Five Hundred Years of Florida Landscape

A Quick Tour

by Bill Bissett

All of us would like to have seen the pre-Columbian Florida landscape if for no other reason than to finally answer the perennial question: "What is native and what is not?" But when in pre-Columbian Florida would we like to find ourselves? The end of the last ice age, when sea levels were 100 feet lower than today? Four to six thousand years ago, when the state was mostly covered by oak and hardwood forests? Or maybe we'd feel more comfortable dropping in on Florida in those last few years before the Spanish arrived. At least the ecosystems would be recognizable, if not overwhelming in their scope. Revel in the hypnotic wave of grass prairie melting into the horizon and then to the horizon beyond that. Just look at the majesty of old, Ionic longleaf pine reaching heavenward. Just look ... But look quick! It's all downhill from here.

Alexander Pope once wrote:

"All nature is but art unknown to thee; All chance, direction whihb thou cannot see; All discord, harmony not understood; All partial, universal good; And, spite of pride, in erring reason's spite, One truth is deat. Whatever IS, is RIGHT."

That pretty much sums up the void of human understanding that leads to cultural environmental degradation. And Mother Earth's response? "Whatever IS, is RIGHT."

Let's compare two hypothetical residential landscapes to get a feel for how things have changed over the last 500 years -- two families, each getting ready for a family get-together. The first is the Jororo family, somewhere on the St. Johns River, summer, 1590ish. Here's Mr. Jororo talking to his wife.

Invasive exotics were recommended by the authorities early on. This photo is from an old U.S. Department of Agriculture pamphlet recommending kudzu as a nitrogen-fixing cover crop.

"Hey honey, I'm going out to the garden. Anything you need for the party? A couple of mosca? OK. A couple of baskets of legumes! All right. One basket of serenoa berries -- Yuck! You know I gag on those things. And what? Twenty-seven ears of maize? Are you crazy!? How many from your brother's family are coming, anyhow? All right, all right ... I know our maize only has eight rows of kernels. How about some nuts? Carya? Tilia? Pinus? I'll see what I can scrape up. Hey hon', would you have time to work on a smilax pudding? I can pound the root if you'll take it from there. OK, sweets, see ya in a couple of days."

Now for family number two. The ________ family, West Central Florida, summer, 1997. (I leave the name blank, for in the words of some old French philosopher speaking Latin at the time: "Mutato nomine de te Fabula narratur" -- "Change the name and its about you, that story").

"Hey honey, I'm going out to the garden. Anything you need for the party? A couple of squash? OK. A couple of baskets of beans! Allright. A basket of -- Hey, wait a minute! You can get all this stuff. I gotta mow the Floratam, hedge the ligustrum, edge the driveway and spray the crape myrtle! I ain't got time to pick no two baskets of beans. Hey hon', you know the white flies on the crape myrtle, gardenia, and -- what's that other stuff? You know, them things with the green leaves and the little flowers. I think they're from Asia someplace? Anyway, here's the deal: I just call up the Department of Agriculture and tell 'em we got a medfly in the backyard! They'll nuke 'em for us, ha, ha, ho, ho. OK sweets, see ya in an hour or three. Hmm ... ya know, its gettin' kinda hot out there. And the game is gonna be on ... aah, maybe tomorrow."

See, we really haven't changed that much. All of our animal instincts are still there: survival, sustenance, procreation, love, protection, food, football ... What has changed is our connection with Mother Nature. And with it, our enviro-landscape. How? Why? When? With the help of several people in the field of paleoethnobotany, we can get a pretty good picture of how things were and how they began to change. My apologies to Lee Newsome, Robin Brown, and particularly Donna Ruhl (who help me a lot), for stepping all over their work.

Pre-Columbian Florida:

It should be no surprise that Florida's earliest peoples were fisher- and hunter-gatherer types, who foraged for small game and edible plants. We know that corn was being grown in Florida as early as 1200 years ago and maybe earlier. But agriculture began almost accidentally when the villagers realized the ease of collecting fruit from the errant
seeding that grew up from the garbage pile of a previous feast. Usable plants began to be sown in the disturbed soil in the villages. Ah! Florida’s first foundation plantings.

