The Cincinnati Playscape Project

Background

What is a playscape? 02
Empirical Research 03

The Cincinnati Playscape Project

Introduction 07
Stakeholders & Consultants 08
Programming 10
Site Selection 12

Design Submissions 17

Design Analysis

Reductive Analysis 30
Synthesis 35

CDC Concept Plans 45

Design Principles 50

Sources 53

Appendix A: Programming Report
Appendix B: Professional Development Course
Appendix C: Bringing Nature to Arlitt

Acknowledgements

Report by Eleanor Luken, edited by Frank Russell, produced by the Community Design Center

Special thanks to the following:
The designers who volunteered their time and creativity to the Arlitt playscape: Mark Burgess, Sharon Floro, Rachel Robin-son, David Whittaker;
Len Thomas and Wes Munzel at the Office of the University Architect for their frequent consultation and design ideas;
Vicki Carr and the staff at the Arlitt Center for their participation and enthusiasm;
Robin Moore for his inspiration and working above and beyond;
Nick Green and Phil Carlson for their research and design work at the CDC.
A playscape is a natural landscape that supports children's self-directed play. Trails, forests, farmlands, and caves—all places that many adults have fond memories of but many children have not had the opportunity to explore—are the inspiration for all nature playscape for children's free play.
What is a playscape?
(continued)

The Children & Nature Network (childrenandnature.org) is a national movement with a strong base in Cincinnati. The founder of the national network and author of the provoking book *Last Child in the Woods*, Richard Louv, as well as educators and nature advocates, are deeply concerned that children today spend up to six hours each week watching television and only 30 minutes in unstructured outdoor play. Adults are likely to remember youths spent exploring woods, building forts, looking at bugs, and a special, secret spot away from parents. However, today's children are more likely to be scheduled in organized sports, lessons, and preparatory activities leaving little free time to discover the world around them. Abundant research supports the statement that children need access to the outdoors for healthy physical, cognitive, and emotional development (Moore & Cosco, 2006; Rivkin, 1997; Wilson, 1995; Hart, 1979; Taylor, Wiley, Kuo, & Sullivan, 1998).

The No Child Left Inside Act was reintroduced to Congress in April 2009. The bill counters the No Child Left Behind program by proposing $500 million in five years to add “environmental literacy” to the curriculum of public schools. The bill is backed by a coalition of over 1,300 Leave No Child Inside supporters. The movement is spearheaded by the Chesapeake Bay Foundation with local support organizations in many cities, including Cincinnati (www.lncigc.org).

The primary goals of the Children & Nature Network and Leave No Child Inside coalition is to make natural environments available to children and allow them the time and opportunity to explore, ask questions, and develop their innate sense of wonder. Several factors make indoor play attractive to children. There is the pull of toys, television, and computer games all backed by a dominant marketing industry that has every incentive to make children into consumers. At the same time, adults “push” kids inside either by restricting their free time or access to the surrounding neighborhood. Strangers, traffic, and tragic accidents are all modern threats to children's safety and cause many parents to usher their children into highly structured and supervised activities. In response, landscape architects and urban planners (see Robin Moore, Kevin Lynch, Roger Hart, Joe Frost, and Louise Chawla) have a vested interest in making public, outdoor space accessible and safe for children. Richard Louv posits that by “protecting” children from risk we are exposing them to the risks of a sedentary lifestyle and do not prepare them for real world challenges they will face in their future.

The majority of playscapes in America are located at organizations with a mission of preserving natural environments including zoos, botanical gardens, arboretum, and nature centers. Childcare centers and some schools are showing interest in “greening” their outdoor play spaces. In the future hopefully city park systems will add natural features that inspire and engage young children. Perhaps future public and private housing developments will include areas of natural space amid the new construction.
A report by the American Association of Pediatricians (Ginsburg et al, 2006) states that children need unstructured, free play time for healthy emotional and cognitive development. Both qualitative and quantitative studies indicate that natural settings with ample vegetation encourage more and longer play sessions (Moore & Cosco, 2006; Rivkin, 1997; Wilson, 1995; Hart, 1979; Taylor, Wiley, Kuo, & Sullivan, 1998). Herrington found that landscape-based designs stimulate more aspects of human development than standard play equipment (Herrington and Studtmann, 1998). For example, dramatic play props and construction play promote cooperative play and give children the chance to engage their interpersonal skills (Barbour, 1999).

One reason that outdoor play is decreasing is that caregivers emphasize academic preparedness over play and unstructured activities, even at the preschool level (Ginsburg et. al., 2006). In addition to health and development benefits significant learning inevitably occurs in the outdoors especially when it is accompanied by environmental education. Natural environments create a rich context for preschoolers’ cognitive development through play (Kellert, 2002). One of the earliest stages of development requires children to begin to categorize and distinguish objects, characteristics, and uses. Observing conditions of the world, such as the life cycle of plants and animals or changing weather patterns, gives children practice in interpreting empirical observations (Kellert, 2002). Nature surpasses human-made structures in variety and complexity needed to stimulate these learning experiences. Other outdoor education includes practice adapting to a dynamic world and assessing risk. For those still concerned with formal education indoors, recent research has identified access to nature as an important mental relief, allowing the brain more capacity to focus and store information (Louv, 2005; Taylor and Kuo, 2008; Taylor et. al, 2001).

In addition, outdoor play including organized sports, exploring nature, and sustained construction play offer children a chance to exercise gross and fine motor skills that the indoor play facility is ill-equipped to allow (Fjurtoft and Sageie, 2000). Emerging research links decreased outdoor play with the rise of preschooler’s weight-related health problems (Moore, 2003; Sturm, 2005; Klesges et. al., 1990). Barbour (1999) determines that multi-purpose play spaces offer physical and social benefits to a wider range of children than those who are already physically competent and confident. Such spaces include sand, water, loose parts, varied natural climbing structures, and natural areas. These rich play environments encourage psychomotor physical challenges, which stimulate the mind and body simultaneously (Bixler et. al., 2002).

Natural Playscapes meet the needs of young children to have frequent unstructured play in nature in a safe setting. Although these areas have been built throughout the world over the past twenty years, none exist in Greater Cincinnati.

(continued)
The Cincinnati Playscape Project was inspired by research projects such as the “Motivation to Move: Physical Activity Affordances in Outdoor Preschool Areas” (Cosco, 2006) and “Head Start Growth and Readiness in the Outdoor World: Linking Research and Practice” (Cosco 2007; Cosco et al. 2004). These projects suggest that well-designed playspaces broaden children's play repertoires and therefore experiential learning within extended natural learning cycles focusing the locus of control on the child rather than the teacher, thereby enhancing preschoolers' self-esteem, creativity, and understanding of natural processes. Positive effects of nature also include improving children's ability to sustain attention (Faber Taylor and Kuo, 2008; Faber Taylor et al. 2001; Wells, 2000).

Furthermore, the American Institutes for Research (2005) found a 27% increase in measured mastery of science concepts; enhanced cooperation and conflict resolution skills; gains in self-esteem; gains in positive environmental behavior; and gains in problem-solving, motivation to learn, and classroom behavior among at-risk youth who spent time in green space compared to a control group. Cosco's research (2006) on physical activity has shown that children's physical activity is correlated with diversity of outdoor environments and their physical design. It adds to the existing research that shows:

a) Time spent outdoors is an environmental determinant most strongly correlated with greater amounts of physical activity in children. (Sallis, Nader, Broyles, Berry, Elder, McKenzie, & Nelson, 1993).

b) Preschoolers with higher levels of outdoor physical activity retain higher levels as school age children. (Moore, Di Gao, Bradlee, Cupples, Sundarajan-Ramamurti, Proctor, Hood, Singer, & Ellison, 2003).

c) Active outdoor childhood influences the preference for outdoor experiences in adulthood. (Wells, & Lekies, 2006)

d) The preschool and, more specifically, the preschool outdoors is a strong determinant of physical activity. (Dowda, Pate, Trost, Almeida, & Sirard, 2004).

Building on the existing research, the Cosco & Moore research critically focused on affordance and behavior setting in playscapes or on natural playgrounds. With regard to affordance studies, the approach helps investigators understand the impact of the physical environment on children and to identify environmental attributes that are associated with specific behavioral responses. It stresses the relationship between perception and action (Gibson and Pick, 2000). Behavior settings are ecological units where the physical environment and the behavior are inextricably connected. These eco-behavioral units were first described by Barker (1976) who, through direct observation of children, noticed that behavior settings have clearly identifiable spatial and temporal boundaries.

Clearly the evidence exists for creating playscapes targeted to young children. This evidence, however, is not heeded and acted upon across the nation according to playground designers (Frost & Talbot, 2007). Thus, the demonstration playscapes to be described in this session aim to serve as models for the local, regional, and national Head Start and other early childhood programs.
The Cincinnati Playscape Project

Primary Goals:
1. Increase awareness of the critical importance of outdoor play for healthy child development

2. Design and build two natural playscapes one at Cincinnati Nature Center and one near the University of Cincinnati Arlitt Child and Family Education and Research Center
   a. For use by each institution and the public
   b. As demonstration sites for Greater Cincinnati

3. Train local practitioners in the design of natural settings for unstructured play

Secondary Goals:
4. Initiate teacher/parent training to facilitate free play
5. Stimulate research into child development in natural settings
The Cincinnati Playscapes Project implements environmental education by promoting outdoor physical environments for preschool facilities. This collaborative effort brings together two organizations, Cincinnati Nature Center (CNC) and the Arlitt Child and Family Research & Education Center at the University of Cincinnati to model landscape designs appropriate for exceptional early childhood play and development. This project is funded by a generous grant from the Harriette Downey Fund at the Greater Cincinnati Foundation. The grant is intended to encourage partnerships between the University of Cincinnati and local non-profit organizations.

Nationally renowned playscape designer Robin Moore and educational psychologist Dr. Nilda Cosco of The Natural Learning Initiative (NLI) in the College of Design at North Carolina State University, are consultants to the Playscape Project. NLI uses a unique collaborative process involving the stakeholders of the future playscape including children, parents, teachers, and community members.

The project began at the Rowe Woods site of Cincinnati Nature Center where land was readily available. CNC’s current master planning process identified the playscape location in January 2009. Members of the Arlitt planning team gained knowledge of the NLI programming process through observation and participation. CNC’s current early childhood programs (Little Adventurers, Little Acorns and summer camp) will use their playspace daily. CNC members and visitors will be informed and encouraged to bring children to the playscape whenever the Rowe Woods site is open. CNC is hoping to open a Nature Preschool in the near future which will make regular use of the playscape.

In parallel, Arlitt looked for a site within walking distance to the preschool. Several sites, both on and off campus, were considered. When the most promising off campus site, Classen Park, was taken off the table, Arlitt started working with the University of Cincinnati architect’s office to find a space on campus. They conducted a programming workshop with NLI in June 2009. The Arlitt Center is located on an urban campus, in contrast to the CNC this playscape reflects natural play incorporated into existing built spaces. The primary users of the Arlitt playscape are its students, ages three to five, and teachers. In their current facilities the classrooms open to a common outdoor playground that is almost entirely hardscaped. It includes a small track for wheeled toys, a sand pit, and a traditional climbing frame. The current playground does not accord with the Center’s mission as a a learning center based on constructivist teaching methods. The equipment lends itself to predetermined uses rather than undirected, exploratory play. The Arlitt Center has a strong research agenda; the new playscape is conceived of as a laboratory to observe the effects of nature play on young children.

