



ground
play

a b c d e f g h i j k l m n e b i y o u o p q r s t e k l e u v w x y z

Synopsis

groundplay
by
nebiyou tekle

Children go about their playful desires, in their immediate environments spontaneously. Learning to look, touch, hear, and feel are the primary objectives of these early lessons in the playground, and it is a skill that is associated with all future learning and one that can last a lifetime. Playgrounds also offer a developmentally appropriate environment in which children are given opportunities to make choices, pursue their own questions and concerns, connect what is known to the unknown, and be successful as they explore and discover through play, informal learning activities, and projects.

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Dedications

To the Unknown

To my Family

To Mother Earth

To the Children of the Universe

Collaboration

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Origins

Since antiquity, most classical cities throughout the world promoted outdoor play and encouraged human interaction by building theaters, stadiums, market places and worshiping temples. The Egyptians, Greeks, Romans and Mesopotamians also held their games, gatherings and most social affairs as an integral part of their religion and culture as well as their patriotism. In the medieval city, knights held tourneys, guilds and pageants; people their dances, and the church made festivals for its most cherished saints with gay street processions and presented a drama which became a matter of thrilling public interest. Meanwhile, the children of these periods, in many cases, were left to play unsupervised.

Prior to the Industrial Revolution, most play among children occurred while they were engaged with their parents in their daily routine. They practiced much of the daily obligations and enjoyed oral story telling during evenings or played with found objects. After the abolishment of child labor, children were left unoccupied to meander throughout their immediate environment without play diversions. This lack of engagement created a social challenge for parents and educators to give children an environment that replaced the practical world.

Gradually, the need of keeping children off the street presented an opportunity to cultivate an environment that mimicked the adult world. This outside setting was removed from the house and from the streets. Parks and open spaces in towns or cities became places for children's play.

However, in contemporary and modern times, most cities have become distinctly industrial and daily labor more monotonous and subdivided. We forget how new the modern city is, and how short the span of time in which we have neglected public recreation. Playgrounds have evolved

from merely playing on the streets and plazas into sand gardens (sand boxes), municipal and school premises and to the most modern playscapes and theme parks. Hence, the invention of the playground was the result of the need for children to have a place to play. It was not so much a linear and apparent process of evolvement but a very subtle response that eventually took its form and shape and was called "playground."

In the past four decades, many aspects of playground ideas and designs have evolved to their contemporary cumbersome condition. Most playgrounds today reveal a market driven play-sets appearance that is geared towards stylized exercise as depicted in forms and color palette. In addition, the stipulation and safety regulations that have been imposed on outdoor play settings hinder and constrict the flexibility of spontaneous play for children.

As an example, the community of the Westside of Chicago was characteristic of the large, industrial urban areas of the 19th century in America. Chicago was a center of industry and commerce and served as a gateway between the manufacturing northeast and the agricultural midwest. After the civil war, the push westward to claim new territories fueled an incredible burst of growth in transportation, manufacturing, and commerce. This economic expansion required cheap labor, and thus the US government encouraged massive migrations from Europe. (Addams)

This mass migration resulted in slums complete with overcrowded tenements, crime, disease, inadequate schools, inferior hospitals, and insufficient sanitation. Not surprisingly, the new immigrants' self-perception of a *good-life* was quite different from the one expressed in the mainstream press.

Many immigrants also arrived with little more than the clothes on their backs and their heads filled with tales of streets of gold. However, economic conditions required parents to work long hours, leaving small children unsupervised and forcing older children to scrounge for themselves. Schooling was inadequate, and teachers unaccustomed to the background diversity were scornful of children who could not speak English. Recreational facilities were non-existent resulting in juvenile delinquency, prostitution, and petty street crime, which became major threats to the safety of everyone living in the tenements.

Jane Addams was one of the few conscientious individuals who attempted to create a means for underprivileged children to have a formal introduction to the adult world. She managed to construct, at her half-way-home, play apparatus that encouraged physical as well as social interaction of children with their immediate environment as well as with their peers. (Addams)

Although the inherent characteristic of children at an early age is to wander, find, discover, manipulate and leave to explore something else, their youth is governed by the natural phenomenon of gravity. Gravity is the natural force of attraction exerted by a celestial body, such as earth, upon objects at or near its surface, tending to draw its force toward the center of the body. Hence, gravity is the natural force of attraction between any two bodies, which is directly proportional to the children's physical mass as well as their mental recognition. As children learn to use their body and the repetitive physical experience they go through gets to be recorded and memorized in their muscles.

The muscles children use for locomotion, the physical movement of their bodies, and their

muscles occurs almost entirely because of gravity. The muscles' function is to create movement that opposes the gravitational pull of the earth. These are broadly referred to as anti-gravity muscles (postural muscles). These muscles during childhood bring much of the information about balance, reflex and muscle and mind coordination that help the child understand the world's continued and repeated manifestation. While playing on the ground, these gravitational pull and push becomes the foundation for the growth of the child's physical as well as mental suppleness. (Urquhart)

Metathesis is a word that has an etymology of Late Latin, from Greek, from *metatithenai* to transpose, from *meta-* + *tithenai* to place - more at Do. This word, dating by from 1577, describes a change of place or condition, the idea and/or action of playing, especially as a spontaneous recreational activity of children. Hence, this *groundplay* design proposal attempts to fulfill the very intrinsic motivation of a play setting for children as well as for all ages of people. Further this approach seeks the possibility of developing a fundamental perception of the built world bound by gravity, while experiencing spontaneous and changing situations.

This proposal for a new environment intends to create social and environmental consciousness with solutions that brings a safe, accessible and invigorating environment for children to play as well as the public at large.

One generation after another has depended upon its young to equip it with gaiety and enthusiasm, to persuade it that living is a pleasure, so that human beings everywhere have anxiously provided channels through which this youthful life might flow, and be preserved for the delight of the coming generation.

Timeline

| | | |

300 B.C. 1460 1600 1870
Classic Greek South & Central America Medieval Boston, Massachusetts

Agora Machu Piccu Village Green First Playground



(1)



(2)



(3)



(4)

+ Backyard + Farmyard + Field + Forest + Park + Street +

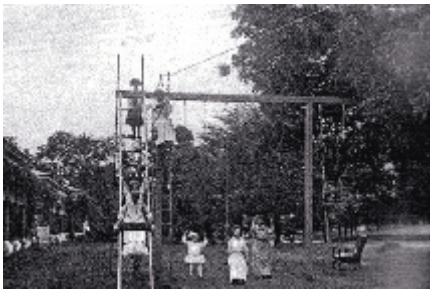
The well known, *agora* (to gather), served as the meeting place of men, the center of village trade, and the location for the cafes. Adjacent to the agora was the *plateia* (plateaued space), which accommodated festivals, community dances, marriage celebrations weekly parades, and, one can suppose, unsupervised children's play. On the other hand, in the beginning of 19th Century, with the onslaught of urban housing speculation and the introduction of the industrial grid system in the rapidly growing cities of America, open spaces became

something readily consumable. (Eriksen) The street and the alley were the only remaining amenities, at least for the lower-income class children to find a place for play. The alley, further, became the retreat from the tenement, and the street was the communal meeting place.

Hence, playgrounds became specialized open spaces, set aside and designated primarily for children's play. They also contributed to the landscape of the city, as does any other open

1912
University of Virginia

Playground Apparatus



(5)

1950
Minneapolis, Minnesota

Adventure Playground



(6)

2004
Moundville
Blacksburg, Virginia

Groundplay



(7)

+ Alley + Plaza + School + Garden + Outdoor Gymnasium + Theme Parks +

space. Playgrounds have evolved from the very near backyard or farmyard lots to open fields, parks, streets, plazas, school play areas, parks, streets, gymnasiums, theme parks and so on.

Such evolution is a testimony of the need for more intricate and elaborate designs for play that may fulfill the greater need for outdoor environments. While cities throughout the states keep growing, the question of providing inviting open places remain insufficiently addressed. As much as such stylized transformation

of play sets took place throughout the evolution of the playground, one thing remains unchanged; a specific material for outdoor play that yields a lasting and a fitting quality when considered from the aesthetic as well as practical usage of feeling, form and function.

Designers

Aldo Van Eyck

Architect Aldo Van Eyck, influenced by the Dogon people of Mali, Africa, introduced climbing frames, arches, igloos, tumbling bars, jumping stones, and climbing walls. He transformed urban spaces in Amsterdam into more than 700 playgrounds between 1947 and 1978.



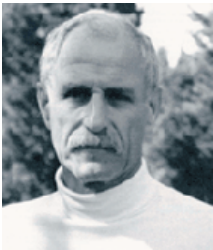
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Paul Friedberg

Landscape design innovator and father of the Adventure Playground, M. Paul Friedberg confirms, “[Our problem is that] We want the child to be living in a padded box. [But] A child has to have the real world, fraught with challenges to overcome.” He also claims that playground is a three-dimensional solid. It should allow the child to go up, over, across and down-the range of experiences which a child enjoys.



(11)



(12)

These designers and artists brought forth a consciousness and awareness to the built world, the possibility of conceiving and designing outdoor spaces with the intent of creating beautiful public settings.

C. Th. Sorensen

“Look upon buildings and space not only in its representative, but rather in its functional aspects for economic, social and recreational use.” It was the Danish landscape architect C. Th. Sorensen who first recognized the importance of “skrammellegepladsen” (rubbish playgrounds), which emerged from movements in 1969 Europe that worked to reclaim derelict urban spaces, many caused by the devastation of WWII. He claimed this result should give children access to various construction play materials and the possibility to create their own play environment rather than provide them with already furnished, neat play sites.

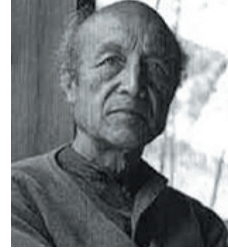


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Isamu Noguchi

Noguchi designed his first playground, an attempt to conceive the playground as a sculptural landscape. The 1933 plan, as well as several other later designs for playgrounds, was never constructed. The only playground completed in Noguchi's lifetime was this one in Atlanta. The playground is seen by Noguchi as a sculpture of spaces and an attempt at making sculpture a useful part of ordinary child life.

