

Song of Wekiva

Florida's Wild River and its Democratic Vista



Steve Phelan

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Introduction

How to Navigate This River Book **[Using the color code. 1p]**

Preface **[A note on my optimism in this book with acknowledgements of all who have helped along the Wekiva.]**

Wekiva: a Non-stop Flight **[The state bird opens our story of Florida, out of the sea's cradle endlessly mocking. 3pp]**

Old Sea – New Land **[Florida's unique geological history. 2pp]**

The Heart of Lightness: Settlers in the Swampshine State **[A short history of Florida and the Wekiva's place in its growth management. 6pp]**

A View from the Swallow-tailed Kite **[The river and its five runs with an explanation of the many directions and dimensions we will explore. 6pp]**

Three Different Ways to Navigate This River Book

A) If you read from start to finish, you will encounter an unusual array of kinds of writing, short and long, now and then a healthy chaos. However, these sixty-six pieces do accumulate to a deep understanding of what it means to live fully in the community of the Wekiva (or any other river). The Introduction explains more fully how the many threads of the story work together.

B) Otherwise, you can follow the color patterns of the bracketed summaries in the Table of Contents that initiates each chapter. Once you decide which piece you want to read, click the appropriate bookmark on the side panel:

spring azure

overviews to start each chapter or philosophical pieces in mid-stream

cypress-leaf green

nature writing including vignettes of the river in stories of hikes and paddles spaced out along the five major runs of the river

navy blue

historical essays outlining chronologically, through the introduction and five chapters, how the Wekiva River has become a National Wild and Scenic River, a shining example of how to balance growth with preservation and protection

solar orange

four eco-literary interludes which describe how Whitman's *Leaves of Grass* changed my life and created this book, the style of its nature writing, and the themes embodied in each chapter. Two pieces on William Bartram appear in the Appendix.

C) Or else, read it like a magazine, choosing whichever article strikes your interest on the basis of the title and the summary.

Finally, a note on maps and photographs. To get a better or closer view of any image, use the magnifier (the + or -) which usually appears in pdf files at the top of the window or when you run the cursor over the bottom of the page.

Preface

1/24/2010

I have poured my heart and soul into this book about the Wekiva River. It is a celebration of the beauty and depths of the natural community and chronicles the history of its protection and preservation for future generations by a prodigious effort of the people who care. I make no place for the opposing forces, but I am not blind. I choose to believe in the human potential to create new structures to overcome the negative dimensions of the capitalist enterprise.

Please do not be put off by the optimism of my approach, the notion that the environmental protection accorded now to the Wekiva River could somehow make up for Florida's clear record of environmental degradation due largely to an explosion of human population. So Florida has experienced habitat loss, declines in fish and wildlife populations, and numerous abuses of the eight-billion-gallon-a-day natural water system. We have also seen outrageous constructions along hundreds of miles of the primary dunes; and our world of commerce and transportation is designed largely without nature in mind. This is not destiny.

I follow these days the terrible experience of natives of West Virginia and Kentucky who have to watch their mountain tops blasted into creeks and stream beds. As children they scurried over boulders through bouquets of mountain laurel and around dense stands of rhododendron, following the songs of cerulean warblers, and then finally reached the top where ravens pitch their swift-gliding shadows over great vistas. The children who survive this mindless blasting will surely have a shorter hike.

We burn their coal in Florida and with each kilowatt hour we shrink the rocky top experience of future children in Appalachia. The local protests have risen to the level of the state legislatures and courts, and even the supreme court, in vain. King coal has taken over the democracy, it would seem. Even this is not destiny. We have choices, networks, inventions, incentives, mitigations, rule changes, protests, and elections.

In 2000 my friends Bill Belleville and Bob Giguere made a superb documentary film about the Wekiva entitled "Legacy or Loss?" I am not in denial about the horrible possibility of loss. However, no one is threatening to blow the springs of Florida to sandy bits. Protection of the precious Florida natural world and our own pursuit of life, health, and happiness are dependent on a hopeful, positive, cooperative attitude. The idea of this book is to give us the heart and the creative spirit to sustain, for all of Florida and America, what has been achieved here, in the Wekiva River basin, in just a few decades.

Acknowledgements

Here comes the parade of folks to be thanked for helping me along the way.

For leader of the troupe I have the poet, Jean West, my dear wife. She reads it all and helps to keep me honest. Her much more measured spirit has not always been able to contract my tendency to overstatement.

Next come the delightful antics of my four children: Sean, John, Brian, and Kathleen. They have been my fellow explorers in Florida and across the land. What a blessing such extension of myself has been in the wild everywhere: four more sets of eyes and ears, many more legs and side paths, we move like an earthbound octopus across the landscape. My fondest vision of this marvelous crew is watching the four of them in contests of gunnel-pumping on the Lower Wekiva. Now they have children of their own and some of them have tasted the pleasures of Wekiva.

My closest hiking and paddling friends, Jim Warden and Bill Belleville, bring their own music to the party. Jim is a fellow teacher, physicist, and songwriter. Bill is one of Florida's finest voices for sanity and grace. His many articles and books, his films of the wild, fill a special shelf in the minds of Florida readers and viewers. I have logged well over a thousand hours of exploration with each of these two friends. Both can see themselves in my writing and take the measure of friendship in its vision of Wekiva.

In 2003 I attended a writers workshop in Montana at the Teller Wildlife Refuge conducted by John Elder. It was an exceptional experience in mentoring and support from the group of fellow writers. In conferences with John I received very strong confirmation to keep all three pathways of the book, not to be afraid to mix the literary, historical, and nature writing. He was a force for inclusion of the complexity of the book while Bill argued for attention to scale in his reading of an early draft of the collection.

Now like a band of many instruments come all the board members of the Friends of the Wekiva River to whom I am indebted for all they have taught me about the river and its politics: Russ and Eleanor Fisher, their daughter Julie, Pat and Fred Harden, Russ and Katie Moncrief, Nancy Prine, Eddie and Loraine Williford, Mary McKey, Polly Miller, Arlen Charters, Deede Sharpe and John Parker, Keith Schue, Deborah Shelley, Barbara Howell, Faith Jones, Jay Exum, Kathy Hart, John Fillyaw, Joe Bishop, and Mike Martin.

In full regalia now comes the set of Rollins College professors who were paramount in my moving across departmental boundaries into the world of the river. First among all these is the Ed Scheer, biologist and geologist, who started me on the path of teaching

environmental literature. All the members of the ES department have been valuable supporters, but when it comes to the river, a special thanks to Bill Partington, Joe Siry, Bruce Stephenson, and Jim Hulbert. Of course, I owe much to my own English department colleagues for support in research on Whitman and for graciously allowing me to teach a dizzy array of new courses linking literature and biology long before eco-literary perspectives had arrived.

Eileen Gregory taught me General Biology with marvelous excitement about the workings of the cell that matched up well with Whitman's biochemistry. Many thanks as well to archaeologist Marilyn Stewart for helping me understand about the natives of the basin and especially the Shell Island midden. I am grateful to George Herbst, Rollins Vice President, who provided the abstract of ownership of the island.

The students in this show are the gist of the matter, too numerous to name, but each one knows how much I was able to learn from the projects and journals of the course. Two are of special note. After they graduated and entered the local environmental scene, Jim Duby and Kay Yewell certainly had the most profound effect upon my work and this book. Jim's fine drawings of animals have crept into a few of my chapters.

For many years at Rollins I was part of the Florida Inter-academic Consortium (FLIC) and would like to thank the high school teachers who entered my workshops and spread my courses into their own schools. They helped extend the reach of my classroom to several thousands of central Florida's brightest juniors and seniors, especially Brenda Walton, Guy Kinney, Sharon Johnson, Marsha Taschenberger, and Mary Ellen Tierney. Udeth Lugo was the assistant dean who kept all this program working so smoothly. I see him now, year after year, bringing all the lunches for 300 hungry teens when we did our field trips out at the state park.

Research librarians are also here on the march. From the Archives of Olin Library at Rollins I owe special thanks to Trudy LaFramboise whose prodigious memory and knowledge of the Special Collections is only exceeded by her energy to find more and more. I also wish to thank the current director of Archives, Wenxian Zhang. When the FOWR was committing its historical documents to the Rollins Florida Collection, it was these two and the sponsorship of the Library Director, the late Donna Cohen, that made it all run smoothly. Kathleen Reich, former director of Archives, was especially helpful with the Whitman collection. Information technologists Miriam Moore and Sean Phalen were especially helpful in creating the ebook manifestation of the Song.

I also wish to thank the proprietors of the Putnam County Archives, who helped me in my research on the era of cypress logging, Robert Tindall for sharing some of his research on the subject, and Bill Dreggors for regaling me with stories at the historical museum in Deland. For the chapter on Camp Cozy I am especially appreciative of the help and photos provided by Mayor John Land of Apopka and that city's fine Museum of the Apopkans.

It will take a boulevard as wide as Florida to conjure up my comic finale to this list of helpers: the complete list of flora and fauna in Bartram's *Travels* (see the appendix). Imagine Lucille Ball with the cartoon task to gather them all up: otters, limpkins, live oaks and hickories, snowy egrets, starflowers, tortoises, gar, gators, crayfish, eagles, cypress, buttonbush, blueberries, deer, big ole bears, scrub jays. . . Thanks all.

Wekiva: a Non-stop Flight



Swamp Stump near Blackwater Creek

6/18/03

One morning last week a complete set of mockingbird feathers was spread out across our driveway, mostly the little curly ones you could make a fluffy pillow out of, but others, long and thin, with black and white definitions indicating a full-grown singer. Even when they're not singing, the front yard is always full of their variations and all this week, morning and evening, I have taken the time to listen to the song of the survivors. Every individual mockingbird represents a successful line of the whole species and its history.

Today one sits in our oak, then moves across the street to the old TV antenna on Bert's house and rattles off his repertoire. Up the street and over a pitch, it seems like a second mocker is responding, with only a slight time delay, the same sequence. A third bird down the street near Gary and Pat's house chatters away and a fourth, farther to the south, I can just barely hear.

It makes you wonder, if you could fly, how far over central Florida this chorus of mockers would extend, if indeed they are acting in species consort.¹ I imagine pockets of mocking-song interrupted here and there by a corresponding matrix of leaf-blowers and grass cutters. Noise doesn't matter, though, because the mockers' capacity for song seems endless, notwithstanding the cats, the barred owls, and the ospreys who live and hunt on our street.

The mockingbirds are a part of my neighborhood and because I spend many hours working in the front yard—they almost never go in the back—we have come to know each other. They used to perch (and poop) on our mail box all the time, until I planted a cherry tree on the opposite side of the driveway, right near the road. Now they croon from there. It's higher and they have greater visibility.

They also like to come to our tall river birch when I am sitting under it, resting from my gardening. I am happy for all the creatures who cohabit suburbia with me. When this land on the south shore of Lake Maitland was an orange grove, the mockers were here. Before that it was their longleaf pine and sandhill community. Their song still stitches up all this history like a fine old quilt.

*The most
precious things of
life are near at hand without
money and without price. Each of us
has the whole wealth of the universe at
our very door. All I ever had, and still
have, may be yours by stretch-
ing forth your hand
and taking
it.*

John Burroughs
(1837-1921)

It might seem strange to open a book about the Wild and Scenic Wekiva River with a discussion of the most common of birds, one not often seen in the swamp or from a canoe floating down the main stream. But the mocker is there to remind me and you, dear reader, that every suburb is on some river, just as much as every wilderness is already some critter's neighborhood.

The song of the state bird, the smallest spring pool of the river, the tracks of the heron in the sandy bottom of a shore line, and the flight of the swallow-tailed kite, all have the same features

¹ "The dawn chorus is one of the most conspicuous vocal behaviors of birds, and one of the least understood," according to BirdScope, Cornell Lab of Ornithology's newsletter for Spring, 2004. Mockingbirds are not mentioned.

of continuity that betoken life everywhere. The wild is not remote, only familiar or strange in particular features, depending on the amount of our experience. And scenic? That's a word for tourists and postcards. We need a new word for how our place sinks into us with its down-to-earth splendors, night and day. The Wild and Rooted River, perhaps.

My words are chattering out now from a beautiful, restful inner space. I perch on river places and life-posts to sing to my neighbors and to all others who yearn for good neighborhood. Even a century after you and I are gone, there can be new neighbors to awaken to the wilderness in their backyards, along the river's stream, in their hearts and souls. Gerard Manley Hopkins, England's finest earth-poet, called it *inscape* and sought to capture its magical rhythms:

*As kingfishers catch fire, dragonflies draw flame;
As tumbled over rim in roundy wells
Stones ring; like each tucked string tells, each hung bell's
Bow swung finds tongue to fling out broad its name;
Each mortal thing does one thing and the same:
Deals out that being indoors each one dwells;
Selves—goes itself; myself it speaks and spells,
Crying What I do is me: for that I came....*

Old Sea – New Land



Artifacts Found at Shell Island

There is no place to begin the story of the Wekiva River. It's very much a four-dimensional merry-go-round you can hop onto at any available slot. Once you do, then the entire river is yours and the song of it will grow into an openness and light. Think of her wilderness as the bright swamp lily that grows out of the watery abyss and closes up before the moon catches night.

Even though Wekiva is in perpetual motion, she rises every morning with the sun; but not too long ago, just sixty-five million years for example, she was looking at the sun from the bottom of the sea. Then much later, during the ice ages, this sliver in the Atlantic rises and sinks for a hundred thousand years and we call it Florida because a Spaniard sighted it on Easter in 1513. How funny is that, Easter flowers for a frequently resurrected footpad of limestone? This

geology reflects not so much the myth of Atlantis or the story of Christ, but the natural character of Florida. Every now and then, as in the 2000 election, Florida just goes under.

So Florida is first and foremost this sea floor full of holes, pockets, long thin cracklines, huge deep caverns and conduits, sponge-like pastures of bones and teeth of critters from millions of years of sedimentation in the sea. Even today and for at least as long as human record backwarps, you can find a spring of fresh water bubbling off the coast of Florida, off Crescent Beach to be exact, directly into the ocean. It represents the fresh rains trapped for ages in the stone-sponge of an even wider peninsula than we see and drive today.

The whole state is this gigantic fresh water tank with sea almost all around it, trying to get in. At the same time in a thousand places, the fresh water is shooting out under high pressures or seeping out in tiny roils and cracks. In recent geologic time, Florida's battle between sweet and salt water, like Apsu and Tiamat in the Babylonian creation account, is a constant. When the glaciers breathed in and sucked up the sea, Wekiva flowed coolly down to the old ocean bed of the St. Johns River. When they exhaled their fresh snow-waters, large parts of the peninsula sank once again into salt and the springs of the Wekiva River gushed out once again over a half-fallen Atlantis, the submarine state we see today.

The St. Johns River Water Management District puts out maps of the NE corner of the peninsula which clarify something spectacular. The area between the central limestone ridge and the coastal dunes is largely a very broad, shallow valley, in some places two topological maps wide, mostly populated with swamps and lakes. My friend Bill Belleville has written a book about the St. Johns entitled *River of Lakes*, but he could just as easily have called it River of Swamps. Indeed, clearly inhabitable upland is at a premium wherever the St. Johns flows because those little blue squiggly marks keep popping up on our topological maps, indicating seasonal water.

In this region, especially in the rainy half of the year, you can see the substantial overlap between the word *forest* and the word *swamp*. When all of the hydric hammocks and bottomlands in the St. Johns valley are water-logged, then the upper peninsula of Florida, actually on both sides of the central ridge, has almost as much of an everglades as the lower. I like this word *glade* to represent the composite of wetland and forest because it carries the sense of joy and light which most of the Anglo-Saxon *gl-* roots share (*glimmer*, *glass*, *glad*, *gleam*, *glow*). The difference up here in the St. Johns basin is that our ephemeral glades have more trees and tree species, but much less sawgrass and far less glare.

The Heart of Lightness: Settlers in the Swampshine State

A Shark's Tooth from Shell Island

(about the size of a quarter)



While Florida was coming and going under the sea, humans were making their way from Africa to Asia to Europe to the Americas, and finally to Wekiva. First they entered Florida by foot, by kayak, and by dugout; later nations came from Europe by galleon, by horseback, by cart or carriage, by sail and steamboat. Whatever their mode of travel, Wekiva was just about the last place they would find.

Florida is not one of the original states, but it is the oldest European colony in the union. Its strange history of peoples coming and going—Mary Austin would say, *paso por aqui*—begins with natives who migrated up and around from Mexico, other island-hopping cultures from the Caribbean and even South America, and later, refugees coming down from the southeastern states to escape deportation to Oklahoma. We need an appreciation of these cultural cross-currents in Florida to understand the community of the river we are building, as many before us have done.

The first European settlement in Florida occurred in 1562 when Jean Ribaut and his French Huguenots built Fort Caroline on the south bank of the St. Johns River, safely inland from the mouth. The Spanish, under Pedro Menendez de Aviles, arrived shortly thereafter and drove out the French in a series of bloody encounters. The first governor of Florida, Menendez settled his strong force at St. Augustine in 1565, making it by far the oldest city in the United States.

The Spanish built their fort and town with the aid of Africans, both free and slave. For almost two hundred years, then, Florida grew as a Spanish colony with cultural assimilation and some intermarriage between Spanish, African, and the indigenous nations, mainly the Tequesta,

Calusa, Miami, Timucua (var. Tomoka), and Apalachee. That's a long time, by the standards of American history—longer indeed than Florida's U. S. history--and only in the past twenty years have scholars begun to do it justice.

In 1763, after the French and Indian War, when the balance of colonial powers in North America had fully shifted, Spain traded Florida to the British in exchange for Havana. Consequently, in the next decade Florida found itself on the wrong side of the American Revolution, and hence, after the British were defeated, another trade was made and Florida became Spanish again.

In another forty years, Spain ceded Florida to the U. S. (1819) and it became an official territory in 1821 when we paid five million dollars for every acre and watershed of it. The official population in 1825 was only 13, 500. How could so few control so much? Clearly some elements of the Spanish era remained a part of the new territory and blended into the growing population. Meanwhile, the Seminoles and Miccosukes strongly and courageously resisted the policy of removal, surviving as a nation in the recesses of the Everglades.

Made a state in 1845, Florida was again on the wrong side of history in the Civil War, flying a Confederate flag. What other state of the union has played so much political see-saw? From the beginning, sticking out as it does into the sea of political possibilities, Florida has always been a state of change and migration.

When we tell history like this in broad strokes, we lose contact with the actual people and communities which are the heart of our culture. In 1850, after three hundred years of cultural upheaval and political hopscotch, Florida had a growing population of 87,000. The land sustained them while the governments came and went. They included titled landowners, their slaves or tenants, rugged individualists, refugee slaves, squatters, and "injuns." It really wasn't until after a half-century of Seminole wars and then the Civil War that the new state became fully open to U. S. settlement. Then the word got out about our glorious timber stands and our winter wonderland. Almost all of the towns and communities of central Florida, including Wekiva, date their origins and often their names from the period between 1875 and 1900.

In large numbers they came from the northeast and midwest. Most traveled down the east coast by all sorts of vessels and down the St. Johns River by steamship. At the end of the century the railroads followed, but in the wide swampy valley of the St. Johns, the routes available for roads and rails over land are limited. Ships, of course, can carry anything, but rails are much better to get materials and goods across the country or to an ocean port.

Every resource to be extracted has to have these pipelines, has to have a large labor force to run them. Nothing in the history of civilization and a healthy ecology has stood up well in the context. Wekiva knows this story because it was in the 1850's that the Florida spring became the logical vehicle for both extraction and production. The first and second magnitude springs provided energy for a mill and transportation to a port. A major impetus for this growth was the

Swamp Land Act of 1850 by which the U. S. gave the State of Florida twenty two million acres of swampshine. It wasn't quite the gold rush of California, but folks did get a little heady over it.

One of the first settlers to reach the Wekiva was William S. Delk. A native of Georgia and a slave owner, Delk belonged to the Whig party that opposed slavery. He came to Florida to fight in the Second Seminole war and received forty acres of land near Rock Springs for that service. Later he was able to homestead an additional 160 acres which includes the springs and what is now Kelly Park. He farmed cotton and had both a sawmill and a gristmill that used the spring run.

Perhaps he settled in the Florida territory with his wife of African descent and their son in order to avoid the coming war between the states, thinking like Whitman and the free-soil democrats that Florida should not be engulfed in the slavery controversy. However, Florida was a confederate state from 1862-68.

I wonder how the concept of private property worked for him when it came to his family. We know that he freed his slaves when the Civil War commenced and moved up north to fight on the Union side. After it ended, his son returned and was unable to claim his father's land holdings. So the force of the war can be seen as an extension of liberation of the person, but not always his land.

In our time, America has great clarity about how a human may not be owned or be one's property. Today, even parents are not perceived as owners of their children, although the normal relationship is still considered practically sacred. In reality, though, parenthood is divided between mother and father, and thereafter between the both of them and the state. The state's interest in the life of the child sometimes supersedes the "proprietary rights" of the parents. Abuse of the child is reason enough to forfeit those rights and, it might seem a stretch, but the same could be said of the rights of the river or the land. The preservation of Wekiva in the past thirty years, as this book means to document, is assurance enough that the people here now have almost the same mutual love and respect for the land and water as for their parents or children.

Many of those who built Florida in the nineteenth century were not really settlers, but wealthy speculators from afar. Besides oranges, lumber, and turpentine, they saw the next stage of Florida's population flow, that new phenomenon, the snowbird coming down just for the warm winter spell. Ever since the last quarter of the nineteenth-century, for better and for worse, for richer and for poorer, Florida has been governed by the ratio of tourist to settler. By my estimation, since 1870 we have averaged three visitors per year for each resident. This, until recently, unwinged migration is understandably a central issue for the ecosystem and all its communities. To live in Florida is to live with a calendar full of snowbirds, mostly from December to April, topped off by the infamous spring break. This tourism feeds new settlement, so that every day upwards of a thousand new settlers arrive to prime the pump of housing growth and sprawl.

In spite of all this turmoil, the State of Florida has recently developed some singleness of mind about the problem that is wonderful to behold: the principle of growth management. The idea, which started in the 1970's, balances population pressures and economic prosperity with conservation of the most precious habitats and preservation of the ecological systems that underlie all human civilization.

My single word for this enlightenment is *Wekiva* and that, magically enough, rhymes with Godiva. Even though the river is only a modest contributory to the St. Johns (the main stream just sixteen miles long), the beauty and wilderness of its large wetland basin has raised it to the center of attention for the success of a statewide program of conservation and community. The phrase we use, *growth management*, is only a contradiction if the two sides stop working together.

Today hundreds of thousands enjoy the river every year.¹ We are a different breed. When I take our children or my students to the river or walk along its sandy uplands to show them undiscovered and unmapped springs popping out of the ground, they and I are still abiding in a domesticated world that erects a substantial, almost impervious barrier to the wilderness of the river. Nevertheless, that wildness is built unconsciously into our bodies. We are not like the Timucuan, the first humans to come down the St. Johns River and eventually up the Wekiva to the two main springs. They knew they were river people.

For me, gradually, Wekiva has become not just a river, but a state of mind, a habit of place. It doesn't just belong to the aboriginal river-dwellers who lived largely on snails and mussels, turtles and fish, shopped from the river bed. Wekiva also inhabits those who inhabit it now and who have grown to love and care for it.

So this book is also the story of a small grass roots organization, The Friends of the Wekiva River, Inc. (FOWR). In the last twenty years of the twentieth century they have helped secure a lasting legacy of the river for generations to come. After more than a century of human degradation of the earth, Wekiva is probably the best story in the east of how we can help preserve and restore a watershed and its ecosystems. It might take another century. Nature has enormous powers of self healing and all we have to do is give it half a chance.

Chartered in 1982 as a non-profit organization with nineteen members, the FOWR have been the primary agents in cleaning up the river, having it designated as an Outstanding Florida Waterway and a national Wild and Scenic River, one of only three in the east. They have helped the state and the counties purchase large tracts of land in the basin, so that now the river engages almost 70,000 acres of protected Florida uplands and wetlands. And finally, even though it took a coalition of many forces, it was largely through their efforts that the legislature passed the

¹ Attendance at the two major parks alone accounts for half a million. So add to that another hundred thousand for those who hike, hunt, and paddle the rest of the basin.

Wekiva River Protection Act in 1988, an exemplary law that provides buffers for the river from several different kinds of development.

Across America, the river is the focus of an enormous and powerful democratic movement, both to preserve the quality of life and to educate the quickly domesticated techno-mind to a more comprehensive understanding of the ensemble of water-ways and life cycles. The Song of Wekiva is a mockingbird's celebration of that great spirit of American pioneers because the frontier of our bodies, our children, and our minds, like the river and land itself, is still up for grabs.



Sulphur Run above Sweet Gum Spring

I will not write about Wekiva as a pure success story of the grassroots democracy—although a case can be made for that—because quite simply my experience has been that the battle for conservation is never won, because democracy can easily be stamped out like a fire in the pasture, and because it really is all the people of Florida, republicans and democrats, natives and immigrants, who have produced this national landmark of environmental protection.

Wekiva is about the conservation or protection of the ecological system (our common child) from any interests of private property owners that might be abusive. Actually, it goes much deeper than that. Wekiva is about the necessary balance between citizens (propertied or not) and the ecosystem (soil-water-plants-animals) which sustains their well-being and health. Slavery is

the denial of one human's place in the freedoms of the nation and in fact the species. Opposing conservation or sustainable growth is a denial of that species' place in creation.

The land or river in this sense is the parent of democracy. The American dream is perfectly fulfilled when persons are equal and the health of the land is secure and intact enough for growth to take place. Wekiva is about the balance it takes to do that every day in a world of change.

*Do you guess I have some intricate purpose?
Well I have, for the Fourth-month showers have, and the mica on
the side of a rock has.*

*Do you take it I would astonish?
Does the daylight astonish? does the early redstart twittering
through the woods?
Do I astonish more than they?*

*This hour I tell things in confidence,
I might not tell everybody, but I will tell you.*

Whitman: "Song of Myself" 44



Courtesy of the St. Johns River Water Management District, by permission.

For a closer view of the maps, use the pdf magnifier (+)

A View from the Swallow-tailed Kite

To get our bearings, let's take a short flight up the St. Johns River into Wekiva-land (yes, we're going to be tourists, briefly now, like Disney-goers, but it's just a prelude to our working to be natives). Draw a map of Florida in your mind. It's like a rudder sticking down from Georgia and Alabama on the keel of the US mainland.

Inside the upper and western half of that shape, trace another, slightly smaller shape, a shark's tooth with the flat head parallel to Georgia's southern border and the incisor curving down into Orlando at the center of the peninsula. That shark's tooth represents the central ridge of limestone with its thousand springs gushing out eight billion gallons of freshwater a day flowing into major rivers: the Apalachicola, Ochlockonee, Withlacoochee, Suwannee, and Hillsborough on the west coast, and the St. Johns on the east.

Now put Jacksonville at the upper eastern edge of the rudder, with the stream of the upper river miles wide at the top and extending from the Atlantic west about forty miles and then turning south for another two hundred and fifty, all the way down the eastern half of Florida to the middle, where it originates in a swamp. Of course, on the river-go-round, anywhere the water runs or flows is the river.

The St. Johns rains from above, springs from sea-rock below, and swells to or seeps out of a thousand swamps and many grand Florida duck-stops with lake-names like George, Dexter, Woodruff, Monroe, Jessup, Osceola, Virginia, and Harney. Think of all the animals along the river and throughout its basin. They too are springs that, as the British would say, make water all day long and give back almost all the water they take up without filing a single consumptive use permit.

How convenient for us to think that we are not a part of this, that somehow, because we flush ours into a pipe, our animal connections to the great water-closet in the earth are different. The plants of the St. Johns are also springs, powerful pumps chugging out the river into our atmosphere, purer than before, and ready for rain or fog or dew. Why is it so hard to remember that our rivers run through us?

Coming upstream from the Atlantic, we follow the path of the Timucuan Indians (and their ancestors for several millennia), then the French, the Spanish, the British, and the Americans (confederates as well as yankees). The first major tributary we encounter is the Oklawaha River to the west of Palatka, draining 2800 square miles of north central Florida including the old world tourist attraction of Silver Springs.

Moving south then through Lake George toward Lake Monroe and the town of Sanford, we pass several powerful spring-fed creeks and streams, some right on the river and some off to the west in the Ocala National Forest. This is the route taken by hundreds of steamships in the nineteenth century, filled with people like us, explorers and settlers. We are also moving in the path of the anadromous eels and shad whose lives breathe in and out between fresh and salt water. Just before our imaginary ultra-light takes us to Sanford and Lake Monroe, we pass over the expansive native mounds at Hontoon Island and then catch a glimpse of the manatee's winter haven at Blue Spring. Finally, we reach the confluence of the Wekiva River.

We have no record that William Bartram, on his two trips down the St. Johns in 1765 and the early 1770's, ever stopped here to explore the Wekiva. We know he saw Blue Spring, next door, but not at manatee time. Audubon came to Florida in 1832 and visited DeLeon Springs, ten miles to the north, and John Muir hiked his way through Florida almost forty-five years later, but there's no record either of them touched down in the basin. Many of the great writers and painters of early America have taken steamers down the St. Johns and the Oklawaha, leaving us poems and stories and landscapes of their imagination. But right now we are standing on a threshold of that same kind of pristine beauty, except that for the most part it hasn't been properly celebrated. At least for now, Wekiva stands largely intact as it was in 1774 or 1775, on the eve of the American revolution, a river community not yet strangled by human population growth and the steady stream of visitors that far outnumber the natives.

Looking southeast down over the Wekiva, we can easily see the outlines of at first two sub basins, then a third. Directly west and then north, almost immediately you can make out the large swamp into which flows the Blackwater Creek. It drains the entire northern half of the Wekiva Basin from all the way up into a corner of Marion County across the southern edge of Ocala National Forest down over to State Road 46. You can make out the wedge-shaped Lake Norris, above the arc of SR 44, that starts the main flow of the Blackwater and then gathers stream from Seminole Creek to the west. Just below where SR 46A meets SR 44, Seminole Springs emerge, a fistful of deep cone-like fissures that spurt forth enough water to keep large areas of swamp from becoming hydric hammock. This territory of NE Lake County is today entirely rural, boasts a few small towns and villages, but mostly has a population fiercely divided on whether to grow freely or to maintain the integrity of their rural community by designing that growth.

As we fly on south now over the Lower Wekiva, you can see in the east the city of Sanford, growing out toward the river, but mostly below the SR 46 bridge on the east side. On the west side there are ten blocks of older country homes, set back from the river and then directly to the west almost no population until you get to the west side of Rock Springs. There, almost in a straight line along Wekiwa Springs Boulevard, you can recognize the fine suburbs of metro Orlando reaching up to the front door of the large parcel of public lands now protecting the river. As we hover over Wekiwa Springs, looking south, you can see that the surface water is flowing

all the way from the Orlando's north western corner and that's where the third sub basin also arises, the Little Wekiva River.

You might have difficulty making out a stream of any kind in there because all you see are lakes with names like Pearl, Lotus, Little Bear, Spring, and Trout. Occasionally you can see some canals and runs connecting them. In one place the county even put the river underground for part of a mile, but now and then the river has exceeded this boundary and damaged homes built in the flood plain.

The Little Wekiva finally escapes engineering and becomes a naturally flowing stream when, flowing north and east, it approaches Interstate 4 and crosses SR 434 in Longwood. There the Little Wekiva gets a shot in the arm from three powerful springs—Sanlando, Starbuck, and Palm—and moves into a wild river bed quite quickly. The large kidney-shaped Lake Brantley, directly west of the Springs, flows west and north into Miami Springs Run and then the Upper Wekiva. Everything east of that, including some territory on the east side of Interstate 4, drains down into the Little Wekiva sub basin.

Our survey now complete, we see that the map of current land use corroborates what flight pilots see 100,000 times a year. The northern two thirds of the entire Wekiva basin is swamp forest and fields with low densities of human population. Directly below that in an east-west pattern that is mostly a straight line, we have an urban basin with medium to high density in two different counties. Right now, therefore, most of Lake County and a sliver of northwest Orange County are sucking in sprawl.

So these three sub basins spell out the five river segments that will gather up the essays in this collection into five chapters. Arranged in a chronological order, they show the gradual, but steady progress in land acquisition and conservation in the Wekiva basin for the past eighty years. Each of these chapters has one or two background essays based entirely on research, but most of the writing comes out of the river itself in a variety of forms: nature essays, prose poems, memoirs of childhood and of teaching, and a few experiments in the nature of language. They sing forth from my sporadic exploration of all these magical streams, their uplands and bottomlands, and take the form of the journal accounts I wrote, usually within a day or two of the experience.

In revising those journal entries, I have been scrupulous to be true to the actual experience, to make nothing up, to supply little or no details later. Each of the essays and poems, therefore, will provide the original date of the journal entry. I have sometimes done research to confirm my estimates or findings and sometimes have added questions afterward to clarify my judgments, but for the most part I want you to have the experience that I had.

Of course, in memory and writing one always selects details and leaves out others, but in these accounts I don't take the liberty to make them more dramatic by rearranging them or by adding a creature or behavior from some other encounter. The common people and places, the plants and animals, in their history and their current activities, are fully rich enough in the light of truth without my teasing or tweaking Wekiva to increase your blood pressure. The poetry of earth speaks for itself.

Inside of these many Wekiva trips, I do at times pause to contemplate the issues of humans, nature, and literature that I have studied for a lifetime. While many of the pieces are supported by autobiographical detail, as the nature essay since Thoreau has always done, the story of Wekiva is really not about me at all, but about the transformation of mind and spirit that has taken place in me and to some extent in literary and cultural theory, especially over the past quarter century.

This autobiographical path will form the foundation of four literary interludes that describe the intellectual progress of my life, what brought me to write these nature essays and poems in my later career as an English professor. The foundation of that life-episode was my reading of Whitman's *Leaves of Grass* in 1976. I have felt strongly since then that the poet of the people provides a better paradigm than Thoreau for the kind of earth poetry and essays that America needs. He provides a much stronger sense of what it takes, politically, to form a river community.

Whitman argued that the democracy that would seal the contract of America and that was worth true freedom would have to be constructed from the ground up and he usually imagined it occurring in some western habitat. Wekiva is demonstrably the democratic vista that Whitman foresaw in 1871, as I try to show in the five-part structure of this book.

As you move through the five runs of the river, you will be accumulating the steps for building a river community. Whitman's poetry and my own experience have come to this:

- I. if we take our biochemistry to heart, we attach ourselves deeply to the land and its rivers;
- II. then our sense of land use and private property will change, achieving an important balance, and making our economy take root in nature's;
- III. then, if we join up with community organizations of every kind to celebrate and preserve the river, all the other human values of education, public health, and recreation will be served;
- IV. and we will have a reservoir of wildlife to give us spiritual strength and a democratic outlook;
- V. finally, this draws a picture of hope because once enough land is protected and we are renewed by it, we can all carry out and foster programs of natural restoration, not just in the public parks and preserves, but in our neighborhoods, subdivisions, pastures, farmlands, and homeowner associations.

The source of this argument is contained in the interludes at the end of the each section of the history of the river's protection spread out over the five geographical areas of the basin. They chronicle my growing understanding of Whitman's poetry of earth and my own spiritual development as a Wekiva activist and writer.

So, my friends, you will have to be a little gymnastic, multi-tasking like the river itself, as you jump from section to section, chapter to chapter, and form to form. Moving down stream from spring-fed tributaries to the St. Johns, you will experience the river at first in the context of the history of its settlement and the struggles of the Friends of the Wekiva and the central Florida community to protect and restore it. But the river gets wilder as we go and its history recedes into the hopeful present.

*BEGINNING my studies the first step pleas'd me so much,
The mere fact consciousness, these forms, the power of motion,
The least insect or animal, the senses, eyesight, love,
The first step I say awed me and pleas'd me so much,
I have hardly gone and hardly wish'd to go any farther,
But stop and loiter all the time to sing it in ecstatic songs.*

Whitman: "Inscriptions" *Leaves of Grass*

Chapter I

Rock Springs Run: Taking Biochemistry to Heart

- Rock Springs Run** [A kayaking overview of Run I. 3pp]
- Kelly Park, 1927** [How the preservation and protection of the Wekiva basin began with the bequest of an extraordinary doctor and naturalist from Baltimore. 2pp]
- A Member of the Wetting** [A bright day for swimmers and tubers in Kelly Park proves full of surprises. 4pp]
- Osmosis** [Thinking of our selves as water opens us to the peacefulness of the dynamic flow in our human world. Prosepoem, 2pp]
- The Suite of Feathers and Wings** [A bird in the flats flies up to a new perch, a slow motion prose poem about the pas de deux of life and death in the basin. 2pp]
- Camp Cozy** [Stopping by the ford where the Apopka Sportsmen once had a cabin to celebrate their annual feasts and hunts. 2pp]
- Emergent Properties** [How biologists describe the wondrous stages of development in life's evolving story. 3pp]
- A New Breed** [On a fishing jaunt, we enter the world of bass and bream, discovering the warmouth and other evolutions of ourselves. 3pp]
- The Discovery of Wekiva** [What is the value in discovering already inhabited lands as compared to finding the living powers of the cell? 3pp]
- Boyz in the Muck** [Memories of gator hunting as a boy. 3pp]
- The River of Blood** [What does it take to save Wekiva? At the Blood Donation Center we can get some ideas. 2pp]
- Interlude I: The Species Self: Walt Whitman** [Whitman's "Song of Myself" speaks from and establishes our magnanimous nature. 5pp]

I

Taking Biochemistry to Heart



Limestone Pathways at Rock Springs

*I believe a leaf of grass is no less than the journey-work of the stars,
And the pismire is equally perfect, and a grain of sand, and the
egg of the wren,
And the tree-toad is a chef-d'oeuvre for the highest,
And the running blackberry would adorn the parlors of heaven,
And the narrowest hinge in my hand puts to scorn all machinery,
And the cow crunching with depress'd head surpasses any statue,
And a mouse is miracle enough to stagger sextillions of infidels.*

*I find I incorporate gneiss, coal, long-threaded moss, fruits, grains,
esculent roots,
And am stucco'd with quadrupeds and birds all over,
And have distanced what is behind me for good reasons,
But call any thing back again when I desire it...*

Whitman: "Song of Myself" 31

My assumption is that we are here on this planet as a fundamental consequence of organic chemistry.

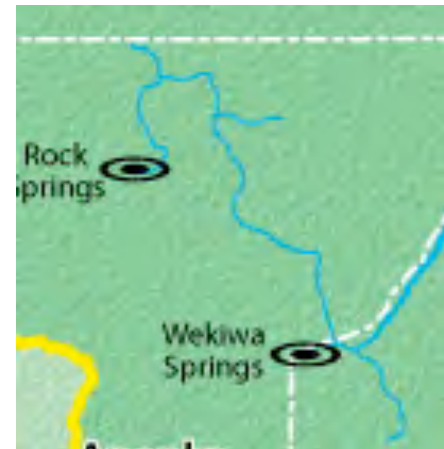
Dr. John D. Sutherland
Leader in RNA research

Rock Springs Run

In Florida's hydrology, it's either sink or spring. If you run a line from the country town of Mt. Plymouth directly south to the burgeoning city of Apopka, about halfway in between, in one corner of a forty-acre plot the city now owns, you will find Apopka Blue Sink. This is a deep dry cavern that goes straight down into the Florida aquifer and connects more or less directly a mile east to one of central Florida's most popular swimming places.

Rock Springs sits on the western edge of ten square miles of swamp, pouring out of one large cave and a dozen small boils, forty million gallons a day; that makes for a powerful run to a great natural outdoor pool for close to 300,000 swimmers and tubers each year. Orange County owns and operates this two hundred and forty acre site, known as Kelly Park. From the south end of the park you can hike out on a network of trails all the way to Wekiwa Springs, six miles away as the swallowtail flies.

Otherwise, Kelly park features picnic and camping facilities, but has no provisions for boats or canoes. However, a quarter mile down the road you can launch or rent at Kings Landing for a superb and brisk ride of nine to ten miles. The run goes at first directly north, passing Sulphur Spring (hidden back off in the woods), then east for a mile or so, and finally south until you reach the Upper Wekiwa, just a half mile above the Wekiwa Marina. On the map it has the shape of a question mark, tilting slightly to the west. On the water, just answers.



Courtesy of the St. Johns River Water Management District by permission

At the beginning of this adventure you will see a few docks and home sites, but after that the run is wild, splitting the Wekiwa Springs State Park from the Rock Springs Run State Reserve. For the first third of the trip the run is narrow and shady while the floodplain is two to three miles wide. After that you encounter some high ground on both sides, the floodplain narrows, the run turns east and slightly south and the channel opens to a flats, two hundred feet wide for better than a mile.

Here the run moves through a fording area where four native mounds are located, perhaps seasonal sites for hunting on this narrow piece of upland in the middle of the swamp. More recently, in the last century, the Wilson Cypress Co. built a temporary railroad grade all the way down from the St. Johns River near Deland to the high ground directly east of Rock Springs and then turned east three miles across the swamp to Buffalo Landing in the middle of the Upper

Wekiva River. While they were harvesting giant cypress trees from these swamps, the Apopka Sportsmen's Club used a cabin at the ford called Camp Cozy for their annual hunts.

The last third of the run is like the first, a tight narrow channel through a broad swamp that is largely inaccessible. Four more Timucuan mounds have been found in this stretch and two more opposite the point directly south where the run flows into the Wekiva.

One doesn't find many alternate routes in this territory. Rock Springs Run is mostly about maneuvering. In all of Wekiva it has some of the swiftest, deepest, and most challenging bends around all kinds of snags. One way downstream to the marina takes me four or five hours. If you plan to paddle back to King's Landing, be prepared to double your time and effort in return.



Kelly Park 1927

The story of the Wekiva's vision of community and river protection begins in 1927 with an extraordinary man, Dr. Howard Atwood Kelly. Gathering a crowd of local dignitaries, he formally presented his two hundred acres, including Rock Springs, to Orange County for the purpose of public recreation and spiritual enrichment. A devout Christian and scientist, one of the four founders of the Johns Hopkins Medical Center, Kelly considered Rock Springs the most beautiful of all he had seen, especially because of the mysterious cave out of which the water flows at a constant rate.¹



Kelly stipulated that the park should be free of charge and supervised by a Christian who would be delighted to ensure that there would be no liquor, guns, fishing tackle, concessions, or merchandizing of any kind. The liquor, concessions, guns, and rods are still absent, but the rest of his designs have run amuck in the new millennium. Fees are charged at the gate to cover the costs of maintenance by a variety of county park rangers. Kelly imagined the springs as a Divine oracle, and he expected that many of Florida's people would be able to read God's book of nature at the springs and be drawn thereby to follow the Word of God.

In his autobiography Kelly contended that he only became a doctor and surgeon because it was the best way for a naturalist to earn some money. All his life, however, he had a keen interest in wildlife, large and small, that took him all over the world and, fortunately for us, to Florida. His most important books were written on gynecological surgery, but later in life he wrote one on the snakes of Maryland, a second on fungi, and another on lichens. It makes you wonder how he could also have been such a leader in his field of medicine. All his life he was a strong advocate

¹ Measurements of Rock Springs flows go back as far as 1932 and 1935, when the maximum cubic feet per second was 61 (41 million gallons a day), just a hair above the mean flow recorded regularly over the past half century. See Ferguson *et al.*

for the study and treatment of women's health problems. It is a challenge to wrap your mind around the whole life of this remarkable benefactor of Wekiva.

Traveling across the globe, he gathered fine emblems of other cultures, some of which he bestowed on Rollins College where I teach. For example, I found an elegant rare Buddhist manuscript in the Pali language from Cambodia. I have pulled his gift out of its long thin box and laid it out for study in the Rare Book room. He was a strong opponent of the ills of society: alcohol abuse, prostitution, tobacco, and the oppression of women. In his home state of Maryland, he found time to involve himself in the community to prosecute his own solutions to these social issues.

He wrote his autobiography of sorts in a book on the scientist and the Bible. There he describes his family's religious heritage, a mixture of Methodist and Quaker, with a couple of evangelical preachers thrown in. In this book, you clearly see his own strong tendency to preachment and the centrality of Bible study throughout his life. Outstanding scientist that he was, it was all secondary to the believer in him; and so he wants to dismiss the "new" critical theories of Bible scholarship. Such studies, for him, seek to or inadvertently lead to the division of the authentic unity of the work. If you designate different authors, sources, and historical languages, you destroy the essential value of the Bible as God's work. Without using the words *systemic thinking* or *ecology*, he makes it plain that a Bible fragmented by such scholarship will leave nothing to believe in or be guided by. We would say the same today about Rock Springs and the rest of the creatures in the river basin.

When Kelly visited Wekiva, he fell in love with Rock Springs. The rest of Florida was not yet awakened to the necessity of conservation in the face of growth. The threat to the Everglades and its long history of degradation and restoration had not begun. Marjory Stoneman Douglas had not yet written her *River of Grass* to awaken the nation to its unique heritage when Kelly took the lead in central Florida. Think of what it means, how many plants and animals and children have grown up for eighty years in the kindness of his vision.

Just as it is true that a Florida scrub habitat cannot remain wild if divided by roads and other human impacts or spoiled by pollution, a great river community cannot be prepared and built to a state of restored integrity without the first piece. In 2027 Wekiva will have a century of this legacy of Howard Kelly's to celebrate. He was the first person to imagine the Song of Wekiva, the idea of river community set forth in this book. He put that idea into action, thinking carefully about what would be the best state of its management.

Each time someone gives or sells a piece of property or development rights in the basin, putting it back into the public domain, it increases considerably the likelihood of success at the next point of protection. Kelly's donation was the beginning of a chain reaction so that, when the climate for improving river community arose forty years later, the people and their elected

officials would step forward to add to the perfection of Kelly's park and protect what they had enjoyed as children for a whole generation.²

² For a fine collection of old photographs and much more narrative of the broader history of the river, see *Along the Wekiva River* (Images of America series) by Robison and Belleville.

A Member of the Wetting



9/05/00

A typical late summer Sunday at Kelly Park. We try to get there early, before the gates are closed. Walking down to the swimming area, Jobie, my daughter-in-law, spots a “big ole turtle” in the eel grass at the head of the supervised pool, just before the footbridge over the narrow canal. We watch the large striped head mosey around in the bottom silt. Though fifty folks are swimming here and there, the water is still as clear as the sky it reflects quite blue. We walk along the island where tubers are floating down from the spring head and cross the bridge over them, setting our blanket and towels in the shade on the far side.

D.J., my ten-year-old granddaughter, and I jump right in to swim and explore, using goggles and a snorkel to find the turtle again, happy to become a part of his element. We cross over and investigate a ten foot deep vent in the middle of the pond, then on to the algae and eel grass building up by the wall. Some hefty bass are cruising around over there. It is surprising to me that the crowds have not yet driven out these high flyers on the aquatic food chain. Don't they know, by experience, both the Sunday and the summer counts at Rock Springs Run?

The main reason D.J. chose this place for her family's visit to Papa Steve's was to hunt for shark's teeth. Thousands of children (adults as well) get a special thrill every year out of sifting through the rocky calciforms for remnants of the ancient sea beds that constitute our aquifer. Is it an innate idea that we activate when we embrace the salty ocean from which our life and blood emerged? Do our calcium atoms rise up in every synapse, muscle, and bone to sing the song of the sea, a chorus of ecology with bass and turtle and mussel? The teeth of the shark, in a live

specimen, would prompt great fear, but trickling out of a boiling sulfur soup in one of the many small outlets at Kelly Park is somehow charming. To find one is to enter the dragon's cave and make off with a golden goblet. I am straining here to capture the excitement of a ten-year-old who never misses a trick in the wild, if she can help it.

Later, we stand together in the small sulfur pool. The water is up to the tops of my calves and my toes are wiggling among tiny stones, not all smooth. "Do you feel things moving under your feet?" I ask D.J. "Naw," she says, thinking I am trying to scare her, but I do feel things moving under the arches and the toes.

Sean and Jobie have joined us now in a walk back through the woods to explore all the little caves and boils that come out of the high bank south of the main cave. We follow one streamlet as it empties into the main channel from the head spring. You can hear the tubers clamoring on by, calling out in several languages, but one joy.

Descending the ridge bank another time, D. J. leads the three of us to a new pool, half embraced by an arching limestone rock-form about the size and shape, we decide, of a small manatee. It even has a hole to represent the eye of a graceful mammal that would come up to the spring in winter if it only knew how warm the water always is.

Inside the dark cave of manatee rock, a creature is flitting that Sean begins to remark about. The light bouncing off of its gyrating eight-legged or eight pointed form makes it attractive to our attention. It seems to have almost no substance, but occupies a space the size of your palm. Jobie thinks at first it's a very large daddy longlegs, but it flutters back and forth in this dark space above the little rill as though it might be caught in some web. Then it seems to tumble over or spin.

Jobie bends down to catch or touch it, but there is no web around it. It has movement, but almost no direction. Instead, without touching her hand as she reaches out to it, the critter rolls over her hand. Underneath this one, we then spot another, a smaller version of the same mystery and gradually our pursuit of them causes their evacuation down stream and immediately out of sight.

I talk about how unique each of these vents can be for snails, as my friend Bill has found out recently in making his documentary film of the Wekiva. He took the world's authority on freshwater snails around the Seminole Forest, and they discovered five new species of snail, each endemic to its own tiny spring or seep. Perhaps, I speculate wildly, there are airborne insects or spiders here that can be found nowhere else. It matters not. These two are now endemic to us and better than a shark's tooth. We've never seen the like and now they populate the wilderness of our minds.

We go next to the big cave and the iron bars erected years ago to keep divers from death underground. The fun here is to belly down over all the large patches of limestone rock amid the black rubber donuts full of merry floaters. Why does splashing water make us so happy? In spite of the several scrapes I will feel days later on my knees and arms, the trip down stream is great, watching all the churning of human bodies and sea stones. In *Beowulf*, the Anglo-Saxon words for all the shining creatures in Grendel's mother's mere come to mind: *sea-deer* and *worms*, and my favorite, the simple term *undern*, the underworld critters. We have this very day become aquatic mammals and reptiles slithering noisily down over the crevices, the ooze of wildness in the slime of creation, a fully Florida scene replete with every size and color of monster.

By the time we return to our blanket and open the cooler for drinks and snacks, the main swimming area is at full blast, five lifeguards watching five hundred people sloshing around the bend. Every three minutes a whistle and a megavoice try to stop tubers from hanging onto the bridge before they enter the main pool, passing in front of a large bed of spatterdock where we have been watching the new-greenest chameleon romp about. D. J. is back in the water and I am catching up with my son's life when the nearest guard's whistle sounds and people are being told, in no uncertain terms, to get out of the water.

The other guards soon follow suit and suddenly we realize that something strange is happening. I had been talking about how recently they had to close Blue Spring to swimmers because they were finding coliform bacteria in the water. So I was imagining that perhaps swimming was about to be suspended for the day, when Jobie points out a gator swimming down along the edge of our spatterdock. Just a three footer, maybe a little bigger, taking his good ole time, whirling and girling like Esther Williams.

