

Natural Landscaping

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For me, natural landscaping, which I also refer to as “Forest Scaping”, recreates a sense of the natural world that follows the processes of nature. Natural landscaping is fully compatible with the aesthetic and social norms of today’s residential landscapes. You do not have to fear that you will be ostracized by your neighbors. You do not have to make an aesthetic sacrifice to enjoy the beauty of natural landscaping. In fact you will be the envy of your neighbors, because you will be surrounded by a living-breathing masterpiece of nature. Besides being aesthetically pleasing to the senses, natural landscaping serves a vital ecological and biological function.

The ubiquitous residential landscape as created throughout the United States is a biological desert; I cannot emphasize this point enough. This type of landscape can support only a handful of common and very adaptable species like the Gray squirrel, House sparrow and Robin. Very few species have adapted to living in this type of habitat. Most native species find it impossible to live in the residential landscape and they are displaced by suburban sprawl. A few more species may be seen in and around this type of habitat but cannot live and breed successfully in it. These visitors are only temporary guests. They occasionally may feed in this landscape or be seen moving through it but they are dependent on nearby natural habitat to survive and breed. Forest Scaping can help to reverse this trend.

Through this page I will try to show you the aesthetic and ecological benefits of natural landscaping and reveal to you step by step instructions on how you can create a landscape that follows nature’s intended plan. I will describe two styles of natural landscaping: “Forest Scaping” and “Habitat Restoration”. The two styles differ only in the degree of management, the relative size of each and the amount of input required to create and maintain this landscape. The two styles make up ends of a spectrum with no fixed boundary between the two.

The old paradigm

The hand of man is evident everywhere on the landscape, but nowhere is it more evident than around his dwellings. Drive through suburbia and especially through new developments and you will quickly notice that the same pattern of controlled, regimented and sterile landscaping is replicating itself across the landscape. Apparently 99.9% of the population chooses to live in a landscape devoid of natural processes, of wildlife, unable to support the native populations of flora or fauna. Only where development has imposed itself upon existing woodland, do you see the remnants of nature haphazardly preserved in a cluster of trees. Everything else has been stripped away and molded into an unchanging repetitive reproduction of suburbia.

Today’s residential landscapes are constructed using a standardized recipe. A landscape designer or homeowner chooses from amongst a standard list of landscaping plants bred and grown only to please the eye. These plants are developed for color, shape, texture or flower but seldom are they chosen for their ecological value. The plants are then arranged in a geometric pattern around the foundation of the home. The remainder of the yard is then planted to lawn with the addition of a few strategically placed trees to provide shade, accent the house or break up the large expanse of lawn. This type of landscaping, although visually appealing to many people, creates the biological desert I referred to earlier.

The modern lawn is the foundation of our human managed habitat. Wherever humans tread, lawn is sure to follow. It is used in every possible way and place imaginable. Its blessing is that it creates a very resilient,

uniform, colorful, clean, low growing surface that is comfortable and easy to walk on and pleasing to look at. Its blessings to humans are its curse to nature and the environment. It has become a curse because it is so amenable to the needs of people that it has become an unrecognized ecological plague. Nothing larger than a mole can survive in a habitat comprised solely of mowed grass and wherever people live this sea of grass continues to spread, displacing everything in its wake. I believe it is not so much development that displaces wildlife but the attendant manicured lawn and contrived landscapes that cannot support wild things. Wildlife can and does thrive in close proximity to people if given suitable habitat. Even the most densely populated metropolitan areas have wildlife where nature is allowed its due course.

Arguing against the pervasiveness of the green lawn and its incumbent problems is as futile as wishing away the automobile and climate change. Lawn is and will always be a necessary component of the human landscape. But with a few simple shifts in design philosophy the modern landscape can transform itself into an ecologically friendly landscape while creating a visual feast for the senses.

Obstacles to change

For most people aesthetics is an insurmountable obstacle when considering making what they consider is a dramatic change to their home landscaping. I am very sensitive to this issue and I have developed ways to make this transition from a highly managed and defined landscape to a natural looking and carefree one. Our suburban culture will not tolerate a landscape that does not fit within the community norm. Our group sensitivities will not embrace what is considered weedy, unsightly, unmanaged landscapes. If these sensibilities are not addressed in the planning stage few homeowners will get to enjoy a beautiful natural landscape.