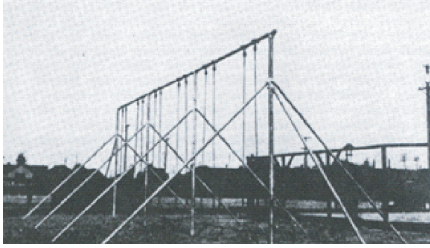


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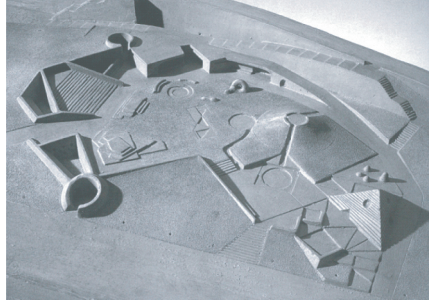
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Conditions



(10)

Swings at the Violet Street Play-ground in Los Angeles. From Arthur Leland and Lorna Higbee Leland, *Playground Technique and Play-craft*,



(16)

Noguchi moves between disciplines of landscape architecture and sculpture to interpret landscapes from the point of view of an artist and seeks the absolute integration of objects, space and building for outdoor use.

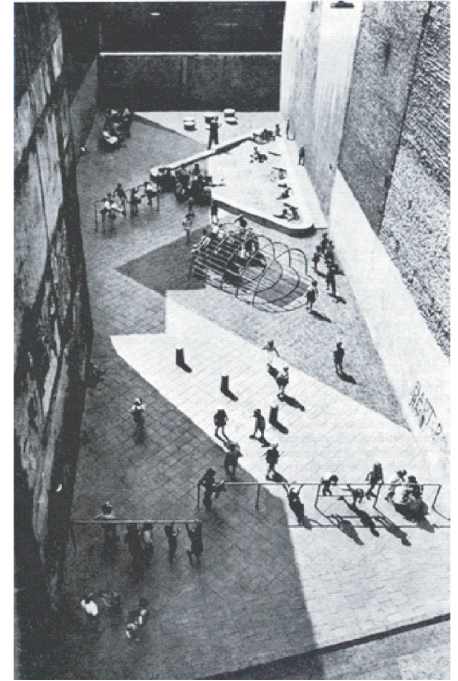


Child Development Center and Laboratory. Located at Virginia Tech campus. The lab school provides programs for pre-school children and their families a fenced and designated outdoor playground



Holmes Run Park, Alexandria, Virginia.

Scattered wooden post and beam connection to allow a sense of acclivity and declivity of play.



(17)

Vacant lot playground in Holland by Aldo van Eyck. From Alfred Ledermann and Alfred Trachsel, *Spielplatz und Gemeinschaftszentrum*,

Aldo van Eyck reinterprets the experience of urban dwelling with that of Dogan village he has studied for a period of time in Mali before he constructed the playground above.

The history of the playground and what materials are used to construct it is a peculiar one. Taking a brick as an example, one can associate the idea of stacking to make a wall for a house, a hearth, or a retaining wall. However, when considering all the equipment used for a playground, the choices are innumerable. However these choices come from already established materials derived not

specifically for a playground. These include metal tubes that were invented for building construction purposes, rubber for transportation, concrete surfaces for buildings and plastics for industrial applications. Where is the material that is fitting for ground play settings that will adhere to the hierarchy of the site, aesthetic appearance and lasting quality?

Addams



(18)

Jane Addams is remembered primarily as a founder of the *Settlement House Movement*. She and her friend Ellen Starr founded Hull House in the slums of Chicago in 1889. She is also remembered as the first American Woman to receive the Nobel Peace Prize. She was a founder of the National Association for the Advancement of Colored People (NAACP) that governed working conditions for children and women. Also she came up with the first attempt towards a designed playground.

Montessori

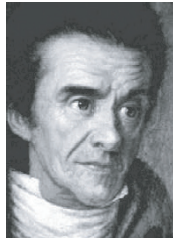


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Maria Montessori, an educator, in her clinical observations led her to analyze how children learn, and she concluded that they build themselves from what they find in their environment. Shifting her focus from the body to the mind. *Montessori Method*, a system for teaching children to be self-motivated learners, with special emphasis on sensory training.

Theorists and educators such as Montessori and Froebel agree that healthy growth and development-including physical, emotional, social, and intellectual growth-is based on stimulating learning experiences that arouse the learner's interest. These principles are based on a belief in the natural curiosity of children

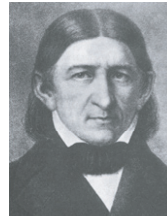
Pestalozzi



(20)

The Swiss born educator claims that children should learn through activity and through things. They should be free to pursue their own interests and draw their own conclusions. He looked to balance, or keep in equilibrium, three elements - *hands, heart and head*, where children will grow up in a balanced condition of the body the mind and soul.

Froebel



(21)

Friedrich Froebel believed that humans are essentially productive and creative. The significance of play - it is both a creative activity and through it, children become aware of their place in the world. Founder of the of *Kindergarten System*, he emphasized the cultivation of children's senses what later was coined after his name, Froebel Blocks.

and their innate desire and ability to learn. Play is the primary way children learn. Through play, children explore their bodies, their relationships with their parents and peers, and the world around them.

Foundation



(22)



(23)



(24)



Rejuvenation

Children are constantly testing their physical powers, discovering their levels of capacity and strength. Play also allows children to discover themselves, not only in relation to their physical surroundings, but also in relation to each other. Through play they become aware of situations in which it is necessary not only to interact socially but to work together to a common end. The Lack of such stimulation at an early age has a harmful effect on children's further personality development.

When children take part in playing in an outdoor setting, it helps (in the words of John Dewey) to "concentrate" and "enlarge" their experience. It can be a part of the process of learning to see and to represent and to capture their visual world. Guided participation in the activities of children is the primary role of playgrounds. Play and the expression of ideas through interactions with adults, peers, and the environment are the primary concern of children.

Conversations...



Parent

John Bryant

John is a father of two children, Joanna (5) and Ian (2).

"Play is certainly an area of activity in which children's natural curiosity usually guides what they will learn. They will want to know many things-what is it? why? how? Can I do it? - as they explore a nature area, walk through a labyrinth, or experiment with a rope ladder. Play is controlled by my children's interest. They pursue whatever aroused their curiosity as they are attracted by this object or diverted by that object."



Educator

Christine McCartney

Christine, a Program Coordinator at the Nursery School, (Child Development Laboratory School), Virginia Tech, where she brings much of the open ended theory (allowing children to have their own first hand experience of learning to discover on their own) of teaching young children.

"Any environment designed for children's play or learning should provide not only different kinds of experiences, but should also stimulate the child to explore and manipulate that environment."



Instructor

Carol G. Jonas

Carol is an instructor from Canada working at the Nursery School for a year. She is introducing some of the fundamental approaches of teaching children.

"Children's feelings of being liked and trusted, their sense of sympathy for others, their ability to channel destructive impulses into constructive energy-to talk instead of hit-are all affected by the environment."



Psychologist

Victoria Fu

Dr. Fu is a constructive theorist who holds that knowledge and understanding are constructed through social interactions. She claims that classrooms are inherently social places wherein teachers and children negotiate the curriculum together.

"The settings provided for play-ideally, a varied and stimulating playscape-should provide opportunities for that growth and development."

Degeneration



Observation

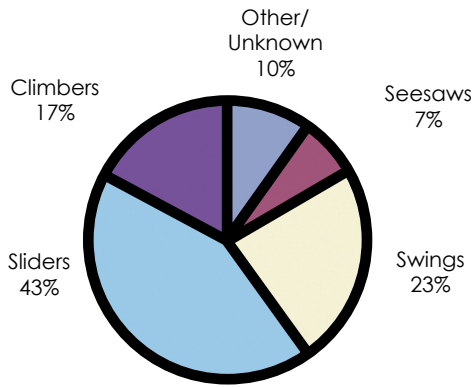
Away from the dangers of the street, playgrounds are an escape from the usual routines of the backyard. Here, youngsters of all ages can run, scream, climb and be free. The innocence with which they pursue each piece of equipment for the thrill it provides is the same innocence and spirit we feel when we take them there; when we watch them play; and when we reminisce the joys of our own childhood.

Shawnee Apartments in Blacksburg, Virginia is one pilot study taken to observe the degenerated condition with its six of playgrounds play areas. Sliding and swinging, for example are the leading favorite

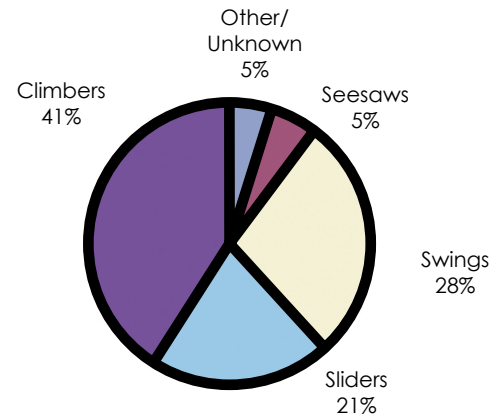
activities of children. These are popular play area activities, especially when integrated into varied play settings. The condition of these traditional playgrounds and the fact that such playgrounds often stand empty and neglected provokes some critics to speak out against all playgrounds. They argue that children can and will play at any time, in any setting, even in the most littered vacant lot.

Although there is a greater need to update play environments, many of the standard requirements and safety regulations have not benefitted the degenerated conditions of these play sets.

Safety Measures



Playground Equipment-Related Injuries Sustained by Children Under 6



Playground Equipment-Related Injuries Sustained by Children 6 and Over.

Facts

The vast majority of playground accidents occur in three areas: climbing areas slide stairs and swings are the source of numerous accidents. Young children find themselves fearful of progressing and unable to climb down while older children often use stairs for horseplay, the slide entrance area is often used for king-of-the-mountain games, the top of section of the slide chute, where sliding children collide with children running up the slide.

