play relationship between Abby and her seven year-old sister. She described this younger sister as the leader who took risks and initiated adventures that Abby would eventually join. This tendency was echoed by Abby’s homeroom teacher at Jemicy. “She is not a risk-taker. She does wait until she thoroughly understands something, until she knows exactly what everyone else will say and do.”

Claire said that she and her husband were delighted with the transition that Abby had made over the course of the year, and attributed this in part to Jemicy’s philosophy of getting children outside and encouraging them to take risks. “She struggled before academically, and we’ve seen tremendous growth in her self-esteem. She has come out of her shell one hundred percent.” Just as important, she felt, were the signs that Abby was showing growth socially. “She’s always been a one- or two-friend person, but now she’s more comfortable with more people. She’s created this group that she talks about now, how they go down in the woods, and I’m hearing more about interaction with peers than I ever have. It’s interesting that it’s in the woods, and they’re creating forts. I think that’s building relationships. It’s creating common ground.”

Values summary

The values that Abby displayed during this study revealed her perception of the play environment as a place of opportunity and risk. These values were heavily mediated by family

and peer relationships. While she indicated that it was important for her to “get air” by playing outside, the relative safety, cleanliness and order of the playground in comparison to the woods dictated her play choices in the fall and winter. The affordances that she perceived in the woods held negative value for her at this time, outweighing the positive aspects of participating with her peers in that behavior setting. Having a friend who was willing to participate in the playground setting made the affordances there sufficient for Abby in the fall. This caused concern for her parents, however, who preferred that she experience a broader range of opportunities.

The expansion of her peer group during the winter created an opportunity for Abby to move past her previous fears and, in the spring, to participate in the woods setting. She experienced the affordances of this environment – the sticky mud, the hidden fort – within the context of her friendships, allowing her friends to lead her into behaviors that she previously would likely have considered too risky to face. The “common ground” that her mother referred to was thus composed of her experiences with friends in a specific environmental context – a behavior setting – which she previously rejected. She was unwilling to actively participate in the woods setting until drawn in by the development of a suitable social configuration. Once this hurdle was cleared, Abby further satisfied the concerns of her parents and teachers by demonstrating comfort and competence in a broader range of settings, an expanded common ground.

Mark: “Free to be my own self”

Mark arrived at Jemicy in the fall of 2007 as an eleven-year-old transfer student from a suburban Baltimore public school. He had attended Jemicy’s summer tutoring camp, so he was familiar with the campus, had already made himself at home in the woods, and had quickly adopted an informal, friendly relationship with teachers. When I first met Mark, I was initially

charmed by his warmth, openness, and spontaneity. Characteristically, he dove headlong into his new school's social milieu but was resoundingly rejected by his peers, who claimed that his physical and verbal exuberance were invading their space. Teachers agonized over his constant activity. Teaching a class with Mark in it required constant monitoring of social chemistry, as well as acknowledgement and active, hands-on engagement of his remarkable intellect. Fortunately, after navigating rough terrain for much of the year, Mark, his classmates, and his teachers eventually arrived at a plateau of understanding and mutual respect. This portrait traces the contours of Mark's involvement in the woods behavior setting, focusing on the dynamic created between the force of his individual actions and that of the social setting.

For Mark, the immediate contrast between his former school and Jemicy was stark. "There were woods, but we weren't allowed back there, because they were afraid that we were gonna get bitten by *snakes*, or we were gonna be attacked, or we're gonna get poison ivy, or we're gonna get pricklers." At Jemicy, Mark conceded, these things were still possible, but there was a difference in perception. "That still happens down in the woods, but like kids know *more* about that here, because we have science. At my old school we didn't have science like we do now. Here, we talk about the woods, we talk about the animals down there, and there is more stuff than you would see in a normal school. That's why Jemicy is so special."

I asked Mark why he chose to spend his free time in the woods. He thought for a moment, and then said that his older brother and his father were probably his greatest influences. "[My brother] likes to go out and run and have fun, and my dad likes to build things. So that's normally what would drive me down there, where I can just be free to be my own self... just create *anything* I want to. I can just go down there, be wild." Mark said that he generally spent time at home outside by himself, "just walking down trails." This statement contrasted with his

mother's later interview response: "I'll say, 'Why don't you go outside and play on the swings or something?' but he'll say 'No, I don't want to go out.' Mark never goes out by himself."

Both Mark and his mother, Angela, acknowledged that he spent time with neighbors, including one who Mark said was the instigator of most activities outdoors, including tag and football. "I'm just the semi-leader. Brady would have to be the leader, cause he's normally the person who doesn't care about taking risks, he just goes at it, and just follows through it."

Angela suggested that once Mark had found someone to play with, they would make decisions jointly about what to do: video games if the weather was bad, or skateboarding, bike riding, and "God only knows what they're doing out there – finding some kind of adventure!" Angela said that Mark was well aware of his boundaries, and that she trusted him outdoors. "I'm pretty much OK with letting him go out and adventure, and not hold those strings."

In my interview with Mark, I commented that he always seemed to be finding interesting things: insects, feathers, ceramic artifacts, and particularly unique rocks. "Oh yeah, that's me," he chuckled. "I'm the kind of person who, if you get interested in something, you just go for it. Like, if you put this yellowish rock on the ground, I will go dig it up, put it in my hands, even though I'm aware that my clothes *will* get dirty. I will *get* it and show it to somebody."

When I asked Mark to list his favorite things about the woods, he responded immediately. "I would have to say the waterfalls, how you can make the dams for the other kids to help with, and the things you can find down there. You can find animals, rocks, anything. And things that you can trade. And the territory. Just the main territory that you can just have for yourself. Freedom. And independence." I asked if he would be returning to the woods when it reopened in the spring. "Oh, I'll be the first one down there!" he laughed.

Observations of Mark in the woods over two and a half years revealed a boy in constant motion. His personality tended to dominate indoor situations, classroom and otherwise, but in the woods, his energy seemed more proportional to his surroundings. In his first year, he jockeyed for position among the younger children and those remaining from his fifth grade age group, never asserting his own need for territory, but stoutly defending the boundaries set by others. He joined and left several forts, either rejected or sometimes of his own accord. In his second year, he developed friendships with the two or three other boys his age who also chose to go to the woods for recess, and with this he seemed to gain some stature among the younger children. This solidarity vanished during the winter, when Mark came to the pine grove for recess, and his friends engaged themselves elsewhere. He joined a fort with one older boy, Andrew, but once the initial construction of their stone boundary wall was complete, Mark found himself out of meaningful work. He attempted to insert himself into the trench-digging begun by some fifth grade boys, but was rejected. He approached me at one of these times, and asked, disconsolate, when the lower woods would be reopened. When I told him it would be after spring break, and asked what his first activity would be when he returned there, he answered, "Help the little kids with their waterfall and dam!"

When attempting to classify Mark's observed activities, I found that they fell roughly into his "favorites" categories. He gravitated most often to the stream, where he could be found digging in the sandy stream bed and constructing waterfalls and dams. Mark's mother had commented that on family trips to the beach, Mark was more likely to focus on the sand than the water, and would spend hours on elaborate constructions. This was true as well in Mark's first year at Jemicy during the first recess, when the woods were not open. He would head for the sandbox with shovels and buckets, where a crew of younger children would gather and help

make “turtle castles” and “lizard mansions” for the science room animals, and proudly showed his creations to all who would look.

Mark’s work in the Jemicy stream changed over time, from an initial interest in “clearing out” to more organized construction, in which he often assumed the role of foreman. Because Mark was able to lift heavy items, he was often recruited (or volunteered) to move logs and rocks for younger children. His aptitude for finding and noticing interesting things along the stream frequently drew others’ attention, but he had a penchant for telling exaggerated stories about things he claimed to have observed (“Raccoons, chipmunks, frogs – they all came running out from under that log!”). Mark developed his own theories about the origins of many of the woods phenomena: “This pipe is from a factory downtown.” “I’m guessing that dam was made by beavers.” “If we put all these pottery pieces together, they will make a really valuable plate.” He also devised theories to help explain the economy of woods trading. When walking with another boy out of the woods one day, Mark reflected, “Stores are where the money began.” He paused, thinking. “Because of stores, people made up money. Because of money, people were starting to get greedy. Because of greed, people would never share.” He swung his arm in a large arc. “One big circle. That’s all it is.”

Mark’s perception of the freedom he experienced in the woods sometimes bordered on the naïve, and sometimes exceeded the bounds of both behavior setting and school rules. He was caught urinating behind a tree on one occasion, and seemed nonplussed by the uproar this caused among the other children. “But it’s nature,” he responded, when I spoke to him about it. He also believed that the water in the stream, which originated in a series of nearby seeps, was pristine. Approaching me one spring day after a week of heavy rain, he said excitedly, “Did you know you can wash your hands in the stream? I fell into the river, over there (pointing to the upstream

end), and it was *fresh* water!” He looked at me with delight. “It went into my mouth and I drank it. It was fresh water!” The other children who heard this – most of them younger than Mark – looked aghast.

One of the most revealing pieces of data regarding Mark’s perception of the woods came from a video that he shot independently during recess one day in the fall of 2008. At the recess bell, he had wandered past me on his way to the woods, muttering about a frustrating class. When I asked Mark if he would like to videotape recess that day, he lit up. “Oh, that’s cool,” he said, when I described what I wanted him to do. He took the camera and began to narrate as he shot.

“Right now, (*turning the camera back on his face as he talked*) we are walking down into the woods. And over here (*aiming toward the sport court*) is where the kids play basketball, but that isn’t really important. Right now we’re going deep into the woods to see the interesting facts. Right here is the rope. I’m holding this camera...and the rope. Here we go. My name’s Mark (*turning the camera on himself, and then back on the rope*). I’m coming down...nice and easy...then I’m gonna go to the little J-E fort, see what they’re doin over there. Over here (*aiming at the grass to the side of the path*) we saw a little snake, but it’s disappeared somehow. No one knows what happened, unless there was *mischief*, but I doubt it. Now I’m followin the stream...”

He came upon Dylan, who showed him a piece of quartz, and told Mark that he joined this fort just yesterday. Another boy, working nearby, challenged Dylan’s membership: “Nobody said you could join.” Mark interceded in a lecturing tone, “*Anybody* can join any fort, so you can’t *argue*.” He continued down the stream and found a group of children: “Would anybody like to do a review, and tell me about their fort?” There was an enthusiastic response

as, one by one, children shared information, showing him bones, a stash of monkey brains, and other valuables.

“That’s our pond,” said Alex, pointing to where the water pooled in the stream. “This is their friendly, friendly friend the pond,” repeated Mark. “And here is their bridge that I can take. Ver-y un-stur-dy” he commented, wobbling on the row of sticks as he crossed the stream. Pointing to the woods beyond the school boundary, Alex said, “Emily said it’s OK to go over there because that’s where we get our string and all the metal.” “Now I’m going past the woods where I’m not supposed to go,” said Mark in a guarded tone, “but Emily says it’s OK, so I’m just gonna follow him.” “There is some more metal here,” he commented, watching a girl pick up a metal fence post. “And what’s your name?” he asked. “Jenny,” she answered with a grin, continuing to pull the post from the dirt. “Hello, Jenny!” said Mark. “What do you do?” he asked. “I help them clean the fort out...and find stuff for ‘em.” Someone yelled from Alex’s fort, “Guys, you’re off the fort limits. Get back.” “No – Emily said we could get stuff here,” Alex called back. “Well this is off limits for the forts,” said Mark, decisively, “so now we gotta go back.” When he returned to Alex’s fort, Alex showed him the high water mark left by a recent flood. “This is what Mother Nature did,” said Alex. Mark repeated and emphasized this comment for the camera. “The water was all the way over here... by this wheel that they hung. Now let’s see what they got over here. Right now they are unclogging a waterfall that turned mucky and disgusting.”

Andrew appeared, standing by the stream with arms full of monkey brains, and asked, “Anybody want a monkey brain?” Mark turned to him. “And this is my friend... What’s your name?” Andrew pretended outrage: “You don’t even remember from soccer?!” Mark repeated the question, chuckling. “I’m gonna throw this at you!” threatened Andrew, taking aim with a

monkey brain. As the two boys bantered, Mark took one of the monkey brains and tossed it in the water. “Ahh, beautiful monkey brain, soaking into the water,” he said. Mark turned the camera to Anna, who was standing in the pool, wet and dripping from having just been splashed by Alex, who had copied Mark. “You just splashed that little girl, which was a bad thing to do! This was not cool, my brother!” Alex just grinned at him.