The Community Design Center within the College of Design, Art, Architecture and Planning provided site analysis and concept design services to the Arlitt Center and facilitated a training program for local practitioners in playscape design.
Arlitt Child and Family Education and Research Center
Director, Vicki Carr

The Arlitt Child & Family Research & Education Center is one of the oldest demonstration preschools in the United States. Founded in 1925 as the University of Cincinnati Nursery School, this child development center is sustained in part by an endowment from Dr. Ada Hart Arlitt, who was the first teacher at the school. The Arlitt Center serves as an early childhood education practicum site for students from many programs at the University of Cincinnati, a research center for faculty and students, and an observation and teacher training resource center for the community.

The Arlitt preschool staff embraces a model for learning based on the work of Piaget, Vygotsky, Dewey, Bruner, Erikson, and Brofenbrenner. While all teachers incorporate the constructivist teaching model, some are also influenced by the practices of Reggio Emilia. The curriculum is designed to meet the individual needs of all children in the areas of cognitive, social, emotional, and motor development.

Cincinnati Nature Center
Director, Bill Hopple
Education Director, Connie O’Conner

Mission: To inspire passion for nature and promote environmentally responsible choices through experience, education, and stewardship to ensure a sustainable future.

Today, Cincinnati Nature Center’s two sites (Rowe Woods and Long Branch Farm & Trails) comprise over 1,600 acres of irreplaceable natural and agricultural land, making it one of the top 10 nature centers in the country. Cincinnati Nature Center’s education programs reach 12,000 school children each year with hands-on lessons about ecology, and help ensure responsible stewardship of the land well into the future.

Planning + Design + Construction Department, University of Cincinnati
University Architect, Beth McGrew
University Landscape Architect, Len Thomas
Planner, Wes Munzel

The office of the university architect is responsible for the physical environment of the University of Cincinnati’s Uptown campuses, Raymond Walter campus, and Clermont campus. Projects include campus planning and design, renovations, new building construction, real estate, and space management.
Robin Moore, Dipl. Arch; MCP  
*Professor of Landscape Architecture | Director, Natural Learning Initiative | NC State University*

Robin Moore is an urban designer and design researcher, specializing in child and family urban environments that support healthy human development, informal play, and nonformal education. He holds degrees in architecture, London University, and city and regional planning, MIT. His teaching and research interests are focused on sustainable urban landscape for human health. He is a member of the UNESCO-MOST Growing Up in Cities (GUIC) action research program, co-directed the Buenos Aires project and coordinated the MENA regional program in Amman, Jordan.

Dr. Nilda Cosco, PhD  
*Education Specialist, Natural Learning Initiative | College of Design, NC State University*

Nilda Cosco, PhD, is Education Specialist, The Natural Learning Initiative; Research Associate Professor in the College of Design, and former Director of the Center for Universal Design. Her responsibilities include design programming and research of outdoor environments for children with and without disabilities and development of training activities for designers, educators, and community members interested in creating high quality outdoor environments for children and families. Dr. Cosco holds a degree in Educational Psychology, Universidad del Salvador, Argentina and a Ph.D. in Landscape Architecture, Edinburgh College of Art, Scotland. Her primary research interest is the impact of outdoor environments on child and family health outcomes such as healthy nutrition, active lifestyles, attention functioning, and overall wellbeing, particularly as they relate to natural components of the built environment.

**Community Design Center, University of Cincinnati**  
*Director, Frank Russell*

Frank Russell is the Director of the University of Cincinnati Community Design Center and the Niehoff Urban Studio at the College of Design, Art, Architecture, and Planning. He is a Registered Architect and Urban Designer. The Community Design Center organizes collaborative interdisciplinary community/university partnerships for the research and design of physical improvements which serve the University’s urban area. The Community Design Center is a part of the College of Design, Architecture, Art, and Planning at the University of Cincinnati. The Center provides assistance to community groups, non-profit organizations, and City departments that are representing underserved areas and underfunded projects within the area. The Center has assistance from co-op students and graduate assistants. Faculty from these schools are involved as advisors and designers on individual projects.

*Graduate Assistant, Eleanor Luken*

Eleanor Luken is a graduate of the Master of Science in Architecture program at the University of Cincinnati College of Design, Architecture, Art, and Planning. Her thesis studied playground design in relation to cultural conceptions of childhood.

*Co-op, Nick Green*

Nick Green is a fourth year BS Architecture Student at the University of Cincinnati. Originally hailing from Michigan, his interest is in the design of unique single family residences.
In June 2009 Robin and Nilda facilitated a programming workshop at the Arlitt Center to help the organization generate ideas for their new playscape. The Cincinnati Playscape Project stakeholders attended as well as teachers at the school and landscape architects participating in the professional development course.

The teachers at the workshop explained that their current facilities were inadequate. It did not provide space for classroom activities related to nature discovery. They thought that the primacy of hardscaping is uninspiring. The teachers indicated they wanted a space that felt more exploratory than their current facilities made up of climbing frames and wheeled toys.

The workshop generated several goals for the playscape:

- Create a research site. It will be used as a place to train teachers in using a natural classroom; inspire college students to informally observe (and learn about) children at play; demonstrate a new paradigm in the character of early education research laboratories.

- Support UC21 by diversifying the university’s sustainability initiatives and creating a service learning opportunity.

- Reinforce No Child Left Inside and offer parents and other childcare centers a model to inspire their own backyard playscape.

Support UC21 by diversifying the university's sustainability initiatives and creating a service learning opportunity.

Reinforce No Child Left Inside and offer parents and other childcare centers a model to inspire their own backyard playscape.

Mission statement for the Arlitt Center Play & Learning Laboratory:

a safe, outdoor place for children's exploration and discovery, play, learning, and positive social interaction. The area will also serve as a research facility for the university community.
## Programming

### List of Preferred Elements

<table>
<thead>
<tr>
<th>Program Element</th>
<th>Affordances for Preschoolers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance</td>
<td>Iconic image of playscape, threshold for new rules, anticipation</td>
</tr>
<tr>
<td>Pathways</td>
<td>Access, organize cognitive map, security that one is not lost</td>
</tr>
<tr>
<td>Decks, stages, or forts</td>
<td>Looking down, reaching up, climbing under, inspiring dramatic (pretend) play, a resting space, place to work on projects</td>
</tr>
<tr>
<td>Tunnels</td>
<td>Hiding in, crawling through, darkness, climbing over, space for small group privacy</td>
</tr>
<tr>
<td>Earth / sand play area</td>
<td>Digging, building, feeling mud, experimenting with tools, sculpting, making dirt objects for dramatic play</td>
</tr>
<tr>
<td>“Enchanted woodland”</td>
<td>Inspiring stories and mystery, exploring, finding treasures</td>
</tr>
<tr>
<td>Full body plant contact</td>
<td>Picking, sitting in, feeling differences between plants, lying on soft surface, using plants in dramatic play, feeling cozy and enclosed</td>
</tr>
<tr>
<td>Space and objects for gross motor play</td>
<td>Running law, rolling down hill, chasing over/under/around decks/boulders/logs</td>
</tr>
<tr>
<td>Hammocks</td>
<td>Swinging, resting, thinking</td>
</tr>
<tr>
<td>Natural loose parts</td>
<td>Collecting, admiring, pretending they are objects in dramatic play, building with</td>
</tr>
<tr>
<td>Vegetable garden</td>
<td>Tasting, observing, waiting, learning, digging, planting</td>
</tr>
<tr>
<td>Puppet theater</td>
<td>Practice literacy, expression, performing</td>
</tr>
<tr>
<td>Rocks</td>
<td>Sitting on, climbing over, try rolling, use as table, feel surface, collect small rocks, combine with earth/sand/water play</td>
</tr>
<tr>
<td>Sensory Garden</td>
<td>Smelling, tasting, feeling plant textures, collecting plant pieces</td>
</tr>
<tr>
<td>Vegetated edges</td>
<td>Enclosing, hiding views, using plant parts for dramatic play</td>
</tr>
<tr>
<td>Water, stream, or fountain</td>
<td>Splashing, pouring, dumping, measuring, floating, feeling the water, feeling wet objects</td>
</tr>
<tr>
<td>Artwork</td>
<td>Inspiring, contemplating, makes yard special</td>
</tr>
<tr>
<td>Fruiting trees</td>
<td>Tasting, observing, attracting animals, picking, dissecting fruits/seeds/pods</td>
</tr>
</tbody>
</table>

See Appendix A for the full NLI report

---

### Stimulating Descriptors

- stimulating
- research
- inquiry
- belonging
- safe
- unexpected
- learning
- child-owned
- passion
- interaction
- messing around
Community Sites

The Arlitt center looked nearby its preschool to find a suitable location for the new playscape. The most desirable option was Classen Park, a public park adjacent to the preschool.

Across the street from the Arlitt Center there were two on-campus options: the ravine and the grassy knoll. Both have variated topographies, ideal for a playscape, however, the ravine would need brush removal and grading adjustment before it could be usable and the grassy knoll. Both sites were removed from consideration because the university athletics department has long range plans for a new soccer field complex that uses all the land across from the Arlitt center.

Burnett Woods is a lovely park north of the university. The Arlitt Center considered a university owned site across the street from the park. Unfortunately, access to the park is limited because it is across a street and there is no accessible entrance there. It would be unlikely to reserve a piece of the park for private use because the park is frequently used by visitors and neighbors. The area of the park across from the potential site has possible drainage problems. Finally, Burnett Woods is too far away for the children and teachers to walk making it less likely that they will visit the playscape on a daily basis.

An ideal location was an area of Stratford Heights on the west side of the university. This complex was used for student housing but is slowly being renovated for other uses by the university. This site is far from the current Arlitt location. However, it would be an excellent setting for a relocated Arlitt center. The architecture of the buildings is domestic rather than institutional (preschoolers respond better to home-like care settings), the buildings are set back from busy streets, there is ample room for parent drop-off/pick-up, there is plenty of grassy, hilly land between the development and a public park behind it. Arlitt considered this site but determined that they would not have enough money to move the center.
Finding a site for a playscape in the dense urban area nearby Arlitt was challenging. Because the Cincinnati playscapes are to serve as demonstration sites to inspire more playscapes, it was important that one of them show how to negotiate building an all natural play area in the middle of a city.

