



2019

Remembering Wonder

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Notes:

Emily Andreasson won the first place in the Design category.

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A collection of natural materials including smooth stones, pinecones, dried flowers, and reeds on a wooden surface. The stones are in shades of white, grey, and purple. The pinecones are brown and textured. The flowers are small and white, and the reeds are long and thin, some with brown, fuzzy heads. The background is a rustic wooden plank.

remembering gender

RESEARCH ON ALTERNATIVE PLAY AND MEMORIAL STRUCTURES

IN COLLABORATION WITH
PROFESSOR LINDSEY FAY,
LEXINGTON FRIENDS PRESCHOOL
AND EMILY ANDREASSON

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Design, Art & Architecture

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- Isamu Noguchi
- Aldo Van Ickes
- Herman Hertzberger
- Le Corbusier

Local Nature Based Design

Precedents

- Kentucky Children's Garden at the Arboretum
- Justin Roberts @walkthewillow
- Living designs
- [Sarah West + Chris Field]

Materials

- Rock
- Wood (raw lumber, sawn, pressure treated) – suitable for outdoor use
- PVC
- Metal
- Rubber
- Natural/living materials / green components
- Sand
- Water
- Fabric / canvas

Perspectives

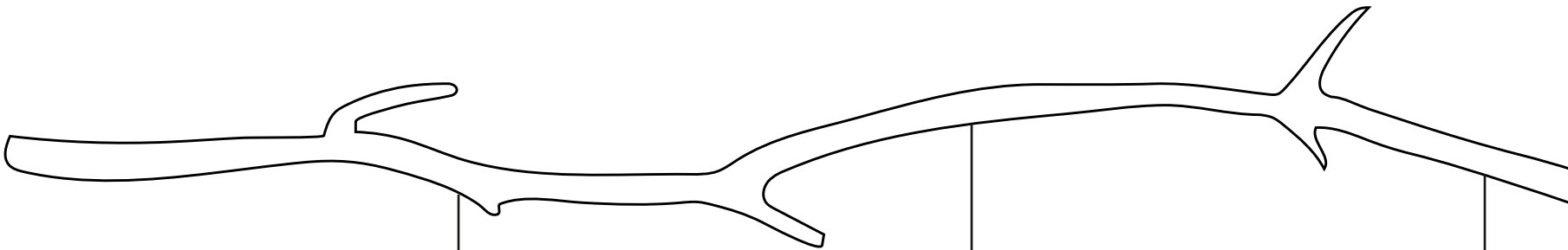
- LFP Directors
- LFP Parents - Haley & Ryan Lawson + Emily & Jason Monk
- Landscape Architecture - Jordan Phemister
- [Sarah West + Chris Field]



PROJECT BACKGROUND

Beginning in the Spring Semester 2020, the College of Design at the University of Kentucky will be involved in a community memorial project at Lexington Friends Preschool (LFP) to create a structure which inspires non-traditional play and remembers the spirit of former faculty and LFP parent Sarah West. The structure will be designed and constructed as part of an interdisciplinary studio of interior design and architecture students led by Professor Lindsey Fay (interior design) and Professor Jordan Hines (architecture).

The project objective is to create a structure that is beautiful, child-centered, and promotes a range of play types including nature-based play, risky play, and contemplative play. As a Montessori and nature-based learning center, LFP also promotes child respect, connection to nature, and exploration. They hope to see these characteristics expressed in their play area.



MARCH 2019

Professors Lindsey Fay and Jordan Hines apply for and are awarded the Arts and Creativity Research Grant

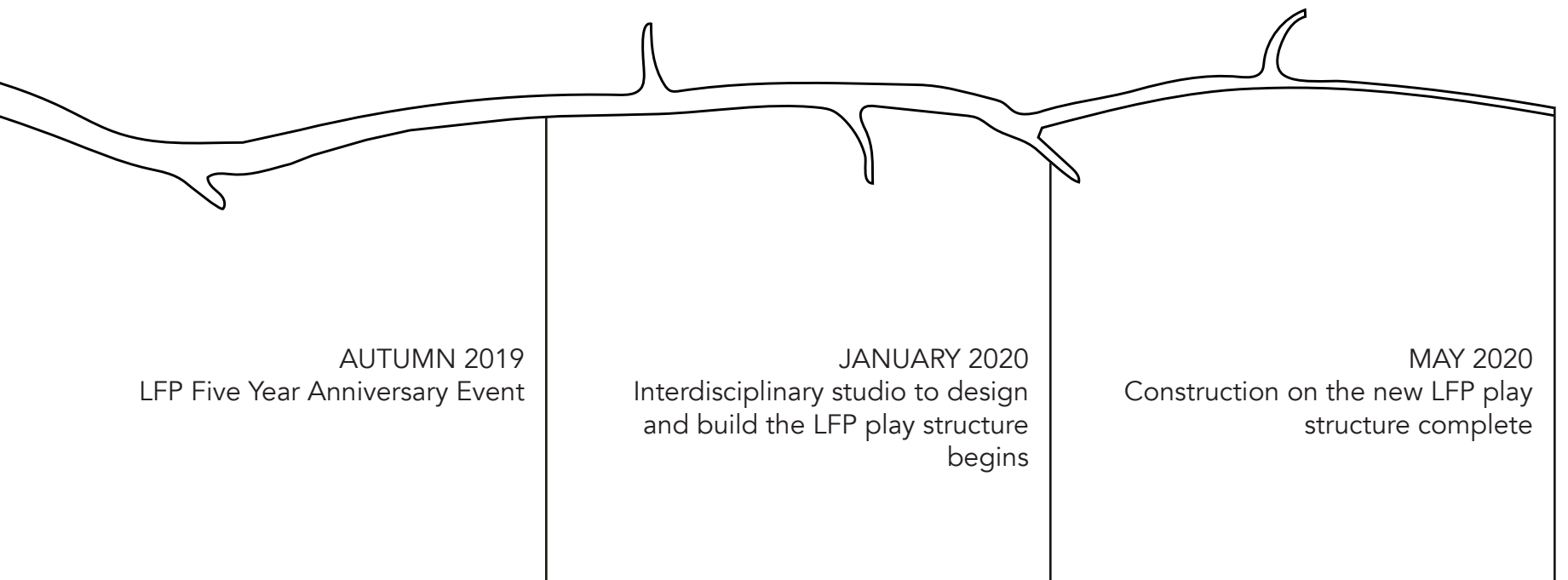
MAY 2019

Student Emily Andreasson is awarded a summer research fellowship grant to continue research into alternative play and to create a research basis for the project moving forward

JULY 2019

Focus groups and interviews with LFP directors, parents, and playscape specialist are conducted

PROJECT TIME LINE



10

9

8

7

6

5

4

2

1

educational models

MONTESSORI | NATURE BASED

THE MONTESSORI METHOD

Montessori education is an alternative education methodology characterized by an emphasis on educating and developing the whole child and allowing children to be “active authors” of their own learning and development. The Montessori method also places an emphasis on peace, connection to nature, beautiful and carefully planned environments, and respect for children.

Although the name is well renowned, Montessori education is largely misunderstood outside of the Montessori community. It is often criticized either for being too rigid and lacking in creativity, or for being completely unstructured and lacking in academic integrity. Many of these misconceptions stem from misunderstandings about key aspects

of Montessori education. Three of these key concepts include the development of internal motivators, engagement in meaningful activities, and the importance of community and cooperation. Montessori educators believe that children should develop an intrinsic motivation to learn because learning in and of itself is rewarding not because of external punishment and reward systems. They believe that children long to and should engage in meaningful work rather than artificial imitation of adult activities, and they believe that community and cooperation is deeply important. There may not be an excess of rules in Montessori classrooms, but all require that children always treat one another and their surroundings with respect.



“...we don't stop them from doing a lot of things...all we ask is that they are respectful to each other and...to the space.”

-LFP EDUCATOR

TRADITIONAL PRESCHOOL

[curriculum]

Rigid curriculum
A lot of role play and fantasy activities
Focus on imparting a maximum amount of knowledge

[teacher centered vs. child centered]

Largely child centered
Teacher determines pace of learning
Teacher determines what is taught, what the children must learn
The learning environment is teacher oriented
Silence is often enforced

MONTESSORI PRESCHOOL

Flexible curriculum
Reality oriented activities and learning
Focus on developing the child as a whole, not just imparting knowledge

Fully child centered
Each individual child determines their individual pace of learning
Each individual child chooses activities and learning according to their inner needs
The learning environment is child oriented -objects, furniture, and resources are all oriented to the child, this may mean they are of a smaller size
Silence is not enforced, children are free to speak as they desire as long as they are not interrupting others

“...[my daughter] learned a lot academically, but also how to work through emotional [and] social problem solving.”

-LFP PARENT

[learning environment]

Largely child centered
Objects and materials are typically randomly placed and may not be returned to a certain location
Bright colors and posters typically dominate the space
Play materials for non-specific skills are provided

[respect for the child]

All children are treated the same
Constant guidance from teacher
Children are not able to do many things independently or on their own time
Reward and punishment system for learning

Fully child centered
Objects and materials have specific places
A sense of order
Neutral colors and materials are used to create an emphasis on activities, learning, and interactions
Multi-sensory materials and objects for developing specific skills are provided

Children are recognized as individuals with differing needs and sensitivities at different points in their lives
Children are free to explore and discover on their own
Self-education takes place through self-correcting materials rather than a reward and punishment system.



