IDEA RESOURCE BOOK

COME ALIVE
OUTSIDE
The following pages contain all of the creativity produced in the Come Alive Outside design competition. While the designs where site specific, ideas presented will hopefully inspire others wherever they may be.

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Sangre Ridge Outdoor Classrooms

This book is a part of the “Come Alive Outside” design competition. Inside includes various designs for outdoor spaces. The spaces created include an area functional as an outdoor classroom, a certified wildlife habitat, reuse of materials, and encourages interaction with the environment.

The designs were created through a long process beginning by working with the third grade classes at Sangre Ridge Elementary School in Stillwater, Oklahoma. The third graders gave a guided tour of their outdoor nature trail to Oklahoma State University landscape architecture. The nature trail travels through a variety of spaces including a cedar forest, a deciduous forest, open fields, a pond, and an ephemeral wetland. This outdoor nature trail acts as the basis for the designs in this book. A few days later, the Oklahoma State students gave a lesson on the habitat and then led a design charrette. Part of what made this project interesting was getting to see it through the eyes of the third grade students. Finding out what they would like to see in the nature trail and what they find exciting about the outdoors proved to be an excellent experience for the design students. From the children’s ideas, which ranged from a giant chocolate volcanos and spaceships to creating animal habitat, designs were created that proved to be functional, educational, safe, and fun for the current and future students at Sangre Ridge Elementary. After this meeting students began to design outdoor spaces with the children’s input in mind. A group of professionals then came to give their advice on the designs followed later in the week by a group of high school students. Finally when the designs were done, the students at Sangre Ridge voted on their favorite designs.

Although a trail exists on the site currently, the site does not bring in as many users as it has potential for. The following designs make use of the outdoor space and encourage people to get outside and interact with the environment around them through various ways. The designs encourage both active and passive play so all types of children and users will be able to use the site. Active play and interaction is accomplished through designs that include climbing, running, hopping, etc. while passive play interacting is accomplished through design elements such as sitting, observing, laying, etc. Ultimately, the goal was to have users engage the environment physically and mentally.

The spaces designed are not only to function as play areas but as diverse learning environments. Learning can take on many different forms. The classroom setting is a place for lecture
and discussion. Outdoor learning allows the user to see nature from multiple vantage points enables one to see how various aspects are interrelated. Nature also allows us to have environmental learning opportunities through its streams, forests, wetlands, and other habitats. The interaction between humans and nature is not as strong as it once was with previous generations. Come Alive Outside is a project to bring this interaction closer together while providing education for kids through place associated learning. In the following designs, each area has a space that can be used as an outdoor learning classroom. These vary from open fields for seating to stumps for the class to sit on. These creative ideas for outdoor classrooms encourage interaction with the environment, engaging a different kind of learning, and a relationship with the surroundings.

These spaces were all designed with recycled materials, as a part of the “Come Alive Outside” guidelines. Using recycled materials is important for three reasons: it’s economical, environmentally friendly, and dynamic. These spaces can be created because the materials are recycled, causing the cost of construction to be minimal and feasible. The materials used in the following designs can be found and upcycled as play equipment. Using recycled materials also has a positive effect on the environment. By reusing materials for these designs, they waste nothing and create something out of otherwise considered “waste.” Lastly, using recycled materials we create an interesting and dynamic space. The looks of each design are creative and use interesting means to accomplish their goals. This causes unique outdoor spaces that attract users.

As one designs outdoor spaces we must always remember the outdoors are home to many species already. With “Come Alive Outside” outdoor spaces are required to create or preserve a certified wildlife habitat. Certified wildlife habitats include four main pieces: provide food for wildlife, supply water for wildlife, create cover for wildlife, and give wildlife a place to raise their young. Each of these pieces is vital to wildlife’s existence and need to be created or maintained in outdoor designs. Our designs have made a conscious effort to create certified wildlife habitats so that our designs not only positively affect humans but also the wildlife.
This area contained an existing trail where we selected 5 different sites based on various habitats. They included:

1. a deciduous forest
2. a prairie meadow
3. an ephemeral wetland
4. a cedar forest
5. a pond
The Amphibian Pad