The Arlitt Center is located at the southeast corner of campus. The site photo shows the center’s proximity to Classen Park. The park currently serves as a public green space. It is rarely used for recreational purposes but will, in the future along with new developments across Calhoun St., act as a gateway for the university neighborhood and business district. The CDC developed a concept plan for a playscape area in the park which was reviewed by the community and city officials. Despite Classen’s convenience to both Arlitt and Corryville Catholic Elementary school (immediately to the west), community leaders decided they wanted to reserve the space for a formal landscape design.
Site Selection

After determining that off-campus sites were undesirable and impractical, Arlitt and the CDC asked the University Architect for a space on campus. Many of the green areas on campus had future uses planned or were part of a carefully composed landscape. The University of Cincinnati masterplan recently included a large landscape design by George Hargreaves. The playscape concept is aesthetically disparate from the language of Hargreaves’ design. Playscape are organic, natural, and messy. Contemporary landscape design on the university campus is geometric and spacious.

However, the university agreed to consider a playscape on an unused position of the campus landscape where it would not interrupt other campus planning. The architect generated three site options (see map). Site C is the largest at 11,000 sf. but it also holds two regularly used pedestrian paths, making it difficult to enclose the playscape with a fence. Site B is at the base of student housing and is also intersected by pedestrian paths. Site A, the courtyard to French Hall (holds offices and classrooms) is an appealing choice because it has an interesting topography and plenty of existing trees. Arlitt classrooms sometimes take short fieldtrips there and the children enjoy play amongst the trees and in the grass.
The site that Arlitt and the university architect finally agreed on is the courtyard of a university building, French Hall. It is in a highly visible location on the corner of University Ave., a primary vehicular entrance to the campus. It is a short walk for the Arlitt classes to access the playscape site. There is also access via the campus shuttle so the classes can still use the playscape in inclimate weather.

Several features make this site a prime choice for a playscape. It is surrounded by a building on two sides, providing a barrier. There is slight variation in topography, most notably the eastern edge slopes upwards providing a soft edge on that side. A water source is available from French Hall. The most exciting feature are the existing trees. The main focal point of the yard, as it stands now, is the bosque of 10 trees in a grid. The children do not have any trees at their current playground (nor grass) and they relish running between the trunks and having physical contact with the grass lawn.
Following the programming workshop, concept designs for the Arlitt playscape were developed from four sources:

1. Contributions from local landscape architects through a playscape design continuing education program (see Appendix B)
2. Concept plan ideas produced by Robin Moore.
3. Site analysis and constrains and concept plan ideas provided by UC architect’s office.
4. Concept plan synthesis and development by the CDC.

As part of the American Society of Landscape Architects (ALSA) continuing education course, professional designers were asked to choose a site and create a sample playscape designs (see Appendix B for contact information and a description of the design course). Four designers chose the Arlitt Center playscape as their practicum project. They attended the Arlitt programming workshop and observed a preschool class playing on the site. The following section illustrates four continuing education concept plans by local landscape architects followed by a concept plan by Robin Moore.
1 **Entrance** is located close to the turn around drive where several sidewalks converge. The entrance has high visibility. Playscape signage and elements will inform the onlooker that this is a special place.

2 **Fence** allows the children to be in an enclosed setting they can call their own. They have little restriction within. It has the potential to transition into panels with special inscriptions as well as a green screen allowing for plant growth.

3 **Gathering space** is located close to the initial entry zone of the playscape. The structure has the potential to display sustainable building practices or take on the organic, whimsical forms of former UC professor Terry Brown.

4 **Pathway** is comprised of colored concrete, inscriptions of chosen quotes, and imprints of native tree leaves and animal paws.

5 **Vegetable garden** is sited to take advantage of afternoon sun and is located close to the playscape water feature. Wind chimes, flags, or windmills may be added to enhance the study of wind and add structure to their layout of the garden.

6 **Symbolic prairie** uses high functioning and low maintenance perennials and native plants. The prairie is a “sea” of diversity, attracting wildlife and insects. The children will experience a wide variety of texture and seasonal interest. They will have an introduction to the historical landscape of the midwest.

7 **Willow tunnel** serves as a place for children to run through and around, to explore independently or with a friend.

8 **Water feature** is in a central location. A board walk runs over the top; plant material and stones are incorporated; a swath of stone and boulder move up onto the bank. The boulders and rocks are intermingled with plant material metaphorically representing a stream of water coming down from the mountains. Secure stepping stones allow the children to get down and engage with the water.

9 **Art piece** is on axis with the gathering structure. The pieces can be viewed through the trees, from the university buildings, and the viewing platforms. The art piece, provided by local artists or students, will add visual interest, may have interactive components.

10 **Boulders** act as a table or easel for children’s art or a place to sit while contemplating the art piece. They provide a semi-enclosure for the art area.

11 **Running hillside** provides opportunity for running up and down the existing bank. The hill may take on a gentler slope and provide some varying landform to the site. A proposed bench at the top allows children to sit and take in their outdoor home.

12 **Tree house** is a place to pretend and socialize. The structure will have architectural interest designed to the scale or a young child. Rotating props may be set up inside to correspond with curriculum.
1 Entry gate is informal with vestibule for gathering. The view into the yard is hidden slightly by the landscaped island.

2 Drop-off / pick-up area

3 Art display area welcomes children as they arrive at their playscape. Classrooms could display the children's own art or enlist local artists.

4 Stepping stones

5 Wood rail edges the path as it slopes up and over a tunnel.

6 Fence with vines growing for screen protects the children's sense of security as they play as well as reinforcing the nature play concept with a wall of plantings. Children can peek out into the university campus and watch the world around them.

7 Rolling hill provides an area for gross motor play and euphoria.

8 Bridge over tunnel

9 Story stage area is carved into the existing hill to create an enclosed, intimate space for children to play with and develop imagination, literacy, and performance.

10 Boulders for seating.

11 Tall grass meadow is a perfect place for hide-and-seek type games and full body plant contact. The children can find many spaces in which they are surrounded by natural materials and hidden from the main path. They will form their own secondary paths through the space as they explore.

12 Ornamental grass screen creates a softened edge for this corner of the yard.

13 Wooden bench

14 Open air tunnel has great visual interest as vines diffuse incoming sunlight.

15 Soft evergreen maze is similar to the meadow but has a different texture and may augment the adjacent play from the tree grove.

16 Rock wall containing an herb and flower garden provides plenty of sensory interest to enhance children's play. The shape of this area softens the corner of the yard.

17 Path of crushed stone makes a loop around most of the yard.

18 Tree log for climbing

19 Fruit tree and berry-bearing plants.

20 Storage shed

22 Low tree fort amidst the existing grove.

23 Water feature contains a long stream that ends in a puddle with plants and stones nearby to add play interest.

24 Dirt play dig area.

25 Open lawn area.

26 Potted plant garden area.

27 Boulders for climbing and jumping.
Sharon Floro
GroundWork Design Cincinnati LLC
Special Paving

Green tunnel with vines.

Green tunnel

Water play options

Moveable, natural toys

Bridge

Elevated Structure

Creative arts area

Story telling circle
David Whittaker
*Human Nature*
1 Entrance columns are encrusted with mosaics bearing plant, animal, and fossil imagery.
2 Recycled lumber bridge crosses a rain garden and encourages children to experience the unique plants and animals that live there.
3 Paved plaza with seatwalls and an attractive sun inset welcomes visitors to the garden and provides a place to meet and orient oneself within the garden.
4 Decorative fence surrounds the entire garden, providing security and a sense of enclosure.
5 Shallow, recirculating stream surrounded by native stones and plants flows through a “ravine.” Children can play in the stream and learn about stream-side plants and water dynamics.
6 Steep limestone steps encourage climbing an exploration. The stones slide past each other to allow plants to grow between them.
7 Meadow with grasses and forbs attracts a variety of animals and encourages children to learn about the native meadows that used to dot southwest Ohio.
8 Origin of the stream reflects the numerous seeps that can be found in the region. Children can play in the falling water and learn about where water comes from.
9 Cut stumps provide seating and places for plants and mosses to grow. Children can crawl through and on the fallen logs.
10 Sandstone plinths provide seating and surfaces to play within the sand pit. A series of vertical logs provide privacy. Cut-outs in the log “fort” allow visual access to the planting area beyond.
11 Activity grove is made out of the existing bosque of trees and a surrounding mulch circle. Loose parts of tree branches, logs, and stones enable children to create their own play environments. Boulders provide informal seating and hide-and-seek opportunities.
12 3’-4’ tall grassy hill provides gentle climbing for children and a venue for fun slope-based activities like running, sliding, and rolling.
13 Exposed aggregate loop path provides access to most of the garden’s activity areas.
14 In the butterfly and bird garden children can plant an array of flowers to attract wildlife. The garden includes a birdbath, sandstone seating pods, and a storage shed.

If we want children to appreciate and care for the places where they live, it is important that they become intimately familiar with the features and elements comprising their homelands. This place-specific, natural learning and play environment recreates, in miniature, many of the landscape types found in southwestern Ohio. Key features include hills, groves of trees, streams, ravines, meadows, geological formations, and agriculture.
Robin Moore  
*Natural Learning Initiative, NC State University*
Principles learned from Robin’s design

1. The importance of the path as an organizing element.

When children form cognitive maps of their playspace, a defining path is one of the main elements they use to comprehend and orient themselves. Children know that if they follow the path from any one of its points they will pass all the others and end up back where they started. This gives children a sense of safety that encourages them to be more exploratory in the spaces adjacent to the path.

2. Iconic entry

The entry is another important cognitive feature. It signifies the playscape as a special place. Robin designed a transition area to aid the children’s transition from their classroom to the less directed arena of the playscape.

3. Primary activities provide order to the composition

Robin highlighted the tree grove and lawn panel by having them take up the center of the path loop. He places them next to each other thus emphasizing their differences in form and texture (enclosed and textural versus open).

4. A variety of play elements

Instead of creating zones, Robin programmed the elements throughout the yard. His design features several sensory gardens, treehouses, a deck system, sand play, earth play, trails, puppet theater, and many other elements. He created behavior settings; children’s play in these areas will likely be directed by each setting he designed. Through the entire playscape Robin provided enough settings to encourage many different types of play.

5. “Nested” play elements

In several places Robin embedded one play element in another, such as the water feature in the sand pit and the log in the tree grove. This expands the possibilities of each setting because, for example, children can explore sand, water, and the effect of combining them. Throughout the yard he placed elements so the children could transition seamlessly among them allowing for sustained play. As children travel from the hill to the magic forest, to the tree house, the arbor, or teepee their play takes on new life and thus sustained interest.
The CDC conducted a reductive analysis and synthesis of the landscape architects’ concept plans to determine common themes and best solutions for the site.
Primary Features

Three main features were common program elements of the landscape architects’ designs: (1) an existing tree grove; (2) taking advantage of the eastern edge hillside; and (3) adding a water feature to the site.

Tree Grove

Children are immediately drawn to the existing grove of trees; during the observation period they ran around and through it and used it to organize their play within the bounded space. Designers chose to emphasize the grove in different ways. Many defined the grove's grid by wrapping a path around its edge or creating a circular groundcover under the trees. Many of the designers were intrigued by a built structure under the tree canopy as this would allow children more opportunities to interact with the trees: they could climb higher into the canopy by standing on top of the deck, or play in the shaded space underneath of the deck. Robin turned the grove into the primary play feature of the yard by adding an elaborate deck among the trunks.