“...one of the things that is really important about our school is that sense of wonder... we try to bridge the gap between indoor and outdoor so that children will have a respect and love for nature.”

-LFP EDUCATOR



LEXINGTON FRIENDS PRESCHOOL AND NATURE PLAY

Although it is a Montessori based preschool, Lexington Friends Preschool differs from other Montessori education centers in terms of the emphasis it places upon free play and nature-based play. All Montessori schools recognize the importance of nature in education and child development. However, most Montessori programs emphasize learning over play, which can translate to less time outdoors and less time engaging in free play. LFP promotes as much time out in nature as possible. Though providing more structured opportunities for learning in nature is one of the goals of LFP, the preschool also recognizes the importance of allowing children to learn and explore the outdoors through play. Teachers at LFP encourage bringing nature indoors. Natural objects populate the classroom setting and all living things from insects, to plants, to animals both indoors and outdoors are engaged with respect and wonder.

NATURE BASED LEARNING

Nature based learning methods -or nature based teaching methods- are two fold. They enhance child development and future educational readiness by allowing children time to explore and learn from the outdoors, and they promote crucial environmental understanding and stewardship from a young age.

Research universally agrees that time spent in (or with) nature, learning and playing, enhances social development and physical health. Being in nature encourages physical movement and because the outdoors are filled with unique objects, flora, and fauna, it is highly mentally stimulating as well. Nature based learning encourages children's natural curiosity and their inherent desire to "question and seek answers." These skills of curiosity

and exploration are applicable to other academic and social pursuits and developing them early through nature based learning help children to succeed in other areas later on.

Developing a natural curiosity and interest in the environment can also translate to greater understanding and care for the natural world. In the 21st century where natural areas are shrinking and many natural environments are increasingly at risk, it is important to teach a new ethos of environmental stewardship and responsibility to children.



“...research has shown that those early connections to nature can lay groundwork for future environmental stewardship.”



play

NATURE BASED PLAY | RISKY PLAY | CONTEMPLATIVE PLAY

NATURE-BASED PLAY

THE IMPORTANCE OF NATURE BASED PLAY

Although research has firmly established that “children learn best from free play and discovery,” increasing adult fears for the safety of children in twenty-first century environments have led to the hyper-regulation of children’s lives and play environments (Stoecklin). Children have less time and access to nature for exploration, and spaces that do allow children to interact in the outdoors are increasingly focused on manufactured play and safety rather than spontaneity and discovery. This shift away from the natural environment and freedom has significant consequences for childhood development.

Although humans are born with an instinctive attraction to nature, if that attraction is not nurtured during childhood “biophobia, an aversion to nature may develop” (Stoecklin). Biophobia inhibits the experience of wonder and appreciation for the beauty of the earth. Nature becomes exhausting and because experiences of the natural world come through media and digital technology rather than real experience, the child begins to struggle to understand the differences between what is real and what is not (Vidales). The long term social and environmental consequence of biophobia is that it may “manifest in the tendency to regard nature as nothing more than a disposable resource,” arguably the root of many of the environmental calamities which plague the twenty-first century.

A monarch caterpillar with its characteristic yellow, black, and white stripes is shown crawling on a green milkweed stem. The caterpillar is positioned vertically, facing downwards. To its right, there is a cluster of bright yellow flowers with prominent stamens. The background is filled with lush green leaves, some showing signs of being eaten. The overall scene is a close-up of the caterpillar in its natural habitat.

**“a sense of wonder is a big part of
Montessori, respecting nature...”**

Children also need “positive contact with nature and the chance for solitude and a sense of wonder that nature offers” for healthy emotional development leading to a growth of independence (Stoecklin, Vidales).

DISCOVERY PLAY GARDENS AND NATURALIZED PLAYGROUNDS

“Discovery play gardens” are an alternative playground design which focuses on organic and less structured design and providing opportunities for sensory stimulation, curiosity, and adventure play. They engage the imagination of child users more strongly and therefore offer greater possibilities for play. Rather than introducing a structure that has a single purpose, such as a slide, the objects and areas in discovery gardens tend to be simple and abstract, offering diverse meanings and uses which may be defined by the child.

In order to provide a plethora of sensory stimuli to inspire curiosity and discovery in users, discovery gardens typically use landscaping, plants, and a variety of natural materials wherever possible rather than manufactured structures and equipment. Natural materials not only engage the imagination more strongly and support discovery play, they also cater to a greater range of learning styles and play types and provide a healthier play environment.

COMPONENTS FOR NATURE BASED PLAY

Research has shown that children “value unmanicured places” (Stoecklin) for play which provide opportunities for hiding, mystery, and adventure, over physically attractive and well-manicured play spaces. Natural elements that children gravitate towards in play areas include:

- Water
- Sand and vegetation
- Animals
- Natural color
- Objects that are diverse
- Places and features to sit on/in
- Different levels, places providing privacy and views
- Structures with loose parts and materials that can be physically or imaginatively changed



RISKY PLAY

WHAT IS "RISKY PLAY"?

Just as children have a natural propensity towards nature play, they also have a natural propensity for risky play. "Risky play" is defined as physical activity play which is "thrilling and exciting and [involves] a risk of physical injury." Risky play often involves "heights, speed, dangerous tools, dangerous elements" or the possibility of getting "lost." Engaging in "risky play" allows children to "test their physical limits, develop their perceptual motor capacity, and learn to avoid and adjust to dangerous environments and activities."

HAZARDOUS PLAY AND EXCESSIVE RISK-TAKING IN THE ABSENCE OF RISKY PLAY

Ideally, risky play involves calculated risk-taking in a semi-safe environment so the actual likelihood of physical harm is low. However, studies have shown that when environments which provide risky play opportunities are not available, children will seek out excessively dangerous settings and activities to satiate their need for risky play. Rising parental and social concerns about child safety and a perception of children as inadequate compared to adults have led to hyper-regulation of play environments and an overall reduction in outdoor free play opportunities; playscapes are no longer being designed to meet "children's developmental and



"allowing children to develop critical thinking skills to allow them to decide what they want to do...."

“...there definitely a difference between a risk and a hazard...”

play needs,” but rather to reduce risk. Studies have also identified a consequent increase in inappropriate use of play equipment and “excessive risk-taking behavior that is often associated with unintentional injury” as children seek out challenges and interesting play opportunities.

THE DEVELOPMENTAL IMPORTANCE OF RISKY PLAY

Research indicates that “risk deprived” children not only seek out dangerous situations to satiate their need for challenge, they are also more likely to develop a plethora of developmental issues.

Unstructured and risky play allows children to:

- Learn societal roles, norms, and values
- Develop judgment, decision-making and problem-solving skills

- Develop physical and cognitive competencies
- Develop creativity, self-worth, self-motivation and self-control
- Develop and identify intrinsic interests
- Identify and assess risks
- Develop the ability to cope with fear inducing situations
- Regulate emotions
- Display courage and physical skills to themselves and to peers

The reduction in unstructured and risky play opportunities has been linked to:

- Increased childhood obesity
- Increased social isolation
- Reduced emotional control
- Reduced sense of personal control
- Reduced learning, perceiving, and judgment skills
- Reduced self-confidence
- Development of mental disorders, particularly anxiety and depression