“Now I’m about to move on,” said Mark. “Would you all say bye?” The kids waved and called, “Bye!” Alex, waving his hand, came back up to Mark. “We forgot to tell you something! Doesn’t this look like a turtle?” He patted a stump they had dragged into the fort area. “See?” said Alex. “The shell’s right here (*pointing with a stick*), and the head’s right here.” Mark aimed the camera at the rotted interior, murmuring, “And inside there must be a cave where bats or bugs lived. But now (*aiming the camera at himself*), got to move on....”

Mark continued on up the stream, passing various forts and calling to the kids to say hi for the camera, which they did. He paused by one fort where Diana had just found some pieces of ceramic tile. “Hey I remember this – can I see that?” He held the tile up to the camera. “There’s a piece of pottery, and I used to collect these. All right, let’s continue. It looks like this tree (*ducking under it*) naturally fell down. Look! (*bending and zooming in to inspect a hollow*). Burrow. Animal or a squirrel probably have lived in it. Ah.”

Christopher, an older boy, appeared, and Mark greeted him enthusiastically. “Hey Christopher!” “Mark!” responded Christopher, slapping his hand. “Have you seen any salamanders?” asked Mark. Christopher immediately turned and headed upstream. “Hey man!” Mark called to James, another member of his fort. “We’re gonna get us some salamanders! Shhhh- gotta be very quiet. Salamanders are very feisty and angry at the same time.” “Salamanders aren’t feisty!” James argued. “Some are,” replied Mark. “Aw, they’re little tiny

worms with legs! And a head!” James retorted. “OK – whatever,” sighed Mark. “Now we’re on the dry part, and this fort is flagged...by ME! This is MY area.” He knelt by the stream next to Christopher. “Hey, hey look man, we got salamanders over here! We have a little salamander...No no no!” “Let me get him,” ordered Christopher, reaching his hand into camera view and grabbing a salamander. “That’s a *big* salamander!” exclaimed James. “See, what kind of salamander do we got here,” murmured Mark. James’s younger sister joined them. “Can I hold him?” she asked. “Would you like to hold him?” asked Mark. He grasped the salamander and placed it in her hand. “There you go. Whoooo!” He giggled as the salamander squirmed in her hand, then moved away.

The bell rang for the end of recess, and Mark began to ascend the hill. “Now we’re coming out of the woods. A vast and dangerous place (turned the camera back on his own face and grinned) which contributes... to evil... *salamanders!* Naw, I’m just jokin with you! Let’s go up. Now we’re leavin, out of the woods,” said Mark, turning back to get a view of the woods. “As you can see, it’s very steep. Which ends our tour of the woods – a beautiful place where people come and play and have fun.”

Values summary

When Mark, who had grown up in an urban home and public school culture, arrived at Jemicy, his expansive, inquisitive personality bubbled out and flowed in every possible direction. The woods immediately captured his attention as a place where he could explore and interact without many of the constraints of classroom settings. Socially, Mark had initial difficulty modulating his impulsive and assertive style to fit the needs of a fort group, and he wandered from fort to fort for a year, sometimes leaving on his own but often rejected by the other members, before finding a suitable role for himself and some peers who appreciated him.

During the period in which most data for this project were collected, Mark had established a fort with several peers of his age, well away from the younger children's fort activity. He regularly came downstream to interact with them, however, trading items, helping them clear or build dams, and carrying heavy items that they couldn't manage. He seemed especially to enjoy and share in their excitement over discoveries, and kept tabs on whatever news or gossip flowed through the setting.

The sense of freedom that Mark particularly noted as key to his recess activity had several dimensions. He perceived that, at Jemicy, he was able to physically explore beyond the constraints of his previous school's fears (poison ivy, prickles, etc.). He also noted that these fears were common to outdoor, wooded environments, but that Jemicy students had access to instruction and knowledge provided in science classes that permitted woods play to occur in spite of hazards. His comment, "There is more stuff" at Jemicy indicated an appreciation for the diversity of affordances offered by the woods setting.

Mark valued the chance to establish ownership in the woods, but in a broad, non-territorial sense. Ownership to Mark, especially as he grew older, seemed to extend to the woods as a whole, and later, to the entire school campus. He was attuned and attentive to occurrences throughout the woods, and, as his video narrative indicated, perceived the activity of different groups of children as having inherent sense and interest, whether this was capturing and holding salamanders, constructing a bridge, or collecting pottery. This fit with his value of fun – the inherent pleasure of tossing a monkey brain into water with a splash, or teasing his friend, or even joking with the camera. His imaginative embellishments of what he observed in the woods ("angry salamanders," "a vast and dangerous place") were as much a part of this sense of fun as his delight in busting through a clogged dam, or playing tag with the youngest boys on the

hillside trails. In these games, Mark was always “it,” the big, benevolent ogre roaring after his delighted, squealing prey.

Teacher reports on Mark often referred to his impulsiveness, his poor judgment of boundaries, both physical and social, and his incessant need for actively exploring and manipulating his environment. “Free to be my own self” encapsulated his sense of escaping constraints while investing himself in activities that suited his play interests. In the woods, Mark both exercised and honed his personal qualities to fit the opportunities available to him there.

Jonathan: “Almost like real life”

Jonathan came to Jemicy at seven years old, a verbally precocious and serious youngster who enjoyed engaging adults in discussions of current, real-world issues. He quickly joined forces with his peers to create a fort in the woods whose elaborate social hierarchy excited his imagination and became a focus for his recess play for several years.

When I interviewed Jonathan, I first asked about his opportunities to play outdoors at home, and then about his school recess experiences prior to Jemicy. He began by describing constraints that kept him within his parents’ sight, including the fact that he lived in “a fast area” and that he had three younger brothers who would try to follow him. However, he continued, he had neighbors who liked nature and who enjoyed hearing his stories of playing in the woods at Jemicy. “I wish I had my own woods,” he concluded. “When I grow up, I’m probably gonna buy a house that has woods, and I’ll try to put a little establishment in there for my kids.”

Jonathan’s own description of his play choices at school, both at Jemicy and previously, revolved around his status among his peers. He described his favorite game at his previous school as “boys against the girls,” the best part being when “I met this kid who was the head of

the boys' team, and he put me in second in charge, and it was fun!" When he came to Jemicy, "it was very, very fun. People in higher grades would get a higher command, and that's kind of how it still works." He elaborated on the assignment of ranks and jobs in his fort group in the woods. Jack, he said, was in charge because he was the first to claim the fort. "But everyone usually goes to Calla, 'cause Calla's most in charge. Calla will give you jobs...and Jack will help you with the jobs. He likes to *work* and not sell, and Calla likes to *sell* and organize." Jonathan emphasized that he was of the same rank as Calla, "but I also went over to different forts, and I tried to make friends with them. We'd kind of make an agreement. I was really good at negotiating trades and stuff like that." He added, "And, it really helped me to have that job."

Jonathan voiced regret that things had changed over time at recess as his peers made other choices for play. "I think a lot of the kids in the woods treated it almost like real life. Your fort was your house, you had money, you could trade, you could buy, you could sell things, you could really do anything." Was there something special, I asked, about Jemicy's play opportunities being designed for dyslexic kids? Jonathan responded, "Dyslexic students really have to have hands-on activities. And Jemicy lets you have that. I think Jemicy does a very good job of keeping it *open* and *hands-on*." He paused. "I think there's probably no other school in the universe that's like Jemicy."

Jonathan's mother, Deborah, said that she viewed Jonathan as an "old-fashioned" boy, because his interests weren't geared toward a modern emphasis on organized sports. Instead, Jonathan had always immersed himself in imaginative play, creating scenarios where he could role play realistic positions of leadership. "Jonathan always wants to be the leader, in charge," explained his father, Greg, in describing how Jonathan's play choices also illuminate his social interactions. "He says, 'We're playing spy, and I'm the chief boss,' and 'We're playing army,

and I am the general.’ That’s just his personality. We’ve called him the vocational trick-or-treater, because ever since he could decide what he wanted to be for Halloween, it’s been an army man, policeman, doctor, firefighter, a construction worker, detective, musician... He’s never been one to play Superman or some kind of a cartoon character. He doesn’t have any interest in that kind of fantasy stuff.” This extended to his TV-watching, his parents noted. He far preferred watching history or science – “something educational and real life” – to any other subject.

Jonathan’s desire for leadership was mixed with ambivalence, his parents and teachers noted, in that he appeared to want roles that would give him authority, but not necessarily the work involved. Greg, citing the requirements for earning a badge in Boy Scouts, felt that Jonathan’s desire to work toward a particular rank was dependent on whether his peers did likewise. Robert, Jonathan’s teacher, saw this as reflective of Jonathan’s desire to retain the playful qualities of childhood: “Jonathan’s in no rush to leave that magical exploratory part of childhood. As you go up, it’s an inverted relationship between liberty and responsibility. He’d rather have the liberty.” Robert also attributed Jonathan’s ambivalence about being a leader to his dislike of conflict. “He’s a little sensitive when there’s distress in the rank and file. After recess he came in stressed out a couple times, because there was dissonance within the group, and there wasn’t consensus... In the ebb and flow of things, the waves are bigger to him. He thinks every incident is mutiny on the Bounty. That’s why he doesn’t want to be the captain.”

I asked Robert to describe Jonathan’s play at Jemicy. “When the recess bell rang, he ran to the woods like there was lost treasure down there,” Robert remarked. “He was pretty inventive and could take a little bit of nothing and transform it into something. His props were pretty simple; when he found something, it was one thing one day and something else another day. He

was also more purposeful than some of the other children. He would have a plan of what he wanted to do when he got down there: put sticks in the creek to make a dam or something. If he didn't get an enthusiastic response from his mates, it's one of the few times that I saw him not cave in and acquiesce. Kids would gradually come to his plan. I saw Jonathan exude leadership qualities down there that I don't see in the classroom. Out in the woods, he was a very good self-promoter."

Greg and Deborah remarked that Jonathan spent little time with friends outside of school, and that when he did play, either with his brothers or when they were with friends who had children, he "played down" and engaged in the kind of imaginative activities that younger children enjoyed. When change inevitably occurred over time in the other children's play behavior, it caused Jonathan some anxiety, Greg said, as it became ever more apparent that Jonathan was not following the "normal" pattern.

In observing Jonathan over the last three years, I noted several distinct phases of play. In the fall when he was nine, imaginative play, both with objects and roles, predominated. His fort group consisted of boys who were eight-ten years old, and much of Jonathan's time was spent working out the furnishings of their fort and his own status. In the second year of observation, Jonathan's fort group included both girls and boys of his fourth grade homeroom, who collectively established and influenced much of the woods behavior setting that year. In the fall of his fifth grade year, many of the same homeroom group continued to spend time in the fort but gradually abandoned the woods to play or watch football on the field. Those who remained were a few boys who, with the eventual dissolution of their fort structure, requested jobs as "woods patrol." Jonathan was the primary instigator and perpetuator of this initiative, as well as the enforcer of what he perceived to be the code for safety and correct behavior. The vignettes

presented here illustrate the evolution of these phases, and the play behaviors and accompanying values that Jonathan exhibited during these times.

2006-2007

During one of the first days that the woods were open, when Jonathan was nine, one of his fort-mates found an artifact near the stream: a brown ceramic insulator with a two-foot section of thick cable attached. “What is this?” Brian asked. “It’s an electric holder,” said Jonathan, examining it. “It fell down from an electric wire.” Jonathan took it from him and put it on the fallen tree that served as the base of the fort. “We’re going to leave it up here as a statue. It’s our representative of our fort.” “What are we gonna use it for?” asked Brian. “We’re just going to leave it up here,” answered Jonathan. “Maybe we can pretend it’s like a lamp or a satellite.”

Jonathan asked me to flag their fort, and when I had fastened the yellow caution tape that they had chosen to a branch, Jonathan cheered. “Yea! This is officially a fort with the captain, Jack Sellman!” He then asked Jack, “Can I be second command?” A heated discussion erupted among the seven boys who claimed membership in the fort, with Jack pointing and designating roles. “He’s third! Fine, you’re assistant!” Several boys decided that they wanted instead to be workers, and left to go dig in the stream. Three boys – Christopher, Jonathan and Connor – continued to debate their titles: “No, I am assistant! No, you can’t be command. No, *you* be second!” Jack attempted to intervene, but Jonathan took charge. Pointing at the others, he declared, “OK, second, second, second. We need three seconds.” This appeared to settle it. The boys all headed to work on the stream except for Jack, who climbed up on the trunk and announced, “This is my office (slapping one spot) and this is the employee office (slap).” These

statements instantly reignited the debate over roles, which went on for the next ten minutes, until Jack stood up and declared, “You’re all first assistants, and no more arguing!”

