


The University of Georgia

Robert L. Brannen
Cooperative Extension Service

What is an Outdoor Classroom?

- Also sometimes referred to as a **schoolyard habitat**.
- A space set aside for the development of natural habitats in which students learn about science and the outdoors through a hands on experience
- BUT an opportunity for students and adults to learn how math, literature, history, art, and music are influenced by nature



Outdoor Classrooms

- Come in many different shapes and sizes
- Are meant to compliment already existing natural characteristics of school property or adjacent property
- Only restraints are
 - Group's resources
 - Space



What Will The Space Be Used For?

Considerations include:

- Eating spaces (that can also be used for other activities)
- Exterior meeting spaces (for students to hang out or gather)
- Active/Play Spaces
- Passive Study Spaces
- Ecological/teaching spaces



Outdoor Classrooms also...

Help to peak students' interest in:

- The world
- Wildlife and natural resource conservation

Encourage citizens and community leaders to become involved in education and the environment through donation of:

- Labor
- Materials
- Specific instructions
- Financial support



Types of Outdoor Classrooms

- Ponds, streams and wetlands
- Butterfly and wildflower gardens
- Agriculture gardens – vegetables, etc.
- Bird and Squirrel sanctuaries
- Composting and recycling areas
- Arboretums with native trees, shrubs, plants and nursery areas
- Weather stations
- Amphitheaters, shelters, nature trails and other structures
- Art gardens – sculpture, oriental, artist specific gardens (Monet – water lilies, Van Gogh – sunflowers)



Landscape Design

- Combines **art** and **science** to create functional and aesthetically pleasing outdoor spaces
- Requires an in-depth knowledge of the existing site
 - Site analysis
- Requires at least a basic understanding of principles of
 - Art
 - Design

Principles of Art

Color

Line

Form

Texture

Scale



With Color

It is possible to have various color schemes in one landscape

You can change the perception of distance

- Warm colors and light colors like red, orange, yellow or white make objects appear closer to the observer
- Cool colors and deep shades of blue, green and black make objects appear further from the observer



Color Also...

- Can help the designer draw attention to an object
- Should be considered for seasonal purposes
- One can create year-round color by selecting a variety of plants that bloom at different times throughout the year

















Line

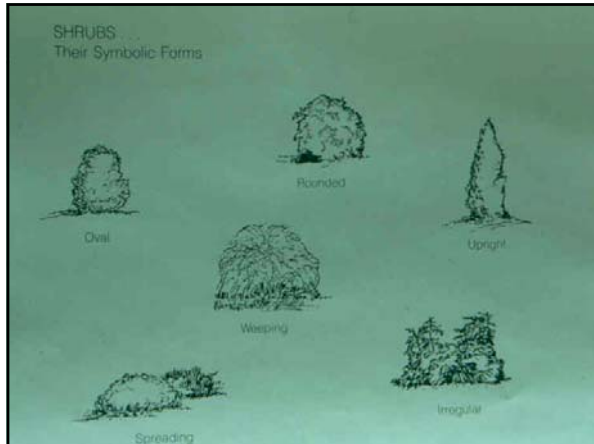
- Inferred by bed arrangement and the way the beds fit or flow together
- Related to eye movement or flow
- Also created by vertical changes and differences in plant height

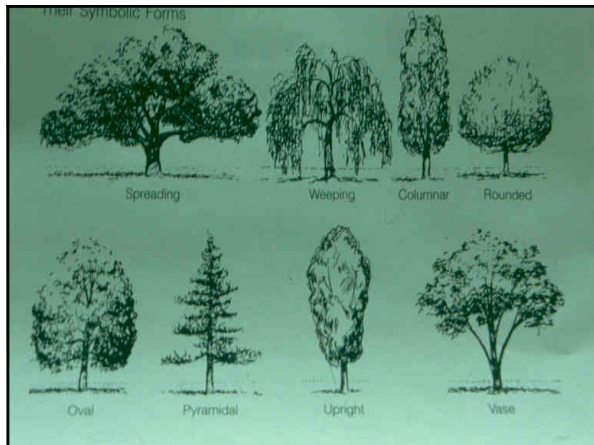


Form

- Form and line are closely related. Where line refers to the outline or edge, form is more encompassing
- Refers to the form of plant materials


