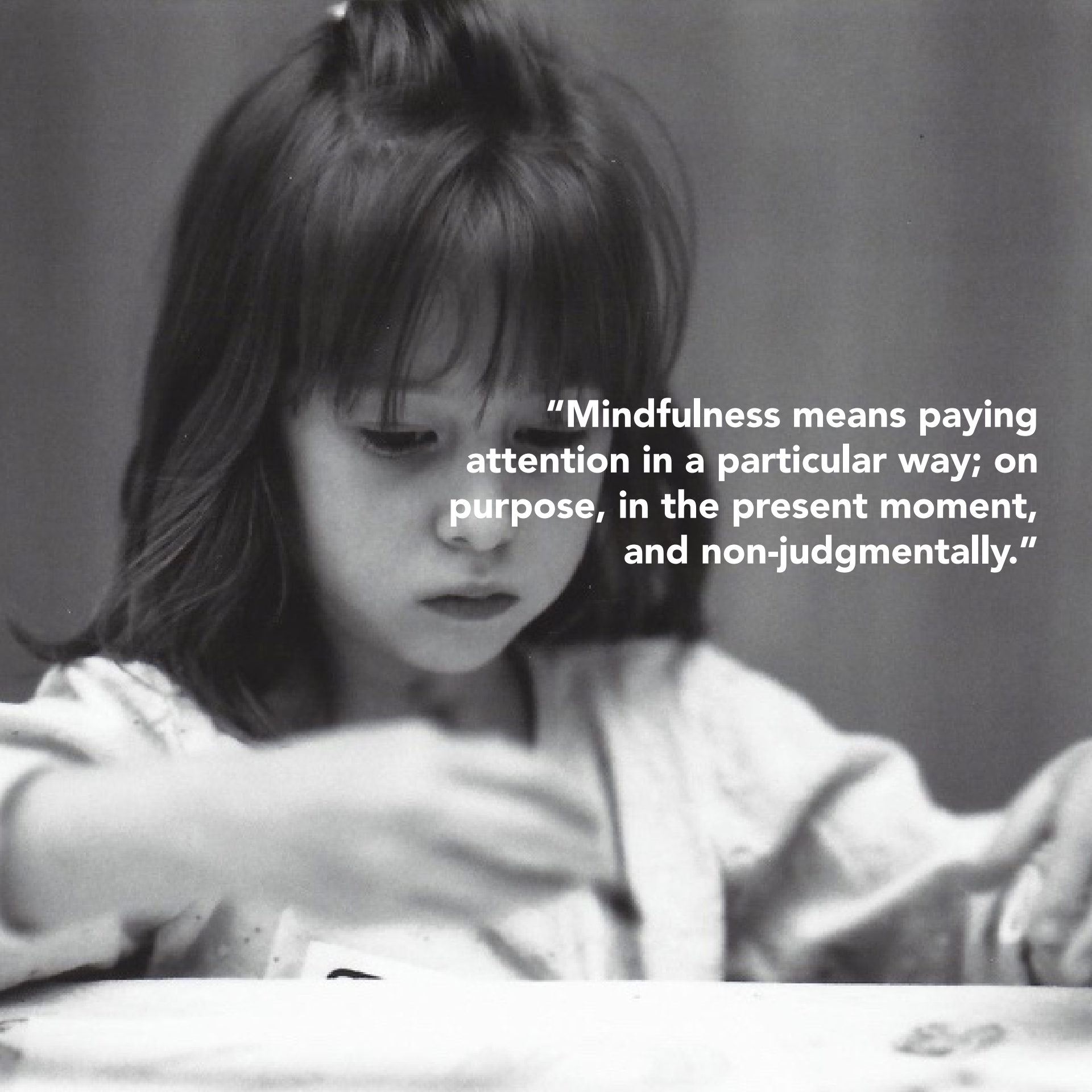
CONTEMPLATIVE PLAY

The contemplative practice of mindfulness has been increasing in popularity since the early 21st century. In an increasingly fast-paced and industrialized world many people struggle to reflect deeply on the present moment and experience. Getting caught up in the future or distant events can rob one of the ability to fully experience the present, an issue that reflection and mindfulness strives to correct. In adults, contemplative practices focus on creating stillness and focus on the body's natural functions such as breathing or walking. But what does contemplation look like in children?

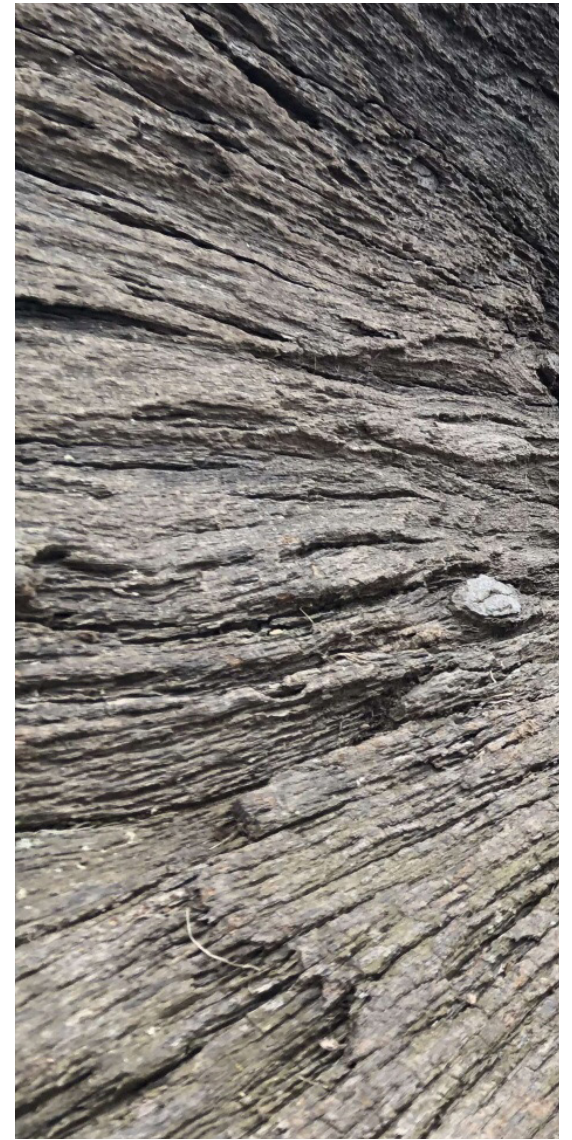
Although some research has explored traditional mindfulness exercises in children, one might argue that children naturally follow the concepts

of mindfulness in moments of play. Particularly in moments of focused, uninterrupted, individual play children can be absorbed by a single activity or idea for long periods of time. Even when temporarily distracted they are often able to quickly return their attention to their activity. Increasingly adult regulated play methods and spaces, however erode this innate ability to deeply experience the present moment by removing the opportunity for imaginative and independent play.

Susanna Miller, author of *The Psychology of Play*, describes playfulness as "an attitude of throwing off constraint...physical, emotional, social, or intellectual." Contemplation similarly seeks to escape constraint in order to connect



"Mindfulness means paying attention in a particular way; on purpose, in the present moment, and non-judgmentally."

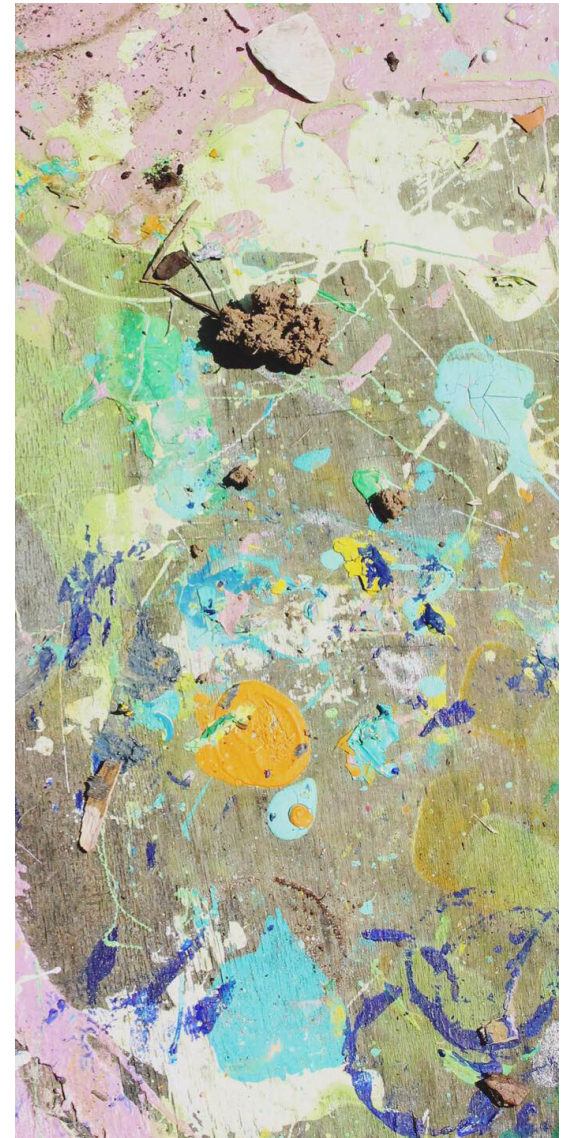


“...play with materials that don’t have a defined purpose, where the children can decide what should be done with them...”

-LFP EDUCATOR

“...opportunities for kids to have space to pull away [and] think to themselves...”

-LANDSCAPE ARCHITECT



to oneself and one's surroundings on a deeper level. Thus, play at its best and most natural can inspire contemplation and deeper connection with self and experience.

Contemplation is also characterized by an element of abstraction. Play with abstraction --or play with objects and spaces that do not have a single, clearly defined purpose or meaning-- could be defined as contemplative play for children.



precedents

ART | ARCHITECTURE | LOCAL | LIVING DESIGNS

INTERACTIVE ART

Interactive artwork is difficult to define because it is still such a new medium in the art world. While critics and artists have hundreds of years to look back on to define painting and drawing, and at least one-hundred years to look back on to define film and photography, interactive artwork is still in its infancy and still being defined.

One could tentatively define interactive artwork as a form of art that engages multiple senses – touch, smell, sound, vision. It can

be “excruciatingly simple” or highly complex. It often encourages the viewer to perceive a known material or element in a completely new way. Many interactive artworks seek to explore the impact of movement and action in the physical world on an alternate technological world or imaginative world.

Hallmarks of many interactive art installations include the incorporation of technology, the play of light and shadow, and the use of biomorphic forms.