My process started with the kid’s description of the site, and while it was not completely accurate it did help to sum up the site and present it in its purest sense. The children then took me to their favorite place, and through drawing showed what their imaginations dreamed up for the site. I then took their wild ideas and translated them into real world elements such as an interactive viewing deck and terrarium style wildlife viewing. I then worked with professionals to hone these designs and integrated their expertise to create a strong and effective outdoor classroom.
The Amphibian Pad brings kids and wildlife together in a natural outdoor classroom setting. The focal point of the site is the dock which features habitat rich "insets." The design of the dock allows kids to gather around the aquatic habitat and observe the diverse amphibian, reptile, and insect wildlife in the shallow wetland area. Sign plaques also offer information about the diverse wildlife of the wetland, and how we have an impact on the habitat. The dock brings students to the water's edge which hosts the area's most diverse wildlife. By increasing the vegetation around the pond and creating a shallow, densely vegetated shelf a habitat ideally suited for aquatic wildlife is created. Kids will have the opportunity to see native Oklahoma turtles such as the Red Eared Slider, Box, and Map turtles. The improved pond habitat is also designed to attract a wide variety of frog species like the Spotted Chorus Frog, the Eastern narrow-mouthed Frog and the American Toad. A wide variety of insect life such as dragon and damsel flies would thrive in the pond habitat, providing food and other ecological benefits to the site. In addition to the educational dock area a trail runs around the pond to allow kids to explore the entire Riparian habitat and contrast the densely wooded habitat and the wetland area of the pond.
Bird Walk

After meeting with the kids at Sangre Ridge Elementary and learning more about their Outdoor Classroom I decided to develop an experience for them that would enable them to get to see the wildlife, specifically the birds, on the site.

The next step was to design something that would elevate the visitors and give them a bird's eye view of the area. Thus I designed a raised boardwalk that was interwoven into the existing vegetation and trees, accentuating the pre-existing sitting area around a large tree.
The Bird Walk that is incorporated into the existing forested area of the outdoor classroom brings the students and other visitors closer to the wildlife activity. The raised boardwalk reacts to the environment and weaves in and out of the area around trees, and over the trail so that users can get the most out of their experience while having a minimal impact on the wildlife.

Bird feeders, bird houses, and bird baths will be placed throughout the tree canopy so that the bird on the site have opportunities to take refuge but also provide an interactive experience for the students to observe the birds from a safe distance. Being elevated on the boardwalk also provides a sense of being in the trees with the birds, which is an engaging aspect to the design. The winding design of the boardwalk creates a sense of wonder as the students and visitors progress through the Bird Walk, and the change in elevation throughout the boardwalk adds variety to the experience by witnessing birds from different perspectives.

The engaging design of the Bird Walk is laid out in a manner that encourages the conservation of the existing vegetation and environment. The elevated nature of the boardwalk also encourages the continued circulation by the wildlife, by not interrupting the movement throughout the woods. The materials used in the construction of the Bird Walk could vary from reconciled wood from local demolition projects to treated new lumber.

The whole design was planned with the wildlife in mind, and to encourage the most possible involvement by the students in this outdoor classroom.
OBJECTIVE | Through the competition, Come Alive Outside, we were presented with the opportunity to develop an outdoor learning space that incorporated a certified wildlife habitat that would inspire children to get outside and interact with the great outdoors.
TALL GRASS HAMMOCKS | Perspective

Project Statement
This outdoor learning space was designed to maintain the beautiful existing tall grass meadow on the site and breathe new life into the site with an inspiring forested, hammock classroom. The project title came to be called the "Infinity Forest", and was conceived by the idea of nature's full circle process, and how it can experience death, while at the same time creating life. The full circle process is expressed by the "Infinity Tree", as the center piece of the site and then surrounded by the encompassing forest. The decreasing sizes of the tree trunks portray the decomposition of a tree (death), then coming around full circle then completing the circle idealized by the surrounding trees within the modified infinity ground plain. My hope for this design is to give teachers the capability to stem numerous lessons of nature through the concept of this site, and to give the kids a place to learn, explore, discover, and interact with something that should be.
While visiting the site with the third graders, I noticed an interest in standing on top of equipment usually designated as seating. This influenced my design heavily and I created a playground that can act as play equipment but also be used as seating for an outdoor classroom. They were also very interested in the animals who could live out there, such as rabbits. The drawing to the left gave me the idea to use logs as stepping blocks. Speaking with professionals influenced me to enhance my design to a more dynamic space with both the active and passive area. In doing so I used the passive play area to create a built habitat for rabbits for users to observe. The high school students comments influenced me to re-render my drawings in order to show my area in a more explanatory and simple way.
My design centers on rabbits. It has two parts, a playground and a clover field. The playground will be for active play whereas the clover field acts as an area for passive play and rabbit habitat. Including both passive and active play encourages interaction with the environment for all types of users.

The playground is a series of recycled materials for children to interact with that imitate the actions of rabbits. The balance beam logs are zig-zagged in order to imitate how rabbits run away from predators. The stumps are to encourage hopping from one to the next like rabbits. The pallets are built to recreate the idea of a rabbits home, a burrow. Lastly, various sized buckets are placed in the middle to "thump". Rabbits thump their feet to alert other rabbits of oncoming predators. With different sized buckets it will act as a sound garden as well, each providing a different tone of noise.