To make the transition from formal to informal it is necessary to define the boundary of the new landscape. This side is informal this side is formal. The line is clear and unmistakable and this is an important point. There must be a clear sense of separation and distinction between the natural landscape and the lawn or managed landscape. This creates purpose and intent in the plan. Your neighbor must be reassured by your actions that you know what you are doing. Tearing up your precious grass could be very disturbing to a grass loving person. I am only being a little facetious here. It is better to be prepared and armed with knowledge and confidence in your plan.

I encourage every homeowner to take the long view when thinking about natural landscaping. A newly planted landscape will be a thing of beauty when complete, but it is nothing compared to what it will look like in 10 years, 20 years or 100 years but this will not occur if you do not begin the process. Lacking vision and patience will prevent many homeowners from reaping the benefits of natural landscaping. Take a look at a nearby arboretum or mature woods and dream of what you can create in your own back yard. A mature oak required that someone had the foresight and vision many years ago to plant that sapling.

Philosophy of natural landscaping

One objective of natural landscaping is to convert a large expanse of grass into a living functional landscape that is attractive to look at, easy to maintain and that creates valuable wildlife habitat. The more grass converted the better but it is best to start with a manageable size. Break the larger project down into smaller component parts. For example you have a one-acre yard between the house and the road. You want to landscape one half of this leaving an area immediately in front of the house with grass and a clear view to the road. Begin by creating some long landscaped strips along the edges of the yard and along the road. These may be 10 to 20 ft wide and 50 to 100 feet long. These would be landscaped with an assortment of trees and shrubs. These strips would be allowed to mature for a few years. You could then create some new strips with a buffer of grass between the new and old strips. In time as the trees matured and began to shade the grass these buffer strips would be reduced or eliminated altogether.

Another strategy is to plant several trees in a natural cluster, create a grass free ring several feet in diameter

around each tree, in this ring plant several shrubs under each tree. In time as the trees and shrubs grow up and begin to fill in the intervening space the grass strips can be removed or reduced.

The long-term objective is to gradually replace the large expanse of grass with landscaped islands of native trees and shrubs interspersed with mowed lawn. This cannot be accomplished overnight no matter how much you desire it. Trees and shrubs need time to mature and develop.

An important design feature of natural landscaping is making the design mower friendly and low maintenance. This is accomplished by placing all plantings within distinct mulched beds thereby separating the plantings from the mowed lawn. The contours of the beds make for easy mowing and trimming. The amount of time spent mowing will decline as more lawn is converted to low maintenance woodland.

Another low maintenance practice is to mow fall leaves instead of raking. Simply chop leaves one or two times in late fall and leave them lay on the ground. They will mostly have disappeared by spring.

To make the planting affordable and manageable the tree and shrubs will be smaller than what one might buy if you were only planting one tree. Some people believe that buying a larger tree gives them a time advantage. In many cases a smaller tree planted at the same time as a larger one will surpass the larger one in growth over time. A group of trees acts much different than a single tree. The group acts as one larger biological unit. The trees grow taller faster and the trees buffer each other from the effects of wind and sunlight. A group of trees should be viewed as one living entity.

Getting started

Begin the landscape project by preparing the soil surface. If you are converting lawn you will need to kill or smother the grass and then provide some type of mulch to help retard the regrowth of weeds and grass. You can use a herbicide to treat the area several days to a week before starting the actual excavation. You can strip the top layer of sod using a spade or turf cutter or you can rototill the area. In every case the likelihood of weed seeds or remaining roots resprouting is high, so it is necessary to install some form of mulch after final plant installation to help suppress unwanted plants (also called weeds). I like to recommend the most cost effective materials but you can select other materials that are readily available to you. I believe in spreading a solid layer of newspaper, cardboard or other biodegradable paper material over the surface of the topsoil before adding the finished mulch layer. This paper material creates an impenetrable barrier between the soil and the surface to prevent weed seed germination and root regrowth. I don't recommend the use of synthetic mulch fabrics because they do not biodegrade, are costly and can create litter problems in the future. Over the paper layer add a finish layer of bark mulch. If using paper the bark mulch can be in a layer thick enough to just cover the paper. If you are not using a paper layer then you need to use a heavier application layer of mulch to prevent weeds from growing through the mulch.