Image Credits:
urdesignmag.com
arch2o.com
thelimitededition.in
ktar.com
mymodernmet.com
materialicious.com

Interactive Art Installations. (n.d.)
Penny, S. (April 1996)
Smith, L. (June 24, 2014)



plastic reflectic



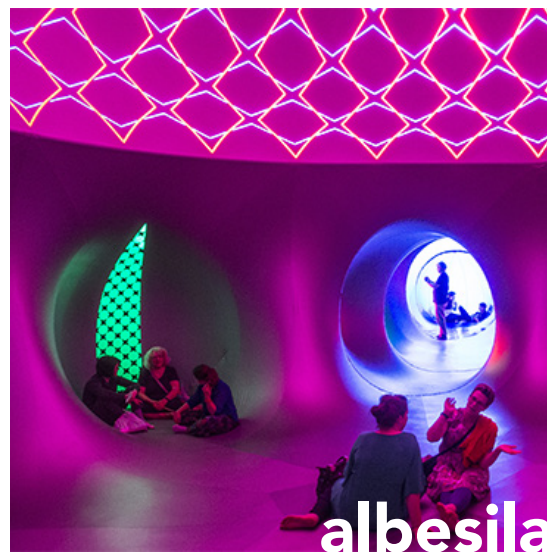
the urchins



untitled



the event
of the thread



albesila



mi casa-
your casa



ISAMU NOGUCHI

Redefining Space, Movement, and
the Spirit of Materials

“...peace is established in a garden by rocks.”

Isamu Noguchi was a famous Japanese American sculptor of the twentieth century. Although he worked in a variety of materials, stone figured prominently in the majority of his works. Noguchi spent a significant period studying the Japanese spiritual beliefs around rocks and how rocks provide opportunity to appreciate nature and to explore age and endurance through time. Through this exploration he discovered his passion for stone both in sculpture and in space.

Renowned as a sculptor, Noguchi also worked on the design of gardens and public spaces, a process which he described as the “sculpturing of space” (Herrera). In many of his designs Noguchi used rocks “to punctuate space, direct a stroller’s

footsteps, and to offer surprise.” These concepts of organic direction, punctuation, and surprise or discovery can also be seen in Noguchi’s famous playground module –a uniquely shaped and hollow tetrahedron which can be aggregated together to produce a labyrinth for crawling and climbing.

Image Credit: *1000 Chairs* courtesy of Taschen via dwr.com

Isamu Noguchi: Master Sculptor. (2003).
Herrera, H. (2015)



Sunken Garden, Chase Manhattan Bank Plaza 1961 - 1964
New York, NY

Noguchi's concept of utilizing simple natural objects, rocks, and form to define space and movement through space are expressed in Sunken Garden and the way the circular forms guide human movement and viewing.

Image Credit: The Noguchi Museum
noguchi.org



Black Sun, 1969
Seattle, WA

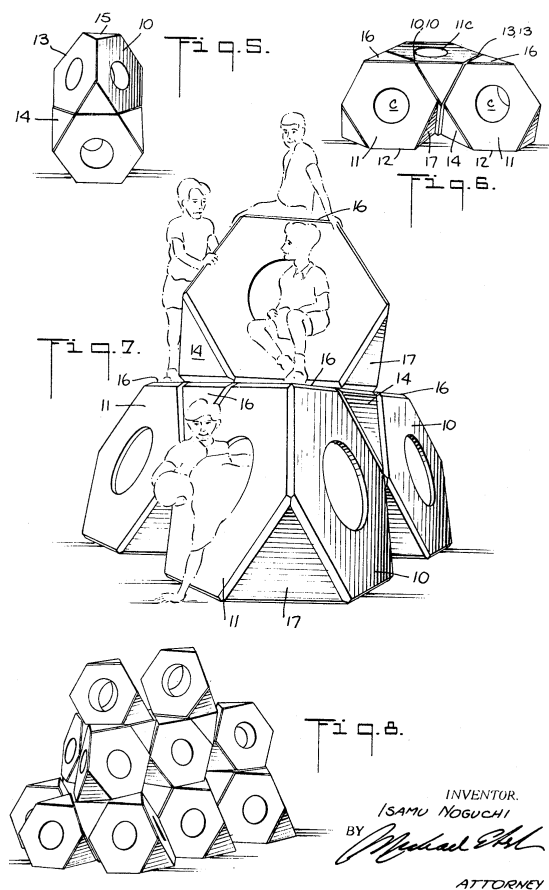
This elegant sculpture was inspired by organic forms from nature and intended to be timeless and fluid, changing with movements of the sun and creating a dialogue with nature.

Image Credit: Rain or Shine Guides
rainorshineguides.com

PATENTED MAY 30 1972

3,666,266

SHEET 2 OF 2



Tetrahedron, 1969

Noguchi utilizes uncharacteristically geometric shapes as the underpinning form for this piece.

However, by aggregating the hexagons together in unique ways Noguchi achieves an organic form which strongly relates to his other works in stone.

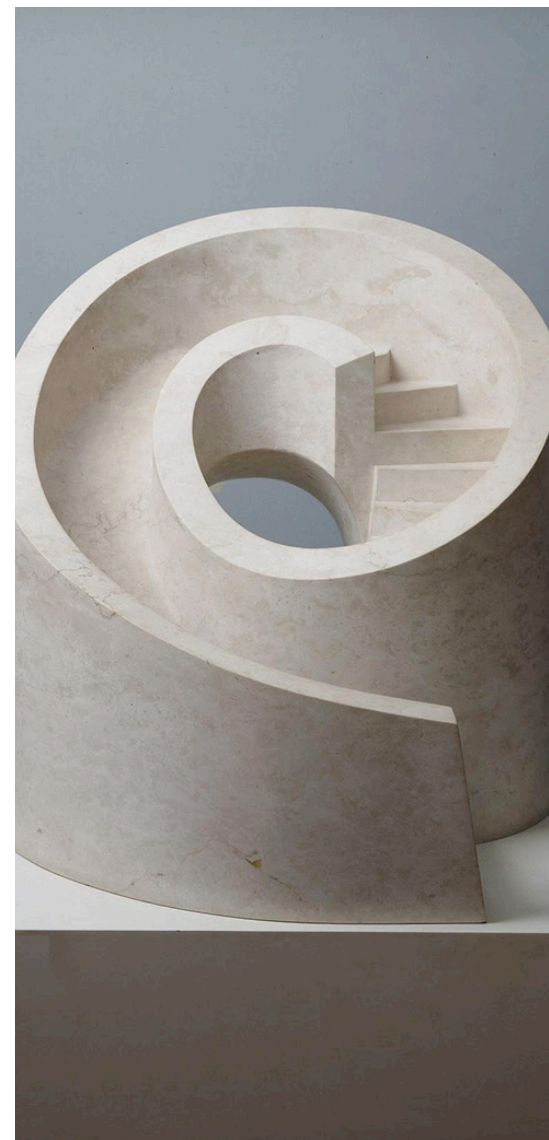
Image Credit: United States Patent, Noguchi, Playground Module



Unidentified Object, 1979
New York City, NY

The name and form of this sculpture connect with concepts of abstraction found in play and in nature. By not defining what this object is, Noguchi invites a richer and more personal interaction between viewer and sculpture.

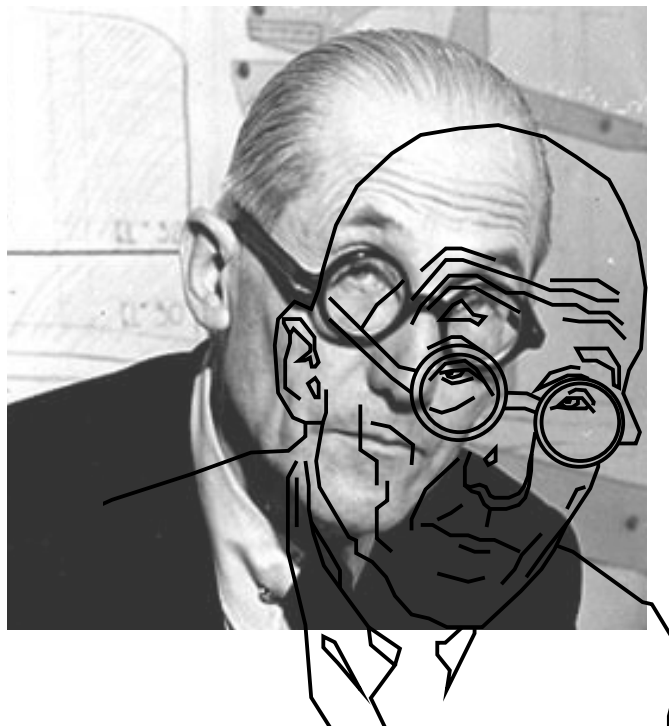
Image Credit: The Noguchi Museum
noguchi.org



Slide Mantra, 1986

Slide Mantra redefines the experience of a slide into one that is integrated (or holistic) and circular rather than one that is defined and linear. This sculpture transforms slides from a simple action to a holistic experience.

Image Credit: Visually Appealing Blog
visualappealblog.com



LE CORBUSIER

Addressing Environmental Conditions
Through Unique Architectural
Environments

“...space as architectural environment...
can't be measured by the conventional
architectural language of 'roof' 'or wall.'”