Aboriginal peoples grew several species of beans, corn, and cucurbits (squash, bottle gourds, and pumpkins). One such pumpkin is the afore-mentioned moscha, Cucurbit moschata, a native of the Okeechobee area and probably an ancestor of the modern pumpkin. Early this spring, I was given a fruit of moscha by a fellow FNPS member, Dan Kauflman, who described it as Miccosukee squash. The fruit was last year’s and had been on the vine all winter. It was still firm, with no evidence of mold or rot. I cut this moscha into chunks and planted the deep orange pumpkin flesh with seeds in four hills in a roughly 8’ x 8’ square. That was May. By August, the moscha vines had taken over the neighboring cantaloupe hills, overrun the screaming cucumber vines on the fence 10 feet away, and twined up the opposite fence 20 feet away. Last seen, “Mosch” was heading for the Little Shop Of Horrors to find someone he could relate to. No irrigation! That’s right, no irrigation. And only one fertilizing. Lots of four-inch yellow and orange flowers, and fruit set, but the fruit, up to this point, have been infected by stink bugs. That reminds me, I gotta go call the Dept of Agriculture and report a medfly.

Back to the village landscape. Certainly the components of these early domesticated landscapes were wild plants that had practical value: nutritional, medicinal, and ceremonial. And over time, these gardens became more structured, turning to forms born of logical efficiency – taller plants to the rear, bordered paths, etc. As a side benefit to this domestication, these village gardens attracted small animals resulting in opportunistic hunting. For an in-depth look at the plants used and the way they were used, read Florida’s First People, by Robin Brown.

SPANISH COLONIAL LANDSCAPE

So it was when the Spanish came to Florida, the first large wilderness to be settled by Europeans. The Spanish were challenged and terrified. The drive to pasturize the landscape became the priority of the immigrants and also the key theme of most political decisions. Isabella and Ferdinand had latched on to the expanding wool market in Europe, and Spain was very rapidly deforested for sheep grazing, timber, and fuel for transpor-

The colonists fell upon the native populations for food, goods, and services. Spanish missions set as their goal (and justification of gross mistreatment) the conversion and salvation of the Native American soul. The natives were subject to all the evils of slavery, including death, in an effort to keep the colonists fed. What did Mark Twain say? “Soap and education are not as sudden as a massacre, but they are more deadly in the long run.” In this case, the threat of massacre was real and the education was indoctrination (in lieu of short term survival but eventual doom).

Were it not for the native foodstuffs incorporated into the Spanish diet during this period, the settlers might not have survived.

... there is a good record of commonly used ... American natives hybridized in the advanced English horticultural system and sent back to this country generations later as named cultivars.”

ENGLISH FASHION

AND AMERICAN NATIVE PLANTS

“We had always, indeed, excused ourselves for the well known neglect of the riches of our native Flora, by saying that what we can see any day in the woods is not the thing by which to make a garden distinguished — and that since all mankind have a passion for novelty, where, as in a fine foreign tree or shrub, both beauty and novelty are combined, so much the greater is the pleasure experienced. But, indeed, one has only to go to England, where “American plants” are the fashion ... to learn that he knows very little about [their] beauty ...

from “The Neglected American Plants,”
The Horticulturist, and Journal of Rural Art and Rural Taste,
Andrew Jackson Downing, Editor,
May 1851

English settlers on the Atlantic coast, like their Spanish cohorts, were interested in recreating the comforting gardens of their homeland. Many early communications
among family members on both sides of the ocean dealt with the sending of seeds and plants. Plant exchanges remained one of the more continuous and friendly links between colonists and the mother country for several hundred years. Thanks to numerous nursery catalogs of the time preserved by the Massachusetts Horticultural Society, there is a good record of commonly used trees, shrubs, and herbaceous perennials, many of which were American natives hybridized in the advanced English horticultural system and sent back to this country generations later as named cultivars. It is also fascinating how many southeastern coastal and Piedmont plant species show up in English country gardens even in the 18th century, including: *Itea virginica*, *Gelsemium sempervirens*, *Magnolia virginiana*, and a number of *Ilex* species. The English controlled Florida for a short time between 1763 and 1784. By that time, most of the aboriginal tribes were wiped out or scattered and replaced by others, most notably the Creeks (Seminoles). The English, other than setting the pace of plant exploration and relocation, had little impact on Florida.