With a decking system under the trees, the grove becomes a nexus of secondary paths that lead to the play settings on the exterior of Robin's main path. It also becomes a setting for dramatic play as children form habitats above and below the platform. Some of the designers, like Sharon, envisioned the grove as a site for gross motor play, leaving the groundcover mostly grass to encourage running and free play. Others, like Mark and David, saw the grove as a site for construction and pretend play. They incorporated natural loose parts and climbing structures into the grove to encourage children to build dens and use props for their play around the trees and boulder or fallen log.
Primary Features

**Hill**

All of the designers paid attention to the children’s excitement of running down the hill during the observation. Topographical variation is an important aspect of playscape design. It can serve to define space, hide areas from immediate view thus creating surprise, and add interest and challenge to the landscape. Some designers placed their water feature on the hill to make best use of the existing slope. Others, like Robin and Sharon, created smaller play elements on the hill such as forts or a reading circle carved into the hill. Most designers embellished the hill with dense plantings to create an area ripe for exploration, secondary paths, and hidden niches.

**Water Feature**

Water is one of the most attractive elements to children; the Arlitt staff wanted a water feature to take a key role in the new playscape. Sharon and Rachel each placed a pool at the site’s low point for water play. Sharon included a second feature that adds movement with a stream flowing downhill. David and Mark created long streams with pools at the end; David’s runs almost the entire length of the site where he used it as a major organizing device. Robin included two small water elements. One is a fountain for visual effects at the site entrance, the other is a small pool of water embedded in, and adding complexity to, the sand play area.
Secondary Features

Entrance
All of the designers placed their main entrance at the north eastern corner of the playscape, directly off of the main campus circular drive. Robin created a formal entrance with a paved vestibule. Others, such as David and Rachel used a long, understated entry sequence that led to an orienting feature such as a small plaza or sheltered structure.

Boundary & Fence
Hargreaves’ plan for campus landscaping is minimal, with braided paths, open lawn, and folded plane mounds. It is expansive and focuses on interesting use of groundcover. A playscape, by contrast, is a more intimate setting. Playscapes have hidden spaces, invite the user to manipulate forms and features, and are often dense with play settings, many of them messy or at least uncomposed. The designers experimented with ways to have the playscape conform or gracefully deviate from the character of Hargreave’s Campus Green. Sharon showed how we might replicate forms (such as folded plane mounds) and plantings on either side of the adjacent sidewalks and circle drive. Other designers used the fence as a buffer to separate the landscaped environment of the playscape from the campus green. Most used “university plantings” inside or outside the fence so the view from outside the yard would not be so disparate from campus.
Paths

Paths, both primary and secondary, are a crucial feature of a playscape not only to facilitate movement through the yard but also because paths are a main feature of children’s cognitive maps and they help to define space. Because the current Arlitt playground relies on hardscape, the client hoped that the playscape would use as little paving as possible. Vicki requested a three foot width though Robin, the playscape consultant, recommended a more accessible five foot width. In his plan he created a loop that traveled around the perimeter of the site. It is substantial and regular, with the interior devoted to the two main settings (tree grove and lawn panel) and the exterior for smaller play elements. In Robin’s design, almost all of the play elements are situated directly on the path. Cognitively, children know that they can circle the main loop where they will be able to find their teachers, friends, and entrances. Other designers chose winding primary paths in irregular loops of figure-eights. In one sense, paths that provide choices add interest. For example, a child on a tricycle can choose this path or that which is proportionally more fun than a single loop in which only one direction is acceptable. Meandering paths can also make the space feel more organic.

Most of the plans include secondary paths that access discrete areas within the site. These paths are distinguished from the primary loop by using a less formal material such as pavers or packed dirt. Secondary paths are important for establishing niches, they lead to secret, kid-only spaces. Robin marked a secondary path on his design as a “secret path.” This indicates to the children that there are areas for them to discover off the primary path and encourages them to create new paths to special places that have not been defined by the designer. Mark was inspired by children’s wandering movement; instead of marking secondary paths, he landscaped the ground with a walkable surface, counting on children to make their own paths through the playscape.

### Legend
- **Primary Path**
- **Secondary Path**
- **Walkable Surface**
- **Entry Sequence**
In a playscape, children should be able to explore large areas of the yard and the different environments should have different textural elements. In general, the client wanted to minimize hardscaping and increase the children’s access to plant materials. In the majority of cases the non-walkable surfaces were plantings intended for decoration. Rachel used these plantings around most of the perimeter, closing in on the playscape but giving it an softened, organic boundary. For the sake of creating a clarified and ordered design, Robin created a hardscaped main loop and separated the lawn and soft (dirt/mulch/etc.) groundcoverings. Mark and David scattered soft coverings throughout their plans and both created areas that kids could walk through but the groundcover was primarily plant material. This provides visual variety and a textured environment.
Synthesis

The CDC provided a synthesis of the components derived from reductive analysis to guide a series of design decisions. The major compositional and programmatic issues of the playscape site plan are addressed in the following elements. Each contains several options representing solutions employed by the landscape architect’s and university architect’s design precedents and how they were developed in the CDC concept plans.

Order

Ordered & rigorous . . . . . . . . . . . vs . . . . Free, organic, & ad hoc

Robin created a highly ordered and structured playscape. The two main elements, the lawn panel and the tree grove are at the center of the yard with the path wrapping tightly around them. This creates a yin yang feeling as the bottom of the path interior is enclosed with trees and the top is entirely open. Smaller play elements are scattered exterior to the path. A more organic scheme is to have primary elements but run the path through and around them and smaller elements to de-emphasize their edge. Finally, Rachel created an ad hoc scheme where play elements fill the yard and a meandering path is used to connect them.

The CDC design was inspired by Robin's strong compositional organization. This will help children clarify their cognitive map of the space. However, the plan places only the main compositional elements, leaving several areas as free play with the option of adding programmed behavior settings in the future.
In a heavily programmed playscape, like Robin’s, the majority of play takes place in behavior settings. These are areas which afford or suggest certain types of activities. Unlike a traditional playground, which is also programmed, Robin’s play settings are not single use. Sharon took the opposite approach where the grove and grassy areas were left mostly untouched and programmatically flexible, with only a couple features used to unify the yard.

The CDC design designates zones for programmed behavior settings (such as water play or the grove), but leaves several areas open for flexibility of program and free play.

The location of behavior settings relates to the overall composition and character of the yard. Isolated elements appear more like the objects in a traditional playground, especially if connected by uncovered ground. This can be enriched by including interactive plantings between the features. Embedded settings increase the affordances of all features included. For example, Robin embeds water in the sand areas and David embeds natural loose parts in the tree grove. In these cases, combining features opens the possibilities for both. Robin created a cluster of smaller play features on the hillside.

The CDC concept plant isolates elements by defining the edges between them. Rather than embedding or clustering, the play elements and activity areas are placed as distinct zones.
The existing site and designers’ treatments emphasize an “objects within a field” approach to the layout. Traditional playgrounds place a few objects onto a single, open landscape, usually of grass or safety surfacing. In the current condition, the tree grove is the only object in the playscape. David deviated from this by creating a wooded fabric of trees and planting, into which he carved out behavior settings. This is an ideal choice for a natural playscape but may not work well within the overall context of the campus.

The CDC concept plan conforms to the “object” approach because a dense fabric is undesirable on the university campus, it is too disparate from the character of adjacent campus landscape. The CDC plan shows how mounds can be used to add variety and interest to the landscape for a much lower cost than dense plantings.
Designers approached the interface between the playscape site and the campus landscape in various ways. An island would have very little to no connection with the campus, isolating itself with a visual barrier such as a fence or with a discordant landscaping scheme. The top diagram shows using plantings that mirror other university plantings; this downplays the playscape by not drawing attention to it. The center diagram makes adjustments to the adjacent university landscape in order to create a setting connecting the playscape with campus. This draws attention to the playscape by making it a setting within the campus. Sharon utilizes this middle scheme as she mirrors folded planes and plantings that currently exist in the campus landscape within the playscape area.

The CDC concept plan uses a buffer as an important element to create a feeling of enclosure inside the fence and contribute to the broader university landscape on the outside edge of the playscape. This allows the benefits of landscaping to passersby while allowing them views into the yard. There is a clear boundary between the playscape and the rest of campus but the playscape is not obtrusive.

Designers buffered edges in different ways. Creating a complete buffer has the effect of hiding the playscape from campus. The fence and plantings block views into the space. A partial buffer allows views from a point on the campus side of the fence. An intermittent buffer leaves the playscape mostly exposed to the campus with several areas of university plantings that tie the playscape edge to campus. We chose to create a small, partial buffer on the north east corner to maximize the amount of play area and allow a viewing from outside; the plantings there provide visual consistancy as people enter the campus from University Ave.
Character of Open Space

If given enough definition, the open lawn can be a distinct place in the playscape. Robin creates a central, geometrical lawn panel surrounded by fruit trees to create a definite space. Alternatively, the grassy areas can be the residual spaces between defined play elements.

The CDC concept plans place a primary flat lawn panel at the base of the running hill. The path helps define the edge of lawn. Other grassy, open areas exist in residual spaces around the yard.
A perimeter path creates space for primary activities in the center and smaller play settings outside. Robin’s scheme is a good example, his path encloses the lawn and tree grove, giving them both emphasis, and sprinkles small settings around the edges. A central path leaves large areas inside the path to include primary.

The first CDC concept plans followed Robin’s suggestion of a strong perimeter path, only it wrapped around half the yard leaving the other half as unprogrammed, exploratory space. The path was used to define a geometric shape around the two main, interior elements, the grove and butterfly garden. The final CDC concept plan responded to the client’s wish that the main path access more of the yard and remain a fixed width. This plan uses a strong perimeter path making a slight deviation around the running hillside to leave space at its base unobstructed for running and free play.

Secondary paths lead children to additional activities and less visible spaces off the main path. Rachel included many secondary paths of varying materials. Mark used walkable ground cover over most of his yard, encouraging children to meander through the space outside of a bounded path.

Both CDC concept plan iterations used the idea of diffuse paths that Mark developed in his plan. The first reason is that the client wanted the yard to feel exploratory and abide the school’s general philosophy that children will make their own paths. The second reason is more functional, after some use secondary paths could later be placed on areas that need covering or are inaccessible.
Entry Placement

Most of the designers placed their entrance on the circular campus drive, the most visible location. Sharon made a lateral entrance at the north edge that is less visible to people arriving at the university but apparent to pedestrians walking into campus.

In the CDC concept plans the primary entrance is on the south edge for two reasons. First, this is closest to where the Arlitt classes arrive and it can take advantage of a bounded sidewalk to organize the children away from campus traffic. Second, in the CDC concept plans there is secondary entrance at the north edge for an accessible entrance as well as to be the symbolic entrance for visitors observing the playscape from campus. It should provide pleasant views into the playscape at its most public side and include signage explaining the playscape’s purpose.