Gradually the crowd gets the message (which no lifeguard had mentioned). This is a first in my lifetime of spring going, a gator taking the whole pool to himself. The excitement in the crowd rose to a pitch, as though Elvis himself had strolled in our midst. Everyone pointed and called to others to watch. It occurred to my wretched mind that this would be a good tactic for the lifeguards to get a break from the summer Sunday crowds. Just tie one of these babies up in the woods and let 'im loose now and then.

After about a half hour of tracking the critter down stream past the swimming area, they placed one guard at the end of the main pool, in the water, and told everyone they could return to swim as long as they didn't go past the last guard. D. J. and I went right in, but the crowd had already dissipated quite a bit and in general wasn't too sure about getting all cold again.

I take for granted that most wildlife recedes from the human party, but this fellow gives my settled mind pause. Did this one, like the turtle, just not care or did he get caught hunting in the

swampy patch of weeds beyond the first bridge when the crowd arrived? Don't gators and turtles and bass like the spring, too, and come often at night when the park is closed? The picture of a ten-foot gator walking down a sidewalk in Seminole County on the six-o'clock news does not surprise me or turn my settled gator notions upside down. But this bold creature exploring the clear spring pool with half a thousand bathing suits is troubling. Maybe he thinks he's growing up to be Lord of the Springs.

In my mind the gators recede to the swamp and the muck, their proper element. They don't fly upstream looking for shark's teeth or little girls in goggles. In Wekiva, you always have to learn to think again.



The tendency of a solvent to pass through a semi-permeable membrane, like the wall of a living cell, into a solution of higher concentration, so as to equalize concentration on both sides.

Water proves the porous quality of life. Our geometric thinking sorely needs water in order to make sense of nature. You and I, dear reader, are just another body of water. The earth is crawling with billions of us pondlets, and somehow, when we swim on two feet across our habitats, our skin keeps us from flowing altogether back out to sea and cloud. Maybe we should replace Emerson's word *Nature* with *Waterworld* so we fully appreciate its universal and ecological force.

Water is a soft jackhammer. As Vergil put it in his epical dactyls: *gutta cavat lapidem non vi sed saepe cadendo*. To put it in the musical motion of a gorge, the stressed syllables go on top with the unstressed as undercurrent:

gut vat dem vi, sae den

\ta ca/ la-pi/ non sed \pe ca/ \do.

The literal translation would be: a drop of water (as in GUTTural) hollows out (exCAVATes) a stone (LAPIDary) not by force (VIolence), but by frequently falling (CADENce). Getting away from the English cognates and preserving the dactylic rhythm of the line, i

trust you can feel the waterfall itself in my translation: waterdrops / hollow not / rock by force, / but by frequently falling.

The first step into the new age is to see that boundaries in human minds are almost all permeable. Between every two seemingly opposing concepts there is an equilibrial force. Thus, races mix like water, dissolving all purities into combinations with new and greater force so that biologically there is no such thing as race--only the impositions of cultural feudalisms.

Water flows, embraces, soaks in, seeps out, and dissolves us. The whole table of the elements is the essential cipher of our universe. Our chemistry is our US-ALL, the ultimate common ground of being, a mathematical mystery like the proportions of $C_6H_{12}O_6$ in glucose. What are the chances in a starburst of that proportion, that fitness by which our planet is be-leaved? The attractions of negative ions of oxygen for positive ions of hydrogen brings the water molecule together, causes the coherence of us all, sets the stage for the rollercoaster ride of water in our cellular world. Water is the original internet.

The river within: falling, raining, rising, steaming; breaking as spring ice, hailing, drizzling; snoring and sneezing, hissing, pissing, whipping and slurping; sloshing and drinking, crying, sweating, flowing, or bleeding; sipping and kissing, washing, loving, freezing, bathing while spraying, tumbling, thundering, squabbling, splashing or condensing; then finally, discharging, snaking, reflecting, circulating, and more so.

How can we be so hard, so stuck in our thoughts, when 70-75% of our cells are water and surrounded by water? With the river below and the river above and the river around and down to the sea, the river within flows through it all by the fitness of the body electric. Thanks to Walt Whitman for starting up the music of our waterflowing world.

Sometimes when words on the page encourage objectivity and atomism, they can dam up our thoughts and cut off systemic or cyclical thinking. There's a weed in my grass or a spider in my closet, so zap it. A road through here will improve our traffic patterns, so build it. A dam right here will harness cheap and clean water power, so let's plug that valley.

O	<i>The force that drives the water through the rocks</i>
S	<i>Drives my red blood; that dries the mouthing streams</i>
M	<i>Turns mine to wax.</i>
O	<i>And I am dumb to tell the hanging man</i>
S	<i>How of my clay is made the hangman's lime.</i>
I	Dylan Thomas
S	from "The Force That Through the Green Fuse Drives the Flower"

The Suite of Feathers and Wings



**Pitcher plants in an Herb Bog Seep
Rock Springs Run State Reserve**

Photo by Bill Belleville

9/3/2004

Sitting in the flats halfway down Rock Springs Run, you can imagine how natives and early settlers crossed back and forth here regularly for centuries. The water is shallow and you can step out of your canoe to wade around the sandy bottom. Young couples coming down from King's Landing often settle into watersplashing battles here, tumbling into ecstasy, skirted by wide patches of watergreens.

Today the run is at rest as I watch a single hunter gather and go. She dips at the knees, spreading her black toes, leaning forward her long white neck and yellow bill, and her almost five feet of wings shoot straight out, tail fanning out too and then down. Primary feathers tilt down, at the edges first, then the whole wing span bends at the elbows, defining the firmament with two grand arcs as she, the original airplane from genesis, fires off, legs dragging behind in one silent leap into the avisphere.

The wings now reaching high to a vee with secondary and primary feather-ends tucked down as additional flaps, binding slowly, just enough gravity of air to level off across my direct line of

vision, I see the long deep strokes, the soft nook in the neck, and the directing point of gold going forward to a new perch already perceived.

Inside the miracle of this vision many smaller miracles reside, even before she reaches her landing branch. A single feather stands in mind as the emblem of Wekiva's intricate community of water and land creatures. It is the feather's engineering that allows her distinctive and unmistakable fashion of flight, robbing energy from air through immediately adjustable featherings of many kinds.

Unlike the Boeing counterparts, each bird's feathers are in constant change of shape and form, providing flaps and slots, propellers and breaks, governing the concave and convex so as to streamline the flow of air above and below. Each feather's quill twists and turns, bends and stiffens, in myriad ways. This allows vanes of the feather to flex forward and backward, responding to air pressure (itself a consistent chaos), and each of those teeth of the feather's comb is braced with a web of barbs and fibers to make the spider's tangleweave seem elementary and just plain static by comparison. What an extraordinary, expert mind she has!

Yet how easy would it be for our egret to break a leg while landing on that branch sticking out over the edge of Rock Spring's Run. Were it not for a hundred million years of practical (genetic) engineering, drawing and redrawing, shaping and reshaping every saving feature, she would be gone. Broken legs don't mend well, fall short in the game of survival. There's no real runway to roll in on here, just a requirement to pull up, in the strongest of variable winds, with a glide, a slight banking up, and one gigantic backstroke of the twin-winged aircraft. It takes less than a second to park the two tripods firmly on the branch, to hold tight and upright.

Would that such precision and aplomb could mark all our activities and govern our Wekiva community from change to change and place to place. From the outside, her flight pattern has banks and curves punctuated by the equilibrium of two wings that seem largely in mid-flight to go straight up and down, but in reality she performs a compound butterfly stroke where the air currents against the underwing press broadly upward so that the edge formed by shoulders and outstretched arms vaults over the gravity of her tender wingload of two pounds or so. Also imperceptible are the actions of the wing-tips which enhance that simple stroke with the pin-wheeling motion only slow-motion photography can reveal.¹

One never gets any feeling that panic resides in the neurons and heartbeats of the American or great egret (*Casmerodius albus*). By what amazing chemistries does she glide and waft through the river basin, and even in our suburban world I see her walking down streets and sidewalks, slowly scoping out lizards and snakes from among the tall blades of iris and lilies that are the common fare of landscapers all over Florida.

¹ See John H. Storer's, *The Flight of Birds Analyzed through Slow Motion Photography*, a foundation for me in the imagination of this essay.

Camp Cozy



The Apopka Sportsmen's Club: Setting out for the Hunt.
(Courtesy of the Apopka Historical Society)

In the flats at the middle of Rocks Springs Run the concentrations of wildlife are astounding because the swamps and the river are squeezed to fit across a shallow isthmus or land bridge. Here especially are the nesting sites for many species of the waterbird kingdom, but also the widest diversity of insects, dragonflies, and damselflies. When the winter chill wears off each year, a crowd of swallowtails can be seen to butter-flutter here in greater numbers than I have seen anywhere else. Here too we have to imagine that for thousands of years bears, deer, panthers, bobcats, foxes, grey wolves, saber-toothed tigers, and even mastodons once moved across the uplands between Rock Springs and the flats to enter the several thousand acres of upland to the east.

Following them came the hunters of old, presumably the Timucuan natives, who had major settlements at both Rock and Wekiwa Springs (the remains now gone). From Rock Springs on foot they would make their way east across Delk Island and turning slightly south to the bend in the run, cross at the ford, and then heading slightly north could make their way across to the Twin Mounds on the west bank of the Wekiva River, just below the confluence of the Little Wekiva. From Wekiwa Springs they would walk across Mill Creek and up the length of Mill Creek Island to the same ford, and thence to Twin Mounds, a day's hike of about fifteen miles.

Archaeologists have found five mounds associated with Witherington Springs and running down Mill Creek and another six up along the wide flats. This is the highest concentration of mounds by far in all the Wekiva basin. Unless our waterlevels are substantially lower now than they were before the Spanish arrived, many of these mounds were not accessible by canoe from the Wekiva and St. Johns rivers, suggesting a considerable amount of travel on foot along the contours of upland access, most likely in pursuit of game.

Following in their pathways were Seminole Indians who occupied this region during the 1800's and hid here from the American territorial warriors. When peace was achieved, early settlers of Apopka and the springs area most certainly hunted along these routes. Eventually in the 1920's they began to have hunting parties that gradually became more and more organized. Then in the '30's they leased the land between the great springs from the Wilson Cypress Company and called themselves The Mill Creek Preserve, using the high ground for their hunting stations and Camp Cozy, a cabin just west of the first big island in the flats as their headquarters.



**A female Tiger Swallowtail
on the trail to Camp Cozy
from Rock Springs**

They would begin their hunting season with a party to draw lots for the almost fifty hunting stations indicated in the hand-drawn map provided to me by John Land, the long-time mayor of Apopka. As we shall see in my interview with him in the next chapter, this group of men are a pivotal factor in the movement from the opening of Kelly Park to the establishment of the Wekiwa Springs State Park. They are in effect the first activist group to organize an effort to preserve the wildlife and habitats of the basin.

Here is a hand-drawn map of the hunting stations in The Mill Creek Preserve (courtesy of Mayor John Land).



With each step upward in the hierarchy of biological order, novel properties emerge that were not present at the simpler levels of organization. These emergent properties result from interactions between components. A molecule such as a protein has attributes not exhibited by any of its component atoms, and a cell is certainly much more than a bag of molecules. If the intricate organization of the human brain is disrupted by a head injury, that organ will cease to function properly, even though all of its parts may still be present. And an organism is a living whole greater than the sum of its parts.

Neil Campbell: *Biology*, 4th ed., Chapter 1: Themes in the Study of Life



Rock Springs Eddies

12/01/96

Emergent Properties

My mind was constructed in an Irish Catholic neighborhood of the Bronx, amid the loving devotion of an extended family and the chaos of the streets. The phrase "emergent properties" would have meant little to me as a boy—probably referring to the new apartment house going up on 239th Street. In biology class today, this phrase marks the theme that the whole is greater than its parts and occurs whenever one moves up the chain of order, achieving new properties that didn't exist before. In my desire to understand river ecology, I am taking General Biology and enjoying the irony of this phrase.

So in the Catholic teaching of my child's mind, God created the whole world--people, animals, Wekiva, and all--from nothing. That accounted for one great emergence. So whenever we asked "why?" about the state of that world, one simple answer was always, "that's the way God made it" or "God wanted it that way." Then there were other answers like 2 and 2 are 4, water flows

downhill, and Daddy's going to use that wood later to make a cabinet. When evolution was broached in school, the apparent conflicts between Darwin and Genesis were reduced rather easily to the metaphorical interpretation of days and eons; God was like Daddy, he made things over time and planned out our every purpose.

As an adult working on this same pattern of concepts, I began to see that there were three key points where God had to really step in and make something from nothing: the origin of matter/energy, the origin of life, and the origin of thought or reason. Everyone is awed at the prospect of the cosmic creation, sometimes called the Big Bang. Imagine telling your kids, "It all started with a Big Bang." Think of the peace in the household that will generate.

If it starts with a Big Bang, the laws of thermodynamics state that it will end with a whimper; but some cosmo-physicists contend that it will likely reach an expansion from which it will suddenly contract, one giant sinkhole giving up once and for all the whole earth and its universal setting, all properties sucked back down into nothingness. So that's the comforting big picture of science: at any random moment the forces of contraction win over expansion and the Really Great Depression occurs.

The only saving feature of this fearful symmetry is a cyclical concept, that is, the repeated reversibility of the action of creation, a kind of alternating current. This would start any mind that is prone to consolation to imagine Big Bang II, the Return of Big Bang, perhaps a little stronger (if it's put out by Hollywood) or weaker and then a pattern of oscillations with either progress or regress inherent in it.

What's happening here is that I am fishing for a context in which to set Rock Springs Run and the whole system of Wekiva. At fifty-six I undertook to build up from scratch my understanding of the natural world by going back to college and getting the General Biology I needed. This two-course sequence strikes me as the most essential education a college can offer for understanding ourselves, our communities, and the river.

So, inside of this cosmic unknown, we have a zillion little knowns: galaxies, fossils, ages, strata, atoms, proteins, polymers, Mandelian peas, fruit-flies, and the double helix, that cornucopia of earthly life, the encyclopedia of earth and her kind. These things we can see and touch, and the big mystery here on this planet is how can things evolve on their own from chemistry to biology, from mud to lizard, from dust to Adam, from hormones to foreplay and beyond.

No one can ever point to the child of the Bronx and say, "There, Steve, see that? It's matter becoming an elementary life form." Did you ever wonder why life is not emerging from raw material, somewhere on earth, now, where we can watch it? Is it because global conditions have

changed so much? That's silly. We can create conditions beyond anything the history of earth has known. Is it because we don't know how it's done so we don't know where to look? Or is our problem that it happens so gradually we don't have the patience or longevity to wait and see?

But what difference does it make if we know it or see it? Life is just a broad term for a lot of individual emerging properties we can see and sometimes create, but still can't comprehend. Each new property is like a metaphor that works well and so it's kept. My favorite is water: two hydrogen atoms, the earliest element, perhaps thirteen billion years old, found in every star system of the universe and bonded to tons of other substances, plus one oxygen atom, that eighth element so vital to our breath of life and now 20% of our atmosphere and 65% of our body weight. Now there's an emergence!

Think of respiration in the lungs and in every cell of every body of every plant and animal, drawing down energy from the sun and twice married to carbon creating the CO² necessary for carbon fixation, the essence of all living and growing stuff. Think of it dissolved in Wekiva's water currents and spiraling out into the great mucky way.

One semester of studying the cell and now suddenly every molecule to me is a big bang, a birth of life, the origin of thought. How did we get from mitosis to meiosis, from gymnosperm to angiosperm, from chlorophyll a to chlorophyll b? We now understand with some precision how we get from DNA to protein to traits of hair color or eyebrows to our body's behaviors that carve out time, love, and memory. Soon the flight of the egret may be reduced to chemical engineering. However, do such facts stop the mystery that a sequence of nucleotides can become a sequence of acids that become a particular feature of body hair? For a time, knowledge, even in small doses, can make the world seem ours, familiar and predictable, but the fact still remains that we don't know how these leaps take place at a zillion different points between the initial starburst and the ideas of this essay in our minds right now.

We need a consciousness or rationale for being the kind of person or individual that each of us is. But maybe the more important part of our mind is the wild part of us that is still unknown, the undiscovered and unexplored territory of the noosphere. That wild part with all of its hopes and dreams for a better life, a deeper love, a stronger family, and a healthy community is what I call the soul, immortal in its chemistry. It's what I teach from, and with, and to: "For every atom belonging to me as good belongs to you." It feeds on apple snails and swimming parties at Rock Springs Run.¹

¹ In the years since I first wrote this piece chemists have made extraordinary progress in laying out a process from pre-organic molecules to the reproductive capacities of RNA to the earliest single-celled organisms that would allow for the spontaneous emergence of life on a planet like ours.

A New Breed



Water Willow in the Rock Springs Run Reserve

11/15/03

It always amazes me how our children can grow up to be such strangers. People always remark how our kids resemble us, but as they become mature adults, each child grows into worlds we never have known. It makes it all the more fun then to have them take you out on the river to discover what is not you, the genetic instructions you never gave and the friends of theirs you've never met.

I don't know where my daughter Kate caught fishing, but I remember vividly the day she came with Pete, her husband-to-be, and proposed we go fishing on the Wekiva. It's just the kind of place you want to bring all your lovers to. We put in at the main spring and headed for the lower half of Rock Springs Run.

Pete looked familiar enough, slender, long dark hair with a beard, quiet and unassuming. This would be me at thirty, except that the light in his eyes had a lot to do with a river I had never seen very well. His fishing experience and pleasure was spread out over many of the lakes and rivers of central Florida, from Tampa to Mosquito Inlet. He looked down through the spring-clear waters of Wekiva, identifying each species as though he were paging through a family album. He had held all of these in his hand.

Pete was the first person I took out on the river who saw beyond the below, whose focus was fully in the water. He took the bow, Kate was in the middle, and I was sterning, but not very much since we had two poles constantly popping.

From my whole life, I can only remember two experiences of fishing. When we moved to Daytona Beach in 1952, my dad used to take us for a picnic to the Tomoka State Park, riding up Riverside Drive under that marvelous canopy of oaks. He liked to fish off the bridge and I remember baiting hooks then with him—at twelve or thirteen, I suppose—but I never caught a thing.

Later, when my mom and dad bought their first and only house in Tomoka Oaks, out where I-95 now crosses the river, they had a canal in the back yard that connected right into the upper Tomoka River. One morning I took dad's rod and reel out back and hauled in two catfish out of the muddy canal. They were so spiky and tricky to handle that it turned me against the whole prospect of fishing. I was Pete's age then and had not yet developed a taste for fish of any kind. But we can all change.

For most of her adolescent dating years, Kate used to entertain us with her vehement protestations that she had sworn off marriage and kids. So it was fun for me this day to study the relationship of my young passengers who really enjoyed this life together over the water. I have no clue, as they would say, who taught her how to fish and how she landed this stranger in the front seat who was whipping out some fins just about every other cast.

The pace of fishing is five to ten times slower than my usual mode of coasting with the current, idling from side to side, and stopping only occasionally to observe a little blue heron stalking across some lily pads. I like to study the sky, listen to the woods, comb the reeds and snags for gators and otters. Sitting in this or that fishing niche, however, with nothing to do but keep us steady, I began to take a better measure of the underwater fin-fare.

I know about the difference between the bream and the bass of Florida's waters, but never realized what varieties of color you can see, how often tinged with pink or red the bream can appear when held up to the sky. Easy now to comprehend Elizabeth Bishop's contemplations of the rainbow in her almost romantic poem about the old fish she caught who carried the insignia of many jousts with the hook.

The bass in the Wekiva are less numerous and smaller, in my limited visual experience, than the giants you see regularly in the Rainbow River, for example, or the champions they show on the sports page that some lucky fellow holds up out of the St. Johns River for a prize. Pete pulls up one bass, just bigger than his hand, long and thin with rounded large mouth that must be formidable to all the little feeder fish Wekiva boasts.

It turns out Pete is a country boy from the mountains of North Carolina who operates complicated machines in a cardboard factory, churning out #32 and #56 boxes, made to order for all kinds of commercial enterprises. He has very good hands.

Kate is really having a lot of fun and she too can do all the little magic that goes with tying bait, flipping the rod in narrow spaces, winding the silvery flashes into the boat, catching the wiggle out of thin air, and most importantly, extracting the little sharp metal edge out of the cartilage and skin of a thin lip. For the man in the stern, each catch is more interesting as a discovery of the stranger at the reel than the one on the hook.

One weird fish, however, turns up, reminding us why parent and child end up in different worlds in the same river. Pete has caught a bream with the mouth of a bass. He holds it up for both of us to see, and I am truly astounded. “How can this be?” I ask, incredulous in my dangerously little knowledge, and acting as though I had seen a minotaur.

Pete is unsurprised. Though it happens not often, the fisher occasionally finds such anomalies of form. Now my inventory of the waters is keen on finding other examples of this hybrid, adaptation, or mutant. Our conversation explores these possibilities and I later report the finding to a colleague in biology who says he might be interested in doing a study of Wekiva’s hybrids.

We turn up Rock Springs Run and paddle for quite a while against the brisk current, dislodging a large gator on the right, before settling down under the canopy of an oak tree to have some lunch and fish some more. When Kate turns to ask, “Want to take my pole for a while?” I go through my apologies and tell the story of the two catfish that were such a hassle to unhook and throw back. But finally, after some more prodding, I say okay, mostly because I feel sure that Pete will catch any gill within our casting range and that my usual luck with rod and reel will endanger nothing.

Then oops, before that thought can become a connection, there’s a bite on the line and I am reeling it toward the right side of the canoe. About halfway in, it seems to be stuck on something, so I give the pole a jerk and the darn thing flies up into the tree overhead, a little pink and silver flash, ten feet above us, fluttering like a female cardinal after a bath. What in the world have I done. It’s stuck up there.

Now the guilt I feel at hooking a fish is magnified twelve-fold by the fact that I can’t get it down. The pole is useless, the fish is gasping for water, and I would rather be hooked myself or strung up in the tree. This is what it comes to when you set forth on the prospect of finding out, through your dear children, what you are not.

Pete eventually cut the line and got the half-rainbow down safely. I’ve had plenty of time to put it all in perspective. These days I like to imagine the story the bream must have been telling his schoolmates about how he was caught up into the seventh heaven and looked down on this little spot of Rock Springs and realized that all his passions and fears were for nothing compared to the eternal bliss of the next transformation: “It was like my fins were wings and I could fly.” I don’t remember now, but I think he might have been one of those bream with a large bass’s mouth.¹

¹According to Florida fishing guides, the fish was likely a warmouth.

The Discovery of Wekiva



Mill Creek with Wild Iris Stand

9/17/96

Columbus Day is coming and I am wondering, again, who cares? Christopher has been given all the credit for the western hemisphere and that date is just about the only one you can expect an entire class of college students to know. Meanwhile, the man who discovered the cell in 1665, a hundred years after the founding of St. Augustine, is forgotten entirely and his date is lost.

The cell is ten thousand times more important than the West Indies or Florida. It belongs to all of us in the great chain of living beings. If we give Columbus credit for the whole of the hemisphere, we could give what's-his-name credit for all of life and our understanding of it. The cell is such a marvelous continent, not to mention a galaxy of creative activities. Christopher himself could not have been born without it.

It is irrelevant whether Columbus was the first, some say, because he was the first after whom so many have followed; but the string of discoveries following Columbus would be a sequence of places on the map that gradually got itself into a realistic shape. Now there are surely no places left to be discovered by the children of Columbus and then of course had he stayed home or gone fully astray, the natives here would merely have filled the continent as well and eventually perhaps have poured over into Europe.

The sequence of discoveries about the cell, by contrast, is endless. Right now you can see your cells, read their alphabet, follow the evolution of your kind in the cells, and soon you will be able to create whole new species of living creatures by cell-cultures that will go beyond the fearful myth of Frankenstein. It wasn't that way for our seventeenth-century explorer of the microworld of organisms.

His name? Robert Hooke, a member of the Royal Society of London who invented and discovered a great many things, but has not, before recently, been of any great note. Hooke invented a state-of-the-art air pump that allowed Boyle to discover his law for the compression of gases. However, his great claim to fame was his book of microscopy *Micrographia* which includes elegant pictures of the world below normal sight. The hundreds of scientists working for the St. Johns River Water Management District can't do without that.

The problem with crediting Columbus with a great discovery is that it makes land and its concomitant power more important than the community of earthkind that inhabits land, more important than body and mind, those cellular things that are so often credited with leading us astray. As a small "d" democrat, I would much rather celebrate Hooke Day because it entails all of us, our individual powers, and the powers of the human quest for objective understanding and healing truth than memorialize the bigotry and greed which characterized much of the spirit of the conquistadors of all the imperial countries of Europe.

Imagine if Columbus had only waited for Hooke and his followers to complete their discovery before he set sail. Then he might have known enough about the cell to stay home and keep his diseases to himself. Well, that's silly, I know, and all discoveries are in some sense as inevitable as narrow. But navigation of the seas, while an important human mastery long ago achieved by many species of birds, fish, and mammals, is nothing compared to navigation of the pathways of metabolism by which a thousand enzymes and reactants traffic back and forth from head to toe.

When I think of the fruits of discovery of every kind, looking to the future, I am overwhelmed by the potential for good in microbiology. In faithful dedication to such things, we look past all the features of human culture and politics which often cause the greater ills of the planet to the simple, healthful truths of life itself, those divine details, by which all of us organisms live. Many creatures have died for these truths, mostly non-human, and many others have survived otherwise deadly injury and disease because of the steady traffic of the navigators following our Captain Hooke.

In Europe and many other cultures of the earth as well, the world was pretty much always imagined as round, but someone had to sail around the sphere to show it. Columbus didn't actually prove the world was round, but falsely concluded his experiment when it hadn't yet succeeded. Hooke did just about the same. People had imagined small units of matter, atoms, but no one conjectured that life was all cellular. Hooke, looking at oak bark through an early thirty-power microscope, saw the truth, but concluded it was a feature of the species of oak to be so organized. It was left to others to expand that truth. Buddha Thor knows that science and discovery gather like a storm on the high seas and rain down upon our river.

The spherical shape of the earth is conducive to communication of all kinds and on the larger scale mirrors the felicitous size of the cell. The cell lives and operates in the Wekiva Zone, a special system of cycles and recycles where chemical actions are usually in balance, coming and going in a relatively timeless mode. History counts for little in this realm of non-stop flow.

We don't know the name of the first human to discover Rock Springs. William Delk seems to have been the first with a property title to it. Dr. Howard Kelly was perhaps the first to see its value for posterity. More important than all of these firsts, however, is our discovery, our first and then repeated coming to the headwaters of Wekiva and floating down the run. Every year, half a million of us make this discovery throughout the basin and confirm thereby the fact of the community we are building here and its preservation for all of earthkind. Our cells are us.



**The Rise and Fall
of
Mill Creek Cellulose**

Boyz in the Muck



A Six-foot Gator Takes a Flop

5/30/00

When the river is churned up by storms and wind, a light cloud of muck spreads from end to end of the Wekiva--muck in suspension follows us wherever we kayak--particle after particle descending, releasing, revolving, banking, clogging, coagulating, decomposing, but eventually bottoming and compacting, drying, burning, peating, and repeating. We have to keep on writing these particibles to remind ourselves how dynamic the darkness is where the gator homes.

When I was a teen, we hunted gators at night in light wooden canoes. It never occurred to me that the only thing that kept me from being engulfed in the darkness of muck up to my neck was our simple shell surface, going over logs and cypress knees, around snags and over gator-grime. There the great gators navigate somehow with the grace, speed, and assurance of a line-backer moving through the opposing line. I say this to scare no one. I still assume I am safe in a canoe or kayak, and imagine that, if I fall out, I will simply stand up or swim as best I can, eventually reentering the safety of the bark before a gator gets charged up. Of course, when I hear a large gator grunt in the sawgrass or under the spatterdock, a certain chilly sting hits me between the ventricles.

In those days, I was not afraid of capsizing, but of grabbing the gator in the wrong hold or of miscalculating the size of its body. No one in his right mind would hunt gators bare-handed in the muck without a canoe or row boat as security and certainly not in the dark.

The premise of hunting at night is that the gator is asleep with its eyes open. Don't you love that logic? With a miner's lamp strapped to your forehead, one of us hangs out over the bow, arms free to direct the other at the stern. Both humans watch for the large orange reflectors at the water's edge. Seeing a pair, you can estimate the width of the head. Even a single eye can reveal something about the size of the antagonist, but of course, there is no telling whether the eye is charged by Cambrian dreams or by the more immediate vision of us. Once you get the impression the gator is awake or too big, you wave your comrade off. I look for the movement of the eyes across the water, but usually the gator, if he wants to move, simply dissolves underward.

As we get closer to our prey--what a joke it seems to me now, the foolish teen and the equally foolish three or four foot gator--the idea is to make sure that no shadow from the light crosses the sleepy eye. We swing to the gator's rear so I hang out over his head, ready to grab with one hand directly on his neck and the other about where the tail begins. All this is based on an estimate of our gator's length from the diameter of the eyes and the width between them. That's all you can see above the water in the light of the caveman's lamp. One grab is all you get, a thrill to last a lifetime.

I did most of my gator hunting with my friend Roland when we were counselors in summer camp, and I can remember well, how uncomfortable I was the first time we brought a gator into our canoe and wrapped his jaws shut. I had a great sense of achievement, but while I hung out over the bow again, I kept distrusting the security of that muzzle and I calculated that, were he to thread himself loose, a considerable fury would unleash at my bare toes and feet.

I don't remember catching a gator and throwing him back. Catch and release fishing had not been invented and certainly not yet advertised in Field and Stream television. Often enough I let go when the grab was not clean or the gator bigger than I wanted or thought I could handle. I never once thought, as I would now, about the gator and what a discourtesy our little game was. Most of the time we brought our prey back to put in the camp's gator pit, a four-foot high rectangular block construction, eight by ten feet, open at the top so the kids could see some live gators. There, I am afraid, when counselors were not supervising, various forms of torture were performed, poking and bombarding the helpless reptiles in this summer mini-zoo.

Now I see in that pit much wider dimensions of yearning for the muck or laying out on a big snag at the end of Rock Springs Run. When the camp session was over, I presume the gators were released back to the lake, though I never was given that chore. I have never killed a gator, but I regret now that I was party to those captures, and the older I get, the less inclined I am to enjoy any healthy wilderkind in captivity.

Of course, in the wild small gators are themselves meat for hawks and raccoons, bobcats and such, but I doubt they think it tastes a lot like chicken. I guess that if I were starving, I'd be glad to eat a tail now and then. It surprises me that in the studies of the natives' diet at Twin Mounds, little evidence appears that gator was a staple. When you consider the large amount of snails and mussels that they ate--85% of their diet--you wonder whether they filtered these critters out of

the muck from their canoes or waded into the gator's realm with scoops or sieves or some other wily contrivance. In spite of the long history of perhaps 8-10,000 years of river-dwelling humans in Florida, the gator has not evolved a taste for man-flesh. Of course, if people would regularly sleep like Bartram did, in a village of gator-nests, something could develop.

Direct apprehension of the gator, the child's immediate grasp of life, the desire to touch and to hold the strange thing in the only safe way, the playful stroking of it on its belly as it sleeps upside down, your own breath held precious inside this beginning of a greater danger, these breaches of the respect for a strange creature are not done at first as to a person, but eventually one can develop an etiquette, as Gary Snyder has put it, a set of manners in the wild.

I hate the part in the wildlife documentary where scientists shoot tranquilizers into mighty panthers or bears so they can attach a collar. No eagle would ever be tagged if you had to reach out and grab it with your bare hands.

Crossing the boundary of animal intimacy—breaking the bond of wildness—is a very delicate and important moment. More and more I sense that the hunter or fisher in these outdoor films has a genuine flash of mutual respect and dialogue with the animal, as when the tow-headed Alabaman fingers the dazzling catch, kisses it, and gently with both hands praises its color and line as the river takes it all back.

Eye to eye and hand to neck and tail, boys and girls in the muck grow up together. Even the field and stream scientist with no profession of the spiritual realm has to move through the habitat, trail the great creature, trap and tranquilize, and then hold and measure, examine with veterinarian eyes the full health and stature in order to know the population. Census and physical examination put the scientist in a unique position that can only be exceeded, in the case of the higher mammals, by the rare human who will live in the wild with the colonies of primates. The extraordinary narratives in our time and no others, supporting this acclimation of science and animal community, attest to the possibility that we will someday find ways to get a complete animal education. Meanwhile, we seem to have a brief possibility in adolescence for taking in our hands both knowledge and respect for some of the lords of the river.

The River of Blood

10/12/98

Today I am giving blood over at Orlando's defunct naval base. In an old barracks, two nurses in tandem lead the trickle of mostly male, mostly elderly clients through the too familiar, careful process. It starts with the inquisition: "Have you been sick lately?" Obviously they don't want blood with a deadly virus or any bacterial illness. They just want good, clean blood.

"Are you on any medications?" In any given month, many persons take two or three different drugs to supply their deficiencies or cope with pains. I resist taking medicines. The people who come here remind me of Whitman, demonstrably proud of their good health. I am too, because I work at it. But then, the body is from the start a blessing from God and that's partly what brings me here. Last fall, when my uncle Jack was in ICU for seven weeks, I felt I was giving my blood to bolster his. When he died, I continued to give regularly because such health is a gift not to be hoarded.

The nurses tell you, when you leave, not to do strenuous exercise for a while and to eat hardy and drink lots of water. The healthy body miraculously re-generates the deficiency in a matter of hours and that newborn blood is actually better for me, purer than my old blue chemistry.

Now they want to know about my sex life. I am grateful we both imagine that I have one. When our hormones start to slow to a trickle and the replacement of them has harmful side effects, some of us senior citizens step more lightly. This month my wife and I will be married 25 years. . Our relationship is not perfect, but it's as precious to me as my ten pints of blood. I don't cheat on her. Once you cheat, you have to lie to yourself, at least, if not to your partner. The problem of cheating, then, is directly connected to faith in the blood supply – one important light source in our human being. So now come the ten or twelve questions about sexual partners and their blood-ruining habits. I rattle off my string of no's.

Finally the careful business of extraction begins. The other donors seem to know the nurses. Their playful chatter goes far to warm the sterile place. I know there's no chemical way for talk to enter the blood. Good thing, I guess, because my foul mouth on the basketball court might contaminate my blood on a regular basis.

I begin to wonder, considering the news of sexual license and the spread of AIDS and other STD's, how long there will be an adequate blood supply. In Africa, where the percentage of AIDS is so high, what are they doing for hemoglobin in the surgery rooms? Why can't our high-flung medical techno-researchers figure out how to clean bad blood the way we treat wastewater?

Since the AIDS virus emerged in the early 1980's, our society has gradually been teaching us how to keep our blood to ourselves. The idea should be coming home again to us that blood is sacred -- the flow from blue to red is dangerous. Keep it in or else share it only in the most hygienic of circumstances. We take our skin so serious, then, as the safe barrier to potentially bad blood outside ourselves.

The phrase "bad blood" now amazes me. Fortunately, our human history of racial bigotry, family hatred, and cruelty doesn't make a drip of difference to the actual blood. My pint today can, in general, go to any other human because I am O+, a universal donor. As the sacred blood flows, the races are not red, white, black, and yellow; but A, B, O, and AB. All the human blood is not identical, but when it is pure enough to share, it is indeed equal. I love the democracy of my blood, the way, like these words, it reaches out to all its users or readers in the same manner and perhaps enlivens some.

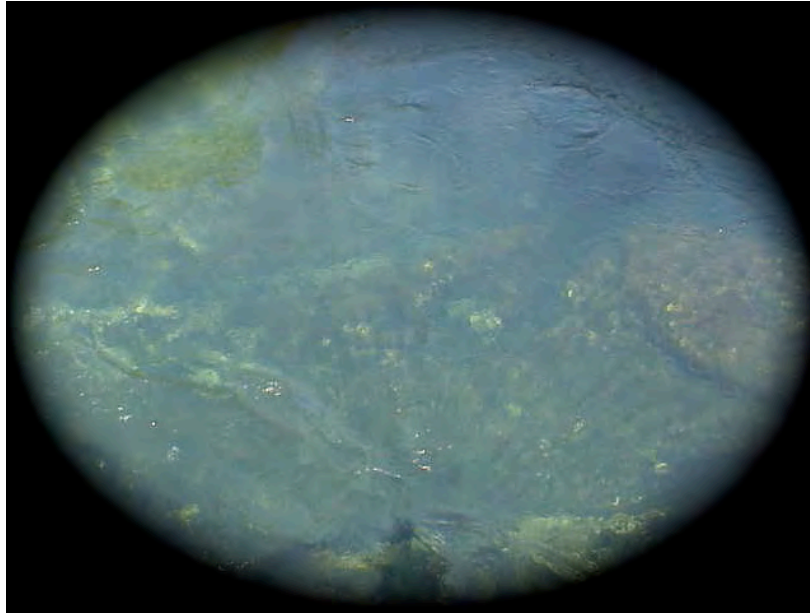
In the old patriarchal days, the blood river of a people was called The Nation. Because marriage outside the fold was avoided, all the folk were seen to share the same set of families from the kings on down to the lower gentry, peasants and slaves being left out. *Nation* comes from the Latin verb *nascere*, meaning to be born of the same blood. What courage it must have taken to make the first blood transfusion. On that day in 1905, the closed system of a nation's blood underwent a drastic change or rather exchange -- a national sharing of needles, as it were, began. Now we associate that vital reservoir with a symbol of salvation, the Red Cross. We have community in our blood ties. The blood bank has become the mystical body of our nation and our whole species. Forget about "My house is your house"; *mi sangre es su sangre*.

Our blood river can become polluted just as easily as our freshwater streams and the seven oceans they trickle into. If we could only handle our water and land as carefully as these two nurses, we'd have little to fear in the health of our bodies. Corporate America and even our governments have been cheating on our rivers for hundreds of years, on a large scale. As individuals, we often have done no better in our own back yards and vegetable gardens. However, the lies they have used to cover-up that cheating are prodigious. Those who profit most from this pollution don't want you to realize that water, like mother's milk, is the blood of all life. I can't take my blood and my water individually. Poison dropped anywhere can enter the stream. All the water is the water I drink.

You might imagine that most of it is coming from the Wekiva basin, but all the water you drink does not come from a bottle, a spigot, or a stream. Food is mostly water and it comes from the whole planet. I eat all-water and it becomes all-blood. Is it the same with hormones? If some hamburger has injections of hormones from fattened cows, scientists are beginning to wonder, then maybe some of us have hormones we don't need. With each "transfusion," we need a complicated chemical analysis to see what filters out and what is carried on. So, we are learning to read the labels. Water is in almost everything, even trapped for eons in rock.

The nurse asks me to compress my fist every ten seconds to help the pint flow out. It takes just a few minutes. Into the small bag she squeezes every last drop out of the long tube with the fervor of a drunk at the bottom of his bottle. ¹

¹ Written while preparing for a visit to the Adolescent Treatment Center with an eye to priming them for a day of hiking and canoeing on the Wekiva. For that adventure, see the sequel essay "ATC" in chapter II.



The Main Boil at Wekiwa Springs

Building the River Community, Step 1

We have come at last to the end of our first run. In our historical sweep of the river, it is 1927 and Dr. Kelly has just started the process of preservation in the basin. The two major springs are done with their mill work and the majority of the native mounds are still intact. Wekiva is on the verge of a gigantic cypress logging operation (1935-45) that will build trams throughout the swamps to haul the giant logs out, as we shall see in detail in chapter V. The essential concept for building Florida's premiere regional river community has been established. It constitutes a radical change in thinking about our bodies and their connections to the earth and its rivers.

The plants, the animals, and the humans form one biochemical community and rely for their health on one another. Organic chemistry is the foundation for ecological imagination and good neighborhood. The wing of the egret is our symbol for its complexity and grace. We are all swimming in the same springs. The joy of Rock Springs Run extends far beyond its swamps and uplands. It has a time-mode belonging to the cell, with cycles and recycles that are working simultaneously in every part of the body electric.

The Species Self

Whitman's Song of Myself

In 1976 the W. W. Norton Company sent me a complimentary copy of Whitman's Leaves of Grass, their new critical edition. As a medievalist specializing in the fourteenth century, I was used to getting their books on Chaucer or Arthurian romance, but someone must have mixed up the order. Like many other Americans, I had been exposed to Whitman at every level of my education. Somehow in those readings of "Song of Myself" nothing was able to penetrate the surface layers of Steve Phelan.

I.

The Awakening

It was early afternoon when I started to look through my free book. I was thirty-six, midway in life's journey, soon to get tenure and my first promotion. Unlike Dante, I was already twelve years past the cave of despair and about to experience the most important creative turn of my life. As I began reading the poem, "I celebrate myself, and sing myself,/ And what I assume you shall assume,/ For every atom belonging to me as good belongs to you," all I could keep saying to myself was that this poem constitutes everything I believe in. It didn't fill an empty heart, but rather unpacked one that lacked a fully expressive and complementary spirit. As Emerson remarked, "The poet is but half the man, the other half is the man expressed." I was a third half, the reader now fully expressed.

It was as though the Wekiwa of my heart and mind had long been capped, and now it burst out, the way the mighty Susquehanna, after long periods of freezing, breaks open and crashes forth in giant blocks of ice to rip the shore and bulldoze the islands. What was it in me that cracked open, then moaned and groaned all day and through the night? Just to build a catalog from the Middle Ages would challenge the muscularity of Whitman's free verse. Let's see: courtly love, the seven deadly sins, monasticism, the theology of Aristotle in Aquinas, heroic couplets, the debate between the body and the soul, the liturgy of the Church, canon laws, and Dante's *Inferno*.

It was exhilarating to feel all at once in Whitman's poetry the energies of nature, democracy, self, immortality, sexuality, childhood, God, the American language, and openness to others. For a medievalist, it was my personal door to the modern (and now the post-modern). I loved Whitman's plainness and frankly his socialism, his more

cosmic and universal understanding of America, his optimism. I reveled in the biological truth of the self in nature; it reminded me of how I felt at eleven when we moved to Florida from the Bronx. I ebbed with the ocean of life, I sipped the delicious word *death*, and I found the reason for all my loafing along the Wekiva. Whitman's philanthropy sat comfortably with an ecology I didn't yet fully understand. The heart of that ecology was an important lesson about the healthy biochemistry that is the foundation of our community with the land.

Walking out the door and down to my car by the lake, I bumped into a colleague in American history and started to describe my excitement at reading "Song of Myself." He must have thought I was crazy, running on about the democracy of this poem: "Oh, Jake, don't you love Whitman's sense of community." Jake smiled his glorious smile and nodded, but at that moment he could not share my thrill and I remember his parting shot, "Oh God, all that transcendental crap." In spite of my friend's disdain, my reading of Whitman opened up a totally new channel of energy for me that has gradually changed my career and my life, leading eventually to this unusual writing project and its spiritual unfoldings, a gradual and unpredictable process spanning the next twenty-five years.

In 1976 I was already part of a faculty group working on our own to create an environmental studies program. Our leader was Ed Scheer, a biologist who split his time between Florida and Wyoming. I had taken the job at Rollins because I especially enjoyed interdisciplinary teaching and one day, two years later, Ed asked, "How would you like to teach a course in environmental literata with me." He would supply the ecology and biology readings and I could bring whatever literary figures I liked. Ed had no idea that he was playing the Hayduke to my Glen Canyon dam.

This is precisely where all Whitman came rushing forth in a steady and growing stream of courses that in time reached across the campus, into the graduate education department, and eventually into high school classes across the county. I learned from Ed about Aldo Leopold, Garrett Hardin, and Edward Abbey's *Monkey Wrench Gang*. He got from me a heavy dose of Whitman and Mary Austin, with attentions to Thoreau and Muir. Ed taught me how to do field trips, starting with a marvelous ecotour of the campus which I still use in all my environmental literature courses.

Even in that first version of the course, I insisted that students do a great deal of journal writing about their own place in nature, especially their childhood habitats. It was natural then for us to meet outdoors, to plan special classes at local gardens, parks, and of course the Wekiva. American literature is about inhabitation of this land, so it pays to read it—both the land and the literature—not only in the laboratory of the classroom, but in the field as well where all the ecological factors are operative at once.

Over the years as the ES program grew into a substantial department, I created subsets of my broad American literature course: The Poetry of Earth, The Bill of Earth

Rights (an environmental ethics course), *The Whole Earth Album* (nature photography and literature), *We Animals*, and *The River Community* (America's great river writers, ending with Bartram's *Travels* and *The Everglades: River of Grass* by Douglas). Suddenly the library in my office was kaleidoscopic.

In 1985 a new dean arrived who had broad experience of collaboration between college and high school teachers and Rollins began to offer outstanding high school seniors an opportunity to earn college credit. Immediately I saw the opportunity to farm out my basic environmental literature course to other teachers and thereby dreamed I could make a difference in central Florida for years to come. I trained high school teachers in the summer and visited their classrooms, public and private, during the school year. That was the year that I joined the Friends of the Wekiva, but I was not politically active at first. I contented myself with reaching the minds of several hundred local youths each year.

The process of training high school teachers year after year got me involved in doing research on Whitman and presenting papers at national conferences in the burgeoning new field of eco-literary studies. That series, stretched out over the chapters of this collection, tells a story of a mind-change that belongs to Wekiva and explains, if that's the right word, the growth of my own voice and the unexpected spiritual development that came with it.

II. Song of Myself

"Song of Myself" is not an easy poem to swallow. Readers wrestling with its amorphous quality eventually have to ask themselves: whose voice is this? Who is speaking to whom? Eventually I found a literal answer to this question by research into the notebooks and manuscripts of Whitman that preceded the 1855 publication of the first edition.¹ However, my first answer came after several years of teaching the poem and the inevitable number of readers who, tired of his repetitions, are completely appalled at his "egotism." Indeed, sometimes the voice of the poem is Walt Whitman, the poet capable of self-aggrandizement, but the consistent tenor of the poem belongs to a protean figure who is both male and female, old and young, sinner and saint, of the north and the south, celebrating body as much as soul, American but brother and sister to all other nations.

When he opens his poem by engaging the reader with the exchange of atoms, "for every atom belonging to me as good belongs to you," Whitman doesn't know about the double helix. What he understands from the science of his day is the metabolism of plants and animals that informs the whole of creation. His is the voice of the mere fact

¹ For more details, see Interlude III.

consciousness, of the scientific laws of the development of the cosmos, the earth and the other planets, and the chemistry of plants and animals. For the most part the human species is the voice of “Song of Myself.” Hence, the *I*, *Me*, and *Myself* are all pronouns for the species speaking.

So why didn’t the poet say “Song of the Species” or “Song of Ourselves”? Why use the singular pronoun and risk the charge of egotism? My short answer is that Whitman is the first to expand his voice to the size of his audience, present and to come, and then he chooses to make it come from an individual, the common denominator of humans, but still from one who has a poetic vocation to sing. He invites the reader to become the author: “These are really the thoughts of all men in all ages and lands, they are not original with me, / If they are not yours as much as mine they are nothing...” (“Song of Myself” 17:354). Any part of the song that makes no sense to the reader is not the poem. The song is whatever gets across the divide in time and place between two conspecifics, the poet and the listener.

This is a tall order. Whitman has a dynamic sense of the species and its changes, so it is a challenge to speak to all the human differences between people. “I resist anything better than my own diversity,” he says, because this voice can sing from any part of the country or the population. Individual, but protean in this way, “Song of Myself” allows all of us to assume identity with every element of creation and with its creator as well in every dimension:

I believe a leaf of grass is no less than the journey-work of the stars,
And the pismire is equally perfect, and a grain of sand, and the
egg of the wren,
And the tree-toad is a chef-d’oeuvre for the highest...
I find I incorporate gneiss, coal, long-threaded moss, fruits, grains,
esculent roots,
And am stucco’d with quadrupeds and birds all over... (31:663ff)

Do you find it difficult to imagine yourself this way? Whitman is insisting that we and Wekiva have been coming since the beginning of time to this moment, incorporating all the elements from the start. Our atoms are eternal, immortal. They bind us together. Thus, for the species self, like the child entering at birth, “creeds and schools [are] in abeyance” so that at every hazard nature may speak with original energy (1:10-13). This important feature of Whitman’s voice looks like a call to secularism, but rather it calls for transcendence of church, government, and school. It is the ground for a democracy with many religions, polities, and philosophies.

You can sing the song whether or not you are an heir of the Constitution and its Bill of Rights. In “Song of Myself” the poet in fact speaks as an individual, an American who is independent of traditions, but also as the child who goes forth in this land or river

where he becomes every object of creation and it becomes a part of him. Whitman understood that it is the child who stands most naturally in this position of the species self. However, the voice of the poem, while free as a child, is sometimes also a little wise from a careful collation of human and natural history.

When we are born, we are all the same in only one sense, the species. If you as an adult tell me the story of your life, I can learn from it how to adjust my own story. But if when I hear your story, you take us both back in time, just beyond the point where your story or objective memory begins, then you have reached our common species self and I have nothing to change, except perhaps the relative weight of my human and my personal lives. What attracts me so about the idea of the species self is that it has a biological reality; that is, it is an undeniable fact of the human biological organism.

Observing a variety of animal species before mirrors and looking for the stage of development when they first achieved self-recognition, scientists have found that animals generally treat their image as another of the same species and their behavior is described as “conspecific”; for example, a chicken will eat more in the presence of its fellow and in a mirror. In general, the “lower” animals who have relatively rigid social behavior patterns cannot escape the stimulus of the mirror image.

However, self-directed behavior before a mirror has been observed only in the higher primates. Gallys concluded from his extensive study of chimpanzees that social interaction with other conspecifics is a necessary precondition for self awareness and predicted accurately that chimps raised in isolation would not exhibit self-directed behavior before the mirror.² Likewise, chimps raised by humans have something of a distortion in self identity.

Whitman had a grasp, better than Thoreau and his contemporary naturalists, of the self, nature, and the human community. His friend John Burroughs has an exceptional essay that shows how walking out of our homes we extend our selves into nature as far as we range in our habitat. Thoreau celebrated at the end of his life how the plant reaches itself out in the dispersal of its seeds. Whitman’s song does all that, but goes much further in its voice when we are led as a species self to walk the land and ride the rivers. In this respect Whitman, better than any other writer in American literature, prepares us to look at our biochemical connections to the earth and each other as an important part of the concepts of private property and the commons, the theme of our next chapter.³

² In Lewis et al., *Social Cognition and the Acquisition of Self* (New York: Plenum Pr., 1979).

³ The longer version of this essay considers variations on the concept of species self in Muir, Austin, Ammons, and Stevens (available on my web site).