The next week, Jonathan and several other boys came to recess carrying pieces of leather shaped like badges, on which they had scrawled various symbols. “Want to see mine?” asked Jonathan. He held it up to show me. “It says, ‘Chief of Police-CIA-FBI-Fire Department-Police’.” Megan, whose fort we were in, began to protest against Jonathan’s intrusion. Jonathan immediately flashed his badge. “Police chief, ma’am!” “What are you doing?” asked Megan, sounding annoyed. Jonathan made a sweeping gesture. “I am looking for Patrick Wald!” he declared. Exasperated, Megan replied, “Well, Patrick Wald is not here, so what are you doing in our fort?” Without answering, Jonathan ran off down a path.

2007-2008

Jonathan gave me a tour of the fort that he shared with a large number of his fourth grade classmates. Entering the fort, he greeted two boys who were busily scraping “polishing powder” from chunks of concrete, and described for the camera the process of accumulating this powder. He then moved to the “safe” – a hollow at the base of a tree – and, while pulling out the contents with one hand, described each: a tennis ball found in the stream, a piece of twisted, rusted metal that the fort used for punching holes in things, a supply of crystals in “rare” colors: black, orange, and white. At one point, Jonathan turned to me and murmured, “Can you turn the camera off for a minute? I want to show you something, but I don’t want the insurance company to find out.” I agreed, and he proceeded to show me an area where the ragged ends of thick wire cables protruded from the trunks of trees: the remnants of a former adventure ropes course. “We’re trying to reconnect these so we can use them,” he whispered. “But don’t worry – we’ll make sure they’re safe.”

Meanwhile, several girls in goggles had been working behind him, smashing small quartzite rocks against larger ones and collecting the fragments. Two walls had been constructed to contain flying pieces of rock. Jonathan noted that this was only one of their industries; they also offered “cleaning services” to other forts, in which they would “sweep” the ground clear of debris with special sweeping sticks, and haul it away. Throughout this tour, Jonathan called other members of his fort to display what they were doing or to comment on their job, taking evident pride in his fort’s structure and accomplishments.

2008-2009

Jonathan, now eleven, came to me during a recess this fall, and said, “Guess what! Jack gave me a promotion, so I’m the same level as him, except for this much.” He held his thumb and forefinger just slightly apart. “And soon you’ll be at his level?” I asked. “Oh no,” he replied. “I don’t want to be Jack’s rank. I don’t want to boss people around, and I don’t want people to yell at me and stuff.” Observations of Jonathan over the course of this year included many instances of “reporting” on other children’s behavior: items supposedly stolen from forts, a child falling and getting a scrape, confiscating “contraband” items, pointing out children crossing the school boundary.

Jonathan begged several times to be “deputized” and, when the teachers on duty declined to offer him an official post, independently organized a vigilante group that he called “the woods safety patrol,” which roamed the recess area with walkie-talkies. Jonathan told me one day that he intended to follow a particular boy around, “to see what kind of trouble he gets into.” After numerous complaints from children who felt their right to free play and privacy were being violated by the woods patrol’s constant and sometimes invasive monitoring, the group was asked to refrain from their activities in the woods, but offered the alternative of conducting safety

checks elsewhere on school grounds. Jonathan was initially distraught and expressed a sense of betrayal, arguing tearfully that he had looked forward to being in middle school so that he could finally hold a position of authority in the woods. Upon hearing that the woods patrol had been disbanded, there was general rejoicing among the other fort groups in the woods; one even held an impromptu “monkey brain giveaway” in celebration. Jonathan’s response was to shake his head in exasperation and mutter, “We were just trying to help.”

Values summary

Jonathan was one of those children for whom the woods recess setting seemed ideally designed. He immediately recognized its potential as a place teeming with affordances such as animals, moving water and hiding places, and as a place highly conducive to establishing the kind of social structure that most appealed to his sense of hierarchical authority. As much as he enjoyed the imaginative opportunities of the woods, Jonathan was also keenly aware of the influences of higher authority and policy-making levels on the kinds of play that could occur there.

Up until his sixth grade year, Jonathan was in the woods daily, but his interactions with the physical elements that he had once perceived as valuable affordances gradually diminished, along with his participation as a creative contributor to the behavior setting, while his attempts to assert his role as manager eventually superseded all other activity. In a conversation with Jonathan during his fifth grade year, he noted mournfully that his peers appeared to be abandoning the woods. When I commented that this was a pattern that could be normal, he replied defensively, “Oh, no, not for me. I’ll be playing in the woods straight through Y Group!”

Eventually, the behavior setting selected against Jonathan. Rather than permitting him the role of authority that he had so long envisioned, the members of the woods setting (including

adults) resented his intrusion into their activities. Without the support of peers or adults, he was forced to choose between the relatively benign, yet inactive role of observer of other children's play, and an alternative outside of the woods. Having found his authority increasingly resented and rejected by younger children, Jonathan chose to leave the woods. Jonathan's original value of playing in the woods as being "almost like real life" could be supported only so long as the social dynamic permitted his perception of and role in that life.

CHAPTER 5

Discussion

One of the most valuable parts of doing this study has been learning to constantly re-adjust the focal point of my researcher lens, from the close-up view of children actively playing, to the level of administrative policy-making, and outward to even larger systemic influences and discourses on play. It was a process essential to understanding the full context of this small-scale phenomenon, and one that was enabled by using a conceptual model that merged individual (affordance) and group (behavior setting) perspectives, while situating them in a larger context of nested systems. School practices inhabit more than a single scale, and to adequately understand something that seems so simple on the surface, we need to see it in context.

A response that I often heard from other adults when presenting this research was, “Well, of *course* kids will choose to play in the woods. Isn’t it obvious?” Perhaps that might once have been the case, but no longer. Now that such choices are rare and contended, it becomes important to understand their underlying values. The Jemicy study shows clearly that when children have choices, they will choose to play NOT in the environment that the values of another level have apparently selected for them (i.e., the playground, which the macrosystem markets as an ideal child habitat), but in whatever environment they deem the best for them at that moment. At Jemicy, among the lower school population, this choice is overwhelmingly the woods. And, in trying to understand how play contributes to individual development, we might ask how we can grasp the full significance of Lincoln belonging to a fort (microsystem/behavior setting level) if we don’t also see the process of his perceiving and selecting a fort location (microsystem/affordance level), the pleasure he takes in reporting on his play to his parents (mesosystem level), his concern for following school rules to the letter (exosystem level), or the

importance of his “democratic” voting system (macrosystem level)? This discussion examines the significance of study results in the context of these nested layers, beginning with children’s experience of their recess microsystem.

Microsystem

My interest in this research topic arose from observing children making what seemed to be a significant choice during recess: to play in the woods, rather than in standard playground areas. Why? The playground equipment and sport court were specifically designed to appeal to children’s urge for active physical movement, and indeed, they were used for these purposes by certain groups (middle schoolers) and at certain times (when the woods were not available). But the woods – this steep, ragged patch of scrubby trees atop what was essentially an old farm landfill – had an appeal that the playground could not match. Even the pines, once children had time to familiarize themselves with its possibilities and added the value of new projects to it, became a place that appealed to most of the lower school students. So, in returning to my original question, I will revise it according to the data that I have collected over the last three years: Why do most lower school and a few middle school children at Jemicy play primarily in the woods during recess? I think that the best summary response came from Peter, in an interview in 2006: “Cause you can do pretty much anything you want there.”

Competence and creativity

Peter’s comment might be interpreted to mean that children playing in the woods perceive themselves as having ultimate freedom, yet it is embedded with more nuanced meanings than this. The words “can do” refer to a host of actions related to a sense of competence and agency. Peter may be thinking of the zipline that he has just created across the stream with a length of rope that he found and a curved stick to slide along it. Such a creation is

something that he feels he “can do” in the woods, having the practical knowledge and the physical skills to accomplish the design that he envisions. Peter has the experience to understand the qualities of the materials at hand, and the inventive curiosity to apply a concept that he has seen work elsewhere to this new situation. “They can do so much with so little!” observed one adult, impressed with the way that Jemicy children used the elements of the woods environment. This comment reflects a perception that I have found common among adults, but rare among children, that sticks, rocks, water and other such natural features are “so little.” In fact, as Mark commented, these are considered by children to be “much more” than what other school play settings afford.

Green areas: gray areas

The adult’s observation above, though intended to emphasize the creative potential in simple objects, also contains the powerful truth of those two words which Peter used – “can do” – which also imply having permission. Building a zipline would be impossible anywhere else but here, in the woods, and not just because the slope and materials are conducive to this activity. It would not fit the behavior setting of the playground, where only certain behaviors are permissible. In the woods, however, such an activity could be considered not only allowable by woods standards, but also an admirable use of creative ingenuity: “anything you want.” Is Peter indicating that he has full license to create something that is fraught with potential danger? No. In fact, another teacher, having heard other children talk excitedly about Peter’s zipline, questioned whether it should be allowed, and Peter explained to her that I (in my capacity of, in his words, “head of the woods”) had deemed it acceptable – thus Peter’s acknowledgement of “*pretty much* anything” rather than simply “anything.” There are boundaries that exist in this behavior setting reflecting both the microsystem values and those of the mesosystem and

beyond; however, these boundaries are far more blurred in the woods than they are elsewhere. This is due, I believe, to the seemingly limitless potential of what can be done with the affordances present. The affordances of the playground announce their intentions – “Swing!” “Slide!” “Climb!” – but also their limitations. Going beyond these limitations invites a reprimand. Objects found in the woods also have their constraining aspects: sticks and rocks are not to be used as weapons, water is not to be drunk, monkey brains are not to be eaten. The expectation is that the behavior setting will create reasonable boundaries through individual experience.

Social capital

Another component of Peter’s comment undoubtedly has to do with his zipline’s social benefits. He informed me that his fort would be known as the “funhouse” fort, complete with rides like the zipline and “bouncy log.” Children wishing to play here would naturally have to pay; accordingly, children began lining up with goods to trade for rides. Peter negotiated with each, and when the zipline broke under the weight of one boy (leaving him standing, laughing, in a few inches of water with his friends cheering from the side), his “money” was refunded. So, the “you” in “do anything *you* want” really means “you and your friends who share the setting.” It is doubtful that Peter would have created his elaborate “funhouse” fort if he were playing alone in the woods, as its design implied interaction with others.

This social capital can be accessed at school in ways that are difficult or impossible at home. Because most students travel to Jemicy from neighborhoods spread around the metro area, they are often isolated from each other when not at school. For most children there is also no opportunity to play in natural areas near their homes with local friends, making Jemicy woods play a unique social and environmental phenomenon. During one weekly assembly, the head of

school asked students what they would change about Jemicy if they could. “Be able to play in the woods for both recesses!” Lincoln quickly responded. “What is special about playing in the woods?” was the next question to the group. Jared offered, “It’s different than what we can do at home. We can be with our friends here in a way that we can’t at home.” Tricia added, with gestures indicating the separation of school and woods, “When you’re in class, it’s *school* – you can’t relax, you have to work. But when you go to the woods, it’s a *different* place, and you can relax with your friends.”

Reciprocal relationships

What determines what a child such as Peter would “*want to do*” in the woods? This aspect of play, as demonstrated time and again by children engaging with different elements of the environment, is clearly linked to the reciprocal nature of child activity and affordance. A certain steepness of slope, a certain length of rope and two trees to attach it to, the availability of sticks and the curve of one in particular, the reassuring shallowness of the water running beneath (yet the exciting possibility of falling into it), the presence of peers who recognize and want to join in the fun, and the acknowledgement of this activity as an acceptable form of play – all of these would not necessarily add up to “zipline” for most children. Peter, however, immediately attaches meaning to this set of elements, selects through experience those that afford the activity that most appeals to him, and creates new value within the woods behavior setting. John Dewey held that “to be interested is to be absorbed, wrapped up or carried away, by some object. To take an interest is to be on the alert, to care about, to be attentive” (Dewey, 1916, p. 148).” This implies the value of the affordance existing not just within the individual, but shared with the environment, which acts upon the individual and cultivates interest.

Loose and connected parts

While making a zipline might seem an extreme example of the opportunities afforded by woods play, it is nevertheless characteristic of the kinds of creative activities that occur there. It is, on the other hand, nearly impossible to imagine such creative use of standard playground equipment. The play that happens on the playground relies far less (or not at all) on physical creativity than on imaginative representations of the various fixed structures: the concrete tube as a den, the bridge as a boat, the monkey bars as trees over a dangerous swamp of wood chips. There is no possibility of re-working the existing materials of the sport court, playing field, swings or playground into some other structure with new or different values.