The design is located in a cedar forest and would require the removal of 5-10 trees. These trees will be recycled in order to create the playground and also brush piles for rabbits to live in. Along with brush piles, the rabbits may live in simple man made burrows on the west of the site. The cleared area will be planted with clover, a food source of rabbits that grows in various conditions, including shaded areas. A pond for water is located south of the playground.
The purpose of this project was to push interactive education in the outdoor environment. Keeping in mind the kids’ designs of what they would like in a outdoor classroom, we were able to come up with ideas useful within our own designs. This specific design uses a system of runnels connecting different interactive elements that teach children about the importance of water and the wetland habitat. These interactive elements simulate natural settings associated with water. The runnel system acts like a river system that is part of the much larger water system. At each interactive element children have an opportunity to learn about underground aquifers, water pollution, sedimentation, and the importance of conserving wetland habitats.
Perspective of runnel system with an interactive pool and stepping stones
A hand operated water pump controls the flow of water to the runnel system, here children can learn about the underground aquifers. Then the water continues down the runnels where children have control of which runnel they want the water to go down controlled by open and close valves. From here they can follow the runnel of their choosing and learn more about the water system and how it works with the environment. As the water reaches the last stop, the wetland, they learn about the importance of the wetland habitat and how these areas recharge the underground aquifers.

The runnel system is made up of recycled materials such as wood, metal, and other products and conforms to the existing landscape as to not disturb the wildlife and their habitat. This careful placement of design within the existing landscape creates an environment for multiple users to interact. This promotion of interrelationship creates a unique learning experience where one can view, touch, and create a more advantageous environment for everyone.
The design process for The Hut was pretty simple.

Basically it is a way to interact with nature from a distance, after all that's how most interaction with nature should be.

Surrounding the hut are areas to plant forage material for the wildlife.

It also provided an outdoor area underneath for the small classrooms to assemble.

The materials used could be found locally and easily, while construction is also relatively simple.
Coloring Book Image Caption Here
The Hut is a safe and interesting way for children and teachers to interact with the local wildlife while not interfering.

There is almost a completely uninterrupted view from the observation deck in all directions, and is accessed by the ramp.

Underneath the observation deck is a partially enclosed classroom for meetings or activities.

The structures frame is built from recycled lumber while the facade is collected downed branches which can be replaced as needed by anyone willing.
Turtle Habitat Observation Net

This portion of the site has a pond which stays full all year. While this is a unique opportunity, it also poses many constrictions due to safety. How can you let kids interact with the pond while keeping them safe and out of the water? My design solution back a net deck.
LEGEND

1. Food Source
2. Water Source
3. Shelter
4. Raise Young
5. Innovative Reuse of Materials
6. Used Cargo Net
7. Red Cedar Wood
8. Interaction with the Environment
9. Net Observation Deck
10. Observation Deck
11. Functional Outdoor Learning Space
12. Observation Deck
13. Gathering Place
14. Gathering Place
The pond on site creates a unique opportunity. It provides habitat to species that you won't find anywhere else on site; these species include: Fish, frogs, turtles, ducks, and other waterfowl. However, a large body of water can be dangerous for kids. How can we create a pond into a safe, yet exciting place for kids to learn about this unique habitat? My design solution uses the idea of a deck made of recycled net. This net would be strong enough to hold several children, also low to the water surface and ground so that children can lay on the net and watch the turtle habitat up close— but without disturbing it.
I came up with this outdoor learning area by going through what the kids wanted the most, tire swings and of course Tree Houses where two of the most requested items. With that I used Recycled material to come up with a outdoor area that acts as a squirrel play area for kids. Adding squirrel houses creates more nature for the kids and allows them to interact with nature.
Squirrel World: Outdoor Play Area
Squirrel World is a place where kids can learn climbing skills, watch and learn about squirrels, and interact with their friends and nature. The wood is recycled posts from old buildings and the tires are recycled tires that are too old to be used any more. There are three squirrel houses on the post to attract squirrels for the kids to watch. Squirrel world has a tire trail that leads to a tire tunnel. There is 14 small tire swings that surround one large tire swing for multiple kids to use. When it all comes together you have an area where kids and squirrels can enjoy their time outside connecting with nature.
The Kids know what they want!

When I brought over the large piece of trace to my kids, I told them to let their imaginations run wild. Surprisingly, all they were concerned about was the welfare of the wildlife out on the site. There were no ideas that were totally unrealistic. They drew animals, trees, and habitats for what they hoped to see. Birdhouses and gardens were their main emphasis. With their input, I started to craft my design. I wanted to keep a wide open view so as to not overwhelm the eye, and construct key features on different sides of the site to create more movement through the area.
Color The View!
Outdoor Classroom: Tall Grass Prairie

**LEGEND**

**WILDLIFE HABITAT**

1. Bird Feeders and existing vegetation provide a wide variety of food for animals.

2. The Existing Trees are a key component for shelter and raising young for various wildlife.

3. The butterfly garden creates a habitat for numerous species of insects to live and thrive.

**INNOVATIVE REUSE OF MATERIALS**

4. The decking used for the observation area is recycled wood from old barn doors and the railings from existing wood on site.