Chapter II

Wekiwa Springs and the Upper River: Land Use and Private Property

- Wekiwa Springs, the Upper River** [An overview of Run II. 3pp]
- The Shape of Wekiwa** [Poem in the shape of the Wekiwa Springs' pools. 4pp]
- Wekiwa Springs State Park, 1969** [The purchase of the 6000 acres from the Apopka Sportmens Club followed by the sale of the 200 acres surrounding the spring marked the central acquisition in the long history of preservation in the Wekiva River basin. The Wekiwa Springs State Park has been the premier recreation opportunity for central Florida natives ever since. 12pp]
- Ibi** [The Timucuan natives and their contemporary counterparts celebrate the crystal waters of the spring. 3pp]
- ATC** [A day at the Adolescent Treatment Center, trying to explain the importance of the Wekiva in advance of a field trip. 6pp.]
- The Scene beyond the Seen** [Let's go for a swim at the springs and see what Buddha Thor has to say. 4pp]
- Tomokan Waterworld** [Taking students to the springs, I always conjure up the natives who no doubt enjoyed this swimming hole as much as we still do. 3pp]
- River Traffic or Notes from the Otterground** [River traffic is disrupted by thousands of snags above and below the surface. How do gators and otters cope? 5pp]
- Shell Island** [The history of Shell Island imbedded in memories and a trip to survey the changes in the island. Two parts history, one part kayaking. 11pp]
- The Duke of Wekiwa: An Essay on Private Property** [A study of land ownership in Wekiwa leads to a sense of our mutual responsibility for the river's treasures. 8pp]
- Interlude II: Whitman's Democratic Vistas** [Whitman's legacy for the community of the land. 7pp]

II

Land Use and Private Property



The Secondary Fissure at Wekiwa Springs

Wekiwa Springs, the Upper Wekiva River

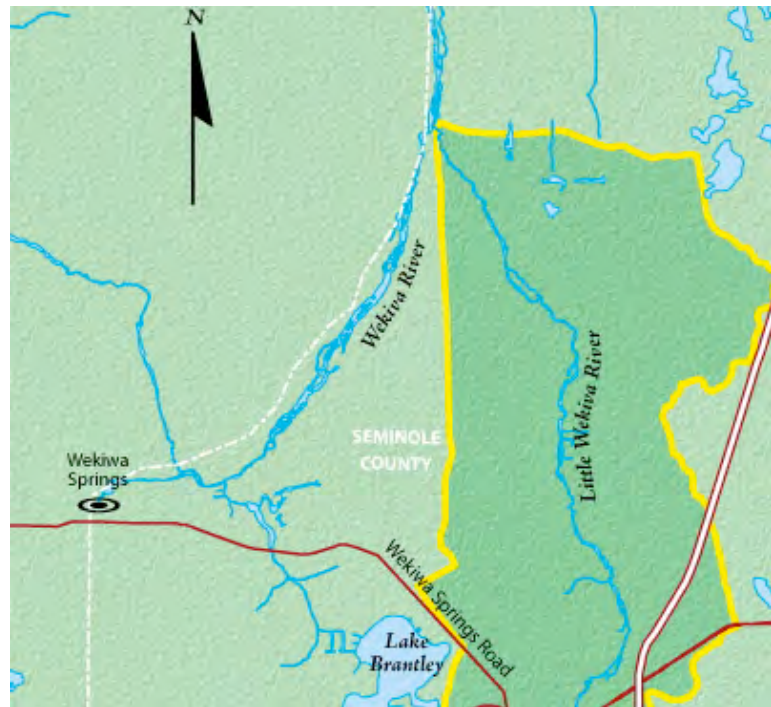
Moving from Rock Springs south and slightly east for four miles or so, you can find a ridge of elevation from bottomland to upland about 25 to 40 feet high; and where these contours start to tighten up and pinch together on the topo map, you often see a spring pops out. For example, Witherington Spring feeds out into Mill Creek that empties into the Wekiva Swamp; and as the ridge turns directly east, Barrel Spring likewise spills out and disappears into the lowland without much of a stream to paddle. It is remarkable then to find three native middens in the vicinity of Witherington, when the only practical access today would be an overland route.

Paralleling this east-west ridge above swamp and river is Wekiwa Springs Road and south of it a large development called Sweetwater Oaks. Everette Huskey, a local realtor, in the '70's and '80's looked at the beautiful rolling hills of longleaf pine with fox-squirrels and turkey oaks flying their bright colors and laid his money down. He saw this as the best place in central Florida to have an exceptional home. That would turn out to be a thousand families on one acre lots who would naturally be fed all the basic resources of 21st-century Florida living: golf

courses, riding and hunting clubs, malls and schools, all right across the street from the state park.

Wekiwa Springs, the crown jewel of the river system, gorges forth 54 mg/day, flowing directly east and then north toward the St. Johns River. In 1969 the state purchased the acreage around the springs and an additional 6000 acres stretching all the way up to Rocks Springs and created a magnificent state park. Open nowadays from dawn to dusk, the park averages 300,000 visitors a year, most of whom come to swim, but many to hike, run, ride horseback, or paddle downstream on a wild and scenic river. It also serves the school systems of three counties, providing free entrance for field trips exploring eight different habitats and their wildlife.

As a regional headquarters for the Department of Environmental



Courtesy of the St. Johns River Water Management District

Protection's Division of Parks, the rangers carry out an extraordinary amount of research, bio-monitoring, and controlled burning over a wide range of state land holdings in the Wekiwa basin. Since most of the visitors confine themselves to a small area, the bulk of the park is left open for studies of wildlife, habitat conservation, restoration, and management.

You can rent a canoe at the park, cross the lake beyond the bridge, and in a few minutes paddle to the end of Rock Springs Run, a half mile east. Just beyond that, at the end of Miami Springs Boulevard, you'll find the Bridge to Nowhere. Built to provide a road for development up to Lake County, the bridge is now a symbol of how some developments abort. The concrete structure goes over the river and directly down into the swamp. The road beyond that never got approval.

Just east of the bridge lies the Wekiwa Marina, the cultural center of the Upper Wekiwa.¹ Until a recent fire closed it down, the local folk used to come regularly to the riverside restaurant there for beer, catfish, and country music. There is something special about eating cornbread and fresh

¹ Current owners have spruced up the site and called it Wekiwa Island.

fish by candlelight, sitting at windows looking down past the pilings to the darkest of night waters. Canoe and boat launching here has been the major enterprise for fishers and river watchers for the past forty years.

As you paddle past the marina with its families of otters and raccoons that live across the way, the last vestige of Sweetwater Oaks appears on the right, Miami Springs Run. It is fed immediately by two small springs and beyond that by the whole floodplain coming out of Lake Brantley through the middle of the development, under the bridge, and past the place where two native sites once stood.

From Miami Springs the river gradually turns north and east through the fattest portion of the Wekiva Swamp, passing several small mounds and Shell Island, by volume the largest Timucuan archaeological site in the whole basin, before it meets the Little Wekiva. By contrast to Rock Springs Run, paddling the Upper Wekiva is a mellower enterprise and a constant adventure in island options, this side or that. In effect, a long chain of zig-zags runs down the middle of a dual stream. It reminds me of the pieces of cloth my mother used to braid together for some future project, each island a patch with its own distinctive colors.

The Wekiva's international reputation attracts eco-tourists, largely from Europe, Germany and Great Britain. Add to this the fact that the apron of Orlando's metro-population (spell that S-P-R-A-W-L), using I-4 and SR 434, can easily arrive at the park or the marina in a half hour, and you can see how this portion of the river has to be called busy.

However, once you get beyond the hour or two paddling stamina of the regular crowd or step outside their recreational time frame, the upper river has all the same qualities of repose as the unpopulated areas. For most of us locals, the main springs and the marina were our first introduction to the river and the best reason for expanding our species self by exploring all its other angles and arteries of wildlife.

The Shape of Wekiwa



8/02/00

It-is-impossible-to-convey-in-words-the-continuity-fluidity-and-constancy-
 of-the-flow-of-the-Wekiva-River-from-everywhere-in-this-world-to-the-place-where-you-
 keep-it-confined-in-your-mind---and-your-mind-itself-a-flow-through-thing-some-talk-about-as-
 having-
 stream-of-consciousness-while-the-river-can-never-convince-you-she-is-the-only-way-to-think-
 but-your-.....
 problem-with-the-stream-is-that-it-never-seems-to-rest-or-stop-and-even-though-you-wish-you-
 could-.....
 always-get-non-stop-flights-to-wherever-you-fly-and-or-drive-the-results-of-never-landing-
 would-be-.....
 catastrophic-for-your-mind-which-thinks-it-needs-a-regular-rest-you-want-things-in-their-place-
 neatly-.....
 the-tree-in-its-bark-the-cloud-in-its-high-sky-the-swamp-percolating-into-the-aquifer—with-no-
 sense-of-the-
 yo-yo-of-the-river-and-no-mind-of-transpiration-up-the-sky-to-meet-the-clouds-on-winds-of-
 dew-over-deserts-
 and-oceans-to-fall-into-ice-and-wobble-the-planet-and-even- in-Antarctica-to-
 move-as-glacier-or-subsheet-flows-toward-the-penguin-dotted-waves-
 on-currents-to-carry-Magellan-
 (himself-a-river)-to-sail-from-
main-to-mainland-all-to-
match- a-path-that
 -may-return-on-butterfly-wings-like-the-

.....following variations on it will take you far and wide
.....across the landscape of nature and ideas and our human part
.....in it all. Wekiva runs through all the departments
.....of knowledge in the general education of the
.....global university system. It reaches.....
.....out with equanimity to all the cultures of the globe.....
.....but especially to the artists and writers of America and.....
.....Florida who have helped us to understand our river ecology.....
.....My hope in this flight of fancies is to kindle in the residents.....
.....of America and especially of central Florida an undying pride and caring for the
Wekiva.....

.....River basin that makes such a national example of how.....
.....to build a watershed community. But for those of you living.....
.....far from Wekiwa Springs and Rock Springs, there is a river of your...
.....own home place to follow, to yield to, to enjoy and.....
.....protect. The vision is the same, an archetype.....
..... of who and how we are.....
leave now the double pool of Wekiwa Springs.....
and come with me down the meander of.....
stream banks and snags that drop.....
.....from them...

the pace of the river

is slower

than writing than reading

as long as you don't paddle at

all let yourself go and

spend lots of energy in eye-ways

and hear-rings from the woods or

in the stream left and right

down and up across and through

the hydric hammock the cypress

watch the patterns of

light fall

the reflections of green inside the surface unsmooth

making cubes of ovate or lanceolate palmate or

oblong each cross-branch reaching to banks beyond

or settling to a creek bottom throwing up to the sun

light and river combined in the upright the leaves of

the snags growing denser each day

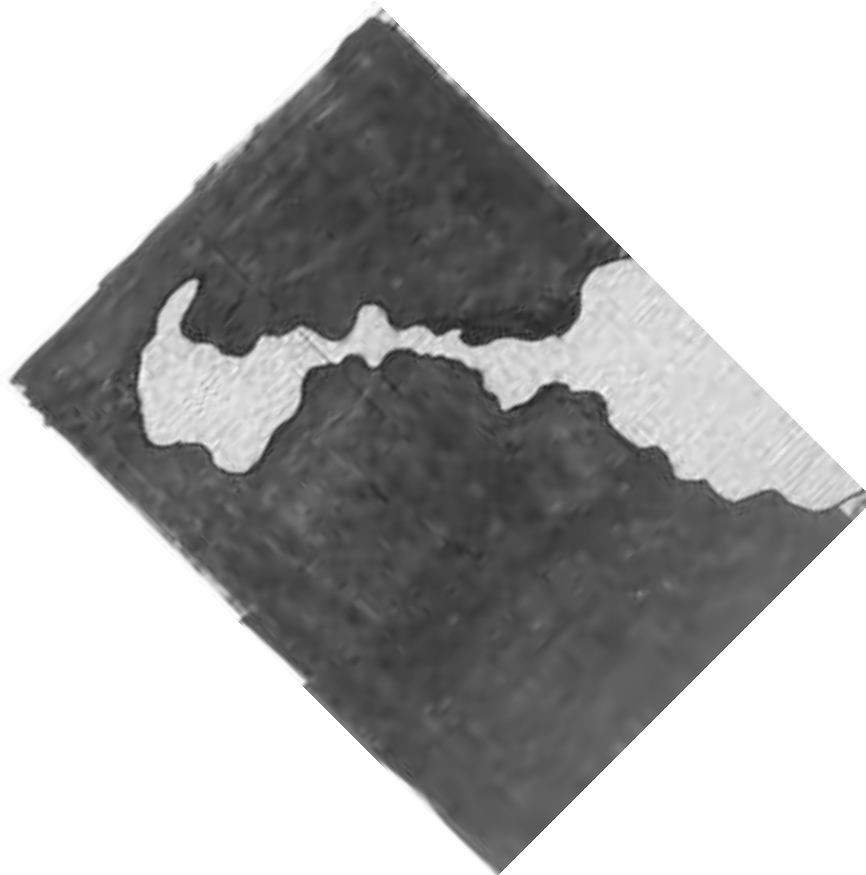
the water goes by steadily the light a new solar flash

each instant only the snag stays the same holds

its head up makes a right

angle becomes the static figure in a kayak

not dug out set sideways for us to climb or sit and sun
 to leap off in frolic or fright to swing from by
 tail or silk and best of all to slither
 over and under touching each twig and
 feeling each pattern of bark the road aban-
 doned over midstream a preparation and
 a stance toward baptism and migration a limpkin's
 soap box for harangues against the destroyers
 of the snail world the float pace the holy congestion of
 the bank trees the million little damlets holding
 ground and apple snail eggs.
 Listen in Wekiva to the long curve of her beak
 the fine tune of her gargle to discover your
 proper motion to earth.



An Aerial View of Wekiwa Springs, Tilting to Show North

This poem is dedicated to Pat and Fred Harden on the occasion of their last official meeting on the Board of the Friends of the Wekiva River, Dec. 2, 2004. God speed in your new life ventures.

Wekiwa Springs State Park 1969

I.

Sublime Chambers of Commerce

While Howard Kelly was dedicating his park at Rock Springs Run in 1927, Wekiwa Springs was being advertised as “The Wonder Spot of Florida.” According to testimonials for a new housing development, “The Mystery Water of the Seminoles” would heal your liver or kidney problems, salve your rheumatism, and even help with Bright’s disease. In the flyers for the proposed community, the creator of this fantasy, M. E. Miller of Detroit, even provided water analysis from the U. S. Geological Survey. His Wekiwa Springs Corporation folded at the end of the decade, having produced just two homes and an abundance of sidewalks.

No doubt he thought it was a failure, but he had the right idea for central Florida: to build a healthy community around the springs and the river, to use science to monitor the quality of water and wildlife in the basin, and to respect the traditions of the natives who have preceded us. Fortunately for us, the depression put an end to his enterprise, just long enough for a few native Floridians to catch hold of a better vision. Instead of building homes around the springs, they wanted a substantial setback from the most precious outflow of Wekiva, including its immediate uplands and bottomlands.

Miller was not the first to explore the recreational and commercial potential of the river. Wekiwa was originally called Clay Springs, after L. H. Clay, the settler who first put it on the map in the mid-1800’s. Situated between Apopka and Sanford, the river had steamboat traffic that provided transportation for people, store goods, citrus, and other agricultural produce from the Apopka region to and from the river port of Sanford. At the head of the river early settlers built saw and grist mills, a general store, later adding a post office, a hotel, and even a newspaper. Of course, as always, there was fishing, hunting, and swimming.

If you want to get a feeling for what life was like in Wekiva in the last decade of the nineteenth century, you should read the diary of Major John Steinmetz. He came in 1882 from Norristown, Pennsylvania, just twenty-five years old. At first he planted citrus groves and built an orange packing house, but in 1898 he took over the lease of the hotel which J. D. Smith had built and included a bath house, toboggan slide, picnic grounds, and a dance pavilion. He was the first in central Florida to conceive of a wet and wild amusement park at Wekiwa Springs and in 1921 he was a leader of a local group of hunters who started the Wildlife League, a movement to improve wildlife management statewide.

His diary reveals a man of adventure who appreciated the comic in this life. It starts out with a description of his trip by boat from Wekiwa Springs, camping the first night at Blue Springs, then going out the St. Johns River at Mayport, down the coast to St. Augustine, and finally by inland waterways arriving at the frontier outpost of Miami. His trip is full of the delights of simple pleasures like pineapple wine and turtle-egg omelets. But most of all he likes to tell stories of arrangements, shortcuts, and ways that he saved money.

Other shorter excursions are recounted in the diary, but the rest is largely a set of folktales of Wekiva life, not far really from Zora Neale Hurston's *Mules and Men* or Marjory Kinnan Rawlings vignettes from *Cross Creek*, like "A Pig Is Paid For," except that Steinmetz lacks the literary flare of those Florida collections. He has a story for green-horns about a trained gator, tales of huckleberry pie, a wildcat fight witnessed by two black men lost in the swamp, and a trip of five ladies and four men on a lighter to Silver Springs. When the boat gets stuck in the river (presumably the St. Johns), they dynamite the channel and blow the corking out of the front end of their boat. Most of the stories are about hunting possum, deer, turkeys, bears, wild hogs, and even an account of setting up a tripod in Lake Prevatt to shoot a bass in its spawning bed.¹

A railroad came into play at the turn of the century linking Apopka, Clay Springs, and Tavares, altering the patterns of economic growth and tourism. You can see the sudden expansion of central Florida by viewing the early railroad maps. From 1856 to 1870 they show just a handful of towns and several maps even have the river wrong, drawing a branch from Rock Springs Run going north to Blackwater Creek, thence to Lakes Norris and Tracy, finally to the St. Johns just below Lake Dexter. The biggest contrast appears between 1882 and 1888 when suddenly a period of punctuated equilibrium is followed by drastic radiation of rails and towns, with the concomitant extinction, in name at least, of other map markers.

This pattern repeated across America created an alternative to river traffic that was boosted decades later by the automotive industry. Small tributaries like Wekiva got a reprieve from the engines of transport and hence the scale of growth at Wekiwa Springs (the name change occurred in 1906) was small compared to the coastal areas and transportation centers. The first seventeen governors of Florida (six as a territory, eleven as a state) had come from other parts of the union to advance the manifest destiny of Florida's natural potential. They supported scions of the industrial revolution like Henry Flagler and Henry Bradley Plant, granting large parcels of land in exchange for the building of railroads that began immediately to serve timber, cattle, citrus, and tourist industries on a grand scale. In such a frontier, you would be hard put to find a voice of conservation to balance the frenzy of growth, until the twentieth century.

M. E. Miller was riding the wave of the great Florida land boon when he set out his stakes at Wekiwa Springs, but by the time Dr. Kelly opened his park in 1927, Major Steinmetz was in the picture, but not Miller, whose land values were lost. He too was bleached off the map. In his place came a new entrepreneur, A. E. Wilson. During the 1930's, the Wilson Cypress

¹ The best account of the wilderness life of the 1890's is Henry Stoddard's early chapters in *Memoirs of a Naturalist*.

Company of Palatka bought up most of the land in the Wekiva basin for logging of the old growth trees. However, even as the saws started grinding, something much bigger than Howard Kelly's gift started to take shape—The Mill Creek Preserve.

As we saw in chapter one, at first this was an informal group of local men who purchased a lease from Wilson to hunt the uplands between Rock Springs and Wekiwa. Then, in 1941 when Wilson's company was done logging the area, he sold 6000 acres to the group of fifty shareholders who had by then incorporated as The Apopka Sportsmen's Club. As a result of that purchase, they became an important part of Florida's and America's history of conservation. So the grand springs of Wekiwa, those subliminal chambers of commerce, created a succession of growth cycles that eventually called forth the local preserves and initiated new projects of restoration.

II.

In Large Measure

a world without insects a world without birds
 a world without flowers a world without bees
 a world without forests a world without turkeys
 a world without fish a world without eagles
 a world without humans a world without reason
 a world without science a world without sun

There's an age-old connection between the environment and fitness. Since some demagogues are turning *environment* into a dirty word, perhaps we should concentrate on the ideas of land and fitness instead. Environmental science as a branch of physics has to do with fitness. When conditions on the earth were fit, certain elements of life emerged. Water is a necessary condition of life and therefore calls forth life. Producers are essential to consumers, calling them forth into sustenance. The whole evolutionary chain defines a process of diversification that in large measure makes the world a fitter place for more and more species and inside those species and their individuals more and more diverse behaviors are forged. This

manifest biological destiny is what Whitman called “amelioration,” but more often referred to as “development.” In this sense of the economy of the natural world, the springs themselves are developers of ever expanding and improving communities of plants and animals.²

Likewise, the prey calls forth the predator, not just to eat, but to modify its behaviors and even its body shape, sharpening the edge of its place in life. A swamp thick with trees narrows the rack on the buck whereas the deer manage the population of saplings to extinction at their own peril. All of this is by way of introduction to American conservation and land use. When game was plenty, hunting had no season, a rifle no rules. Eventually, however, where too many big game were shot, populations dwindled. In the Wekiva of the 1920’s, it was the deer population struggling with tick fever and unregulated hunting. Only the hunters and fishers themselves really had a sense of the losses.

All across America, by the last quarter of the nineteenth century, before ecology was a scientific term backed by hard numbers and experimentation, the American sportsmen were brought together by the game and fish they treasured. They too became flocks and herds, incorporated with by-laws to govern the “preserve.” As John F. Reiger has shown in *American Sportsmen and the Origins of Conservation*, both the wealthy members of the Boone and Crockett Club (including many U. S. presidents) and poor settlers requiring game and fish for subsistence, were the backbone of the movement to preserve habitats for wildlife.

They were not motivated by profit, indeed deplored the taking of animal life as a commodity, and so crafted rules of conservation, bought and leased land for their hunting and fishing pleasures in order to manage the populations for themselves and their offspring whom they assiduously trained in the disciplines of forest and stream.

We often tend to think that it belongs to the government to preserve, but really every conscientious land owner can be doing preservation. Furthermore, grassroots recreation organizations have preceded the national, state, and local government interest in seeing the game, the flora, the spring, the mountain, or the desert through many generations. That word *Preserve* is a magical icon in American history that since the time of Teddy Roosevelt has been gathering enormous force across America. It was a counterweight to the expansive era of growth in America. Such vision continues to keep growth from becoming a dirty word. The healthy body has inhibitors to unbalanced cell growth. Our social system has gradually, because of the voices of conservation, built up a similar antidote against cancer in our river basins.

² This descriptive account in no way argues for or against teleology or any of the other unscientific views of evolution. For an exceptional account of the autonomy of biology as a science and for the bias toward Newtonian physics among philosophers of science, see Ernst Mayr’s *What Makes Biology Unique?* In his view, our contemporary thinking is still contaminating biological concepts with principles of mechanics so simple and reductive as the laws of gravity. We need to get over the notion that physics has priority over biology and look for the origin of creation in the river that our life calls forth. Wekiva operates for sure inside the laws of physics, but is far more complex than that .

III.

Science and Conservation in Florida: A Module of History

In the nineteenth century, following the trails of Mark Catesby (1721) and the Bartrams (John and William 1765 and 1772-6 William alone), the two great namesakes of American conservation, John James Audubon (1832) and John Muir (1867), explored the natural Florida and wrote fine accounts of the precious birds and plants they found. They were the beginning of a steady stream of botanists, ornithologists, and marine biologists who came to study the treasuries of tropical wildlife; but for the most part they took their accounts and their specimens north, where long established universities and natural history societies welcomed them.³ Many of these scientific explorers, made aware through successive trips of the negative effects of development on the habitats and species of their interest, tried to speak out for preservation, but it usually takes a local and a native group, snowbirds who become settlers, to actually make the difference.

The comprehensive history of preservation of natural sites in Florida has not yet been written, but it starts with the national outrage at the marketing of snowy egret feathers (120,000 birds lost in one year) and a small group in Maitland that in 1900 formed a charter as the Florida Audubon Society. They were dedicated to stopping the senseless eradication of Florida's loveliest waterfowl to supply the fashions of haberdasheries from New York to Paris and London. John Steinmetz was an early member of this effort.

From the start they enlisted the help of outsiders to foster a Florida law protecting non-game birds, indeed on the very first board they got the Governor of New York, Theodore Roosevelt. Later in 1903, it was by his executive order as President, that Roosevelt established Pelican Island as the first federal bird preserve. However, their crowning achievement was a short-lived legislative victory in Tallahassee that banned the hunting of the heron family of waders. Poaching continued and wardens actually died, so that eventually the law was repealed. The FAS continued its programs of education about birds and has become indeed the backbone for most grass roots environmental action since, especially in Wekiva (see Chapter III).

In addition to FAS, a few scientists turned into Jeremiahs. One of the first, crying in the swampy wilderness, came out of South Florida. Charles Torrey Simpson came to Florida in 1882 (before Miami was born) and started publishing books on native and exotic tropical plants in 1914. Before he was done, he established 125 species of plants and shrubs. He studied

³The University of Florida was founded in 1853. Rollins is the first private college in Florida (1885) and Stetson the first private university (1885). Other major state universities came later: Florida State (1887) and the University of Miami (1926).

thoroughly the ecological effects of the hurricane of 1926 and wrote about seeds traveling the gulf stream and how the sea planted one of Florida's most beautiful hammocks in the highest point around, Miami. In 1929 he wrote a book that put tree-snails on the ecological map.

His crowning work on *Florida Wildlife* (1932) contains a chapter entitled "In Memoriam," a summary of the degradation and losses that came of extraction, dredging, draining to get to the peat, the extraction of mangroves, the acres of hammocks lost to sugar and vegetable farms, and the building of homes in the most precious habitats in South Florida: "This wonderland should have been set apart as a bird sanctuary, as something unique, as one of nature's inimitable masterpieces."⁴ All his writing is a combination of science and eulogy. "All the skill, all the science in the world cannot revive a dead animal," he protested, "they cannot restore a single species of plant that has been exterminated."

Another botanist of the era, John Kunkel Small, produced a similar outcry in *From Eden to Sahara: Florida's Tragedy* (1929). The book describes conditions in Florida in 1922 as "wholesale devastation of plant covering, through carelessness, thoughtlessness, and vandalism." In the context of the 1906-7 drought, he saw the potential in Florida that growth could produce a man-made desert. High on his list of crimes of his time were the burning of forests and the bulldozing of aboriginal sites, shell mounds and middens. For all of these woes, Small provided compelling pictures, sometimes even before and after shots that showed conclusively the vandalism that was his main theme. So far Wekiva had escaped such devastation, but Wilson's cypress lumbering would soon put an end to that.

More optimistic than Small, Simpson concludes the tirade at the end of his book with a message of hope, referring to a few examples of private preservation, including the donation of five hundred acres of the noblest hammock in the state to become Highlands Hammock State Park. Little pockets of preservation started to rise up all over the state, such as the Big Tree park in Sanford and Kelly Park already mentioned in the 'twenties. The first significant state program for habitat preservation was The Civil Conservation Corps (1933), providing stimulus for land acquisition. Two years later the Florida Park Service was initiated with eight original parks.⁵ Each of these has its own history which often includes an initially private preserve that was sold or given to the state for the park system.

When Leroy Collins, a native of Tallahassee, returned from the war in the Pacific, he soon became a Florida senator and, having been impressed with the expanded park systems of the west, proceeded to initiate legislation for a greatly expanded park system in Florida. After the passage of the State Park Act of 1949, he became governor and set the trend for his successors to support appropriations for land acquisition. So the land and rivers of Florida were ripe for a special kind of harvest by 1966 when Gov. Hayden Burns signed a bill to float a \$20 million

⁴ Page 188.

⁵ Highlands Hammock, Hillsborough River, O'Leno, Myakka River, Fort Clinch, Gold Head Ranch, Torreya, and Florida Caverns,

bond. Growth began to be balanced with green space, habitat loss in general was balanced with preservation of the most valuable niches and biomes in Florida's many ecosystems.

What's the proper percentage of growth to preservation? Is it reasonable to have a rule of thumb, say 5%? Not a bad idea, but better yet to understand what are the most critical areas for concern and work on those first. Later it will be possible to provide connections between those areas and the whole state will eventually retain its natural communities intact. In 1930, it didn't matter much in Florida, though, because the great hurricane of 1926 and then the depression put a serious stranglehold on growth. This set the stage for Wekiva to join the state park system and become the paradigm for river community based on protection and restoration. It all started with the Mill Creek Preserve and the Apopka Sportsmen's Club.



Hand-drawn map of the hunting stations in The Mill Creek Preserve (courtesy of John Land).

IV.

The Mayor of Apopka

John Land came back from the European theater of operation in 1946 to settle back into Apopka and his Wekiva friendships. Right away they asked him to run for mayor, but he said he wasn't ready. His older brother Henry had already held the office of county commissioner and John had helped him plenty in his campaigns. Three years later, when they asked him again to run for mayor, he said yes, and except for one term in the late 1960's, he has been mayor ever since, better than a half century.

When I called to talk to him about the spirit of community that motivated the Apopka Sportsmen's Club to sell their land to the state for Wekiwa Springs State Park, he obliged. I think he intended to put me off two days because of a town meeting that night, but he took the phone from his assistant and spent about an hour filling me in and answering my questions. Everybody at the Apopka Historical Museum had told me, "Talk to John, he'll tell ya." It was extraordinary the way he took time for me, as though he was retired or something, and had nothing better to do, just running the second largest city in the county, annexing and growing even faster than Orlando.

As I hung up the phone, I assured him we could get together on Friday and he promised he would look for any documents or information he had about the group. Looking over my notes, I thought I already had plenty and wouldn't need to see him again. Meanwhile, I started calling the other friends he mentioned and they were considerably more guarded and less detailed in their memories. John is one of the youngest at 85. They all confirmed that their idea in selling to the state was to insure that their hunting preserve would be kept in a pristine condition and not fall prey to the developers that kept knocking at their doors.

On Friday morning I was outlining my essay when the mayor himself called to tell me he had found a bunch of stuff, but hadn't had time to look through any of it, could I come at one o'clock, before his meeting downtown. That would give us an hour. The mayor loves to talk history and I felt like an old friend.

When we first met that afternoon, he called me "Professor." In his large office, with tables, chairs, and desks stacked with the materials for two dozen current projects, we didn't have much space to work, so we both sat in front of his desk with the "stuff" on the floor. As he sifted through a metal file box and its various envelopes and folders, this silver-haired gentleman regaled me with a hundred stories.

John Land's mind is completely a-swim with all the people in his Apopka world. Even though I asked a few questions and responded to several of his tales, he gradually put together

not just the history of the purchase, but his whole life from his daddy's veneer furniture company, to his childhood on the Wekiva, the war, his mayor's career, and his philosophy of retirement. "Don't ever say you're going to do something that you don't know for sure you'll do," he counseled, "and don't ever say this is your last term."

I kept feeling that he should wind up the meeting, even stole a look at my watch a few times, and finally said I didn't want to make him late for his meeting. It was 2:30 before his administrative assistant appeared in the doorway to say he had a phone call, and so he allowed me to move to the outer office to try to get the map of the deer blinds and a few pictures copied.

One of the items he showed me was the guest book at Camp Cozy, the clubhouse so to speak where they held all their functions. It was a flat board with a notebook attached, its title printed on the cover in pencil. The entries by various members described their hunts: what they saw, shot, and missed. "Don't you want to make copies of some of that?" the mayor asked. I couldn't see that any of it showed better than the generous manner of this kindly public official how and why they all offered their 6000 acres at a cut rate (\$350/per acre; \$41,000 per member) rather than opening their beloved uplands and swamps to development. I suspect that all of these men, just like you and I, were eager to make money in their lives and knew the fair value of whatever they owned. They were mostly builders in their community, of one sort or another. Wekiwa Springs State Park is now the heart of every building and organization in our community.

What I was looking for, I told him, was really in the "Objects" of the hunt club's by-laws:

1. to promote and develop interest in...the sport of hunting and fishing,
2. to protect, develop, and propagate wild life and game animals,
3. to prevent forest fires,
4. to assist in the enforcement of fish and game laws,
5. to own, develop, and manage a game preserve for the benefit and entertainment of its members,
6. to provide places of meeting and entertainment for its members,
7. to ... dispose of property to these ends.

The by-laws also refer to the importance of members abiding by the hunting regulations, but we wouldn't find a copy of those, John said, because they were discussed and approved in detail each hunting season.

From the beginning, even before they bought the land, the club had already instituted a restriction on shooting the does. The population of deer was greatly reduced by the tick fever of the late '20's. However, as soon as they put a curb on shooting does, the population quickly rebounded, as healthy populations can.

John also told the story of how one year they brought in deer stock from Wisconsin to offset the tick fever declines and the bucks had these huge wide racks that didn't ride well in the

crowded forests of the swamp. Our deer, he says, grow theirs just about straight up, and he shoots his hands straight up from the ears.

The Apopka Sportsmen's Club, for all practical purposes, was already a private or volunteer Wekiwa State Park with its own principles of management and the important ingredient of a non-profit entrepreneurship, seeking values other than return on investment through building healthy populations and conditions for habitat. Fire regimes were not a part of their ecological understanding, but for safety sake, they didn't want to be setting fires accidentally.

Even in the charter and by-laws, you can see the elementary conservation ethic of this group that came together to have fun. Each fall, at the beginning of hunting season they began with a feast at Camp Cozy where all the members and associates entered a lottery, drawing numbers for one of the forty-five stands (see map above).

When I asked John about the bear population back in the '30's, he revealed an unusual perspective—completely unexpected—describing the experience of seeing a bear as something so fleeting, passing so quickly before his eyes (keen even now), that he dared not claim for sure it was a bear. “Saw one once,” he owned, “looked like a wild boar, but we don't have them here 'cause they don't mix with the bear.”

V.

The Developers

*I live my life in growing orbits...
and I have been circling for a thousand years
and I still don't know if I am a falcon,
or a storm,
or a great song.....*

Rainer Maria Rilke

As mayor of Apopka, you're a part of history on November 15, 1965--one of four or five hundred handpicked guests of Governor Hayden Burns at the Cherry Plaza Hotel in downtown Orlando--when Walt Disney makes his announcement. He's the one who has mysteriously been buying up half a county to build his city of tomorrow, something bigger and better than

Disneyland in California. Leading figures in Florida's growth and government schema suddenly turn brain-numb, trying quickly to contemplate the impact for their own spheres of this exciting news. My mind conjures up feeding time at Gatorland when someone throws buckets of raw chicken parts into the pit and there's a turmoil of whipping tails and powerful cracking jaws.

Disney makes one thing clear, land speculators will be too late to take advantage by buying along the perimeter because the park will be built deep within a buffer of Florida's elegant pine flatwoods that he already owns. No one hears him. As mayor of Apopka's fifteen thousand, safely removed some forty miles north of Walt's project, you start to worry about the long-term effects on your city and the rural character of the Wekiva River basin and its wildlife. Already the new university in town, Florida Tech (later renamed the University of Central Florida), has been considering building in the area and right away other developers start to show an interest in the Sportsmen's Club holdings. At Camp Cozy, generations of those who know best the haunts of the swamp bucks and turkeys are beginning to think of the dire prospects for the river they grew up with, if more of the basin's riches are not preserved.

Time will tell, but their intention, as John Land recalls, was to counterbalance the Disney scramble for growth with a Wekiva park that would be kept pristine long after Disney closes its doors. In the long run, their decision may indeed have been more important than Walt's.

Even though they had substantially higher offers, the officers of the club decided to sell to the state and furthermore worked hard, not only to close their own deal, but to lobby other neighboring landowners to add important smaller parcels to the park site. One of those, Conway Kittredge, was not going to be an easy mark. He had bought the acres surrounding the springs themselves for a family home.

Coming back from the war, Conway Kittredge entered the real estate business with his father. By coincidence one of the early properties he handled is the very neighborhood where I now live on the west end of Lake Maitland. My neighbor Bert, across the street, bought his lot and his father bought ours early in the 1950's for \$2500 a piece, about 1/60th of its current value. Bert describes Kittredge driving up in a scruffy old car, a small-time operator. But it wasn't too long before this energetic businessman multiplied his assets in a similar fashion, developing shopping centers and speculating on all kinds of Florida projects: the University of Central Florida, Cape Canaveral, and so forth. When the state started to seek his Wekiwa Springs holding, Conway held out for a higher price for quite some time. An aide to Governor Claude Kirk is reported to have said that Kittredge's parcel was well overpriced. One of his friends among the Apopka sportsmen admitted to me that Conway was a tough bargainer.

With hindsight, however, the million dollars they paid Kittredge is probably the best bargain the state of Florida has ever made. The county appraiser sets the park's land value now at better than thirty million. That's the nature of land value in Florida. If you sell your home three times in as many decades, you can easily live five to ten times better off than you started, unless of course there's a bust in your boom. Development is not a dirty word, but a part of the

American dream: life, liberty, and the pursuit of real estate. When wealth in the form of land is transferred from private to public hands for the sake of preservation, then even as a simple profit transaction, the developer does a great public service. Howard Kelly gave his springs, Conway Kittredge made a profit and gave his springs, and the sportsmen of Apopka perpetuated their own ethic of preservation by entrusting their land at a deflated price to the management of the Department of Natural Resources.

This complicated story tells us that even if you factor in the politics, the disillusionments of democratic processes and habitat loss, the gist of the matter is the ecology of the river community in small-town America: every one knows about every one else and a man like John Land, who takes time to talk to and look out for so many in the community, is loved for the way he tells stories and keeps everyone in mind. Central Florida and the Wekiwa Springs State Park are bigger now, but much of the rural spirit or character of the river community has been preserved.



Of the lark-songs he heard in Twenty Hill Hollow, John Muir remarked, "*Music is one of the attributes of matter, into whatever forms it may be organized... Fancy the waving, pulsing melody of the vast flower congregations of the Hollow flowing from myriad voices of tuned petal and pistil, and heaps of sculptured pollen.*" (*Wilderness Essays*).

8/23/96

The name Wekiva is a compound word in Creek (a blessed irony) so that weki (water) + wa = spring, but weki + va = river. The natives who originally inhabited this river, though, were speaking Timucuan (also spelled Tomokan) and their word for water is *ibi*. It has an amazing versatility, standing for all sorts of water-forms (marsh, river, ocean, dew, wave, or rain) and water-actions (bathe, wash, anoint, and drink); but most astounding is that they used it to refer to a rainbow, that magical conjunction of water and light.

Today at Wekiwa Springs the sun is shining through the swamp laurel oak at about a hundred degree angle as we sit on the north wall looking down into the pool at a petrified log. The chunky, sandy bottom appears almost spring-clear, bright specks of glistening silica and lime peppered by little floating globules of algae growth. A chaos of wavelets deflects the rays at a thousand different angles so that a mysterious pattern of fireworks is playing on several levels at once. It's a natural Fourth of July celebration, without percussion.

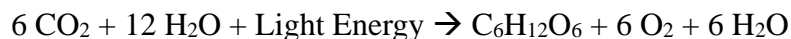
On the very bottom, fluid figures of unshapes are moving constantly, rolling across toward the east, but also evaporating and being replaced in barely perceptible fractions of seconds. If you focus on these shimmering bright lines that make an ambient chicken-wire pattern, you can see that each particular flowing line, like the branches of lightning in a Florida's summer night, has its brief moment of color when all the rainbow flows through it. To watch this light is to know what captures many an insect in the zigzag silks of the argiope's web when ultraviolet lightplay fascinates them.

Now look on the surface to a depth of the wavelets, you'll see another game of waterlight, a totally different sheeny-solid, globular reflection flashes on and off with a thousand companions, as though some tribe with handheld mirrors were sending signals, not with an intense beam of light one could make a code out of, but rather with the slightly speckled metallic facia that so often infuse the car-colors of the 'nineties. The dizzy motion of these lightsheets makes a marvelous dance upon the surface like a horde of little children bobbing up and down in splashful radiance.

Is this making you hungry? What is it about swimming that makes us feel so ravenous? Even just sitting here on the wall, watching the spectral splendor through the virtual reality of a prose poem, has me famished.

Buddha Thor says, "The community of all beings is in water."

Also on the surface, if you look carefully for it, you can see the images in vibration of the sky and trees, leaves already ashimmer in the breeze are doubly rampant on the water's happy face. These too are emergent properties of the water molecule and the solar energy through aquaphotosynthesis, waterlife in leaf and limb.



[yes, indeed, that's six new water molecules]

A fourth dimension of lightplay is made of the brightest points and lines of light which mark the direct hits of the sun's rays upon the peaks of the wavelets which shoot in nano-moments, sometimes down the crests of one or both sides of the teton-sharp wavelings. Brighter than the brightest white neons, this fireflashing, these Wekiva arc-lights are mostly dancing dots becoming irregular circles and ragged-edged tweasers, so many so fast that it would take thousands of eyes to capture all the different shapes that sparkle and wrinkle across the gleaming surface over toward the middle of the spring-pool.

This is what you see if you look directly into the sun-in-the-water. If you sit on the opposite wall where the sense of shade predominates, the water is full of a thousand muted colors like a Cezanne painting, all the aquashades of blue and green.

All this time I've been watching five little girls perform a magnificent synchronized dive off the NO DIVING wall. Thrilled with their own commotion, they haul their tender bellies up over the scratching concrete to do it again and again. They too are water and light, carbon-arcs burning bright on the surface of the spring. A slightly older boy quietly joins them. After a while, they all mount a huge white float and drift off toward the bridge, asking each other's names.

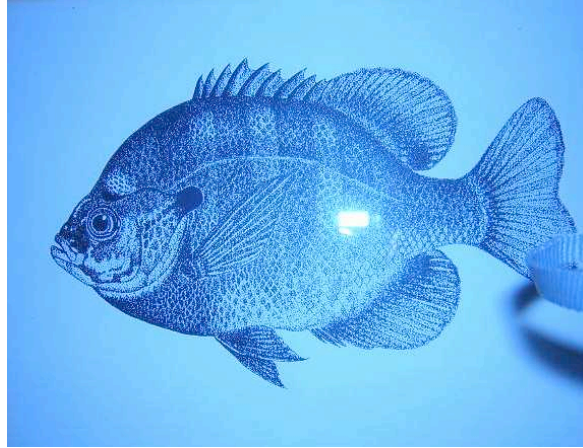
We are constructing this scene together, you and I dear reader, out of our shared experience. I am using an actual day of impressions, enjoying the freedom to make my own language about it, but you are using your own visions of the watersport, wherever spring-fed rivers are liquid crystal in morning light. We share the same molecules, the same solarsport, the same childhood of ionized delight. Forget the so-called news. This is our moment of being.¹



Solar Firewebs at Rock Springs

¹ Margaret Ross Tolbert has recently published a remarkable study of Florida's springs that joins essays from Florida's best scientists and nature writers with her own remarkable paintings and poetry of the springs. She describes some of her work as "lens paintings" because of the imaginative play of light she captures on canvas. If I could afford it, I would put a copy of her book *AQUIFERious: 12 Florida Springs with Art and Narrative* (2010) in the hands of every Florida landowner.

ATC



Drawing by Jim Duby

6/14/99

The problems of our young men and women are a community's most important concern. The work of building good fathers, mothers, citizens, and minds for the future is about as essential as it gets. Family, church, friendship, school, and government combine to help in the process. How healthy is our community? We sometimes complain about crime and violence, but only through direct action can we make a significant change. That's where Wekiva can come in.

I met Guy Calabrese in a graduate course which focused on the growing sense of place in American culture. Guy works as a math teacher for Orange County in the Adolescent Treatment Center down next to Sea World. Since his project for the course was to create a set of lesson plans for a field trip out to the Wekiva River, he asked me to come down to ATC and get the kids psyched for their trip to Wekiwa Springs State Park. The day would start with hikes through some significant habitats, canoeing down from the spring to the marina and the Indian mound at Shell Island, then back to the spring for lunch and a swim.

Driving down the interstate to meet Guy at ten in the morning, I move from my own Howell Creek watershed to the St. Johns through the greater Orlando basin for the Econlockhatchee River, and then I am drawing up on south Orlando and getting closer to the Kissimee River and its long path down to the Everglades. It's all one county's jurisdiction for juveniles, but three different tributaries or river territories.

What can I say about the Wekiva to a group of 13-17 year olds who have been in retention for months? Each of them is somewhere on a humbling journey of recovery from abuse, violence, crime, drugs, and/or alcohol. Now there's the antithesis to an eco-system, if there ever was one.

Guy has forewarned me that not all of them will be fully de-toxed. I am, however, meeting with the best of the gang, those who have shown enough good behavior and promise to warrant the reward of a day out of detention and into the wild.

Strictly speaking, these young men are level six offenders. "That means," Guy explained one day in class, "they have been arrested for the last time as juveniles, but they are still considered as suitable for recovery programs and probation. The next offense will land them in jail. But this place is jail enough, for me, with double and triple layers of security as I enter and move about the building.

Let's talk about my small fears. I worry that I will let Guy down and somehow fail to connect with his charges. He has enormous excitement about this program which you can feel whenever he explains what he does. With a wife and a growing family of his own, he goes into jail-school every day and becomes one of a dozen foster-father-teachers for these young men. It is an enormous challenge that dwarfs all the kinds of teaching I have ever tried.

The primary rule of good teaching is to teach the students, not the subject. However, neither teaching nor learning is a one-way river. Guy is trained in mathematics and knows lots of other subjects the boys need, but he has to learn quickly about each young man, what great empty holes each carries in his heart, mind, and body; what strengths and talents each has to overcome his disease.

I open the front door, wondering where to go and on the front of the reception desk find a big sign: WELCOME DR. PHELAN! What a great thing to do for my own misgivings about walking into a major detention facility. I don't want to bore you with my own story, but I can readily identify with this place. As a boy growing up in the 1940's in the Bronx, I have done enough crimes and illegal substances to qualify for this school. I don't pretend that my Bronx experience in an Irish Catholic ghetto was the same as any of these fellows, but I know that I could easily have landed here, "but for the grace of God," as my loving family used to say. The evidence is now finally being weighed: peer groups have more to say about the way we grow up than parents, school, church, or criminal prosecution.

As Guy takes me around the hallways, poking in at all the facilities, I meet his colleagues and get glimpses of two clans of boys-- the buffaloes (blue t-shirts) and the coyotes (orange). A few others wear a purple shirt to indicate they have reached a position of leadership in the class or clan. Basically this is a small high school with standard subjects like English, history, mathematics, and biology. The one difference is that ATC has a program in food service which just about guarantees that graduates can get restaurant and kitchen jobs when they finally step back out into our tourist economy and support themselves.

The first impression I get with all the staff and students here is beef. It looks like everyone is pumping a considerable amount of iron. Soon I meet the ex-football star from a local high school team who is responsible for the physical training that gives these young men an appreciation of

their bodies in a clean and healthy state. Another early impression, as I am introduced to an ongoing English class, is that about half the students are not yet capable of sitting still. Their eyes are wide as walls to see an outsider. Who knows what Guy has told them about me-- "He's cool, man, you'll like him, he knows everything you want to know about the river."

I have a simple plan about what I want to do—it's a little like how you figure you'll cross a low summer creek by using major stepping stones. Guy had asked if I had pictures or slides to get them psyched, but I am not inclined to do such virtual reality prior to their trip. I want their seeing of Wekiva to be entirely fresh--before, during, and after. The pictures can come in later to help the school administrators see that bringing these young men into the river community gives them an important way to become a part of the land and of us--to celebrate creation in their own beginning way.

Just as Guy can be a tough-loving substitute for the missing or abusive parent, Wekiva can be a rich relative to the poverty of a degraded urban environment where nature struggles to grow a livable habitat. Not all the ATC students have no sense of nature, as in Wekiva-- I have taken enough field trips with children of the suburban and exclusive country abodes whose sense of nature is equally impoverished--but still, Guy has the right idea. One antidote to the woes of society and urbanization is ready to hand in central Florida's Wekiva River Basin and its nearly 70,000 acres of publicly owned lands. This land could be their land, to explore and delight in. Perhaps, after our trip, the ATC might consider new clan names like gators, otters, and gophers.

I was expecting pretty much to walk into a classroom, as I usually do when I visit local high schools, 5-10 a year now for the past fifteen years or so. But Guy is enthusiastically showing me every nook and blackboard. Out in the parking lot again we meet the director of the facility, a former FSU football star whose name rings a bell. He loves his work, I can tell, and has found a way to take the discipline of football into another dimension. The staff is clearly an exceptionally motivated team and I accord him some of that credit.

Guy even takes me next door to the newly opened facility for young women criminals. These are all wearing orange jumpsuits and, without being told, I can see that they are worse off--level eight, Guy says--and you can feel, even in a small class of nine or ten, the network of tensions is fully palpable. I don't think it's projection on my part, but the fact that these bodies are hiding more of their hostilities and pains. The teacher is in constant effort to create an order of esteem that they can carry out of here someday, not soon. The battle is for behavior in accord with social norms--what we all need, really.

To me, the ATC is not a place apart from nature and society. It is not a metaphor for us. It is us. We are a part of it. If you think it couldn't happen to you, to one of your children, good. You are lucky and safe, but it could happen anyway.

Studies show that young women suffer more from their traumatic and abusive early-life experiences, that men take it more in stride. I hope somehow these young women will find a

turning point, a new spring of hope to latch onto and never let go. I have watched teenagers doing the annual river cleanup on a Saturday morning and the electrical charge they get out of being connected to the river, to each other, and the community. They embrace the task of keeping a river free of all the trash of cans and bottles, grocery carts, old tires, paint cans, rugs, broken toys, fishing lines, bobbins, and odd pieces of clothing. Somehow it enlarges their spirits.

It is 11:15 when the class I am to meet is finally assembled from all the different activities and classes currently in session. Twelve fellows sit, backs to three walls, and I sit likewise on the end of one row. Guy introduces me and tells how the students have so far been preparing by reading Zora Neale Hurston's novel, *Their Eyes Were Watching God*. He gave them an assignment (with the English teacher's help) to write about their own childhood experiences with nature, something that might be equivalent to what the novel shows is a formative experience in Janie's early life. "Would you like to hear what some of them have written," Guy asks, showing me the first totally unexpected stone to vault over my creek on.

I say a few words about how I ask my environmental literature students to do this kind of writing about early childhood and how much courage it takes to share that. They begin along the wall to crinkle their papers and one boy reads about the days he used to love to go fishing with his grandfather. Most of these boys are Florida natives, so two or three can recount interesting river experiences.

Next up is Jacob. He is a large-shouldered young man with sweat flowing down his face, huge thighs and calves pumping up and down in his seat. "Jacob is a little nervous yet (i.e. still not 100% detoxed), but he has a powerful piece to read," Guy says to get Jacob started. The language is raw and as real as it gets, as Jacob describes the day he saw his dad go after his mom with a knife. Eight years old he was. The confusion of that moment is just as great today as then, and as it will always be.

Each child emerges before us in this stream of young adults--a few read of harmless encounters and one fellow, Deyon, has a prose poem about a dream. With each one I inquire about the place where he grew up and his own experiences of nature there. Gradually I fill in a few words about Wekiva and start the process of anticipating our trip next week. The truth is that though Guy has been working on this trip for two months, the bureaucratic problems of authorization of every feature are still, right down to the last day, not pinned down. It is a negotiation worthy of our best summit diplomacy.