Seen simply in terms of expanding play values, children's choices at Jemicy make clear that the behavior setting of the woods is not only replete with diverse affordances, but that it is also an environment conducive to using these in creating the seemingly endless array of new values noted earlier. This might seem an obvious reaffirmation of Nicholson's "loose parts" theory (1971), and it does, in fact, support the idea that greater diversity of objects in a play environment leads to more diverse activity. However, this study also demonstrates that play with "loose parts" ought to be set in a context that can both sustain it and continue to expand its value set. Sandbox play is a good example of a context where children can endlessly manipulate both medium and objects, creating the values of roads and pits, sandcastles and forts, etc. What happens to this set of values at the end of the day? Only in exceptional circumstances can the evidence of these values be preserved for the participants and extended over time.

While it is clear from this study that the woods environment had innumerable loose parts, and that these afforded more diverse behavior than the playground setting or even the pine grove, I would argue that for children in middle childhood, these parts have significance not because

they are “loose” but because they are fundamentally “connected” to and within a specific setting. By this I mean that the parts that constituted this woods environment were valued *as part* of that environment. Even the artifacts that clearly did not originate in the woods were valued as treasure that had arrived in the woods by human action, having served some human purpose. They were connected to the context – not disjunctive from it. In fact, as soon as they were removed from the context of the woods setting, much of their value was diminished. What good is a monkey brain, a chunk of quartz, a broken bottle or even a rusted chunk of metal beyond the boundaries of that one wooded hillside? This larger meaning of a place – that it is composed of parts that all fit together somehow – is highly significant for children’s developing sense of one place belonging to a shared global environment.

Ownership and agency

It is a rare schoolyard that permits its students to manipulate available loose parts according to their desires or, as Peter put it, to do “pretty much anything you want.” Even rarer is the school that allows the alterations put in place by students to stay in place, or to continue to be manipulated. Yet, it is just such long-term involvement that demonstrates the sense of ownership and agency so clearly expressed by both current students and Jemicy alumni. This sense of ownership and engagement over time was pervasive not only in the elements that could be manipulated, but also in children’s attention to environmental features that they had little or no control over. The stream was the most central of these, carrying that most valuable and accessible of affordances: water. When the stream dried up in certain seasons, the loss of moving water was both noted explicitly (“Where’s the stream?”), denoted in the congregation of children around the places where it remained in shallow pools, and expressed in an increased interest in damming and preserving what little flowed after occasional storms. Likewise, certain

trees, bushes, rock or concrete structures were identified as having either remained the same or having been altered in some way over time. Changes wrought by nature often brought expressions of surprise or regret, but these feelings generally didn't last long as children considered ways of adapting to their new circumstances. The involvement of adults in landscape changes (usually without consultation with children) brought a different response, however. When trees deemed unsafe were cut or removed, or when the expansion of the school building footprint extended into the woods area, children voiced outrage and sadness over the loss of "their" space and environmental elements.

Time

Time at Jemicy, as in most schools, is tightly budgeted. There are few commodities so closely guarded by teachers and administrators alike, and discussions of how best to define and then accommodate all the needs of the members of the school community are both extensive and tinged with territorial fervor. What has happened to the time devoted to recess in the midst of increasing pressure to better prepare students academically? When I first came to Jemicy, the two recesses each lasted 30 minutes, and younger children went home instead of staying to play after school. The insertion of an additional class period into the day enabled classes such as technology and physical education to meet more often, while recess became gradually whittled down to its current length. What constitutes enough time for play? When I asked about the possibility that recess might eventually become even shorter, the lower and middle school heads agreed: "We can't shave any more time off recess." Alan's response likewise had been that you needed to have enough time for a meaningful activity to take shape; otherwise, recess became simply an insignificant, ineffective interlude between classes.

Children's response to the question of length of recess predictably favors as much time as possible; however, when they are involved in it, they are generally unaware of its passage. When the bell rings to end recess and begin lunch, a typical response is surprise: "What? Already?" In observing children who play in the woods over several years, it is clear that they become increasingly attuned to how much time has elapsed at recess, and that many become adept at organizing their activities to gain the greatest benefit from their 17 minutes of play. One strategy employed by Lincoln was to pre-plan the entire recess period in conjunction with his fortmates. I overheard him in the hall one morning telling a friend, "Remember – It's Phase 0, 1, 2 today." I asked what this meant, and he grinned. "Phase 1 is mining. Phase 2 is making loans. Phase 3, when we're finished with the other phases, is... eating spaghetti!" He laughed. "That was Andrew's idea." "And Phase 0?" "Advertise." And the purpose of all this? "To build up the profit margin for our fort. We'll make really cheap loans to other forts of cheap crystals and stuff, and then we'll charge interest." Most other children simply made their play time last as long as possible by sprinting outside at the first bell, and lingering long after the second, effectively extending their recess by another ten to fifteen minutes, but risking the disapproval of their homeroom teacher as well.

One of the teachers I interviewed who had attended Jemicy herself recounted her different perception of recesses then and now: "They seemed so *short!* I felt like right when I went out after snack – oh, no, it's over. And now when I'm on duty, I feel like they're so *long.* I'm sitting there counting the seconds!" Yet, this same teacher acknowledged, when she allowed herself to become immersed in the children's play, seeing them play as she herself had done and displaying the same kind of pleasure she had felt, her sense of time once again slipped away. In another instance of time's vanishing quality, a child asked me at the beginning of recess to keep

careful track of the time and to let him know when five minutes were up, as he wanted to watch his friends play in a soccer game. When I returned at the designated time, Michael had created a huge leaf pile with his friends. “Already?” he called, lying back on the pile and flinging leaves into the air. “Well then, never mind. I’d rather *have* fun than *watch* fun!”

Because of this subjectivity of experience, the dimension of time cannot be handled as a commodity with regard to children’s play in the same way that other physical affordances might be. Increasing or decreasing the time allotted to play does not necessarily alter all of its beneficial qualities. One crucial aspect of time, however, is the aforementioned sense of continuity within the play environment – the child’s sense that his or her participation in a behavior setting is perpetual. This in turn hinges on the willingness and ability of an institution to grant children temporary ownership and oversight of space to exercise their values, and to hold in abeyance unnecessary adult controls over their activity. In such a setting, time takes on a more transcendent quality, and meanings can be carried through ongoing activity from one day to the next. Such “to-be-continued” play (Tranter & Malone, 1004) is what many adults recall and cherish from their own childhoods at home, yet it is play that has declined in neighborhood spaces (Louv, 2005) and is likely rare to non-existent in many schoolyards.

Interaction and retreat: Accommodating differences

The multiple options for outdoor play at Jemicy allow children to gravitate to the place where they feel most comfortable. For a few of the very youngest or new students, the predictability of the playground structures, their close proximity to the school buildings, and the visual availability of adult monitors appear to provide a necessary comfort for their first year of play. Thereafter, they are likely to move into the woods for recess, and spend the next three to four years within the behavior setting of the fort culture there. After fifth grade, most children

leave the woods and are usually found in gender-specific locations (boys – sports fields or court, girls – sport court, swings or picnic tables). Middle school students tend to congregate in these sports/large group areas, or spend recess time indoors working individually with teachers on class assignments.

One fall day, a fifth grade boy, Jared, who was one of my student videographers, came to me at the beginning of recess in apparent distress. “I can’t figure out what’s happened to the girls in our fort,” he said. “They used to be there all the time, and now they’re gone and I don’t know why.” I suggested that if he was concerned, he could go looking for them and report back to me. He took the video camera and began his search, narrating for the camera as he went. At the end of recess he returned, handed me the camera, and said in a disappointed tone, “They were just in the music room. Just – I don’t know... *talking*. But I don’t think they’re *supposed* to be there... Are they?” We discussed the possible reasons why the girls might have abandoned their fort jobs and perhaps the woods altogether. Jared was not convinced. “But there’s no point in us being down there anymore if *they* aren’t there. They were the ones who *did* everything!” Later, I reviewed the tape. Jared’s narration was conducted as a spying mission in surreptitious whispers to the camera (“I can’t let them see me”), and when he finally discovered the girls inside (as it turned out, rehearsing a song for a performance), he ran back outside, muttering, “I *knew* it, I *knew* it, now they’ll *never* come back!”

The possible reasons for this transition from committed woods play to places with entirely different sets of affordances are many. As Jemicy grew over the years, its homogeneous treatment of different age groups evolved into a clear distinction between the lower (grades 1-5) and middle school (grades 6-8). The social and developmental needs of the different levels (including the need to prepare middle school students for transition to other schools) were

addressed by housing lower and middle school homerooms and classes in separate buildings, by instituting a dress code for middle school students, and by the practice of letting students use their recess time to catch up on academic work or check in with teachers, if needed.

Several of the student participants interviewed in this study expressed their sense of this “older” and “younger” distinction. Brian noted that playing in the woods was an activity for “little kids,” and Mark, who persisted in spending time in the woods well into seventh grade, nevertheless offered “helping the little J-E’ers” as his rationale. Seeing some of the middle school boys in the woods, dressed in their neat, regulation khakis and monogrammed polo shirts, was visually incongruous with the overall unmanaged nature of the place, and, as one of the female alumni noted, “Well of course I couldn’t play in the woods when I got to middle school! I couldn’t let my cool shoes get dirty!”

The woods as a behavior setting revolved around activities that were imaginative, involving role-playing and fantasy games, and an economy that was highly symbolic. Such activities appealed greatly to children of lower school age, but became less attractive to children moving into adolescence. Peers were the attractions above all else at this older stage, no longer in the sense of working alongside each other to collect items or build a fort, but in places where extended and direct social encounters were available. Elizabeth joined me at the stream one day when she had just turned ten and gestured up the hill, observing that her old fort was still there. “The one you had with Joey?” I asked. She nodded, and then added in a tone of disgust, “They’ve all left... to go play *football*. I mean, I can understand why Ronnie wants to play football, ‘cause he’s really into sports, but I think Joey does just it to look cool.”

Lieberg (1995) referred to adolescent gathering areas as “places of interaction.” The sport court, with its opportunities for large-group physical interaction, appealed to many middle

school students, as did the large front playing field. The woods setting, by contrast, was for most younger children less a place for focusing on social interaction, and more for physical action itself. In observing the recess activities of eleven year-olds, Blatchford (1998) found that they spent their time playing sports, walking and talking with friends, and engaged in that ubiquitous adolescent activity, “hanging around.” Even assuming that there was no woods play option for Blatchford’s subjects, these are the very sorts of activities that Jemicy’s fifth graders begin migrating toward. Areas where students could “hang out” and talk are popular, such as the picnic tables or the swings. “Hanging out,” with its implied lack of directed physical activity, is a clear marker of the transition into the middle school mentality. In her interview at eight years old, Elizabeth had noted in a disgruntled tone that all she had been allowed to do at her previous playground was to “hang out,” in contrast to the activity she now preferred in the woods. The woods did not afford hanging out in the sense of being able to spend time with a larger group engaged mostly in talking, nor did the behavior setting invite this kind of activity.

The woods did, however, serve another clear purpose for some children entering adolescence. Lieberg refers to certain environments as “retreats,” where adolescents may escape their peers. Several middle school students made use of the woods for solitary walks, or to sit and watch the younger children play. Sometimes they would allow themselves to be led down to the fort of their younger “buddy,” where they would admire the acquired “goods” or help with a project. One pair of girls who had been heavily involved in fort play when younger spent the fall of their sixth grade year having quiet “picnics” on the flat chunk of concrete where their fort had once stood, choosing to eat their lunch here rather than waiting to have it in the crowded gymnasium with the rest of the middle school. “It’s relaxing,” one offered. “We used to pretend we were birds and fly off this concrete, but now we mostly just talk.”

This chronological timeline of playing in the woods in lower school and moving to other locations by middle school applied only to the apparent majority of Jemicy students, reflecting a developmental trend rather than a hard and fast rule. While I searched for such trends to help explain children's play behaviors, it became clear over the course of this study that the patterns I was witnessing attested to a dynamic inherent to Jemicy's founding mission: to "empower" children to meet their potential who are innately different from the norm. This mission, designed specifically for a profile of dyslexia, or language-based learning differences, nevertheless meets the needs of children who may be different from their peers in other ways. Recess opportunities are a clear example, offering children who may be developmentally different from their peers the chance to gain competence in a place that can accommodate them. Some students, usually boys, continue to come to the woods beyond the point at which most of their peers have left and to engage fully in some aspect of the behavior setting, either as fort members, project volunteers, or roaming "safety" lookouts. As noted earlier in Jonathan's portrait, this latter effort eventually failed due to lack of support from peers and adults. However, the involvement of a few older boys as dedicated fort members or simply as volunteer helpers remains a persistent feature of the woods setting.