The challenges found on a playground are a great asset for the physical, emotional, social and intellectual development of children. Scraped knees, falls from swings and slides, cuts from broken glass have no part in these memories. The broken arm they suffered from a fall off the "monkey bar" is simply a part of growing up. Many of these injuries do occur at public park, public school, preschool, and fast food restaurant playgrounds that are in a state of disrepair. Also outmoded, poorly designed equipment, and improperly installed and maintained play sets

present physical hazards to children. Other factors that contribute to playground injuries and fatalities include lack of education on playground safety and supervision for parents, caregivers, and teachers also contributing are children's declining levels of motor skill and general fitness through physical engagement bound by gravity, due to conflicting activities such as television, video games and fear that community play areas may be dangerous.

Currently, the U.S. Consumer Product Safety Commission (CPSC) reveals that in the United States, a child is injured on a playground every 2 1/2 minutes. More than 200,000 children each year are treated in emergency departments for playground-related injuries. More than 75% of playground injuries occur on a public playground. Most playground injuries involve falls, and over half of the time the child's head and face is hurt. Most of these injuries are preventable with proper supervision and safer playground equipment and design.



Phenomenon

Artifacts

Materials

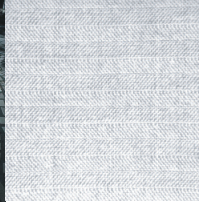
Asphalt



Brick



Canvas



Chain



Concrete



Gravel



Objects

Boat



Cable Reel



Drum



Duct



Fence



Fort



Equipment

Bench



Horizontal Bar



Jungle gym



May-pole



Sand box



Materiality

Most playgrounds built since the beginning of 19th century display numerous qualities, which have a limited connection between their materiality and their connection to the ground. The majority of these playgrounds throughout America are hard-surfaced with open spaces for ball games, scattered and random groupings of standard play equipment such as swings, seesaws, and monkey bars.

Since the 1950's and 1960's, tubular steel, used for

so long to support swings or fastened together into rectilinear monkey bars, was curved and shaped into variety of arches, circles, ladders, balance beams, swings towers and so forth. Although wood climbing structures, peeled tree trunks, sandboxes, and tree houses generally require more upkeep than concrete, treatment such as arsenic became preferable to the harder surfaces of concrete and stone. Although the alternative material showed some resolution in their usability, later these materials were considered

Lumber



Metal Tubes



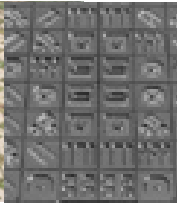
Mulch



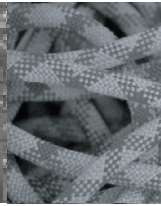
Pavers



Plastic



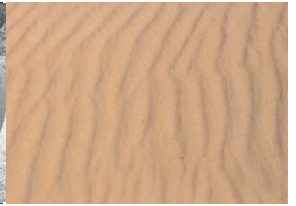
Rope



Rubber



Sand



Hut



Railroad Ties



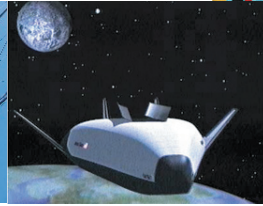
Train Tracks



Utility Pole



Vehicle



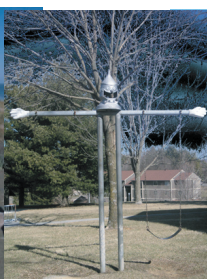
Walls



Sea-Saw



Swing



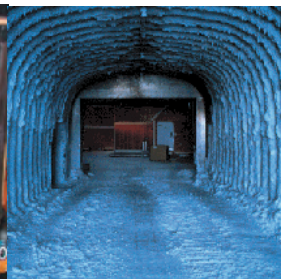
Slide



Tree house



Tunnel



toxic and dangerous for playground purposes. New playground equipment were created primarily in reaction to the dull colors of stark design of traditional play apparatus. Thus conventional swings or seesaws are sometimes decorated with bright colors, strips, or the attachment of comic heads.

Throughout the world, design efforts to improve the aesthetic appearance of playgrounds and stimulate children's imaginations with all sizes, shapes, and types

of materials only brought the onset of the rules and regulations that were influenced by concern over liabilities and accusations. However, all these attempts have yet to address a simple and succinct result of what constitutes an outdoor setting for play with its resolved specification of materials for the purpose of ground playing.

Thesis

What constitutes a site for outdoor play? How can a given site engender the natural curiosity of a child, while being intuitive, safe, and kaleidoscopic?

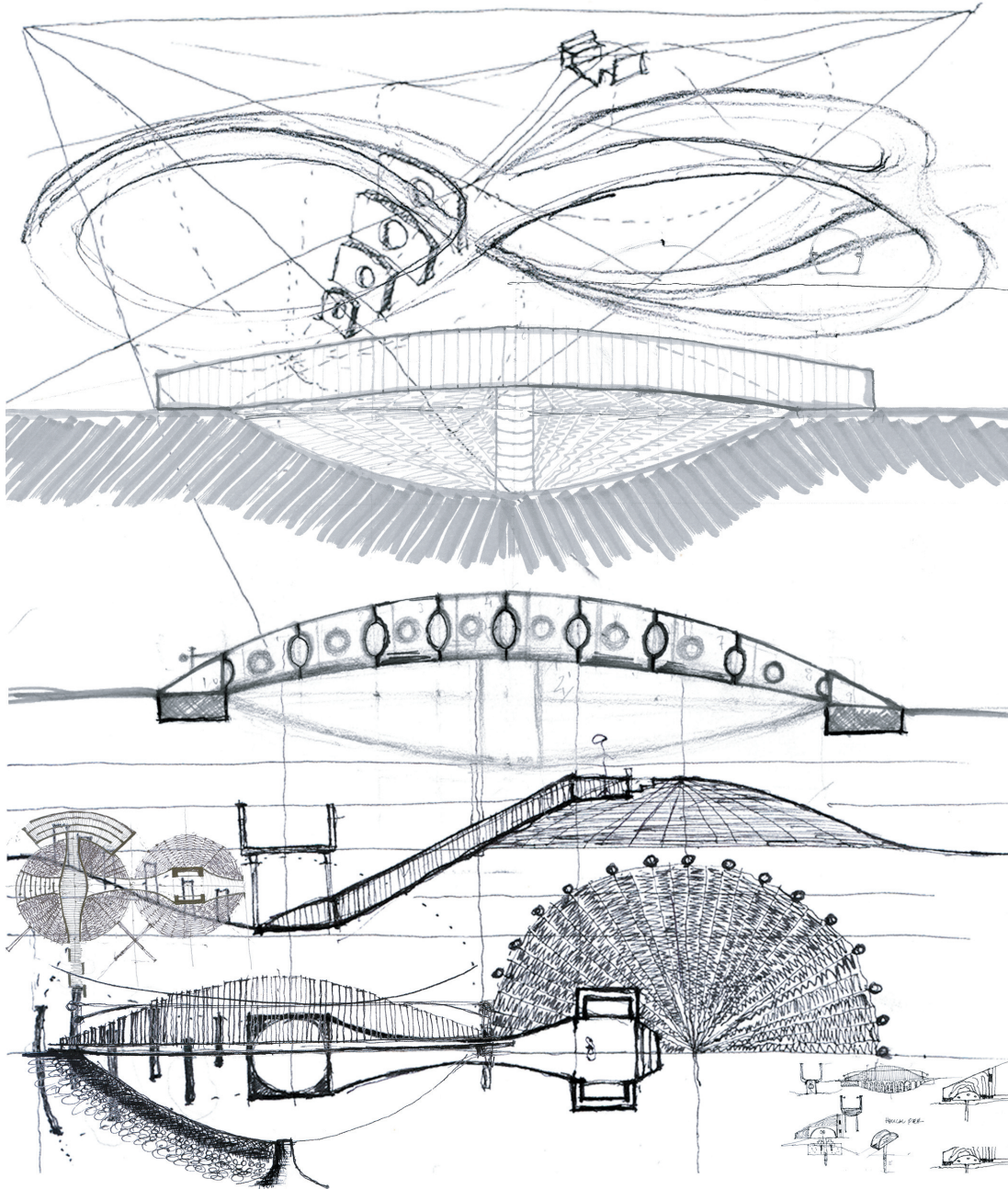
Children go about their playful desires, in their immediate environments spontaneously. Learning to look, touch, hear, and feel are the primary objectives of these early lessons in the playground, and it is a skill that is associated with all future learning and one that can last a lifetime. Playgrounds also offer a developmentally appropriate environment in which

children are given opportunities to make choices, pursue their own questions and concerns, connect what is known to the unknown, and be successful as they explore and discover through play, informal learning activities, and projects.

However, the existing playgrounds designated for play, there is a lack of connection between the parameters of the environment for play, the equipment used to play, and the rules and regulations that constitute the contemporary definition of outdoor play.



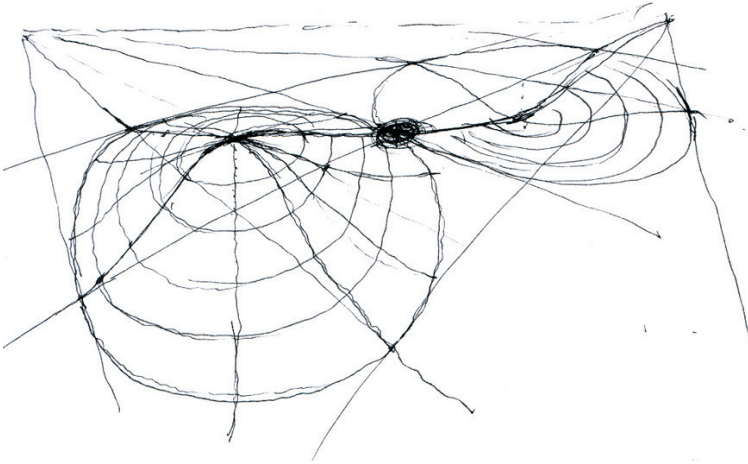
Generation



The preliminary sketches of this proposal attempts to develop from a specific site located in Blacksburg, Virginia. The evolution of the sketches stems from the possible usage of the actual site with its features, such as its hills, depressions that are part of the natural topography. Having to observe the site and realizing the existing natural features became the prime

influence to draw out the dynamic qualities of the actual setting. Hence the natural ground with its given quality generated what could be an alternative of establishing a ground for play. This in turn may eliminate the innumerable rules and regulations that often time create an obstacle for playground design.