Ironically, the regular high school teachers I work with have never been able to get permission for their students to go in or on the water at Wekiva. Given the highly publicized image of violence in the schools, perhaps the risks of canoeing and swimming should be reconsidered.

Now I plant my own first stone, even though I feel well out into the creek. "Who can tell me, where does the river begin?" I ask. This question is a trap. At first, no one suspects it. They have been given the river booklets from the Friends of the Wekiva River which contain a map of the

river's path from the springs to the St. Johns. When one of them points to the spring, I ask whether it begins at Wekiwa or Rock Springs, just a few miles north. Now they are forced with multiple sources of outflow, but Jamal solves the problem when he realizes that the water precedes the spring. "But before the water bubbles out of the spring, where is it?" I ask, and we begin to establish the idea of watershed and rainfall. Now clouds are the river, and so forth, back across the Gulf of Mexico we imagine tomorrow's river arriving in a storm.

"So, does all of the rain go down directly into the soil and the canals and ditches and into the stony aquifer?" I ask, taking another step. We are now purely in midstream and water flows about us on all sides. Gradually we establish that some of the cloud-river becomes the cypress tree, the buttonbush, the aster, and the hickory nut. I get to talk about the hydrology of the tree, that greatest of water pumps, and several of them remember pieces of this story from their biology classes.

Now I take a big leap from the tree-river and the fruit-river to us, and I roll out my own piece of writing from my trip to the blood-bank (see *River of Blood*, Chap. I). Suddenly I am confessing about my life a little and talking about the river of clean blood our community counts on to help the sick, the injured, and those in operations. I show them the amazingly complex constitution of one molecule of hemoglobin and the thousands of atoms of H and O obviously derivable from our own water-bodies, 70-75% river.

So the final answer to the question of where the Wekiva begins is inside each of us--we are the river flowing forth. My last big stepping stone, the one I learned from Whitman, is the sense of democracy this brings each of us: "And every atom belonging to me, as good belongs to you." There is a premium on a clean river that allows us to have clean families and to sustain one another through blood donations. My legs shake now too, as I read, because I want so much with my mere words to give them enough reason to get control of their addictions.

My last contribution is to speak of my own son who is now six years sober. I describe the AA meetings I always go to with him and his wife (also in AA) whenever I visit them. They always ask if I want to stay home with the kids while they go to the meeting, but I need the meeting too, the reminder that there is a greater force to which we all must submit and that we cannot hide behind denial that pollution of the river of our bodies threatens all life and that sober friends and sponsors are what we all need.

The class comes to an end with lots of handshakes and looking forward to the trip to Wekiva. Out in the hallway Guy points out the bulletin board which displays in detail all the recent newspaper clippings of a Buffalo who three days after his return to normal life died of a heroin overdose. I remember the day last fall when Guy came to our graduate class on Monday night, unable to describe his grief for this loss of one of his charges. The students here in the hallway, filing by the bulletin board, shake their heads. They are beginning to understand fully that chances of coming out of heroin addiction are slim. Wekiva is their best chance.

On our way out to my car, Guy is mourning that so far they have a 34% recidivism rate. I am amazed it is so low. To be reaching two out of three youngsters in ATC is probably a much higher rate of success than I achieve in my college teaching. I can see love and support flowing out of these teachers and counselors to every buffalo and coyote. Defense systems and paranoia are high, but the rain is falling gently, pretty much all day long here. ATC is cool.¹

¹ The ATC river trip itself is briefly reflected in the essay on River Traffic later in the chapter.

The Scene beyond the Seen

Three Vignettes

9/13/96

“The visible is made pregnant with the invisible.” Maurice Merleau-Ponty

Recently while doing a basic biology experiment with the protozoa *Euglena*, two students and I wanted to test the hypothesis that the organism would change position in its "pond" when we changed the temperature. Being in a hurry to finish our experiment and thinking only of our problem, we subjected the samples of creatures to additional water at different temperatures and they sank quite soon to the bottom. Was it temperature shock or chlorine in the tap-water that killed them? I don't know, but I am certain of one thing: we dis-COUNTED the life requirements of our subjects. We saw them, sure enough, but didn't consider their needs. Sometimes we are so domesticated that the earth is almost invisible, in the social sense that Ralph Ellison has shown us in *Invisible Man*. We often completely discount the sun, too.

*

Every summer Jean and I drive six states north to Ithaca, New York, with our cat Thistle. Born and rescued in Ithaca, she packs up her ancestral memories and makes the long, three-day trek with us to her homeland. This first morning, watching the sun rise on the fourth of June from our fifth floor apartment, Thistle has adjusted her schedule to the sun brightening out the east window, distinctly to the north. The clock means nothing to her and so she has us up at 5:00 am instead of 6:30. For her, the sun and stars are time-and-place markers, whereas we have discounted the sun in favor of our digital phosphorescence. Ernst Mayr, paraphrasing Max DeBruensch, has opened my eyes to the *Euglena* and the cat with this remarkable statement: **“Every organism carries with it the information acquired by its ancestors during the past three billion years.”**

So what have we humans done with all our information from the beginning? At times it seems as though we are driving the car of the earth satellite, but no longer imagine how it works in natural communities, including ourselves. Or else we leave it to the experts in mission control to tell us the good or bad news of our bodies and the earth. Here is a democratic vista that should certainly open up wide in the new millennium, restoring our ancestral vision.

*

The invisible is the negative of day's photography, and it can be developed only in the darkroom of the imagination, the shadow of God.

David Lehman, from *The Line Forms Here*, a book on contemporary poetry.



Let's go to Wekiwa Springs. It's where I take my friends and family, as well as several classes each year, at all times of day. It's my favorite place to swim, to be, to make love, to stroke the flesh of this Florida, our home. The delight of seeing the invisible here is the ecstasy of slow undressing of the long longed-for other self, so too of dressing an idea or hope in words or paints or action. How easily we can give the mind body, the body mind.

I usually bring my students to read Wekiwa Springs early in the morning. We open the park and sit in silence around the pond. They meditate and write for half an hour and then we share the experience--some classes combine photography with their writing, but the pictures are only embryos to be developed later. Their writing shows what they have immediately seen and felt, how their minds perceive the springs. By sharing we come closer as a temporary community, see better inside one another.

The students usually identify first, the things that "spoil" the scene--taught, as we all have been, to see earth as a postcard or a garden room to decorate. Today the list of ruinous features includes: the concrete restraining walls, the airplane noisily streaking overhead, the three soda cans I scooped up earlier at the bridge, and the yellow paint on the pool ledge which shouts: NO DIVING! Personally, I'm happy in the thought a sign might prevent a broken neck if one of us were to dive too deeply into an unseen shallow.

I show them some of the invisible things I imagine as I walk around the mysterious waterworld (misty and indeed eerie this January morning): the limestone cave of water up under the hill, pouring out of the fissure; the half-inch mosquito-fish (*gambusia*) clinging to the sunny side of the pool-wall for warmth; the Tomoka tribesman I imagine canoeing up from Shell Island, contemplating his coming wedding ceremonies or chanting songs of his homeplace; the three teeny turtle heads popping up and down there along the surface, facing into the current; the pileated woodpecker we can hear hammering slowly in the woods behind and then crackling for his mate or perhaps a rival; the mastodons that left their long bones along the riverbed more than 10,000 years ago for my friend Eddie Williford to find; the rising and falling of the oceans over those years and before; and the sea's building up of the large underbelly of our peninsula with the Ocala rift as its backbone. Now we can count more than 100 major springs in Florida, but none more exciting to swim in than this.

We have come to Wekiwa Springs in educational community to observe what Aldo Leopold described as "the community of the land." Surely one of the most important documents of our age, "The Land Ethic" recounts briefly the long history of our western moral sense, how gradually all the discounted and invisible segments of the human population were included in the social contract and eventually formed a viable concept of community (barons, non-landowning males, unbelievers, blacks, women, natives, and other minorities). Leopold argues that we have to add one more important ingredient to our ethical concern, the biological community of the land and its ecology. Only here at Wekiva we are more likely to call it a watershed ethic.

After we take the measure of ecology in what we can and cannot see, I talk about the Friends of the Wekiva River and their successful efforts on behalf of the river, the black bear, the limpkin, bass, and bream. Then I give them an outline of the State's exemplary program for preservation of the rivergreen corridor up through the St. John's River to the Ocala National Forest.

I see unity in the visible and invisible world. When I look back over the spring to the hill behind and the grand old live oaks on the right, my horizon for 140 degrees encircles a bubble of perception, a depth of field the photographer would say. Suppose we were fish living inside of this horizon, this perception bubble, and swimming in a school through all that we see in the chaos of a million points of light stimulation. We would not see ourselves as apart from the scene. We would not act like the audience outside of a proscenium arch, observing some miracle play called "Nature." On the contrary, as fish swimming in this air, we would be ever alert in this world, ever on stage and in the play itself. For Whitman's sake we should call it "Song of Myself."

Do you remember as a child how you once were a part of all you could see and touch? Mary Austin described this experience in her autobiography as happening to "Mary," the "child that I was" at age five or so:

There was a wild foxglove at the child's feet and a bee dozing about it, and to this day, I can recall the swift, inclusive awareness of each for the whole--I in them and they in me, and all of us enclosed in a warm lucent bubble of livingness (*Earth Horizon* 371).

Of course, we hominids were fish at one time, but we've forgotten. In every "advance" over the past three billion years of evolution, we have lost our species memory of who we were. We still are fish and can take this new way of seeing from our old habitat. I am reminded of a presentation years ago in my wife's course, Creative Writing for Children. Imagine a half dozen college students dressed up like fish and performing for pre-school kids a giddy little musical called "The Great Fish Waltz."

The fish grown into humans need not construct a new philosophy or objectivity just because they are out of the water, just because some goggle-eyed mudskipper brought us up out of the brine. However, the amphibian human for sure would have to have a new brain to move from water and land to air. We are the world that thinks itself. Why then did the whales go back? Have they given up their objectivity? I'll have to ask our river otters, who live down around the first bend of the river, why weasel life was not enough for them. They will probably tell me that Buddha Thor says: "The community of all beings is in water."

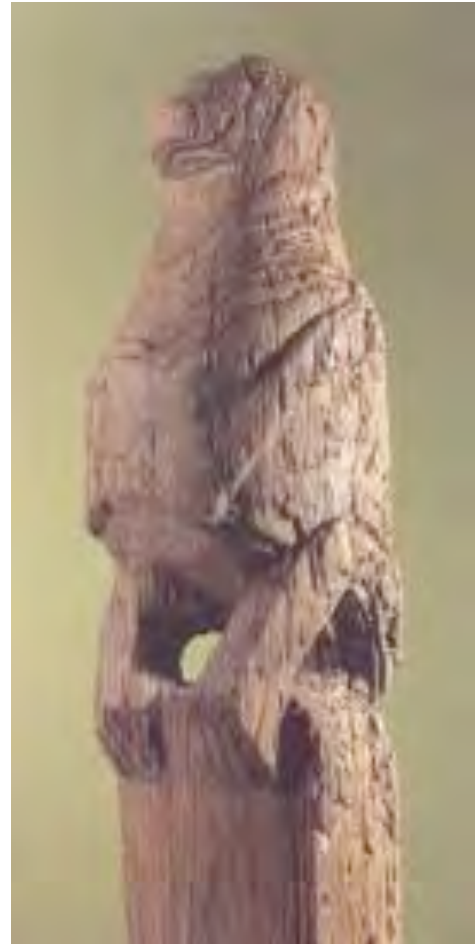
Tomokan Waterworld¹

9/13/96

Walter van Tilburg Clark tells a marvelous story of the wild west, entitled “Indian Well,” about a trickle of water in a desert wall. The first half of his tale describes all the local critters as they make their way to the water at various intervals and with hierarchies of respect for the predators in the neighborhood. Finally, almost as an afterthought to the narrator, a prospector arrives with his lone burro named Jenny. What happens to him and his companion I’ll keep secret, for your enjoyment, but the overwhelming force of the story is that necessity makes this remote well into a community of earthkind with only one human.

The community of the land begins for me with water, even in a land with an annual rainfall of sixty inches. If Florida were a desert (once again) and Wekiva its only well, you would see quite clearly how vital to all the animals and plants it is. But most of what makes up a community, cultural or biological, is not immediately apparent. We live always at such a distance from our sources of survival that it is difficult to see what keeps us together.

For the Tomokan natives living on the Upper Wekiva long before Columbus set sail, the river was their only highway. Their canoes made of burnt-out pine or cypress logs could move quietly through the entire St. John's River Water Management District. Tomokan sites have been charted throughout most of the northeastern quarter of the state and into Georgia, four hundred miles and hundreds of shell-mounds, from the swamps off the coast at Brevard and dozens of major springs like Wekiwa and DeLeon, all the way to the beaches at Jacksonville and up



Timucuan Otter: wood carving

**From *Indian Art of Ancient Florida*,
by permission of Barbara A. Purdy
and University Press of Florida,
photograph by Roy A. Craven**

¹ As a teen growing up in Daytona, we frequented the Tomoka River and its state park, so for this essay I prefer that spelling and pronunciation to what historians and scientists now use, Timucuan.

into Georgia. The Tomokans were primarily river people, subsisting largely on an aquatic diet, but gathering plants and hunting the animals of the river basin as well. A visit to Turtle Mound at the Canaveral Seashore will show how many of them lived along the coast as well. But it is their rivergreen habitat that the State of Florida is now seeking to preserve in good order for centuries to come.

In the northern part of the St. Johns and over toward the Aucilla River, after nearly two thousand years of hunter-gatherer inhabitation, the Tomokans had developed some agriculture of corn and squash. They had the beginnings of an organized society, shortly before the invasion of the conquistadors; however, in the marginal territory of the Wekiva River and its thirty archaeological sites, some scholars imagine that Mayacans, not speakers of Timucuan, occupied the river during the mission period of the Spaniards (1520-1670). Perhaps the tribe inhabiting the river was speaking the Acuero dialect and moving back and forth between lake Apopka and the Oklawaha tributary to the St. Johns.

We don't have the kind of cultural texts from the inhabitation of Tomokans we would like. We have no stories or rituals that might give us clues to what they knew and what they imagined. Oh, what I would give for even one creation account. What questions did they they ask when they stood on the edge of the fissure at Wekiwa that seems to begin their mysterious highway. Did some brave ones, as even now, try to go down into the cave, nosing quickly into the mere's utter darkness and then flushing out as quickly into the light? Or was it all so sacred that entering the cave was forbidden? Did they have a story of a Fisher King with a holy grail?²

The Tomokan was the original Florida naturalist--not a scientist with a theory, but a participant and observer who would have seen/heard/tasted/smelled/touched this waterworld in many ways we no longer can or do. They hunted turtle and deer, fished bass and bream, feasted on mussel and snail, and gathered plants from the local sandhills, scrubs, hammocks, and riverine habitats.

In the larger settlements of the north there are a few large mounds which show a variety of modes of burial and associated rituals. The wet-site archaeology of Florida (digging in lakes and streams that used to be dry land) has uncovered many interesting woodcarvings and pottery designs to show the depth of the spiritual force of the animals of the place: owl, turtle, pelican, vulture, bear, and otter. While none of these finds are exactly gathered in one place or dramatically represented in totem poles, the overall effect of the art of the Tomokans is impressive in Barbara A. Purdy's excellent book, *Indian Art of Ancient Florida*.

The Tomokan language is anomalous in a number of ways and seems to lack derivation from its immediate neighbors. Julian Granberry speculates that it might have

² For excellent contemporary fiction of Tomokan life, see the award-winning novels by Fredric M. Hitt, *Wekiva Winter*, *Beyond the River of the Sun*, and *The Last of the Timucuan*.

been creolized from contact with the Warao language of the Orinoco River valley in South America. One of the major oddities of the language is a complete lack of tenses in the verbs. Did they lack as well our concept of history? Who can say?

Our knowledge of their language comes from several dual language texts in the Mocama dialect from the Spanish period of the *doctrinas*, when first Jesuit and then Franciscan missionaries tried to bring Tomokan natives into history via Christianity and the Castillian language. So it is a strange dictionary we are able to reconstruct which contains mostly the words one would need to impart the lessons of baptism and repentance. Their words for spider, otter, spring, and hawk are missing just as much as the speakers themselves. The last living speakers of Tomokan were shipped to Havana in the eighteenth century where the culture died out.

I am most interested in their thesaurus of terms for the ecology of their river places. As I mentioned before, in the Mocama dialect the same root word *ibi* is used for almost everything we would now identify as belonging to the water cycle: liquid, lake, pond, lagoon, river, stream, canal, ocean, sea, rain, tear, wave, dew, and rainbow, all rendered by *ibi*. Likewise, as a verb, this same waterword means to wash, bathe, drink, anoint, and menstruate. What an ecology of mind is working here. Even wine is designated by *ibi*, a substance the Spanish must have introduced to them, but I find it interesting that the Tomokans did not adopt the Spanish root nor invent a new word for it. *Ibi* was versatile enough. Small problem, then, to explain to the Tomokans the mystery of the Mass in the transubstantiation of wine into blood. They seem to comprehend fully the identity of the river in their own body fluids.

*

In the 1970's when I returned to Florida to teach, I met a couple of student friends who lived on an island in the upper river. They motored up to the Marina from below Shell Island and drove to school in an old jalopy. They were part of the squatter population that fought to save their primitive dwellings--hammered pieces of sheet metal and discarded lumber--from the state's regulation of the river we shall see in the next chapter. Like Tomokans, they ate turtle and bass from the river, but stopped for hamburgers sometimes too on the way home. They experienced the river as their neighborhood and got the tradition of natural science from their Rollins "tribe." As I recall, however, their knowledge of the river was much better than the science they had from books and labs.

An inhabitant has the habits of the river; the rest of us take the river from a faucet, a sprinkler, and a hose. The distance there in terms of ecology can be substantial.

So, I try to write with my paddle and my feet. I think mostly with my senses. I am largely an earth-swimmer, Wekiva my reef, these words only my footprints. You have to go there often to experience the spectacle of the real Florida created by the Ocala rift and the millions-of-years-old database of Atlantic and Appalachian bone-folk. Then you can pretty much always hear the wavelets, the barred owl calls, the squeaking of coots at dusk, the zinging of skeeters, the delicious mourning of doves, and the swerves of bats and birds who catch the other waterwingers

I love to taste the water of Wekiva, before it is bottled or chlorinated; you can tell that it is cleansed by the bone-stone of our ancestors, Tomokan and before, all the vertebrates and invertebrates before us, upon which we build our community. The Song of Wekiva would make us all Tomokans. Though no one now speaks their language, we have faint traces of their chemistry among our genetic waters. Come listen with me to the silence of the mounds.

River Traffic or Notes from the Otterground



6/16/99

Every year tens of thousands of canoes and kayaks flop down into the Wekiva river. Most of them are rented from five different vendors, spaced rather evenly along the twenty-five mile mainstream. Since there are almost no public boat ramps, this means that unless you own one of the few hundred homes along the river, you must pay a landing fee to use your own canoe. This limited access feature of the water low-way has always bothered me because of my memories of free access, primarily at the route 46 bridge and the Bridge to Nowhere at the end of Miami Springs road. Of course, such tolls on the roadway keep the traffic down.

Most of the folks who cruise the Wekiva this way don't have great knowledge of the river nor experience in handling their canoes. It makes an amazing amount of gleeful commotion on a Saturday or Sunday afternoon when they all meet at the intersection of Rocks Springs Run and the river itself. Some have come a half-mile down from Wekiwa Springs and others a few hundred yards up from the Marina. They meet the King's Landing enthusiasts who have been descending ever so slightly for nine miles along a narrow and fast-moving stream with snags a million. Often by the time they get to the intersection, they have already capsized once or twice, victims of the just-slightly-below-the-surface log, lying obliquely across the path or otherwise presenting a sharp and rigid angle of declination that quickly tumbles the keel violently left or right.

The savvy river-current readers watch the water for twigs and branches that reach up like ghostly arms out of the glassy surface. It pays to imagine the buried trunks that are ready to land you into the murky, not-so-deep bed. A scream, a flying cooler, a pair of flip-flops, two air-cushions, and

perhaps even a camera bite the duckweed as bodies scramble to recover their upright position and especially the canoe. If the paddling had been vigorous before, the excitement of this sudden icy dousing, from toe to crotch to head, awakens another energy from deep within. A subtle mixture of consternation and thrill occurs whenever the unfamiliar and maybe dangerous river-depth spans the whole party and the muck promptly gatorizes the spirit for the rest of the trip.

It matters little whether a gator is there or not when you get dumped. Think about it, though. If gators really wanted human flesh, how smart would they have to be to know where to lie in wait for these regular weekend up-endings? Indeed, the bigger ones, if they wanted to turn a canoe, could easily be the log itself that rolled the plump ones out. What can gators be thinking then of this Sunday afternoon brawl of paddlers? All day long, from their sunny banks and logs, they prefer to take the dive when the noisy canoes surprise them out of their river-bank slumbers. Some weekends the off-river opportunities for sunbathing are not that great, so this is the price gators pay on their own highway. In the canoe, however, the gator in the imagination is always greater than the one at hand.

I remember once, when preparing a group from the Adolescent Treatment Center to canoe Wekiva, I met a handsome 230-pounder named Jack. He was solid and looked like nothing on the street could ever frighten him, but out on the river professed an extraordinary amount of gator fear. When we got to the river and he was in the canoe ahead of mine, I watched him gazing with great eyes into every corner of the creek, professing he was not going to get near any gators. I laughed out loud inside because I knew he was already scooting over them as surely as he could see the logs on which they love to lie.

So when our little trip is over and we are all pulling our canoes onto the landing, one of the canoers behind us spots a medium-sized gator in the spatterdock across the spring pond. Who jumps right back into his canoe and wants to go out to see what the others have found? Jack's fear was actually his desire, not to touch and to fondle, but in some degree to stare at and flirt with. We all share something of this fatal attraction.

In horror scenes of swamp movies, the water dragons always slip into the water and pursue the fearful humans in groups of five or ten, eyes and teeth gliding across the surface with inevitable doom-tones in the musical background. Needless to say, most of those shots come from Gatorland where captive monsters grown fat on tourists provide footage of ferocity in response to their regular flesh-food.

I have seen thousands of wild gators of every size and captured many small ones at night with bare hands, but I have never seen one gator, let alone a crowd, come at a human or try to flirt with one the way that squirrels or pigeons will. Stalking small mammals and birds (hence little children unattended) is instinctive for gators, but otherwise not so. Folks who get attacked by large gators are usually a part of a foolish baiting or photo-op, and even that, considering the millions of actual encounters, is very rare.

For the most part, the great log lizards along the Wekiva don't suffer from road rage. They know the difference between Tuesday and Sunday, between January and May. They have backwaters to swim and lakes or sloughs to reach overland, if need be, to avoid the weekend commotions and traffic jams.

So, on a Sunday afternoon, if you really want to see gators, the smart thing is to abandon the main stream and choose the backsides of all the many islands in the stream. Sometimes this requires hauling your craft through a channel closed off by considerable amounts of swamp lettuce, hyacinths, and debris. In low water seasons, such adventures end in cul-de-sacs for the canoeist who doesn't want to get out in the muck and port the canoe over the jam. The psychology of portage is different from the spill. Spillers usually try to avoid repeating their dive, but porters realize that each port has a very distinct chance of being repeated in retreat. If you find yourself, as I have, porting two or three times every quarter mile, you tend to cut your losses and return to the open river current.

Like the gator, I almost never go out on the river weekends, but recently my son Sean and his family visited, and we took two canoes out at the Marina and headed east for Shell Island, hoping the majority of the Sunday drivers would head up-stream for the springs. After ten minutes of just floating downstream, we spotted three otters in the grasses and waterweeds, a mother I guess and two little ones. Holding on to some snags across from them, we parked and watched as this other family enjoyed themselves, bobbing up and down and over each other and the various fallen trunks and branches. Upper Wekiva otters are getting pretty blasé about us canoers. More and more I find, up by the Marina, they go about their business and even will cross the stream in front of you. Their long black glossy bodies hump the water, creating tell-tale ripples in the lilies and spatterdock, and then a head will glide up and down in an instant.

We enjoyed this show of the river-dancing weasels for ten or twenty minutes before a terrible racket of five or six canoes, full of inept and half-drunk youngsters, descended on us, erasing some of the pleasure of the scene. I motioned to Sean to steer his canoe off to the right where we found a back channel to a restricted private section of Sabal Point and Sweetwater Oaks. On our way back out, we found, just south of the opening to the river, a barely perceptible, twenty-foot wide water-path that defined an island to put between us and the gunnel-bangers shouting at each others' mistakes. In here, we were invisible through the island brush.

Turning our attention to the immediate peaceful scene, we made short progress before we came to a spot where a tree fell completely across the water and caught up a whole armory of riff-raff and duckweed. We were hardly moving and I was looking beyond the log to see whether this one portage would likely do the trick, when I spotted a reflection streaking across the water. At first I figured it for a duck or other water bird that I missed in the feather, but saw reflected in the wake. Using my old binoculars, I watched for renewed activity and soon alerted the rest: "There's something feeding up ahead in the water." Pretty soon we saw that it was actually a rather large otter, all by himself, and we quietly rested our four paddles for a watch.

The bows of both canoes were snugly resting in the debris the log had trapped and we were giddy with enjoyment and whispers as our entertainer worked his way toward us, diving under a second log and moving into our immediate space. I have no doubt that he didn't see us at first, but after five or ten minutes, he came up to the other side of our log and finally popped his head up directly in our faces so that from then on we all knew each other, meeting eye to eye without exactly shaking hands.

To say that we watched him is only to say we followed ripples, bracelets of open water, the bobbing up and down of floating plantlife, with an occasional hypermergence of the narrow long neck and shiny back or the short head. The otter, my friend Jim Duby tells me, has a larger brain case than the raccoon (one of the smarter carnivores in my ken) in a smaller, sleeker head. This guy got the picture pretty quick that we would stay in our canoes safely on the other side of the log, so he went about his business.

Much to our excitement, we saw the hyacinths and other plants bobbing again on our side and then quite a commotion in the waters behind us along the bank where we could see his marvelous dark torso above the muck. Stare as we did into the water, then, we could see no sign of him and wondered if he had gone out behind us or back under the greenery in front. Suddenly he was back under the log and hoisted out onto the island with a flashing silver fish, seven inches long and as fat as my granddaughter DJ's wrist. Facing away from us, not twenty feet away, I could not actually see the fish go down, but we all heard the crunching of the meat and bone by those ever so sharp and tiny teeth. It took a considerable amount of time before the lunch was completely ground into sucrose and protein.

I'm imagining that this is the father who belongs to the two tender Wekivans upstream, but of course, there's no way to be sure. A male otter will range up and down a river fifteen miles, minding his immortality. The security of this wild creature in our presence amazes me and then he goes even further. As though pleased with his meal, he now seems more intent on engaging his guests and so he starts to swim under the fronts of both canoes. He sticks his head above the greenery, not more than a paddle's reach from where Jobie and DJ sit, as though accepting an academy award. They too are bobbing up and down in their own glee.

This mother-daughter combo is deep into animals. Jobie works as a vet's assistant and DJ is the only kid I know who can catch and hold in one hand up to five lizards at a time. I know they would love to hold this fellow, but they know better than to reach out to him. What started as a flash of light across our water path has built to a crescendo of electrical energy in all four of our bodies that our canoes can hardly contain. From the embarrassment of the river rowdies, we have been driven into this little green cove and watched the spectacular antics of the river's most hallowed mammal species.

AFTERWARD:

The black bear is indeed an important indicator species for Wekiva and certainly a flagship species that environmentalists know well how to use, but the otter is the mammal in the river while the bear mostly crosses it, belonging primarily to the uplands, the bayheads, and the hydric hammocks. The key issue here is disturbance and the human urge for direct, free, and fast transportation. On the river, human traffic is a comedy, but out on the highways the roadkill of humans and animals is a staggering tragedy. We have records of this on SR 46 where not just the bears, but thousands of other land critters and birds are dying, especially in night-time traffic.

Folks are talking again about having Orlando's beltway built over the river basin above Rock Springs and crossing over to Sanford, paralleling or replacing SR 46. By contrast, this otter's logjam is a bridge that plants and animals can use to cross this back-channel and it works well to diversify the ecology of the place, providing modest haven to fish and other critters. What would a beltway do in here?

It would be possible to build a highway with the least amount of disturbance and indeed perhaps to enhance the ecology, but it would have to be done very carefully. Fred Harden argues at our board meetings of the Friends of the Wekiva that we readily expect to build highways over water on stilts--e.g. the greenway that goes over Lake Jessup now--so why don't we build this outerbelt over the entire river basin, like the boardwalks over the swamp, so that all the land-creatures are not trapped by roads into smaller and smaller islands of evolutionary opportunity.

The other problem with any road, but especially an interstate, is the tendency of the economic imagination to make it a shopping place. If they really want "just to connect" the beltway for shopping elsewhere, then let them drop a single log that doesn't have a single place for traffic to stop between Sanford and Apopka. Let the world take notice of this unique idiocy, a wasted opportunity for growth that we could be proud of like the Grand Canyon or the Pyramids. We could feature this beltway as the extraordinary phenomenon of a landbridge over gator-mounds and otter spraints, logjams and limpkin nests. Call it the Otterbelt.



We Otter Care
Motto of The Friends of the Wekiva River, Inc.

Shell Island



I.

River Reverie

8/13/03

I used to launch The Blue Sausage from beneath the Bridge to Nowhere, just west of the Wekiva Marina. That was back in the '70's before they put fences around the bridge so that you had to pay to launch next door. My children named my new canoe, with a knowing giggle that I usually could hear whenever I loaded in or out of the river. I bought the sixteen footer for \$125 at the Mohawk factory out in Longwood with money my Dad gave me for my birthday. I had just left

grad school to begin teaching at Rollins College and the better part of me realized I might need a canoe to help me adjust to the place.

There's something liberating about having your own fins and rudder. The first thing I wanted to do was sleep out on the river. I never thought of doing that with a rental. The most comfortable inn on the upper Wekiva is surely Shell Island, a half mile downstream from the marina and the run coming out of Miami Springs. Just before you get to the shell mound, the river opens to a shiny flats, begetting an island that became the central dwelling place of the largest community of natives to inhabit the upper river.

I remember the view from the head of the island, standing on the elevated bank, the feeling of worship, really. A profound understanding wells up from the music of the place and the long upstream vista. It pays to stand relatively alone in the wild, exempt momentarily from an overpopulated state of mind, and imagine you are at the beginning of that splendid development of our species in the western hemisphere. Listening all night to the strangest of sounds, you wake with a new, but antique and familiar consciousness: the hunter-gatherer prevails.

In the '70's more fishing and hunting took place in Wekiva because the river here and there was a shanty town of locals and squatters. Most of the shacks were below Shell Island, but the traffic of motorboats and canoes was fairly regular along the north-side channel. We used to stop off to investigate these crude abodes, but I never tried sleeping in one of them for fear the "owner" would arrive at midnight with a shotgun. I have tried to pillow on some of the smaller islands further on down: not a great prospect, where there's no shell midden, to lie down between all the maple roots or cypress knees and fall asleep with the water slurping up, practically into your ears.

At home I listen to barred owls all the time in my Maitland neighborhood, sometimes right in the back yard, but out on the river, at night, their calls always seem amplified, flaring out in some kind of Dolby triple stereo. In the gothic night on Shell Island, aside from any equipment you can buy, Wekiva has woofers and tweeters of its own that keep up their conversations with the buzzers and zeekers.

The otherworldly beauty of this night has another dimension. For some reason everything that must answer to gravity finds the night the most opportune time for dropping. So the river has a gig going that's like some experimental music, tricking your every expectation of interval: plop-----pip-----glugg--pip-----woop-----kaddonngg. Why doesn't this music seem to be playing in the daytime?

It must have something to do with being on the edge--of consciousness, of civilization, of this river, and of night, all at once. Someone should do a sleep study of campers on Shell Island to see how much more Rapid-Eye-Movement is going on out there. Better than any water bed, it seems, river enhances reverie. So then, just about when the barred owls agree to retire, the Blue Sausage can rise up as a phantom and make you want a mammoth breakfast.

II.

The Shell Island Campus

10/2/03

Rollins College has owned Shell Island for 65 years and made an extended campus of it for almost most of its history since 1885. In the late 1920's and '30's, it was a regular practice for a group of eight Rollins students and their chaperones to spend a weekend on the river, men one week and women the next, sleeping in a large log-cabin with a dirt floor. During this decade, by an agreement with the owners of the island, the Wilson Cypress Company, as many as thirteen hundred students got a sense of the river community as a part of their own Florida education.

Because the college was having trouble keeping the cabin and island clean between weekend visits, in 1938 they arranged to buy the island for \$10 and other considerations through Wilson's President, Russ McPherson, who had two daughters pursuing degrees at the college.



[Courtesy of Rollins College Archives](#)

At present the island is an inholding of the Wekiwa Springs State Park and still belongs to Rollins. The Trustees of the College do not wish to give up the property because the island is connected to its historical character as a frontier and pragmatic liberal arts college. Officials of the college, however, have entered into an informal agreement whereby the park governs and polices the island while providing access to Rollins upon notification. The reason for such an agreement is quite practical: the island has a long history of attracting squatters who usually leave more than footprints. The question of how best to preserve the site is left unresolved, but as the following story reveals, the place has considerable educational value.

After lunch we go over to her lab and sort through cabinets with carefully stored samples of Florida archaeological evidence. Each tray is arranged for teaching all the principles of the dig that embrace a goodly portion of the arts and sciences. Besides cultural anthropology, the student of Shell Island needs an integrated liberal arts array of geology, chemistry, animal physiology, field botany, Florida history, and stream ecology.

Examining the plastic bags with labels, my colleague starts to pull out the artifacts from Shell Island, where she and her predecessors were digging and poking around in the '70's and early '80's. She is Dr. Marilyn Stewart, Professor of Anthropology and an archaeologist who began her career up north by studying the remains of the Iroquois.

Shell Island sits in the middle of the upper Wekiva, about three miles from the namesake springs. It has the oblong shape of a cypress dugout, sharper and higher at the front end where the mound rises to four meters, then lower all the way back to where one might stand and steer, tilted toward crayfish and bream. It has a buildable half acre at the top, some 74,440 cubic meters of shell mound, sixty times larger in volume than the next highest native habitat on record for Wekiva. Of course, a few mounds in the basin have been eradicated, probably turned into roadbed, especially at Wekiwa and Rock Springs.

In 1982 when the state was interested in purchasing the 8,000 acres between Rock Springs Run and the upper Wekiva--all that swamp on the other side of the Bridge to Nowhere--Marilyn did the necessary survey of archaeological sites. It was her report that indicated the incredible value of preserving so many relatively undisturbed sites. Hence, in the state's current file of thirty middens along the Wekiva River, fourteen are listed as established by her surveys.

We comb through trays of check-stamped, fiber-tempered, and plain St. Johns pottery fragments; I finger the teeth from sharks, bears, gators, and deer; then she produces tools made out of chert, shell, deer-bone, and limestone. Finally, in a cabinet of another lab belonging to a specialist in human evolution, we lay out on the table a human skull encased entirely in a concrete made naturally by the compression of shell and earth. Out of this irregular shape, extending at a strange angle, emerges a broken upper set of yellow teeth and below that a relatively straight lower jaw with several molars cleanly exposed.

Marilyn explains that this skull was not part of a burial, in her view, because the rest of the body was not there and no signs of ceremony were evident. The skull, therefore, likely belongs to an outcast of the band of Timucuan living in the basin. From other records she shows me, it appears that the burial mounds of this culture were located at the two major spring sites, now largely destroyed.

As I flip through a stash of folders and binders containing the records of the Rollins digs, I feel like something of an archaeologist myself, digging in a mound of papers about a mound of

shells. Here's a final examination booklet (why are they blue?) from a student who has been asked to place the course's findings in the context of American native anthropology. My goodness, the paper has an A+. However haphazard the work of the class might have been, this student has been able to comprehend and store it carefully in a larger, more stable understanding.

Photos of the digs show students sifting the ground, creating alternate mounds of shells and dirt out of neatly squared holes about a meter wide. Here's a grimy coed of the '70's, just her head showing out of the earth, the rest of her invisible. She seems herself to be buried in the past. Her thin smile belies the fact that only the tiniest fraction of the work produces any spectacular specimen, that a real or accurate understanding of the dig--as of the whole river itself--comes from the aggregate of data carefully documented and interpreted by many like herself over the years.



[Courtesy of Rollins College Archives](#)

One student paper shows that the viviparous snail dominates the Timucuan diet; that's 70-80% of the food stuff found, in all the layers of all the pits. As it turns out, her amateur's conclusions correspond fully with those published much later by Dr. Brent Weisman of the University of South Florida in his 1992 study of the relatively undisturbed Twin Mounds, three miles downstream.

The major find from Shell Island, Marilyn reports, is the large reconstructed bowl which is on display in the museum downtown. According to one student, it shows evidence of charcoal and indicates that the viviparous snail might have been boiled or made into a chowder in such a large bowl. Well, imagination too is a gift.

It is difficult not to view archaeology as a kind of autopsy where the goal is to reconstruct the living process of the human ecological past, and yet the element of destruction inherent in the dig seems irreverent in its objectivity and something that goes against conservation in a wild and scenic river. I too show this irreverence by taking a picture of the jawed stone for my web site. Marilyn suggests I might want to reconsider publishing the picture since natives these days get quite angry and sometimes sue those who display remains of their ancestors.

“Ouch!” my conscience screams out. I know better, but forgot for the moment because the scientist and the journalist in me knows that readers will want to see this human connection to

the island. When I am on the river and especially any of its mounds, I feel the spirit of the Timucuan dwellers, but I don't think of that spirit as traveling in pieces to the Rollins campus. By virtue of its diverse levels of inquiry, the university gets into every river and the river thereby is camping out at many a college.



Shell Island Bowl
(14.5" diameter x 6.5" high)
Courtesy of Dr. Marilyn Stewart

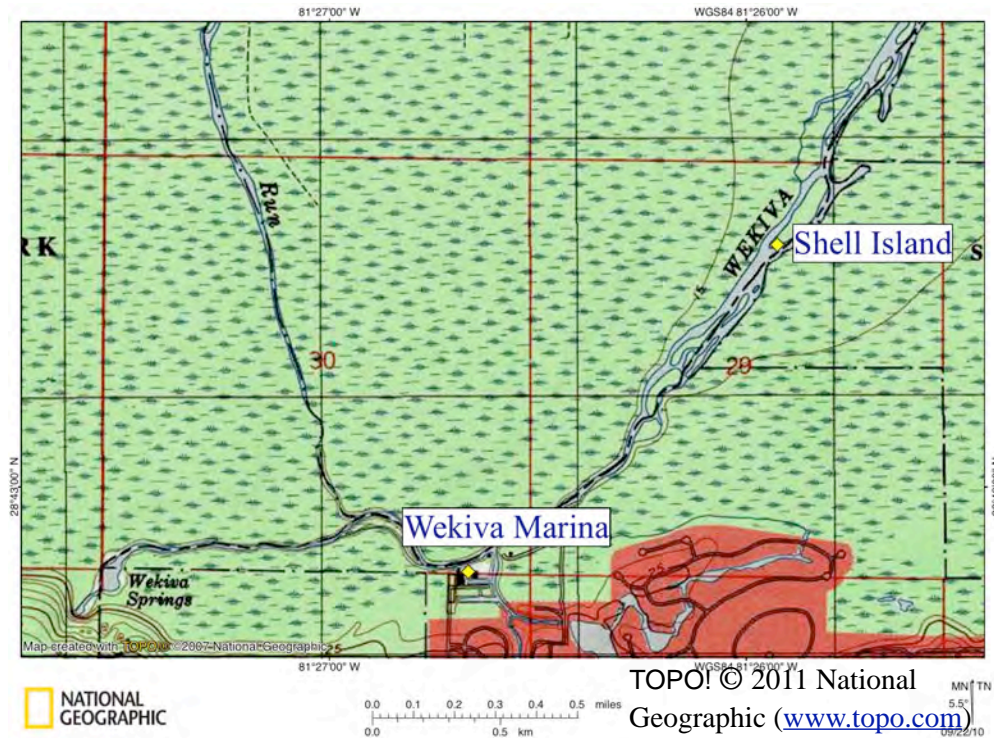
*...Now I am terrified at the Earth, it is that calm and patient,
It grows such sweet things out of such corruptions,
It turns harmless and stainless on its axis, with such endless
successions of diseas'd corpses,
It distills such exquisite winds out of such infused fetor,
It renews with such unwitting looks its prodigal, annual, sumptu-
ous crops,
It gives such divine materials to men, and accepts such leavings
from them at last.*

Whitman: the closing lines of **“This Compost”**

III.

The Great Golden Digger

9/20/03



At the marina I plop down my \$20 deposit and rent a kayak to go solo down the river. I want to refresh my memories before finishing my essay on the island's history as a piece of property. Short, flat, and yellow, the kayak sits thirty inches below the concrete platform as I try to figure out how to settle into it. No way for me to cross-check the torque of it with my paddle, so I sit on the deck, put one foot on a rock ledge under the wall, crouch and step in, while holding the outside of the unstable, elongated kernel of corn. To balance on the water is so much more precarious than on land. For the first few minutes I focus all my attention on the alignment of my body weight to keep from rolling over into the cool depths.

Hurricane Isabel has just turned up the coast and provided us with a perfectly sunny day and cool winds from Canada. I return to the island for the sake of "ground-truthing" the map and a few other ideas I have about the island. All ideas have to be checked against the real world or else they will roll you out. I have a picture I got out of Archives, from seventy years ago, which shows a cabin in a large flat clearing and thirteen Rollins students spread out over the open area, much flatter than my recollection of the knobby mound. I want to survey the island and like

Thoreau put my stride to its length and width, pacing it all off and taking the measure of the cabin's impact.

As noon approaches, I am the only human on this part of the river and float almost all the way down. It is five or six feet deep here and fairly clear so that you can watch the fish and water plants through a lightly brown filter. The river averages about fifty feet wide in this stretch, but the sun is contained in a much narrower corridor. At first there is not much aquatic plantlife on the edges. I watch it carefully for signs of otters that are usually in the area. Turtles I see plenty, but no gators on logs. Almost no birdlife can be seen along the way either, possibly because they have had their fill or have taken to flocking into the wetlands beyond these banks.

The farther down stream you go from the marina, the farther away you get from the large upscale development of Sweetwater Oaks that Everette Huskey produced in the 70's and 80's. The river angles northeast toward the St. Johns now and begins to feel more and more like a remote part of the Amazon. I am counting the islands off my bow and on the map—the river has more than the USGS shows—and they are all decidedly edgier and more serrated. I find this constant mismatch between abstract thought and the real Wekiva especially difficult to balance. It seems as though we should abandon all mapping and just live like Heraclitus, between the spatterdock and the pennyroyal, watching for snags, great and small, in the riverbed. I carry in my head the major theoretical map-work of the disciplines of the western university system, but in real life, as they say, you can't see the same river twice.

My topo map has a black intermittent line that rolls on one side or the other of these islands and at first I thought it was a designation of the channel, but now can see (what a good reader of the ledgers and fine print should know) that it tells me the islands all belong to Orange County on the west and north side—well, all the bigger ones that get on a map in the first place. A kayak is just about the best thing you can use to tell whether you have an island, today, or not.

The Timucuan natives here did not have maps on paper with measured scales, longitude, and latitude. Showing these islands to one of them on the topo and calling them such and such a name would seem insane to them. The Spaniards understood maps, but when we look at the horrible appendages they call La Florida, we laugh the wicked laugh of self-deception. We “know” the true shape of Florida in a way no Spanish sailor's brain could ever produce, even though we would rather have our vessels guided by the native's who knew by experience where all the reefs and snags might be.

Now the Wekiva widens cordially, perhaps doubles, and the extra surface of water is full of vegetation, little green boathouses with solar panels crunching out a huge amount of fuel and food for a great community of aquatic critters, the fliers and the swimmers and the crawlers and the stalkers, the sloshers and the stingers and the creepers and the squawkers, and not a one of these singers carries anything but a chemical map. Lots of proteins are strung everywhere across the vegetation. Each sentence I write is a leap across an infinitely irregular boundary and jumps

from one abstraction to another, using the function words as web-nodes or stepping stones. The trick is not to tilt the boat and dunk your readers.

I pass now the skeleton of a huge tree that sits above the water, sawed off at several heights to clear the channel for boaters. Two major islands touch together here on the right. They look like two sperm on my map, head to head, the first facing downstream is fatter and the second nosing upstream is thinner and has the shape of one of those vegetarian dinosaurs that lifts up to reach the tallest vegetables. At the bottom of the second island then, you can look downstream a great distance—a rare vista in the basin of 500 yards or more—to an island with a single palm at its front and a tree behind that which seems extraordinarily high. I feel a little like Ulysses returning to Penelope—it seems a long time because we’ve both changed--, but I think I recognize you, Shell Island.

It takes quite a while to float down through the wide flats and pull up to the head of the island. You can see the remarkable five to six foot elevation of it and a path up through the shell-earth. Everything seems familiar upon landing except for the large limestone rock to the left of the 25 ft. palm. It must have always been here, but I never “took it in” before, never coupled it to my abstractions of geology before today. The exposed rock is in several layers, hanging over the water’s edge and probably presenting a 4x3 foot surface. Now I ask, how in the world did it get here, at least four feet above the water level? Boulders of granite sit like this in all my favorite mountain creek-beds, but Florida has very few places where the limestone becomes monolithic. By what engineering, geologic or human, has this occurred? It must be concrete, but so irregular and matted now with lichen and mosses, perhaps a platform for a boat landing.



Rock at Shell Island Landing

I climb the bank to the clearing and it reaches into a tender music for me, the kind you make when someone who loves you has just called at the right time. The shell midden is more or less round and flat with a knob at the right center, but slopes down toward the back of the island. The second level of clearing is buzzing with wasps as I head over to the tree on the channel side that hangs over the river and where folks like to launch out on a rope for a swim. This one black wasp with two yellow rings around its belly flashes blue-purple neons across its wings and I try to take a picture. Can I capture that fleeting color? The problem of abstraction rises again: how to get a frame that doesn't move to capture a creature that doesn't really stop and tends to recede from long-legged hominids.

This process is complicated by an aggressive red-orange wasp who keeps trying to drive me away. Soon I see the problem—a hole about a centimeter wide with a circular patch of dark-colored sand outside of it. Pitched at an angle into the earth, you never saw an excavation so neatly wrought. I am distracted from my quest of the bomber with the flashing electric lights to the inch-long fire-wasp decked in Halloween costume, flying about and playing archaeologist on Wekiva's central midden. Once I stand still enough, the wasp lands, scoots down the hole, and a second later backs out, dropping a few grains at her hind feet. All about the mound I see a few other such patches at the front door and start to try to take a picture of this bulldozer, right here on Rollins Island. The tack of getting a full shot of its motions is helped by the fact that the distance she goes to the bottom regulates the arrival of the hind legs backing out of the nest.

Since my digital camera takes longer to snap than it takes Mrs. Wasp to scoot back under, in fact longer than the whole time of emergence start-to-finish, I finally calculate the overall interval and start snapping the shot before she appears. In the nano-second that she reverses her path, the whole beautiful inch of her with six orange legs, a black tipped rear end and a fuzzy black head, two darkly transparent wings folded neatly straight back over an orange abdomen, the camera clicks. So sometimes it pays to abstract not just for the shape of this one activity, but for the whole developmental pattern it dwells comfortably in.

Later I find out from my guide book that this is a specimen of *sphex ichneumoneus*, the great golden digger wasp. The golden tint of the wings in extension I could never see in flight, but the patches of golden hairs on its head and body do show in one of my still pictures. She is likely making her contribution to a colony here and storing up provisions for her offspring, tasty grasshoppers, the most common food-stuffs she stings without killing and leaves for the larvae to devour live. The other wasp is called a potter wasp because she builds an elaborate mortar attachment with diverse chambers and food sources for her male and female offspring. Does she know without the mapping of ultrasound imagery which of her larvae will be which sex?

Signs of other 21st-century squatters are everywhere on the surface of the digger-wasp's mound—the pile of a campfire, dozens of beer-caps, a plastic chip bag, a pair of boys jockey-style underwear on the end of a stick, an aluminum can, and a shriveled up contraceptive device. All this counterpoint to the sign I discover when I circle the island in my kayak before heading

home: NO TRESPASSING, owner ROLLINS COLLEGE. The sign does not sit at the head of the island or any of the three most likely places to beach a canoe, but at the foot of the island, back in under the trees. Unless you pull in the back cut, this sign will not reach your consciousness. It probably should read: NO LITTERING or something friendly and encouraging about keeping your trash in your boat.

A river is a street and you can't keep people out--any more than wasps—esp. children and other desirables! Well, I mean you can't stop them from dumping on your island and all around it. In many parks I see a sign at the trail-head which urges no food or drink beyond this point, but you might as well put a sign out to stop the wasps from nesting or the human young from making love on the river. Have we done that? Where did the Timucuan do it? Without a concept of private property, did they have a sense of privacy for making love? According to Granberry's Timucuan dictionary, their words for love were many and frankly, to me, a little hip-hop: *hoba*, *cume*, *huba*, *cachu*, *man*, and *cayo*. This last item, by the way, also serves as an adverb meaning frequent.

The mystery of Shell Island is hiding in the slanted cavity of the digger wasp. It makes all the difference in the world whether we see behind the category of the insect to this particular individual. What is calling her forth? Who is calling to her to plant her offspring on this day in this little excavation? The guarantee of it, the promise of the golden digger is in that calling forth which I hear above all other sounds in this precious Timucuan Wekiva habitat. Did she hear the calling when Timucuan were still gathering oysters and prying open mussels here, more than a thousand years ago? What combination of chemistry and motion set her into orbit with a mate to answer the needs of the species and its river ecology? What a strange world it is now for us that by some other, just as powerful chemistry we ferret out of these river notes a truth that sets us forward on a path of action or passion. I want us all to build and provision ourselves with the precision of the Halloween digger in the bone-mound island.

The Duke of Wekiva



9/18/03

When exactly did Shell Island become a piece of private property? When did the stream, the wind, the marsh wren at the back edge, the cypress just off the head of the island, and the digger wasp squatting on the island and thereabouts lose their temporary and occasionally contested place in the basin? We find no words like private property or title in the language of the Timucuan who called this island home or village for several thousand years. Did they have a proverb: my home is my mound? Or was it: our home is our river?

Private property is a cultural concept Europeans brought to America from the Roman Empire. It has a long history and evolution that it pays the riverkeepers and the developers to study and to keep in mind because almost every negotiation from the legislature down to the smallest planning and zoning meeting concerns this vital element of our community. It belongs to cultures wherever a settled life is led with agriculture, population expansion, and social organization, wherever the distribution of labor and land takes place. It comes as part of a civilization that has surveying technology and some sort of alphabet for assigning a title.