**Plantation Life**

It should be noted that except for the wealthy land owners of the post-Spanish period, not many Floridians had the time, resources, or energy for ornamental gardens. A good example of this is plantation life in Florida. The beginning of the 19th century saw the plantation system move into Florida, and along with it the second wave of slavery. The great plantations of the South resembled, in scale, the Haciendas of the Spanish. They were remote large land holdings that were self contained and self sufficient. The English boxwood garden of the Virginia plantations was lost in Florida and nothing available to replicate it until Schellings put his name on dwarf yaupon holly (*Ilex vomitoria nana*) a century later. Consequently, the moving of trees from the wild into avenue and plantation road plantings was the major landscape focus. Among the most used were the oaks, magnolias, plums, hollies, and maples.

Inside the plantation villages, the small landscapes around the housing that slaves were sometimes permitted to control became multifunctional areas for work, recreation, and outdoor living. Because living quarters were very small, the patios of bare dirt became the living rooms in good weather. In these areas, slaves were allowed to or even expected to supplement their furnished food rations with leisure time gardening and animal husbandry. This small tradition of independent farming would later serve former slaves well when they became sharecroppers.

**RECONSTRUCTION FLORIDA**

Few railroad lines had been in operation in Florida prior to the Civil War and most overland roads were the trails of native American origin. As a result, Florida was not sought out for settlement by the waves of immigrants that came from Europe in the first half of the 19th century. It was not until the western frontier was conquered that people turned to Florida to settle.

Under reconstruction, Governor Bloxham initiated the sale of 4 million acres of land to Hamilton Disston, the Philadelphia saw manufacturer. With Disston and his steam-powered "maws" digging drainage canals from St. Cloud down to the tip of Florida, Florida began one hundred years of environmental prostitution. From 1880 to 1900, railroad mileage increased from 550 to over 3000. The railroads brought in the tourists from the north, hauled out raw material to northern markets, and opened up large stands of virgin timber that previously had been inaccessible.

Two asides here: Tourists would railroad into Jacksonville, steamboat down the St. Johns from which they took great sport in shooting wildlife (this was before Nikon by the way). They made a serious dent in the population of some species and raised the ire of such pioneer conservationists as Harriet Beecher Stowe, who had a winter home in Mandarin. Also, a large market for Central Florida longleaf pine heartwood timber was the South African diamond mines. It was one of the only woods that the African termite couldn't tear through.

Toward the end of the 19th century, two killer freezes sent the citrus industry down into the sandhills of Central Florida. The rapid southward migration of citrus meant the clearing of hundreds of thousands of acres of pristine longleaf pine wiregrass community. Described by early settlers as open and "park like," one could position oneself on a ridge or hillock and enjoy a vista of miles under and through the pines – vistas that would not be seen again until the record freezes of the 1980s. But alas, the vistas are again vignetting as the new citrus groves fill up and out. Quote the old Frenchman again, this time in English: "In nature there are neither rewards nor punishments – there are consequences."