Character of Entry

Robin created a formal entry with a paved entry vestibule and visual water feature. Other plans used an informal entrance with layers of visibility into the yard. Rachel and David created informal entry sequences that lead to more formal orienting points within the site.

In the CDC concept plan the secondary entrance is informal. Inside the yard the secondary entrance appears as a back door in order not to confuse children’s cognitive understanding of the playscape’s organization. The secondary accessible entrance borders campus. An informal entry calls less attention to the playscape’s deviation from the campus’s formal landscape. Because the primary entrance is out of view from the majority of campus, it would be possible to design a more articulated and icon gateway for this entrance.
Wrapping the path around the whole existing grove isolates it as a specific play element, as seen in David’s plan. Rachel’s scheme is very meandering and organic; that feeling is reinforced by taking the path through the grove. Sharon and David left the area under the path soft (with grass and mulch, respectively) to provide unprogrammed play. Robin created a more programmed setting at the grove by designing a network of decks.

The CDC plan accentuates the shape of the grove by wrapping the path around it and giving further definition with a circular mulch pad (like David) under the canopy. This communicates the grove as a play setting in the yard.
Topography

Most designers used a combination of treatments to the site topography. This includes accentuating high and low points already on the site such as the hill or natural drainage point. It also includes creating berms, such as David and Rachel’s plans, which add interest to the playscape and create visual layering. Finally, subtracting land includes creating a new topography for a water feature or carving into the hill as Sharon did for a story circle and Mark for an earth play area.

The CDC concept plan subtracts earth to create a shallow ravine for a dry creek bed. Both iterations include mounds added to the current topography. This was inspired by the adjacent folded planes on campus and mound concepts proposed by the designers. Mounds are an economical way to add visual interest to a small yard.
Robin incorporated water not so much as a specific feature, but to add interest to the sand play area and beautify. Rachel and Sharon utilize small pools as secondary features that have strong borders or other defining features, such as a bridge. David created a water feature that flows throughout a large piece of the site and he oriented other spaces around the creek path.

Both CDC concept plans include a water feature as a primary element. Because of licensing, Arlitt determined that a dry creek bed that could have a water source turned on as needed would work best for the playscape. A hose is located at the middle of the western edge of the site and a conduit could be used to run the water into the playscape. The existing low point, and current drain is placed around the center-north of the yard. The CDC experimented with possible configurations to connect the water source and drain with a wet/dry creek bed.
The CDC synthesized two concept plans with counsel from Arlitt and the university architect’s office.
First Iteration

(C) Folded plane
to connect to the folded plane berms on the campus landscape

(D) Dry creek
begins at potential water source and flows to drain

(F) Butterfly garden
positioned in sunniest spot; inspired by Hargreaves’s cone

(G) Tree Grove
mulch under trees to define grid of trees

(B) Main entrance
placed to reduce visibility and traffic from campus

(B) Secondary entrance
accessible entrance from campus; signage explaining mission; views into play-scape

(C) Buffer
vegetation ties into campus landscape vocabulary

(B) Main path
unifies grove and garden and clarifies children’s cognitive maps of the playscape

(E) Flat lawn
well-defined and singular flat space at the bottom of hill
Components of the Design

A. Activity areas
   - Sand play
   - Free play
   - Dramatic play

B. Paths & entrances
   - Sensory tree maze

C. Buffer & boundary
   - Wandering

D. Water feature
   - Sand play

E. Flat lawn & hill
   - Sensory tree maze

F. Conical butterfly garden

G. Existing tree grove

H. Canopy
Second Iteration

(A) Secondary entrance
accessible entrance from campus; signage explaining mission; views into playscape

(F) Butterfly garden
provides pleasant views to passersby and sensory stimulation for children

(C) Dry creek
begins at potential water source and flows to drain

(E) Grassy mound
adds topographical and visual variety, separates and defines activity areas

(H) Tree Grove
mulch under trees to define grid of trees

(A) Main path
a single loop unifies grove and garden and clarifies children’s cognitive maps of the playscape

(D) Flat lawn
well-defined, singular and flexible space at the bottom of hill

(B) Main entrance
placed to reduce visibility and traffic from campus

secondary path leads children around the playscape
small plaza is multipurpose and adds texture with interesting paving
winding path extends to most areas of the playscape
mound allows for hidden and surprise views
earth play area in its own corner for digging and building
Components of the Design

This is the second, most recent iteration by the Community Design Center design team. The concept is based on exemplary components extracted from the site proposals with input from the university landscape architect (as indicated in the sketch above).

A. Main path provides a clear loop. Main entrance sited for access

B. Site perimeter with university plantings at northeast corner for buffer zone

C. Dry creek running from water source to existing drain

D. Flat lawn panel at the base of existing grassy hill

E. New mound to separate grove from creek area; potential additional mounds to add visual interest

F. Butterfly garden placed in sunny corner allows vistas from campus

G. Tree canopy remains

H. Tree grove remains a key element; unified with a mulch pad

I. Ancillary elements could include an area for earth play, loose parts, tree maze, dramatic play area, or sensory garden
Main path

The main path is intended to reach most areas of the play-
\n\nscape with some small spaces on the east side left for diffuse,
\n\nsecondary paths. The path is a single loop with hard edges
\n\nin order to support children's cognition of their playscape.
\nIn some areas, such as the east side of the tree grove, the
\n\npath creates a bounding edge, helping to spatially define that
\n\narea. The primary loop is not to be the only way for children
\n\nto move about the yard; the design will encourage them to
\n\nventure off the loop and create their own paths.

Secondary paths

The CDC concept plan does not include defined paths for
\n\ntwo reasons: first, the philosophy of the preschool does
\n\ndon not include "staying on the proper path" so Arlitt liked the
\n\nidea that children would discover the playscape by roaming
\n\nthrough it. Second, if defined paths become necessary later
\n\n(due to wear) they will be placed where needed most

Integration with Campus

Playscapes have a distinctly different character than is cur-
\n\nrently found on the UC campus. Early in this project, the
\n\nuniversity landscape architect said that his office did not
\n\nexpect the playscape to be integrated with the Hargreaves-
\n\ndesigned campus landscape. Rather, it should be visually
\n\nset apart by the fence and landscaping as a buffer. In ear-
\n\nlier iterations we tried to draw in folded planes and conical
\n\nmounds but eventually decided not to force campus forms
\n\ninto the design of the playscape.

Many playscapes hope to achieve a dense, wooded feeling.
\n\nThe university architect believed this would be inappropriate
\n\nfor the UC campus location because it would draw too much
\n\nattention to the playscape, which sits at a primary campus
\n\nentrance, and is unfeasible due to the amount of plantings
\n\nthat would have to be added.
Fence

Early in this project at the recommendation of the UC landscape architect, we decided to use the Omega brand fence found elsewhere on campus. Its placement will maximize the area of the playscape, leaving a small space for plantings at the north east edge that will buffer the yard from the campus access point. Arlitt would like a fence, eight feet high and locked, that prevents outsiders from accessing the yard in order to not invite vandalism and maintain the environment of a research lab (one of the playscape's programs). The university architect would like to use a shorter, unlocked fence to meet the university's mission of having an open, public, and accessible campus.

Secondary entry

In consultation with Arlitt, the design team determined that the primary entrance should be placed at the southern edge of the site. This is closest to the existing Arlitt center and will be the most direct and easiest access the site. The secondary access will be placed on the north edge; it's primary purpose is to create an accessible entrance. This lateral location downplays the playscape on the campus drive. From the sidewalk passersby will see the secondary entrance, can casually observe the entire playscape, and perhaps read about the project on signage. From the inside the secondary gate is de-emphasized so children know to use the main entrance; to them the north edge appears as a back wall to the yard.

Activity areas

A well landscaped playscape affords many different play activities using only the natural features of the site. We decided to add complexity to the landscape by adding additional behavior settings and augmenting the ones there already, such as placing a mulch pad under the tree grove. All activity settings, such as the water feature or earth play, are placed close to the main path so children know where they are at all times. Each setting is defined by some kind of perimeter treatment, whether it be a change in groundcover, topographical feature, plant barrier, etc.

Signature Design

In accordance with the University of Cincinnati campus planning process which emphasizes unique, “signature architecture” it is in keeping to have the playscape designed by Robin Moore who is recognized as a signature designer in the field of children's natural environments. This supports the findings of analysis and client feedback that the playscape can and should be different than the university campus and represent the state of the art design of children's landscapes.


Moore, L. L. et al. (2003). 'Does early physical activity predict body fat change throughout childhood?' Preventive Medicine, 37, 10-17.


Sturm, R. (2005). 'Childhood obesity—What we can learn from existing data on societal trends, part I.' Preventing Chronic Disease, 2, 1-9.


A synthesis of the components derived from reductive analysis produced a series of design decisions. The major, compositional and programmatic issues of the playscape site plan are addressed in the following elements. Each contains several options representing solutions employed by our design precedents.

After weeks of discussion and analysis, the client requested that Robin Moore create the final playscape design. Our design team, as well as the university landscape architect, agreed that this would allow the playscape to fit in with the wider university architectural theme of “signature design.”
The goal of the workshop was to develop the content for a design program for the Outdoor Nature Play and Learning Environment, Arlitt Child & Family Research & Education Center, to located on the University of Cincinnati campus. The facility will serve the needs of the Arlitt preschool program by providing a place where preschool-aged children can engage playfully with nature. The facility may also serve as a training site for professional development of early childhood educators as well as a research laboratory to investigate the relationship between nature play and child development.

I. Workshop opening, Dr. Vickie Carr
   Introductions.
   Review agenda and workshop goals. Robin

Ia. On-line survey report
   7 teachers responded.
   23 parents.
   Need input from children.

II. Site visit.
   Conducted with participants.
   A group of Arlitt children were playing on the site.

III. Preschool outdoor nature play and learning environments presentation
   Where is the main entrance?
   Wheel toys?
   Water?
   It could be a hose run to the site. Trip hazard? It is possible to run a water line to the site although it would add some cost. We have to think of creative possibilities.
   Water as a play opportunity. Dry creek bed fed with a hose.
   Small splashing pool.
Planter with a range of textures, succulent leaves, fragrant plants, etc.

**IV. What is the mission of the Arlitt Center Nature Play and Learning Area?**

It is a natural place of discovery, engaging, child owned, where children can play and mess around.

It is place of research.

**PROPOSED DRAFT MISSION BY ROBIN (based on keywords)**

“The Arlitt Center Nature Play and Learning Area is a safe, outdoor place for children’s exploration and discovery, play, learning, and positive social interaction. The area will also serve as a research facility for the university community.”