Mound Building



Model and sketch of Mound building out of architectural terra-cotta

Earth Excavation

Archaeological research indicates the mounds of North America (area from the Great Lakes to the Gulf of Mexico and from the Mississippi River to the Appalachian Mts.) were built over a long period of time with several societies, ranging from mobile hunter-gatherers to sedentary farmers. The prehistoric mounds had a wide variety of forms and fulfilled a range of functions. Many served as burial mounds, individual or collective funerary monuments, a congregational spot for family, and a gathering place for local dwellers and villagers, as well as a place of diversion.

This proposal not only attempts to redevelop a play setting from a historical account that still has cultural integrity to land, but also recognizing how primitive cultures have used the earth, and how one can ascribe playgrounds as sacred settings. The two words, play and ground have been combined to denote playground. Since there is a strong connection between the word playground and what constitute play, reversing the word into ground-play, the reference

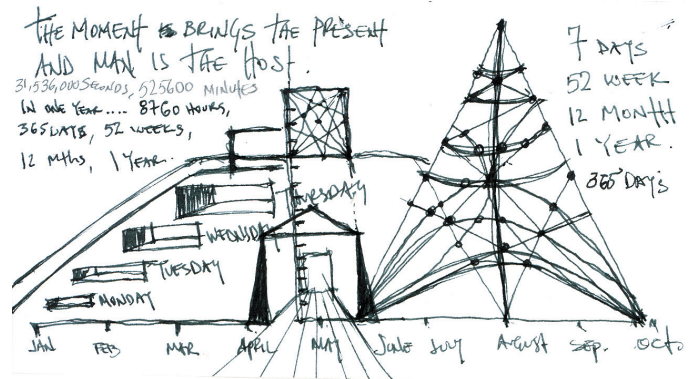
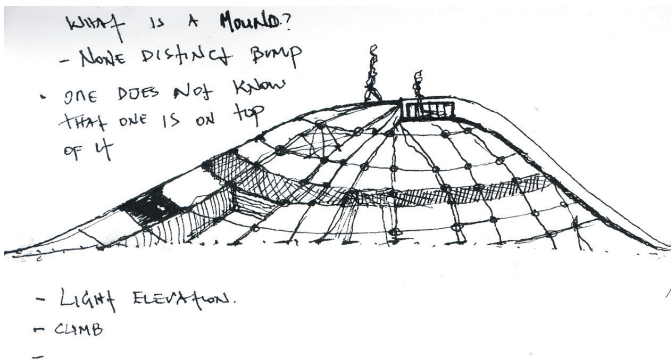
point of designing a place to play stems from the actual, tangible terrain. This process manifests stages of processes which get to be considered in three steps: earth excavation, earth rotation, and earth formation.

Initially, two circles are scribed about on a given site. From the one circle, proportional earth is excavated in a circular bowl. The slope, depth and curvature of the earth removal is proportional to a child's gait. All the earth that is excavated from the first circle is placed in a tangency with the depression. And this pile of earth is shaped into a mound in contrast with the dimple that is left after excavation. This process in turn creates a positive and negative condition that allow for a balanced treatment of the given site. This simple act of earth shifting, creates possibilities to introduce components that will embellish the overall appearance of a specific ground for play.

Focus

After searching for the origins of playground and given the social, cultural, and the historical precedence of its invention, further studies were conducted to focus and reference the thesis direction. Although the contemporary play equipment design is focused on, the limitations of safety regulation, by approaching the design from a basic landscape intervention promises

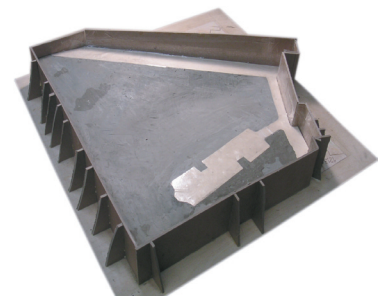
a possibility of an alternative ground play design. This approach cultivates the direction of the proposal in a way that mediates the polarities of safety issues, material deficiencies as well as the overall aesthetic appearance of outdoor play settings.



range inserts connected upside-down



wooden model of Moundimple



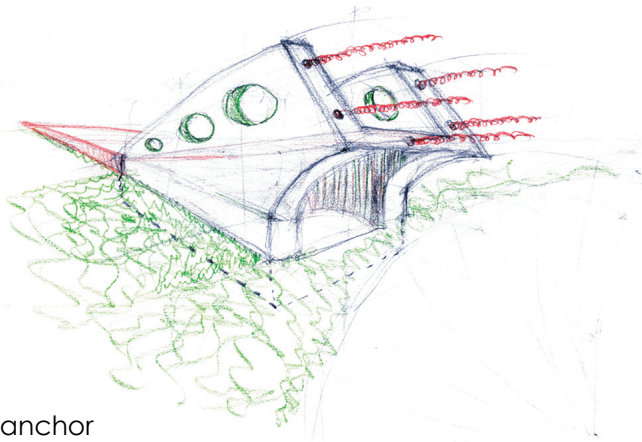
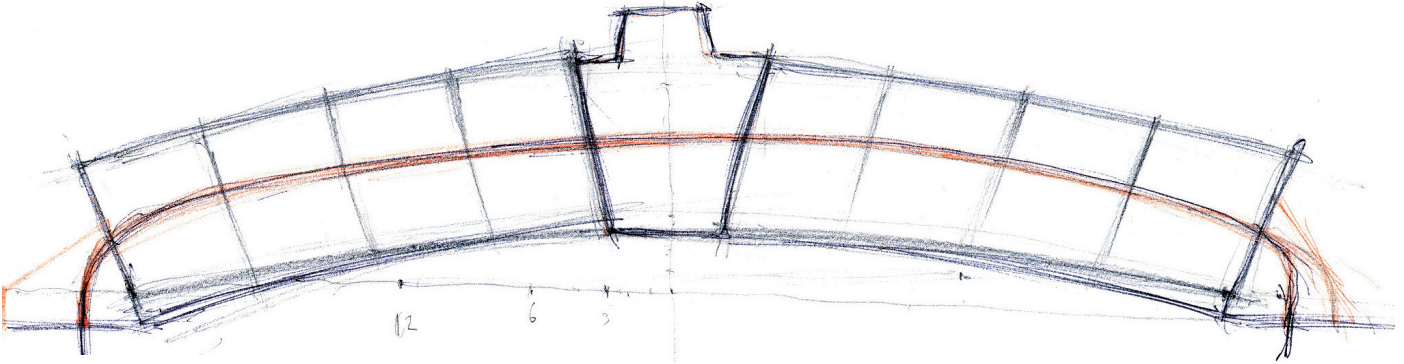
preliminary conceptual model
Clay and wood

Categories

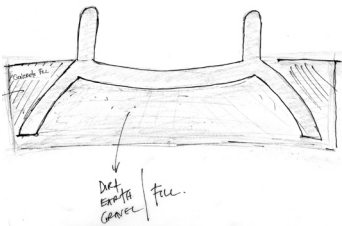
The other aspect of this process is the selection of existing material that manifests the essence as well as the reality of fabricated artifacts. Artifacts such as a range or a stove or sifter are considered with their certain formal elegance and practical and mundane

use. Looking into such objects and understanding their fundamental properties as well as designated usage reveal the truths about how playground objects could be designed in their given outdoor context.

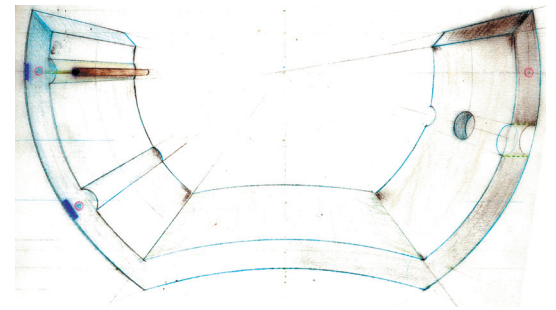
Keystone



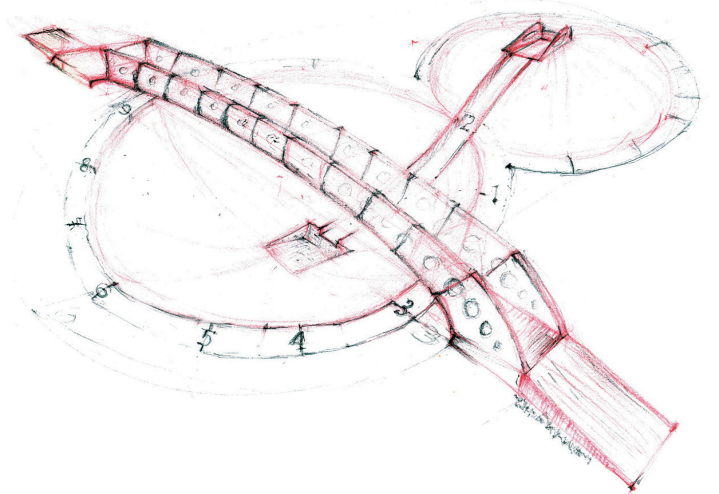
anchor



section of slide



keystone

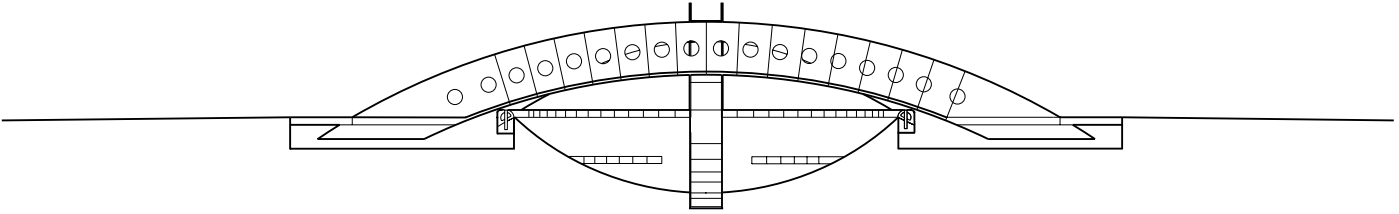


The traditional keystone has benefited the structural integrity of the true arch span. Using such a timeless element, the bridge for *moundmple* is constructed by replicating 10 pieces, which are wedge-shaped modules that radially array out of one center point from the earth with the two arches from the two corners that will lock in to create a sound structure. Underground footings of the anchor that stem out of the two anchor help attach the 10 modules. Handrails are introduced