Although French architect, Le Corbusier, is primarily known for his starkly modern and geometric structures, a closer look at his work reveals a careful consideration and understanding of landscape as well as the importance of addressing the local environment in architecture. Le Corbusier acknowledged both a global concept of “environment” and the importance of local environment and conditions. In his project in Ahmedabad, India and in the design of Notre-Dame du Haut in the Alps, Le Corbusier uses the local environmental language and characteristics to inform his designs and ultimately create an architectural space which is an extension and an enhancement of existing natural conditions. Le Corbusier also recognized the inspirational quality

of patterns in the natural world at a macro and a micro scale. In his photo-mural for the swiss dormitory in Paris he explored the similarities between the abstract patterns in the natural world and abstractions of man-made objects.

Image Credit: Site Le Corbusier
sitelecorbusier.com

“Le Corbusier: An Atlas of Modern Landscapes.” (n.d.)
Sendai, S. (2005)



Notre Dame de Haut, 1955
Ronchamp, France

The incredible windows and light penetration within Notre Dame de Haut is well renowned, but the exterior is equally stunning and intriguing. Although it utilizes the stark lines and simplicity of modernist architecture, this structure does so in a way that reflects the surrounding environment, in particular the bluff on which it sits. Le Corbusier also emphasizes a connection to nature with an outdoor worship area embraced by both the structure and the environment.



Villa Sarabhai, 1955
Ahmedabad, India

The design of this residence responds to the hot climate of India by providing playful opportunities to cool off, such as the water slide, and by providing practical solutions, such as shades and strategic planting.



ALDO VAN EYCK

Simplistic Design to Address Complex
Relationships and Contradictions

“His design was purposely very minimalist in order to stimulate the minds and imaginations of children.”

Aldo van Eyck is an English educated Dutch architect famed for his simplistic playground designs and minimalist principles which sought to engage and reinvigorate urban areas rather than completely restructure the urban setting as advocated by modernists.

Van Eyck strongly believed that architecture should promote social interaction and that it should reflect the playful and creative spirit of man. Van Eyck considered play to be vitally important to society. Consequently, van Eyck’s playgrounds sought to engage the city and create interaction and opportunity for play between children and between adults. Van Eyck recognized that children of different ages have differing needs in a play setting and he sought to produce designs which allowed for a

universal usage of the play spaces.

Although many have critiqued van Eyck’s starkly geometric designs, he actually used numerous simplistic forms in his designs which evoked both geometric connotations to mesh with the surrounding city, and biomorphic connotations to create intrigue and depth. This skillful mesh of two contrasting and seemingly contrary ideas is a hallmark of van Eyck’s designs. The architect’s work hinges very much on the concept of relationships, particularly the relationships between opposites and between parts of a whole. His work sought to balance the three key principles of the classical – immutability and rest—the modern –change and movement—and the archaic –the vernacular of the heart.

Image Credit: Goric Marketing Group
goric.com

“Aldo Van Eyck” (n.d.)
Strauven, F. (2007, May 24)
Withagen, R. & Caljouw, S.R. (2017)



Dijkstraat Playground
Amsterdam, the Netherlands

The Dijkstraat Playground uses material and shape to reflect the shadows of the surrounding city. These simple innovations create a powerful connection to the city and a sense of integration between child spaces and adult spaces.



Nieuwmarkt Playground
Amsterdam, the Netherlands

Van Eyck uses simplistic geometric circles to create an organic flow of movement through the Nieuwmarkt Playground and to link the various parts of the space --the sand pit, the shelter, and the stepping stones. The varied scale of the stepping stones and the circles provides spaces for children of varying ages (and by extension sizes) and athletic abilities and needs.



Van Eyck Playground
Amsterdam, the Netherlands

Initially the different components of this playground seem to be separate geometric entities. However, on closer inspection, the geometric forms have been carefully chosen to create a smaller version of the surrounding city. Most notably, the square sand pit in the center is a miniature reflection of the larger square park which is a reflection of the larger square city block. The verticality and rectangular shape of the bars provide a reflection of the surrounding buildings. These reflections at different scales provide the opportunity for graduated challenges and play which reflects interaction with the larger city.

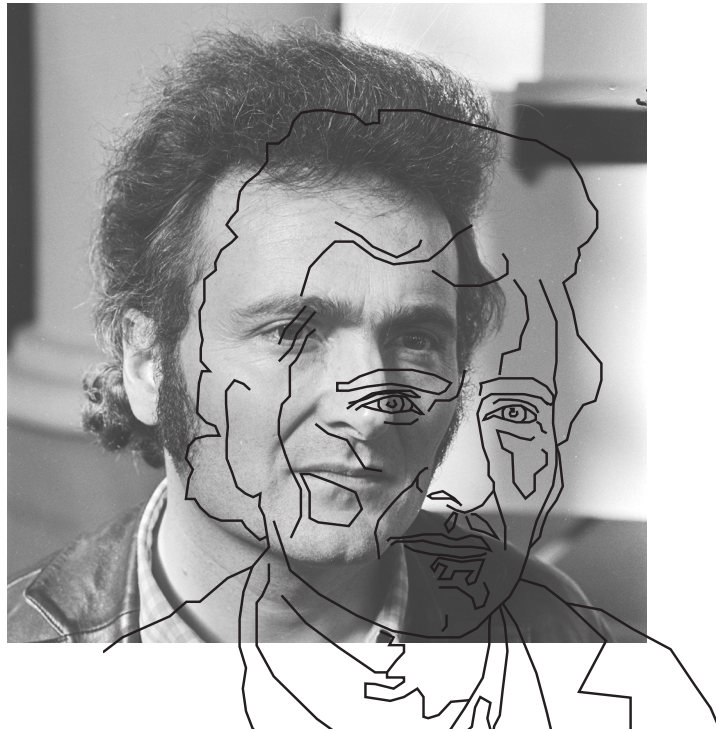
Image Credit: merijnoudenampsen.org



Van Eyck Playground
Amsterdam, the Netherlands

The octagonal climbing structures in this playground, though very modern and geometric, reflect the ancient form of the church steeple in the background creating a unique blended urban environment of old and new.

Image Credit: merijnoudenampsen.org



HERMAN HERTZBERGER

Voids and In-Between Spaces and
Places of Vital Interaction and
Relationship

“...an infinite variety of relationships,
child to child, child to work, and child to
teacher...”

Herman Hertzberger is a Dutch architect known for his concern for social interaction between the users of buildings and the flexible “in-between spaces” which characterize his architecture. Hertzberger believes that architectural space should be open for interpretation and adaptable depending on how the users wish to define its function. Hertzberger has worked on multiple structures geared towards Montessori education, the Montessori School in Delft, and Montessori College Oost in Amsterdam. In designing each school, Hertzberger seeks to embody the Montessori concept of education as “an infinite variety of relationships, child to child, child to work, and child to teacher” which results in “many different activities occurring simultaneously”

(Hertzberger). Architecturally, Hertzberger’s in-between spaces such as the central atrium in Montessori College Oost reflect this simultaneous multi functioning and create an architectural space geared towards human interaction at multiple levels (“Montessori College Oost, Amsterdam...”).

Image Credit: wn.com

Hertzberger, H. (1969)
Lawson, B. (n.d.)



Montessori College Oost
Amsterdam, the Netherlands

Hertzberger's design not only incorporates social stairs as an "in-between" place inspiring community connection, it places those social stairs in the transitional context of an atrium to create connection through sight lines and chance meetings.

Image Credit: architectuur centrum amsterdam
arcam.nl



Montessori Primary School
Amsterdam, the Netherlands

The importance of in-between spaces to Hertzberger is expressed by the core atriums in the Montessori Primary School in Amsterdam. These atriums not only create a relationship between indoors and outdoors by bringing in light and offering sight lines to the outdoors, they also create relationships between people by promoting interpersonal interactions.

Image Credit: architecturehoy.wordpress.com



Montessori Primary School
Delft, the Netherlands

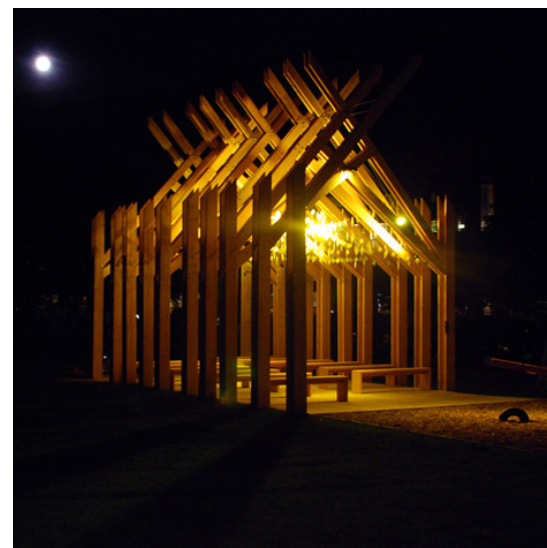
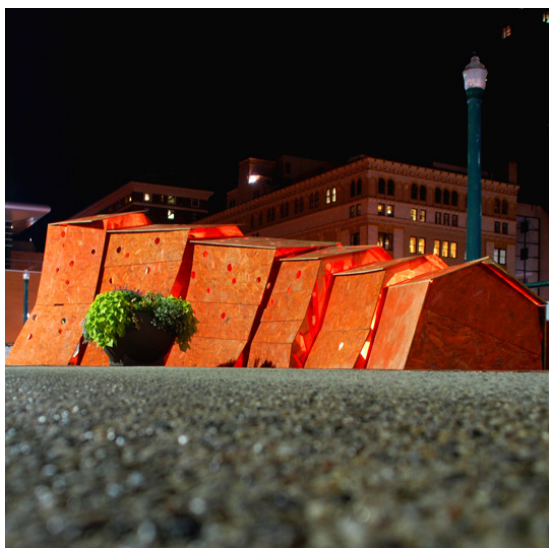
This community play pit explores the engagement of voids at a different scale. While the stools are in place, this space recedes into background of the floor, however, when the stools are removed rather than becoming a void it transforms into a vibrant area of play and interaction between children. This space might also provide opportunity for individual experiences within a central community space.