**INTERACTION WITH THE ENVIRONMENT**

5. With newly laid paths throughout the existing tall grasses, a new experience of exploration is created for all to enjoy.

6. The butterfly garden is an experience that differs from the existing site because children are free observe while touching numerous types of plant material and insect life.

7. The decking is built into the forested area, where viewers will be able to observe different species of birds in their natural habitat.

**FUNCTIONAL OUTDOOR LEARNING SPACE**

8. Proposed oak planting acts as a natural central gathering space for rest and shade.

9. Avian Observation Area

10. Butterfly Garden
With this project, I really wanted to present an opportunity by letting the children explore the wide open spaces that their prairie portion of their outdoor classroom had to offer. In doing so, I didn't place many built structures, but mainly enhanced the already beautiful scenery. By improving circulation and placing three main points of observation, I was able to create a more integrative and enjoyable experience for those who occupy the area frequently.

On first observation of the site, I diverged from the main path and stepped into the tall grasses, feeling a sensation of open countryside. In doing this the children told me I wasn't allowed to stray from the single path because of the possible danger of snakes in the grasses. After coming back, I realized that this chance of being surrounded on all sides of this vegetation was too good of an experience to not take advantage of. Therefore, in my plan, I created more circulation and points of interest on both sides of the site.

When sitting down with my kids, and asking them if they could create their own fantasy outdoor classroom, they kept bringing up the notion of creating more of a habitat for birds. They also hated the notion of not being able to touch anything on site. Forcing to stay on one main path and keeping hands in pockets seems like no way for a child to learn about the world around them. So for this reason, I created a butterfly garden that they could actively interact and connect with. Observing different types of vegetation and insects in their natural environment is a great way of letting the kids learn about habitats.
Praire of Stepping Logs

I had the opportunity to work with a group of third graders and high schoolers to allow input on the outdoor classroom behind Sangre Elementary School and Middle School. I was able to experience the site with a group of five kids to walk through hearing there input of the trails, views, and what ifs. During this process, the kids took time to draw some ideas of there own that they would like to see and be involved with. The ideas were exciting, unique and almost impossible. The energy each kid had mimics this statement "limitless opportunities for an outdoor classroom." This began my thought process of taking a stepping log idea, that one of the kids had, into the praire.
Butterfly Prairie of Stepping Logs
The purpose of my project was to create an area in an outdoor classroom site. The specific area I had was the wildlife prairie. I had the opportunities of unlimited ideas from the kids for this specific area. I took in a couple ideas of a fountain, butterflies, foot touching experience and logs. I wanted to incorporate and simplify all four ideas into one. The stepping logs allowed for different height experiences as well as a sense of depth into the prairie. The stepping logs lead to emphasize the butterfly statues in three different areas. There is an area that allows for the kids and teachers a chance to feel different textures on the ground within a walking circle. The textures can be changed out throughout the year. It is not permanent so the teachers can have the opportunity to have different ways of feeling textures, rough, smooth, soft or hard. There is a meeting area connected to the log fountain and stepping logs. This area allows for each stump a kid can claim to paint there name or design. This will allow for the kids to feel connected to the stump in a way. The prairie itself is a wildflower prairie. This will allow for the kids to throw wildflower seeds into the prairie a few times a year. The Butterfly prairie of stepping logs became a big idea into something very simple and unique experience.
The Prairie Classroom

The Prairie Classroom is an outdoor classroom designed in collaboration with the Third Grade Class at Sangre Ridge Elementary School in Stillwater.

Students gave Oklahoma State University's Landscape Architecture studio a tour of the site and input as to what a student would like have in their outdoor classroom.

After completion of a design charrette, or an intense period of designing and planning, the Landscape Architecture students presented their designs.

This is one of the winning designs voted on by the Third Grade Class at Sangre Elementary!
Help color in the Prairie Classroom to decide what plants would look best in your new outdoor classroom.
Today in the United States our youngest generations are becoming less and less connected with the outdoors. Oklahoma State University’s Landscape Architecture students have completed designs for one of Stillwater, Oklahoma’s elementary schools, Sangre Ridge. This design concept of the prairie portion of Sangre Ridge’s outdoor classroom has developed into the Prairie Classroom.

The primary goal of the Prairie Classroom is to help students become comfortable and familiar with the tall grasses of the prairie through the use of the senses. Students also have the opportunity to experience and learn about the habitats created not only in the adjacent timbers but also within the tall grasses themselves.

This goal of educational experience through the Prairie Classroom is achieved by constructing a series of installations that promote both passive and active learning. The materials are to be repurposed from sources throughout the region. These include wooden telephone poles as well as corrugated steel from old barns.