Who are these boys, and what makes them different from the majority of their peers? In one case, a contingent of six newly transferred seventh grade boys (following the merger of the original Jemicy lower and middle school with another middle school) set up a fort at the stream. This unusual behavior of middle schoolers alarmed some of the younger woods-players (who began accusing them of poor behavior), and delighted others (who begged to attach themselves as members of this "big boy" fort). The newcomers themselves immediately set about constructing a huge, elaborate stick fort, yet were initially baffled by the restrictions of both the

formal fort treaty and the implicit behavior setting guidelines. It wasn't long, though, before the seventh graders joined into the culture with gusto, bartering sticks for monkey brains and holding elaborate negotiations with children half their size and age for damming rights on the stream. Their play in the woods extended only through the fall season; by spring, they had been fully assimilated into the rest of their peer group, and spent the rest of the year in activities on the sport court.

These boys used the woods as a haven until time and familiarity erased their "outsider" status. Being visually removed from the other play areas, the woods offered them the chance for activity and social engagement with each other without being obviously left out of the established majority group. This was also a group for whom the experience of woods play in school was a complete novelty. Other older boys, some of whom who had attended Jemicy and played in the woods for many years, offer a specialized skill set that appeals to younger children. Andrew is in great demand as a builder of masonry walls; Christopher is skilled at constructing steps in steep parts of the hillside. Mark is often called upon to help lift heavy rocks and logs.

When considering the factors common to these older boys, it is apparent that they share a disinterest in the social dynamic of the rest of their peer group, a continuing interest in construction and fort culture activities, and a propensity to seek out and "hang with" the adults on recess duty. These are boys who, in an earlier Jemicy era, might have been known as "Joe kids," or children who were happiest working with their hands on projects alongside their science teacher. Whether Joe kids, or woods kids, Jemicy readily accommodates children who do not fit standard social or learning patterns, permitting them to find places and develop identities there that *do* fit them. These autonomously chosen, purposefully selected niches have lasting

implications, being recalled by school alumni in conjunction with other positive attributes of the larger setting.

Mesosystem

As the interconnections between a child's different microsystems (i.e., home, classroom, extracurricular activities, and recess environment), the mesosystem serves as a kind of selective membrane. The way in which values are shared or transmitted between the focal microsystem of the recess environment and other microsystems reveals their congruence. Parents and teachers are key players in this process. For parents, making the commitment to send a child to Jemicy meant buying into an established value system, and maintaining a level of trust in that system to provide not only the *good* life, but the *best* life possible for that child. Likewise, most teachers, upon releasing a child from class for recess, assume that the child will seek out the best possible place to play, and rarely intervene to alter a child's choice. While both parties hear about recess activities second-hand, and most classroom teachers regularly monitor play, they hold a distinct "hands-off" attitude that implies trust in the established practice of recess.

It is important to note here that my dual role as both recess monitor and researcher very likely created greater support of and transference between children's microsystem values than had previously been the case before I began this study. As the primary teacher dealing with children both in the classroom and in the woods setting, many of my values were evident to children, parents, and other teachers. Parents who had concerns about recess activities often channeled these through me, rather than solely through administrators or homeroom teachers. In addition, the interviews that I conducted with parents demonstrated my extended interest in their children's activities and feelings about recess, and created a more direct line of communication and support between these different parts of a child's life. "You're kind of like the Lorax," one

parent noted, laughing, referring to the Dr. Seuss character who advocates for conservation. “Except you speak for the kids *and* the trees.” In a sense, a practice such as woods play needs an interpreter to explain its values to those who may not understand it. This was true for teachers as well, whether it was explaining the nature of an argument over fort territory that was impacting classroom behavior, or working out strategies to help straggling children get back to their classrooms for lunch on time. Recess play, and in particular the woods play that was hidden from most adult eyes, gained increased attention and legitimacy throughout the mesosystem by being more broadly understood and described as an important expression of children’s values.

Exosystem

In describing the administrative values of what I regard as the exosystem of recess play, I concluded that effectively maintaining a unique practice in a school setting required adept negotiation between levels. If the mesosystem is the connective membrane which selectively transmits information and effectively holds its various microsystem components together, then the exosystem is the level which maintains equilibrium between these inner levels and the outer macrosystem. The Jemicy administrative team is fortunate to collectively have the depth of community history to validate its actions, and a singular commitment to child-centered practices over those that might be deemed “better” by macrosystem values. These practices are implemented through the actions of faculty and staff, who enjoy a relatively high level of autonomy in exercising judgment and are deemed the “experts” in terms of children’s learning and social behaviors. As Alan noted, good decisions require knowing your subjects, and the Jemicy administration relies upon its teachers to know children well enough to not only offer them the best learning environment possible, but to keep them safe and happy. At the same time, it recognizes that the demands of the “outside world” are based on values of well-being that

cannot be ignored, and must be reconciled with those internal to the school. Maintaining this

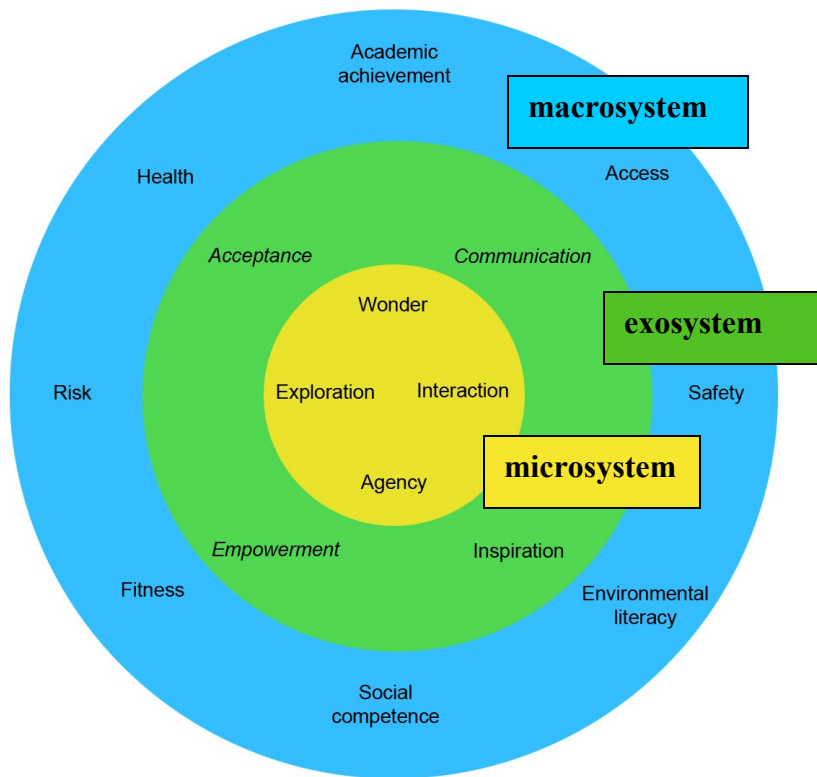


Figure 4: Values at different system levels

balancing act requires, as Karen put it, “making sure that structure continues to adapt and shift to meet the needs of all these kids as the world shifts.” As this diagram suggests, the values of the exosystem – as represented by the actions it takes – are central to the goal of bringing the values of outer and inner levels into congruence. The motto “The kids come first” does not mean that children’s

microsystem values take precedence over those of the outside world. It means, as Karen implied, that Jemicy’s founding injunction to design a school for its children recognizes that the only way to sustain a clear focus on what children need is to be looking both directions at once: toward who they presently are, and toward what the world expects of them.

Macrosystem

It is from the macrosystem level that the larger institutions of media, politics, social issues, government and regulatory agencies exert influence on the practice of play at Jemicy. In several vignettes, I described how children both recognize and express this influence: displaying

fear of institutional interference, acting out roles of power and authority, expressing concern about global issues such as pollution, terrorism, and climate change. Their concerns are not unfounded, at least in terms of having their happy recess world upended by decisions made well outside the realm of the school community. As indicated in the administrative portraits, an unfortunate injury occurring during recess could lead to the curtailment of a particular form of play. Official risk assessors do not base their judgments on observations of how individual children actually use their play environment; rather, they imagine worst-case scenarios.

Administrators at Jemicy, those within the exosystem, are therefore forced to do the same, while maintaining the sense of freedom and opportunity that gives the school its unique character. They, in turn, rely on teachers and staff to ensure that compliance with these macrosystem values is achieved.

Risk and Safety

“[L]et’s all remember the kids need to be SAFE at recess. And they especially need for you to be out there... looking into your crystal balls as to what might happen to them if they are not necessarily thinking for themselves for however brief a moment.”

Memo from Dan, Jemicy recess supervisor

“[It’s a] safe environment to just be who you are...It’s great, because they get to explore. They get to be dirty. They get to be kids.”

Sue, Jemicy parent

“You might think it’s “Lord of the Flies” down there in the woods...but don’t worry, they’ll be fine.”

Jane, Jemicy parent, in a presentation to parents of newly accepted students

Having described the kinds of recess activities that go on at Jemicy, it should be clear that risk – behavior with uncertain outcomes – exists within every behavior setting of play. In her discussion of risk and its association with play in schools, Tovey (2007) emphasizes that risk is not a physical presence, but a perception of a physical entity: a hazard, which is a physical

feature with the potential to offer physical harm. Keeping in mind that Gibson defined them as offering “good or ill,” a hazard is a type of affordance, and its value lies in the action that a person takes based on their perception of the information it contains. Given these definitions, safety (like risk, a perception rather than a physical presence) has the value of managing hazards so that they are not encountered as harmful.

These conceptualizations of risk, hazard, and safety are important to keep in mind when looking at situations where outdoor play is constrained or eliminated due to the perception of excessive risk. The following are several examples of internal Jemicy email memos over the last three years illustrating the point that adults, who control children’s activity in school to varying degrees, express their perceptions of risk in varying ways to satisfy many different values.

- “Due to very wet and muddy conditions, we will have indoor recess again today. The lower school may use the gym during first recess, and the middle school second.”
- “Hurray! The woods will be opening for second recess on Wednesday. Please review the “fort treaty” guidelines with your homeroom before then. The boot bin has been restocked, and there are now many sizes to choose from. All students who want to play in the woods should gather at the top of the hill on Wednesday for last-minute instructions.”
- “The lower woods will close for the winter beginning today, due to ice and snow and to allow it to ‘rest.’ The upper pine woods will be open instead.”
- “Thanks to yesterday’s heavy snow, the sledding hill will be open today. All available teachers should report to the top of the hill. Lower school students must wear snow pants and gloves.”
- “FYI, two large trees went down in the woods during camp. Fortunately, no one was there at the time. Who do we call about checking the remaining trees for safety?”
- “We’re going to close the front field hill until further notice at recess. Leaves make it too much of an invitation for messiness and safety issues.”
- “It’s tick season again. Attached is a memo that was sent home to parents today with a list of Lyme disease symptoms, reminding them to check their children for ticks every night before bed.”

These examples make clear that the perception of risk is applied when deemed necessary, not in all possible hazardous circumstances (with the possible exception of rain, which invariably means indoor recess – though not because the rain is necessarily dangerous, but because it is considered unpleasant). In fact, when compiling a list of Jemicy recess hazards, it became clear that Jemicy recess supervision operates, as Dan’s first memo implies, under conditions of trust and forethought. In general, we trust children to act with reasonable care, and to avoid the affordances that could cause them harm. We supply them with the necessary information to make these judgments (i.e., learning to identify poison ivy, to check for ticks, to avoid bee nests), but also recognize that some of our children act impulsively and expose themselves to more hazards than others.

Why, then, place cautionary limitations on children with regard to mud, leaves, or other such supposed hazards? These are applied, I would suggest, less because of the potential physical harm they represent, but because they represent inconvenience for adults who must attend to the messy results, which detracts from teaching time. Likewise, if there are not enough teachers available for adequate supervision, then a play area must close. This was the original reason for the lower woods closing in the winter, but over time the rationale changed to reflect a different value: that the steep slope and icy water in the stream represented hazards, and that the woods needed a period of recuperation from children’s activity. At the same time, the front field hill which was deemed a hazard when children were sliding down it on wet leaves became acceptable for sliding after it was covered in snow. In another instance of seemingly arbitrary attention to risk, we arrived outside for recess one early winter day to find that the playground jungle gym area was entirely swathed in bright yellow caution tape. Asking around, I discovered that a teacher had brought to the maintenance crew his concerns about the mulch beneath the

climber becoming excessively wet and muddy, and then freezing too solid to cushion possible falls, as well as the presence of a large frozen puddle that children were sliding on. The crew accordingly isolated the climbing structure, and for the next several weeks it stood wrapped in its warning banner, untouched. Meanwhile, children played freely in the areas around the climber. A few weeks later, after no apparent action had been taken to remedy the playground situation, approval was given for the caution tape to be removed, and children played there as before, getting dirty and sliding on the ice.