SARAH WEST + CHRIS FIELD

Sarah West and Chris Field were a dynamic artistic team who together produced numerous large scale installations and public artworks. Their combined expertise in architecture and digital technologies produced a variety of unique artistic expressions ranging in medium from fabric, to wood, to interactive video and audio.

According to their mission statement the duo sought to use their artwork to respond to unique site specific characteristics and to create "spacial environments as experiential compositions." Their goal was evoke certain emotions in their audience through the experience of their installations.





LIVING DESIGNS

The concept of living designs is two-sided.

In one sense, living design relates to life in a physical way, embracing biophilic design, and environmental considerations. This perspective on living design might call to mind green roofs or eccentric, carbon-neutral architectural masterpieces. Living design in the environmental sense is much more nuanced, however. Though it encompasses elaborate carbon-neutral architecture, it could also describe something as simple as a private garden or nature park.

The second sense of living design relates to life in an emotional and relational way. This perspective on living design is about creating space that is alive in its connection

to people and surroundings. Spaces that are dysfunctional, disconnected from the environment, isolating, or non-user-friendly are often described as being “dead” or “soul-less.” Living designs are the opposite. They respond to their environment and user needs in such a way that the relationship of users, environment, and structure brings soul and vivacity to the design. Tom bender, contributing author of *Bringing Buildings to Life* describes living architecture as being part of a “living culture” and one might argue that designers can create these living cultures by creating “places with souls”(Bender).

Image Credits: Homes and Gardens
homesandgardens.com
Flickr
flickr.com
W/Field Workshop
wfieldworkshop.com

Sources:
Bender, T. (July 2007)



“Living architecture invites, energizes, relaxes, and connects. It uses and honors native materials and human skills. It draws nurture from, rather than fighting, the climate, the site, the surroundings, the spirit of the culture and place.”



LOCAL DESIGN PRECEDENTS

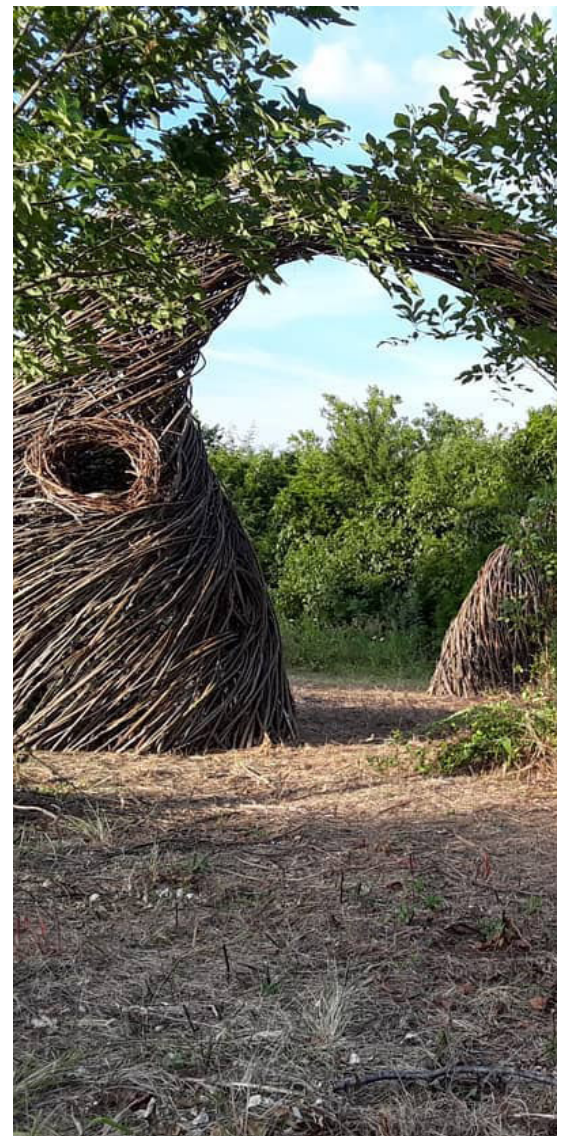
JUSTIN ROBERTS: @
WALKTHEWILLOW

Justin Roberts is a local Kentucky craftsman who specializes in creating furniture and installation artwork out of willow wood. His work ranges from traditional willow armchairs to large scale abstract willow domes that can be entered and explored.

KENTUCKY CHILDREN'S GARDEN
AT THE ARBORETUM

The Kentucky Children's Garden at the Arboretum is a learning garden catering to children age two to six as a place to explore and learn about nature.

Image Sources: Element Design
element-site.com
Gramha
gramha.net
Lindsey Fay





"..there is a lot more problem solving in nature - 'how do I climb this? what will I do at the top?' it is much more complex than just a ladder and a slide"





materials

ADVANTAGES & DISADVANTAGES



ADVANTAGES

Long lasting
Looks natural
Allows for very organic designs
Environmentally friendly
Low maintenance
Mobile - smaller rocks can be moved and manipulated by users

Easy to use.
Well suited to volunteers constructing playground.
Looks natural.
Easy to repair.
Easy to attach elements to it (e.g., slides, handles, climbers).
Inexpensive.
Can be creative and design what you need.

DISADVANTAGES

Can be difficult to procure
Difficult to use
Not very malleable, difficult to sculpt into specific forms
Depending on the size it could be hazardous (gravel could be ingested by small children, for example)

Splinters, cracks, and splits.
Can burn.
Soon looks weathered.
Lots of maintenance.
Does not last as long as other materials.
Does not look as upscale or classy.
Some feel the CCA process is hazardous for children.



LAMINATED PLYWOOD

Very colorful.
Allows for designs with lots of flat surfaces.
Easier to use for infant/toddler pieces.
Can be repaired.
A natural material that lasts.

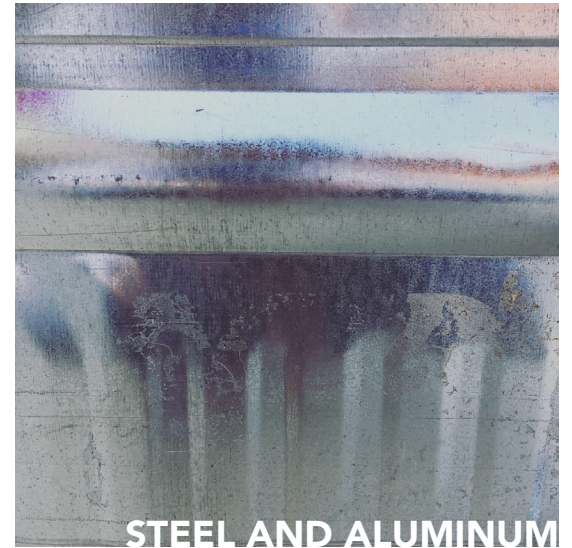
Can chip and deteriorate quicker than plastic and metal.
Restricted to flat designs.
Expensive.
Not appropriate if you don't want bright colors.



POLYETHYLENE

Does not get hot.
Has no splinters.
Initially bright and attractive. Shapes that are safe (e.g., a curved slide).
Not structurally strong but usually used with metal.
Smooth and friendly to hold. Lasts a long time.

Colors fade over time.
Overuse makes the playground look like a new car salesroom.
Expensive.
Limited number of uses and possibilities



STEEL AND ALUMINUM

Strong.
Lasts a long time.
A large choice of paint colors.
Unitized to provide a variety of options.
Resists vandalism.
Good for structural strength.

Slides can be very hot and should not be used; posts/railings also get hot.
Hurts to fall against
Almost impossible to repair.
Cannot add to as you wish.
Expensive



FABRICS



RECYCLED PLASTICS

ADVANTAGES

Lightweight for roofs and canopies.
Easy to replace.
Shade is becoming a more critical issue on playgrounds.

Looks like wood.
Has some similar properties to wood.
Can be cut and drilled. No splinters.
Doesn't rot, rust, or split.
Is made from recycled materials. Can be cut and drilled. No splinters.

DISADVANTAGES

Soon fades and gets dirty. Tears easily.
Flies in the wind.
Tends to look shabby.
No structural strength.

Has no structural integrity.
Cannot be recycled into other plastics. Doesn't hold nails, screws, and lug bolts as well as wood does.