**COMMENT:** Could call it a “lab” – ‘Nature Play and Learning Lab’

[NLI entered all responses – below – to send to Vickie to share with teachers and will edit]

**Comment**

*Experiences with nature are contrived, in fact not natural. It is a place designed for a purpose.*

<table>
<thead>
<tr>
<th>Mission Key Words</th>
<th>Arlitt Child &amp; Family Research &amp; Education Center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count</strong></td>
<td><strong>Key word</strong></td>
</tr>
<tr>
<td>1</td>
<td>Stimulating</td>
</tr>
<tr>
<td>1</td>
<td>Unexpected</td>
</tr>
<tr>
<td>1</td>
<td>Engaging</td>
</tr>
<tr>
<td>1</td>
<td>Inquiry</td>
</tr>
<tr>
<td>2</td>
<td>Learning</td>
</tr>
<tr>
<td>1</td>
<td>New experiences</td>
</tr>
<tr>
<td>1</td>
<td>Sciences</td>
</tr>
<tr>
<td>1</td>
<td>Research</td>
</tr>
<tr>
<td>2</td>
<td>Nature</td>
</tr>
<tr>
<td>2</td>
<td>Safe</td>
</tr>
<tr>
<td>1</td>
<td>Child-owned</td>
</tr>
<tr>
<td>1</td>
<td>Easy maintenance</td>
</tr>
<tr>
<td>1</td>
<td>Compatible</td>
</tr>
<tr>
<td>3</td>
<td>Discovery</td>
</tr>
<tr>
<td>4</td>
<td>Exploration/Explore</td>
</tr>
<tr>
<td>1</td>
<td>Play</td>
</tr>
<tr>
<td>1</td>
<td>Messing around</td>
</tr>
<tr>
<td>1</td>
<td>Fun</td>
</tr>
<tr>
<td>1</td>
<td>Passion</td>
</tr>
</tbody>
</table>
V. What key goals should the Arlitt Center Nature Play and Learning Area serve?

1. **Convert public UC space into learning/play environment (representing a profound change in existing paradigm).**
   - An institutional space converted into a significant playspace for children.
   - Important from an educational perspective
   - Set a precedent on campus of a space that can be used.
   - Increase natural diversity.

2. **Create a place that will become a research venue (education, psychology, sociology, sciences). An outdoor lab.**
   - Demonstration site.
   - Training teachers.
   - Inspiring students.
   - UC students encouraged to explore the innocence of playing for it's own sake.
   - Arlitt will benefit by adding an outdoor playspace to its portfolio.

3. **Provide a daily minimum dose of a variety of natural experiences for children.**

4. **Create a co-learning environment beyond the indoor classroom.**

5. **Support urban community engagement.**
   - Support UC21 in serving a “learning community.” The intent is to reflect and support the mission of the university.
   - Fostering intergenerational activities.

6. **Create a playspace for children to engage with nature to acquire love and respect for the natural world.**
   - Emotional response. Motivational.

7. **Offer parents a backyard design model and a place to experience nature with children (reinforce the message of “No Child Left Inside”).**

8. **Offer a professional development venue for teachers**
Teacher training on how to conduct outdoor play.

Comments
Need to get approval to proceed with the project.
Don’t know if other students or UC areas will be invited to participate.
No plastic in the playscape.

VI. What is the design program?
Entrance gateway to the university. Shuttle service has a stop there. Art icon can promote the project goal.

1. Entrances
2. Pathways
5. Tunnels, hiding.
6. Earth play, digging
7. Enchanted woodland
8. Full body plant contact
9. Gross motor
10. Hammocks
11. Natural objects, loose parts.
13. Puppet theater
14. Rocks [it will be unrelated to the UC environment] on slope?
15. Running space
16. Sensory garden
17. Storage area
18. Teepee, hiding spaces
19. Vegetated edges
20. Vegetated tunnels
21. Water. Stream, fountain
22. Art. Special projects, guest artists
23. Thinking tree

24. Storyteller chair

25. Observation for adults to observe in the playscape. With shelve, seating or perching. Shade. On berm, around fence.

26. Area by bus stop: welcoming area. Art work.

27. Perennial garden. Herbs.


**Structural comments.**

- Main entrance by corner. At grade, adjacent to shuttle bus.
- Privet edges remove some of them
- Relocating sign and installing it on the other side
- Irrigation system. Want to keep system or you may want to take it all.
- Under trees could install a deck.
- Trees. Red maple will be removed.

**Maintenance?**

- It is about management not maintenance. Arlitt community should consider it as an “outdoor classroom.” With volunteers, parents.

**Concerns**

- About bees from fruit trees. Install in the perimeter.

**General**

- Rock walk on slope

**Next steps**

- NLI will produce program report. Week of June 29, 2009.
- Review, get feedback, produce new iteration.
- Cost estimate by UC?
- Summer implementation with the UC Design Center.

**TO DO**

- Send Bill Hopple images of mission post-its, and write up of words.
Appendix B

Professional Development Course

Professionals who completed the playscape design course:

Mark Burgess
Bayer Becker (Cincinnati)
513.336.6600

Sharon Floro
Groundwork Design LLC (Cincinnati)
513.530.0949

Steve Kolwicz
POD Design (Columbus)
614.360.3068

Clark Kuglar
The Adventurous Child (Cincinnati)
513.531.7700

Vivain Llambi
Vivian Llambi & Associates, Inc. (Cincinnati)
513.559.9444

Gary Meisner
Meisner + Associates / Land Vision (Cincinnati)
513.321.2796

Rachel Robinson
Rachel Robinson Architecture, LLC (Cincinnati)
513.621.1023

David Whittaker
Human Nature (Cincinnati)
513.281.2211
Introduction

One of the goals stated in the CNC/Arlitt grant application was to educate the public and professionals about playscapes. The organizations employed master playscape designer Robin Moore at the Natural Learning Initiative (at North Carolina State) to give a public lecture to kick off the Cincinnati Playscape Project as well as produce programming reports for both playscapes and a design plan for the CNC. The organizations recognized the need for other local organizations to begin playscape projects without bringing in consultants from North Carolina. The impetus for the design course was for Robin to teach local landscape architects the principles and strategies behind playscape design that they could employ in future Cincinnati playscapes.

The flyer on the opposite page shows how the design course consisted of several different events. The course participants were invited to observe Robin and Nilda as they led programming workshops at the CNC and Arlitt, including one with children. Robin gave two lectures intended to relay specific information about playscape design and answer questions. Finally, the participants completed a practicum project in which they created a playscape design for a site of their choice. The resulting design boards are included in this appendix along with Robin’s comments on each project. The level of detail and creativity included in these designs surpassed anything that the Cincinnati Playscape Project expected. The CDC intends to hold a public exhibition to display these projects so community members and those interested in playscapes can learn about playscape design and perhaps identify a landscape architect for their own project.

This course is considered a success evidenced by the participants’ positive evaluations and designs that reflect the course principles of playscapes. The evaluation results are included at the end of this appendix.
Do our children suffer from Nature Deficit Disorder? There is a cure . . .

Natural playscapes nurture creative, free play. Join the Cincinnati Nature Center and the Arlitt Child & Family Research Center as we discover ways to apply these concepts to Cincinnati.

Play

Nield Cosco
PhD Landscape Architecture
researcher on the impact of outdoor environments on health outcomes such as obesity, sedentary lifestyles, attention functioning, and well-being. Education specialist at the Natural Learning Initiative at NC State University. Widely published in the field of early childhood outdoor design.

Robin Moore Dipl.Arch., MCP
nationally recognized expert in the design of play, learning, and educational environments, professor of landscape architecture and director of the Natural Learning Initiative at NC State University. Author of Childhood’s Domain: Play and Place in Child Development and Natural Learning.

Costs $250 13 LA CES credits
(scholarships available to community leaders not receiving continuing education credits)

Program Description
Participants will gain the knowledge and skills to initiate playscape design/build projects

1) Playscape design requires a specific knowledge base. Four online and in-person lectures will explain playscape design topics such as site decisions, cost effective design, plant and material choice, and design elements for learning and play.

2) Apply your knowledge in a practicum project for the schematic design of a nature playscape for the Arlitt Center preschool or a project site in Cincinnati. Designs will be evaluated with feedback by Moore and Cosco.

3) Learn about community design using the charrette process by observing Robin Moore lead workshops at the Cincinnati Nature Center in two parts: ideation and community approval.

Schedule

April and May Online - times TBA
Sessions on playscape design

Saturday, April 18th Cincinnati Nature Center
10:00am - noon
Introductory lecture: Playscape Theory
1pm - 3pm
Observe Moore and Cosco engage children in a design charrette

Monday, June 7th University of Cincinnati
9:00am - 1:00pm
Participate in the Arlitt Center programming workshop
2:00pm - 3:30pm
Design studio practicum guided by Moore and Cosco

Friday, April 17th Cincinnati Nature Center
Optional: Observe Moore and Cosco lead a stakeholder charrette for the design of CNC’s new playscape

Tuesday, June 8th Cincinnati Nature Center
Optional: Observe Moore and Cosco present schematic designs
DRAFT
Final copy will include Robin's comments for each project
OUTDOOR NATURAL PLAY AND LEARNING ENVIRONMENT SCHEMATIC
Scale 1" = 10'

[Diagram of outdoor play and learning environment with various elements labeled]
University of Cincinnati
Natural Playscape
Arlitt Center
French Hall Site
JUNE 30, 2009

PLAYSCAPE ELEMENTS

1. ENTRY GATE
2. PAVED AREA DROP OFF / PICK UP
3. ART DISPLAY AREA
4. STEPPING STONES
5. WOOD RAIL
6. FENCE WITH VINES GROWING FOR SCREEN
7. HOLLiND HILL / SLED HILL IN WINTER
8. DECK / TOP OF TUNNEL
9. STORY STAGE AREA
10. BOULDERS FOR SEATING
11. TALL GRASS MEADOW – HIDE SEEK AREA
12. ORNAMENTAL GRASS SCREEN
13. WOOD BENCH / CHAIR
14. OPEN AIR VINE TUNNEL
15. SOFT EVERGREEN MAZE
16. ROCK WALL / HERB & FLOWER GARDEN
17. PATH CRUSHED STONE
18. TREE LOG FOR CLIMBING
19. FRUIT TREE AND BERRY BEARING PLANTS
20. STORAGE SHED
21. LOW TREE FOR AREA
22. WATER FEATURE STREAM / PUDDLE AREA
23. DIRT PLAY DIG AREA
24. OPEN LAWN AREA
25. POTTED PLANT GARDEN AREA
26. BOULDERS FOR CLIMBING / JUMPING
THE ENTRY ZONE:
The entrance is located close to the turn around drive where several sidewalks converge. The entrance has high visibility. Playscape signage and elements will inform the visitor that this is a special place.

GATHERING STRUCTURE:
The gathering space is located close to the initial Entry Zone of the Playscape. The structure has the potential to take on various forms. Two Concepts that may be considered are a) Structure that embraces sustainable principles with features such as a Green Roof, Rain Barrels, recycled materials b) or a structure that is organic in form taking on the architectural style of the late U.C. professor, Terry Brown. The intent of the architect is to expose small children to potted buildings with meaningful forms.

THE MAIN PATHWAY:
The pathway is composed of colored concrete, inscriptions of chosen quotes, and imprints of native tree leafs and animal paw prints. It is universally accessible and circumscribed. The site can be navigated either on foot, by wheelchair or by tricycle.