In the Roman Empire new territories were won by conquest and often then assigned to the militia. "You conquer Gaul, Julius, it's yours." Land is often the pay for conquest in the name of the emperor, the Roman state. Empire then naturally reaches out upon a globe full of squatters, builds forts or bases, and draws lines on maps and agreements in words or treaties. The conquered as well were sometimes owned or treated as cattle, but usually not the upper classes.

The principle of territory in nature that you own what you can hold or defend (might makes ownership or, in my Bronx schoolyard, the game of keepaway) prevailed right into the nation states that eventually succeeded the fall of Rome. In the gang warfare that followed the loss of Roman control over their vast land holdings, feudalism was born. Basically, if you went down to the school yard by yourself with a football, it wasn't yours unless you and your brothers could keep it from the other guys. I don't mean to trivialize this, but the right of private property in our constitution has to be conceived inside the validity of the governmental power which defends and holds that territory securely.

Hence, the kings of Spain, France, and England held their countries and owned the entire land (some of them affirmed by divine right). They parceled out their lands to barons, earls, and dukes. So, John of Gaunt (and his male heirs) had a title, The Duke of Lancaster. This means he had both political power (duke-dominion) and the king's land (Lancashire) through a system of loyalty and taxation involving an oath of allegiance to the king. Eventually, with the liberation of the nobility, the duke stood with that title of land and power in parliament to speak his mind and to vote. In the early stages of feudalism, the rest of the people forming the nation were peasants and craftsmen who worked the land as tenants with little or no stake in land or government.

When money-lending and commerce entered the scene in the later middle ages, some peasants became freemen and a middle class arose where property, like other goods, could be bought and sold. Wealth could be amassed without title to either lawmaking or land. These are old lessons we all have learned by experience, but they help us keep track of land use in the Wekiva basin today. The Timucvans abandoned Shell Island or simply died out hundreds of years before the European contact. Perhaps they became attracted to the agricultural centers of the north. Did the island then revert to the tribal leaders in nearby Lake Apopka or along the St. Johns? Obviously not. It is in Europe that land is given by the one in power and reverts back to that power upon demise of its current stewards.

So, when Columbus discovered America did Shell Island become the property of Ferdinand and Isabella? No, we probably would say that the conquest of the territory has to be complete before it gets platted and assigned for some sort of production. In this context the kings of Europe had provisions in the colonies for land grants where, more often than not, some enterprise of production and distribution of goods was envisioned and allegiance to the king asserted. The rest of the land was unassigned.

In 1562, when the French Huguenots, escaping their king and his connection to the Roman church, settled on the St. Johns, they might have controlled the river, but they had no grant from

their king and certainly no control beyond their fort. The Spanish, however, treated them like trespassers of the worst kind. It is important to keep in mind the scale of population at contact. Estimates of Florida's native population range widely from 30,000 to 700,000. The earliest French and Spanish settlements achieved "conquest" with four to five hundred people, living in a fort followed eventually with outlying posts. So let's imagine 150,000 Timucuanes dwindling to nothing by 1725 and in all that time the European population of Florida never exceeds 3,000, indeed is often less than 1000.

When the Spanish occupied Florida with outposts and missions, ships coming and going across the seas, the king issued a number of land grants based on unscientific plat descriptions--the kind we made as kids when playing neighborhood games like Pirates and Settlers. Often the pirates won. Not all of Florida was thus assigned to soldiers, settlers, or mission units. Natives were relocating inside and outside these various land designations, and in the second period of control the Spanish actually made the Treaty of Walnut Hills (1793) with the Micosukees, a treaty which in modern legal terms may still have some force.

But there is no indication that Shell Island was encumbered by any of these considerations. However, in the Wekiva basin and the region surrounding Lakes Jessup and Monroe, several Spanish land grants will show up in your abstract if you now have title to that land. Isn't democracy grand: anyone can be the Earl of Shell Island. But we are getting ahead of ourselves.

In 1763 when the two colonial powers of England and Spain traded territories—Florida for Havana—as a part of the treaty they "respected" each others grants of property, but only so long as they were legitimate, that is, if the conditions of the grant in terms of the time of occupation, the productivity of the land, and the service to the crown were fulfilled. In a five volume reference work, now, you can find all these land transactions and in the Wekiva Basin there were Spanish Land grants still operative in our legal descriptions with names like Felipe Roberto Yonge, Pedro Miranda, and Moses E. Levy (oops, what was he doing in Spain?).

If I understand this correctly, such treaty provisions required that someone actually be working the land, that is, holding it, as opposed to being an absentee landlord back in Catalan somewhere. You can imagine that the news of such a change would cause quite a few quick transfers of property rights to avoid confiscation by the new government. That would explain how Levy, a wealthy speculator from New York City, got involved in major holdings of the Wekiva basin.

The principle here that we know, but don't always remember, is that title to land is a function of the latest peace treaty or outcome of war. When Florida changes hands between nations, some of the land is as assigned, but the rest is now for the new government to give in grant, presumably for some function of the common good. In the beginning, mere settlement was a provision of security where every citizen had a right to bear arms and defend the nation in a small homestead.

In the brief period of twenty years of British rule of Florida and Shell Island, wealthy entrepreneurs with royal approvals built a hundred large plantations, running them with slave labor and filling the coffers of absentee land lords and non-lords. Florida became an expansion of the agricultures and industries of Charleston and Savannah: rice, indigo, sugar, oranges, all things you can't do very well on Shell Island. However, in 1783 when Spain took over again, there followed a mass evacuation of slaves and plantation owners to other parts of the British Empire and many of the land grants were vacated as well. Florida's population that stood at 11,000 in 1780 fell to 891 in 1785.

When the American Revolution succeeded and the constitution was ratified, it guaranteed life, liberty, and the pursuit of happiness to everyone. The idea was that everyone be equal before the law and not pay taxes without a vote in the matter (try to keep a straight face). The feudal connection between title and political power was busted because theoretically any man (or later, woman) could be president, senator, or representative. We know that it took a long time to make good on that ideal.

Likewise, private property was a part of the constitutional attack on British feudalism, though not so thoroughly. Even though the government was made up mostly of landholders, it was assumed that every individual might achieve title to land as well as to the vote. Indeed, the policies of the government for most of the nineteenth century pursued a course supported especially by Jefferson of providing opportunities for individual settlers, farmers and ranchers, to acquire territorial holdings.

The fifth amendment, ratified in 1791, provides the protection of the citizen against the confiscation by the government of life, liberty, or property, without due process, adding that: "nor shall private property be taken for public use without just compensation." Those who take private property as a watchword of democracy are entirely correct because the replacement of the phrase "the pursuit of happiness" in the Declaration of Independence with "private property" in this amendment identifies property ownership as a central part of the Revolution.¹

However, Article IV, Section 3 of the constitution provides that Congress has power respecting the territory and property belonging to the United States. There is something still feudal about America. The government, specifically the Congress, has powers by law to dispose of territorial property. This did not apply, however, to Florida for some time to come because shortly after the colonies became the States, Britain turned Florida, east and west, back to Spain.

After that, Wekiva was only a territory, but America had Shell Island in its sights. They made a system for platting land that divided Florida from a point in Tallahassee into square sections that we use to this very day to establish the location of any piece of land. Hence, Shell Island is described as located in the Northwest ¼ of Northeast ¼, Section 29, Township 20 South, Range

¹ Locke's original phrase, "the pursuit of property," was adopted here but altered in Jefferson's Declaration of Independence.

29 East. As you can see on your topographical map, Section 29 is a square mile block inside the quadrant that is 20 units south and 29 east of Tallahassee, and Shell Island sits in the upper right corner of it.

However, it is all more complicated than that. Bernard Shanks' excellent book, *This Land is Your Land*, describes clearly how the delicate negotiations of the thirteen colonies to form the constitution was threatened very seriously by the prospect of adding new territory to the "old" states. What if the already larger states like Virginia got all the new territory and increased their power?

So, very early in our new nation's history it was wisely established that new territories that became states would belong not to any one original state, but to the union. Congress, then, as Article IV, section 3 devises, would decide how to grant the land to the state for purposes of settlement, productivity, and education.

Thus, in principle, Shell Island and most of Wekiva became federal land in 1845 upon statehood, mostly by reason of the fact that it was not part of any Spanish or British grant that the courts had ratified nor part of any Native lands established by U. S. treaty. For the Timucuan, life had dwindled to nothing before liberty or land had evaporated. It is the Creeks and the Miccosukee refugees of the removal policies of the Jacksonian era that we now call Seminoles who had treaty rights to some Florida territory, but none in the Wekiva basin.

Shell Island finally became state land when the U. S. Congress passed the Swamp Land Act of 1852, but it was still not yet private property, that is, deeded to a corporation or an individual for its, hers, or his devise and heritage. Every person or board that owns a piece of property has this little reminder that the property requires the hatchwork of the surveying system, the set of laws defining ownership, and the courts adjudicating all disputes. No one imagines property to be fully theirs if it is encumbered by liens. Nor should anyone forget that the property is null and void if the government defaults, state or nation.

The abstract for Shell Island provides the final answer to our simple question. The Wilson Cypress Co. bought the land surrounding the island in September of 1902 from Henry Strunz. He got the parcel, among others, from Charles Percival, Arthur McNamara, and H.T. McGee when they failed to pay their taxes in 1897. Percival, as it happens, was the Earl of Egmont and a resident of London.

He and his partners purchased Shell Island and other parcels in December of 1891 from the South Florida Manufacturing Co. through the Pierce and Torry Investment Co. They evidently got all the Clay Springs property and the railroad acreage when the Florida Southern Railway went into receivership after foreclosure in 1890. The railroad in turn got Shell Island and most of what is now Sweetwater Oaks from the State of Florida in 1856, although the patent for Shell Island was not recorded until 1887. If you don't record a deed or the payment of the lien, is it yours?

What does all this history tell us about private property in Wekiva? Recently the newspaper had an article about a woman who wanted to exercise some sort of ownership over stored embryos and the court upheld the mutual “property rights” that included the estranged father. Mutuality is a key word here. The land and the water of the Wekiva basin seems to be in suspension between the state and the private sector (corporate or individual). Developers are like the woman, ready to produce some good for society: food, housing, education, commerce, or transportation, some profit for the owner, and some tax revenues for the government. The riverkeepers are in the position of the father, wanting to restrict such growth for the sake of the prosperity of the system as is. Watching the seesaw between the government and the individual or private owner is like watching the water and the land trade places in the basin.



9/23/03

Here we are in the court of memory and this wasp keeps following me about. All during the day as I take care of a variety of tasks, the fuzzy buzzer keeps popping up in my mind like the old song, “Time after Time.” There is something deeper in this sandy arc, dark patch, and back-peddalling orange-footed beauty. I study the close-ups I find on the internet—the dark shiny blob of the head with its double rump, the shape of a molar.

My mind tries to read its mind, the chemistry in that little noggin that's perhaps a hundred million years in the making. I've no clue. When the paper reports today the finding of a fossil of a 1500 pound mouse, I begin to imagine the digger at dinosaur scale, among the mastodons at Shell Island, excavating a tunnel for the safest retreat. Are we so fully abstract in our approach to Shell Island and our own world of transport, provision, and reproduction that we don't know any more how to live beyond the abstractions or without them?

I've been reading Oliver Sachs describe how the story of Mendel's discovery of the periodic table had changed his life as a teen. I can't help but feel a special grace because his table of the elements is an abstraction that more or less comprehends the universe—a formulation certainly for all the chemistry and behavior and ecology that engulfs the digger wasp and her family on the river. Add to that the recently constructed human genome and, more relevant to the wasp, the abstraction we now have of the common fruit fly, and we can certainly begin to comprehend the wasp's experience. The nose to nose assembly of daily routines and events will no longer suffice for the record.

I have read the record of American literature and especially the poetry to watch how it changes with the discovery of such abstractions of science and mostly it is Whitman, that great shaman of the loafing, experiential, cruising spirit of reproduction and debauchery, who seems to comprehend and incorporate, to balance like my kayak, the cosmic with the immediate and local. This wasp awakens the earth, the island with its patterns. Its black antennae reach forward into wireless communications systems and she packs her little cubbard with smoked grasshopper and spheroid eggs. Little engine of the sun, she floats over the ground, finding the three-leaved grass that marks her nursery and deposits her family to be. Can she learn to dig in lawns and azalea beds?

Building the River Community, Step 2

At the end of our second run of the river, we have reached 1969 and the establishment of a magnificent park between and including the river's two major spring sites. Central Florida is on the verge of colossal growth as a result of the opening of Disney World in 1972. However, our second principle is already established, that the river shapes the land and us.

Eventually it calls forth responsible citizens who in their own properties monitor and manage the populations of plants and animals with a view to maintaining optimum habitat conditions, a viable biological community. In the face of rapid growth, they support the government's efforts to balance the reduction of habitat with careful purchase of the primary biomes for preservation. Rural character, therefore, remains in outlying districts and provides the alternative of wildlife recreation and education for our children.

Once the land is so governed, it has to be planted with a great variety of grass roots organizations of every kind who work together for a better river community. This is the democratic vista Whitman imagined a century before Wekiwa Springs State Park and what the Friends of the Wekiva River have undertaken to establish since the 1980's.

Whitman's *Democratic Vistas* (1871)

All during the 1980's, while my environmental literature classes were multiplying, I was doing research on the Christmas traditions in Sir Gawain and the Green Knight and writing a book to celebrate the elegant poetic imagination of this fourteenth-century Arthurian romance. When a publisher suggested that my manuscript had an outmoded critical theory, I took a step back from the poem and rewrote the interpretation with a mildly ecocritical perspective that was published in 1992.

I was already unconsciously driven by my interest in earth, incarnation, and the green revolution when I started this study in graduate school, but now I had Whitman and Leopold to help direct my study to the poetry of earth in the poem. In all of the steps of my intellectual life I am recounting here, I made choices independent of any understanding of where they were leading me. So it is, then, that my next Whitman paper was directly in contrast to the aristocratic privilege of the Round Table culture and turned my attention to the question of democracy in the community of the land.¹

I.

Every nature writer in America should carry a field guide to democracy. After all, our land ethic has to involve the human community in the affairs of all earthkind. My favorite guide is Walt Whitman's *Democratic Vistas*. Long before Aldo Leopold set our course straight on the interplay of cooperation and competition in both the biosphere and the noosphere, Whitman wrote about the same interplay in the community of the land, except that he called cooperation democracy and competition individualism. The essential thrust of Whitman's message in *Democratic Vistas* came from his Washington experience of the Civil War, its youthful pride and its suffering. The democracy he watched over was primarily grass roots, that is, in the hospital wards, not the White House or the Capitol. He was supremely encouraged by the democratic values Americans would suffer and die for. In the personalities of the rank and file, of both sides of the conflict, he saw "the proof of democracy."

Some have dismissed Whitman as a nature writer because he lacks the detailed naturalistic

¹ The following is an abbreviated version of the paper I gave at Fort Collins, Colorado, at the second biennial conference of the Association for the Study of Literature and the Environment in 1995.

descriptions of his good friend, John Burroughs, or the scientific ecology of Leopold, but he was at the outset a political journalist and therefore had a profound appreciation of small-scale democracy in individual human characters, their interpersonal relations, and their small-group activities. In the final analysis, though, Whitman was not a story-teller and especially not a fiction-writer. He almost despised myths because he associated them (especially the ethos of the hero) with feudalism. He thought to replace stories of Sir Gawain and Sir Galahad by the more scientific and piecemeal account of ordinary human individuals, conceived of as equal in their species, every one, male and female, as much a hero as any other.

Thus, Whitman's autobiography is entitled *Specimen Days* because it is largely an almanac like Leopold's of his life of roaming in nature, but also includes his ministrations to particular, unnamed soldiers. No need for fiction. This was human ethology, the scientific samples, as it were, of democratic character: enjoying life, people-watching, absorbing the sea, transforming conflict, facing death. Likewise, in both the reminiscences of nature and the visitations to the tents, he invoked the radical voice he had invented for "Song of Myself," "standing at ease in Nature" and speaking to his conspecifics.

Whitman's concept of feudalism is wrapped up in the European history of cattle and land rights which provided a system of dependency in agrarian society that we saw in "Shell Island." Following the victory of the Civil War, he had a grand vision of a New World Order. At first, he saw restoration democracy as a fresh start (sound familiar?), a kind of post-feudalism; but even by 1870, Whitman saw clearly that reconstruction of democracy was in a state of crisis, north and south.

Just as when a development or agriculture scars a Florida scrub or sandhill and then, after the building is done, the new residents can replenish and reconstruct the natural habitat, the Civil War required a long period of mitigation and restoration. Whitman thought that the structure of the American political system of democracy was sound enough for the task, but everywhere he saw "the people's crudeness, vices, and caprices" (DV 49). Our problems, he would still say, could be solved, not by more laws, but through "perfection by voluntary standards and self-reliance" (DV 318). The usually optimistic poet of *Leaves of Grass* in *Democratic Vistas* is something close to grim. His own poetry had failed to catch on as a social movement, but he expected a new breed of poets and nature writers to do the job. Wedded as he was to manifest destiny, he did not, like Thoreau, imagine the dangers of the railroad, the broad axe, and the open road. He put his faith in literature to evolve the American character and celebrated every form of the American worker.

After all, Whitman imagined that the outmoded political systems of Europe had been upheld by a succession of literatures which taught feudal virtues, propagating especially the character of the

male warrior hero and neglecting the rest of society (see here Leopold's "man, the conqueror of the land"). Why shouldn't a new American literary enterprise propagate the virtues of democracy? His program for this revolution has six interconnected features for the land ethic that are certainly relevant to the Wekiva. Our literature (or education programs) for the next millennium then should be:

- a) **addressed to the future**, i.e. for a New World Order, (expressing "a new earth and a new man" DV 345);
- b) **creative of a moral identity**, especially to the States (DV 323f);
- c) **pragmatic**, with an eye to practical life, the west, workingmen, the facts of farms, and also to the perfect equality of women and a powerful motherhood;
- d) **native**, celebrating the native personality and aplomb, a poet of place who ties the races together, restoring true Nature (DV 323);
- e) **common** to all in the community (DV 323, 335); and
- f) **religious** and yet **consistent with science** (DV 328).

The voice of Whitman's great poem is the voice of the ecological community speaking across generations. It calls for an openness to diversity in culture and dress. The focus on human character in Whitman's vision for the next millennium may seem anthropocentric and at odds with some deep ecologists, but it is inevitable that the community of the land will be sung most fully by the species with the language instinct, the penchant for song.

The effect of Whitman's democratic vision on the literary world was very much mixed in the nineteenth century, but on the history of photography it had a profound effect (as Sontag's excellent study has shown). He loved the democracy of the camera, and people went forth with cameras to discover America and the family of man and woman with *Leaves of Grass* in their minds. The nationalism of Whitman's democracy is secondary to such local and yet universal humanism.

This means that Whitman saw his community in a fully egalitarian vision, male and female, north and south, slave and free, urban and rural. If we can understand anything about *Leaves of Grass*, it is that every human being was "immediate" to the poet and included in his self-concept. No one was other. No one was invisible (in Ralph Ellison's sense), no matter what cultural classes or categories they seemed to display. A parallel occurs in Leopold's almanac where he tracks all the invisible fauna of his farm community and in the case of the oak tree examines its affairs, looking backward over several human generations. For Whitman as well, especially in the poetry, no one was outside of (not a part of) the earth's ensemble of creatures and habitats.

Whitman was fully oriented toward the human species, but not to its cultural divisions and invasions. It is ironic, then, that many readers of Whitman get distracted from his message by

cultural "scandals" or the politics of text; somehow they never actually see themselves in the "Myself" of his "Song." Democracy for Whitman is not essentially a matter of national elections, but of grass-roots participation, of door to door campaigning ("Unscrew the locks from the doors!" SM 501), of a community active in its place.

We understand now how small, biotic communities live within larger ecosystems. Whitman saw in 1870 how democracy also is essentially local and accumulative. Its quality can best be measured in our pragmatic life, i.e. in the small group, the neighborhood, factory, classroom, office, department, or store. Spend some time looking at your community (the distribution of resources, the relative visibility, the outspokenness, and the order by which social activities are carried out in your practical life) and you will quickly take the measure of democracy.

II.

Community of the Land in American Literature

So now let's go democracy-watching, with Whitman's guidebook in hand, through the fields of our favorite American nature writers, to see how well his democratic vision for the future is upheld. Which of them has the essential ingredients for a successful community of the land?

HENRY DAVID THOREAU

For over a century Henry David Thoreau has been the paradigm of the environmental imagination of poets, fiction writers, and essayists celebrating the land, rivers, and seas of America. Thoreau strikes many readers as anti-social. He seems more open to the woodchuck at Walden perhaps than to the Native Americans he meets on his journey to Katahdin. He was attuned to the wilderness, but saw the customs and manners of the people often as foolish. He rejected many "civilized" behaviors (Emerson said "he questioned every custom") in favor of a simple life in righteous unity with nature. He had little scientific training, but considerable experience of ecology. Most of all, it seems, he understood the rights of animals much more thoroughly than his American contemporaries. His contributions to the values of self-reliance and civil disobedience are still profound; but Whitman felt that he lacked the counterbalancing force of identity with the community. He did not call forth as the foundation of his self-reliance the strong sense of the species self that the urban poet does.

MARJORIE KINNAN RAWLINGS

By contrast, for Marjorie Kinnan Rawlings in the rural Florida of *Cross Creek*, the land community is the central issue and how an outsider gradually adjusts to the customs and mores of a place, learning how each plant, animal species, animal individual, person, and family lives. The reader comes to know a real community in a somewhat biased and particular sense, but the spirit of the place emerges in individuals seen as such, with many stereotypes and false first impressions eventually falling away.

Cross Creek is not a postcard landscape nor a park known by its attractions nor a utopian village; and yet its spirit is enough to sustain us. There are moments of transcendence, but for the most part whatever we see is conveyed through Marjorie's practical experience. She has to be "schooled" to the place and the people, ironically because she is a text-person and to that extent seems somewhat false and naive by reason of her very literacy. She learns eventually to fit in (at least in her own mind) and thus the book begins proudly with the pronoun *We*, as though its voice belonged to the land community itself.

If Cross Creek were to write, this is what it would say on page one about itself as a community:

Cross Creek is a bend in a country road, by land, and the flowing of Lochloosa Lake into Orange Lake, by water. We are four miles west of the small village of Island Grove, nine miles east of the terpentine still...We are five white families...[listed]; and two colored families [listed].

Rawlings's *Cross Creek* points up one of the weaknesses of Thoreau's *Walden* or Leopold's farm. In both these northern cases, the community is quite narrowly an ecosystem with a single person and very little human interaction. Many nature writers and naturalists take for granted the human community, and like Thoreau think that civilization has already plenty of advocates. How ecological is that? The patterns of human cooperation and competition (enslavement and kindness, native and tourist, conning and controlling, feudal and democratic) are often not allowed to stand in consort with their biological counterparts.

In the case of Leopold and Thoreau, it is probably just a failure of the story-telling imagination, the knack for revealing democracy through community and dialogue. The novel and the short-story are potentially more democratic and anti-feudal genres for such human ecology. This is why Abbey's *Monkey Wrench Gang* is such a breath of fresh air. His irreverence toward the feudal enterprises of the government, the unthinking tourist, and the overwrought philosopher make us laugh because, as Whitman put it, "fresh air is better than the costliest perfumes." But Abbey's monkey-wrench gang presents no model community befitting Whitman's vision.

WENDELL BERRY

Wendell Berry will do much better. The Kentucky farmer-poet combines both democracy and individualism in his community vista. He is a staunch proponent of the traditional stewardship of the land in the small community of rural families. He certainly shares Whitman's feel for the succession of generations of readers and reapers in the land. The difference between Berry's "Native Hill" in Port Royal and Thoreau's Walden gets spelled out carefully in vignettes of human kindness and cooperation in times of pain and suffering when farm families help one another. On the other hand, Berry argues forcefully that life should be simple enough that we can do for ourselves; thus he opposes the introductions of useless technology and the specialization that goes with it. So I imagine that Whitman and Berry would agree that the ecological crisis is a crisis of character. In the Wekiva, the law actually provides for the maintenance of the rural character of a portion of the basin, as we shall see in the next chapter, but Whitman provides an urban counterpart to Berry's agrarian community that is essential for the future.

JOHN BURROUGHS

The great back-yard naturalist in American literature is Whitman's dear friend, John Burroughs, who believed strongly in letting the earth come to him and made fun of the peregrinations of the frenetic Muir. When asked to travel out west, he went, but could not enjoy himself because he lacked the life-long accumulation of native knowledge. He hated the "boredom" of the plains and, though moved by much of the Rockies, preferred his Riverby estate on the Hudson and his Slabsides cabin in the woods to any other place.

The result of a lifetime of careful observation of the Catskills does not readily translate on a short-term basis into the kind of presence that Muir found in Yosemite or Austin had in Owens valley. This is why Burroughs argued that experience of the land and knowledge of ecology are critical to sound nature writing and the poetry of earth. How can we be democratic if we haven't taken a census of all the critters, human or not, the way Marjorie Rawlings does?

Burroughs had a marvelous capacity to help us enter his communities of birds and other animals in our common habitat, but much less for showing us the same in human community. Perhaps this explains why Whitman remarked once that his friend's writing had a rather dull edge. In his early essays, Burroughs is more likely to write of Ovid, Vergil, or Milton than of the man at the mill down the river who gave him the slabsides to build his retreat. Though he welcomed many visitors to his haunts, including Whitman, he seldom included them in his essays.

MARY HUNTER AUSTIN

An interesting test for American democracy is the "invisibility" often accorded Native Americans. Each of our writers wrestles with place by arriving in a world already inhabited by

generations of native human communities. The level of respect and learning is crucial--as opposed to the sense of invasion and invisibility. Whitman identifies with the natives, but they are largely gone from his New York experience. John Muir passes this test with the Chilcat chief in Alaska, but the writer with the deepest sense of native life and ecology is Mary Hunter Austin.

For me she is the natural fulfillment of all that Whitman has to offer. Her democratic vista of the community of the land is unparalleled among nature writers. Just as the neocortex is still connected massively to the cerebellum, so culture, in Austin's view, builds on nature and is but a transform of it. In her fiction and her character sketches, but especially in her great land community compilations--*Land of Little Rain* and *Land of Journey's Ending*--Austin gives us the multiple exposure of geosphere, biosphere, and noosphere, the waves of ecological forces sifted through the comings and goings of Native American, Latin American, and Anglo-American populations.

Her sense of our psychological diversity in what she called the "deep self" provides the prophetic force of her vision for the desert southwest. She represents fully the texture (evolution) of the democratic layers of life upon the land. In her vision, it was all one, compiled in the community of a manifold self with its earth horizon. She was fully the deep ecologist in the *Land of Little Rain* (1903) and to find her equivalent of Whitman's specimen days, try reading the late story "Walking Woman" and the autobiographical novella "The Cactus Thorn."

Listening to the native elders, the way Austin did, constitutes a degree of recognition of the invisible which goes beyond Whitman, because it opens up the past as well as the future. Whitman was intent on burying feudalism, mythology, and the poetry of the old order. Austin had the advantage in traveling to the west to become a better listener to native and oral traditions than he, and though both took the stance of the prophets, hers was a less engaging or creative voice for a vision of the next millennium.

WHITMAN'S PREDICTIONS FOR AMERICA, 1970

Whitman closes his guide to democracy with an accurate prediction of the next hundred years: 40-50 states, perhaps including Canada and Cuba, 65 million population by 1900, the Pacific and the Atlantic "ours" (he says with a sense of manifest destiny), and even daily electric communication with every part of the globe. Were he alive today Walt would surely be publishing on the internet, attending to his readership, and urging all of us on late-night television to create an America which is more earthkind.

Here is the poet's only Florida poem, a tribute to the great Seminole warrior; the painting by Robert J. Curtis was finished in January, the month before Osceola died in prison:

Osceola

[When I was nearly grown to manhood in Brooklyn, New York, (middle of 1838,) I met one of the return'd U. S. Marines from Fort Moultrie, S. C., and had long talks with him -- learn'd the occurrence below described -- death of Osceola. The latter was a young, brave, leading Seminole in the Florida war of that time -- was surrender'd to our troops, imprison'd and literally died of "a broken heart," at Fort Moultrie. He sicken'd of his confinement -- the doctor and officers made every allowance and kindness possible for him; then the close:]

*When his hour for death had come,
He slowly rais'd himself from the bed on the floor,
Drew on his war-dress, shirt, leggings, and girdled the belt around his waist,
Call'd for vermilion paint (his looking-glass was held before him,)
Painted half his face and neck, his wrists, and back-hands.
Put the scalp-knife carefully in his belt -- then lying down, resting a moment,
Rose again, half sitting, smiled, gave in silence his extended hand to each and all,
Sank faintly low to the floor (tightly grasping the tomahawk handle,)
Fix'd his look on wife and little children -- the last:
(And here a line in memory of his name and death.)*



Robert J. Curtis
PORTRAIT OF OSCEOLA
1838. Oil on canvas, 30" x 25"

Portrait of Osceola by Robert Curtis painted the month before he died. 8

From *Celebrating Florida: Works of Art from the Vickers Collection*. Photo by James Quine.

Chapter III

The Little Wekiva River: Politics and Activism

The Little Wekiva, the Friends [An overview of Run III. 3pp]

Rosemont [How developers and homeowner's associations have adapted to the river community, a "Song of the Broad Axe." 3pp]

Eelgrass Roots [The Little Wekiva on a day for the cleanup. 4pp]

Hidden Cypress Acres: A Dramatic Monologue [A reenactment of Russ Fisher giving a talk on the early history of the Friends of the Wekiva River. 10pp]

"I Caught a Turtle, Ev'rybody" [FOWR visits The Springs, a gated community, to see if the site has suffered at the hands of the homeowners association and many are brought back to their memories of youth, a cave of fantasy with a spring of pleasures past. 7pp]

Wekiva: a Democratic Vista [How language is a special kind of animal navigation for building community in the river basin. 2pp]

Mary McKey [On Wekiva River Awareness Day I get to paddle along with our resident Wekiva photographer, a day when wishes come true. 5pp]

Twin Mounds [A trip with my honors class to the Timucuan site in Rock Springs Run State Reserve makes us feel like a small unit of the osprey clan. 4pp]

The Year of the Wekiva: 1988 [The governor spends a day on the river with Eddie Williford and the FOWR. A transformation takes place and history is made. 7pp]

Eelgrass Roots: A Retrospective [What are the secrets to success in a grass roots endeavor? 4pp]

Interlude III: Whitman's Environmental Imagination [The poetry of nineteenth-century science: a thesaurus of Whitman's poetic ideas. 9pp]

III

Politics and Activism



Watching the Little Wekiva, a Red Bird on a Branch

Democracy most of all affiliates with the open air, is sunny and hardy and sane only with Nature -- just as much as Art is. Something is required to temper both -- to check them, restrain them from excess, morbidity. I have wanted, before departure, to bear special testimony to a very old lesson and requisite. American Democracy, in its myriad personalities, in factories, work-shops, stores, offices -- through the dense streets and houses of cities, and all their manifold sophisticated life -- must either be fibred, vitalized, by regular contact with out-door light and air and growths, farm-scenes, animals, fields, trees, birds, sun-warmth and free skies, or it will certainly dwindle and pale.

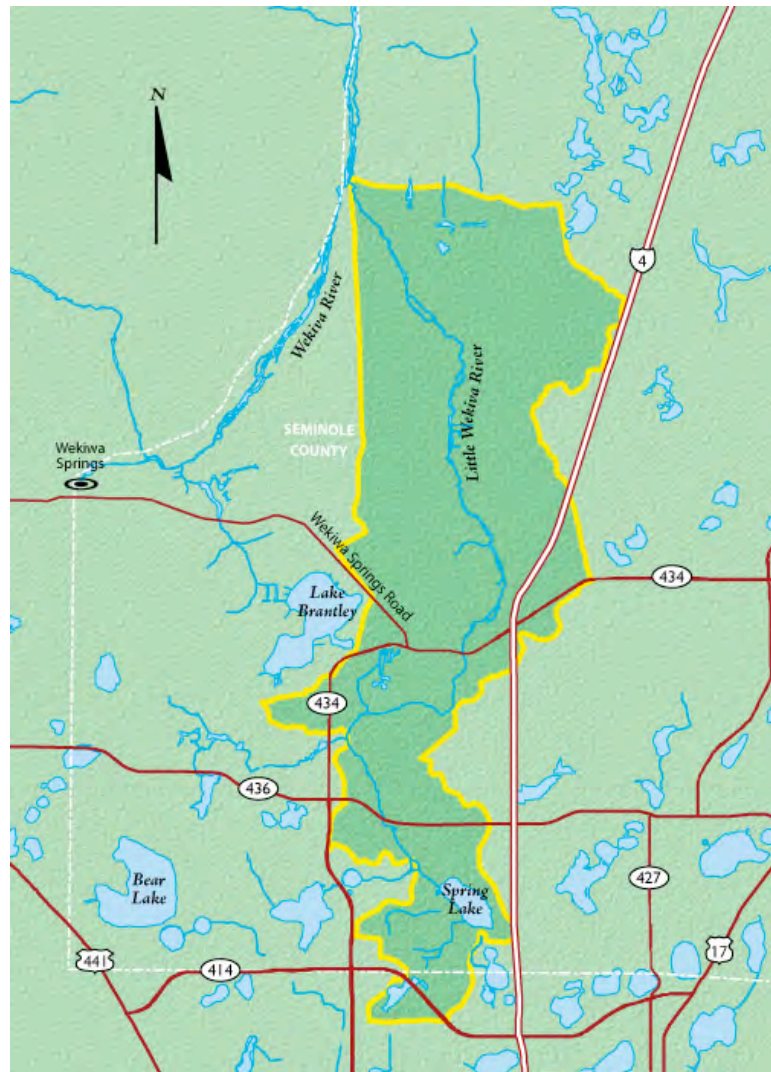
Whitman: "Democracy and Nature," the last entry in *Specimen Days*

The Little Wekiva River, the Friends

When they built Interstate 4 from Daytona Beach to Tampa in the late 1960's, it ran four lanes roughly northeast to southwest until it got just above Orlando where, to this day, it drops like a plumb line once it reaches the edge of the Wekiva basin. When it gets to the downtown, at the heart of Orlando, it crosses the east-west SR 50, also called Colonial Drive. These two major arteries make the crosshairs for the outerbelt that now circles more than three quarters of the metropolitan area, lacking only the northwest quadrant that would go over the Wekiva basin itself.

Both the Wekiva and Little Wekiva sub-basins, that is, their rain-catching watershed areas, begin at the route 50 margin in the south and by a chain of lakes, runs, canals, and such eventually flow into a narrow channel. Most of the forty-two miles of the Little Wekiva's run has been swallowed up by urbanization: industrial sites, apartment complexes, large tract developments, golf courses, and mall to mall streets. It's hard to find any river in there.

From a large community called Rosemont, the river flows out across SR441 and eventually goes underground for a while through a giant culvert under another development. Then it resurfaces as a fairly well-raging drainage ditch about twenty feet wide and in high



Courtesy of the St. Johns River Water Management District by permission.

rains four feet deep, causing extensive erosion that eventually reaches miles downstream. This is where the Water Management District begins its map.

Following a succession of smaller neighborhoods like Riverbrook and River Run, we enter now the city of Altamonte Springs. Originally a tourist town of 1200 acres, built in 1882 along the South Florida Railroad, they first called it Snowville because the population in winter swelled to 300. Later, because of the advertising about the nearby springs, the present name was adopted. A great portion of the surrounding land was planted in orange groves and once had a large citrus processing plant in the middle of the Little Wekiva's run. It spewed out a considerable amount of pollution into the little river, but who cared?

The force that really drives the Little Wekiva, however, and keeps it from being completely disowned by its sister tributaries is the set of three powerful springs that are located, believe it or not, about three blocks from the juncture of I-4 and SR 434. In a gated development called The Springs, 950 homes weave in and around the ridges surrounding Sanlando Springs (25 mgd) and two smaller ones, Palm Spring and Starbuck Spring, plus a handful of smaller boils and seeps that help to "clean up" the run and rejuvenate the water flow.

The stream before this point is often so low, it is barely canoeable; but after the springs, it becomes quite quickly a beautiful and swift, wild ride. In spite of the high-priced homes of the Markham Woods area that occasionally peek in at you, the Little Wekiva maintains here its pristine character and these last six miles are more than worthy of the high caliber of the Wekiva wilderness, as the black bears will attest. At times the Little Wekiva narrows to as little as ten or fifteen feet and in high water seasons presents a challenge for the paddler that lasts for five miles before we enter the main river. As far as we know the native Timucuan did not occupy the Little Wekiva, except for a small mound at the very end of the run.

The confluence of the Little Wekiva and the Upper Wekiva spawns a school of islands that wiggle back and forth to create alternating channels where the bird life is extraordinary. One mile downstream on the backside of two long islands, you can find the Twin Mounds, the subject of Brent Weisman's 1993 archaeological study through which we have learned a great deal about the native Timucuan culture indigenous to the Wekiva basin.

About a mile from the Twin Mounds on the west side we cross the Orange County line into Lake County and then the traces of an old Atlantic Coast Line Railroad which used to carry nineteenth-century folk and goods from Longwood to Eustis. The rail bed and the old wooden bridge which caught on fire have been dismantled and the land largely restored. A number of Florida black bears are enamored of this stretch of the river, wandering occasionally through the home sites closest to the water.

The lowland floodplain begins to narrow then from several miles wide to a thousand feet and so the river broadens into what most people call the Flats, running wide and open for four miles. Now the river has banks you could build on, but there's still enough forest at the edge to hide the handful of developments along the Longwood Markham Road on the east side. One such

development called the Plantation never came to be, however, through a grass-roots effort and the tract has now been purchased by Seminole County.

Next on our downstream paddle, a cove to the left takes us into Wekiva Falls, a fountain really, created by Eugene Middlebrooks when he rammed a twenty-four inch pipe down into the aquifer and had it squirt out of a gothic tower, two stories high. He hung a sign out on SR 46 to lure tourists and travelers to this ninth wonder of the world, waterfalls in the Wekiva flats.

For twenty years Middlebrooks has been at odds with the Water Management District and ecologists for this unwanted disruption of the geological system, but so far the wily bobcat has succeeded in keeping it in the courts. I like the pleasant, old world—some might say “honky-tonk”—atmosphere of Wekiva Falls because it reminds me of the days of free orange juice and the highwaymen who were selling their bright paintings on the roadsides of east coast Florida in the ‘fifties. Middlebrooks runs a large trailer camp here, the kind of setting you might expect in one of John D. MacDonald’s Florida mystery novels.

If the story of conservation in Wekiva had ended in 1969 with the opening of the Wekiwa Springs State Park, the shaping of the landscape of the basin would be easy to imagine: the central park of 6000 acres would have become entirely surrounded by the city. Disney World opened in 1972 and growth immediately started to fill into the basin from the heart of Orlando, northward, especially along the I-4 corridor. The Deltona Corporation, which built an entire city north of Sanford in the lowlands of the St. Johns River, owned the land between Rock Springs Run and the Wekiva River and was eager to develop it as well. They got as far as getting a bridge built, but the road into their vast acreage never got done before the corporation itself went under. Hence, the Bridge to Nowhere.

In the 1970’s Bill Partington, a local environmental activist, gathered a few people to get the river designated as a Florida Wild and Scenic River, but their efforts failed. In 1976 land for the Lower Wekiva River State Preserve was purchased, adding more acres to the protection far north; but otherwise conservation was at a standstill and little was being done to study and protect the river.

It was largely the people of the Markham Woods area, living like otters along the river, who made the 911 call in the early 1980’s when pollution from new sources, esp. the city of Altamonte Springs, started to endanger aquatic life along their properties. They gathered a number of other specialists and incorporated as The Friends of the Wekiva River, Inc. (FOWR) in 1982 and began a movement that is still going strong and setting the tone for community of the land in Central Florida.

Rosemont

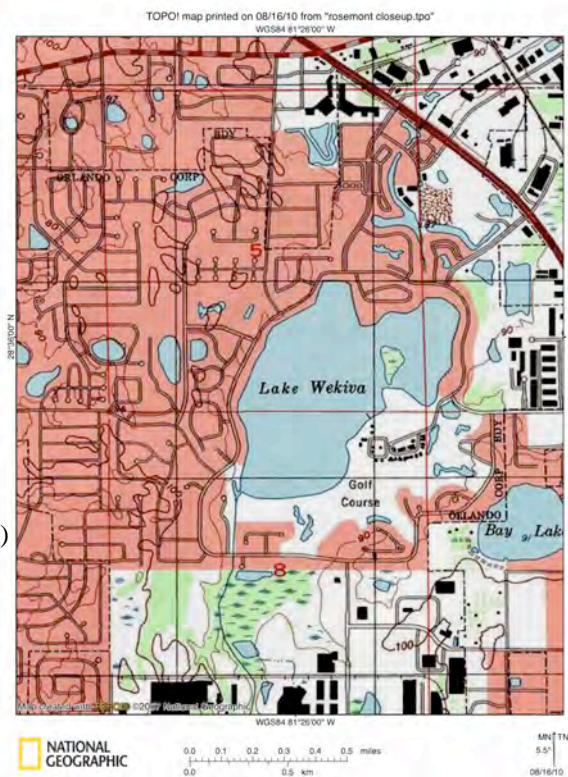
A large amount of the Little Wekiva's surface water can be seen in the golf course architecture of the Rosemont community, a gracious array of 700 homes, better than 3000 condominiums or apartments, and an active Homeowners Association. I have played a few rounds of golf there and contributed many a goose-egg to the gator pond which lines almost every hole. In an aerial view, the eighteen holes look like a giant emerald anaconda wrapped around the swampy neck of a 176-acre lake.

Old maps show it was at first named Lake Wekiva, but now it traces its pedigree to the city and is named Lake Orlando. What would the maps of America look like if all our cities did this, gave their names to all their waters in this

way? At least it would teach us that all the water bodies belong to one grand river family, and that the city has a parental responsibility to ensure that no one abuse its water children.

Rosemont surrounds Lake Wekiva, but you can see the river entering the lake from the south side. It's a case of suburban river capture.

TOPO! © 2011 National Geographic (www.topo.com)



From the 1970's on, Rosemont was the pattern of metrogrowth that was poised to fill the entire Wekiva basin with the poetry of place: Forest City, Spring Oaks, Apple Valley, River Run, River Bend, Wekiva Woods, Weathersfield, Ceday Bay, Spring Valley, Sanlando Estates. Farther north then, past the Springs to Markham Woods Road and Springs Landing, we hear more of the song of the suburb: Manchester Oaks, Whispering Winds, Magnolia Plantation, Markham Meadows, Wingfield, Chestnut Hill, Heathrow, Cedar Cove, Mandarin, Robinwood, and Ravensbrook. Not all of these fine neighborhoods have golf courses and many are built on generous uplands, but some like Rivercrest, Foxspur, and Alaqua snuggle right up to the eastern shore of the river itself.

Don't get me wrong. I love golf and especially the community of golfers around a club. For retirees like my father, the Riviera Country Club north of Daytona Beach was the greatest of

blessings, especially when he lost my mother after thirty-seven years of marriage. The tournaments, banquets, dinners, pro-shop banter, and especially the comedy of the game make a golf course a marvelous way to have fun and support one another through hard times.

For ten years, in the Rolling Hills area of Longwood, Jean and I lived on the tenth hole of the old course amid stately longleaf pines that sported families of red-headed woodpeckers and flying squirrels. It was a world of swooping up to a patchwork of brown and orange bark. We were not more than a quarter of a mile from the three major springs of the Little Wekiva. Most of the residents would bop around to each other's homes in golf carts, and you could tell someone was having a party when a house had fifteen carts overflowing the driveway onto the front lawn. The quality of neighborhood was extremely high, especially since most of the people had time for each other, if no place else, waiting on the tees and fairways.

Unfortunately, we all drank water from our own wells and the ground was saturated with EDB, a cancer-causing chemical that the golf club sprayed in the dawn hours to eradicate nematodes. When the state first found out about the deadly pesticide and counties started testing well water everywhere, Rolling Hills recorded the highest level in the entire state. That reading was registered just three doors down on our street, at the home of a man dying of cancer. That was twenty years ago. We know a little better now.

Most of the ecology of the Little Wekiva can recover easily from the reconstruction of basin sandhills and wetlands. However, the serious problem with a golf course has to do with the long-term effects of the daily use of fertilizers and pesticides, an old story every homeowner needs to face—being the greenskeeper as it were of his or her own acreage. Another major problem for the river is evaporation from the incredible number of gallons per day it takes to irrigate nineteen holes of fairway and green.

In both these issues, the state's Department of Environmental Protection has recently issued viable best management practices which would make the net effect of the golf-course, or the homeowners lots surrounding it, a matter of little consequence for the health of the aquifer and the river's inhabitants. If we can combine this know-how with the high quality of community that golfing can foster, we should eventually reach beyond the issues of course etiquette and clubhouse fare to the essentials of water quality and river care.

In 1998 I offered my first course entirely devoted to the idea of river community. Nathan was one of my brightest students and produced an outstanding study of three developments close to Wekiwa Springs. He wanted to measure the continuity between nature and culture in each of these places, holding the residents up to the standard of the ancient native mound dwellers. With careful photo-journalism and interviews, he documented physical landscape, the loss of wildlife, and the state of wildness in the minds of the human inhabitants of Sweetwater Oaks, Wekiva Glen, and Fox Borough Farms. Only one of the three, Wekiva Glen, in his judgment had risen to achieve continuity and integration with the river community.

The promise of every Rosemont is this: each new development has the chance to become attuned to the river, to build a small democratic unit of social and ecological caring. Communities can often retrofit what landscape architects may have ruined; and if they keep abreast of the news on environmental, as on other vital issues, they can often provide better solutions for the future. As Whitman and Leopold fully understood, the ideal of community is always at odds with the realities of self-interest, simple ignorance, and indifference.

Unfortunately, in 1980 thousands of residents in the apartment complexes and homes of Altamonte Springs did not much see the effects on the river of all the trash and erosion deposited downstream (up north). Even now, no sign sits at each development's back yard fence or apartment parking lot abutting the river announcing this is the Wild and Scenic Wekiva River.

But it wasn't the erosion, residential pollution, or even the storm water runoff of the Little Wekiva basin that was the initial stimulus in 1982 for the eelgrass people to rise up and become The Friends of Wekiva River, Inc. It was the decision of the city of Altamonte Springs to start using the Little Wekiva for wastewater disposal. Thousands of citizens sat on their commodes that year without a clue that in some mitigated sense they were perched right over the ditch in their back yard, over the pond at the dogleg on 17, or over craters for bass eggs in the wildest of streambeds. Something had to be done.



Giant Cypress Stump near Blackwater Springs

Eelgrass Roots

Read these leaves in the open air every season of every year of your life...

Walt Whitman: Preface to *Leaves of Grass* (1855)



The Wild Part of the Little Wekiva River: Clean as Can Be

3/26/05

A handful of people are standing around a large commercial parking lot just below SR 434 for our annual Little Wekiva River Cleanup. Deborah Shelley of the Aquatic Preserve is leading the loading of canoes down a steep bank of sand, fifteen feet below, into the narrow channel. When my turn comes, Deborah tells me I am the last person who is actually taking a canoe. The others who have been helping with registration or driving the vans have other plans or tasks.

So, after waiting for someone else to arrive late, I set off down stream, alone with my long-handled net and a paddle. Navigation without a partner in the bow will be a small challenge when things get thick or swift. Twenty canoes preceding mine have already gobbled up the trash like the cake at a five-year-old's birthday party. That's what we came for. Veterans among us have a certain pride in these cleanups to somehow manage the biggest or most remarkable piece of junk.

As I am catching up to the last launchers, going under the 434 bridge and past The Springs

development, my hunger for trash begins to focus on collecting as many tennis balls as I can. That seems just about the only item my colleagues are overlooking. Some balls sit submerged on the bottom and others are sucked up under the mats of aquatic plants along the side. With only the rubber core left, they are smooth and slippery, as though long ago fish or snails lunched on their lemon-fuzz. Strangely they look quite organic and bulbous, except for the fact that they retain their spherical shape and tell-tale size.

The weather woman predicted rain today, but it turns out to be a perfect Saturday morning for reading the water's leaves in the clear, sunny outflows from Sanlando Springs. In the middle of the channel you can see the sandy bottom, often with patches of chocolate icing from the decomposing forest gathered up toward the banks. The freshwater beach below can be smooth or lumpy, but out of such lumps often a cluster of long dark-green and algae-coated leaves, needles an inch wide and many feet long, flow downstream. They remind me of the dry blond leaves we used to wave on Palm Sunday.

This green stuff is eelgrass (*valisneria americana*), also called tape grass, that spreads out with runners along the bottom from clump to clump. It constitutes the best evidence of a healthy aquatic habitat. The state of Florida's Aquatic Preserve Act of 1975 included this portion of Wekiva and has been taking the measure of Florida's *vallisneria* ever since. Ducks of many species are pleased to have their tables set with such delicious vegetables and many other critters attach their hopes for the next generation to the twirling leaves.

In the spring pool to the east, without the bowing down and arcing force of the current, eelgrass stands upright with fuzzy leaves that point to the surface and at the top bend, only slightly, toward the weir. When you swim with the fish at the sandy bottom, you can more easily notice the long stems with single white flowers, no bigger than a baby's breath. If you pick up the runners that spread the plant across the entire pool, you can see the nodes of each new plant with its cylindrical fruit sticking up like a thin, half-smoked cigar.

With my long net, I fish a tennis ball out of the eelgrass. It is heavy with water that spurts out of two tiny holes as I squeeze. The surface is mottled with brown and grey patches, adaptations to its new underwater life. This instar itself may have aesthetic value of its own, but it will go to the dump anyway, so that the Little Wekiva will be looking just a bit better. But if I can find some abandoned fishing hooks, lines, or bobbers, then a real gain is made, admittedly small. You can make it much bigger, though, by imagining all the other small steps for earthkind taking place in our community every week: canvassing your neighbors for the cancer fund, your PTA activities, your church's day to visit the elderly, support for local art shows, and your rescue mission work. Every litter bit counts, as they say.

Eelgrass is one of a host of submerged plants that grace Wekiva's bottom, but the other two major aquatic habitats of Wekiva are the dollarweed colonies and the communities of spatterdock. These plants float along the surface edges where the shoreline catches them into broad patches, ideal for the concealment of hundreds of species of wee fish and other wildlife.

The concentration of food web activities in here is amazing, the complete department store of aquatic biology, buyers and sellers of every shape and stripe.