Durable
Semi-malleable
Can save on cost
High performance
Doesn't rot or rust
Environmentally conscious choice
-diverts rubber waste from landfills

Studies have shown recycled rubber products to contain hazardous substances such as PAHs, phthalates, antioxidants (e.g. BHT, phenols), benzothiazole and derivatives
Few opportunities for material engagement by users (somewhat sterile environment)



Evolves over time -can become richer if maintained or can devolve
Environmentally friendly
Supports local ecosystems
Enriches natural life
Provides learning and discovery opportunities

Very high maintenance
Changes over time -can become richer if maintained or can devolve
Not structural (with the exception of trees)



Environmentally friendly
Provides opportunities for organic and imaginative designs and play
Soft, sand can be great for landing zones

Very high maintenance and difficult to maintain
Messy
No structural qualities
Difficult to control
Water can become hazardous (particularly for small children) depending on depth and use in the design



perspectives

LFP DIRECTORS | LFP PARENTS | LANDSCAPE ARCHITECT

EDUCATORS FROM LFP OFFERED
THEIR PERSPECTIVES ON
PLAY, NATURE, MONTESSORI
EDUCATION, AND THE EXISTING
LFP SITE IN A FOCUS GROUP
CONDUCTED BY PROFESSOR
LINDSEY FAY AND EMILY
ANDREASSON.

LEXINGTON FRIENDS PRESCHOOL

DIRECTORS' PERSPECTIVES

HOW DO THE CHILDREN OF LFP PLAY?

It depends on the child. Some children need space to run so they take up a lot of space on the playground. A lot of gross motor activity. Some children prefer more contained play like playing house or school. We invite messy play. If there is a mud puddle that they want to jump in that's fine. We don't stop them from doing a lot of things, there are very few rules on the playground (aside from respect for each other and the space).

HOW DOES NATURE IMPACT THE PLAY OF LFP STUDENTS?

The majority of the materials that they have to play with on the playground are natural materials. Rocks, and sticks and pine cones --whatever is out there is what they have to use. We rely on a lot of natural materials both inside and outside. Children are encouraged to explore and play with those natural materials, the expectation is that they are gentle with things that are living. Teachers model wonder for anything living so that students start to develop an awe and appreciation for nature.

HOW DO YOU DEFINE "RISKY PLAY"?

There is definitely a difference between a risk and a hazard. A hazard is something that could cause harm that the children might not recognize. Risky play is when the teachers have taken out the hazards but left things in that allow children to take risks, like climbing and jumping off of things. The children

“...[Montessori learning spaces] are very beautiful. [They] make the child feel special because their environment is so beautiful...”

are allowed to do all of those things as long as they can do them on their own. Giving them materials that people wouldn't normally give a child and knowing that there is a risk, but it is okay to let them take that risk in order to have the opportunity to explore the material. And to discover 'oh look, I can lift this brick and take it to the other side of the playground.' What a sense of confidence that gives a very young child. [Risks and hazards] even look different at different times of the day depending on how much supervision is available.

HOW DO YOU DEFINE “CONTEMPLATIVE PLAY”?

Play with materials that don't have a defined purpose, where the children can decide what should be done with them. A pile of sticks instead of a pile of toys. Even a pile of dolls without faces rather than a pile of dolls that have very specific 'these are girl dolls, these are boy dolls' and then the children have the opportunity to decide what kind of dolls they want them to be. It might start out very quiet as the children are figuring out their schema what they are going to do and as it develops it might get louder and bigger. A rock to one child could be money and a rock to another child could be a baby.

AS AN EDUCATOR, IN WHAT WAYS DOES THE MONTESSORI MODEL OF EDUCATION APPEAL TO YOU?

Children are encouraged to be independent. In Montessori classrooms everything is set up for the child, everything is tiny. Montessori teachers are

intended to fade into the background, it is really about the child. The space is also very beautiful. It gives the children a sense of pride and ownership and it makes them feel special because their environment is so beautiful. The space is set up so that every child could be doing something different. There is always such a variety of activity happening and they do not need the teacher's help or permission to do things.

WHERE DO LFP STUDENTS PLAY MOST OFTEN?

They love the mountain. They also like to hide -in the tube, or the play structure. Inside too, the classrooms have little corners that they love to be in to read a book. Hidden spaces. Being either up really high or hiding. There is a little loft in the classroom that they love to be in.

HOW DO YOU PERCEIVE THE EXISTING LFP PLAYGROUND? WHAT ARE THE OPPORTUNITIES YOU SEE FOR IMPROVEMENT?

I love our playground. I see it becoming this beautiful forest. It is a lot of work, a lot of maintenance. It is really hard. We wanted to use natural materials but they decay over time, it is non-stop trying to maintain it. It is a love-hate relationship. We have added things like the dome that we don't love. We love that children have the opportunity to climb and explore, but we don't love the way it looks. We had to do it because we couldn't afford new mulch for under the tree where the children love to climb.

HOW CAN THE LFP PLAY AREA (BETTER) SUPPORT MONTESSORI CONCEPTS OF LEARNING AND PLAY?

The autonomy that they have on the playground supports Montessori the most. Our playground is not a traditional Montessori playground, the idea of Montessori and the idea of outdoor play year round are separate ideas that we try to bring together. In a traditional Montessori school the playtime is actually cut down. Having opportunities for learning outside in nature to bring that Montessori idea of more learning outside. Having a space that provides opportunities for focus on something, a space that says 'it's time to calm our minds and our bodies and focus on something.' Even a space for contemplative play and focus. A sense of wonder is a big part of Montessori. Respecting nature. I see this structure being this magical thing.

PARENTS OF STUDENTS AT LFP
OFFERED THEIR PERSPECTIVES
ON PLAY, NATURE, MONTESSORI
EDUCATION, AND THE EXISTING
LFP SITE IN A FOCUS GROUP
CONDUCTED BY PROFESSOR
LINDSEY FAY AND EMILY
ANDREASSON.

LEXINGTON FRIENDS PRESCHOOL

PARENT PERSPECTIVES

HOW DO YOUR CHILDREN PLAY?

Both my children are really social and like the play outside. One of them really likes imaginative play while the other one is more physical and likes to interact. [My child] really likes her personal space in play, a lot of imaginative play and definitely playing outside. They like playing with each other and by themselves. [My daughter] really likes small things. She loves imaginative play. Both inside and outside and she really likes to collect things. Her play has changed over the years. She used to do a lot more play by herself where she would sit there and [swing, or play] with one friend. Then there was a mix, she roamed around with different groups -sometimes small groups, sometimes large groups. There were times when we would come to pick them up when the majority of the children were all focused around one thing in the playground -an activity in the sandbox, or a new structure/toy that had been introduced. This year was more cliquey for Vera, at least, because there were the older girls and not many older boys. For her this five-year-old stage has been a challenge for learning to play with more than one person at a time (a group of three rather than a group of two). The "I don't want to play with you"- [our daughter] struggled with that for a while, but now she is more okay with it and she will go off and do something by herself. The playground has options for play by herself. [Our daughter] is more cautious in her play, she is less apt for climbing on things and jumping off. This year has been great for her to have more confidence and being able to do those things and feel really proud of herself afterwards. She is not a super risky

“...something that does not have a single...
function[allows children to wonder “what is
that for?””

play person. The play structures that you can progress through, I think are really good (graduated challenges). She can enjoy nes structures, maybe not in the same way other kids are able too, but she can still enjoy them.

HOW DOES NATURE IMPACT YOUR CHILDREN’S PLAY?

They get really dirty! And they like it. It is an option, but it is another element of fun for a little kid. They have the option to really get into the nature playscape or to do the more traditional play like swings. My daughter has gotten really into making fairy houses. She always has it on her mind. My child does a lot of natural stuff for art -or she just collects it and keeps it. We have a box for the kids to keep stuff they find in nature. The kids do a lot of very thoughtful things around nature, particularly relating to the seasons -what is growing, what is dying, etc. They won’t only be out when it is nice outside, so they are exposed more to the weather and the nature of the seasons. That gives them the opportunity to notice changes in nature that indicate seasons -flowers growing = spring. It has had a really positive impact -being able to experience that.

HOW WOULD YOU DEFINE THE TERM RISKY PLAY?

The thing that gives your heart a little jump! And I have to stop and think “my child is capable...” But there is a spectrum. You can put on safety goggles and then smash something, it is risky but still “safe.” It is something where they maybe could hurt themselves (minorly), now they know those boundaries -- I feel

like they learn more about their space and their abilities that way. They come to understand what is unsafe, which you wouldn't know otherwise. I also think it is really important for them to learn how to think about risk/reward -how much fun do I get out of this thing? I think it is stepping outside that comfort zone that you discover, sometimes it is great and sometimes it is not, but you get through it.

DO YOU THINK THAT PLAYING IN NATURE PROVIDES MORE OPPORTUNITIES FOR RISKY PLAY FOR YOUR CHILD?

Yes. Traditional structures are kind of safe by design, inhibit risky play by design. In our childhood we had all the wood play structures and then there were too many splinters. Traditional playgrounds look really nice and "sparkly," but doesn't have much function, or opportunity. There was that playground where they put in a new structure but left the old wooden one and all the kids were on the old wooden one! There is a lot more problem solving with nature objects -how do I climb this? What will I do at the top because it might not be flat.