However often such discrepancies may occur, they are part of the process of constant values negotiation which outdoor play requires. Adults control children's activity to a great extent, but this control includes a commitment to doing things in children's best interests. This sometimes means relaxing a standard which seems inappropriate for the context, or at least reflecting on the underlying values of actions which may cause play to be unnecessarily constrained. Most important, it means maintaining clear and open communication about these values with the constituents of the school, both alerting them to the school's perception of risks and hazards, and inviting discussion on other perspectives.

"A safe environment...is one where safety is not seen as safety *from* all possible harm, but offers safety *to* explore, experiment, try things out and to take risks... [It] should promote awareness of and management of risk as part of its ethos" (Tovey, p. 102). In much the same way that Tovey construes safety, the participants in this study construed freedom. Recess at Jemicy represented *freedom from* many of the constraints and pressures they had faced at previous schools and in their present classroom settings. For many students, both coming to Jemicy and experiencing Jemicy recesses felt like arriving in a haven, a safe place, a refuge. It represented *freedom to* do things unimaginable in other schools. Was there risk involved in

doing these things? Yes. As many alumni emphasized, without this risk, and without the mutual trust that existed between supervising adults and children, the development of competence would have been curtailed. Rather than being regarded as the opposite of fear, trust can be seen as but one response to fear, and an essential one at that. Reed's (1996a) critique of modern-day reliance on secondhand rather than firsthand experience emphasizes this point: "The widespread fear of primary experience – experience that might end in failure or in unforeseen results – is a fear of a necessary part of everyday experience..." (p. 135). As Tovey observes, citing Froebel's philosophy of learning through play, "Freedom in play involved the opportunity to do things, not protection from things. It involved trusting children. Trusting children involves knowledge of their capabilities, their confidence, and a willingness to relinquish some control. Trusting children... allows children to develop the necessary confidence, competence, and 'know-how' to be safe" (p. 109).

Legitimizing outdoor play

Jemicy has worked hard to cultivate its image as being cutting-edge in terms of innovative, modern, and research-based teaching practices. It faces stiff local competition in this arena. How then does its practice of outdoor play appear through a lens situated well beyond the intimate context of direct experience? Is it irrelevant to the macrosystem level? It was apparent that my presence in the Jemicy woods during recess over the last several years, and my desire to understand and share children's experiences there with others, began to open channels to broader acceptance and heightened appreciation of the practice of outdoor play. As noted, this influence was key to facilitating the exchange of understanding within the Jemicy School mesosystem, but it eventually extended as well to the broader macrosystem level. As a result of several of my journal articles which addressed children's need for outdoor play in natural areas, the school

began to publicize my research as a feature of Jemicy that attested to its unique, child-centered qualities. Jemicy's annual Board of Trustees dinner featured unstructured play as its theme for discussion. The head of school spoke about "fort play" on a local TV news broadcast, a crew came to the school to film children building forts and playing in the pines, and the groundwork was laid for follow-up features on the topic of play and environmental education at Jemicy. This attention coincided with popular interest in Louv's ideas about "nature deficit disorder" and was further promoted by recognition of Jemicy as a Maryland Green School, conference presentations, and other media focusing on how children at Jemicy develop environmental sensitivity.

It is hard to imagine how, without this kind of publicity, such a phenomenon ever would have extended from its own small microsystem out into the larger macrosystem, where it joined a discourse that was ripe for its involvement. Was this a good thing? As one children's nature play expert cautioned me, "I hope the media attention doesn't change things." I agreed, knowing that the macrosystem, consisting of institutions with no investment in individual interests, might well exert unwanted influence on a practice whose essence lay in being generated and perpetuated by children's motives. However, the fact that the phenomenon of a unique form of recess was being celebrated as an essential part of Jemicy's institutional identity meant to me that it would receive further institutional support and protection.

This process is not so different from the days of Jemicy's founding, after all, when dyslexia was perceived within the macrosystem as a disorder of mental incompetence, yet a small microcosm of practitioners demonstrated an alternative way of engaging this difference that eventually was validated and became broadly accepted. Jemicy has always held this mission of teaching for dyslexic differences foremost, yet it has incorporated a variety of ancillary

strategies and practices in support of its mission. Its unique brand of outdoor play - giving children the choice of spending their recess time on monkey bars or collecting monkey brains, bouncing four-square balls or smashing rocks, wading in a stream or running on grass – is potentially more stable by virtue of having acknowledged value across multiple ecological levels. This is a vital key to sustaining a practice beyond the influence of its original or most influential champions. Likewise, awareness of the chronosystem of outdoor play at Jemicy – the formative historical events that have transpired over the course of its existence – grounds the practice of play in tradition and school lore. The true Lorax of outdoor play at Jemicy is its founding philosophy, which speaks for the good life in childhood in terms that have thus far transcended the shifting sands of cultural perception and change. Whether it will continue to be so interpreted is dependent, I believe, on Jemicy’s dedicated effort to achieve congruence and understanding between system levels, while keeping a particularly close watch on and upholding the integrity of what occurs at the microsystem level.

CHAPTER 6

Conclusions: Limitations, recommendations, implications

Throughout the process of this research, there were certain recurring questions and issues that I eventually identified as two primary limitations and their associated recommendations for further research. I consider these “conclusions” in the sense that an ethnographic study intending to unearth hidden meanings can only really conclude where one investigation has reached its logical limits and the next might begin. In addition, this section suggests areas of research interest stimulated by discoveries made in this study or that hold promise as important tangential avenues of investigation.

Significance beyond the individual case

One question that persisted throughout this process was, “How significant can this study be when it pertains to such a small, exclusive community?” While the actual numbers included in my sample of children were appropriate and sufficient for a case study, the socioeconomic and racial/ethnic profile of the school community itself was not at all representative of the larger Baltimore metro region in which it was situated. As a school that is specialized for a dyslexic population requiring intensive instruction with a low faculty-student ratio, and having relatively few scholarship funds available to diversify the population, Jemicy has always primarily served families who can afford its high tuition. These are children who have been removed from either mainstream public education or, as is more often the case, other private schools, in order to receive instruction suited to a particular learning profile. The intentionally small size of the school best serves certain needs of its specific population, yet constrains it to a demographic that could well experience recess choices in a way that other school populations would not. This

question suggests that future research, in an effort to broaden the meaning of this study, investigate and compare recess practices in other kinds of schools.

Subjectivity

Ethnography requires long-term, in-depth knowledge of a culture, and in this sense I had the benefit of having been an integral part of the Jemicy community for 23 years as a teacher. This lengthy tenure and daily exposure to the particular phenomena of the school, however, no doubt de-sensitized me to some important qualities which an outside observer would have noted. Likewise, all interviews were conducted with either present or former constituents of the school, whose perspective was clearly skewed in favor of the values that had brought them to the school in the first place. Were I to conduct this study again, I would seek to include for comparison more input from parties who could be deemed more reliably disinterested in Jemicy, and more able to view its practices objectively, such as educational policy-makers from the public sector, or other scholars with a different research perspective. Knowing where you stand in relation to the “outside world,” and how you are regarded from that perspective, is essential to crafting effective communication strategies and pathways. The values that support Jemicy-style recess play may never take hold beyond the school’s boundaries; they stand no chance at all if they are incomprehensible to outsiders.

Implications for practice: Outdoor play and environmental learning

Throughout this dissertation I have circled around a central issue: What is the connection of Jemicy’s recess play to environmental learning? Environmental education has been researched along its general strands of emphasis - knowledge acquisition, developing

stewardship, gaining experience – and this presentation of Jemicy’s multi-faceted environmental values structure included all of these, in one form or another. Children acquired firsthand knowledge of their physical and social environment, which was supported by the secondhand knowledge received from teachers, parents and peers. They showed close attention and a sense of care and concern for the places where they played, and began to connect these to the larger community. They held a sense of competence resulting from their direct, autonomous encounters with features of their play environment.

I have provided a glimpse into how outdoor play is congruent with these principles, but it is time to return recess to its context within a learning community, and to address the fundamental links between outdoor play and a school’s potential for effective environmental education. This discussion should be regarded as both a recommendation for further research, and for expanding and enhancing learning opportunities in outdoor environments, as the two are (or should be, I feel) inextricably linked.

Jemicy School’s founding philosophy, which ends by urging the fledgling school to offer “the experience of the good life in childhood,” makes no specific mention of the environment, just as it does not explicitly identify the remediation of dyslexia or other learning differences as its central mission. Instead, it is the ethos – the fundamental character – of the school that is carefully laid out, an ethos which creates the foundation for effective learning. In a revealing study of the environmental learning opportunities afforded by school grounds, Tranter and Malone (2004) concluded that, physical environmental factors being relatively equal, it was the school’s ethos which created environmental learning opportunities on numerous levels. Some of the factors noted in this study which distinguished one school as especially conducive to environmental learning were:

- teacher involvement in and knowledge of children’s outdoor play activities,
- the frequent use of the outdoors for both formal and informal lessons,
- free access to outdoor features such as gardens during play times,
- availability of and encouragement to manipulate elements from the woods during free play

I am struck by the similarity of this school to Jemicy, where not only the play opportunities but the integration of classroom teaching and outdoor learning appear seamless. I think of a spring science unit on amphibians, when the youngest children worked to create small pools in the woods (mimicking natural vernal pools), where they released wood frog tadpoles rescued from the swimming pool where their eggs had been laid. Once the formal teaching part of this unit was finished, children continued to visit their “ponds” in the woods during recess, to add small habitat features in and beside them, to report daily on the progress of metamorphosis. The same close monitoring and care of living things during recess occurs frequently in the vegetable garden, where children have studied the biotic and abiotic factors affecting the growth of the seeds they plant. Considerable foraging, weeding, digging, harvesting and observing occur here during recess without the direct supervision of adults. This interest has spread to places such as the pine grove, where children are now attempting to cultivate their own small plots of flowers and vegetables during play times. The connections seem endless: teaching older children during class how to identify wild plants, animal tracks, or macroinvertebrates, how to find and use clay along the stream or even how to construct a water bar to stop erosion has created a surge of similar knowledge and effort among younger children during recess. Two student participants in this study – Elizabeth and Mark – referred specifically to their surprise and delight at discovering that science class at Jemicy was directly connected to outdoor, and

especially woods experiences. Mark attributed the success of woods play to his belief that children at Jemicy know more due to being taught directly about natural phenomena, and are thus more prepared and competent in that environment.

“Just as ... ‘it is no good knowing about the taste of strawberries out of a book (Huxley, p. 158)’ so each child needs to experience for himself the worlds of city and country, of nature and human culture. These become part of him through all his senses, through emotional and spiritual appreciation and responsible involvement in all the world about and within him, and by the active processes of the ordered observation, problem solving, and critical thinking which we call intellectual functioning.”

Jemicy School Philosophy (Appendix A)

Once again, Jemicy’s philosophy calls attention to the necessity of firsthand experience for learning, of the hunt for meaningful information in the perception of affordances. What is especially significant in this passage, however, is that it refers to a place as something that can *become a part of you* through experience. This is a variation of the concept of place which focuses on a person becoming part of an environment. It suggests that the process of learning is two-way, reciprocal. It suggests that all these things which a school *can* provide – knowledge, experience, and the modeling of the good life – must be made available in “active” ways that invite reciprocity.

This suggests that schools wishing to better integrate environmental learning throughout the curriculum ought to start by examining the opportunities that children have for direct experience. They should particularly consider whether their school ethos places teachers and others in a school community in a tenable position to celebrate children’s experience on children’s terms, rather than being forced to distill it into easily identifiable, manageable, and measurable objectives. David Sobel (2008), describing the fun and learning that can emerge through the “mess” of primary experience, called it “rapture... curriculum at its best” (p. 82), but many schools are unable or unwilling to countenance this apparent “untidy creativity” (Tranter &

Malone, 2004). The message to children, which there is considerable evidence to show they retain into adulthood, is that this type of learning is not only legitimate and supported, but also honored (Stone, 2005).