Multiple viewing stations are to be constructed in addition the Lookout Point. Lookout point also incorporates a slide and a boulder climb. An interpretive impression of Native American teepees in a campsite creates another space for outdoor education. The interpretive campsite links together with the Prairie Classrooms primary trail and Lookout Point by a system of stepping stones created from repurposed telephone pole ends.
Children can experiment with sound on this rainwater fueled xylophone.
MUSIC GARDEN

The music garden is an innovative and explorative learning space. It was born in the heart of collaboration. The third grade class of Sangre Ridge elementary school drew up maps for our guided tour of their favorite outdoor classroom space.

Oklahoma State University’s Landscape Architecture studio hosted a design charrette with the third grade class. We collectively noticed the children’s want for interaction with the environment, and separately we began to form our ideas.

The Music Garden won overall favorite within our studio as well as overall favorite within the third grade class.
Art funds within our school systems are consistently cut. Children can be left without exposure to many wonderful opportunities, such as music. The music garden is an instrument that can help teachers convey the many different principles associated with sound within a changing and engaging natural environment.

The Music Garden blooms in spring. The seasonal rainfall will not only fill the ephemeral wetland site but also play a part in learning. The water xylophone has the ability to catch and release rainfall, which teaches children about measuring precipitation as well as evaporation. Children can observe and interact with the wetland from the observation deck. The deck is surrounded by mock steel cattails. Holes of different sizes are drilled into each cylinder with the intent to create whistles by means of the wind.

Chimes hang in a circular fashion along the trail. The open base will allow the children to touch the chimes and experiment with the different tones it makes. An ascending row of recycled and painted PVC pipes give children the opportunity to hear the hollow sounds of the pipe when struck. The final element is a giant homemade guitar. Two recycled barrels will be the amplifiers of the taunt strings pulled between them. Kids can play from both sides and experience the reverberation created by the hollow plastic bins.
COME ALIVE OUTSIDE

GETTING KIDS EXCITED ABOUT BEING OUTSIDE WAS THE FOCUS OF OUR PROJECT FROM THE VERY BEGINNING. IT DIDN’T TAKE LONG TO REALIZE HOW SHARP THE GROUP OF THIRD GRADERS WE WORKED WITH WERE AS THEY DESCRIBED VERBALLY AND GRAPHICALLY THE EXISTING OUTDOOR CLASSROOM TRAIL WHILE STILL INDOORS. THEY COULD HARDLY CONTAIN THEY’RE EXCITEMENT AS WE HEADED OUTSIDE, BUT THERE WAS LITTLE OUTLET FOR THEIR PENT-UP ENERGY AS WE HIT THE TRAIL, SO THEY RAN AND SHOUTED WITHOUT MUCH INTEREST IN THEIR ENVIRONMENT. WHAT THESE KIDS NEEDED WAS SOME WAY TO PHYSICALLY ENGAGE THEIR SURROUNDINGS BEFORE THEY COULD MAKE THE LEAP TO CONSCIOUS OBSERVATION AND REFLECTION. THE DESIGN CHARRETTE WITH THE KIDS REINFORCED THIS AS A PRIMARY CONCERN AS THEY OFTEN DREAMED UP FUN, PHYSICAL ACTIVITIES FOR THEMSELVES BEFORE MOVING ON TO CONSIDERING HABITAT POSSIBILITIES. OUR GOAL AS DESIGNERS WAS TO MEET THE CHALLENGE OF UNIFYING THESE TWO SEEMINGLY ANTITHETICAL USES - CHILDREN PLAYING AND WILDLIFE THRIVING - INTO A SINGLE SPACE.
BIRD BATH PATH COLORING PAGE
VIEW OF CLIMBING/OBSERVATION AREA
LEGEND

WILDLIFE HABITAT:

[1] INSECT ATTRACTION PLANTS PROVIDE FOOD SOURCE FOR BIRDS
[2] BIRD BATHS
[3] NESTING TREES AND BIRDHOUSES

INNOVATIVE REUSE OF MATERIALS:

[4] CLIMBING/OBSERVATION WALLS MADE WITH EXISTING RE-PURPOSED BENCHES

INTERACTION WITH THE ENVIRONMENT:

[2] STUDENTS BRING WATER FROM NEARBY POND TO FILL BIRD BATHS
[3] STUDENTS ANNUALLY BUILD AND INSTALL BIRD HOUSES

FUNCTIONAL OUTDOOR LEARNING SPACE:

[5] STUDENTS PLAY, EXERCISE, AND GET EYE LEVEL WITH LOW NESTING AVIAN WILDLIFE ON CLIMBING WALLS AND KNOTTED CLIMBING ROPE