Scale

- Refers to the size of an object or objects in relation to the surroundings
- Size refers to definite measurements of an object while scale refers to size relationship between adjacent objects









Site Analysis

- Students should be brought into process here
- Can develop maps in teams of their ideas for how spaces should be used
- Make sure to target their developmental stages
- Can frame a question where students fill in blanks regarding their desires



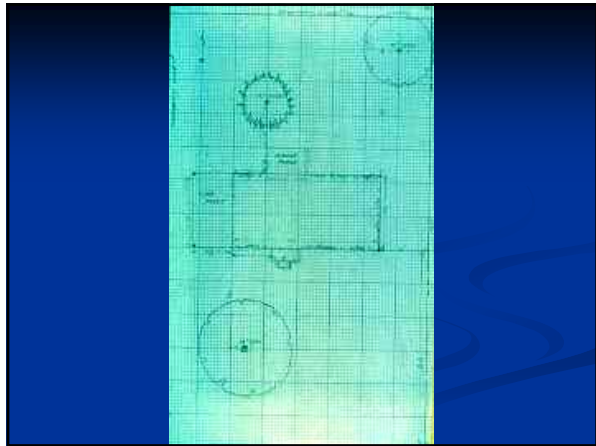


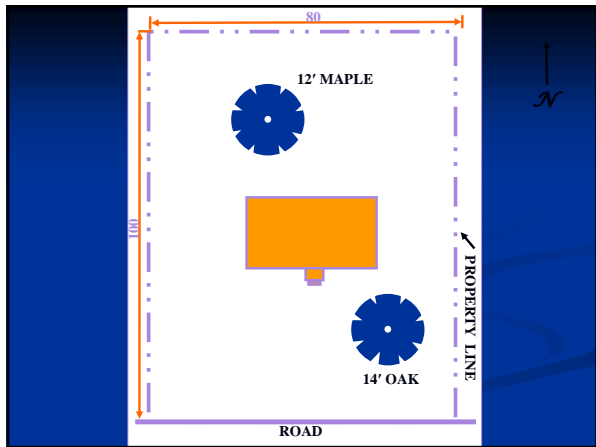


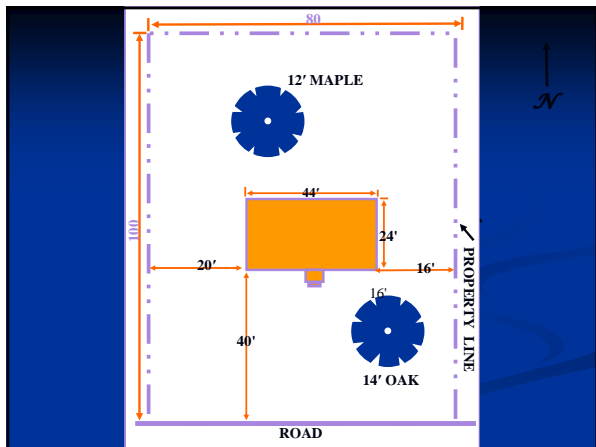


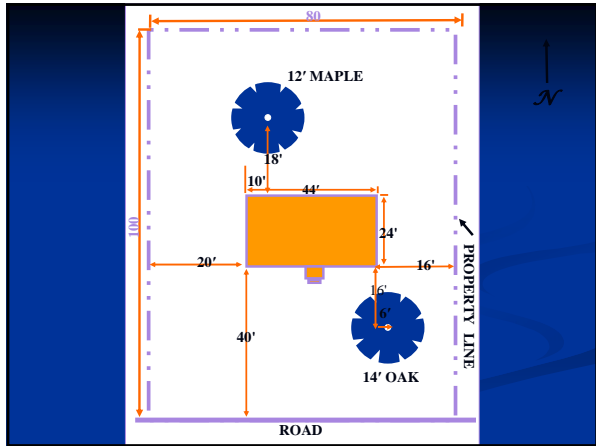


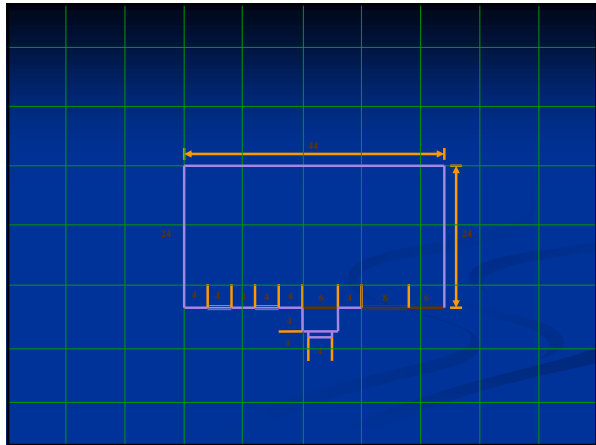






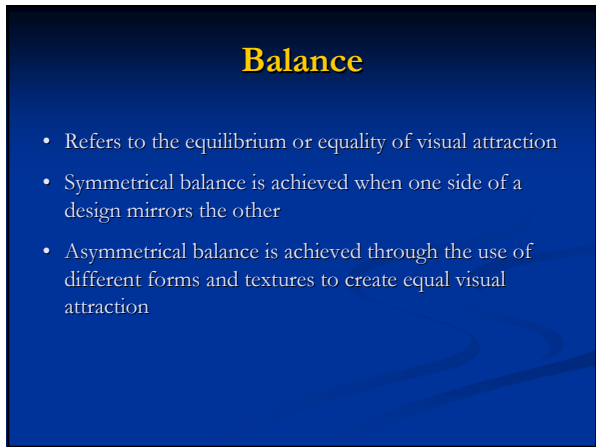


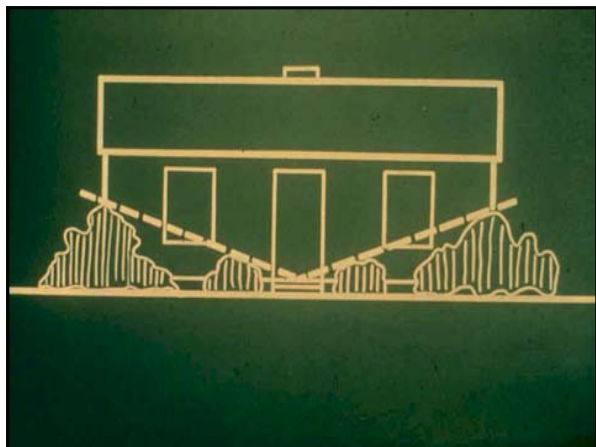






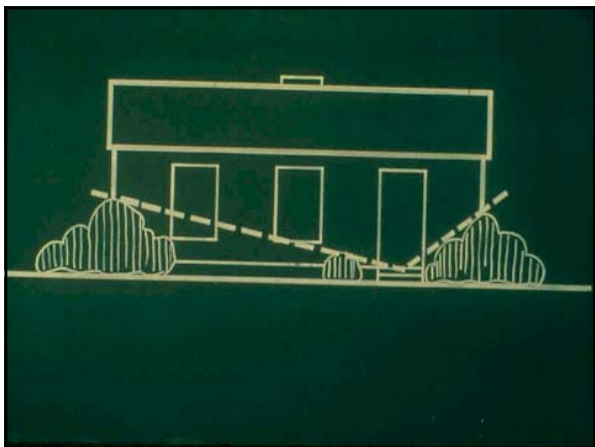


















Unity

- Is obtained by the effective use of components in a design to express a main idea through consistent style
- Means that all components of a landscape go together, they fit