Any tennis ball in here has to be a fairly recent deposit since it hasn't yet given up its sac of stale air and sunk to the bottom. With my paddle I comb the beautiful uncut blades of spatterdock to find the errant overhead smash. Florida has several species of *nuphar*, sometimes called a cow-lily because of the golden yellow flower that sticks up prominently on a thick stalk between the heart-shaped leaves. Some leaves open out like little green tables in the air; others settle down on the surface to make a pad with wavy margins, about the size of a bear's foot, some larger. The flower is a sphere, slightly smaller than a handball, that when it opens with a shallow little cup at the top, reveals a green daisy wheel inside.

The roots of *nuphar* are extensive and as thick as my forearm. They remind me of palmetto roots and stumps. Sometimes they float to the top, helping to form large mats. In a kayak of course, when a river pathway seems clogged, you can easily slip through much of the biomass of spatterdock, not like the blockages created by the non-native hyacinths that can grab your river car by the gunnels, it seems, and stop both forward and backward progress.

Florida's other great aquatic habitat is made of dollarweeds, seven different species of hydrocotyle, called generally water pennywort. The leaves are very shiny and leathery, the size and shape of the old half-dollar, except the margins are bound in a series of small arcs connected at their bases to the light yellow veins. Often they lie down on the surface and take turns turning yellow, like the late fall hickory leaves. Their flowers occur in a ball with spikes, like the dandelion, only larger.

Sometimes the dollar weed and spatterdock build a community together and often they admit other surface residents like watercress (edible for humans), the non-native water lettuce (Bartram mentions the large hairy leaves in 1774), and several sizes of the tiny duckweed. It makes a large multipurpose development that grows out into the current and releases some of its children into the wind and the stream for further colonization.

At the mouth of Palm Spring I turn in toward the rectangular walled pool, showing its century of age. Just outside in the deep waters I start to spot and retrieve a few shiny soda and beer cans that the FOWR and the Rotarians have missed or just couldn't reach. I join several pairs who have been lingering over the spring. We stop and tell the stories of our wildlife encounters and our trash trove, hauling ugly samples out of muddy canoes. Our minds, however, are full of clarity, liberated. Morning has broken on a day for cleaning the river, and we find that the river has cleaned us in return.

At Katie and Russ Moncrief's house, our final destination, I count my coup: two dozen bottles and cans, plus seven of the saddest-looking tennis balls on record. My ad. However, Arlen, our treasurer, takes the prize, struggling into port with a large metal grate slung across the middle of

his canoe. Now it looks like an old bomber with well-strafted wings, and he the surviving pilot, stands triumphantly on the tail.

*...Swiftly arose and spread around me the peace and knowledge that
pass all the argument of the earth,
And I know that the hand of God is the promise of my own,
And I know that the spirit of God is the brother of my own,
And that all the men ever born are also my brothers, and the
women my sisters and lovers,
And that a kelson of the creation is love,
And limitless are leaves stiff or drooping in the fields,
And brown ants in the little wells beneath them,
And mossy scabs of the worm fence, heap'd stones, elder, mullein
and poke-weed....*

Whitman: from **“Song of Myself” 5**

Hidden Cypress Acres A Dramatic Monologue

[The camera is fixed and the world is a single room cleared to accommodate a few too many. All motion is itself and unrelated to the viewer. Sound, on the other hand, is coming from all sorts of places in the room, most of which are off-screen, just beyond a set of knees lacking a torso or behind the camera itself. The river is only fifty feet from the cottage, but its energies are all outside, neither seen nor heard, as it flows down to the right and on into the lower Wekiva.]

Enter Russ Fisher in a plaid flannel shirt and jeans, snapping a roll of white paper into his fist, and leaning at times on the counter. His smile engages his audience and the words roll softly from his great, barrel-chested mind. Just as he goes to start his story, Pat Harden comes in late and he proudly introduces her as “one of our own, now the Chair of the Board of the St. Johns River Water Management District.” The group of fifteen applauds. Russ begins his speech by describing with a variety of gestures the dwelling where we sit and its relationship to the habitat.]

Rush Fisher: In 1968 or '69, where we're sitting now was a swamp, right here. The Wekiva Swamp. The river here [**he points to his right**], all the way back to this great big cypress tree over here [**100 yards to the east, directly behind the camera**]. All this was like the Florida Everglades, a river of grass: no canoe traffic, no boat traffic.

So, the fathers to be, decided it had to be opened up. And they got this guy from up in Lake Mary, come in with his dredging equipment, what was his name? [**“Griffin,” someone volunteers**] to dredge from about a quarter mile down, on up past the landing bridge. I encourage you to go see it. It's the only iron bridge up here before the highway. He dredged and it was eighteen foot deep, right out here, and the spoil was thrown over here on this bank [**the east side of the Little Wekiva**], so when Eleanor and I first purchased this property it was just a pile of rubble and debris, busted stumps and dead trees--and sa-a-a-nd [**he laughs to himself**].

But anyway, that's what it looked like, the pond over here [**he points directly south to a half-acre pond on the other side of a homemade bridge you cross to drive up to the house**] was just a drainage canal. My friend and I arranged to have that dredged and the spoil is that nice land on this side and the pond that goes down toward the swamp.

[Now he decides to begin his presentation and starts with an apology that Eleanor is not able to be there—but she wants him to encourage folks to send in their nominations for awards at the next banquet.]

I have often been credited with being the one who got this started. I was only one guy. This thing wouldn't have gotten off the ground without all of these **[he points to individuals all around the room]**.

My contribution was this, when we bought this land, four separate parcels over the years, including fifty acres across the river---but this little piece right here, the Baptist church in Longwood poured a foundation and put up some block walls, was going to build a recreation place for the youth. But it just came at a bad financial time and they were having trouble raising the money, and also **[pause for an afterthought]** several parents came down here and said, “No way,” saw the swamp, alligators, everything else, the conditions, and snakes. They said, “Not my kid!” **[general laughter]**. And it was a condition of sale that if they didn't follow through with it, the property returned back to the owners, and old Mr. Norris put it up for bid with the two neighbors. It was offered at a closed bid and I out-bid him.

Anyhow, when I was building this **[short pause]** Well, a builder would do it in thirty days; it took me two years. I did it myself, never having done anything like this before. One step ahead and two back. But it was a sheer pleasure and a joy out here by myself. Every thing that was built was hauled in on the top of my car, strapped down, the wall board, the lumber **[he laughs at himself]**. Came in a little bit at a time. Some times I took sleeping bags, with daughter Julie, but finally she said, “Dad, I gotta get some sleep.” It was the over-powering noise of the frogs **[a giant grin]**.

Friends of the Wekiva really had its beginning in the Audubon Society, believe it or not. Most of the people that had been instrumental came from Audubon ... Jim Thomas, I followed him, then Fred **[he lists Orange Audubon presidents]**.

What would happen... **[pause, while he switches us back to the river scene, the gist of it all. Memory once again trumps the present purpose]**. We called this our river. **[He pulls out a journal book that his daughter Julie had given him for his birthday, April 26, 1982, and reads the title.]** The River at Hidden Cypress Acres **[Eleanor's name for their property with the giant cypress on it]**: “Dear dad, This little book will soon have history that we will cherish, the history of our own river.”

She said that because back in those days, there was no one livin' back here. Russ Moncrief was not here yet. All these developments up stream had not been started. Up at the Springs Landing bridge now was one of the absolute treasures, you come on down through there and enjoy it. And there was nothing downstream until the trestle **[the old Atlantic Coast Railroad crossing four miles downstream]** and then highway 46.

We used to put in with rubber tubes up there at The Springs; we'd have a little caboose, too, another tube with wine and cheese and stuff. And the river was open. There was a little quiet growth along the sides, both sides. The only thing we had was a canoe paddle, only to push us away from the banks along a curve. It was wonderful; we would take guests down the same way.

By 1978, Orange Audubon, I think Fred was president then (I was program chairman), we decided to have a canoe trip. We put in way down there at the highway 436 bridge, in Russ and Katie's canoes. We got started and we had this stra-a-a-nge smell.... Smellt like oranges. It was a Saturday. Jim Hulbert was with us, and said, "Something's wrong here." It was the Hi Acres Citrus plant and what they were doing--on Saturday! **[a knowing look all around]**--they were discharging, **[here he gestures vehemently and his glasses fly out of his hands, to everyone's laughter. Polly says, "Think of it as orange peels."]** so they didn't expect anyone would find out, but Jim excused himself and later reported them and they got fined **[Jim is a limnologist who worked for the DEP for many years]**.

We had scheduled another trip for October of that year and through the summer I could see something happening. Our playground was being spoiled. There was an unusual, dramatic increase in the aquatic hydrilla in the river and all this beautiful open space was closing in. It was the 18th of October that the trip was scheduled. As we got into September, I could see things were happening beyond our control. We had to call it off because the river had closed in that much.

The Altamonte Springs' new waste-water treatment plant had gone on line and they discharged the output into Spring Lake and in a year they had killed it. Because of the protest of many people, they arranged then to put the effluent into the Little Wekiva. Ran a pipe. This was before Alex's time, and DEP or DER had approved it, based on a three-day study! To see if the water could assimilate waste **[tones of disbelief]**.

So, this nutrient rich water--secondary treatment--was coming into the river. And the weeds were lovin' it, aquatic growth. About that time, 1979, Earl Downs who had developed the Springs and his partner Gary?...Graham had this property, which is Springs Landing now, on both sides of the river. On the west side of the river, they couldn't build. They were locked in because by that time Sweetwater Oaks was developing on the other side. So the only access to the rest of it was to cross the river with a bridge.

It was absolutely devastating. Jim Thomas was engaged as the environmental consultant. The bridge was planned for 220 feet. We consulted with Orange Audubon and Jim persuaded them that that bridge had to be 300 feet long and span the basin. Which they did and the county commission approved. We protested it. The bridge was built.

When we first got the impact of it, come the Army Corps of Engineers--by that time they had assumed the responsibility to keep the river open--they went up stream and came to the bridge and zappo! It was too low for the air-boat to go under. And so for years from the Springs Landing up to the bridge, there was no maintenance at all and the river was clogged.

Jim Oliver made an effort and was very instrumental to arrange for a crane to park on the bridge and lift the Corps' airboat on to the other side so they could spray. But soon the Corps of Engineers took a dim view of this and said that until such time as there is public access, they are not going to get involved. There's still no public access.

We saw this happening and Eleanor kept saying, "Why doesn't somebody do something? Why doesn't somebody do something?" I heard this so long I got tired of it," and we started to do something **[general uproar]**.

Nancy Prine: "Oh, so it's not you. It's Eleanor!"
[a laughter grows, seeking to displace credit.]

Fred Harden: "The truth comes out."

Russ Moncrief: "It was Eleanor's nagging that got it all started."
[Colonel Fisher hurries to quell this insurrection.]

Russ Fisher: So we got talking about it a few of us and Russ and I were members of the Markham Woods Home Owners Association. It was formed in the early 70's. I'm charter member. It was on the banks of the Little Wekiva, right up here on Delk Road. Lamar Williams was the first chair. Later on, we were meeting up here in the church; Bobby Brantley, who later became Lt. Governor, was president. I was trying to get some people together to get something started. I asked him for two people. They didn't care about the river; they were mainly interested in development, one unit to an acre and controlling it up and down Markham Woods Road. But he gave me two people, thank God, one was Russ Moncrief and the other Bill Riske. They have both been influential.

The thing we had to do was to approach this pollution problem. We had to get something done **[now his pace switches from casual to urgent, as though we are his squadron being briefed for a critical mission]**. We weren't then formed as the Friends of the Wekiva River, just a loose group. We prepared a letter. We decided we needed something that spelled it out very carefully and we decided too: no use sending it to the local authorities or for that matter Vicky Tschinkel who was secretary of DER and we bypassed her, too--we sent it to the regional director in Atlanta.

Well, then, who was going to sign it **[pause]**. We had no standing. We got George Schufel (Springs Home Owner president), Bob Johnson from Springs Landing representing Earl Down, the Markham Woods president, and the President of Orange Audubon, Greg Bretz. Our three-page letter spelled it out, and eventually it came back to Vicky Tschinkel and a public hearing was scheduled. And when we learned this, we knew we were in business and we knew it was our golden opportunity to do something **[a swelling of pride and a deep breath]**. And we went to work. By that time our people were assembled and people really gave their hearts.

We decided we had to approach this two ways. One, we had to have facts to present. That was the time we formed this technical committee. And Al Stewart, was a professional engineer, I think the company was Amasac, made a presentation to us that we were impressed with, about hyacinths, and we learned about a demonstration down here in a lake. They were showing us how the hyacinths were taking out the nutrients and the machines were taking out the hyacinths **[ironic eyebrow elevation and general laughter]** and Al became one of our stalwarts.

So he was really the one, a professional engineer, who produced a study **[he waves the thirty-two page booklet: *A Position Statement upon the Environmental Quality of the Little Wekiva River, 1982*]**. Al paid for producing this study out of his own pocket and we agreed to pay for the copies.

I went to Everett Huskey **[the developer of Sweetwater Oaks]**, and said, “We need some seed money.” He said, “How much are you thinking about?” I said, “five hundred dollars,” and he said, “How about three?” We didn’t have any account, so Orange Audubon “laundered” our money for us **[a rumble of laughter]**.

But this public hearing, we had to approach it two ways: we had to have our facts, do our study, and secondly we had to have good public relations. Our committee was formed with that two-headed thought in mind. We got help really in the press. We decided we had to have people come from the various environmental organizations in the state. Without exception, every one responded **[a pause for pride in the larger community]**.

We not only got the facts together, we met Sunday in th’afternoon for a dry run. We decided Jim Thomas would be our spokesman, and he gave his speech and we critiqued it thoroughly, tore it apart and put things back together and he was ready---boy, he was ready. Al Stewart’s desperately working to have this paper ready and he had copies on hand--all ready.

You know how these meetings go: first all the public officials have to make their speeches and then finally our turn comes. Jim, you know, with his beautiful head of white hair, had his nice gray suit on, and he looked for all the world like a Philadelphia or a New York attorney (I think a lot of ‘em, they thought he was!) and after that all these booklets were passed out to everyone. Then after Jim’s presentation, all the rest of the environmental groups stood up, one by one, and spoke. **[Pause...smile...a deep breath of doubt and tightening of lips.]** There just was no question.

The city manager was Jeff Etchberger. And Jeff knew it was where his bread was buttered. He had spent a little time trying to find out who this upstart group was (because we were staying very low key), who the leadership was; and he finally went over to Russ Moncrief, starting to ask him **[low laughter, at this mistake, from those in the know]**. After the presentation, Jeff came up to me and said, “Let’s talk.” Later we became very good friends with the commissioner of the City of Altamonte Springs.

Shortly after that—meeting, discussing, drafting ideas-- we presented them a letter and attached to that letter were ten specific recommendations. One of those recommendations is to take that wastewater treatment plant and immediately turn it to tertiary treatment and reduce the amount of nutrients going into the river, a great deal of phosphorus and nitrogen. Another recommendation was to study the capacity of the river to absorb this load.

Well, the city council adopted all ten recommendations, and that's when the FOWR started to establish their credibility. The next question was: who would we get to do the study. City Commission put up \$240,000 over a three-year period--as opposed to the three-day study--and the University of Florida did the work.

That report was the first comprehensive study of flowing rivers in the southeast, of its kind, and in the course of it ten other rivers were included because they had to have controls in their study. So they came up with this plan called Apricot, and it was adopted. When you go down I-4, you see that huge tank along SR 436, you can see, it's a part of that reuse program and a major change.

The wastewater still flows in, but they are limited to so many pounds per day into the river. Ideally, it should be zero discharge, but we are also realists enough to know the non-point source pollution is equally, if not more damaging, and that's the runoff, parking lots, and so on.

Really that's how we got started.

[Russ shows the book with the first minutes, beginning in 1981, remarking that they should be preserved and recorded. Then after some verbal horseplay, teasing, and laughter involving the Hardens getting a property downstream, he reads from the minutes of the first meeting and goes over the names of the nineteen charter members. Then he launches into a description of the First annual Wekiva River Awareness Day.]

Our plan was to go from the church on 436. Canoes. Katie was to lead **[laughter because she's notorious for being a fast paddler]**, with Mayor Ray Ambrose in lead canoe all way to the confluence, then to Sabal Point landing there, and Russ was to take us back to the church. It was supposed to be a nice leisurely trip downstream, but it got to be the damnedest race you ever saw and Katie got passed like a train past a tramp and everybody was down there about an hour before they're supposed to be and poor ole Russ was down there late trying to get them all transported back.

We didn't know the superintendent of parks, Benson **[that he was not a naturalist]**, and put him in with Carol Heinz and well they got started and the canoe tipped over and she had on these-- what kind of shoes?—Gucci. Lost that.

Polly Miller: "Scott Henderson and I fished them out."

Russ Fisher: [Now he jumps to the effort to have the State name the Wekiva as one of its Outstanding Florida Waters]

Outstanding Florida Waters. Two people I want to recognize, Pat and Fred Harden, **[adding then with help from the audience]** Jim Hulbert, Nancy, and Phyllis Saarinen. Nineteen pounds of material **[he gestures to indicate the size of the parcel mailed]** to the Environmental Regulation Commission meeting in Miami. So they accepted it and put it on the agenda. Then we had to get to work again to make the presentation. Here's where the public relations comes into play. We invited them **[Environmental Regulation Commission]** to go down Rock Springs Run and Fred had George Barley, the chairman of the OAC and he managed to tip over the canoe. **[More laughter as Fred explains that his charge wanted to race and didn't listen: "Only place in the river where the water's ten feet deep." More laughter]**

The other case was when Pastor Webber had his wife with him-- tipped over four times. When we had our awards presentation, Fred introduced him and said, "He's the only man came down the river that day who spent more time upside down."

Brent Magic **[a new board member]**: "So is this the official tactic, that if somebody presents any political opposition, you take 'em out on the river and try to drown 'em?"

Russ Fisher: That's the word that we put out when we took Governor Graham and we told him it was no politics and anyone who got into business was dumped overboard.

Outstanding Florida Water, again, was an outstanding effort. **[Russ holds up the report.]** We petitioned, **we** are the ones who did it. Pat Harden provided the technical details. **[He reads a letter from the state and shows the pages of all those whom the FOWR got to support the effort.]** Mr. Parks, the chairman of DER and a true friend, said in his letter of acceptance, thanking us that it was the most letters ever received on behalf of a river and the best presentation ever presented.

Russ Moncrief: "and the heaviest."

[The preceding is an edited transcript of a presentation Russ Fisher gave at an FOWR retreat in 1996. The idea of the retreat was to help new board members get acclimated to their work by presenting an overview of the history and the work of the Friends of the Wekiva River, Inc. Jim Lee conducted the meeting in the family room of Russ and Eleanor's cottage on the Little Wekiva, and Russ gave the first talk on "How the Friends Got Started." Pat Harden, Nancy Prine, Fred Harden, and Jim Lee followed. The whole three hours and forty minutes was recorded on video by John Parker and is available in the FOWR Archives in the Olin Library at Rollins College.]

Hidden Cypress Acres: Eight Years Later

4/24/04

When I visited Julie at the river cottage to get my bearings for this transcript, she generously shared with me that river log with its many entries from Russ and Eleanor and herself. In it you can read the excitement of wildlife stories (like the antics of a nesting gator) as well as the frustrations of meetings with developers where Russ's idea was to find common ground before an official meeting.

Some of the entries have to do with cleaning out the river and restoring the landscape. On February 8, 1885 Russ writes: "I am now committed to remove and destroy the exotics and stick with the native species." Regular entries express his chagrin with the "creeping sand" and indeed even today a large sandbar opposite the cottage has recently risen up and created a double channel. Small trees are growing up on the island where old aerial photos of the property show only a widening of the channel. Twenty-five years after the dredging operation to deepen the channel, other forces have built up a counterpoint.

But the most telling part of the journal is Russ's entry for May 8, 1985. It is the 40th anniversary of his release from the Eighth Air Force in England, after completing his long duty: eighteen months as a squadron leader in a B-17 Flying Fortress and twenty-three missions as division commander, including, at the end of his tour, missions over Berlin. He was 28 years old, then, and the long entry in the river log describes in detail his return to Eleanor and his relief at no longer having to sign those letters that started out, "It is with deep regret..." He concludes this powerful memory of a great turning point in his life with the telling observation, "and I was one of the lucky ones." The Great War seems to have enhanced the energies of conservation in many who survived, both at home and abroad.

The spirit of Russ Fisher is palpable in this river home where Julie and her three daughters live today. When I walk down to the giant cypress, just off the driveway through the swamp, the light-tan palmetto branches lying over crayfish mounds and resting on cypress knees crunch and



What camera angle can contain a giant?

crackle under my steps. It would take three or four of me to embrace the trunk of this tree. I look up to the April green patchwork in sunlight to find the courage and light-heartedness that Russ brought back from the war to his family and to this little river. He died of a massive heart attack on July 4, 1996.

“I Caught a Turtle, Ev’rybody”



A Postcard of Sanlando Springs, circa 1955
Courtesy of Eleanor Fisher

9/8/02

When I was a teenager living in the hot summers of Daytona Beach without air conditioning, I remember a few blessed days when a group of us tumbled into a car and drove the fifty some miles out 17-92 to get to Sanlando Springs. It was closer to go to De Leon Springs north of Deland or even to scramble over the bank at Blue Spring in Orange City. But the furthest possibility of cool for the east central Florida teen was Sanlando Springs because it had a magnificent slide and the canteen with a juke box and a dance floor. You got in for a quarter and a nickel bought you a bottle of coke or a dance with Elvis. At the bottom of all this fun was the rock and roll of the Little Wekiva River.

I have to admit that back then I never thought of Sanlando Springs as Wekiva, Little or Big. As we all do when we grow up, each experience is an atom of its own, connected mostly to the now.

This morning the FOWR have sponsored a field trip to The Springs, a development of 950 homes that is the dream fulfilled of Earl Downs. In 1972 he bought Sanlando Springs and the surrounding territory to build an upscale neighborhood in the corner between SR 434 and Markham Woods Road. Now you enter at a guard house, ride through a labyrinth of streets with

a beautiful mixed hardwood canopy, drive over the Little Wekiva without realizing a bridge is there, and arrive at the clubhouse, a completely renovated version of the old park's facility.

Many of the thirty folks who have come for this occasion are like me, curious to see what is left of a childhood or teenage vision, in my case half a century old. Eleanor Fisher, the *grand dame* of the Friends of Wekiva, brings a postcard of the place from the 'fifties. It is bright colored and shows the view from the boil straight out to the Little Wekiva, a beach with tall palm trees that seem to be the very same ones you can see now, in that lilting pose that captivated so many of America's finest landscape painters, out over the marshes of the St. Johns.

Looking at the postcard, though, I don't remember the place as so bright, open, and colorful. However, one of the young men in the picture is wearing swim trunks exactly like a style I once enjoyed. I kid Eleanor that I could be in this picture, but I am not. A beautiful girl is reclining in the water, her hair the same style and almost the same perfection that my sister wore to her prom in 1951.

Part of the point of our field trip today is to see the controversial changes to the landscape ecology of this bright treasure of the Wekiva, now in the management and care of a homeowners association. It seems they deliberately violate many of the rules of the state and the water management district about how to preserve the quality of the river community. The first thing I felt when I came to the top of the hill and looked down was the large open lawn and the gigantic size of the pool. In my mind's archive, this place is much narrower and overhung with trees. We should be walking mostly over leaves and dirt.

Memory is not always an accurate witness. Before Eleanor came to confirm it, I could feel where the two structures (the word *building* seems too substantial) used to be, on the upward slope behind the boil, but when I asked about the position of the slide opposite from the canteen, she corrected by about twenty degrees. Eleanor actually knows the man who still has the old slide, in his barn I presume, a testimony to how strong the urge to preserve idyllic memory can be. I'm guessing it's not the thirty-foot drop my body remembers, that landed us into something more than standing depth.

"We all came here in the hot summer," Eleanor says of her visits in the '30's and '40's, "because you know in those days nobody had a swimming pool." Even then, the spring was supplemented by a pool, where indeed its successor now still reclines, with matching his and her saunas on both sides.

Michelle and her husband Jeff tell me about how they came here, at different times actually, but their recollections are much more precise than mine because they came so often. They remember the dirt roads they traveled to get here. Michelle laughs that her folks would give her a quarter and drop her off for the whole summer's day. She points over beyond a row of townhouses to the other spring, Palm Spring (some now call it Sulphur Spring), where there was an old broken-down building. Eleanor reports that it was the first swimming hole developed and later this pool

with its concrete retaining wall, curving around the boil and moving at almost a right angle along two sides, was built to contain the slope of the hill. At the north end then, a single sluice was built with boards set across it to control the level of the spring pond, as it does even now.

However, the management of The Springs has altered the hydrology of the pool by creating two more outlets, all with wire traps that flow out west to the Little Wekiva. In the past two years they have been improving the landscape, in their own image, by cutting down native trees, ripping out native plants (hence, whole aquatic habitat), extending the sandy beach another hundred feet, planting the islands created by the new channels with lawn, securing the banks with black plastic pond liner, stacking some of that with hand-sized rocks backed up by bright-colored filler grasses. All this leads up to the slopes where azaleas and camelias thrive in the shade of some grand old oak trees left over from the days before Father Knows Best. One of the grand oaks on this side of the pool is gone now, replaced by a neat row of exotic palms native to Cuba. Will the spring water's constant temperature preserve them from the next freeze?

In a word, without any appreciation or care for stream ecology and the aquatic communities which have evolved here, they have turned this site markedly in the direction of a swimming pool. It makes a better postcard now, but a worse river.

Their logic might have something to do with the little baby I see, playing with her daddy over on the beach. He sits with his bottom on the sand and his feet in an inch or two of the water, the child between his legs about as long as his calf, splashing with glee. No modest bliss. The homeowners don't want a gator to come in and eat that beautiful child. It is an idea we can all appreciate. So they try to keep the algae, the fish, and the otters out of the spring so that the grand carnivore doesn't forage in here and give them a lawsuit they can't afford.

Our host at The Springs is Dr. Brent Weinman, an optometrist. A longtime resident here and board member of the FOWR, Brent has worked tirelessly to get his neighbors to see the light. At lunch he shows us videos he has made and gathered from other residents. They document the quality of the fish-life prior to this recent onslaught to the spring ecology. Through his homemade underwater video camera, we get to see hundreds of bream and bass of good size and other many species I don't recognize, as he swims through canyons of eel grass following a large soft-bellied turtle. He used to be able to swim each morning with three or four otters, also fully documented in films, who no longer are in the pond.

Part of the problem now is the loss of the substrate of organisms in the spring pool. According to Brent, they periodically pull the plug, lower the pool to a few feet of depth, and use pressure cleaners to kill the algae on the concrete walls using chlorox or some other algicide. When I swim back and forth now across the pool, all I see are a few stalks of hydrilla and a thin carpet of green algae on the bottom, nothing like the intricate pathways of eelgrass that were in the various underwater shots from the late 'nineties.

When I drove up this morning at nine and the guard said I was the first of our group to arrive, I felt rather squeamish about being a member, as it were, of the environmental police. Who wants someone to come into their backyard and tell them what's wrong with their constructed habitat? The boundary between our constitutional rights to privacy and our local heritage of community (inherent in the quality of water, the hydrology of river flow, and the perdurance of native plant and animal wildlife) cuts a very stark contrast in Sanlando Springs.

Suppose you're my friend Bill Carlie and it's your job, working for the Water Management District, to go around and issue citations and fines when homeowners, builders, or collectives violate the laws of the State regarding river community. The river itself is the state's property; for all practical purposes then, this spring, its pool, and all its outlets belong to Florida. The Springs had to apply for a permit to do all this "landscaping" and it's your job now to come in and fine them for all the ways they have superseded that permit. If the state were a private citizen, owning the springs, the homeowners association lawyers (the same folks who tell them about the liabilities surrounding one gator attack) would be frightened to death of the suit that would follow. But you're just a civil servant and you have to get approval to take on the powerful interests of private property.

The state has already spent millions of dollars trying to keep the Little Wekiva from a variety of serious problems of pollution, siltation, and extraction (think mostly herbicides) of intrusive exotics like hyacinth and Chinese tallow. They have had their battles with The Springs and nothing has come of it. In a mild way, The Springs is a kind of Waco where the government has backed off, it seems, or is just waiting. Channel Two News has presented the issue as a deadlock. So what can FOWR do? We are the ecological conscience of the river community, we have legal standing, and we often are fighting at the design and development stage for strict adherence to the rules. But once the development becomes a human community, is fully occupied, we tend to back off and accept the degradation of the environment out of respect for the democratic process inherent in the homeowners association.

So I am torn as I arrive this morning between the awkward, unstated mission of the "citizens patrol" and the joy of recovering my teenland, that wet 'n wild experience of my youth. I can't help feeling that I would love to live in here and be able to swim with the turtles and otters every morning, put my kayak in at night, and explore the river without the tiresome twenty-five minute drive.

I park behind the sauna-pool complex and descend to the boil in sandals and bathing suit. Four white ibis across the spring-pond are rummaging back and forth, up and down on the edge of the white sandy beach, steadily picking over the vegetables to get their breakfast of grubs and snails with their long orange-red chopsticks. In concert, they seem like a quartet of white-haired ladies working a giant loom.

Behind them pops out the white-on-slate-blue of the Louisiana heron. Crows caw above the nine a.m. concert of cicadas—a stadium full of them seems to be concocting a steady wave of

crescendo and decrescendo. As I walk to the boil and the diving platform over it, I am amazed at how deep it looks, later tested by the simple process of exhaling and stroking down feet first, I can't come near the bottom before I panic a little and come up for air. It looks like thirty feet down before any cave opens up. A large turtle, looking like a plated hub-cap, pokes up at the wall opposite me.

Walking around the pool to the beach side, I cross the first bridge where the spill-out, eight feet wide, generates today a powerful stream. It drops four feet to a wide, white, scoured substrate with a scattering of twenty limestone rocks that lead to a shallow ridge; then it turns dark green and opens, curling into a channel. It flows past newly planted cypress trees and some brush where later I try in vain to sneak up on an American egret. Now I say hello to the only other person here, Estelle, a stocky woman my age, sitting with her feet hanging over the wall below a stand of palms.

In the clearing beyond, it's all lawn till you get to the second channel and the house beyond that. Darting by my face, I notice the large-bodied cicada killers, shaped like WWII bombers, coursing the landscape to find the crackling noisemakers. They poison the cicada, crawl and haul them to a proper height, then glide a distance to a hole prepared in the ground where they bury their victims, with their eggs attached, so that two hundred days later they can emerge to silence next August's generation of cicadas. This arrangement is far older here than the spring which serves it.

I follow paths westward through some thick woods to discover the main stream of the Little Wekiva. Looking south from a footbridge which would take me immediately into someone's back yard, I look upstream to the road a hundred feet away and beyond that to the concrete bridge of State Road 434 that I passed over to enter The Springs. The water is high and swiftly running. Right below my feet a perfectly motionless great blue heron stands on the end of the point created by the confluence of the Little Wekiva on the right and the third outlet from the spring on the left.

A twenty-five foot willow that shades the heron is full of warblers (one I think perhaps a prothonotary) and a cardinal. In the distance some very tall pines have an osprey calling from them, but I can't for the life of me locate the bird. This is a scene I recognize from several cleanups I have been on with the FOWR over the years. An early morning jogger goes by on the road and then a car or two. The water is a beautiful study in color for, as the early sun shows in the white substrate of sand on my left, clouds of brown tannins are intruding, hustling over the edge of the clear spring stream. Instinctively you might take this brown for something filthy and contaminating, but it is only nature's mixture of earth and cloud.

In spite of all the signs of degradation that one might debit to the homeowners community, the river goes on with considerable equanimity. In the good-ole-days when I swam here as a young man, Brent tells me, they used to dump whole blocks of chlorine into the spring-pond and that caused a substantial harm. The recent practice of spraying will not last against the buildup of

algae and so forth, so that if later in this century democracy produces either a more enlightened homeowner leadership or a better enforcement of the law by the water district, then all the critters may indeed return to their prehistoric splendor.

It strikes me as strange now that the FOWR lobbies almost exclusively with government and bulldozers, but we have forgotten to engage all the homeowners associations where many folks like Estelle will say, "I live here, but I don't see how this – the spring and all – can be called private property." Just as we go on living if we smoke, but our lungs restore themselves if we stop, this day of dreadful dangers at The Springs can eventually be reversed.

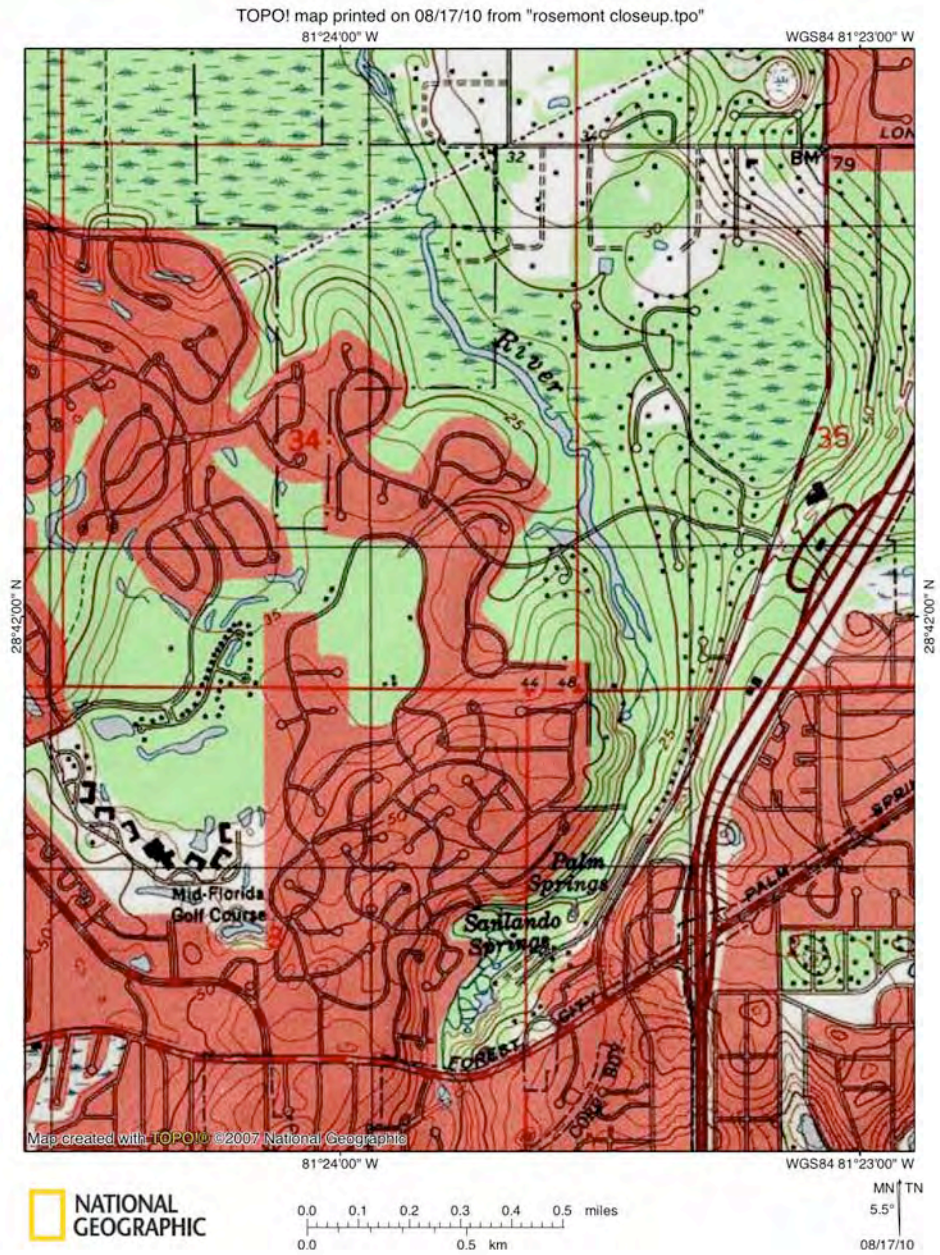
In the wild stream downriver, bright red leaves from a sweet gum are floating over a large armored catfish and some high-arched fish with vertical stripes is mixing with an occasional torpedo shape with a single horizontal blaze. Turtles sitting up on the ridge of a palm-tree's footer contemplate my slow movement in their direction, but decide not to plop. Here in the lawn I spot an array of three-foot high sprinkler heads with the rotating mechanisms that spackle forward in spasms punctuated by the water hitting a flat panel. I can hear them sputtering tomorrow and imagine the fertilizer they wash into this lawn and its creeks. The barred owl I hear now, whooping over the river, seems to be saying: who scoops your lawn, who cuts your grass?" They say the same thing in our neighborhood.

After a swim that is perfectly refreshing, the water and air temperature probably very close to the mid 70's, I rise out of the pool to watch a large V of white-winged birds with black tips and black beaks, scrambling south over my head. They move by a mixture of fun and freedom, changing places and shapes. They are not easy to count, but going by twos, I get up to 38. When I turn to watch them head out over the trees and the clubhouse, they bank east into the sunlight. I block the glare with my hands and notebook, and then for a brief second or two they turn into silvery slips and disappear in a variety of angles. They too are a collective, a homeowners group, following their leaders and their instincts, and surely emerging from solar fire to approach their river selves soon again.

Now the FOWR members and others who have read about our exciting program of cave footage coming next Thursday night have arrived. Everyone is locating memories as I had done earlier. The present is under severe test from the past. Not much can compete with the memories of childhood for purity and pleasure. After we have come to a summation of all the changes, Jeff pipes up, "Well, we've really changed."

His statement floors me with its depth. We and the river are like two bullet trains, one passing the other with a whomp. Each individual changes by a program, going through the human passages of life, but also changing by time and culture faster, really, than the effects of the development started by Earl Downs. We may try to make a spring pool as clear and safe as our bath tub, but nature is winning that battle. His remark puts a stop to the guilt trip of any eco-enforcer. Just the private property of my body has gone through degradations enough to outstrip this mecca of my teen years even though for decades I have been living a clean life.

I go back to the car to get my camera and returning, stop at a picnic table at the top of the slope to write a few notes. As I pick up my pen, the loud clear voice of a boy of ten, in orange trunks and snorkel gear, cries out, "I caught a turtle, ev'rybody." The clear note of triumph and the six-inch turtle held aloft strike a truth about how we all need to grab hold of the wild at The Springs.



Wekiva: a Democratic Vista

7/27/00

I am going to disappear. When I write, this is what I do. I block myself off from my life and adopt the meditative state, move into the logosphere, the world full of words. I continue to breathe and my phrases are built in gusts of wind for you to hear. My body is not dead. I hear and see and feel more than these words; but I am trying to engage you and my subject at once with these words. Both are variable and adrift, like the molecules of water and muck in the flow.

You are not here; but you are human, I am human, and we therefore share this conspiracy about life that is the English language. What I have disappeared from is my wife, children, grandchildren, colleagues, students, government, employment, responsibility, and health concerns. Any and all of these worlds can be called up in the virtual reality of words, as I have just done; but we are engaged, really, in virtual reality matching. We are fellow travelers in the noosphere, specifically in the global network of the English language. English is a multicultural megameme, growing and developing on its own, a set of all the words and expressions to bespeak our cultures and our individuality. It is an extraordinarily creative medium. In many ways, our language is our peculiarly human navigation system.

Animal navigation is a mysterious thing. The thousand and one modes of flight and swim and walk in the animal kingdom are testimony to the fact that we take our paths by a series of subtle approximations. We animals use a variety of baselines for our reckonings: from stars and sun, to currents and winds, to magnetic poles and line of sight, to reverberations and radiations, to signals electronic and chemical. Almost always we go in the state of community, certainly so when we use language as our compass. The matching of our virtual reality in these words approximates us not so much to the truth, as to each other. We migrate together through words.

Walt Whitman recognized better than any other writer I know and said it explicitly in a hundred ways that writing, especially literature is community-building on a timeless scale. Across the milky galaxy of words, America's poets and naturalists have written the Song of the American Land and its Democracy. Flawed as it is, our constitution and its Bill of Writes represents the approximation by which, in a timeless mode, we can navigate into the uncertain future of the new millennium with its promises of cyberspace, genetic engineering, mind mapping, space travel, and biosphere regeneration.

Not looking at the potentials for destruction, disease, sabotage, war, environmental degradation, political disintegration, racism, fascism, mind control, and genocide (except to make this

abbreviated catalog), we can take a positive stance together for the future. And when we talk to others about how we order our life toward a growing sense of community, they too may join the ongoing conversation and continue to explore in greater detail and practical application the ideas we have about democracy. For me, democracy is or should be natural and organic.

Something is organic when it comes out of nature and conforms enough to the biological or evolutionary programs that it can be said to be our animal inheritance. Look at human art, music, theater, and poetry to see what makes us different from the other highly expressive and neurologically sophisticated creatures. My words are sounds, my handwriting figures and forms,



my syntax a rhythm or dance to beguile your map-making reader's mind. Meanwhile the animals sing, construct messages, mark territories, leave droppings, and secrete chemicals. They react in impromptu fashion to reality and no one can be sure how "fur" in the past and the future they can contemplate. Stimulated by the right smells or sounds or sights, they recognize their way, finding ancient only once-experienced pathways for food, prey, predators, mates, and angles of escape.

Stay tuned, because the news today is that scientists are studying their maps of the human and animal brain, discovering spindle-shaped mega-cells unique to human development (and some higher primates), the orchestrators it would seem of our self-consciousness. Meanwhile, the democratic view of the river will continue to grow among those spindles so as to include and provide for our native flora and fauna, the common as well as the rare.

Mary McKey

5/06/00

She's sitting still in her sandy crater as we float slowly by. I turn back quickly to see her fat, still body, the size of my foot, turning calmly like a weathervane in a soft breeze. Her colors are magnificent, a light green background on which along her bottom is painted a bright, red-orange streak accentuated by a deep dark "eye" the size of a dime.

The Little Wekiva is clear shallow and the bottom dark brown, except for this one circle of sand where she plans to lay her eggs. Will she wait for rain? The whole state of Florida is holding its breath, praying for rain to dispel months-long drought and the threat of fires that is already in the smoke-feathered air.

I have spent fifty years studying and exploring Florida, but I know nothing of this fish. As a writer, I often have to write about things I entirely don't know. I have never seen such a fish in Wekiva nor in a fish tank. When I described it the other day to Bill, he thought it was probably a tilapia, an exotic relative of the farmed fish we often serve up for dinner.

I turn to Mary in the bow of the canoe to see if she knows. Mary McKey is a longstanding Friend of the Wekiva and a member of the board. Soft-spoken, peaceful and kindly, she mostly stays out of the political wrangles of our group and concentrates her energies on imagining the river through her many photographs of river scenes. At the annual banquet last night and at other presentations during the year she comes with boxes full of images mounted handsomely for lovers of the river to hold dear. She doesn't recognize the fish either, but she certainly knows a great deal about their habitat for me to learn.

Today's trip started at Katie's Landing with two dozen folks loading into vans to take them to the launching site nine miles downstream. For years Russ and Katie have provided canoe service for FOWR events with remarkable good cheer. Riding with Katie and Suzie, her large and very affectionate black poodle, I get a shower of kisses in the back seat before Katie calls the dog to attention. It is a moment of laughter I exploit with a quip about how, at my age, I have to be happy with whatever I can get. We ride to the Moncrief's house, a fifteen-sided, two-story log cabin right on the Little Wekiva. In a matter of minutes the troop of a dozen canoes is spread out on our course and each hardly aware of the other.

The fun part of Wekiva River Awareness Day is to get out there in a canoe with someone who carries new parts of the river with them and to share it all for four or five hours. I know where the Twin Mounds are along our way this morning and promise to take Mary to that spot when we get to the main branch of the river.

Mary's spirit today is full of wishes, of wonderful things she hopes to see. A grey-haired grandparent like myself, she enters the Little Wekiva with eyes wide-open with desire. Just as we tunnel from the channel at the Moncrief's house into the swift-flowing stream of the river, she says, "I hope we see a swallow-tailed kite," recalling for me the last time she came this way and how that was the highlight of the day. Most often when I do the Rock Spring Run and sometimes over the Lower Wekiva, I see the long black and white figure high over the river and I can remember well spotting one over Wekiwa Springs for my students. The kite is a raptor that in Florida is listed as threatened, but I see them more and more each year, so my sense is that they are doing better, at least in the Wekiva basin.

We come around a sharp left hand curve, barely avoiding the swift current's intent to slam us into a log, when out over a wider open flats we spot first one, then the pair of swallowtails, squawking and circling in the sky, but largely playing within the window afforded our vision by the widening of the river banks. Mary's almost lifted out of the boat with excitement and we are both in celebration of what we take to be a courting display. The river is beyond new green, but the kites have gone a-maying. No raptor cuts a finer figure in the blue-white yonder than these two with streaks of yin and yang carving through the skies.

They know the river from above better than any of us, and we wonder if they are the same ones we've spotted elsewhere or whether we have several mating pairs in the sixteen-mile stretch of the river and the further reaches of its three major tributaries. How much does it take for a swallowtail to call up a date from Rock Springs to Little Wekiva or over Katie's Landing?

Mary is a deeply religious person and we start to joke about the powers of her prayers. I suggest we make a list of her wishes now and put them in priority so as to maximize our venture. Going along with my ruse, she says, "Oh, I want more than anything to get some RAIN." I add to the list a black bear or two—let them all mate before us—and we go happily on.

Mary knows Wekiva in its sounds. Recently when Paul Moler, herpetologist with Florida's Department of Game and Freshwater Fish, gave a talk about Florida's frogs at one of the FOWR wildlife programs, she got a tape from him of all the calls you can hear in Florida, the thirty species of frogs and toads that we have from tropical keys to panhandle ponds. So she is quick to recognize the sounds they make, even in the late morning we are drinking in.

Among the sounds of the birds, she teaches me the rising squeakings of the parula warbler, a lovely bird I have seen a number of times elsewhere, but never learned to hear. Now I know why, because at almost every bend of the Little Wekiva we can hear one, but always high or deep in the woods and out of sight. Is one invisible parula going along with us for the ride or are the bleachers in this ballpark fully stacked with them?



Photo by Mary Colby McKey

Today the river is graced with a number of waders caught between the plumage of the yearling and the uniform of an adult. White little blues and brown white ibis, even a few not-yet great blues, are tooling along the spatterdock and dollarweed beds or spooning the muddy banks of the Little Wekiva. It is a treat to see so much life in promising transition. What a lovely place for a bar mitzvah. These waders pursue with so much intent in their hunting that they seem to suffer none of the self-consciousness of their adolescence. They remind me of the teens I see occasionally on campus, celebrating their metamorphosis with locks streaked in purples, oranges, and reds that go beyond the spectrum of their species.

Gradually during the trip we learn more about each other. Mary belongs to the Unitarian Church where several of my colleagues and friends go. She has just returned from her annual visit to Missoula, Montana, where her daughter and grandchild live. I tell her my impressions of Missoula from a conference I attended three years ago, the Association for the Study of Literature and the Environment. I gave a paper there on Whitman's environmental imagination which Mary can surely appreciate without ever reading it. Today is the day when the FOWR invites the whole community to celebrate the river and to join together in Whitman's spirit of ecology and democracy.

Then we start talking about the eagle's nest in Winter Park, at 700 Interlachen Avenue, where we both have watched the progress of adaptation of an endangered species to the suburban long-leaf pine trees along Lake Osceola. We enjoy this story of hope, when eagles too move into our neighborhoods.

Now the chance of rain begins to improve as darker clouds emerge. We hear a very strange squealing sound, repeated at intervals from the bottomlands on the left where soon we expect to meet up with the Wekiva main stream. I think it's a squirrel, maybe, and for once Mary thinks it's

a frog. Later a pair of canoes passes us and they ask if we saw the large owl and its baby. Every sighting on the river is a matter of timing, a lottery for free.

The rain begins to fall in earnest and we are feeling once again the blessings of this day. The shower is gentle and steady for about ten minutes and then hustles off to other wells. In the semi-darkness that follows, I spot a small bird on the left who seems to be following the pattern I know belongs to the prothonotary warbler, a relatively rare but magnificent inhabitant of the swampy riversides of Florida.

I stop the canoe, holding on to a snag because Mary has never seen the dark warbler with the bright orange-golden head. The bird is hopping back and forth along the tree roots and the muck when I see it clearly enough to be sure of its distinctive features. So we camp out there for ten more minutes, watching the solitary black figure, little bigger than your thumb, flitting back and forth from root to branch. The greyness of the hour accentuates even more the blazing sunlight of the warbler's mitre.

While we are sitting there, a couple with a child paddles through, and we meet them later again while sitting and eating some snacks. Mary strikes up a conversation with the woman in the stern and it turns out she is a school teacher in Lake County. She recognizes Mary as the one who had the photographs on display at last night's banquet and asks Mary if she would be willing to visit her classroom and give her students tips on nature photography for some projects they are working on.

Mary surprises me with a series of denials: "Oh, I'm really not a photographer, you know," she says, sitting there with her camera hanging around her neck. "I don't really do that sort of thing," she goes on, "I don't know that much about it. I just snap a lot of shots and take what I get from the drug store developers." The woman explains that just seeing her wonderful photos and hearing from her would be incentive aplenty for eighth-graders.

"Well, really, I don't take pho-to-graphs," she emphasizes the word as though it isn't really a part of her vocabulary, "I just honor creation," and she spreads her delicate hands wide to take in the whole river scene. She has been taking such pictures all along and the rest of us chime in that the children would be well served with such simplicity. So tentative assurances are exchanged to make that happen.



The Little Wekiva as Mystery

Photo by Mary Colby McKey

We enter the Wekiva now and I am looking for the pair of islands which conceal the Twin Mounds on the left. We follow up every promising little water path and find nothing for longer than the half mile I remember it should be. Now I start apologizing that we must have passed them. Much later, when we have stopped looking, I recognize some feature of the exit stream and we work our way back up to the landing site for the mounds, alighting among tree roots looking up at two meters of shell-packed earth.

It feels good to stretch our legs and move about on two feet. Even though we have another hour of paddling before we catch up with the rest of our tribe, for both of us this moment in archaic Wekiva time represents as well as any part of the trip the pinnacle of a day among our riverkind.

Mary's photographs, as you can see on our web site (www.friendsofwekiva.org) are almost always vistas shot from behind the blind of some canoe bow, but the undercurrent of those colorful Wekiva impressions is filled with swallowtail circles, fish-beds, frog-groanings, and the dark inner spaces generated in backwater habitats like Twin Mounds.

Twin Mounds

In 1983 the state purchased most of the land between Rock Springs Run and the Upper Wekiva, including a number of important midden sites that belonged to native cultures going back some five thousand years. The two most important mounds sit right on the edge of the mainstream, a half mile north of the entrance of the Little Wekiva. The following describes one of many field trips I have taken with my environmental literature classes to this special place.



Human Bone Mask found near Orange City

From *Indian Art of Ancient Florida* by permission of Barbara A. Purdy and the University Press of Florida; photography by Roy C. Craven.