OUTDOOR CLASSROOM: CEDAR FOREST

UNDERBRUSH AND EASTERN RED CEDARS. A CIRCULAR CLEARING WITH SEVERAL WOODEN BENCHES WAS CENTERED ON A LIMBED UP CEDAR ADJACENT TO THE TRAIL. RE-PURPOSING THESE BENCHES WAS A NO-BRAINER FROM THE BEGINNING AS WE OBSERVED THEM BEING USED FOR EVERYTHING EXCEPT SITTING BY THE ELEMENTARY STUDENTS. VISITING WITHOUT THE CHILDREN, ONE COULD HEAR MANY BIRDS THRIVING IN THE COVER OF THE DENSE FOREST. WITH THE WILDLIFE AND NATURAL HABITAT IN PLACE, THE CHALLENGE BECAME MESHING THE LOUD PLAY OF CHILDREN WITH OUR AVIAN INHABITANTS, AND CREATING SOME KIND OF MUTUALLY BENEFICIAL INTERACTION. DRAWING UPON SOME OF THE STUDENTS’ OWN IDEAS, WE IMPLEMENTED A CLEARING FOR FLOWERING PLANTS TO ATTRACT INSECTS, A FOOD SOURCE FOR THE BIRDS. PER THE STUDENTS’ CREATIVITY, CLIMBING ROPES WERE ADDED TO THE CLIMBING WALLS FOR A VARIETY OF ACTIVITY. USING THEIR KNOWLEDGE OF HABITAT, SOME STUDENTS SUGGESTED BIRD BATHS AS A WATER SOURCE. TAKING IT A STEP FARTHER, THE STUDENTS THEMSELVES ARE INTENDED TO TRANSPORT WATER FROM A POND EN ROUTE TO OUR SITE, AND THUS ASSUME A SORT OF ACCOUNTABILITY FOR PRESERVING AND MAINTAINING THIS HABITAT. THE CLIMBING WALLS SERVE A DUAL PURPOSE OF HEALTHY PLAY AND ELEVATING THE KIDS TO EYE LEVEL WITH THE STUDENT CONSTRUCTED BIRDHOUSES.

VIEW OF BIRD BATH PATH
This was a very unique opportunity for us as designers in that we got to work with 3rd grade children. It was a very interesting and fun experience to say the least. We first met with the children and they drew us maps of the outdoor classroom. We then went to the outdoor classroom and had the children show us around. We did a site inventory and analysis on this visit.

We returned to the elementary school the next week to do a design charrette with the children and see what they had in mind for the design of their outdoor classroom. This also was a very unique and entertaining experience. After the charrette we had a few days to begin coming up with concepts. During this time we had industry professionals, as well as some highschool students, come in to our studio and give us critiques, suggestions, etc. We then further developed our concepts into our final designs and supporting graphics.

Having completed our designs and graphics we returned to the elementary school and presented the final products to the children. They were ecstatic to see what we had come up with. They all voted on their favorite designs and the winners were announced. This made for a very fun and exciting day.
PLAN VIEW OF THE WETLAND AREA
Plan View of the Wetland Area

LEGEND

[1] FOOD SOURCE: The plant and animals that will be drawn to the perimeter of the water will provide food.
[3] SHELTER: The structures themselves, as well as rocks and tree limbs placed under them, will serve as shelter.
[4] RAISE YOUNG: The west perimeter will be left alone to provide a safe area to raise young.

INNOVATIVE REUSE OF MATERIALS

[5] All wooden structures will be made from reclaimed wood.

INTERACTION WITH THE ENVIRONMENT

[6] The different levels of the permanent dock allow children to interact with the water when it is at different levels.

FUNCTIONAL OUTDOOR LEARNING SPACE

[7] The miniature barge provides a fun learning experience for the children that can be used no matter what the water level is.
I was assigned the wetland portion of the outdoor classroom. This area is an ephemeral wetland meaning the amount of water in it fluctuates greatly depending on what season it is. This was a very important factor that drove my design.

For my design I decided I wanted to bring the children directly into the wetland space. I started by placing a wooden platform in the wetland and connecting it to the trail with a rope bridge. The platform would be set at the highest possible water level. There would be 2 descending (stepping down) portions of the platform that would extend further into the wetland, dropping in elevation with each step. This would allow for the children to continually engage with the water, even as water levels dropped.

My design also includes a small floating barge that can disconnect from the permanent wooden structure. This would allow an adult to take 3-4 children at a time on a mini tour of the perimeter of the wetland. This is where the most diversity in organisms and ecology takes place. My design allows people to view these areas no matter what the water level is. When the wetland is completely dry the barge would just rest on the ground and act as a platform for people to stand on and just observe nature.

Large boulders and downed tree limbs will be placed under the permanent wooden platform to act as habitat. This offers another viewing opportunity for children to see and learn about nature. My design offers numerous, interactive opportunities to entice children to COME ALIVE OUTSIDE!!
Young But Wise

Our class was asked to visit Sangre Ridge Elementary to interact with the students of the third grade. Our focus was on a local trail system behind the school. We were to find ways to enhance the already existing habitats and to create new ones.