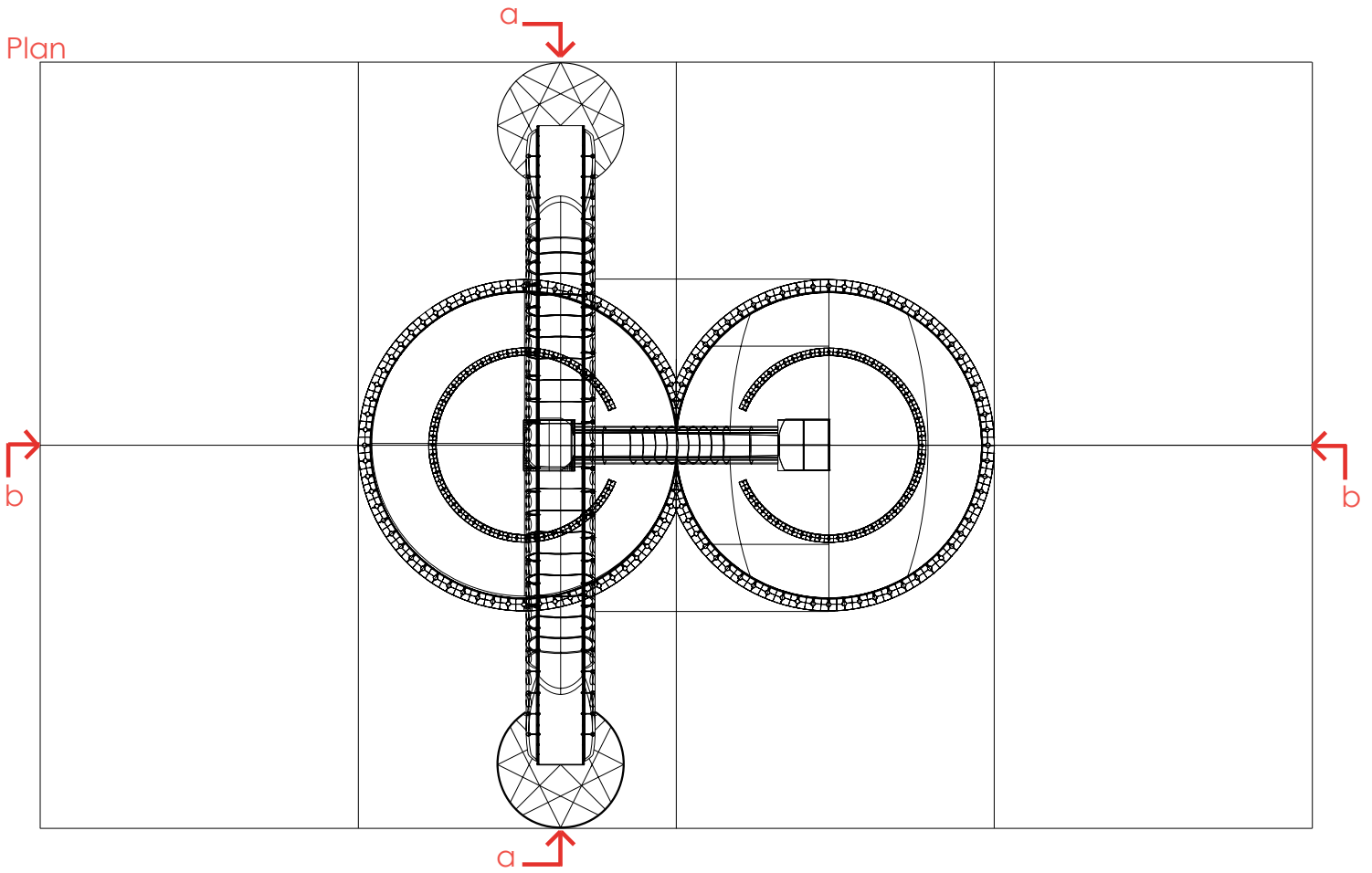
as part of the integral form and structure of the bridge. Alternative materials and process of manufacturing for groundplay are new and exciting. Composite materials from reclaimed combinations wood and plastic, metal and ceramic, concrete perlite. Stir the Imagination. Processing Methods may vary from single axis pressing, to hot liquid isostatic pressing, injection molding, and extrusion or slip casting.

Scheme

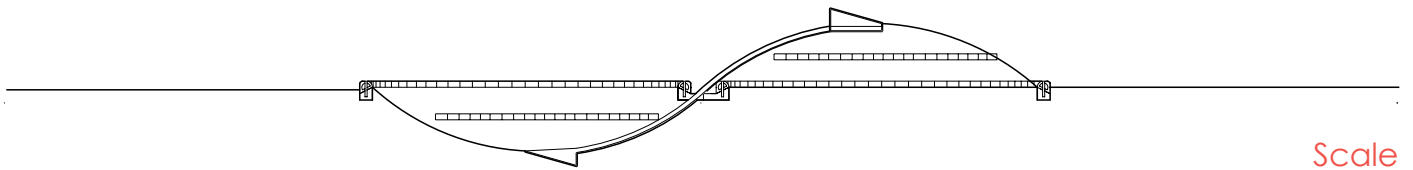
Section aa



Plan



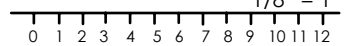
Section bb



S

Scale

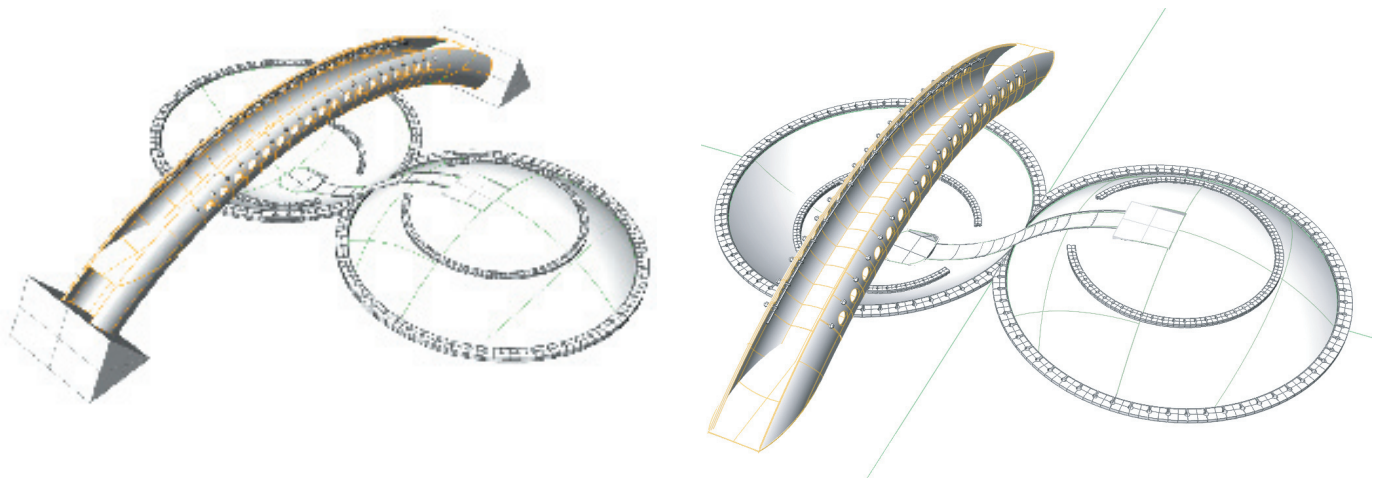
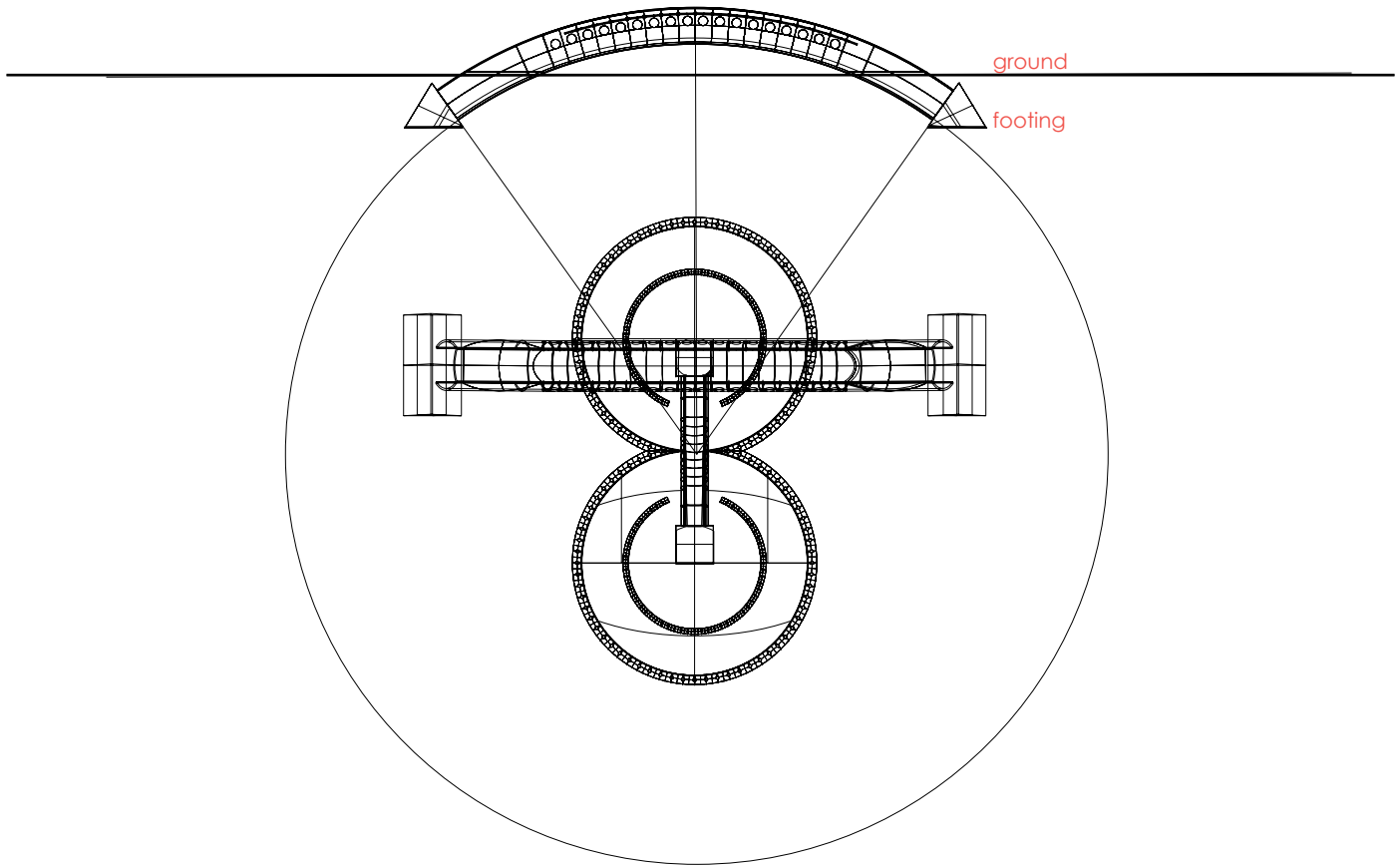
1/8" = 1"