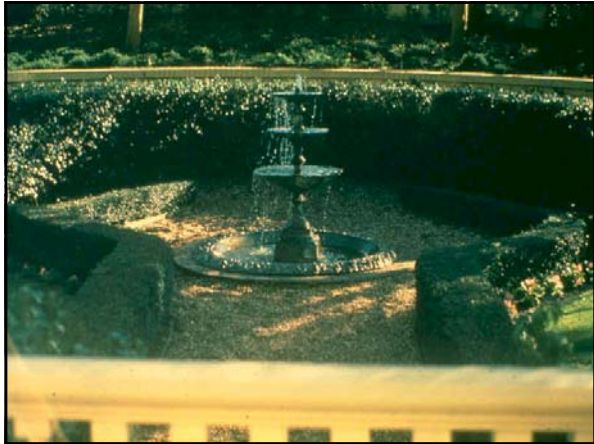






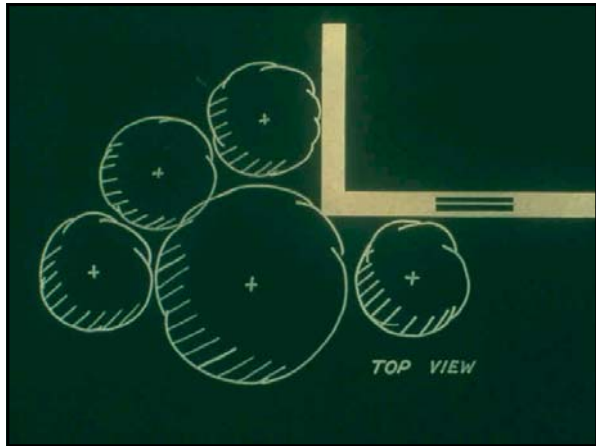


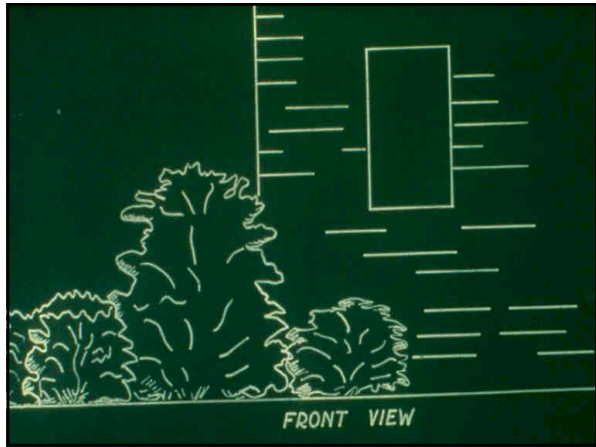


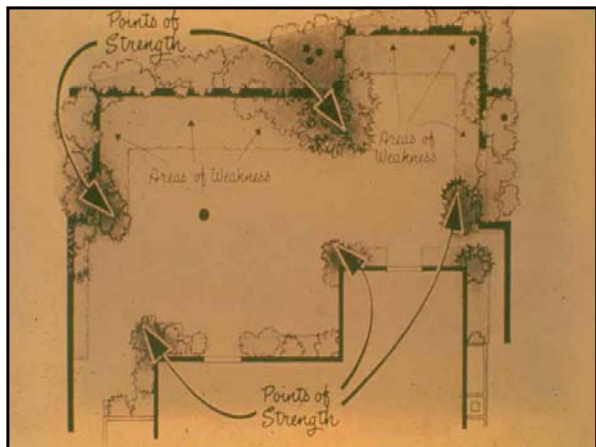












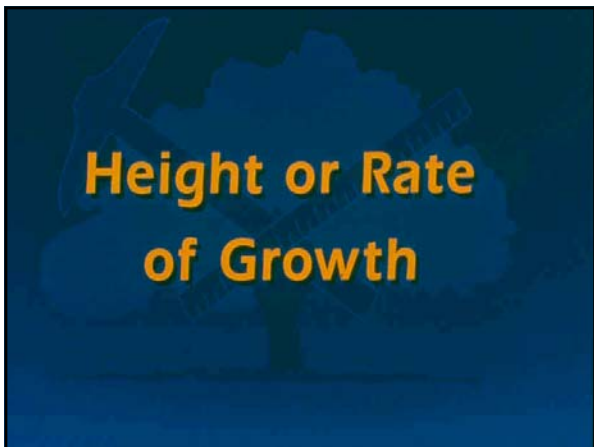
3 to 5 Different Plants
Use Odd Numbers

Curving Bed Lines
90° Corner







































































The Basics for Creating Outdoor Animal Habitat

- Water
- Nesting
- Cover
- Food



Water

- Need a dependable source of water
- Clean reliable water in all seasons with protective cover
 - Birdbath
 - Terra cotta dish
 - Hole in the ground with a plastic liner and rock edging.
 - Students can refill water.



Nesting

- Vegetation and dead trees provide natural nesting places
- There are many types of nesting boxes for birds, bats, and squirrels
- The GA Wildlife Federation has box Building instructions.



Cover

- Serves to protect wildlife from weather and predators
- Forms the foundation for nesting, sleeping, and feeding areas



How To Provide Cover

Animals' cover requirements differ, but here are some suggestions:

- Choosing proper plants will also provide a food source.
- Low-growing shrubs and tangles of vines will provide edible foliage, berries, seeds, nectar, and fruit.
- Trees will provide buds, foliage and insect feeding opportunities for birds.



More on Cover

Don't rake

- Leave leaf litter to provide cover for a variety of amphibians offer foraging opportunities for ground dwelling birds and mammals

Provide rocks and stone piles

- For chipmunks, skinks, and beneficial reptiles and amphibians
- And large flat rocks provide basking areas for lizards and butterflies

Food

Best way to provide a year round food source for wildlife is by planting a diverse selection of:

- Perennials
- Vines
- Shrubs