THE WILLOW TUNNEL:
This element serves as a place for children to run through and around to explore with a friend or independently. The tunnel has sculptural qualities and is visible to the campus beyond.

STORAGE:
The building will take on characteristics of the gathering structure. The storage building is sited to be centrally located within the high use areas. It will provide space for gardening tools and materials for the outdoor curriculum. It has the potential of providing sustainable elements with the use of a rain barrel and green roof.

THE VEGETABLE AND HERB GARDEN:
The American farmer understands the importance of water and the vitality of the farm. For this reason, the vegetable garden is located close to the Playscape water feature. There is potential of reusing water from the small pond or the rain barrel to water the plants. The vegetable/herb garden is also sited to take advantage of afternoon sun. Pots with Wind chimes, flags or windmills may be added to enhance the study of wind and add structure to the layout of the garden. The vegetable garden may be taken care of not only by the preschool students but by interested students or professors who like to take home organic food.

THE SYMBOLIC PRAIRIE:
This area is representative of a prairie using high functioning and low maintenance perennials and native plants. The prairie is a "sea" of diversity attracting wildlife and insects. The children will experience a wide variety of texture and seasonal interest in the plant material. They will witness the actions of insects up close. They will have an introduction to an important historical landscape of the midwest. There is a platform for a rotating element such as a teeter...

THE TREE HOUSE:
The tree house is a place to pretend and socialize. The structure shall have architectural interest designed to the scale of a young child. Rotating groups maybe set up inside dependent on the week's curriculum.

SCREENING PLANT MATERIAL:
The screening plant material is composed of flowering shrubs, evergreens, ornamental grasses and small trees. The plantings enclose the space, and soften the fences that surround the area. Such screening will provide both privacy and areas of visibility controlled by the various heights and textures of the plant material.

THE FENCE:
The fence allows the children to be in an enclosed setting that they can call their own. They have little ownership within. The fence may be composed of simple metal pickets weaving in and out of plant material. In areas, it has the potential in transition into panels with special inscriptions as well as a green screen allowing for plant growth.

"Yes, they are tiny growing things and they might be crocuses or snowdrops or daffodils," she whispered. She bent very close to them and sniffed the fresh scent of the damp earth."

Frances Hodgson Burnett, The Secret Garden
The Playscape for the Arlitt Center has been designed in order for Preschool children to explore a natural environment promoting play, a desire to learn and a vehicle for positive social interaction. The Playscape is also a “learning lab” for adults interested in the growth of these young people.

THE VIEWING PLATFORM
The platforms are located under the existing Linden Tree and at the entrance to the School of Social Work. The platforms are elevated creating primary areas not only to view the Playscape within but also the beauty of the landscape beyond. These viewing platforms are for individuals who are interested in learning about small children as they relate to nature. It is the hope that the Playscape will promote curiosity and vitality within the youngest of people on the campus. Viewing both the college aged and the preschooler together, on the U.C. campus, is a reminder of the importance of engagement and curiosity at all stages of life and the promise of advancement through the joy of learning.

RUNNING HILLSIDE:
The site provides an opportunity for running up and down an existing bank. With slight grade changes, the hill may take on a gentler slope and provide some varying landform in the site. A proposed bench at the top of the slope allows the children to sit and take in their outdoor home.

THE WATER FEATURE:
The water feature is in a central location making it highly visible for those inside the Playscape. A boardwalk runs over top of the feature. Plant material and stones are incorporated. A stream of stone and boulder move up onto the bank. The boulders and rocks are intermingled with plant material metaphorically representing a stream of water coming down from the mountains. Secure stepping stones allow for the children to get down and engage with the water. The water level shall be controllable by the instructors.

THE TREE GROVE:
The tree grove takes us back to the American Orchard where fruit trees such as the Michigan Cherry bring sculptural beauty to the landscape. The trees of the Playscape Grove have been preserved to maintain the sculptural interest of the lines established by the trunks. A small deck is slanted under the grove. The deck provides a plinth for art lessons, reading, drama, rest, and picnicking within the shade of the trees.

ARTWORK:
The art piece is on axis with the Gathering Structure. The piece can be viewed through the trees, from the university buildings and viewing platforms. The artwork maybe provided by art, or architectural students giving those students an opportunity to display their work. The art piece may be for visual interest or may have interacting opportunities for the children.

BOULDER:
The boulders act as a table or a seat or a place to sit while contemplating the Playscape artwork. The boulders are low to the ground to fit the size of a young child. The boulders provide semi-enclosure in the artwork space.
Concept Statement

If we want children to appreciate and care for the places where they live, it is important that they become intimately familiar with the features and elements comprising their home landscapes. This place-specific, natural learning and play environment concept recreates, in miniature, many of the landscapes types found in southwestern Ohio. Key features include hills, groves of trees, streams, ravines, meadows, geological formations, and agriculture.

Butterfly and Bird Garden
Children plant an array of flowers to attract birds and butterflies. The garden includes a bird bath, sandstone seating pods, and a storage shed for staff supplies.

Accessible Loop Path
An exposed aggregate loop path provides access to most of the garden’s activity areas.

Grassy Hill
A 3’ to 4’ tall hill provides gentle climbing for children and a venue for fun slope-based activities like King-of-the-Hill and sliding down the hill on cardboard.

Activity Grove
A mulch circle surrounds the existing bosque of trees and provides a venue for a variety of activities. Loose parts of tree branches, logs, and stones enable children to create their own play environments. Boulders provide informal seating and hide-and-seek opportunities.

Sand Play Fort
Sandstone plinths provide seating and surfaces to play within the sand pit. A series of vertical logs help provide privacy. Cut-outs in the log “fort” allow visual access to the planting areas beyond. The sand pit encourages children to be creative.

Benches
Benches are scattered throughout the site for visitor comfort.
Concept Statement

If we want children to appreciate and care for the places where they live, it is important that they become intimately familiar with the features and elements comprising their home landscapes. This place-specific, natural learning and play environment concept recreates, in miniature, many of the landscapes types found in southwestern Ohio. Key features include hills, groves of trees, streams, ravines, meadows, geological formations, and agriculture.

- **Gateway/Entry**: Mosaic-encrusted columns with plant, animal, and fossil imagery. May be gated if security is required.
- **Bridge over Rain Garden**: Recycled lumber bridge crosses a rain garden and encourages children to experience the unique plants and animals that live there.
- **Decorative Fence**: A decorative fence surrounds the entire garden, providing security and a sense of enclosure.
- **Interactive Stream**: Shallow, recirculating stream surrounded by native stones and plants flows through a "ravine". Children can play in the stream and learn about stream-side plants and water dynamics.
- **Limestone Steps**: Steep steps encourage climbing and exploration. The stones slide past each other to allow plants to grow between them.
- **Upland Meadow**: A meadow with grasses and forbs attracts a variety of animals and encourages children to learn about the native meadows that used to dot southwest Ohio.
- **Limestone Seep**: The origin of the stream reflects the numerous seeps that can be found in the region. Children can play in the falling water and learn about where water comes from.
- **Stump and Log Play**: Cut stumps provide seating and places for plants and mosses to grow. Children can crawl through and on the fallen logs.
- **Butterfly and Bird Garden**: Children plant an array of flowers to attract birds and butterflies. The garden includes a birdbath, sandstone seating pods, and a storage shed for staff supplies.
- **Gathering & Orientation Plaza**: A paved plaza with seatwalls and an attractive sun inset welcomes visitors to the garden and provides a place to meet and orient oneself within the garden.
- **Accessible Loop Path**: An exposed aggregate loop path provides access to most of the garden.
- **Grassy Hill**: Climbing for children and a venue for fun slope-based activities like King-of-the-Hill and sliding down the hill on cardboard.
- **Activity Grove**: A mulch circle surrounds the existing bosque of trees and provides a venue for a variety of activities. Loose parts of tree branches, logs, and stones enable children to create their own play environments. Boulders provide informal seating and hide-and-seek opportunities.
- **Sand Play Fort**: Sandstone plinths provide seating and surfaces to play within the sand pit. A series of vertical logs help provide privacy. Cut-outs in the log "fort" allow visual access to the planting areas beyond. The sand pit encourages children to be creative.
- **Benches**: Benches are scattered throughout the site for visitor comfort.
Cincinnati Zoo
Design Comments

DRAFT
Final copy will include Robin's comments for each project
Cincinnati Zoo
Existing Conditions

KEYNOTES:
Cincinnati Zoo
Existing Conditions

AREA NORTH OF BUILDING
AREA OUTSIDE OF BUILDING ENTRY
EDGE OF DETENTION AREA
ENTRY TO SITE
GRASSY LAWN
NORTH FACE OF BUILDING
POINT OF BUILDING ENTRY
VIEW TO DETENTION AREA

CINCINNATI ZOO PLAYSCAPE
EXISTING CONDITIONS
The zoo playspace site provides a variety of areas for exploration, imagination, exercise, and plain fun. The site is currently used by the zoo education and program staff for a variety of experiences ranging from overnight tent camping for groups limited to no more than 30 people, to smaller groups of children participating in various activities.

The playspace solution is based on zoo staff goals and the principles presented and discussed during the prior weeks. The playspace will be totally enclosed by fencing and gates for control and security. The design proposes that the north portion of the site which is adjacent to Giraffe Ridge, provide limited views and so that disruption of the animals is reduced.

The primary loop path adjacent to the gate provides the primary circulation all other secondary paths throughout the site. The primary path will provide handwheel accessibility to a variety of play opportunities including hugging around and under the shrubs, each play, art, fruits and berries, open play, the ring, etc. The viewing platform atop the detention area will also be accessible.

The project area is approximately 5 acres, a portion of which contains a stormwater detention facility. Based on zoo staff observations, the detention area does not appear to hold water for any extended period of time. The functionality of the detention area will remain. The design takes advantage of the low area by creating a rain garden with a variety of perennials and grasses and also provides access to the lower elevation for educational purposes (such as talking about the bottom and edges of a creek) and water play.

The existing wooded slope along the east edge will provide opportunities for playground discovery. The secret entrance will lead onto a path to boulders tucked into the bluffs, a cottage in the woods, a tree house, trees with exposed roots to crawl under, vine tunnels, and a rolling hill.