I recommend using bark mulch when first constructing a natural landscape because it creates a very finished and attractive project that is an accepted norm for landscaping. This is critical when the beds are near the house, are highly visible or must blend with nearby managed properties. Over time the cost of maintaining bark mulch can be quite expensive. Most bark mulches sold today are very finely ground and composted. These make a poor mulch for suppressing weeds. Try and find the coarsest bark mulch available or unprocessed bark. Wood chips also make a fine natural mulch.

All plants produce their own natural mulch that is right at hand and free to the user. This mulch is in the form of fallen leaves. These leaves can be raked from the yard and spread evenly under the trees and shrubs. You may choose to chop these leaves before spreading to prevent the wind from blowing them around but this isn't necessarily a problem. If you want to maintain the more finished look of bark mulch you can restrict the application to the more visible outer edges as the inner surfaces will be hidden by the growing plants.

Fallen leaves are a valuable natural commodity that should not be wasted. Disposing of fallen leaves off site is not only a waste of labor and energy but also a waste of the fertilizer value and environmental benefits of this natural mulch. In nature the annual accumulation of fallen leaves creates a layer of leaf litter that serves several key functions. The leaf litter serves to retain soil moisture and to keep the soil cool. The nutrients contained in the leaf litter are slowly released as the litter decomposes and are made available for new plant growth. This is an efficient nutrient recycling system that benefits all woodland plants and organisms. The leaf litter layer is an ecosystem in itself containing countless microorganisms and invertebrates and serving as an important food source for ground feeding birds. Creating and preserving this important community is one goal of natural landscaping and serves to support and maintain the health of the landscape plants.

Creating an edge

One must separate the natural landscape from the lawn area. This is accomplished by constructing a landscape edge at the lawn/landscape interface. The edging outline is defined by taking a garden hose or other semi-flexible object and laying it down where you want the edge to be. You should create sweeping curves. No sharp corners. Then take a square edged spade and following the curves of the garden hose cut through the sod several inches deep. After the outline has been traced in the sod with the spade; cut a one sided trench 3 or 4” deep along the outline of the bed. Spread the soil and sod from the trench inside the planting bed. This trench, vertical on the grass side and sloping on the bed side separates the landscaped bed from the lawn. One can install plastic landscape edging around the perimeter but this is optional. When installing bark or other soil mulches, spread the mulch up to the trench.

Working with topography

The topography of a yard can sometimes create a challenge to growing grass and mowing. These areas lend themselves well to natural landscaping. A steep slope, a drainage ditch, poorly drained soil or rough ground can easily be planted to native species that are suited to the particular soil and moisture conditions. Natural landscaping is the best use of these sites and can transform a difficult site into an attractive woodland garden. Use topography wisely to create works of art in the landscape. If your land is not naturally blessed with contours you can accent some planting beds by building up the center of these beds. A mounded bed helps to better display the plants. Low poorly drained areas are best planted to species that tolerate these conditions and avoid the headache of trying to grow grass or mowing where the soil is muddy. Many trees and shrubs thrive in wetland conditions.

Designing for wildlife

Replacing non-native plants with native trees and shrubs will not in itself make the landscape more wildlife-friendly. The arrangement of the plants in the landscape, not simply the choice of plant, is what is most important to wildlife. It is necessary to understand the needs of the animal species in order to best satisfy its requirements when planting. Wildlife need three things for survival: food, water and shelter. All of these requirements are satisfied by habitat.

A woodland is generally described as having three vegetation layers: the upper canopy, understory and the forest floor. I like to group plants into four general categories based on height and growth habit; full size canopy trees, understory trees, shrubs and herbaceous plants. One should try to combine an assortment of plants from these four different height groups when designing a landscape. Most people think of landscaping in terms of a two-dimensional surface, the soil surface. Whether planting flowers, shrubs or trees they cover the ground with one type of plant. But all that vertical space above the ground reaching to the sky is literally wasted space. Instead try to design a landscape not just horizontally but also vertically.

Natural landscaping strives to combine these different height elements in a natural display. My rule of thumb is

to combine plants from at least two different groups into any planting. You should use at least two levels of planting in any grouping. The space beneath tall shade trees is available for plants from all the other groups. The space beneath understory trees is available to plant shrubs and herbaceous plants and so on.

For example, plant herbaceous plants under a canopy of shade trees, or group a mixture of shrubs and flowering trees together for effect. For the maximum display combine canopy trees, flowering trees, flowering shrubs and woodland flowers for a full complement of woodland variety. The choice of plants is not as critical as creating multi-layers of habitat and interest for both wildlife and viewer.