**The Big BOOM!**

It was during this post-reconstruction, industrial revolution period that several men who would have a great impact on the Florida landscape arrived. Henry Flagler and Henry Plant were two of these men. They built railroads, they built hotels, they built towns. And in the case of Margaret (Mrs. Henry) Plant, single-handedly built an international market for grapefruit. Both Flagler and Plant started at the bottom and ascended through the business world by seizing opportunity and taking advantage of new technologies, new materials, recessions, and people. Both men came to Florida to convalesce their ailing first wives (both of whom died before their husbands started their massive development in the state). Flagler, who had been wealthy for years
by way of his partnership with J. D. Rockefeller in Standard Oil, was one of the original investors in Henry Plant’s ventures. Plant, who was not wealthy when he first arrived, amassed property by using other people’s money and the “Panic of 1873” that had the southern railroads and Florida in deep depression. He bought more than a dozen railway lines and combined and improved them. Plant discovered Tampa. In the ten years before Plant came, Tampa’s population had declined by 10 percent. In the decade after, it shot up more than a 1000 percent. Plant built Port Tampa just in time to become the world’s major phosphate shipping port. He built the Tampa Bay Hotel (now the University of Tampa) just in time to provide military brass of the Spanish American War their porch rockers for the “Rocking Chair period” of the war. And he made millions.

Henry Flagler made Florida the winter playground for the rich. His extravagant and innovative St. Augustine architecture (first poured concrete buildings in Florida), with custom brick and terra cotta facades, would not be matched artistically before or since. While Flagler’s hotel architecture became less ornate and extravagant as his development moved south into Palm Beach, it was no less massive (consider, for example, The Royal Poinciana with 1081 rooms).

To be sure, Plant and Flagler set the standard for hotel building worldwide. But it is the first grand-scale, urban, commercial ornamental landscapes in Florida that are of interest to us.

It is not surprising that so many native plants were used. It is surprising to see all the exotics. This was prior to the frantic exotic plant introductions by David Fairchild and others, and prior to any real nursery industry in Florida. The landscape architecture surrounding the Ponce De Leon Hotel was simplified European. The plaza contained the important elements of Spanish gardens: a series of cross walks or drives, with fountains in the centers. Simple geometry and simple lines. What made this plaza so impressive was that it covered two city blocks. The walks divided the plaza into sixteenths, each bordered by a 3-4 foot yaupon holly hedge. Inside these hedges, the arrangement became a regular placement of live oaks, magnolias, and American hollies. Lining the main drives were sabal palms. Overly large wax myrtles, along with more sabals, were used as foundation plantings.

Most, if not all, of this material came from the wild. The sabals, live oaks, magnolias, hollies, and wax myrtle were all about as big as could be handled by hand and oxen. The yaupon could have been dug, containerized for a period, and then planted out. Among the exotics that show up are several South American plants that may have come by way of earlier Spanish introduction, namely bougainvilla and pampas grass. The odd one is the Chinese fan palm (Livistonia chinesis) that may be a derivative of an early English collection.

Henry Plant’s Tampa Bay Hotel landscape did not match the grand building architecture at all. The walks were poorly laid out, creating odd little disproportionate planting islands. The landscape from the building walls out was a hodgepodge of plants in and among attempts at turf panels. Again, sabal palms and live oaks were used. The real notables are needle palm (Rhapidophyllum hystrix), giant leather fern (Acrostichum danaeifolium), bear grass (Yucca filamentosa), and, intentionally or not, Virginia creeper (Parthenocissus quinquefolia) climbing the building walls. Several unidentifiable large shrubs used as foundation plantings might be native or not. They might even be Brazilian pepper!

Exotic ornamental plant material was next to non-existent in 1880s Tampa, although just down the road in Manatee County, the area’s first nursery was about to come to life.

THE FLORIDA HORTICULTURISTS

In the mid 1880s, Pliny Reasoner and his brother Egbert started Reasoner’s Royal Palm Nursery. Renamed Reasoner Brothers Nursery by Egbert after Pliny’s death in 1888, it is surely the oldest continuously operated nursery in the state. Pliny Reasoner was a very close friend of Charles Torrey Simpson, “the old man with a hoe,” as he referred to himself. Reasoner and Simpson had been raised on nearby farms in the same county in Illinois, but did not meet until Simpson and his wife moved to Manatee County in 1881. Charles Torrey Simpson was Florida’s pioneer naturalist. A self taught malacologist who worked in the Smithsonian’s Department of Mollusks between earlier failed attempts at life in Florida and Nebraska, Simpson had a rare appreciation for the Everglades and its importance at a time when Disston and almost everyone else wanted it drained.