The children we talked to and worked with for this project are truly inspiring. We as adults not only forget how much a third grader actually knows, but also forget the level of creativity they possess. Instantly, the kids spoke of habitats and of what all is involved in making sure that they have proper resources for water, shelter, food, and places to raise their young. After speaking with the children, we let them draw out their favorite spaces and maps of the entire site. This got them extremely excited because they knew that next they would be showing us the site outside.

It was so eye opening to see the interaction the kids had with the site and just the overall joy they had from being outdoors. Some were running while others observed, but all had an experience. After going outside, the children began to tell us of what they would like to see constructed. I truly believe we learned more from the kids than we taught them.

The next step was to take back all of the ideas given to us from the students and find a way to incorporate them into a simple yet effective design that would enhance the surrounding habitats and ecology.
Interact with wildlife as water levels change throughout the seasons!
Section View of Pond

Perspective View of Pond

Project Statement

LEVELS was created with the students of Sangre Ridge Elementary in mind. With this design, the children will be able to interact with the on site ephemeral wetland in different ways or at different “levels.” This is made possible by the tiered reclaimed barn wood decking. The inspiration for this design was driven from small outdoor amphitheaters that have been built at many elementaries already.

The importance of interacting with the water at different levels lies within the knowledge the students will gain of how storm systems affect habitats and ecosystems. In this case, the wetland will change many times throughout the year. The small pond’s water levels will not only raise and lower continuously, but also subside to almost complete dryness. Accordingly, the different tiers of decking will allow for safe interaction of this water and what inhabits it.
Snake Wood Trails

Sangre Ridge Elementary School in Stillwater, Oklahoma invited us to design some additions to their existing outdoor classroom trail. Our intent is to create spaces that would draw children out of their homes and into the outdoors. Too many kids these days spend hours in front of a screen without ever getting the kiss of the sun rays from the outdoors.

It is vital that we come up with ways of engaging kids and getting them to spend more time outdoors.

Spending time outdoors helps in keeping creativity and adventure in the hearts and minds of our children. Having the kids play outdoors increases the exercise they get as well as the fresh air, hand-eye coordination, and kinesthetic learning through outdoor activities.
Caution Snakes Overhead
Snake Wood Trails
Snake Wood Trails

By burying the tires at different depths you can create a undulant path. This would also play into connecting the Tire Tunnel with the motion of the serpentine tires.

There would be a middle path that would create a connection to the tire paths but also act as a rest or stationary path for people not wanting to travel the tire route.

On the outskirts of the trails I have designed a snake habitat using used tire planting beds. These would be constructed by creating a small hole in the side of the tire for the snake to enter and exit while filling the middle of the tire up with top soil and plants to reflect the surrounding flora, but also able to add a splash of color.

My design is to add to the experience of the trail system. We met with about 20 3rd grade students and asked them to each illustrate some ideas of elements they might want to see out on the site that we had described to them. There were some great ideas and many stories of their personal experiences of the outdoor area. I took hold of some of the stories that the group of boys were telling me of their run-ins with some snakes, noticing how excited they were getting while describing the encounters. This became my theme to my design. Snakes, they might scare some people but others find them to be quite interesting. They keep to themselves, eat pests, and are a true heart stopper at times.

To create this theme while also incorporating repurposed materials, I decided to go with used tires. I chose tires for the texture of the material as well as the durability. Snakes are known for the texture of their skin. Many kids would say that they are slimy never having touched a snake before. Those who have know that they are smooth, dry and scaly. There are several snakes with rounded scales which also tie in well with circular shape of tires.
Bird Adventure

The process that lead to Bird Adventure was team oriented and focused on the connection with nature. When introduced to the project a team of 3rd graders was put in charge to walk the site and come up with their ideal design solutions. Next it was time to teach the 3rd graders about some of the wildlife and habitats presented on the site. Combining their ideals with the needs of the natural habitat a design began to grow. Landscape Architects came and helped pushed the design to its full potential. After that some local high school students came in and offered their opinions and ideas about each of the designs. Once these multiple teams came and gave their insight on the design and check was made to see if it was meet the original criteria and the final design was submitted back the to 3rd graders for their final evaluations.
Eastern Bluebirds on New Upcycled Houses
Bird Adventure