3/21/01

We are a small tribe of water-watchers as we leave the Wekiva Falls canoe launch: Alicia and Jesse, Marla and James, Laina and Norah, Hanna and Sarah, Ryan and I. Our fading yellow

canoes move out over the sulphurous well water, a snake in five segments, slipping along the narrow channel. This is my River Community honors class, heading out toward the south edge of the mile-long flats just south of Route 46. Turning right, upstream, we pass quite soon the USGS water-flow measuring station and then immediately the river narrows and the tree line rises and the cold 15-20 mph winds recede.

Very soon it appears to be a day of birds rather than bears. I have worn my Florida Black Bear Festival tee-shirt and I must confess, I even rubbed my petoskey-stone bear at the office in the hopes of seeing just once this elusive icon of my Florida dreams. My friend Phares often sees and talks about finding them in this, his neck of the middle Wekiva.

We see immediately an osprey crossing over us on his way to a nest we find later in the second flats. A great blue rises in the air ahead, banking into a back channel, and later we spot him at the foot of the osprey's nest. Crouching in complete neck retrenchment, legs also hidden, he seems a grey stump with a small white flag on top. A little blue heron flies right down river over us and veers off to the west just before encountering the tail end of our now lengthening, now contracting five-segment reptile.

When we gather together the first time, I talk about how the Timucuan natives made their canoes out of pine or cypress logs, carved with stone tools and burnt hollow. They were entirely river people, eating almost exclusively the shellfish and other river critters. Their word for water in all its forms is *ibi* and the canoe they called *tico*.

A pair of buzzards now in the sky to the east are watching each other more than us. The sky is grey and white and black with low billows and only occasional patches of sun. No gators and few turtles are out on the banks or snags. The water feels a little bit warmer than the 60-65 degree air temperature with a wind chill to bristle it. A snowy egret, motionless and tight in the spatterdock, contemplates the higher dimensions of food not eaten. Loping through to a clearing at the right, an American egret, silent in surplice, defines the substance of grace.

It is impossible not to feel excitement at this achievement of our little band of scholar-activists, finally reaching the pinnacle of our field study in this course. We have read all about the history and development of America in *The Land of Rivers* and have tasted the finest literary breads and cakes from *The River Reader*. Tuesday we sat in the archives at Rollins amid treasures of the Florida Collection and just before that studied *The River of Grass* by one of Florida's premiere defenders of our natural heritage. Finally, we have taken the measure of William Bartram's colonial Florida against Bill Belleville's contemporary vision of the St. Johns River so as to build an immediate sense of the flora and fauna.

We have hiked the Seminole Forest uplands, discovering small spring runs, have tasted the flow of the primary boil at Wekiwa Springs State Park, have driven now three times through the full-fast triple lanes of I-4 that support the second worst case of contemporary sprawl east of the Mississippi. All that was prelude to the archaeological evidence of the Wekiva basin and

especially these two mounds which were studied carefully in the early 1990's by Dr. Brent Weisman and his team from the University of South Florida. So today the focus of attention and the heart of our community of the river course is intact, as we seek out the archaeological site called Twin Mounds.

Hanna and Sarah are bringing up the rear and spot our first limpkin. They describe it well as a big brown bird with white specks. I ask if it had a long, slightly curved beak and they confirm what I later can hear, that unique sqawking, "keerieowwww," the accent on the "ow" curving like his beak and tailing off at the end.

Ryan and I stop to scope out a bird, hiding in the low broken sticks of a tree, camouflaged with new green leaves. It looks like a small hawk to me, light streaked breast but no red shoulders. I can't see the tail and it seems to have a hawk's beak, but then when it flies out, its wings are lighter and thinner and wider than a hawk's span. The slender legs show from behind and appear yellow. It seems to have features of two kinds of river dwellers.

When we get near to the location of the mounds—by land, enter the Rock Springs Run State Reserve and go east, down Shell Mound Road (jeep trail) until it ends in a hydric hammock—I shout ahead for the front runners to wait for my lead. From the river, the mounds are not so easy to find. We move behind a large island to the right, past a snag I recognize from before, and under a beautiful fat arch, eight feet high and about as wide, the thick bark of an oak that has fallen since the last time I came this way with a class.

The mighty St. Johns is often miles wide and in spots fills huge lakes such as Monroe and George, but the Wekiva recedes from that magnitude to a stream that averages the width of my quarter-acre lot. But once we step outside the main channel, behind these many islands, the river becomes entirely intimate, both banks overgrown with trees and snags that can easily reach all the way across. No one has any reason to come back here with a saw and open the spaces of the forest bending down over ten to thirty feet of river.

Back here we frighten up four, then six or more, wood ducks. Only Hanna and I get to see them flash off in unison, another river tribe moving up and down the Wekiva day by day. No need to raise any boxes here for their reproduction because dead trees and pileated woodpecker holes are abundant.

I am looking ahead for the mound and think I see it, straight ahead, but then the water turns us right and the elevated brown patch is just dead branches on the left side. The ground rises a little on the right and it seems low to me, but just ahead a huge tree has snapped off in the water, right where Bill and I once saw a large black snake, presumably a moccasin, swim over to the south side of the mound. The large tree at the base of the mound and the actual landing space are familiar, so I am sure now this is the right place.

We have arrived quite quickly in just an hour and I am relieved that we have plenty of time to explore. After we all do some stretching, I give a brief talk about the preciousness of this place, the state's program for preservation of such sites from unlicensed digging, and my own excitement of making contact with ancient inhabitants. I mention the 2000 year-old mortar which Barbara Purdy has documented from the Wekiva river¹ as a reminder of the antiquity and the perdurance of the river community that flourished on this very spot.

Our academic tribe wanders back and forth over the completely overgrown hill. This is called ground-truthing. They have read Brent Weisman's article on his dig here, but now the imagination has a place, a habitat to live in. Signs of the digs that were done are apparent. Pretty soon we are examining pieces of pottery and a stone that looks like the head of a tool for hacking out a canoe. The students are just foraging the surface, perhaps lately eroded by some heavy rains. I keep insisting that nothing should be absconded.

Sooner than I wish, it is time to return. No one wants to explore further upstream because of other commitments, other courses, so we load back up and start to return at top speed. I am always a little disappointed on field trips that students have lives to live beyond a pair of Timucuan shell middens. I count on these experiences to engender the passion to learn more and to write about it in useful ways. We try to imagine what the life of the natives was like and some of us take the measure of the spirits that remain in this wilderness abode.²

¹ *Art and Archaeology of Florida's Wetlands*, p.304-5. Purdy does not mention where it was found.

² Until 2009, the work of these students on behalf of the river was available on the FOWR website as part of The River Classroom.

The Year of the Wekiva: 1988

We are used to telling our story in dramatic terms with individual heroes, tragic and comic, but we fully understand that those headlines conceal all of us in their simplicity. History is a function of community, not of individuals, however powerful and charismatic. In other words, in a democratic society, leaders are only as great as the community which supports them. Even an organization like the FOWR cannot claim a hero's place and pretend that the accomplishments of five or six years of their careful use of science and persistence in lobbying produced the actual results: The Wekiva River Protection Act of 1988. Nonetheless, the results are impressive.



Eddie Williford

In January of 1988, Eddie Williford got the governor for a day and put him in the bow of his canoe at the headspring of the Wekiva. It was an opportunity of a lifetime, the kind of thrilling historical moment your grandchildren will tell theirs. The Little Wekiva was especially in danger from colossal growth and all the efforts to install some sort of protective buffer against the onslaught of dense development in Seminole County seemed to be failing.

Even though the Friends of Wekiva had helped win state approval for the river as an Outstanding Florida Waterway, an Aquatic Preserve, and a Florida Wild and Scenic River, and even though by 1987 the state's outstanding program for natural land preservation had featured purchases of thousands of acres of land in the basin, and even though the threats of pollution from water treatment and storm runoff had been checked by an award-winning program in the Little Wekiva, a crisis was building. The whole process of growth in the conservation program was in jeopardy if the combination of state, regional, and the local governments did not do something practical to sustain the river in the face of astounding growth. It's a simple economic principle: a growth of income should be matched by a growth of savings.

Bob Martinez was not the governor you would expect to be jumping behind a call for solving this problem, let alone to champion a law specifically designed for just one river in the state. But sometimes it takes a case, not only to test a law, but sometimes to create it. It was up to Eddie to make that case.

I first met Eddie when he worked at the college as a painter. I used to see him and his crew in white overalls, scaling the walls of our buildings, fighting the mildew, and rolling on the variety

of beiges, off-pinks, and yellows that grace the Spanish architecture of Rollins College. His long light hair and darker beard framed a round and smiling face I still cherish in my mind. I really can't say how we got acquainted, but I remember the day he said he was quitting the fumes of this painting job to go to work for the Florida Audubon Society at their Maitland offices. I cheered.

So then every time I took my class or family and friends to visit the Birds of Prey Center there, we'd go into the gift shop to jaw with Eddie and his wife Lorraine about the issues of the day. Eddie would sometimes drag out new posters and other materials he knew I'd be interested in for my environmental literature classes. A few years later, Eddie left Audubon because he landed the canoe concession in the Wekiwa Springs State Park and that's when he started to become "the river man." On the side, he made extra money designing canoes and boats, and even flew to California once to fill an order from Michael Jackson.

I remember especially a day when Eddie was taking us on a river cleanup. A student leader at Rollins had marshaled forty students at 8:00 am of a Saturday morning to pour into canoes and head down from Wekiwa Springs for a day of hauling out the river trash. We all had a lot of fun, once we got a little wet, going overboard, as they say, to get the most inaccessible items. Covered with muck and the attendant scorn of our comrades, we started to feel a pride in the store of weird treasures we were recovering for the dump: plastic seat cushions, tattered Goodyear radials, pieces of carpet, rusty metal plates, bed springs, and grocery carts.

Life on the river was different in January of 1988. The upper Wekiva was still full of fifty or sixty makeshift shacks and shanties maintained by a variety of hunters, fishers, and even squatters, all using motorboats. It's the fourth law of thermodynamics, don't you know, that entropy somehow catches a small part of every boat and cabin and plops it down in the river. Some gets spilled, some tossed, some blown away, some hooked on branches, and some just falls or rots off. The Friends of the Wekiva had always been lobbying for the state to assert its legal rights in the park and get the squatters and shanties out. Our gain, if Eddie and the governor would change all that.

In the closets of my memory, Eddie is still giving a talk about all the ancient bones of prehistoric mammoths and mastodons, turtle shells, sharks teeth, shards and points he has recovered from various parts of the river. He was an expert too on the native mound dwellers. I can see him explaining to a group of my students just how, with an atlatl, a Timucuan forebear might have launched an arrow with enough force to fell a mastodon or a panther.

On the river Eddie was always full of stories of his Wekiva boyhood, of the critters in the river and all the plants along the water's edge. His father gave him a lot of leeway when he was a young teen; so he built himself a raft out of inner tubes and wagon parts to navigate the river. Soon he built a chickee out of palm fronds and lived out there, fishing and hunting, eventually growing immune to mosquitoes. He was the first person to tell me about duckweed, that mystical

light green cover of little round pads, no bigger than these letters, filling often an entire slough or half an acre of swamp in elfin delight. Eddie is Wekiva's Tom Sawyer.

How far did he and the governor go? To paddle the entire Wekiva in one day from the main spring to Katie's Landing is no small feat. I reckon, if they did that much, the governor had a sore bottom by day's end and woke with aching shoulders—if indeed he paddled himself—and that in itself would be a great boon for the river. The river community has no chance if the people of Florida and their leaders don't have such elementary experiences.

I don't know Bob Martinez. He's from Tampa and they have great rivers over there flowing out of the Green Swamp or out of some of Florida's major springs. Perhaps he is a world-class fisherman. But for the sake of this reenactment at which I was not present, let's suppose we have in this canoe one river-native Floridian and what amounts to a political tourist. Let's play epical history and forget all the other FOWR experts and attendant local politicians who were also there. So, in this simplified vignette, one person with understanding spent one day with another person who has power. The river experience itself negotiated their differences.



Eddie and Lorraine were charter members of the FOWR, two of the nineteen board members who signed the original articles of incorporation. Bob Martinez was born out of the river of his mother's body and sustained by rivers all his life, so the grassroots of both power and understanding were working in both men. And out of this meeting was made a law, probably the most important environmental law in Florida in the last twenty years and a keystone of a twenty-year program of enlightened state attention to the issues of conservation and smart growth, a legacy of several former governors and their legislatures.

The governor went home refreshed in spirit and established a task force to generate the law that would define a variety of buffers and protections. It is no simple task to hammer out legislation to restrict the rights of

Shell Island: a tree,
a rope, a splash

builders. Every item of the law has to stand up to vigorous contesting in hearings and eventually lawsuits. Three months after the river journey, The Wekiva River Protection Act (1988) was

passed unanimously in both the Florida House and Senate. Can you believe that? **Unanimously.** “Where did that clarity go?” you might be asking. It’s always right there below your paddle.

Martinez, a Republican, was not aligned at all with the long-time efforts of his democratic predecessors, Leroy Collins, Reuben Askew, and Bob Graham. But none of those governors is the hero of this story because the legislature and the people, the Audubon Society, Sierra Club, and many other environmental groups had been building up to this point unconsciously for two decades. Since the purchase of the Wekiwa Springs and the opening of the State Park there, something matured in all of us and the government acted for the sake of generations to come.

I remember once taking a group of graduate students to Hontoon Island one Saturday and walking along toward the large Timucuan mound at the back of the island (1100’ x 40’ x 50’). A civics teacher from a Lake County high school was along with her friend from my class and we got into a lively debate. Suddenly, something I said had her completely incensed and I could not figure out what it was. Later, in the retrospection of my guilt-chasing mind, I realized that I was blaming the government for something and in her mind the government was I or we.

Even if I did not serve on the Task Force or write the law, The Wekiva River Protection Act was my act, and perhaps yours. On the river Eddie was governor and, by the same score, the governor was a Friend of the Wekiva. There is no hope for us if we do not write our history with the pronoun *We*. Grassroots outfits like FOWR are all about getting together activists who will meet and lobby and educate the rest of the *We*, including the legislature and the chief executives of the state, when that is necessary. The year of this *We* has two seasons in Florida, the fall elections and the spring legislative session.

Another primary agent in the creation of The Wekiva River Protection Act was *The Orlando Sentinel* and its editors who for twenty years have published expositions that support the river community. I doubt very much this canoe trip would have succeeded without the galvanizing effect of Jane Healey’s sequence of articles and editorials entitled “Florida Shame.” She and her paper won a Pulitzer prize for this series, but countless others over the years have kept tabs on the river, frequently on the front page.

It wouldn’t have succeeded as well aside from the state’s program of conservation and land acquisition (CARL), and specifically without each of the almost 40,000 acres of state investment in the river basin to that date. Important parcels of land went from purchase, to planned development, to public or community consideration, and finally to conservation. Each step took the river closer to the special law of protection. Even the broken dreams of the builders and the difficult negotiations to render property owners fair market value for their buildable acreage represent the *We* in The Wekiva River Protection Act.

The Governor’s Task Force brought all the prime government, growth, and conservation interests together to decide how to give the river community the special protection it needed while growth proceeded apace. It is incredible how in just five or six years’ time, the focus on the health of this

little tributary of the St. Johns had risen to the highest order of provision in the state's system of comprehensive planning and growth management.

The law said in effect there should be several dimensions of buffering for the river—within 550 feet of the actual stream beds, within a much larger area about half of the basin itself (designated as the Wekiva River Protection Area), and within the basin as a whole. It substantially affects seven elements of the river community:

1. Water quantity (minimum flows and levels)¹
2. Water quality
3. Hydrology of the river system
4. Wetlands associated with the river system
5. Aquatic and wetland-dependent wildlife species
6. Native vegetation within the Wekiva River Protection Area
7. Habitats within the Wekiva River Protection Area which support designated species.

The heart of this law ties the biotic and human community up in a neat ribbon with the following provision: “The various land uses and densities and intensities of development permitted by the local comprehensive plan shall protect the resources enumerated in paragraph (a) [the list above] and *the rural character* of the Wekiva River Protection Area” [italics mine].

All the rules for development and permitting would have to be more strictly enforced. Local and regional plans were now required to take this into account and the Department of Community Affairs would be the state agency to adjudicate all issues of the law. In practice this has not been uncomplicated, but for the most part the law has been enforced and growth has proceeded apace at a reasonable level. Now in these areas a new We has entered the basin and the job of taking all of them and their children down the river is Eddie's and his successors'.

Epilogue

5/13/04

Recently I called Eddie to find out what really happened on that famous river trip. As always, he started out by saying, “Oh, it was magical, Steve.” There was a big crowd gathering at Wekiwa Springs, bolstered by the press and security forces. The governor flew in by helicopter to the

¹ Currently the state is in the process of establishing MFL's for all of Florida's spring-fed runs. The idea is to watch each aquatic species's dependence on the amount of flow. To be safe, they should be comparing their data at lower levels to the average of a normal year. Major decisions about withdrawals and human water use have to be dependent on accurate MFL science, or the river community will be threatened.

park. When he got to the spring, Eddie brought his canoe along side the platform so the governor could step right into the bow.

At first he tried to paddle, but soon gave that up. A long line of canoes with Friends of the Wekiva River and local politicians was launching out of the paddock and Eddie worked hard to get ahead of them. He wanted the governor to himself. As they passed the others, Lorraine called to him, "Honey, give the governor a paddle." As Eddie tells it, the governor was very attentive, in awe really, but it was clear that his mind was made up before he got there. Eddie told him stories of his boyhood on the river, conscious that the governor "didn't spend much time with anyone like myself."

Leaning over the gunnel, he said to the governor, "Look down there. See all those white shells? Right here was once an Indian midden that's now under water." In between identifying the trees and birds, Eddie weaved his story of the Mystical Magical Wekiva, a tale he had often told to local elementary and high school classes or local civic groups, about the marvelous history of the first human settlers on the river.

They only went about a half mile down stream, at his old raft's pace, but the river boy-man who in his youth had camped out for days and supplied his family with river fish and game told his Timucuan story. Years later, Eddie told me on the phone, the two of them met again, believe it or not at Disney World, each with a grandson in tow. "I want to thank you, Sir, for coming to the Wekiva that day," Eddie said.

"Such a beautiful jewel," the ex-governor replied.

I wanted to know how it could happen that Eddie and Lorraine, after so many years of enjoyment and so much support for the river, could ever bring themselves to leave. Eddie answers in stories. The first is a long and long-ago one about happening upon a wild man, living like a hermit, on an Indian mound along Rock Springs Run. While Eddie's describing his first slow approach to the stranger's campsite, just south of Camp Cozy, I'm wondering what this all has to do with Eddie's moving away. The man's name turns out to be Clyde Love and he occasionally swaps skins with members of the Apopka Hunt Club in exchange for store goods from town.

Eddie and Clyde soon become friends and begin to exchange gifts, swapping native artifacts for cans of pork and beans. The gist of the story comes out when the hermit gets too old for his river regime and a few hunters make arrangements for him to live his last days in a home in town. Eddie was there the day when Mr. Love met the hunters at the old ford. He saw Clyde kick away his handmade dugout canoe. Even now it's hard for Eddie to tell this story without tears. Then Clyde had a second thought and sadly hid the skiff where no one would find it.

The second story that makes us come full circle is the story of growth and development in the springs area. It made Eddie sick to see Conrad Kittredge and others planning such large projects right around the springs in the late '60's. "I wanted to leave right then," he said, and describes how he and Lorraine went to North Carolina and nearly bought a place up there. But then he decided to stay and fight to protect the river. Finally, in 1992, then, while serving on the Wekiva Working Group, Eddie saw the new plans for black bear corridors reaching up to the Ocala Forest and the rest of the comprehensive plans for the basin. "Steve," he said, "I saw Wekiva was in good hands and I could leave."²

² Eddie and Lorraine now run Florida Canoe Expeditions out of Monticello, Florida.

Eelgrass Roots: A Retrospective



**Anchored for Storms near Blackwater Springs
(my hiking buddy Bill Belleville)**

At the outset of this book, in our imaginary flight down the St. Johns to Wekiva, we found not one source or headwater, but three rich sub-basins, each with clusters of springs and other surface water drainages. In the same fashion, in the history of Wekiva's protection, working backwards from 1988, it would be wrong to find one source of this great achievement. However, for the sake of simplicity, I will pretend for a moment that they acted alone and ask the important question: how did the FOWR accomplish so much in six years. What does it take for a grass-roots group of nineteen to crack into the political and economic fabric of local and state life?

In this chapter we have had hints of the success involved in the Apricot project, the designation of Wekiva as an Outstanding Florida Waterway, the establishment of regional planning and buffer rules, an additional 6000 acres of land acquisition in the basin, including a major development called The Plantation that was forestalled and then purchased by Seminole county

after four years of battling, and finally the Governor's trip down the river as prelude to the establishment of the law.

We have also seen in the historical materials leading up to this decade, how the FOWR had optimum conditions for grass roots success: the right political system of comprehensive planning, an inventory of the native habitats, and a state budget to acquire, preserve, and restore the most vital parcels. Furthermore, they had the right cause, the river. As John Nolen's magnificent city plans reveal, the river should always be a cause for community.¹ Furthermore, the FOWR quite readily were able to organize and network with a group of other environmental groups to focus on the Wekiva. But most of all, they had the right mix of activists and professionals.

Most of the nineteen charter members of FOWR were friends and acquaintances from work with the Orange Audubon Society. About half of them were husband and wife teams. When it became clear that the source of the nutrient pollution was the city's effluent discharge, a new group was formed to speak specifically for the river. All over America this phenomenon has been growing faster than hydrilla. For twenty-five years, wherever you find natural bodies, endangered species, or threatened ecosystems, new advocacy groups have been showing up in government chambers to speak as their Friends. Since 1988, several of our charter members, still living in Florida, have become leaders of new advocacy groups like the Friends of Lake Apopka, the Friends of the Econlockhatchie River, the Native Plant Society, and the Nature Conservancy.

The extraordinary success of FOWR, however, has mostly to do with their professional character. Not every nineteen citizens starting a grassroots organization, whether to initiate or stop something, is going to succeed like this. When I give my powerpoint presentation about the Friends, I call this feature the eelgrass ethic:

- focus on the truth,
- make no enemies,
- build support by small steps, and
- take advantage of the momentum inherent in your strategy.

All the passion in the world to save the manatee is not going to stop the speeding boats if you can't prove that it is the speed that kills them or that the manatee population in this location where you seek a no-wake rule is actually declining. In Wekiva, we don't mind if science trumps the particular protection measure we are advocating. The river as a resource is far more complicated than a single species, so you need an array of experts and actual scientific studies carried out over sufficient time. A grass-roots river initiative amounts, really, to the practical application of all the sciences taught at our universities. If the truth has not already been found in scientific publications, then FOWR seeks new studies.

¹ Cornell University houses the best collection of his plans for cities like Boston, Roanoke, LaCrosse, and St. Petersburg.

Now the “We” in Wekiva is getting quite large and in as much as it is scientific rather than a bunch of backyard grouse at public meetings, to that extent does the advocacy group have a chance, not only to improve their local community, but to indicate by example how the science works across the state or the nation. Passion that gets over into anger and protest before it has brought critical thinking to the meetings will not succeed. Neither will mere schmoozing work in policy chambers without the baseline information and the relevant studies.

When I first became an active board member of the Friends, I carried a good deal of anger toward developers and politicians, their lawyers and staff, into the public meetings. It was amazing to me how calm and courteous our FOWR presenters always were. Pat Harden was the one who cleared my mind of such useless baggage: “We always have to imagine that tomorrow we will be back again to ask these same folks for something else or to show them some other truth.” We can count on the self-interest of the opposition and they have to count on our selflessness and honesty. The greatest achievements of this democratic system require this friendly accommodation between opposing forces, a legacy of Whitman’s sense of equality.

The next point of character at stake has to do with strategy. Working by a great number of small steps, the FOWR set themselves up not for one issue, but for all issues affecting the river. From the outset in the charter, they were both a NIMBY anti-pollution group, and a NIABY (Not in Anyone’s Back Yard). Every week new ad-hoc citizens groups show up at planning and zoning or county commission meetings to voice their disapproval or approval of some issue close to their home or heart and then when the vote is in, they go home satisfied or angry.

The FOWR are more like those who become advocates and supporters for the victims of disease or a specific social ill because they or someone they love contracts the disease or has the problem. Their concern moves quickly from the one case to the whole population of such cases and beyond that to study and prevention. The river community works the same: in for one issue, out for all the plants and animals, children and adults, today and tomorrow. The small steps are largely made up of thousands of phone calls, letters, and office visits. The correspondence alone of these six years fills the better part of a file drawer in the FOWR archives.²

Attending board meetings on a regular basis, you get a sense sometimes that nothing is happening and at other times that everything is happening at once. This addresses the final element of grassroots success: timing is the essence of good strategy. Once the legislative session begins in the state capital, for instance, all energies have to be ready for release. Our technical experts are always trying to measure which meeting and which part of that meeting will be crucial to decide the issue, to offer the appropriate recommendations.

² It took us two years to prepare the FOWR papers from 1980-96 for deposition in the Special Florida Collection of the Olin Library Archives at Rollins College. Reading through the hundreds of folders and the 125 published studies the FOWR has been using to make its various cases has helped me get a feeling for this chapter.

Building the River Community, Step 3



At the end of our third run, the year is 1988 as we spiral suddenly to an important summit of Florida history, The Wekiva River Protection Act. It would be difficult to underestimate the importance of this event for the establishment of an enduring sense of regional identity. Love for the river has finally materialized into law. What next?

Your assignment, should you choose to accept it, is to build your own river community. “But,” you may say, “our river is already spoiled by urbanization and manufacture that comes right up to its banks and pours %&*(*%# directly into it.” The river still runs, doesn’t it? The foul, fishless river or canal of today can flow down to the sea tomorrow, a new and livable ecosystem.

Join the friends of your river or start one up. Focus first on the restoration of the aquatic organisms, until the full life of the river is

restored and people can safely fish and eat. Then figure out how to make a safe place to swim in it; canoe, boat, and kayak it. Tend to the basin and the runoff, neighborhood by neighborhood. Look for ways to reclaim riverfront property, and then establish buffers for future building and use. Return the trees and shrubs that are natural to the region. If we build better habitats, the rare and endangered will come back.

In the next millennium, as sprawl is reversed and cities rebuild, get your city council to hire a John Nolen or Frederic Olmsted to link natural areas with bike trails and light rail, teaching the city to take advantage of its prospects and parks. The new urbanism has completely redesigned the kinds of roads and human traffic ways—walking, skating, biking, and so forth—so as to accommodate the natural differences between urban, suburban, and rural qualities of community life.

We have two sections of the river yet to explore and they reveal by their wealth of natural history and wildlife, just exactly what we have to gain if we build our river community by this grand strategy in small steps.

WHITMAN'S ENVIRONMENTAL IMAGINATION

A Hexose Carbon Ring of Poetic Ideas

Taken from the Early Whitman Journals and Notebooks¹

I.

The great mystery in Whitman's life is how he became the quintessential American poet. He dropped out of school and started to work when he was just twelve. Whereas Thoreau went to Harvard and listened at the feet of Emerson, Whitman moved from job to job in the printing and publishing business. For two decades he was writing and editing in the burgeoning new industry of American newspapers with the urgency of daily or weekly production. He did some teaching. His early attempts at short fiction were ghastly. He was doing plenty of ephemeral writing and certainly was well read, but none of it promised a single poem, let alone *Leaves of Grass*. In many ways, it appears that the first great collection of American poetry (1855) is the best example in literature of creation from nothing.

I wanted to solve this mystery by looking through all the records of his notebooks and unpublished manuscripts, anything that preceded the first edition. Eager to find support for the ideas of democracy and the species self, I was also looking for any other elements that might have engendered the project or provided the complex foundation of the poems which had given such a sense of depth to the life I was building. I found much more than I was looking for.

An ecology of ideas emerges in these candid scraps of Whitman's developing thought. They are not just **his** thoughts, of course, but largely seem to be connected to the science and thinking of his time. What's new about *Leaves of Grass*, however, is that while science has been making wonderful discoveries for two centuries now, no Lucretius has been celebrating the poetry of those inventions.

The scientific ideas of his day are, as we would say in the 1990's, "new age" materials, but the notebooks and early manuscripts show us about the new poetic language that expresses them. "Great is language," Whitman scribbled in 1855, "it is the mightiest of the sciences" (Kaplan 228). The shifting of voice in Whitman's notebooks is especially intriguing to watch in these early materials, especially when he moves an idea from the third person reporter to the first person, song-of-myself mode. Such pre-rhetorical flourishes of *Leaves of Grass* help us to see how the new poetry gains its

¹ This essay uses Grier's Notebooks and Unpublished Manuscripts, Vol. 1 (NUPM); it was delivered as a paper at ASLE's second biennial conference in Missoula, Montana, in 1997.

integrity as an organic, relatively consistent flowing forth with an accomplished and seemingly well-trained voice.

The following is my thesaurus of the four hundred pages of Whitman's earliest scribblings, set forth in the form of a hexose carbon ring of motifs that mirrors the pattern of the glucose molecule.² Whitman is the first poet of thermodynamics and metabolism, of the plurality of worlds and the geological eras, of phrenology and body chemistry, of photosynthesis and solar energy.³ So his chorus includes the voices and discoveries of men like Lavoisier, Laplace, Buffon, Whewell, Lyell, Agassiz, Liebig, Youmans, and especially Robert Chambers whose *Vestiges of the Natural History of Creation* (1844) was a compilation of many of their theories into a grand evolutionary scheme. The dynamic molecular interactions of this carbon ring launched the poetry of the modern era, the first major work of a purely democratic nature, and the primary “epic” of deep ecology in our culture.

II.

Carbon¹

Equality and Equilibrium

The biological force behind Whitman's sense of equality is inherent in the symbol \Leftrightarrow , less-than-equals-greater-than. This is my icon for a reversible process which eventually equalizes in terms of two opposite rates of chemical reaction. For example, consider this note from the late 1850's, where Whitman spells out the dynamics of matter and spirit:⁴

All through writings preserve the equilibrium of the truth that the material world, and all its laws, are as grand and superb as the spiritual world and all its laws.-- Most writers have disdained the physical world, and they have not overestimated the other, or soul, but have under-estimated the corporeal--

² In tackling the problem of sifting through the four-hundred pages of Grier's *Notebooks and Unpublished Prose Manuscripts* (NUPM), I decided to use a technique of thesaurus production I had developed for the study of Chaucer's vocabulary in *The Canterbury Tales*. Reading each note and journal entry, I assigned topics using the vocabulary of the poet as much as possible. Once I had an index of all the topics, in the manner of Roget, I threw out the mundane and organized what remained into groups and classes, based on the number of occurrences. In table I you can see the six major concepts and the intricate way they correlate with one another. First we can look at the evidence for Interludes I and II, and then I will explain why I created a new term for the third of Whitman's major concepts.

³ For a quick outline of the sources of his scientific knowledge see <http://web65.rollins.edu/~sphelan/NINETEENTH.HTML>.

⁴ The spacing in these citations sometimes indicates separate items of entry and sometimes just contiguous or related entries where one is not even finished before the next is entertained.

How shall my eye separate the beauty of the blossoming wheat field, from the stalks and heads of tangible matter?--how shall I know what the life is except as I see it in the flesh? I will not praise one without the other, or any more than the other--the least one of the /

Let the idea of Equality stick out--my best-- /

(NUPM 360)

Whitman's environmental imagination pitches body and soul, biosphere (environ) and noosphere (mental work), species self and individual ego, poetry and earth in a dynamic equilibrium of fully reversible processes. Decidedly postmodern in its effort to abase privilege, Whitman espouses a purely democratic seme<=>antics where many traditional axes of power are flip-flopped and neutralized:

body	<=>	soul
female	<=>	male
sin	<=>	virtue
reader	<=>	poet
animal	<=>	spiritual
death	<=>	life
nature	<=>	mind
old	<=>	young

These dynamic dualisms allow the poet and his readers to engage in something devoid of the sublime in any one pole or detail, but richly sublime in the ensemble. Whitman assumes there is an ecology that science had not yet studied; he imagines self-regulation through that long evolutionary process that generates a fully reciprocal system. For example, take the paradigm case of inferior <=> superior that governs all eight dichotomies as I have represented them above. Many a reader is troubled by Whitman's arrogance, but the foundation of his achievement is in the sense of equality with the reader which he holds forth at almost every line of "Song of Myself." Perhaps the journal seed of this idea will help:

*Where is the being of which I am the inferior?-- It is the [blank] of the sly
or shallow to divide men like the metals into more precious and others less precious,
intrinsically.*

*I never yet knew how it felt to think I stood in the
presence of my superior.-- If the presence of God were*

made visible immediately before me, I could not abase myself.-- How do I know but I shall myself [blank]

("albot Wilson" NUPM 56)

We can find this kernel of truth expressed objectively (i.e., in the third person) in an earlier entry about the American character, which is to be "illimitably proud, independent, self-possessed, generous and gentle.-- It is to accept nothing except what is equally free and eligible to any body else." Whitman moves easily back and forth from the American to I, from the human sphere to all beings. Hundreds of lines in "Song of Myself" put the human up against the smallest or least significant element of the universe: the blade of grass, the rock, the mite, the atom. Nothing and no one is the meanest of things or of humans.

While Whitman recognized a pattern of progress in evolution (his term for it is *amelioration*), the I in "Song of Myself" is often an abstraction to the entire cosmos and its every detail--all are equal. He might just as well have asked, "Where is the being of which I am superior?" The poet abhorred the "precious" human and went out of his way to applaud the meanest and most sinful of the species with whom in this composite voice he completely identified. However, when he operated in historical time and looked at America, he often was depressed by what he saw and identified the meaner elements or baser metals quite readily.

Whitman's refusal to abase himself before God in this note seems blasphemous at first. Its larger re-workings in section 48 of "Song of Myself" are easier to understand. Whitman wanted an end to kneeling, the feudal gesture that bespeaks hierarchy. Galaxy and blade of grass, prostitute and prokaryote, the mite and the mitred, all are *natura naturans* (the creator in the dynamic process of creation), all governed by the same thermodynamic ethos. No inferior or superior obtains because each is turning into the other.

Thus, Whitman would destroy the Great Chain of Being that has governed western culture for more than a millennium, and in its place invoke a Great System of Becoming where essentialism dissolves and equality prevails. Darwin usually gets credit for changing the mindset of Western civilization in this direction, but Whitman anticipated much of the history of biology and its effect on our thinking.⁵ As Youmans puts it in 1870, speaking of the influence of the thermodynamicists, "material ideas are

⁵ In *What Makes Biology Unique?* (2004) Ernst Mayr, the biologist turned historian and philosopher, has maintained that Darwin's book is the most important in the western world after the Bible. Most of what he describes as the autonomous characteristics of biology stems from systemic thinking of the kind that inheres in Whitman's poetry of earth.

giving place to dynamical ideas.” Whitman elevated such systemic thinking to the grand scales of a new literary music.⁶

Carbon²

Self: The Chemical Atlas and Whitman's Composite Voice

Whitman's voice is clearly composite, an hilariously new and troublesome feature that he invented. It differs from the Greek chorus in that it is a solo voice with a choral quality by reason of its reverberation through the timeless community of the entire species. It is not a blend of tones, but of thoughts, Emerson's Man Thinking perhaps, but very much out loud and outdoors. It does not use the plural pronoun *We*, as in Eliot's "We are the hollow men, the stuffed men," but rather the singular pronoun and its reflexive, the I-myself. Evidence for this species self shows up first in his early notes for a poem which, in my opinion, has to be "Song of Myself":

Poem incarnating the mind of an old man, whose life has been magnificently developed--the wildest and most exuberant joy--the utterance of hope and floods of anticipation--faith in whatever happens--but all enfolded in Joy Joy Joy, which underlies and overtops the whole effusion/ (NUPM 102)

A few pages later in the notebook, this same man has an "I" that is eonic, made of star stuff, a chemical Atlas (see Liebig and Youmans), a vestige of the whole natural history of creation (Chambers), a Kosmos (Humboldt); and he is taking the full measure of his origins and development, as any one of us might:

*Amelioration is the blood that runs through the body of the universe.--I do not lag--I do not hasten--I bide my hour over billions of billions of years--I exist in the void that takes uncounted time and coheres to a nebula?, and in further time cohering to an orb, marches, gladly round, beautiful tangible creature, in her place in the processions of God, where new comers have been falling in the ranks for ever, and will be so always--I could be balked no how, not if all the worlds and living beings were this minute reduced back into the impalpable film of chaos...
such is the*

⁶ In *Charles Darwin: Voyaging*, Janet Browne has dramatized superbly the effect on Darwin of the anonymous publication of *Vestiges of the Natural History of Creation*. He felt he had been scooped by an amateur and struggled mightily with the outrage of the book's many critics because these were the very ideas he had been working for years to prove scientifically. Too bad Darwin had not read *Leaves of Grass* first, a poetic version of nineteenth-century science worthy of his grandfather Erasmus, the natural philosopher-poet.

*Tongue of a million voices, tell us more. Come, we listen with
itchings of desire, to hear your tale of the soul.-- (NUPM 104-105)*

I take this notation to indicate that the speaker of the poem is literally fifteen-billion-years old with the body of the universe that is in a state of development or betterment. Then Whitman tries out the concept as an I, and immediately it carries all the bravura of the poem I love. So now listen to the harmony of the complete carbon-ring of concepts in this lyrical passage from another notebook, just a phrase or two away from entry into the 1855 edition:

*I want a sublime of Hymn Chorus and orchestrium, wide as the orbit of suns,
reliable as immortality and filling my capacity to receive kisses as the sea fills scooped
out valleys. Tenor clean and fresh as the Creation whose vast pure volume floods my soul
I want the Soprano that over-leaps the stars . (NUPM 125-126)*

The passion of these notes is uncanny, spurting out at almost every angle and design. They show that somehow, from the start, Whitman was a deep ecologist.

Carbon³

Magnanimal: Whitman's Concept of the Spiritual Animal

I had to invent a word for this part of Whitman's land ethos and its relationship to wildlife, the theme of our next river chapter. From an early notebook, we can get the idea of how Whitman prefers the human perspective, while not separating it from nature:

*I know well enough that man grows up becoming not a physical
being merely, but markedly the mental being of the earth,--the esthetic and
spiritual being...*

*...he is to be the seer of nature--he only can celebrate things,
animals, and landscapes-- His mentality is a quality to be used toward
things, as his vision is used*

If he depart from animals and things he is lost.

*In other words, man is not only an animal like the others, but he alone has the quality of
understanding and of telling how divine a thing an animal is--what life, matter, passion,
volition are:*

*He alone carries all the substances of the world, by this quality, in
himself, and illustrates them. (NUPM 362)*

One remarkable pre-Darwinian sense of this entry is that we endanger ourselves by parting with nature. The intuition working here is that the mind of humanity is made of nature, by nature, and for nature. Herein lies the central force of Whitman's environmental imagination: mind moves toward => nature as nature moves toward => mind.

In another entry, dated 1857, we see Whitman's prescience on the issue of variation and development in the species.

A main part of the greatness of humanity is that it never at any time, or under any circumstance, arrives at its finality--never is able to say, Now, as I stand, I am fixed forever.--If any one has the feeling to say, I am fixed--and retains that feeling--then a longer or shorter farewell to the greatness of that humanity....O I see now that I have the make of materialism and things, and that intellect is to me but as hands, or eyesight, or as a vessel... (NUPM 365)

It is clear in this quotation that he is not just speaking of a person's lifetime of changes, as in the illustration of a voice, but of humanity itself through the eons. He thought he stood at the edge of waxing democracy and hoped (in vain) that feudalism was waning. Alive today, he might conclude that cultural evolution is indeed a slow process.

My reason for choosing the word *magnanimal* to express this idea is that it retains ambiguity and some novelty. It engages the two theses of the poem which Whitman recognized in the following note:

My two theses--animal and spiritual--became gradually fused in Leaves of Grass,--runs through all the poems and gives color to the whole. (NUPM 383)

Carbon⁴

Immortality and Time

Somehow or other, Whitman seems to have intuited the effects of the twentieth-century concepts of quantum physics and relativity theory. In a continuation of the passage on amelioration cited above in Carbon², he describes his eternal scope: "my right hand is time, and my left hand is space" (NUPM 105). Since I have already written about the bio-temporal focus of his work, I will not include here any more of the notebook material on this topic than has already been shown under other headings.

Whitman's unusual understanding of time is a part of transcendentalism, geology, and the nebular hypothesis, but it goes far beyond his reading in the sciences of his day. In many ways, it is a special concept of his own making, as the following short unpublished note reveals. The manuscript in Whitman's own hand came to Rollins College with the papers of William Sloane Kennedy and is part of the Special Whitman Collection of the Olin Library Rare Books and Archives:

In my opinion it is the
 idea of ^{above all other ideas} Immortality, that is to
 enter essentially into, & give
 final coloring to Democracy.
 ... As the highest achievements of
 the modern genius are to furnish
 a yet unknown & undreamed
 of Development for the masses
 of the people, the ~~most~~ ^{the} ~~most~~ ^{the}
 & broadest avenue toward that
 result is probably to be the
 entrance by common humanity,
 in due time, upon entirely dif-
 ferent & far more spiritual
 views of Death.

What a spectacle will
 that be of future New World
 Philosophers & poets - successive
 Dynasties of them - depicting
 heroic ^{such} life & ^{such} spiritual Death
 - making of average man a
 God - embodying in superior
 poems the whole genius of De-
 mocracy - ^{arrived at last} justifying its slow
 progress, & its long & varied
 Developments through History &
 Time - illustrating by works
 ahead of any yet its Culmination
 in These States - portraying ^{new &} per-
 fect races of Women - & finally
 developing, beyond all hitherto,
 & adjusted to Science & the mod-
 ern, the ideas of the Immortal,
 & of that viewless & Unknown
 Experience, ^{that stage & sphere} which all that goes
 before & all we know or view
 is doubtless ^{not only for itself but} ~~merely~~ the prepar-
 ation ^{for identity}.

In my opinion it is the idea of
 immortality above all other ideas,
 that is to enter essentially into and
 give final coloring to Democracy. As
 the highest achievements of the
 modern genius in Literature and Art
 are to furnish a yet unknown and
 undreamed of Development for the
 masses of the people, the broadest
 avenue toward that result is probably
 to be the entrance by common
 humanity, in one time, upon entirely
 different and far more spiritual views
 of Death.

What a Spectacle will that be
 of future New World philosophers
 and poets- successive dynasties of
 them - depicting such life and such
 Death - making of average man a
 God - embodying in superior poems
 the whole genius of Democracy,
 arrived at last - justifying its slow
 progress, and its long and varied
 developments through history -
 illustrating by works ahead of any yet
 its culmination in These States -
 portraying new and perfect races of
 Women - and finally developing,
 beyond all hitherto and adjusted to
 Science and the modern, the ideas of
 the Immortal and of that viewless and
 unknown experience - that stage and
 sphere which all that goes before,
 and all we know or view, or fancy we
 know or view is doubtless not only for
 itself but for identity - for
 preparation.

Courtesy of Rollins College Archives

Carbon⁵

The Body Electric

Whitman's commitment to body is what got him in trouble with many of his first readers. His poem "incarnates the mind of an old man," that is, puts body to his vision. The notebooks do not prepare the reader for the sensual passages that scandalized his Victorian and puritan-leaning readers, but the idea of the centrality of love and sexuality is prefigured in a number of ways. Here are just a few of the passages that point in the direction of body, earth, and love:

My life is a miracle and my body which lives is a miracle... (NUPM 63)

Wickedness is most likely the absence of freedom and health in the soul... (hence, not of the body: NUPM 65)

I am the poet of the body / And I am the poet of the soul / I go with the slaves of the earth equally with the masters... (NUPM 67)

I am the poet of little things and of babes / Of each gnat in the air, and of beetles rolling balls of dung... (NUPM 70)

Most writers have disdained the physical world, and they have not overestimated the other, or soul, but have under-estimated the corporeal— How shall my eye separate the beauty of the blossoming buckwheat field, from the stalks and heads of tangible matter? — How shall I know what the life is except as I see it in the flesh? (NUPM 360)

Carbon⁶

Poetry: an Ecological Definition

Every soul has its own individual language, often unspoken, or lamely feebly haltingly spoken; but a true fit for that man, and perfectly adapted to his use.

(NUPM 60-61)

The poet has the divine grammar of all tongues, Whitman imagines in his predilections prior to the publication of *Leaves of Grass*. He sees the poet as the translator of and joiner of the whole of creation. This is why science is essential to his vision. The poet cannot be a Nature-faker, as his friend Burroughs was at pains to show all his life, but must integrate the work of the sciences.

In 1995 Lawrence Buell published the first major critical study of nature writers in America, *Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture*. As the title indicates, this eco-literary study takes account of the

tradition of nature writing in America from the dean of Walden academy. At the time of its publication, my own exploration into Whitman's environmental imagination began with a reading of the substantial scholarship which proves Whitman's debt to nineteenth-century science (see Aspiz, Asselineau, Beaver, Poirier, Reynolds, and Scholnick).

In 1996 when I got a chance to read Laura Walls's *Seeing New Worlds*, a fine study of the scientific tradition in Thoreau, I thought, "Holy beanfield, they have the same starting point," what she calls "empirical holism." Both men were seeking to move from the experience of the natural world to some totality. Thoreau, of course, was far more empirical. After all, nothing in these Whitman records shows the scientific method of Thoreau's careful study of how seeds are distributed in the forest. The major difference I see, then, in their environmental imaginations has to do with a basic difference between poetry and prose: Whitman's experimentation in language and form to suit the audience and the message of the carbon-ring of his poetic ideas and the password primeval.

Through a variety of still unappreciated inventions of language, Whitman goes far beyond Thoreau when he dreams of combining dynamic community building with self-reliance. He is especially interested therefore in restoring the language of the *demos* to literature. Even now we struggle to overhaul the language to account for dynamism, to move from atomism and reductionism to a sensible wave/particle dance, to a fully systematic thinking.

For Whitman, environmental imagination requires a word-shaper. The subject of poetry is creation, especially in the immediate mode, the here and now. Poetry (and by analogy nature writing) is inherently an act of community building. It assumes an audience, sound, voice, body, and rhythm. Whether we're talking of an essay, a short story, a long novel, or a trilogy of novels, the poet-author is one of us.

In 1976 when *Leaves of Grass* first got to me, Whitman became me. Poetry is an important energonic process, i.e. the leaves of Whitman's poetry are full of life experience stored in code for Americans to transcribe or translate into their own life and behavior. As Mary Austin put it, "experience is an amulet" that anyone can have or share through story or poem. The great books of poetry sit in the library on a shelf or else in cyberspace waiting for our downloading, sequestered like the sugars in our leaves and vegetables. Whitman's idea of such suspended animation is quite natural for Floridians because we have connate water lying in the deep rocky sediments, waiting in our underground caverns for Wekiwa to spring into germination. Just as the eggs in our mammal bodies are waiting half a lifetime to be fertilized, formed, and delivered into the breath of life, the poetry of America resides in us. Every stage of our bodily development is awaiting the proper circumstance, time, stimulus, and evocation to become the power in our life, family, and community.

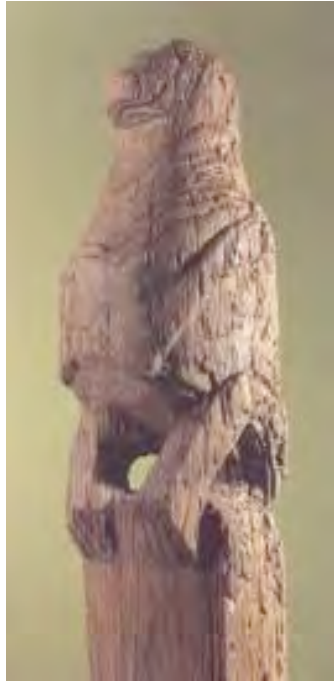
Chapter IV

The Lower Wekiva: Wildlife and Spirit

- The Lower Wekiva, the Preserve** [An overview of Run IV. 3pp]
- Where's Momma?** [Exploring the mudbed at the confluence of Blackwater Creek with the Lower Wekiva. 3pp]
- Lower Mammals on the Backwaters** [Three months of record rainfalls open up new back channels in the lower basin. 4pp]
- Blessed Are the Meek** [A meditation on the phrase “inherit the earth” in the context of the river’s beatitudes. 4pp]
- Barred Owl Elegy** [An uncommon experience of owls by daylight. 4pp]
- Scales** [A hike in the Lower Wekiva River State Preserve reveals the importance of scale in our observations of nature and humankind. 4pp]
- The Dommerichs and the Blackmans** [Pioneer developers envisioned and created a full-bodied community in central Florida with all the essential elements of agriculture, cattle, banking, railroad and steamboat transportation, education from K to college, church affiliation, libraries, and a strong family network. In addition, these two couples were also charter members of the Florida Audubon Society. 6pp]
- Katie's Landing** [A poem is a paddle. This chain of kayak verses presents a gallery of wildlife Bill and I found along on the way to Chub Slough and back. 11pp]
- Muckwalking** [Leaving the kayaks, we hike up a sulphurous creek into the sedge. 4pp]
- Limpkins and Turkeys Wild** [An exploration of the domains of quiet in the Lower Wekiva introduces us to the gobbler and the squawker. 6pp]
- National Wild and Scenic River: 2000** [National recognition comes to Wekiva, one of only three wild rivers in the east to receive federal recognition and support. 3pp]
- Interlude IV: Whitman's Quaker Spirit** [A share of Bartram's ecology somehow came to Whitman's *Leaves of Grass*. 9pp]

IV

Wildlife and Spirit

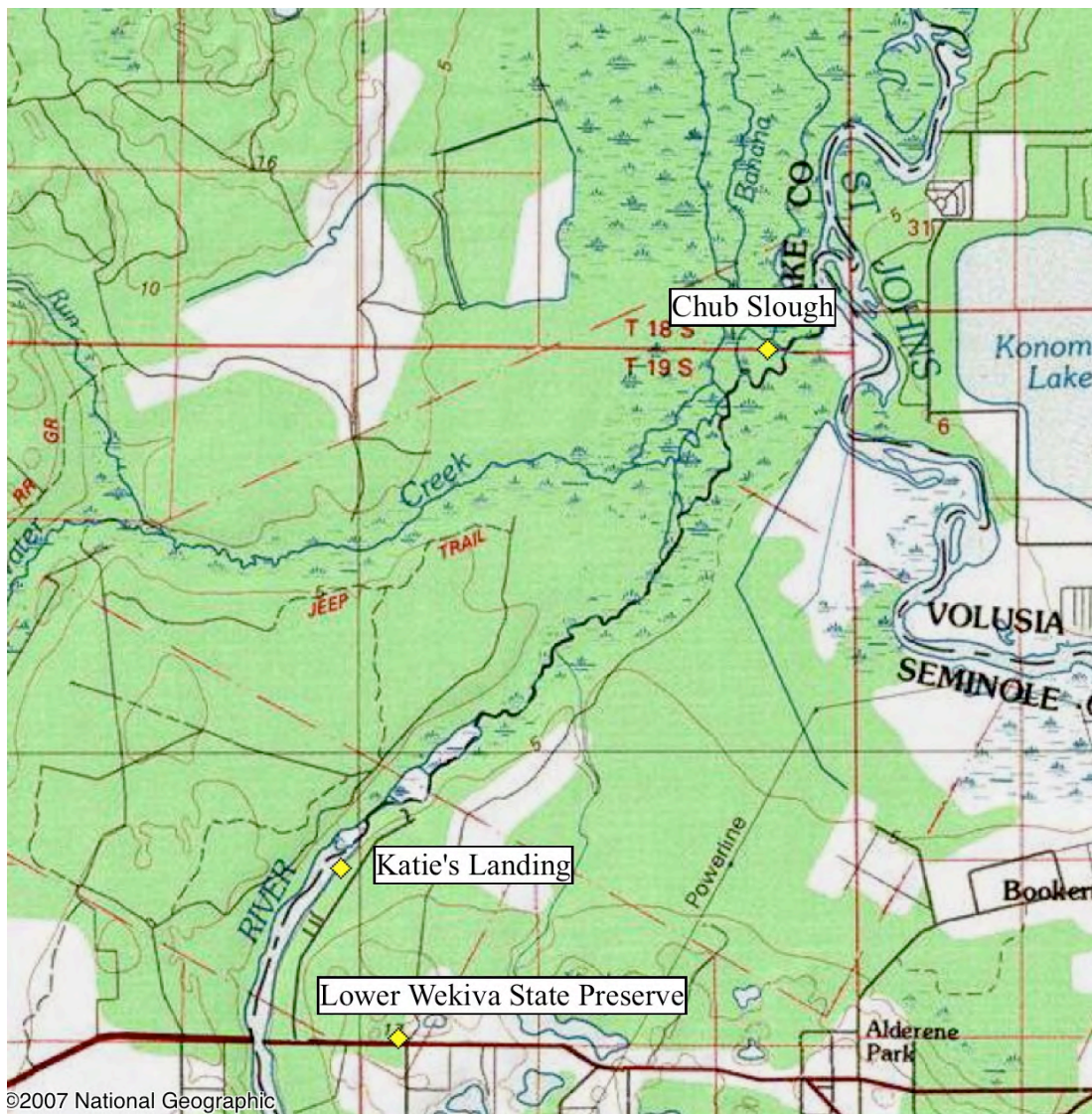


Timucuan Otter: wood carving

**From *Indian Art of Ancient Florida*,
by permission of Barbara A. Purdy
and University Press of Florida,
photograph by Roy A. Craven**

The Lower Wekiva River, the Preserve

No one seems to know where the Lower Wekiva River officially begins. It certainly has to include all of the Lower Wekiva State Preserve, and beyond that one can only ask how much of the Flats that would include. For 4.5 miles, starting south of the State Road 46 bridge, the river is wider than a turnpike, 500-600 feet in places, going under the bridge all the way to Katie's Landing. Along the flats north of the bridge on the east side are a few small springs and the remains of some Indian mounds.