Other play opportunities include a shrub more, logs to balance on, hammocks, a simulated water feature, a tree house, boulders with exposed roots to crawl under, vine tunnels, and a rolling hill.
WATCH TOWER and ENCLOSED NETTING CONNECTOR
Climb up Structure, Resembling African Dwelling

RAISED DECK
Elevated Platform over Ex.Catch Basin
Simulated Wood Surface
Tall Grasses Around

BUFFER:
NO VIEWS TO GIRAFFE EATING PEN

GREEN CRAWLING TUNNEL
OR WOOD CARVED FIGURES

BOARD WALK TO RAISED DECK

FUTURE EXPANDED AREA:
SOUND ROOM
Musical Instruments
Blend Sounds with or Contrast
to AC Unit Hums
Relocate Trees to Clear Open Area

Optional Expanded Boundary

WOODS GARDEN

PLAY FIELD
Active Play, Movable C
Roaming
Group or Individual Int
Tents

INDOOR GARDEN:
BRING in the OUTDOORS
Blooms, Leaf Variegation,
and Wildlife Magnet

STAMPED SURFACE / BOARDS

STEPPERS, STUMPS, POLES

MAKING SOUNDS & MUSIC
Hannah Farms
Design Comments

DRAFT
Final copy will include Robin's comments for each project
Project Overview

The playscapes project site at Hannah Farms Park will combine new construction and modifications to a recently installed initial phase of manufactured playground equipment. A conceptual master plan had been previously completed before the city contracted a play equipment manufacturer representative to develop a proposal that met a tight installation schedule and budget. POD Design was asked to review the play equipment representative’s plan for general conformance with the playground master plan. The resulting products included a refined equipment layout plan, slightly modified composite play structure designs, a poured in place rubberized surface design concept and a phase one main circulation path layout plan. The equipment, resilient surfacing and pathways were installed in May of 2009 and were put into use a month later when they city’s summer recreational day camp program began.

This design proposal seeks to integrate the initial phase of playground installation with many of the natural play elements commonly associated with playscapes environments as presented throughout the Natural Learning Initiative distance learning and observation sessions. We have maintained the original inspirational theme of depicting various elements of the water cycle as an organizational and educational vision for the project; this theme was an integral part of the client’s support of the conceptual master plan for the site.

Hannah Farms Park Site Description

Hannah Farms Park is a 40 acre site situated on the northeast side of the greater Columbus metropolitan area in a community called Gahanna. Many of the villages and townships surrounding the site are heavily involved with the agricultural and equestrian heritage of the area. Since the park site was once used for these purposes the City of Gahanna and the design team were naturally drawn to an agrarian character for the site and architectural improvements. To further support an already strong belief in environmentally responsible solutions in the community the team proposed incorporating a variety of responsible construction methods into the project. With many of the site related green construction methods including the treatment, handling and celebration of the stormwater collection and treatment process the landscape architects felt there was a unique opportunity to extend this celebration of water into an educational experience for the children who would come to play on the playground portion of the site.

The playground is sited toward the back portion of the park site, between a large parking area, a wooded adjacent property, a scenic pond and park shelter and a portion of the main entry drive. A small intermittently flowing creek separates the playground site from the parking. The creek bed also supports a healthy stand of mature Oak trees that served as the original inspiration to locate the playground nearby. Access to the playground site is possible from three directions with the main point of entry into the play area coming via a new culvert installed during the park reconstruction project. The creek bed has been cleared of the invasive shrubby vegetation that previously lined its banks; plans are in place to reinstall native shrubs in future phases of the park construction.

Other uses in the park include programmed field sports areas (soccer and lacrosse), an existing youth baseball field, new tennis and basketball courts, a looped fitness path connecting to the city’s overall bikeway system, additional pedestrian pathways, two ponds (one scenic, one inherited from a neighboring residential development), several mature wooded areas and a brand new shelter and restroom facility.

Client and Community Involvement

The master planning for the redevelopment of Hannah Farms Park included a variety of opportunities for public involvement and an extensive working process with an advisory committee made up of city staff. Aside from the involvement of city officials and residents during public design reviews the playground area itself has not had a high level of detailed input from potential users. With the short notice of selecting this site for the playscapes practicum we were not successful in our attempts to organize input sessions with the day-campers using the site this summer. It is our intention to organize such a session as a follow-up step to preparing this proposal and feedback received will be utilized in modifying the plan and program accordingly prior to presenting the final product to the city.
A - ENTRY
- Orientation signage illustrating playground theme
- Gateway access with enticing views to play features
- Social gathering area with shade and seating
- Initial user interaction with water via bridge feature
- Only opening in perimeter boundary fence
- ADA route from parking and shelter areas
- Native woodland plantings

B - SKY AREA
- Elevated play destination
- Musical activities
- Circular walkway ramp
- Boulders and wispy plants influenced by wind
- Timber and mulch shortcuts from main path and other play areas
- Overlook with kid-height binoculars
- Educational node
- Secondary nature walk path

C - GROUND AREA
- Existing composite play structures
- Poured in place rubber surface with flower design
- Existing swings
- Loose natural play (existing large boulder for climbing, smaller movable stones, log slices, etc.)
- Existing independent play components
- Secondary pathway
- Stepping stone shortcuts between features and other play areas
- Gourd teepee along main path
- Plant pockets set among existing play equipment
- Lower ground plane plantings

D - RUNOFF AREA
- Mulch area with moveable mini-boulders
- Parental seating on logs felled by ‘beavers’
- Open creek access
- Educational node on groundwater

E - WATER AREA
- Raft crossing across poured in place rubber and between planted ‘islands’
- Cat tail spinner independent play
- Large ‘shoreline’ boulders set into landscape and rubber areas
- Educational node on wetland plantings

F - EVAPORATION AREA
- Wavy grassy mounds representing evaporation (longer grass on mounds than in between)
- Flatter area between mounds for imaginative pathways to the sun
- Unprogrammed lawn play
- Educational node on evaporation

G - SUN AREA
- Children’s garden plots for sunflowers and other sunny plants
- Butterfly flower beds as rays of sun
- Domed labyrinth
- Interactive sundial
- Educational node on renewable energies
- Stadium steps down to ground area (possible performance or social gathering location)
D - RUNOFF AREA
• Mulch area with moveable mini-boulders
• Parental seating on logs kiln-fired by ‘beavers’
• Open-creek access
• Educational node on groundwater

E - WATER AREA
• Raft gliding across poured in place rubber and between planted ‘islands’
• Carved spinner: independent play
• Large ‘beaver dam’ boulders set into landscape and rubber areas
• Educational node on wetland plantings

F - EVAPORATION AREA
• Wavy grassy mounds representing evaporation (longer grass on mounds than in between)
• Flatter area between mounds for imaginative pathways to the sun
• Unprogrammed loose play
• Educational node on evaporation

G - SUN AREA
• Children’s garden plots for sunflowers and other sunny plants
• Butterfly flower beds as rays of sun
• Donald labyrinth
• Interactive sundial
• Educational node on renewable energies
• Stadium steps down to ground area (possible performance or social gathering location)
Course Evaluation

DRAFT
Have only received 3 responses to evaluation
In addition to the playscape, the Arlitt Center would like to make their existing playground, currently composed of cement and crushed rubber, greener. The CDC designed a number of small pieces that would aid in this process.
One way of categorizing pieces of nature is to break it down into the four classical elements: Earth, Fire, Wind and Water. This method aids in looking at how children may interact with nature. Lists can be made from asking questions like “How will children play with Water?” or “What components of Earth will children interact with.” Activity lists were generated for each element, exploring not only what children could do with each element but how the element would be incorporated within the existing playground.

**Earth**

Earth play is possibly most recognizable as the iconic sand box. But Earth play encompasses a wide range of activities. There is play and construction with nonliving items - sand, mud, rock, dead plant and animal remains and the like - and the living - plants and animals. Earth play stimulates tactile, visual and aural senses.

**Water**

Water is another highly recognizable element in which to play. It consists on just one item, the water itself, but innumerable ways to play. Splashing, pouring, squirting, swimming, pumping, scooping, wringing, dripping, so many verbs apply to interaction with liquids. Water play stimulates tactile, visual and aural senses.

**Wind**

Since Wind is less tangible than Earth or Water, play incorporates elements that are either affected by or create Wind. This provides for children to imitate what they observe. Objects like pinwheels can be manipulated by natural or artificial wind. Wind-powered objects stimulate visual and aural senses while Wind itself can be tactile.

**Fire**

Because Fire poses danger, its incorporation into a preschool setting is most suitable being several degrees removed. This might include using the sun as a source of changing light and shadow. In this case, Fire just stimulates visual sense.
The list of elemental play activities was generated and pruned to remove activities that were either redundant with what is planned for the playscape or what is infeasable in the existing playground. It was then decided to coalesce the results to make a single object that would represent each element.

**Earth**

The playground has a sand pit and Earth and loose parts play were planned for the playscape. There was a strong push for having plants in the playground and some small tubs were already present. The most effective Earth element would therefore be a series of planters. They would be built to fit in the bays between doors. Each class would have space to allow the children to care for and study the plants' growth.

**Wind**

In order to allow for a variety of activity involving the wind, a tower-like object was designed to hold many differing items. One wall of the tower is trellis for holding many movable items like pinwheels and streamers. The other wall stimulates the aural sense through use of wind chimes that impact a metal plate. A wind vane tops the central pier.

**Water**

Water play solicits kinetic vertical elements and static horizontal elements so the children would be able to interact with both flowing and standing water. There is an existing water table feature in the playground that is in need of repair. Once fixed, it would be ideal for the task at hand. To add kinetic movement, a vertical delivery system could be incorporated. One idea for this could be a tree of pipes and valves allowing the children to control the flow.

**Fire**

Fire was considered too difficult to control safely and effectively, so it was dropped.
During the design process, the search for more ways in which children can interact with nature brought to the forefront the interesting relationship between wind and sound. Since sound is generated by a vibration of air particles the question was raised, “How could instruments, normally played by people, be played instead by the wind?”

**Woodwind/Brass Instruments**

Blowing air into or across openings is how woodwind and brass instruments make their sounds. The outdoor equivalent would be the Aeolian organ. Usually made of bamboo, a vertical incision is made and wind blowing past causes the edges to vibrate. These can also be constructed out of plastic bottles, the aptly named plastorgans.

**String Instruments**

String instruments operate by plucking the strings or running some sort of bow across them. The resulting vibration is then amplified by a resonance chamber. The wind plays with strings differently. By blowing across them in a constricted space, a sort of humming, buzzing sound is generated. The Aeolian Harp is an instrument that utilizes this method. Using strings of different length or material alters the sound.

**Percussion Instruments**

The impact of objects striking one another is the prevalent sound making method of percussion instruments. Wind chimes are well known wind-activated percussion instruments.
The results of this research led to a paradigm shift in the design concept for the playground. The idea of wind-activated instruments was a strong one, however it lacked the ability of allowing the children to manipulate the instruments. Something needed to be designed that a) was wind-activated and b) alterable. The solution became a completely new instrument; a giant, wind-activated, programmable music box, dubbed the WAMB. In concept, it features a large cylindrical drum with a matrix of holes drilled into the surface. These holes hold pegs that pluck steel tines when the wind catches the vertical-axis wind turbine.
The ideal WAMB would have 88 tines like a piano and would be able to play a tune 96 notes in length. This has been greatly simplified for the children's version with 10 tines and a 48 note tune. The turbine has also been updated to more effectively catch the wind. The steel plate is attached to a resonance chamber that doubles as storage for the pegs when not in use.

**Conclusion**

These designs are intended to function as standalone objects in providing for a more natural Arlitt playground. The playscape is the primary vector in the environmental education of the children. Further steps may include an increase in vegetated surfaces like the fence and replacing the crushed rubber with a natural mulch.