- And trees that are beneficial to wildlife



More On Food

- Many shrubs native to Georgia provide food for wildlife while also providing cover
- The purple berries from Beautyberry (*Callicarpa americana*) feed small mammals and many birds.
- Blackberry (*Rubus* spp.) provides summer food for sparrows and robins, and cover for nesting catbirds and thrashers.



Wildflower Meadows

- Plant in the fall
- Need Sun
- Reduce maintenance costs
- Need weeding and annual mowing





Creating Trails

- Entrance
- Route
- Access
- Surface
- Borders
- Signs





Signs

Other Tips

- Make sure habitat elements are apparent to students
- Signs at many schools label features such as rock piles, brush piles, and snags
- Signage reinforces the concept of habitat for students and opens their eyes to “wildlife homes”
- Real estate agencies may donate signs and Kinko’s might paint and letter them

Butterfly Gardens



Larvae Gardens



Memorials



Fruit and Vegetable Gardening



Water features






















Xeriscape



- Coined in Colorado in 1981
- From the Greek Word “Xeros,” meaning “dry”
- Pronounced Zera-scape

Facts About Water

- We have the same amount of water on earth today as we did when the earth was created.
- Of all the earth's water, 97% is salt water located in the oceans and seas.
- 2% of the earth's water is tied up in polar ice caps.
- Only 1% of the earth's water is fresh water available for drinking, bathing and cooking.

Average water use can increase 30% - 50% during the summer months when outdoor irrigation systems are used.



Seven Steps of Xeriscape

- Planning and Design
- Soil Analysis
- Appropriate Plant Selection
- Practical Turf Areas
- Efficient Irrigation
- Use of Mulches
- Appropriate Maintenance



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