Here we have some interesting connections. Simpson would have an influence on David Fairchild, who, having secured financial support from Henry Flagler for the first Plant Introduction Station in the Country, tried in vain to talk the financier out of his
obession with a sugar cane monoculture on Disston's newly drained Everglades. Another man influenced by both Simpson and Fairchild was the young engineer whom Flagler had put in charge of building the overseas railroad. His name was William Krome. The Krome Fruit and Spice Park bears his name.

It might appear, and may be true, that these men were more concerned with exotic than native plant species. They were all passionate horticulturists from the English-influenced landscapes of the north. Environmental concern was in its infancy and there was no shortage of wild Florida. None could imagine the coming steamroller of so-called progress. I defer to the old French guy: "The reasonable man adapts himself to the world: the unreasonable one persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man."

But there were some good things happening as well. For instance, in Simpson's book *Ornamental Gardening In Florida*, he says:

"In this edition I have given special prominence to our native plants, urging that they should be saved from destruction and extermination, also that those who have places should bring them in and cultivate them. We have as yet very little knowledge of what may be done in adding to the attractiveness of our grounds by a judicious use of such material."

At the same time, Charles Deering, with Simpson's expertise, was constructing a native hammock on his Buena Vista estate, as so much hammock land had been lost to the railroad expansion. Deering also provided on his estate a place for John Kunkel Small to keep a living herbarium of plant collections while gathering information for his *Flora of the Southeastern States*. Simpson and Small made many collecting trips together, many sponsored by Deering.

**Mountain Lake Sanctuary**

One of the many well-off winter residents of Florida was Edward Bok, the Dutch immigrant who had become a successful publisher. Bok lived in one of the first homes to be built in the exclusive Mountain Lake development near Lake Wales. Part of the Mountain Lake Corporation property, platted but still undeveloped, was Iron Mountain, considered the highest point in peninsular Florida. Bok conceived the idea of buying the top of the mountain and making a bird sanctuary of it. The developers were eager to sell because of the difficulty of getting water and utilities to those platted lots.

In 1921 or 1922, Bok hired landscape architect Frederick Law Olmstead, Jr., to lay out the sanctuary. Olmstead, Jr., was the son of the man who had created so many lasting urban parks throughout the country, including Central Park in Manhattan. Although Senior had done the site planning and engineering for the developers down below, neither he nor Bok fully knew or understood Florida ecosystems. Iron Mountain was sandhill, pristine sandhill! While his heart and intentions were in the right place, Bok relied on Olmstead to come up with the sanctuary plant palette, and Olmstead relied on what had been easily transplanted from the wild for his few other Florida projects. The list of natives used is extensive, but a lot were wetland or flatwoods species. Lobolly bay, sweetgum, dahoon holly, wax myrtle, red maple, and sabal palms, totaling 160 or more, were used. Live oak, slash pine, and over 1000 gallberries were also used.

The development of the sanctuary continued over several years, during which time the focus gradually shifted from native plants to provide bird food to flowering ornamentals that attract visitors. It is interesting that sandhill was considered useless wasteland by all but a very few. One of the few was R.M. Harper, geographer, botanist, and surveyor at the University of Georgia. Harper read Bok's account of the sanctuary in *Scribner's Magazine*, in which Bok described the mountain as "a dreary sandhill devoid of growth and beauty;" and that thanks to his planting berry bushes, thousands of birds were saved from starvation. Harper refuted it all, but no one was listening. The sanctuary, with the latter tower and carillon addition, became botanical gardens and a sanctuary for people. Edward Bok died in 1930, and with his passing and effects of the Great Depression, the gardens went through the next twenty years without much maintenance or improvement.