HOW WOULD YOU DEFINE CONTEMPLATIVE PLAY?

Maybe a smaller scale play. Your adrenaline is going but it is more like a thought and then an action immediately after it. It is a little less risky, your brain can wander a little bit. Working through a puzzle. I think of imaginative play. Dreaming up your own world, imaginary friends. Role playing. My daughter had an imaginary dance class and she was dancing and performing and then for a while she was just sitting and I asked her "what are you doing now honey?" "Oh my friends are dancing now, I'm just watching." Spending time by herself in her head. Something that doesn't require a lot of external cues. When a structure (or element) is utilitarian, they will recognize that, and they will either do that or they won't. If there are symbols or something that does not have a single, clear function where they can wonder "what is that for?" which triggers their own imagination and problem solving, "this is not as simple as just 'climb' or 'slide'." Things that have multiple interpretations
I think a swing can sometimes be contemplative. It is so rhythmic and it creates calm.

IN WHAT WAYS DOES THE MONTESSORI MODEL OF EDUCATION APPEAL TO YOU?

Our daughter was in a more traditional daycare, but for me it was the more emotional/social focus, Montessori helped her to learn to move through some of those bigger emotions. I feel like there was more problem solving than where she came from. And the smaller groups where [the teachers] can get to know the child more intimately. It was a great transition and it has been a good fit for her. She learned a lot academically as well, but the emotional/social work through and problem solving skills was more important for me. The kid to teacher ratio is pretty huge for me. It allows them to know each kid and be more available for each kid. It builds on their interests and what they are already interested in. And it teaches them that they have the agency to discover and choose for themselves. There is also a validation - yes that is really cool, that is a good idea, you can do that.

I really like the idea of personal responsibility whether it is the care of your things, or choosing your activities, etc. I also like how, if you stay through the whole program, the focus switches from being a younger child to being an older child who can help the younger kids and be more responsible, help explaining, etc. A transition from being a toddler friend to being a bigger friend - they get really excited about that. They feel really proud of being able to help smaller friends. I also really like the emphasis on "everyone is going to learn a little differently and maybe at a different time."

IN WHAT WAYS DO YOU SEE THE EXISTING LFP PLAYGROUND AND HOW COULD IT BE ENHANCED?

Shade. Just actual shade. That will allow the kids to be able to play longer in a certain area. They bring out new things every now and then, they rotate things - I really like that. I love having the chickens and having the concept of sharing space with another living thing. The kitchen and the sandbox are a hit. They love being able to carry things around the playground from the sandbox. It's getting kind of busy now, to be honest. I personally don't like the playhouse. So much work and money has been put into it I don't think anyone would dream of not finishing it now, but I don't like it. I don't like the placement of it. The sandbox is struggling, but they love it. There is some space at the back that is fenced, if they took that out there might be more space for play. Being able to move things around the playground is really great. It allows for more

“[I like the idea] of creating spaces where children can emulate what they see [and develop] confidence that they can do the things they are seeing.”

creativity. At one point they had a three point tarp over the sandbox and the kids just pulled it down. The tree is awesome too because the kids can climb on it.

WHERE DO YOUR CHILDREN PLAY MOST OFTEN (AT LFP AND ELSEWHERE)?

At home for us it mostly they play wherever we are. I think they like to see and maybe emulate whatever we are doing. Younger children often like to copy others. Creating spaces where children can copy/emulate what they see others doing -working with tools maybe? And that translates to confidence in being able to do what they are seeing.

My daughter is always outside. She is pretty independent. My son does not like to be alone, so his play is wherever you are.

Generally, [my daughter] is doing an art project - inside or outside. Jumping off stumps.

A PROFESSOR OF LANDSCAPE
ARCHITECTURE WITH A
SPECIALIZATION IN PLAYSCAPES
SHARED THEIR PERSPECTIVE ON
PLAY, NATURE, MONTESSORI
EDUCATION, AND THE EXISTING
LFP SITE IN AN INTERVIEW
CONDUCTED BY EMILY
ANDREASSON.

LANDSCAPE ARCHITECT

HOW DOES NATURE IMPACT CHILDREN'S PLAY?

Nature allows for an amazing amount of creativity and exploration in a way that traditional equipment does not. It does not tell them what they have to do - the ability for creative play is really unmatched when thinking about natural environments. Research has shown that those early connections to nature foster environmental stewardship. It is a really critical pathway in early childhood development centers.

Nature is important for play but also for physical, social, and emotional wellbeing. It is a counterpart to indoor learning. Often it provides an opportunity for more freedom less structure than inside activities.

HOW WOULD YOU DEFINE RISKY PLAY?

It is important to distinguish between risks and hazards. Ha..Risks I would define as allowing children to have choices, graduated challenges, and the opportunity to develop critical thinking and decision making skills and confidence --it allows the opportunity to build confidence.

HOW WOULD YOU DEFINE CONTEMPLATIVE PLAY?

A lot of child development experts talk about the need for kids to have opportunities not only to be in the thick of play and interact with others, there is also as much value to allowing kids to pull away and have quiet space. Maybe not physically and visually remove themselves entirely but there is

a space/opportunity to pull away and think to themselves. and maybe still observe but really have time to think to themselves. When I think about it in my own kids contemplative play often involves something like drawing. The environment does not necessarily matter that much but providing the opportunity to focus on something.

WHAT ARE THE MOST IMPORTANT ELEMENTS OF A PLAYSCAPE, IN YOUR OPINION?

- pathways, that create a circuit of movement
- areas and zones that come off of those pathways that provide different opportunities --maybe the opportunity to be "away"
- prospect and refuge --being high and being low, tunnels, vegetation that allows for screening
- allowing for physical activity, risky play and graduated challenges, allowing children to develop skills that lead them further in or further up a structure
- things like slides to give a sense of rush - some of those standard things are really great
- sand and water
- loose parts -something that is really lacking in current play areas, understandably, but it gives the opportunity for children to have agency over their environment
- opportunities for dramatic play - performing, etc.
- opportunity for growing and cultivating

WHAT ELEMENTS DO YOU THINK ARE LACKING IN PLAYSAPES?

wonder

the ability to give shape to the environment

vegetation --trees especially, they are amazing shade providers

water and sand -maintenance nightmare, but really important developmentally

play is really children's work". It is integral to child development. My current work is trying to develop a space that will be really exciting and a great place for children to explore.

HOW DO PLAYSAPES IMPACT CHILDREN'S CONNECTION TO NATURE?

It is the place where they spend so much of their time. I think I heard a statistic that if a child is in full time daycare by the time they reach elementary school

they will have spent as much time in a daycare as they will in the next several years of their education. Things as simple as having more vegetation can have a huge impact on how children connect to nature in the rest of their life and perceive it.

HAVE YOU HAD ANY EXPERIENCE WITH MEMORIAL STRUCTURES?

In Virginia there was a garden that developed over time as a way of remembering a number of children who had passed away. There was seating, a memorial path of logs, and then the children would plant bulbs every fall. There was opportunity to grow over time and for the children to interact with it. It was a very contemplative place. a great way to integrate the natural cycles of the environment and integrate it into deeper themes of death and loss.

I also lead a bulb planting effort for a little girl who was hit by a car. I am also part of an organization that does memorial tree planting.

I think symbolism is really important but it is something that the children should have agency over. As designers we can set the stage for the children to create their own symbols through their play.

MATERIALS

I don't think it has to be ALL natural or ALL manufactured. My experience with grass landforms is that they don't last and they get trampled and it's a mess. I am exploring creative ways to develop various forms -maybe with tires.. Need to be careful of small things like gravel or mulch depending on the age of the children because they might put it in their mouth and that would become a hazard.

LFP PARENTS AND TEACHERS
AGREED TO SHARE THEIR
MEMORIES OF SARAH WEST AND
HOW THEY WOULD LIKE TO SEE
HER REMEMBERED THROUGH THE
NEW DESIGN FOR THE LEXINGTON
FRIENDS PLAYSCAPE.

REMEMBERING SARAH

A STORY OR CHARACTERISTIC YOU REMEMBER ABOUT HER:

She was the most amazing person, just incredible. She worked hard to help build our playground, she was very passionate about the playground and wanted it to be inspiring and beautiful for the children. She was so humble, and had the same appreciation for beauty and wanted to help bring that to the school.

She really valued the kids playing outside. Lluelyn [Sarah's son] needed to "reset" a lot and being outside always did that, always brought him calm. Confidence and confidence in advocating for her child. Anything that is confidence building I think would honor her.

HOW WOULD YOU LIKE TO SEE HER REMEMBERED?

I would love to create something that when people walk out to the playground they think "someone made this? This is incredible!" and then the children think "we can touch it? this is for me?" Her work was so amazing and I think to honor her we have to make something unique that makes your jaw drop.

She was an artist, so not necessarily a literal art piece but maybe something with that in mind. Something that would honor her as an artist. Maybe taking the concept from one of her pieces and incorporating it into a playscape. She had a great laugh. She was a quiet person, but so elegant and approachable.

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