Bird Adventure is a series of four tree houses with an educational bird theme. It is designed to highlight woodland and forests edge birds native to Oklahoma. The first aspect of this design is the birdhouse forest. The birdhouse forest is a location off the main jogging path filled with bird feeders, bird baths and bird houses placed at locations to attract native birds. This area is to be checked regularly to insure starlings and house sparrows are not inhabiting the birdhouses, as well to refill feeders and clean bird baths. Now the tree fortress is the series of tree houses connected by bridges. The side walls of the fortress are tall and designed to act as bird screens, allowing children to see it as a play area yet does not frighten birds away. The tree houses themselves have themes with different aspects of bird life. The first house is about bird calls. Some bird call whistles will be attached to the wall and some educational signage will be posted on the walls. The second house is about bird habitat and is located adjacent to the birdhouse forest. It will contain some binoculars, a more open screen and signage talking about where to find what birds and what birdhouses to look for particular birds. The third house is about flight. This is the only tree house modeled to look like a birdhouse instead of a screen. Feathers and signage will be on the walls and a slide will allow users to have a brief feeling of flight. Swings are adjacent to this house. The final house is the bird nest. This is modeled to resemble a bird's nest from the outside and contains bird egg painting of common bird species in the area. A cargo net allows users to climb up into the birds nest as well as off the fortress. Around the entire site hollies and sumacs and other species to provide adequate food, shelter, and places for birds to raise their young. Around the site will be left undisturbed to increase brush piles to further enhance bird habitat.

Bird Adventure is designed to provide an educational opportunity and allow users to experience and learn about the native birds of Oklahoma that live in deciduous forests and forest edges.
Water Home

Before designing this place, we met third grade sangre elementary school students and gathered their imaginative thoughts about what they want in this site. We also enter this site twice to observe the existing characters and find out design challenges. When kids entered this place, they were exciting about these natural environment. And they became more active outside than in the classroom. However, this place also lacks management and design. Everything looks disorder. So, I prefer to development this area to be a more attractive place for kids.
WATER HOME

LEGEND

WILDLIFE HABITAT

[1] FOOD SOURCE
[2] WATER SOURCE
[3] SHELTER
[4] RAISE YOUNG

INNOVATIVE REUSE OF MATERIALS

[5] STONE
[6] WOOD

INTERACTION WITH THE ENVIRONMENT

[7] STONE DECK AT EDGE OF POND
[8] WOOD PATH ABOVE THE WATER

FUNCTIONAL OUTDOOR LEARNING SPACE

[9] ISLAND IN WATER
[10] OPEN SPACE IN FRONT OF WATER
Water Home

This project mainly concentrates on the habitat restoration of the pond. Planting more water plants improves the water quality and increases potential habitat for wildlife to live.

In order to increase the children’s activities interacting with pond, this design also build a curve board walk above the shallow water with on side handrail so that the kids can play in the shallow water without danger.

At the end of the existing bridge, an observing station will be build to support a high place in water for kids to observe wildlife activities. It also can support a shadow place for people to rest.

All in all, this project develops the whole pond ecological environment, and creates many different interactive place for kids to play with. In the future, more wild life will come to this place as their habitat, and kids can have more chance to observe these wildlife to get education.
Wetland Classroom

During my time with Sangre Ridge Elementary School I was tasked with creating a space for children. This space was asked to be both educational and interactive. In addition, the space was asked to be made of renewable resources.

I collected my idea for my concept from a child that described his favorite spot to me. He spoke of a tree that he loved because when he sat underneath it, the branches redirected the light in a way that he enjoyed.

My solution was to create an outdoor classroom that could redirect light throughout the day, creating different experiences, and be open enough to allow students to feel surrounded by nature.
LEGEND

1. WILDLIFE HABITAT
2. OUTDOOR OBSERVATORY
3. OBSERVATION DECK
4. NATURE TRAIL
5. OUTDOOR CLASSROOM

[1] MADE OF EASTERN RED CEDAR

6. INNOVATIVE RE-USE OF MATERIALS
7. INTERACTION WITH THE ENVIRONMENT
8. INTERACTIVE FLOOR PORT
9. SKY PORT
10. INTERACTIVE NATURE TRAIL

FUNCTIONAL OUTDOOR SPACES

[4] OUTDOOR CLASSROOM
[1] OUTDOOR OBSERVATORY
[2] OBSERVATORY DECK

Scale: 1” = 20’
The purpose of my project was to create an area in an outdoor classroom site. The specific area I had was constructed Wetland. My concept was to create an outdoor space that could be used for education, interaction, and relaxation.

The first element that students come into is the Classroom. The classroom is oriented in such a way that it captures light and directs it in different ways throughout the day through windows cut into the structure.

The next element is the Outdoor Observatory where students can view the wetland from a raised platform. The observatory also allows students to view the floor of the wetland through a porthole. This element allows students to interact with the wetland, viewing things such as tadpoles, bugs, and surrounding animals.

The space then leads to a Boardwalk where students have the opportunity to look around, viewing birds, plants, and animals in the surrounding areas.

The experience ends with a nature trail that leads students back to the main trail from which they came. This trail is located close to the wetland to allow teachers to keep an eye on their students while allowing them to explore.