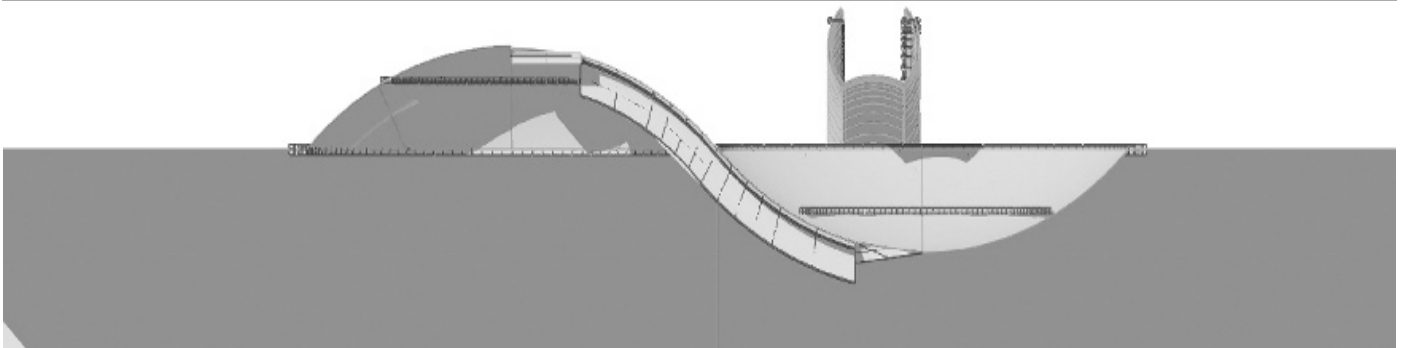
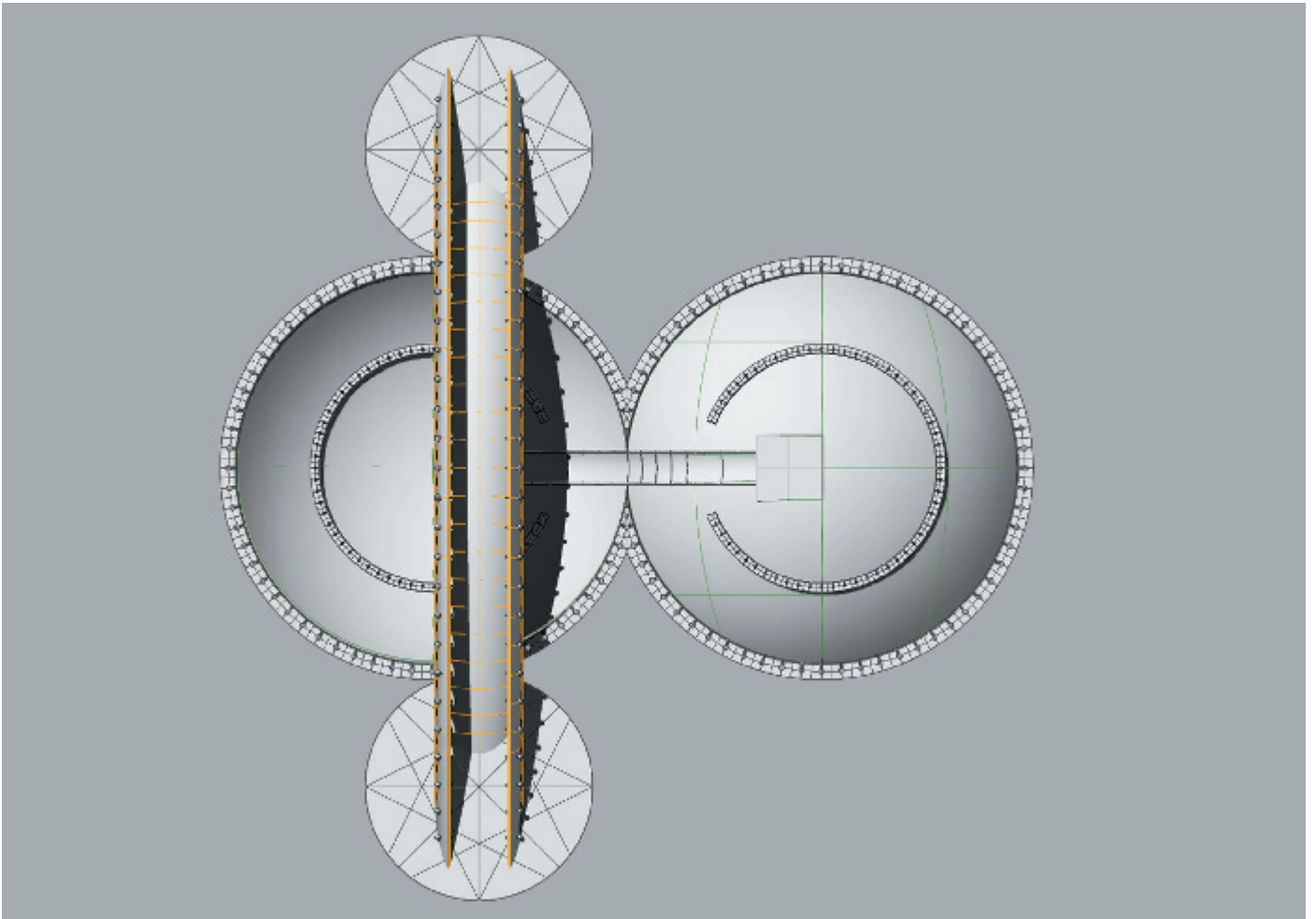
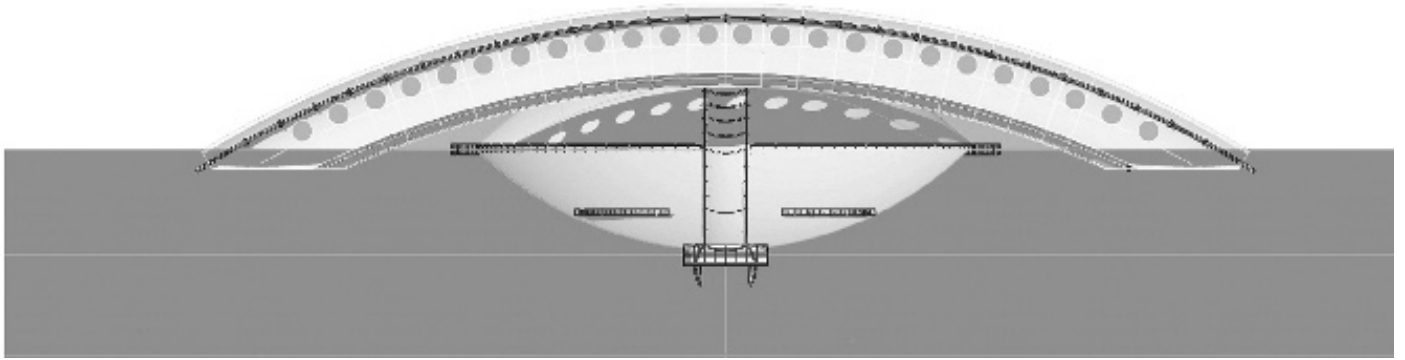
Construction

Underground footings of the anchor stems out of the two anchor to help attach the 10 modules. This footing not only helps to support the structure of the bridge but also establishes the aesthetic quality. It appears to shoot out of and disappear back into the ground.

By creating such a connection between the ground and the bridge much of the rigid and fixed boundaries established by rules and regulations can be diminished in this playground environment.