Plant spacing and design

One failing of the modern landscape is that plants are viewed as individual features. Trees in particular are planted individually and separated from each other to develop a uniform shape in full sunlight. A single tree develops a very different form from one growing in a woodland setting. In natural landscaping the emphasis is placed on groups of plants or plant communities rather than on the individual tree or shrub.

One doesn't have to make a dramatic shift from current landscaping styles. By simply adding layers of plants one can make a dramatic change. For example, one can add a ring of low shrubs beneath a larger shade tree.

An isolated shade tree growing in full sun develops a broad rounded outline. The tree is often as round as it is tall. Trees growing in a woodland setting or planted in a cluster grow taller with a narrow crown. The trees are forced to grow tall to reach for the sunlight. The tall lines of the trunks bring your vision upward. The crowns of the trees touch each other creating one large mass of foliage and branches. The area beneath tall trees is open and airy creating a sense of spaciousness. This space is ideal for the planting of understory trees and shade tolerant plants. The individual tree is lost amidst the forest. A group of trees invites the viewer to walk beneath the canopy and be sheltered in its shade. The palette of shapes and textures can be infinitely varied by combining different species and varying spacing.

A single tree in the landscape is like a still life painting of an apple; a group of trees is a still life painting of a bowl of fruit. The colors, texture and play of contrast are more varied and interesting to the eye than a single tree.

In natural landscaping trees should be grouped together in multiples. Trees can be of all one species or preferably of several species that visually compliment each other. A grouping should contain at least 5 individuals for best effect with no limit to the maximum number of trees used. The only limiting factor is the space being planted. Canopy trees should be spaced on average 8 to 10ft apart but don't sweat the numbers. In nature mature trees may grow two feet apart or twenty, the figure is simply a guide.

Plant spacing should not be left to the engineering types. Natural landscaping is striving to get away from straight rows and even spacing. Nature is random and asymmetrical in its patterns and you are striving for the natural look. Use a rock or other object to lay out your planting. Toss the object to mark the plant locations. This will give you a more random look.

Creating variety

The woodland palette is quite large and this large and diverse selection of species is what makes natural landscaping so interesting and attractive. Not only are there the four groups of plants but there is so much diversity within each group. Canopy trees offer a variety of leaf shapes, bark textures, and branching patterns. Actually limiting oneself to a few species can be rather difficult, for each species offers some unique interest. Fall is the time of year when the difference between tree species is most dramatic. Each species displays a different hue of color.

Some of the finest native flowering trees are trees of the forest understory. Dogwoods, cherries, redbud, serviceberry and siverbells fall into this category. These plants are insect pollinated and the fruit of many including the dogwoods, cherries and serviceberries are eaten and dispersed by birds and other wildlife. Their flowers are very showy and fragrant to attract pollinating insects and their fruits are large and nutritious to attract seed dispersers. Most of these species are also widely used in horticulture today so they are easily found in nurseries.

Shrubs in the landscape

When I refer to wildlife, I am mostly thinking about passerine (perching) birds. Birds are the most populous and visible of backyard wildlife. They are highly mobile and are best able to take advantage of improvements to the residential landscape. Other wildlife like mammals both large and small will certainly benefit from natural landscaping but this will be directly correlated to the amount of land converted and the quality of habitat.

Shrubs are more important to the survival of more species of birds than any other vegetative type including full sized trees. The association between trees and birds is pervasive but few species of birds can survive solely in the tops of trees. Most species live on or near the ground and this is the most neglected component of the modern landscape and is most of need of being resurrected. The shrub layer provides everything that birds need to survive. The shrub layer provides cover, food and nesting sites.

The dense, multi-stemmed growth pattern of shrubs provides critical habitat for birds. Shrubs provide an important sense of security from both ground and avian predators. Food is provided in the form of buds, tender leaves, foliage feeding insects, ground dwelling insects and fruit or seeds when in fruit.

If you have to make choices restricting how many plants to use I would choose shrubs over a tree or perennials. There are several good reasons for this. Shrubs offer a lot of wildlife and aesthetic benefits in a small package. Shrubs provide the best cover and habitat for the size of the plant, they grow rapidly and flower and fruit at a young age.

Obviously one shrub will not provide much habitat in a landscape. Look for areas where you can add shrubs. Think of the vertical landscaping and integrate shrubs under existing trees. Try connecting groups of shrubs together to create corridors of cover. Create hedges of mixed shrubs.