One of the best ways of honoring and demonstrating commitment to the value of such learning is to approach it through the lens of research, which for me grew to constitute a new dimension of my own environmental identity. I believe that it is accurate to say that my experience of this place, of learning about children through their recess play became, as the school philosophy implies, a part of me through all my senses, and that I have become part of children's experience of the outdoors. This is another challenge to a school's ethos: are teachers regarded as co-participants in the process of learning, or as vehicles for information delivery? As the Tranter and Malone study made clear, teachers' knowledge of their students, acquired through willing participation in the schoolyard environment, made a significant difference in students' opportunities for environmental learning.

In an earlier reference to my role as participant observer, I noted that I had undergone a transition over the course of this research from "active mentor" to "active observer." I distinguish between these as making a change in lenses from teacher to naturalist. Of course, it was impossible to be fully one or the other in my multiple roles, but during the first stages of my research, I brought to my observations and interviews a clear sense of what I expected (and wanted) to see and hear. This was akin to entering a classroom with objectives foremost, which I expect my students to meet. During their free play, I anticipated that children would be acquiring a set of experiential skills, and that my role necessarily involved helping them acquire these. Over time, I found that by stepping back yet observing closely, by not suggesting that my presence should modify their behavior, I gained a far clearer sense of the continuous activity that

children engaged in. This is not to say that I didn't affect behavior – this was unavoidable – but that in terms of learning through playing outdoors, children were clearly the experts, and I was the learner. It is, I suspect, always difficult for teachers to make these kinds of transitions, particularly when we feel we have a critically important agenda to impart. However, if we expect children to acquire the environmental lessons that will be the most meaningful for them, we need to stand out of their way as they play.

The kinds of change effected by this study in both researcher and the case being studied imply that participant observation methods as used here constitute action research. Questions that I did not anticipate, but that would provide ripe opportunities for further study in this regard, include how such research of children's "informal activities" outside our classrooms changes our "formal" teaching within those classrooms. My own perspectives on children's attention and knowledge acquisition in my science classes were altered by having observed them at play, and by broader understanding of their competence in different contexts. These perspectives were carried through to another level as well, when I communicated these observations to the parents, other teachers, and administrators who comprised a child's extended Jemicy community.

Implications for further inquiry

Other questions arising from this study of outdoor play values that would provide fertile ground for further specific inquiry include the following:

- Demographics: Investigating play setting and activity choice by gender, by peer friend groups, and by family demographics (particularly individual parent and sibling influences). The information arising from observations and interviews in this research

suggest that these may be primary factors that bear watching in the interest of determining how individuals develop interest and competence in outdoor activity.

- Time as a factor in the quality of outdoor play: How children are able “to do so much with so little” in terms of their 17 minutes of play time at Jemicy invites the question, “How would play change if children had more time?”
- Longitudinal study: Long-term observation of children’s developing participation in outdoor settings is also essential to witnessing the pervasiveness of the values that they display at any given point. This study formally spanned two years; however, my own continuing informal observations of the child participants indicate that there is a vast, rich field of additional knowledge to be gained by maintaining and extending research processes with an informant group. As this cohort of students moves through and out of the Jemicy community, I hope to follow their progress.
- Merging psychology paradigms: Research into outdoor play that attempts to bring the perspectives of developmental psychology and ecological psychology into greater congruence has the potential to generate a wealth of information that could only enrich the understanding of children’s experience.
- Development of competence and adaptability: This study raises questions about the nature of competence within a specific context and its relationship to future adaptability in other settings. How does free play compare with direct teaching in the development of skill, knowledge and ongoing meaningful relationships with outdoor environments?
- “Teaching nature as a second language” Learning to decode and interpret an environment in which one has little or no firsthand experience is a challenge facing an

increasing number of children. Does outdoor play in natural areas in schools offer means of compensating for what children may lack in a home environment?

- Brain structure and function in relation to environmental experience: While other physical parameters have been investigated in relation to time spent in nature, brain activity has remained an elusive but likely highly significant factor in illustrating how modern humans relate to different environments through play and other behaviors. With burgeoning neuroscience research, the question of how humans perceive and act within these environments may help to identify the roots of affective connections to the world around them.
- Human-animal relationships as affordances: The development of empathy in relationships with non-human animals is an aspect of children's play that might be successfully examined as a synthesis of ecological psychology and conservation psychology.
- The function of the administrative exosystem level: Having concluded that a school's administrative level plays a critical role in facilitating and sustaining a practice like outdoor play or woods play, the question remains as to the specific qualities or circumstances necessary for maintaining effective administrative functioning. This might be addressed by describing and comparing schools in which other such unique practices exist.
- The "recipe" for sustainable woods play and fort cultures in schools: As described by Sobel (2008), there is a set of factors which appears conducive to creating a fort culture in a school, involving children of a certain age, in a certain kind of place, and with a certain kind of teaching and administrative staff. However, there has been no research

investigating the factors preventing the spontaneous development of such play in potentially suitable locations, or aimed at understanding the demise of established fort cultures in schools. For schools that wish to offer outdoor experiences based on children's values, allowing a fort culture to develop and thrive is an opportunity with the potential for long-lasting and deeply meaningful effect.

Afterword

My interest in understanding how and why children experience outdoor environments as they do was always accompanied by the question, “What keeps this practice alive?” This, in turn, revolved around my perennial concern that somehow, someday, children at Jemicy would no longer be able to play freely outdoors, especially in the woods. While playground play seemed to belong to a class of “normal” behavior that had passed not only the school’s but the broader society’s codes for safety and predictability (making it the “default” mode noted earlier), through woods play ran a constant thread of unknown possibilities. This was arguably one of its most powerfully positive qualities, one that attracted children to explore, and investigate, and test out their abilities in a setting of seemingly limitless potential.

The scenarios for possible disruption of this idyllic recess experience were more numerous than I ever wanted to consider, and had already been proven likely in cases involving schools elsewhere (Powell, 2007; Blizard, 2004). In one case, woods play became a social conflict liability that the school felt it could not sustain; in another, the woods adjoining the school where children had historically played was bulldozed by the owner. There are likely many more such cases of woods play disappearing from schools that have not been publicized. A constant tinge of fear that this will happen at Jemicy, in spite of the historic and current favor the practice enjoys, colors my daily pleasure of watching children play in the stream, collect rocks, hide monkey brains. This western society in which we are embedded is primed to eliminate that which it perceives as unmanageable or not contributing to predictable ends.

The primary conclusion that I wish to emphasize, however, is that this is also a society re-awakening to the good in outdoor free play. These are environments in which children can create valuable relationships with each other and the rest of their immediately experienced world

simultaneously. This study affirms that it is the concurrence of these social and environmental qualities that makes outdoor experience in school so compelling, and the congruence of values between the connected levels of a school community that makes it sustainable – both critical considerations for crafting the good life in childhood.

One final image places this study back in the context where it began and concludes it with the perspective of the children who were its inspiration. A weekend of rain broke two months of late summer drought and brought a flood surging down the dry streambed. The first children arriving for recess on Monday first gasped, then shrieked at the sight of rushing water, fresh deposits of silt, and brush left high on the scoured banks. “What happened?!” Alex and Eli, third grade owners of the fort farthest downstream, spent that recess glorying in a broad expanse of mud that had been left at their fort. “It’s a beach!” they declared. Other children were invited in to dig channels, build mud castles, and sort through the relics washed up in their territory. When the end of recess bell rang, Eli and Alex were the last to leave the woods. Slowly climbing the hill, they gazed back occasionally at the new landscape of their fort. “It’s awesome,” said Alex. “Yeah,” agreed Eli. “This is as good as it gets.”

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APPENDIX A

The Jemicy School Philosophy by Margaret Rawson 1972

A school should be designed for its children, their present happy growth and their soundly based future effectiveness. A school is established as a group, in which people are taught or led to learn, but it is as individuals that they learn, through experiencing group life and developing unique personal competence and understanding of their world.

Just as in Aldous Huxley's words, 'It is no good knowing about the taste of strawberries out of a book,' so each child needs to experience for himself the worlds of city and country, of nature and human culture. These become part of him through all his senses, through emotional and spiritual appreciation and responsible involvement in all the world about and within him, and by the active processes of the ordered observation, problem solving, and critical thinking which we call intellectual functioning.

Each child is born with a distinctive combination of potentialities on which, by the time he comes to school, a unique set of experiences has been at work making him a separate individual, different from all others. At the same time, he is a member of the human family, with certain basic physical, emotional, and spiritual characteristics and needs which he shares with all of us. It is all this which makes society both necessary and possible. A school life which promotes the healthy, vigorous, joyful growth of its children should provide a well-planned physical setting and general program. Such dependable security gives a firm foundation and a stable framework within which each child can live a cooperative and rewarding social life while he is developing from dependent childhood into self-reliant adolescence and adulthood.

But this provides only the background for the major interest of the school, which is the meeting of each child's specific needs and the fostering of his strengths and unique talents. The plan that is the best for him is the one that will enable him to grow toward his own potentialities. For this he needs a richly varied educational experience in physical activity and sports, in a wide variety of creative arts, in happy social relationships, and in the intellectual appreciation of his cultural heritage.

He needs careful training, too, in the basic skills which are the tools through whose use he will develop competence and a sense of confidence in achieving his educational objectives. Tools themselves are not the goals of education, but just as it is difficult or impossible to craft a beautiful and satisfying building without a set of well-sharpened tools and the skill to use them, so one cannot hope to acquire knowledge, understanding, and vocational competence without mastery of listening, speaking, reading, writing, mathematics, and the disciplines imposed by shop, studio, laboratory and playing field.

Children have varied degrees of talent and difficulty in different traits, and so their needs differ. Wholeness of development requires that we know a child's strengths so that we may encourage him to use them well, and know, too, the exact nature of his difficulties so that we may help him

to cope successfully with them, and so gain a well-rounded competence as an effective person. To achieve these goals for the school there must be a staff which itself embodies wholeness of body, mind, and spirit, with a capacity for both loving acceptance and calm firmness. Effective pedagogy requires knowledge and enthusiasm in subject matter, coupled with astute assessment of individual children's needs and capacities and skill in teaching each one in his own style and at his own pace, whether individually or in varying groups.

Since none of us is all-knowing, the planning and operation of the school requires not only teamwork on the campus but consultation with outside experts when needed, cooperation of parents, and, most important, a spirit of involvement on the part of the children as they grow toward taking full responsibility for their own behavior and learning.

This is education – a leading forth – toward the full, happy, and effective living we all want for each of our children and for the school community as a whole. This experience of the good life in childhood, with the development of competence and adaptability, is the best preparation we know for meeting the demands of later schooling and of a world of rapid change and complexity. Specific training is obsolete before it is mastered, but intellectual curiosity, skill in learning, and creative flexibility in the face of new problems are dependable resources with which to meet whatever the future may hold of challenge and opportunity.

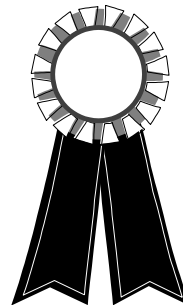
These are the objectives to which the Jemicy School has dedicated itself.

APPENDIX B

Fort Treaty ~ 2006-2007

The woods will only be open second (2nd) recess

- *Be friendly*
- *Respect all living things*
- *All forts will be flagged by a teacher*
- *Forts unused for two consecutive weeks will be un-flagged by a teacher*
- *One fort per fort group*
- *Ask before you trade and respect the response you receive*
- *No taking of materials from flagged forts*
- *No taking of wood from live trees or standing trees*
- *No weapons or threats allowed*
- *Everyone should be included*



APPENDIX C: Selection criteria for student participants and alumni

Student Criteria:

- Samples represent age range across lower school (six-eleven)
 - Addresses question of how children of different ages may experience environment differently
- Include even numbers of boys and girls
 - Addresses question of how children of different genders may experience environment differently
- Include both new and returning students
 - Addresses question of how children who have not been fully inducted into school culture may experience environment differently
- Include racial/ethnic diversity
 - Addresses question of how children of different racial/ethnic groups may experience environment differently
- Represent commitment to one of two play settings (either woods or non-woods)
 - observed playing in this setting for eight out of ten recess periods over a period of two weeks

Selection

- Sample chosen after two-week fall observation period
 - All lower school students categorized according to observed recess play areas.
 - Criteria chart created with potential informants
 - Permission for possible participation requested from these informants
- If, after filling criteria chart, more than one student fits necessary criteria, participants will be selected according to youngest birthdate

Alumni Criteria

- Sample spans the years of the school's existence, and respondents evenly represent different eras of the school as identified by changes in school directorship
 - Represents different views of changing school policies, practices, and climate
 - Represents different age perspectives
- Males and females in each era evenly represented
 - Addresses issue of possible gender differences in perception of play
- Includes alumni who were "nature players" and those who were "players elsewhere"
 - Mirrors sample of current student observations
- Includes alumni whose children attend(ed) Jemicy
 - Addresses question of whether Jemicy student experience influences Jemicy parenting
- Includes alumni who currently teach at Jemicy
 - Addresses question of whether Jemicy student experience affects Jemicy teaching

Selection process:

- Alumni responded to mass email to all alumni whose email addresses were on file at the school
 - Alumni were invited to take an anonymous on-line survey, and to participate in an interview
 - Those alumni who responded to my interview request were selected in the order in which they contacted me, until sample criteria were met
- In addition, I directly requested the participation of the three alumni teachers currently working at Jemicy.