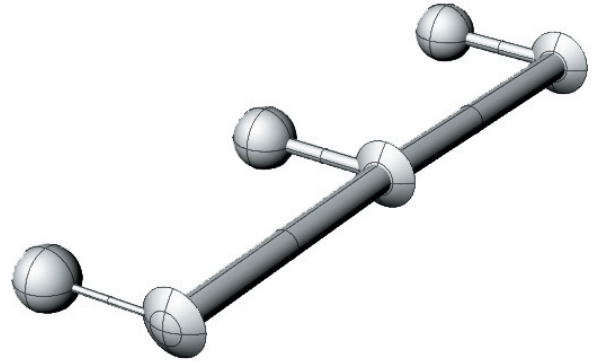
Elevations



Components



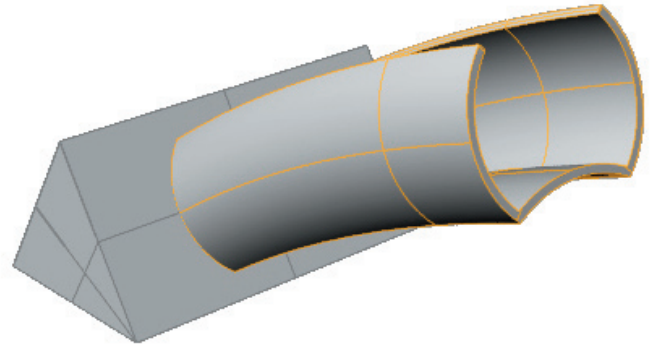
module



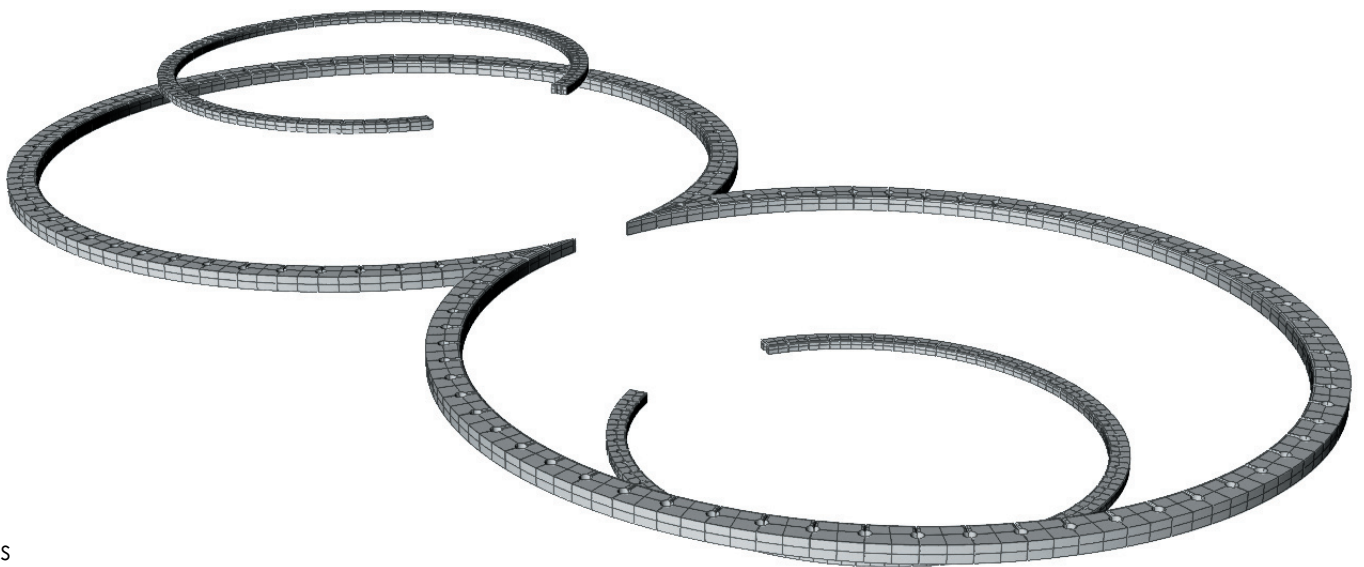
handrail



anchor with handrail

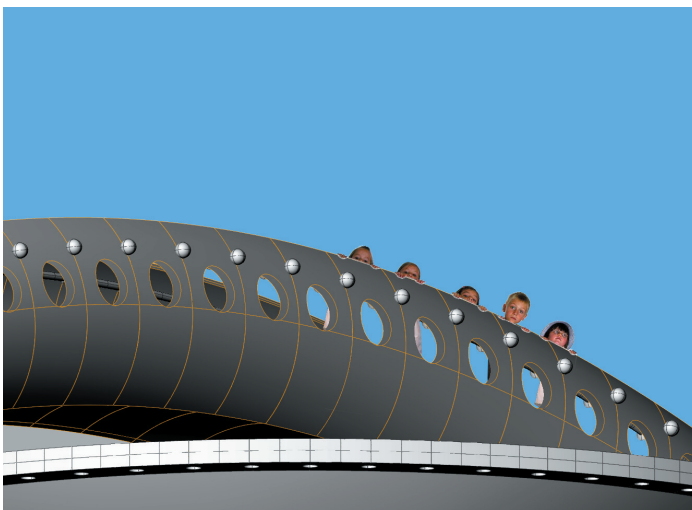
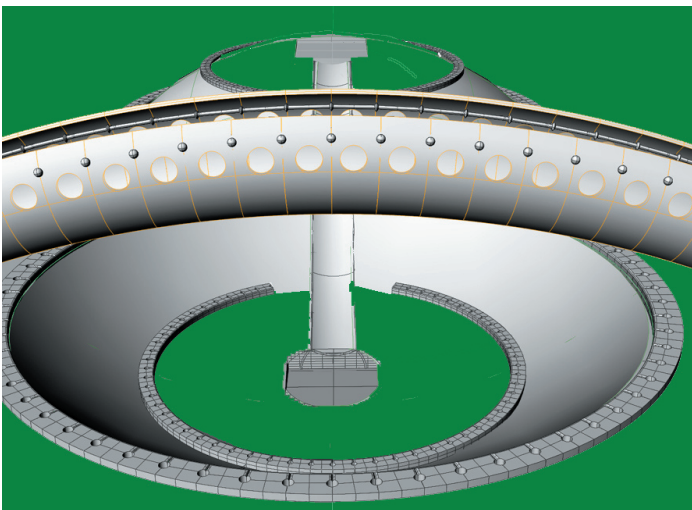
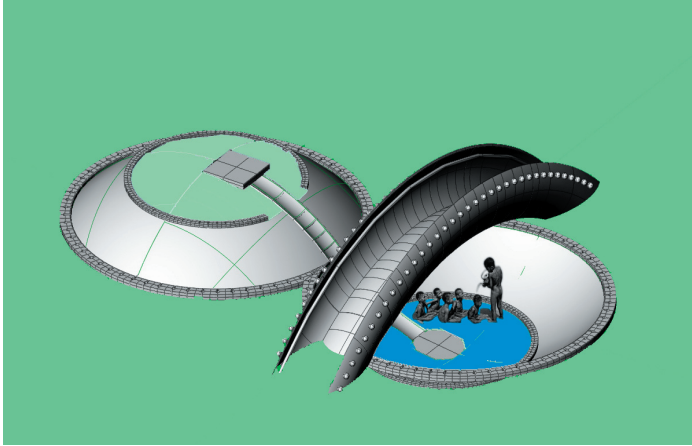


footing and anchor

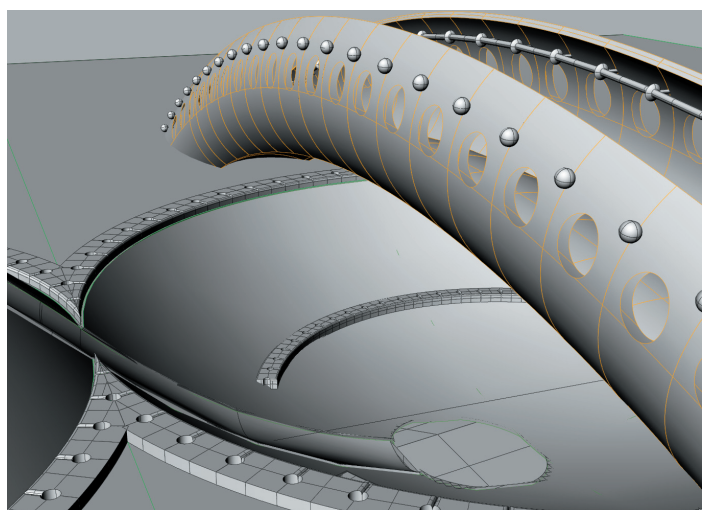
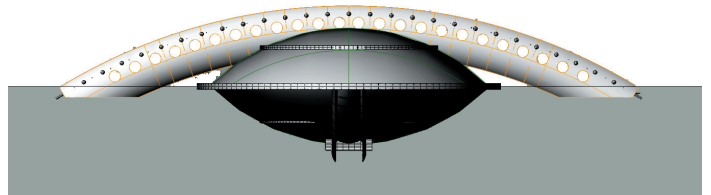
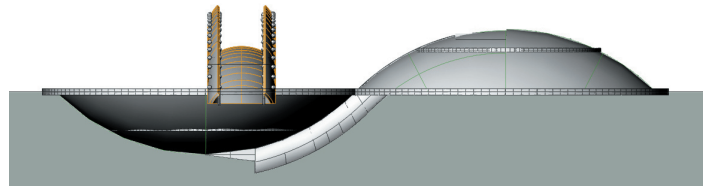