Natural restoration for homeowners

There is a great opportunity in the developing suburban/urban landscape to create valuable wildlife habitat in the matrix of suburban sprawl. Residential zoning laws often create a condition that unintentionally exacerbates the problem of suburban sprawl. Zoning ordinances generally require minimum building lot sizes that help to gobble up the rural landscape. People move to the country to own a few acres and have some space between them and their neighbors. These ordinances usually require from 1/2 acre to 5 acres of land per individual residence. The purpose ranges from restricting population density to protecting ground water supplies but the secondary effect is that more acreage is converted to biologically sterile and resource intensive landscapes, ie. mowed lawn. The end result is that the majority of this land usually ends up being converted to mowed lawn and consequently lost forever for the benefit of wildlife and other environmental benefits.

Most people move to the country for privacy, peace and quite A small patch of woodland can provide the same benefits that would take a large piece of lawn.

Environmental benefits

Natural vegetation provides far more environmental, ecological and economic benefits to the homeowner and community than comparable land in grass. Lawn actually provides a net loss of environmental benefits when you consider the inputs of fuel, fertilizer, and pesticides. If we had to buy what nature provides free of charge,

most of us could not afford to pay the price for the environmental benefits contained in natural landscapes. As a society we can no longer rely and depend on large expanses of surrounding pristine land to help cleanse the pollution from our towns and cities. Each of us needs to do what we can to surround ourselves with a buffer against pollution. If it could be quantified, surrounding your home with a forest could provide significant health benefits. Wild lands and especially woodlands have a tremendous capacity to purify water and air. The benefits are necessary for our quality of life and life itself, but these benefits are seldom appreciated or given appropriate value. Wild lands help to purify and store rainfall, the vegetation serves to hold runoff and prevent erosion until it has a chance to filter into the soil. This water recharges ground water supplies, which is necessary for tree growth and helps to maintain stream flows and water wells. Trees and shrubs serve as filtering agents removing pollution and carbon dioxide while purifying the air and releasing oxygen back into the air.

Woodlands help to moderate environmental extremes of temperature and wind. Temperatures near woodlands are cooler in summer and warmer in winter.

Natural restoration provides an alternative to this biological deadend conversion of valuable land. This alternative has never been widely promoted, researched and marketed to the suburban property owners; probably because no one saw a way to profit from it. I think more homeowners would choose to preserve and create natural habitat if they were educated in the why's and how to's of the natural environment.

Resist the temptation to mow

Building lots from 1/2 acre on up present the ideal opportunity to preserve or develop contiguous areas of natural habitat. Unlike natural landscaping which incorporates nature into the managed landscape the goal here is to allow nature to have free reign without conversion to managed landscapes. This is easy to do if the building site already has existing mature woodland, but what if the lot was an old field, a corn field or shrub land? Most people would see only one option: turn it all into lawn.

Learn the three D's of restoration work: define, design and develop. Define the area you want to preserve, design a short and long term plan for the restoration and then begin to develop the land to a natural community.

At all costs resist the temptation to mow the offending vegetation before you have a plan in place. Few people will ever escape the addiction to mowing once you have started.

The critical first step is to define the area that you want to restore. It is far easier to restore land to a natural state that has not been converted than it is to turn established lawn into a natural area. Grass is poison to restoration work. Determine the minimum area of mowed lawn that you can live with around the home. It is far easier to convert land to lawn than it is to work the opposite way. The lawn area does not have to conform to normal convention for residential homes. The lawn does not have to sprawl from house to road and border to border. Maintain lawn around the immediate vicinity of the residence and in the areas used outdoors in the summer time. All other space converted to lawn is simply going to cost money and time on an annual basis to maintain as lawn.

As in natural landscaping where the landscape is defined by edging between the landscape and lawn, the natural restoration is also defined from the lawn area by clearly defined boundary. This boundary does not require installed edging but can simply be defined by the mowed lawn and the natural vegetation.

Pathways are a critical feature of any restoration effort. A pathway allows a person to explore and enjoy the restored area with ease and comfort especially in the early stages of restoration when perennials and shrubs may dominate. Ease of walking is the main reason people convert shrub lands and old fields to mowed lawn. Pathways should meander and take the longest distance between two points. Pathways should lead one to explore interesting features and points of interest in the landscape.