APPENDIX D: Informed consent letters for Jemicy School participants

Informed consent for Jemicy parents and students

Dear Jemicy Parents,

For those who don't yet know me, I am chair of the Science Department at Jemicy, a Lower School science teacher, and in my 22nd year of teaching at Jemicy. I am also in the final research phase of my doctoral program in Environmental Studies at Antioch University New England, in Keene, NH. This letter is to request permission for you and your son or daughter to participate in the research described below.

I am studying children's experience of playing outdoors at Jemicy during recess and after-care. My research, which will take the form of an ethnographic case study, is intended to document the value of a supportive environment for children to play outdoors.

Observations and interviews with students:

I will be videotaping children's activity outdoors (in the woods and other locations as well) during second recess. Approximately 10 children will be asked to participate in 2 follow-up, audio-recorded interviews (one alone with me, and the other with a small group of peers), in which they will watch a brief video clip of themselves playing, and then be asked questions about this activity. These interviews will take place in the science room during one of the homeroom or recess times. At no point will this research interfere with a child's class schedule.

There will be no risks posed to children due to this research, as it will occur within normal school and recess parameters. All participation in interviews and as a subject of videotaping is strictly voluntary; children may opt out of these activities at any time.

Interviews with Parents:

I am also asking for permission to interview parents of the 10 children who are selected for follow-up interviews. To gain a more holistic view of a child's play experience at home and school, I will conduct approximately 30-minute audio-recorded interviews with one or both parents. These will take place at your convenience and in the location of your choice. You will first view a video clip of your child playing at Jemicy; this will be followed by an interview about your child's play activities at home and school. Your responses will be kept anonymous, along with the identity of your child. Pseudonyms will be used for all participants. You may request to remove yourself or your child from participation at any point.

All videotapes will be transcribed to text for analysis, and the original tapes will be archived at Jemicy School. Audio tapes will also be transcribed, with the originals kept in a secure location for five years following this research, after which they will be destroyed.

CONSENT FORM

I give my consent for my child to participate and be interviewed, if asked, in Emily Stanley's research on nature play at Jemicy School. I may withdraw this permission at any time. By signing below, my child also indicates willingness to be interviewed.

In addition, I consent to be interviewed, if asked, about my child's play activities. I may withdraw this permission at any time. I understand that my responses will remain anonymous

and that neither my identity nor my child's identity will be revealed in any published material resulting from this study.

(Parent or guardian)

(Student)

Please return this form to Emily Stanley at Jemicy School.

Informed consent for teachers

Dear Jemicy Teachers,

As you may know, in addition to teaching science here at Jemicy, I am in the final research phase of my doctoral program in Environmental Studies at Antioch University New England, in Keene, NH. This letter is to request permission for your possible participation in the research described below.

I am studying children's experience of playing outdoors at Jemicy during recess and after-care. My research, which will take the form of an ethnographic case study, is intended to document the value of a supportive environment for children to play in natural settings, such as the Jemicy woods.

Observations and interviews with students:

I will be videotaping children's activity outdoors (in the woods and other locations as well) during both recesses and during the J-E after-care. Approximately 10 children will be asked to participate in 2 follow-up, audio-recorded interviews (one alone with me, and the other with a small group of peers), in which they will watch a brief video clip of themselves playing, and then be asked questions about this activity. These interviews will take place in the science room during one of the homeroom or recess times, with permission of a homeroom teacher. At no point will this research interfere with a child's class schedule.

There will be no risks posed to children due to this research, as it will occur within normal school and recess parameters. All participation in interviews and as a subject of videotaping is strictly voluntary; children may opt out of these activities at any time.

Interviews with Teachers:

I am also asking for permission to interview teachers of the 10 children who are selected for follow-up interviews. To gain a more holistic view of a child's play experience at home and school, I am requesting a 30-minute audio-recorded interviews with teachers selected by students as "someone who knows them well." These will take place at your convenience. You will first view a video clip of a selected child playing at Jemicy; this will be followed by an interview about this child's play activities at school. Your responses will be kept anonymous, along with the identity of the child. Pseudonyms will be used for all participants. You may request to remove yourself from participation at any point.

All videotapes will be transcribed to text for analysis, and the original tapes will be archived at Jemicy School. Audio tapes will also be transcribed, with the originals kept in a secure location for five years following this research, after which they will be destroyed.

Informed consent for alumni

Dear Jemicy Alumni,

Greetings from Jemicy!

For those who may not remember me (or who may remember me as teaching E Group homeroom or tutoring), I am now chair of the Science Department at Jemicy, a Lower School science teacher, and in my 22nd year of teaching at Jemicy. I am also in the final research phase of my doctoral program in Environmental Studies at Antioch University New England, in Keene, NH. This letter is to request permission for your participation in the research described below.

I am studying children's experience of playing outdoors at Jemicy during recess and after-care. My research, which will take the form of an ethnographic case study, is intended to document the value of a supportive environment for children to play in natural settings, such as the Jemicy woods.

In addition to observing current students' play at Jemicy, I would like to get impressions of how alumni of the school remember their own experience. I plan to conduct interviews (approximately forty five minutes in length) with alumni who represent different eras of the school's history. These would take place at your convenience and in the location of your choice. You would first view a video clip of current students playing at Jemicy; this would be followed by an interview about your experiences as a Jemicy student yourself, and about what you've been doing since leaving Jemicy. Your responses would be kept anonymous; pseudonyms will be used for all participants. You may also request to remove yourself from participation at any point.

All videotapes will be transcribed to text for analysis, and the original tapes will be archived at Jemicy School. Audio tapes will also be transcribed, with the originals kept in a secure location for five years following this research, after which they will be destroyed.

Informed consent for administrators

Dear Administrator,

As you know, in addition to teaching science here at Jemicy, I am in the final research phase of my doctoral program in Environmental Studies at Antioch University New England, in Keene, NH. This letter is to request permission for your possible participation in the research described below.

I am studying children's experience of playing outdoors at Jemicy during recess and after-care. My research, which will take the form of an ethnographic case study, is intended to document the value of a supportive environment for children to play outdoors.

Observations and interviews with students:

I will be videotaping children's activity outdoors (in the woods and other locations as well) during both recesses and during the J-E after-care. Approximately 10 children will be asked to participate in 2 follow-up, audio-recorded interviews (one alone with me, and the other with a small group of peers), in which they will watch a brief video clip of themselves playing, and then be asked questions about this activity. These interviews will take place in the science

room during one of the homeroom or recess times, with permission of a homeroom teacher. At no point will this research interfere with a child's class schedule.

There will be no risks posed to children due to this research, as it will occur within normal school and recess parameters. All participation in interviews and as a subject of videotaping is strictly voluntary; children may opt out of these activities at any time.

Interviews with Administrators:

I am also asking for permission to interview several administrators to gain additional perspective on children's play from philosophical and policy standpoints. These interviews will take place at your convenience. You will first view a video clip of a selected child playing at Jemicy; this will be followed by an interview about the school's philosophy and policies relative to outdoor play. Your responses will be kept anonymous. Pseudonyms will be used for all participants. You may request to remove yourself from participation at any point.

All videotapes will be transcribed to text for analysis, and the original tapes will be archived at Jemicy School. Audio tapes will also be transcribed, with the originals kept in a secure location for five years following this research, after which they will be destroyed.

APPENDIX E: Interview Guides for Participants

Interview guide for students

1. What are your three favorite and three least favorite things about Jemicy? (Use terms “best” and “worst” as necessary, depending on verbal ability)
2. Where is your favorite *part* of the woods?
3. What are your favorite *things* in the woods? Why do you like them?
 - a. (show video)
4. What’s happening here?
5. What kinds of things can you do in this place?
6. What if you couldn’t do this at Jemicy? What would it be like? What would you do instead?
7. Do you ever play like this anywhere else besides Jemicy?
8. (if yes) Tell me about some of the things you like to do there.
 - a. (if no) Why not?
9. If you could change anything about the woods or about recess, what would it be?

Interview guide for parents

1. What do you think your child’s three favorite, and three least favorite things about Jemicy are?
2. What is your initial reaction to these clips?
3. Does this seem like typical behavior for your child?
4. Does your child do these kinds of things at home, or anywhere else outside of school?
5. How does he/she spend free time at home?
6. Do you and your child spend time together outdoors?
7. What is your impression of the reason that kids are allowed to play in the woods?
8. Why do you think your child plays here, given other options at recess?
9. What kinds of stories do you hear about the woods from your child?
10. Are there specific *objects* or *activities* that your child brings home or talks about from school?
11. Did you experience a similar kind of play as a child?
 - a. (if yes) Can you describe that?
 - b. (if no) What kinds of play do you recall from childhood?
12. Do you have any concerns about your child playing in the woods?
 - a. (if yes) What are they? How do you address your concerns?
13. What are the qualities of Jemicy that convinced you to send your child here?

Interview guide for teachers

1. Describe what you think would be this student’s three favorite, and least favorite things about Jemicy.
2. What is your initial reaction to these clips?
3. Does this seem like typical behavior for this student?

4. What kinds of stories do you hear about the woods, either from this student, or from someone else who knows this student?
5. What kinds of *objects* do you see this student collecting or talking about finding?
6. What kinds of *activities* do you hear this child talking about?
7. Describe the social interactions of this child with peers in the classroom setting.
8. Does this student tell stories about nature experiences in other places? From media?
9. Have you ever watched children playing in the Jemicy woods? What was that like? What do you think about this kind of play?
10. Do you have any concerns about this kind of play? How do you address these?
11. How does this play at Jemicy compare with that of other children in other schools? Do you think that Jemicy students experience nature differently than children in other schools?

Interview guide for administrators

1. What do you think makes a Jemicy experience an “experience of the good life in childhood”?
2. How does outdoor play fit into that?
3. Has play at Jemicy changed over the years that you’ve been here?
4. Are there things about children’s play at Jemicy that you would like to change?
5. Have you ever watched children playing in the Jemicy woods? What was that like? What do you think about this kind of play?
6. Do you have any concerns about this or any other kind of outdoor play at Jemicy? How do you address these?
7. How do you think play at Jemicy compares with that of other children in other schools?
8. What do you think play at Jemicy will look like ten years from now?
9. Do you think that Jemicy students experience nature differently than children in other schools?

Interview guide for alumni

1. What years did you attend Jemicy?
2. How do you describe that school experience to other people who don’t know Jemicy?
3. What were some of your favorite memories from your earliest years here?
4. What were some of your worst memories from your earliest years here?
5. What did you spend your time doing at recess when you were in the lower school?
6. Did you ever spend time in the woods during recess? Doing what, or why not?
7. Describe some of the objects or activities that were important to you and your friends at this time.
8. What are you doing now?
9. How did your time at Jemicy affect your actions after leaving?
10. (view clip) What are your initial reactions to seeing this?
 - a. Is this like the experience that you recall? How?
 - b. If not, how is it different?
11. What do you think is important to these students shown here?
12. If you have children...

- a. (for Eras 1 and 2), what kinds of play experiences have they preferred?
 - i. How do you feel about the kinds of play opportunities they've had in school?
 - b. (for Era 3), if you were to have children, or be responsible for children, what kinds of play opportunities do you think they should have?
 - c. (for alumni whose children attend Jemicy), how does your child's experience here compare to what you experienced? Are there any significant losses or improvements?
13. Were there any adults who influenced how you spent your time or what you valued at Jemicy? (if so) Please describe some of those influences.

APPENDIX F: Online survey questions for alumni

1. What years did you attend Jemicy?

2. How did you spend your recess time at Jemicy when you were in the lower school?

- In the woods
- Playing sports
- On the playground
- Other
- Comments:

3. What specific activities do you recall enjoying outdoors at Jemicy?