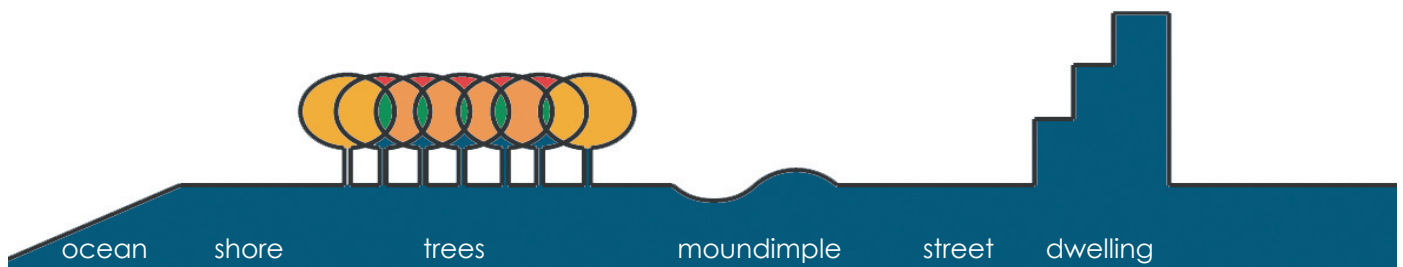
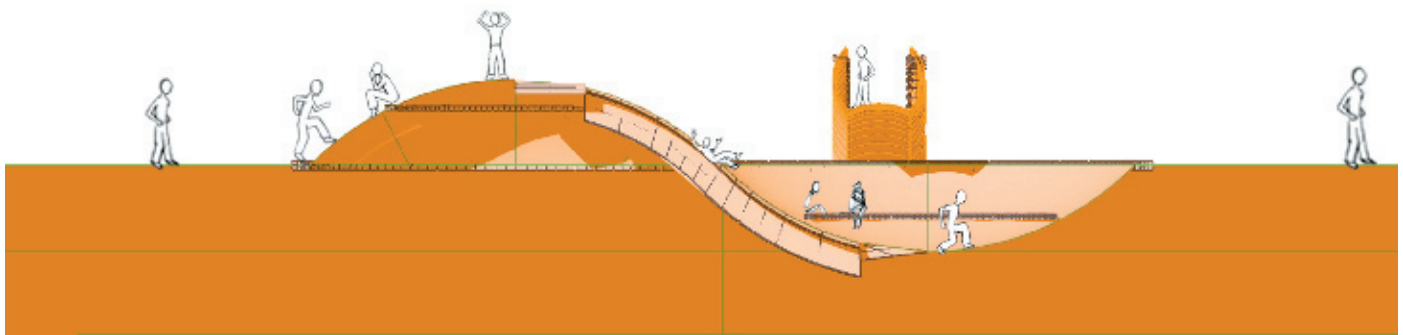
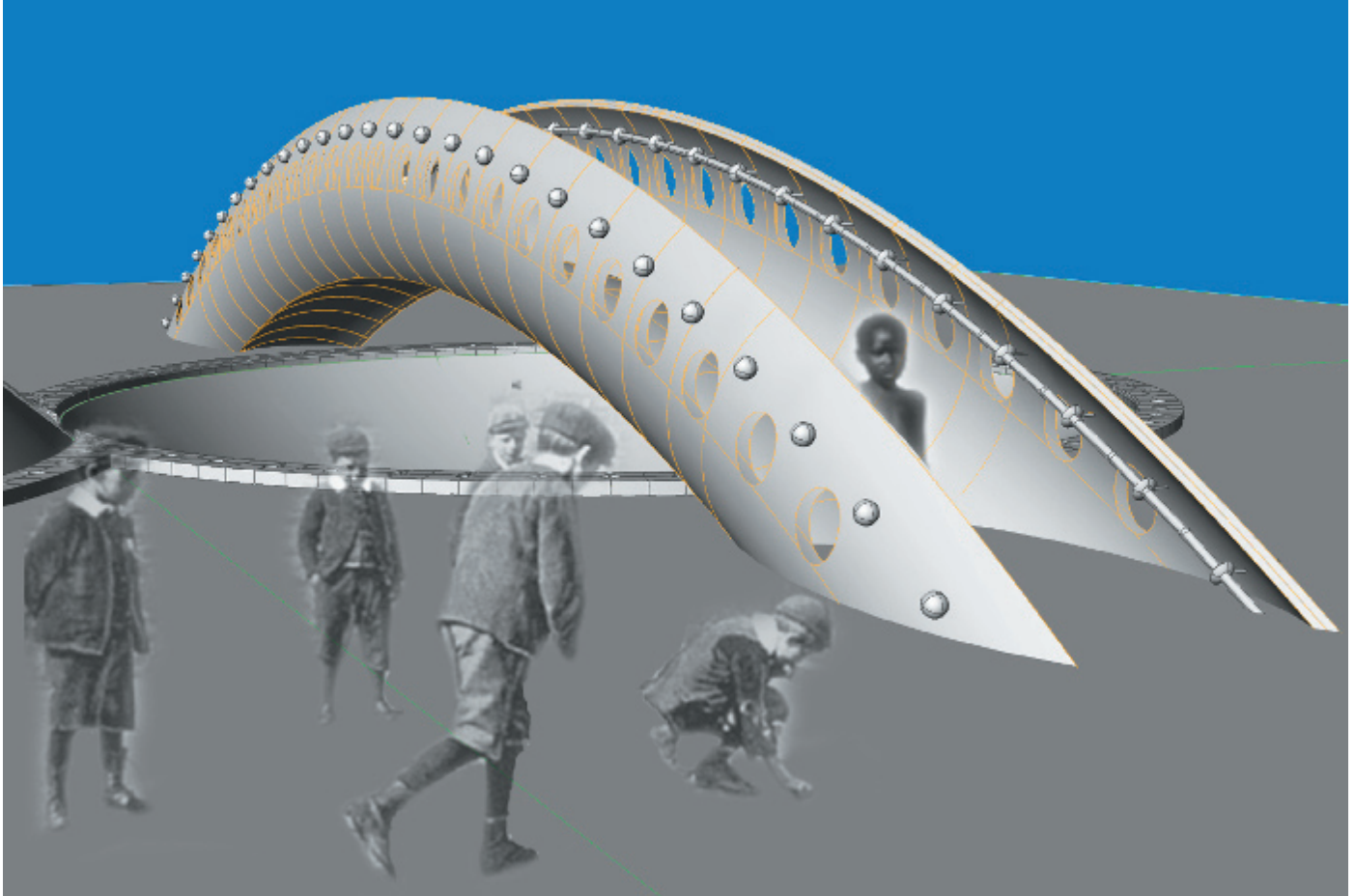
Tiles

Possibilities



Groundplay design is developed from ideas that are rooted in earth as a core material and the landscape. Through the usage of earth, cultivating a natural process and generating a uniform product that will yield to an integral connection with a site and a long-lasting product for outdoor play purposes. This approach is the fundamental reference point of the design.





Alternatives



clay models

Architectural Terra-cotta

The challenge that became apparent during conceptual modeling was connecting the artifact, be it slide, bridge or a tile boundary to the ground condition that was set between the mound and the dimple. Having to explore the possibilities of earth as a means of constructing innovative material for outdoor play purposes, (slip-cast architectural terra-cotta), with the process described below is used as palette for this proposal. Terra-cotta has been used to create many of our most beloved and whimsical architectural treasures, enlivening entire facades as well as many concealed and inaccessible portions of buildings.

Silt and Slip Casting

Silt is a soil with a very fine texture. It is unconsolidated sediment, that it has been deposited on stream and riverbeds and banks through a natural process called alluviation. Silt casting is the use of silt, to make molds and forms for the casting of various materials.

“Casting,” means “forming a given material into particular shape by pouring or pressing into a mold.” Silt can be formed into almost any shape, so molds can be made in almost any shape and a large variety of shapes and forms can be cast using silt as a molding material.

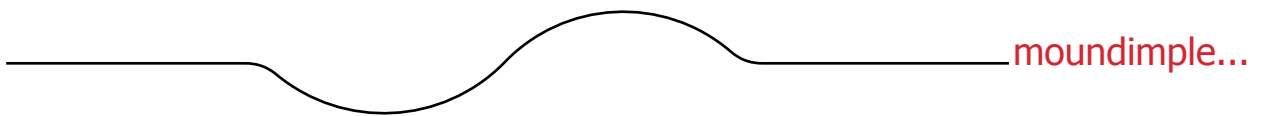
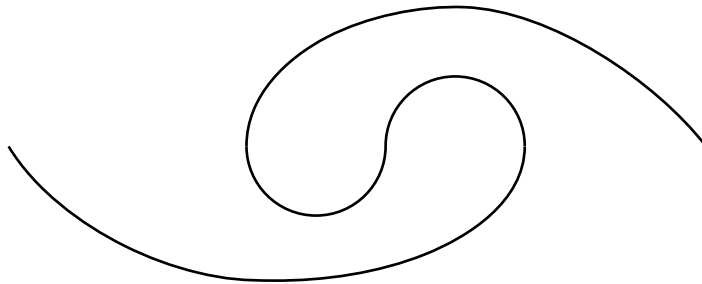
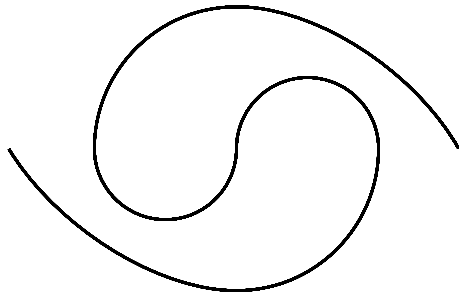
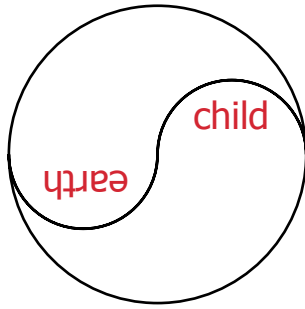
Silt has other qualities that make it useful for different types of craft and construction projects; first silt is a naturally occurring substance that can be found in almost every geographical area. Second, silt that has been shaped into a certain form does not crack or shrink. Third, silt can be washed away when the casting process is complete. (Soleri)

Slip is a technical term used by ceramicists for a liquid mixture of clay, designated as architectural terra cotta, earthenware, stoneware, and water used for casting. They are mixed together to make a thick clay soup.

For centuries, silt has been used to form as a slip cast, to decorate, to glaze and to finish ceramic pieces. The development of chemicals called “deflocculants” in the 19th Century made it possible to use slip for casting. That is because mixing these chemicals into the slip enables one to mix the slip to a thick consistency, which is necessary to the casting process. Hence, the keystones for groundplay can be fabricated with these manufacturing processes that will yield a total and unique palette for outdoor play.

Definition

Play is an illusive movement in space.



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Amarandi Barrett's Greece 4 Kids
www.greece4kids.com/ruins.html

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Machu Piccu Ruins, Peru, South America
www.geographia.com/peru/peruexplorations.htm

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Buongiorno dall' Italia!
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Page d. Image 5

Early History of Playgrounds in the United States
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Page d. Image 7

"Moundimple" Clay Model. Nebiyou Tekle

Page e. Image 8

Architecture News Online
www.architectenwerk.nl/box/archief.9907b.htm

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The Revolution of the Roundabout
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Paul Friedberg
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Bryan Ohno Gallery. Isamu Noguchi. Modern Master Sculptre
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