In the mid 1950s, several things happened to resurrect the original sanctuary idea. William Lyman Phillips, Olmstead's representative in Florida, had continued his association with the gardens through the years. Phillips felt that a more natural, secluded pond would be needed to invite wading birds. He designed and supervised the construction of a lined, sand-bottom pond planted with native lake edge vegetation. At about the same time, Ken Morrison was hired as sanctuary manager. Ken admitted at his interview that he was more of an ornithologist and not so much a horticulturist. Finally, after all those years, the man in charge really knew something about habitat.

Among the many back-to-habitat changes Ken made was the "Windows on the Pond." But the most critical and timely accomplishment was the purchase of the last undeveloped sandhill remnants left on Iron Mountain, all of which had been slated for orange grove. This property would later become the "Pine Ridge Preserve," maybe the first and certainly one of the very few privately held sandhill preserves in peninsular Florida. Today, Bok Tower Gardens is a leader in the reintroduction of fire regime in small preserves, as well as restoration of wiregrass wildflower community. It is also one of more than 30 endangered plant arborescence in the country, successfully propagating a number of *Dicernandra* species as well as Okeechobee Gourd and Ziziphus. Through
Tribute to an Early Plant-Man, Henry Nehrling

"Our indigenous flora is varied and beautiful. In the contemplation of garden and park, the native trees and shrubs should always form the foundation." — Dr. Henry Nehrling, "Future Possibilities in Florida Horticulture," early 1900s

Richard Nehrling, grandson of one of Florida's legendary plantmen, Henry Nehrling, is seeking official state recognition of his grandfather's many contributions to Florida horticulture. Henry Nehrling tested over three thousand plant species and successfully introduced about three hundred new and beneficial plants and trees to the Florida landscape, including caladiums, for which he is perhaps best known, as well as hybridized amaryllis, bromeliads, cycads, water-lilies, and crinums. His botanical gardens in Gotha and Naples were accredited experimental stations for the U.S. Government. Botanists from around the world sought him out for his knowledge of tropical and sub-tropical bamboos and palms.

FNPS members, particularly those who are "field people," will appreciate the following tribute, written by another famous Florida plantman, David Fairchild, upon Nehrling's death in 1929.

"Dr. Henry Nehrling was a born plantman as proven by his early interest in plants and his extraordinary powers of observation...

It is to the lasting honor of Dr. Nehrling and a matter of historical moment, that he studied closely every species of tree, shrub, or vine that he grew...

He preferred to study the plants themselves rather than to read about them. This was one of the reasons that he added to our knowledge of plant behavior in Florida in a way he could never have done through reading about them in encyclopedias and dictionaries, which are more of a historical than a first hand store of information.

I emphasize this characteristic of Dr. Nehrling's mind for I believe it of peculiar importance and significance to Garden Club members. If they desire to add some grains of sand to the little pile that others before them have made — sand being knowledge — let them study their plants in the early morning as Dr. Nehrling did, not running to the literature to find the names of their plants and then sitting down to see what others have recorded about them in the past...

Such minds as his have always appealed to me as of great value in a community. They appear to be children's minds with all the keenness and delight which child minds show toward things around them and with long memories of what has been seen.

How often, alas, book schooling drowns the children who love nature, with a Niagara of words and the word is not the thing...

I have so many memories of Dr. Nehrling that I could run on as I can always about the real naturalists I have known. Without them where would this world of human haters land us? The wild life is passing. Man is destroying it. Dr. Nehrling loved it and taught thousands to follow in his lead."

To assist in the effort to obtain official recognition for Henry Nehrling, please write his grandson, Richard Nehrling, at the following address: 2700 Liberty Lane, Jacksonville Beach 32250.

About the Author: Bill Bissett is a landscape architect and partner with his wife, Nancy, in the well-known and well-stocked native nursery, The Natives, in Davenport, Florida. He is a former board member of the Florida Native Plant Society, former chairman of the FNPS Landscape Enhancement Awards, and co-founder of the Heartland Chapter, FNPS.

References

"Study landscape in nature more, and the gardens and their catalogues less, is our advice to the rising generation of planters, who wish to embellish their places in the best and purest taste."
—"A Few Hints on Landscape Gardening," The Horticulturist, 1851