Down the highway you can find the entrance to the Lower Wekiva River State Preserve and some great hiking trails that parallel the river and arc across the northwest corner of Seminole County toward the St. Johns. At the end of the trail you can look out over long stretches of sawgrass and cattails, knowing that beyond them out of sight lies the St. Johns. Some nineteenth-century home sites were built in this area over toward Sanford, but now there's not much of a trace left of the folks who first settled the area on carved up pieces of Spanish land grants.

The Preserve is also home to the offices of the Aquatic Preserve where for years Deborah Shelley and her staff have monitored the quality of river life, plants, insects, fish, birds, bears, and especially exotics so as to keep the river healthy. On the west side of the lower river is the Seminole State Forest which extends far north into the territory of the Blackwater Creek. The Florida Trail runs across the SR46 bridge and up through the state forest into the Ocala National forest and beyond that to the panhandle.

State Road 46 is now a two or three lane road carrying too much traffic for the past few years and slated for expansion to four lanes. The road kill of bears and other animals on this highway is staggering, and even though a million dollar underpass with two miles of fences to funnel the critters to the undercross has helped, four lanes will be very treacherous, esp. at night, for two and four legged animals alike. ¹

After years of fighting to prevent the outerbelt from crossing the Wekiva basin, advocates of the river are now working with the expressway authority to build an ecologically sound superhighway that is largely elevated. In addition, we want the legislature to make a law that will limit the number of exits on the toll road and restrict the densities of growth in the vital recharge areas which are farther west of here. This means trying to get a new law to expand further the protections for the quantity and quality of the water flowing out of the springs.

Paddling north from the SR 46 bridge we come to a small island that marks the place of the only substantial spring in the Lower Wekiva basin. Island Spring is not on the island, but south of it, in the middle of the main channel, completely underwater and invisible to all, except the fully initiated cave divers. There are a few small boils along the east bank above and below Island Spring, but this is the last known place on the Wekiva where the river below meets the river above in a passable cavern.

The last stop on this tour of the fourth segment of the Wekiva is Katie's Landing, the premiere campground with kayak and canoe rental. Even though it is closed, now, and purchased by the state, it stands for an era of great good sense on the part of the people of Florida and especially the three counties in the basin charged with the responsibility to provide growth with good

¹ In a study of roadkill along 30 kilometers of SR46 and SR46A, 381 carcasses were found during a 20 month period (Nov. 2001-Aug. 2003). Raccoons and possum topped the list of 242 mammals, including 9 black bear. Of the 100 reptiles and amphibians found dead, 20 were gopher tortoises and 4 eastern diamondback rattlers. 28 birds were counted: 1 sandhill crane, 4 barred owls, 2 osprey, and 7 chickens. These numbers were much higher before the underpass was built.

measure. In the past thirty years, Katie and Russ Moncrief have been the mediators of the river to the community and have hosted especially all the major river events of the Friends of the Wekiva.

In many ways, the least glamorous part of the river, the stretch from Katie's down to the Blackwater and Chub Slough is my favorite. My heart clings to the cypress tree between the launching strip and the canteen at Katie's, the two wooden chairs underneath, facing downstream across the broad flats where tall grasses full of grackles and red-wings show all the people of central Florida the good life. "Good Lord," they say, "what did we do to deserve this?"

Where's Momma

"Wow!"

Ten feet behind Bill and his stalled kayak, I look over his shoulder to see what can be causing such exclamation from my usually subdued companion. We have just entered a very shallow finger of the Blackwater Creek, right where it flows into the Lower Wekiva River. Only a bar of sand and a lot of brush and snags separate us from the river and we ourselves hardly fit in this narrow passage. To Bill's left is a twenty-foot long snag nestled in the muck that halfway down becomes water a few inches deep. In front of him, squinting with all my might where he is pointing, I see a bunch of little lifeless branches stick up out of the muck. It is a brown-black soupy moonscape and so with greenery directly on our right, it seems only a very narrow space of water will get us through and up the Blackwater.

"I can't see a thing," I answer, not knowing what to look for. His exclamations of amazement and my eye straining continue for quite a while until the identifying word is uttered: "Can't you see all the gators? There must be fifteen or twenty of 'em." Now I realize my problem. We are looking for the proverbial baby in a muck stack. I can't really get much closer. Our kayaks are already practically stern to bow, so I crane my neck and jockey myself into the muck on the left until over the log I finally spot one golden-ridged, eight-inch body curling up and down over a small branch, then the movement of several other bodies in the slurp.

Meanwhile Bill's mind--a formidable contraption, indeed--has gone back to the age of the dinosaurs and is completely detached from this world. One larger gator amid the others looks to be two feet long, but the rest all fit the range of men's shoe sizes. A few clumps of mud sticking out under the branches eventually join the general movement. Eyes do not seem to matter in this medium; this is basically a swarm of muddy blind snakes crawling over each other for no particular purpose. We are at the first stage after gator genesis. Remember reptile, thou art muck, and unto muck thou shalt retire.

Muck is the in-between substance of water and land. It accumulates in huge quantity in these swamps because of all the trapped leaf matter. It is May now and the cypress tree on our right--five feet thick--has a magnificent crown of new green, towering ninety feet above us in the grandest of sun-skies with high cirrus brush strokes. Its roots and knees prominently spread all about us, the tree grabs deep into the primeval slime, the richest of nutrient beds. The mystery of the forest, now fallen black under water, compels our reverence as we watch the many gatorlings, all now awake and in full commotion.

As Bill takes out his disposable camera for a few shots--wishing he had his camera team here that is making the documentary film on the Wekiva--my mind begins to engage the situation in terms of property rights.

I know who owns Blackwater Creek at this bend and she can't be too far away. Five minutes ago, as we edged off the Lower Wekiva, Bill reported spotting a ten-footer back to the left and going into the water. The little ones are now making a feeble grunting noise and we are both wishing we could translate it exactly. It sounds pretty clearly to me like "Mommy, help!" and I begin to back up. We are effectively cornered in here, no room to turn around and no depth to speak of. Momma will neither walk nor swim here, but simply wag that five-foot 100 lb. tail and pull those fat haunches up over the weird aqua bubbles into our laps.

Accordingly I start to urge Bill to give the babies a little space and to back off or push on through. It does seem that what accounts for our safety so far may be that the mother is ahead of us so that we might worsen our situation by getting ourselves between the mother and her brood.

Yesterday I was taking notes for a piece on property rights in nature and here we find ourselves in the squirming middle of it all. I can tell you the movement of the titles to this piece of river swamp. It belongs to the State of Florida by rights of purchase and before that by conquest. But the cypress tree and the gators have been living here in perpetuity long before; and indeed, from the gator's point of view, we are the invaders or immigrants who have entered her river system, trespassed across her property lines (this fringe of the Blackwater Creek), opened the door to her house, and are now sitting in the middle of her bathroom and nursery. Not even a safe-cracker would be in more jeopardy of the natural law. As small as these babies are, we should not be caught with our kayaks in the muddy bassinet. We've gone way beyond property to parental rights.

We joke about these things for a while, but fascination keeps Bill right in there, taking out his binoculars for a closer look. Backing up, I weigh the chance of my quickly lunging at the shallow sandbar leading down to the brush on the left and escaping into the main river. The saw grass at the edge shows this is an ideal nesting site, but I see no gator nest in there. I can see the river no more than fifty feet away, but the driveway through there is all but two inches above sand or muck.

As I take out my binoculars, the largest gatorling crawls up on the log next to Bill, not ten feet to his left and faces him. His body lacks the bright gold juvenile's markings, his shape also smoother and his head more round. He looks more like a short fat eel than any four-legged reptile. The babies crawling up there and over his tail have weird knobby heads that raise up from their thumb-thick bodies and seem awkward or not fully formed.

Imagine the 200 million year-old-brain in there,, growing by roughly the same patterns of DNA-hormone production as we all follow from muck to grave. My fear says I am not yet ready to die, but this birthplace would make a grand cemetery for one who loves Florida as much as I.

The important question is not so much who owns Blackwater Creek, but who can say, by the manner of his or her living here, that they love and care for it. The politics of property rights masks the real issue: starting from my own bedroom or nursery, how far does my love and care go? Believe me, we can't prove to a charging reptile giant how much we care about her offspring or how sorry we are we trespassed her front door.

After fifteen minutes of watching the wallow in the black-brown ooze, Bill finally picks up his paddle and decides not to push on: "Let's go back and see if we can find that ten-foot momma."

She's not to be seen at the creek mouth, but a few minutes later, heading back up stream we see on the far bank, in full sun, a shiny black-leather ten-footer--they all look alike to us--and wonder. Another great day on the river, no two even close to the same.



Mushrooms on a Log at Blackwater Creek

Lower Mammals on the Backwaters



Rock Cub Spring, Seminole State Forest

3/13/98

The river is higher and wider than we have ever seen. The day is crisp and clear, the trees all sporting their best new green. A large flotilla of hyacinths with a handful of grackles picking over them floats downstream at a brisk pace, a special kind of freeway. Our plan is to "get off the river" to the newly opened back channels to discover possibly older patterns in the criss-cross tweed of the river's history.

Within a few minutes of Katie's Landing, by hooking back up under a few small trees and into the other arm, we leave the known and venture into the newly accessible unknown. In every direction, no matter how far back between the trees we scope, nothing but water shines through. No current to speak of, but a subtle flow occupies the chilly waters. Last night was in the '30's. This lower mammal is keenly feeling the loss of orientation when, moving from river to swamp, it all looks the same.

I became the lower mammal a few weeks ago when wind and storm clouds in confirmation of some predictions of severe weather made me suggest to Bill that we might be better off

turning about. He thought we should resist the instincts of the lower mammal and proceed. He was correct, but I haven't let him forget it.

Lacking the chemistry to mark my trail like a wolf, I try now to memorize important landmarks, like the sharp dead tree that sits horizontal on the left and has the lines of a musical score. As I pass it, I reverse my kayak to record what it would look like upon return. Four or five such markings later, I despair. Nothing looks the same from both sides. It's like trying to learn a long, strange alphabet backwards, so finally I give up. My friend, long used to cave-diving, thinks this is no challenge, wants to come back at night, preferably moonless, so we can **really** get lost. "What good is the wild, if you can't get lost in it," Bill muses.

Our sense of joy is five-fingered and electric, as green as the newest growth. My mind is trying to calculate the incredible amount of photosynthesis that must be occurring right here now, with a full Florida sun and all this water--the mightiest of factories silently pumping tons of water and churning out billions of greenbacks, not to mention the endless stream of flower and fruit, paper and stud-stuff.

Most of our kayaking time we keenly take the measure of the immediate obstacles: trunks, branches across the face, underwater logs, islands of watercress and hyacinth clogs. Now and then a channel opens wide and we abandon our strokes, watching the trees and water for all that floats with us. I follow an inchworm, nearly chartreuse, bunching up its slender body and stretching forward on the water's surface. We ride along together at what must seem to it like the Daytona 500.

I keep expecting a fish to make its lunch of my vision, but my bright green side-float continues to inch along the water, kicking up tiny bubbles as he goes. We swirl and slide together. Only I have to duck below the tilting branches. Does he know he's lost? That he's not even on land or leaf where he belongs? Is there any way he might adapt to the high water the way most of the trees seem to--what keeps them standing in such months of high water and wind as we have had since December? There has to be an individual in every new population that has or does something for the first time and makes a lasting change. I lose sight of the little green drag-on, after it precedes me around a log.

The succession of scenes now is an album of the finest swamp visions in deliciously bright contrasts.

Ansel Adams would be thrilled at the range of light, but stymied by the impossibility of setting his tripod. Your only chance for a steady snapshot would be to find a tree to nestle into or to bring some boards to nail a platform in. Even the business of standing long enough in the uneven crotch of a tree-trunk to make water into water is a challenge.

A steady-cam would work well in here for video recording, but the chance of losing expensive equipment would stop me. Just holding out the kayak paddle while trying to escape the overhang, I make one small miscalculation of the speed of the kayak and don't turn the paddle fast enough lengthwise, so that both sides get caught at once above my head. Suddenly I am hanging by my paddle and holding onto the kayak with my butt and legs. Bill misses this cartoon.

Here is an existence and experience, benignly precarious enough, and all but unrecordable. I imagine similar scenes of rock-climbing, cave-diving, or space-walking where nothing like the whole experience is available to the public eye. Word images in here are not much better. This is just a great place to practice samsara and commend my family, local and global, to God's graces. No matter what your story of creation, in the Lower Wekiva backwaters, in a spring-green wash of light and water where no path appears and all is both lost and found at once, you can feel almost fully a tiny part of the energy of the on-floating work of creation.

All this world is ashimmer, and in the open spaces the light bouncing off the swamp water reflects back upon the trees above in a wispy, fiery dance. Bill says it's the same on cave-walls when he dives and describes the mystical experience he found in a sacred Taino underwater site in the Caribbean. I start to read the back-river in terms of these displays and soon it emerges that the palm-frond is the best projection screen for this amazing show--their vertical fans accenting the irregular light-wave patterns flitting up through them.

We never do get lost. Near the end of our return trip, we stop to rest and talk along the thick horizontal branch of a beautiful half-fallen maple. The pattern of waves in the water proceeding from my kayak's bow is sending a regular roll of rings along the light-grey maple bark. It looks like the midsection of a tiger's body with the stripes loping stealthily forward. The longer we watch the reflected light, the

more I realize it is the same pattern of motion we have all seen creeping along a log in the fireplace. It is amazing, this cool form of fire-watching on a foot-thick river branch. If I push the paddle in the water, muddling the wave pattern, the tree begets a whole new photo-vibrancy as though I'd stirred the fire with a poker.

What does the human inch-worm know? A great deal, I think, as I study biology, read the NY Times, ponder Emerson's Man Thinking, and teach Chaucer to English majors. But always it's inch-by-inch, stroke by stroke, or just plain floating. We find our place in that simplicity, our peace.

*ME imperturbe, standing at ease in Nature,
 Master of all or mistress of all, aplomb in the midst of irrational
 things,
 Imbued as they, passive, receptive, silent as they,
 Finding my occupation, poverty, notoriety, foibles, crimes, less im-
 portant than I thought,
 Me toward the Mexican sea, or in the Mannahatta or the Tennes-
 see, or far north or inland,
 A river man, or a man of the woods or of any farm-life of these
 States or of the coast, or the lakes or Kanada,
 Me wherever my life is lived, O to be self-balanced for contingen-
 cies,
 To confront night, storms, hunger, ridicule, accidents, rebuffs, as
 the trees and animals do.*

Whitman: from "Inscriptions" *Leaves of Grass*

Blessed Are the Meek



A Small Spring on Sulphur Island

8/22/99

The barred owl, I assume, would not normally be counted among the meek. A pair of them are calling to each other as I write this piece at five am. For a few days lately I have been having a biblical problem. The blessing reserved for the meek, it appears, is the only one which doesn't seem to involve a reward in the kingdom of the afterlife: "for they shall inherit the earth" *Math. 5:5*. To the casual reader or listener the poor in spirit and the persecuted inherit the kingdom and the pure of heart get to see God, but the meek will be left with the barred owl's inheritance of oaks, hickory, and cypress hung with green curtains and boas of Spanish moss. Of course, this is what we all inherit whether we like it or not, believe it or not.

It's as though the will has been read among the saints and somehow the meek go back to the first day of creation. They start the six days or fifteen billion years over or worse yet get stuck with the problem of digging out of the apocalyptic rubble created by our species with six billion individuals, many not meek. Perhaps this is how to define magnanimous, those who have endured holocaust or apocalypse and are thereby ready to do life right. The strong meek.

As far as I can see, Christianity has not lost any sleep over this little textual problem and that may be a tribute to its lack of interest in meekness. I for one take more seriously the endowment

of the earth than the promise of heaven, or better yet, imagine no God aside from the earth or outside my inheritance of it. Of course, if you look into the great variety of biblical traditions, you will find the explanation that “earth” in this phrase is just a metaphor for “the promised land” and that will untrouble the waters I am stirring here. Nonetheless, the question of meekness and its rewards is fascinating to contemplate in the context of protecting the river.

For the last year I have been focussed on my blessings and find myself referring back to my mother as the human and divine source of them. Faced with the task of counting my blessings, I start with her and fall asleep before I recall all of what I have from or owe to her goodness. She taught me love and she taught me God, by word and example and being. My father did too, but not quite so much.

She it was who, when I was an early teen bursting out of my shoes and slacks, took me to the back baywaters and the sloughs of the Halifax and Tomoka Rivers and showed me with binoculars the great blue heron's world, the brown and white pelicans, the gregarious gulls and terns along the sandy isles, the mud-stalking egrets and oystercatchers, what Bartram would call the stilted tribes. We learned them altogether with our Peterson's guide. From her came my ability to steal up on this pure white, wily one along the shore and watch every little craning in slow motion toward the prey in the brine. She thrilled me to a whole lifetime of wonder. This was my sermon on the river (Marie: chapter five, verse five).

The earth in those days of the early 'fifties had half as many people. I won't say it was a better or a worse earth, but I wonder whether the number of meek to inherit it has also doubled. What is it that the meek get in this life after the unmeek have grabbed for all they can get?

I am satisfied that the difference between the kingdom of heaven and the inheritance of earth must be trivial in these beatitudes and that this reward is, perhaps, for what they didn't have: earth as fruit, earth as treasure, earth as luxury. The pure of heart get to see God, the mourners to feel comfort, and those who hunger and thirst for justice are filled with solace, i.e. a finally fair judgment. So the meek get their habitat back, the bison their plains, the salmon their passages upriver to be born again, and the unborn their first breath.

When I moved to Florida from the Bronx at age eleven, I thought I had inherited heaven. Especially, the beach at Ormond by the old Coquina Hotel seemed to me the most beautiful place on earth. Or else I could walk a half block down Fifteenth Street in Holly Hill, barefoot, to the river's edge and watch the small boats go by, sometimes identifying dolphins and sharks and manatees breaking the glassy silk surface. Along the edge, all the water waders, feathers spying fins, stood ready to strike.

I rode my bicycle three miles to school, stopped wherever I pleased along Ridgewood Avenue to study my new habitat, found snakes and lizards in the boot-hatches of palm trees. It frightens me now when I think of the hundred ways children are made to fear their inheritance. The potential sting of the bee, broadcast on every TV channel as deadly, has the force almost of a world war to

deter a child from the woods and waters. The mosquito as carrier of the West Nile virus makes some parents and their kids afraid to sit on the porch. In this respect, the meekest of all are often the girls whose safety, cleanliness, and precious clothing will surely keep them from a full earthly inheritance in this life.

I remember my mother as afraid, like the rest of us, at spiders and roaches. We were used to rats occasionally scratching in our walls in New York City, but it was a revelation to be eschewed when we saw a huge Florida spider in our little pink bathroom carrying a small bar of soap up the wall. She seemed almost as big as my hand and much more hairy. The first time we saw a Florida grasshopper eating our hibiscus, it was another revelation. Called a lubber, this colorful creature with red on yellow patches looked almost the size of a small bird, but we learned to dispatch the voracious vegans soon enough, to save the inheritance of our flowers.

Besides my father, no one in our family was very keen on fishing, but I remember the excitement of my childhood at the catch of crabs in early fall when we took a big pot to the beach and filled it with dozens for dinner. Running along the evening wavelets and grabbing the mid-sized from behind, there was a thrill of escaping the pincers and the opportunity to menace your brother bending over his next catch. I remember avoiding the bigger ones because of a fear they might be able to wriggle out of my grip and come after me. In this context, perhaps the meek and the weak get a little mixed up.

When I look out these days at the beauty of the Wekiva, spread out across the blue summer skies in white puffs and whisps of water vapors, I count the airborne river as blessing, catch it like a three-hundred-million-year-old, September crab and taste the cake of my inheritance.

Never before today have I thought of heaven as a place of active generation, where new species and individuals are created, new mates and new children. Isn't maternal labor over over there? Folks have always wondered, I know, what happens to the person who has had more than one spouse to reunite with in the afterplace. I have read extensively in the Christian tradition and never saw any speculations about meeting a new partner in the New Jerusalem. The presumption has been from the beginning among the fathers of the early church that heaven dwarfs sexuality (as indeed life eventually does), but many of us take as consolation the recovery of our loved ones when our day is done.

Inheritance, of course, has not only to do with family genetics, but with all the rest of human creation as well. The smallest or the meanest of objects such as the spoon or thimble that Neruda's poetry would celebrate, can be the most prized legacy or remembrance. The earth itself, whatever our physical or religious endowments from our parents, belongs to each of us by divine right in the sense of this beatitude or more secularly of the Declaration of Independence.

To fail to be meek about it might reasonably be cause for forfeiture. When I think of the tactics of those who would like to build another development around the Seminole Springs or bring another Rosemont right up to Blackwater's banks, destroying the rural character of the protection

area, I fear for the children of central Florida and especially Lake County who with walls and gates, pesticides and alarm systems, outerbelts and malls, wall-to-wall chain stores and fast-food franchises could soon lose much of what this boy from the Bronx inherited in mid-youth, half a century ago.

Barred Owl Elegy

8/25/01

Owl Effigy Totem (heart pine, 6 ft. tall)

Thursby Mound at Blue Spring (ca. 1200 A. D.)

© Purdy and Craven: *The Indian Art of Ancient Florida*



It's five months since I've been on the lower river and the water is, by contrast, up to the full. Everywhere we go, the river flows outwards into full-depth. A year ago it was so dry back there that we were on foot, crackling fronds and leaves, through many of the off-channel areas. Summer rains bring a rich renewal of the land and the palpable green joy of it shines everywhere.

As I pull out and across from Katie's Landing to the towering grasses, one deep gator grunt hovers somewhere above the reeds. My first impression is that I see snakes in the water everywhere—each one upon investigation turns into a stem of eelgrass or other vegetation in a long arching flutter of the surface water. Today the river is the richest black-brown, smooth, slick, and fast, wearing her tightest jeans to beguile the body spirit. Bill is still loading up and getting some flack from Carlos about leaving his Pathfinder down along the loading area.

In this first solitude, I step immediately into the river monastery. This is not really a metaphor for me. I think the water itself and the flow of it, the smooth glass, can put your

brain waves immediately at both alpha and omega. It tells me without words and completely from inside of me that I am healthy, but moving faster and faster out of this form, while the river stands rock still in some kind of eternity.

We trade places. I lodge the nose of the kayak into the reed bed and sit perfectly still—an object. It flows by like a black silk dress or a ribbon of oil. We exchange forms or modes as I begin to taste the river’s stillness inside its eternal motions, disjunctions, reflections. Bill and I will go downstream today for a few hours and race back before dinner against the flow. It is almost high noon, a blue sky providing elevated 90 degree temperatures and substantial solar glare. I want to comprehend today the difference--in the community of the river-- between the journey of the solitary soul and the opportunity of doing it with a friend.

Over the years Bill and I have made dozens of trips together on the river, using his two kayaks, and I am always saying I should buy my own and sometimes go out by myself. I have shopped three different times, even test-paddled one in Lake Virginia. But why haven’t I bought one? Often when Bill and I get going, he goes faster than I and escapes out of view for some time. But sooner or later we hitch up again and tally what we have seen. It is amazing how much actually changes in the river in the five or thirty minute intervals we sometimes build between us.

Today we float downstream through the flats, cut through some thickets to the back channel away from the homesites, and make our way through the swamp, looking for the open patch of sawgrass back there that Bill proclaims is his favorite spot on all of the St. Johns.

It is swamp mallow time and we sit admiring the blossoms, rummaging through our brains and a guidebook to determine its species. The flower has a bright yellow stamen with five little phlanges of pink on the end that gesture joy from a deep pool of pink lattice-work in five bright petals. This is consciousness. Don’t we have a bigger word for it? Shouldn’t it be just about the biggest word of all to sit in the river with your hand at the stem, your nose in the pentad of petals, your eyes reading into the finery of the most voluptuous of beds?

But the consciousness of swamp mallow is even greater when multiplied by our sharing, groping together through biological terminology that is losing its grip in our minds. What is so special about the sharing of consciousness that adds to the river monastery? The soul is the music of what happens, says Helen Vendler, in the title of her book on America’s poetry of earth, but the music accumulates when the voice of it amplifies from solo to duet to chorus. Two friendly co-inquisitors, two radically different river imaginations, grab a hold of the intricate patterns and counterpoint of mallow.

The results are refreshingly both predictable and surprising at once. It isn’t just consciousness, though, of measures of ecology, rhythms of motion, but it’s interpretation, the recognition inside the set of rich impressions that something symbolic and enlightening is there. We get some message from the river community that will lead to solace or action or imagination for the real world we both are fully engaged in, on separate but related planes—the free-lance journalist and “nature writer” vs the teacher, scholar, and writer who has stopped publishing about medieval literature to focus on Florida.

We move through thickets with downed trees. One has flipped up its circle of roots, twenty-five feet in the air, causing us befuddlement as we try to find another way around it. A gathering of blackbirds is roused up by our breaking through the branches—six to twelve of them flutter and squawk past us and I begin to get a feeling again that they are telling us something. Four or five times in the last decade or two I have had a bird experience when the uncharacteristic behavior and squawking of birds has begun to be momentous for me. This too is a kind of consciousness, which the scientific mind has to be very skeptical about—but the spiritual mind does well to consider.

I ask Bill if he thinks the blackbirds are trying to tell us something? We have disturbed their ceremonies, perhaps, and so he suggests that “today’s lesson is over and we are leaving [the chapel] to you guys.” I don’t know, but I have a very firm and deep impression of their moving by and around us in the swamp for a reason. We encounter hundreds of animals on each trip—gators, herons, hawks, fish of many kinds, turtles, a rainbow of damselflies—and it is a mystery how they decide whether to move or stand still or engage us. Sometimes, but not often, they stay put because they don’t see us. Sometimes they sit for Bill’s passing, but pitch into the water for me.

Today I am enthralled by the high formations of the golden silk spiders. One up about twenty feet high on the right looks like it is pinned to the blue sky in mid air, about five feet away from the nearest tree on the right and fifteen away from any branch on the left. If you spin your head like the earth’s sphere closely as you pass, the web comes into sight first as a pattern of white fire in the sunlight and sooner or later it all turns golden, as you pass under it and look back. The Sisters of St. Silk are all at work in the celebration of their faith, high in the airy rafters of the river’s arches.

Soon I begin to hear the low groaning calls of the barred owl, up ahead where Bill is rounding a bend to the left. It is odd to hear such calls in the high heat and light of a neon noon, but not completely unheard of. In my neighborhood at dusk and dawn, especially, they start up and one begets another and perhaps even a third.

As I float closer to the spot, I hear a low, four-note call that is almost like a shiver: “Whoo cooks your foood?” Others answer with vigorous, full-formed versions, the four-note phrase repeated twice. An owl crosses from the left to right, about thirty feet ahead, but I still hear again the low and shivery voice with just four notes and it is coming right out of a spot on the left, about 20 feet up.

I see this owl as I pass and it sees me, as the others further back on the left continue their calls. It is difficult to tell, but there are more barred owls here I think than two or three pairs. I am puzzled because I have never before witnessed anything like this gathering of barred owls. I vow to check the natural history books for reports of such social behavior (indeed find none).

I turn the kayak about and move quietly over to the nearest tree to grab a branch. The river is narrow and swift right here and it takes me a while to move the bow up stream so I can check out this short-winded one with the mournful call. He flies up to a branch of the next tree, about five feet higher, and crouches facing away from me. One owl comes down on the muddy bank. Others are moving more prominently deeper into the woods, but he continues his dirge. After fifteen minutes of this choral ode, I have to leave to catch up to my friend.

Later, recounting the story to Bill, I wonder aloud if this was some sort of deathbed scene, a hospice setting for the last swamp yowl of a retiring hunter. I don't quite know about that, but in spite of all the jabberwocky of this scene, you would have to look far to discover a deeper quiet. This stems from the fact that the barred owls callings are not for me, at least not a protest at my being there. They did not cease when I left. I am past, but one of them is passing. In the hot bright, early afternoon a night has fallen and an old owl wants to say to his kin or kind, "Eat well."

At day's end, Bill and I are summing up the takings. We each believe in our own emblems. Wekiva is the center of our being together. The space between our breathing in and breathing out is punctuated today by the white ibis and the ebony jewelwings.



Drawing by Jim Duby
Available on the Current FOWR T-shirt

Scales



Rock Springs Run State Reserve

12/05/01

Yesterday Bill and I hiked the length of the Lower Wekiva State Preserve on the north side of Route 46, just east of the river. It's the only parcel of the Wekiwa Springs State Park or the Seminole Forest not open to hunting this week. We start out in the late morning and rummage around the cabin where Deborah Shelley runs the Aquatic Preserve, but she turns out to be in Tallahassee today. We learn this from Bob Burns, a volunteer who has his little trailer plugged into her power source. Bob is quite friendly and tells us of the bears he's seen recently, wandering around the entrance to the trail system. I resist a crack about his name, but it does occur to me that I must be the only wandering Celtic bard who hasn't seen a bear yet.

Heading down the jeep path, Bill and I catch up on each other's activities and families since our last jaunt, kayaking the Lower Wekiva a few weeks back. The surprise of the day comes right away, a pair of bald eagles fooling around among the pines to the west. When we finally cut down a side path to get a full sight of them, they sit picture-perfect, next to each other on opposite stubs of branches that are long past the vision of leaves. Both white heads face east, yellow beaks sharply outlined, their sleek bodies long ago carved out of virgin night. Was it by the squeaky call I first heard that she told him to perch with her here or do they write such wishes for affinity in the tree tops, like a note on the kitchen counter to come to bed?

The sky, windy blue, blows like a flag behind them. I pull out my underwater minolta, knowing the picture will be useless without a telephoto lens to zoom across the fifty yards. No matter. I start to take this ideal pose, framing the pine snag inside two of its living sisters. It's just for the sake of recording the surface fact of it, an imperfection without the depth. But just as I go to click, they start to fly up over our heads to the north. When they move through the trees of my sight, directly over the jeep trail, I snap once and again, but we all know the picture has flown away faster than the birds themselves. How amazing then, and even now, the clarity of the mind's videographic memory, to capture and hold intact this entire scene inside the larger complex setting of a semester of three courses, a war on terrorism, our daughter's open-heart surgery, and a universe of other unfolding facts. It feels so good to have a Wednesday to "take off," as we say, to "get out" where a pair of mature eagles pose politely for our delight.

It is impossible not to take such a sight personally, as much as we hike and kayak this river basin and as seldom as we see even one eagle, usually far up in the friendly skies. I will not write a poem to romanticize the exchange between us. I will not concoct a dream vision by which, like the young native warrior, I might take on some power with its attendant fearsomeness. It is indeed a telling posture in my imagination: she slightly above, he to her left and two feet lower, both ready to birth a new world order or better yet a white buffalo to become the great hope of America's original nations. It is the child growing in Bill and me that the eagles meet, and they teach us an intensity of focus and a pursuit of our prey. We walk on down our path, rehearsing all our little stories of eagles, there and then. This is community too, our mutual being at attention.

Fairly soon Bill takes us off on a westward path he recently found that will bring us down to the river at a spot where the banks are uncharacteristically a few feet high. Most of the Lower Wekiva channels through a wide swath of swampland leading up to the St. Johns River just west of Sanford and Lake Monroe. When you're kayaking here, you always suspect such rises of the shoreline are native shell mounds, but we have never tested this particular spot from the river. We move down out of the open pine and palmetto into a hardwood regime that leads down to a small slough and then the river. All the while we can hear the unmistakable roar of an airboat, somewhere down the river. The sound fluctuates between deep, slower, straining motifs and lighter, swifter whines like a great saw grinding stumps. On my topo map this slough comes to about a hundred yards long and when we first arrive at it, I spot a turtle at the edge, five feet below us. He refuses to move at our approach into the safety of the water.

The slough is covered completely with duckweed, an ideal hideaway. The surface literally shines with that rich light green of a million tiny circles, coins of the river realm. Bill decides it must be a gopher tortoise, not to flee waterwise, and indeed its head is that thick fat knob of the upland cave-maker, but the underbelly of this guy is a fairly bright orange-yellow in my binoculars.

Still standing on the bank above the patient tortoise, my eyes are drawn to a pattern on the opposite shore, some thirty feet away. It looks like a Chinese character made out of small tree roots going two or three feet up out of the water. A momentary sense of incongruity arises in a synapse somewhere and suddenly I am thinking that the duckweed covering this pattern of roots makes no sense. The water level hasn't suddenly fallen two feet, leaving fresh green on the bank of roots. Then the fact emerges that, though completely motionless, this is a constellation of baby gators who have climbed up out of the slough and taken the form of a complicated hieroglyphic, involving six heads and six tails in several directions and overlappings. This is the vibrant, murky stuff of which the ancient Anglo-Saxons and Celts made zoomorphs in the margins of their precious manuscripts.

Using the binoculars, Bill starts to count, including other little fellows whose heads stick out slightly in the new-green water. One fellow we didn't notice at first seems frozen on a tiny log, head and torso stretched forward in a permanent pushup. How long can they do that in their morning naptime? Bill is counting up to eleven and twelve. "Oh man," I groan to Bill, "I wish I had my telephoto." The magic of this picture is abundant, but it has to stand purely as a memory. The scene makes profound and yet mysterious sense: each scale carrying its light green load of treasure up on the bank and the six year-and-a-half-olds, brothers and sisters of the muck, hauling up into a perfectly still arrangement.

We have to double-take this shot personally. Eventually one of the gators moves sleepily, to lie with his snout straight down. This changes the meaning of the glyph slightly, I reckon, from *The Bear Flies with Kindness under the Full Moon* to something like *A Serene Death Sits in the Lap of an Old Pine*. The trick with taking a good photo of this Chinese pattern of tiny green dragons would be to find a frame that reveals the scale of these teen-inch gatorlings.

I would like to be able to magnify, to paint these fellows on a grand canvas like the Martin Johnson Heade scene we could see from the pine flatwoods as Bill and I walked down here just an hour ago. We were looking down through a vast openness to a brow of cypress trees, now in brown-leaf, forming the horizon of the blue heaven and peppered occasionally with sabal palms. But these gators made out of duck weed can only achieve the scale of the horizon by a gross exaggeration. The eagles may be the custodians of our national freedom, but these new-green gators are the icons of our river community. It's all only a matter of scale. I don't even try to take the picture. It was a beautiful wedding. We were all there.

We walk along the slough until we find a place to ford and climb the opposite bank, moving through the brush to sit by the river and refresh ourselves with water and food. I want to go swimming, but soon I am really glad I didn't when the airboat from the Army Corps of Engineers comes upstream to disturb our lunch. With red ear-muffs on, our weed warrior sits high on a platform boat with that grinding windmill flashing behind him in its cage. From a large white tank and an extension of fire hose, he sprays long swatches of the shore, ostensibly to hit the hyacinths. We both cringe at the sight of the herbicide stream going far and wide, beyond and above the small patches of thick hyacinth on the far shoreline. We decide to back off our perches

in case, not expecting walk-ins from the swamp, he doesn't see us and suddenly decides to flash his toxic wand to our side.

No doubt he is carrying out a program to rid the river of this exotic plant which can choke the stream and deteriorate the aquatic habitat for many species. What are the chances, I wonder, that on old Woden's day in early December, two children of the Wekiva would come to this spot seeking a Timucuan place, at this half hour, and witness the one most raucous human activity we could have imagined. We expect to see the signs of campers here: the beer bottle stuck mouth-first into the top of the bank, the shreds of toilet paper among the leaves back out of sight, the crushed aluminum can under the saw palmetto. A peculiar kind of scat, indeed, but narrow and neat in its own way compared to the grand markings of the boatman on hyacinth patrol.

Bushwacking now from the end of the slough back to our original path, I suggest that Deborah has probably authorized this spraying. For all practical purposes, she is the state-appointed doctor for this river, working for the department of environmental protection. We both know her well from years of technical assistance she has provided to the Friends of the Wekiva of which we are board members. Her voice has a beautiful sharp edge that I have learned to build my trust on. She is one of the best examples I know of a public official with a lifelong calling to preserve the river and educate the people about it.

As human beings with intelligence we can see that both the river and the state government are really super-organisms of a sort. If you learn to think like a river, then you see that these upland forests are a part of the river system, feeding surface water and all kinds of nutrients and organisms down into the Lower Wekiva. The traffic in animals back and forth to the river is prodigious. Just as the exotic hyacinth was brought over the oceans by humans and then is kept plentiful upstream by boaters, so these residents of the preserve make their way, as Bill and I have, to the refreshing coolness of the streamside. This is the understanding Deborah carries from years of monitoring the ecology of our river basin and this particular habitat from gopher to scooter, from spring to slough. The state too is a complex system of political organizations and to be effective, Deborah has to be equally astute at the ever-changing landscape of Florida's bureaucracy.

Bill is amused by my naiveté and counters my assurance that the spraying is being done under her instructions. "Your trouble, Steve," he says with a twist, "is you're using common sense. In government it doesn't always work that way." We have a few laughs over that, but of course, WE are all the government as surely as WE are the river. Some of us may look at this 6000 acres as quality home sites for 25,000 newcomers to Florida (let's see, that's about a month's worth). On the other hand, the state has spent a hundred million in land purchases here to buffer the Wekiva from such use. However, while five or six of its agencies are working to develop multiple uses of that land, a seventh is mapping out pathways to build the last leg of the Orlando outerbelt just south of or perhaps right through here. Our local U.S. congressman is vigorously pushing at all scales of government to make it happen on his brief watch. The forces for economic growth behind government at every level seem willing to convert this territory into

the equivalent of Jacksonville. What will the democracy of the situation bring in the next decade or two?

We wander back up to our original trail, heading north and slightly east toward the St. Johns River. Crossing the small stream that flows out of Yankee Lake, where Seminole County has a water treatment plant a mile to the east, we move higher at first and the woods on the right close in on us more as we start to notice fresh bear scat, mostly small piles. This old jeep trail and these six thousand acres in general form the east-most arm of the two-pronged corridor for bears and other wildlife that connects the Ocala National Forest with the Wekiva basin. Not all legs of this animal outerbelt have been completed either, but purchasing by the state and the various counties continues. I have a deep feeling that today is the day I will spot my first Florida black bear in the wild. The path is guarded occasionally by a variety of late-year flowers, for the most part solitary among the gallberry or in small gatherings: the plentiful lavender asters, a few last blooms of the deer-tongue, and an occasional yellow-star grass.

As we push on further into new territory for us, getting closer to the point where the woods at our left defining the Lower Wekiva will meet the woods at our right representing the border of the preserve, we begin to focus again on the signs of recent bear activity. Bears cover quite a bit of ground in a day or night. I have seen the charts of the ones wearing radio collars and a robust male can be in Wekiva State Park or Seminole Forest one day and half way to the Ocala Forest in the next. That's twenty miles. On this side of the corridor, I wonder where they swim across the St. Johns to move up through to Hontoon Island, Lake Woodruff, and beyond.

We enter the hammock at the tail end of our time and strength for today, and there we find some old orange trees bearing rather sweet fruit among some live oak specimens that remind us of Grand Avenue in Deland or in the parking area of De Leon Springs. The shades under here and the green grasses are rich and beguiling to the spirit. The swamp is closing in on the left to within a few feet of the raised trail, but we can't quite see through the trees to either river here. The ground gets softer and muckier with the deep rootings of boars evident on both sides. Bill finally declares an end to our search, when we stop spotting scat, and he settles down by a log. I want to get to the point where I can see the wide savanna of the St. Johns. We can hear road traffic in the distance. So I propose to push on while he rests, but thoroughly tease him that he will be missing the chance of a lifetime. Of course, he's already seen his first bear, when making his film of the river, he and his bear biologist lured the hungry fellow with stale Krispy Kremes they got from a dumpster.

The trail now narrows and begins to offer unclear alternatives. In dry weather, ranger vehicles comb through here occasionally, but not lately. The grass gets taller as I get into more and more open terrain. I am close to the river by line of sight, waist high grasses in abundance, but no flowing river appears. Finally, faced with a long boggy path directly north and a longer east toward I-4, I imagine that either way I will soon be slogging or wading and so turn about.

One can never say that such a fine day of hiking was disappointing just because a premonition is not fulfilled. Once again I have seen no bears, but I have fully walked in their paths. My steps are little, but my mind is learning to be in tune in many dimensions. For the Florida hiker, the mind with its ingenious assortment of zoom lenses is the most important item in my backpack.



I caught this eagle in the nest at the cemetery in Winter Park, corner of New York and Webster Avenues. Can you see the immature standing on the rim? Use the pdf magnifier to zoom into the nest.

The Dommerichs and the Blackmans Frontier Community Developers

It never occurred to me when I started this book that my own college would have anything to do with it. I just didn't understand that Rollins College was founded by the movers and shakers. They came from the cultural centers of the northeast and midwest, creating businesses, banks, agricultural enterprises, churches, and schools. While the founders, trustees, and first presidents of Rollins were men and women of substance, they were also living in a frontier.

Central Florida in 1885 consisted of about 10,000 citizens, mostly "outlanders" as the natives called them, settlers from some other state who often spent their summers elsewhere. The townspeople of Maitland and Winter Park numbered in the low hundreds. No school system was in place; so in order to found a college, they had to provide a prep school as well.

Recently while doing research on conservation in Florida, I discovered that Rollins had a hand in creating the first milestone in that history, the Florida Audubon Society (FAS). The early presidents and trustees of Rollins were pioneer environmentalists, that is to say, they were building the society at every level of culture and nature.



It all started in 1900 at Hiawatha, the home of Mr. and Mrs. Louis F. Dommerich of Maitland (left). Born in Germany, Dommerich made his fortune in New York, turning a dry goods company into one of the world's most successful commercial banking establishments by instituting a process of financing accounts. For the sake of his wife Clara's health, they started wintering in Florida in 1885, the same year the doors of the college first opened. Eventually they settled on the eastern shore of Lake Minnehaha, one of the chain of seven lakes connected to Lake Virginia, in an elegant Victorian home with grand gables and wrap-around porches (see figure below). Clara established the Maitland Public Library in 1896 and Louis joined the Rollins Board of Trustees in 1898.

Horrified at the slaughter in Florida of as many as 120,000 egrets a year by agents of the plumage industry, the Dommerichs called together a group of locals and some prominent leaders from other Florida communities to discuss what they could do. It was grass roots democracy at its best, though not without some conflict. The hunters were supplying the long primary feathers of our colorful water-stalkers for the hats and fans of ladies in Paris and London, New York and Boston, and all

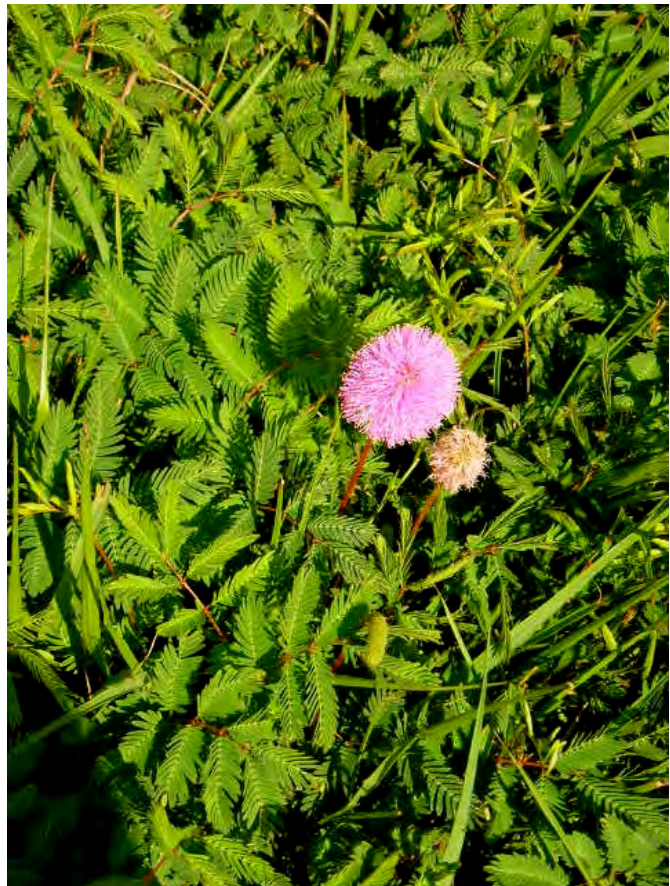
the lesser urban centers that would mimic their fashions. Something had to be done and so Clara Dommerich sent out some invitations.

The Rev. George Ward, third President of Rollins, was at the initial meeting when a group of fifteen drew up a constitution on the model of the New York Audubon Society with two simple goals: to stop the loss of the egret populations and to foster education about birds. They saw that a global market like this was best staunched at the local level where the extraction of the feathers was largely taking place; and they sought immediately to get a law in Florida to protect the glorious populations of wading birds from eventual extinction. They had a sense besides that such devastation of the natural world would eventually affect the health of the land and their own agricultural pursuits.

From the outset they understood that it would also take some clout on the national level and had the foresight to appoint Theodore Roosevelt, then governor of New York, as honorary vice president. The charter members also included other prominent national figures such as Frank Chapman, a leading ornithologist and curator of the American Museum of Natural History. Chapman had been coming to Florida to study birds for almost fifty years and he is the one who in 1900 initiated the first Christmas bird count. Other prominent members included Rose Cleveland, the sister of Grover Cleveland, Gov. W. D. Bloxham of Florida, and Kirk Munroe, a prominent writer of Florida stories of adventure.

The first president of FAS was Bishop H. B. Whipple of Minnesota who had settled in Maitland and opened the Episcopal Church of the Good Shepherd on Lake Avenue. He had been a leading force in Minnesota to negotiate a peace with the Sioux Indians in Montana and in 1890 had even had the honor of preaching in Westminster Abbey in London. He served as FAS president for two years and was succeeded by Louis Dommerich for the next decade. George Ward was vice-president.

When William Fremont Blackman came from Yale to be the fourth President of the college in 1902, he immediately got involved in this conservation effort and eventually served as president of Florida Audubon from 1912 to 1920, succeeding his friend. One of Blackman's first actions at the college must have been to establish a general education requirement for



environmental science because I find in the history that between 1902 and 1904, seventy-five students and faculty became members of the FAS. Neither the college nor the FAS could have been much larger than that. In 1909 he wrote a book to showcase the ecological value of the birds for citrus and cattle interests in the state.

The new grass roots effort had its first success in 1903 when Teddy Roosevelt, by then President, wrote the order to establish the first federal reserve for birds at Florida's Pelican Island. Gradually from this point on, the strategy of preserving the most precious habitats and rookeries began to set the right path for restoration of the populations of egrets and other waders: Passage Key (1905), Indian Key in Boca Ciega Bay (1906), and six more sanctuaries from Key West and the Tortugas to Pine Island (1908) were created by the progressive administration with urging from the Audubon movement.

The young Florida Audubon Society also succeeded in getting a law passed in Florida to stop the hunting for plumes, the Lacey Act of 1906. The livelihoods of many were at stake. However, since there was little or no enforcement of the law, FAS had to keep urging the authorities to use motorboats to catch the poachers. Some gun battles ensued when county officers tried to prosecute the law and two men actually died protecting birds. A further lesson in environmental politics came with a shock in 1915 when a new state legislature repealed the Lacey law at the request of county wardens.

All this time William Fremont Blackman was part of the contingent lobbying in Tallahassee while also leading the young college out of a financial crisis. He started a newsletter for the organization and was a leader with the Dommerichs in promoting the goal of education about birds: "Our efforts were directed to get the schools and their teachers interested, as we believe that by instructing the young people we best create interest and love for birds."

When Blackman retired as president of the college in 1915, he took up ranching on a 4000 acre plot between the confluence of the Wekiva and St. Johns River, just west of Sanford, calling it Wekiwa Ranch. It's all detailed in his diary of ranch life, the struggles of a Yale sociologist to learn how to sustain both animals and the land at once, especially when disease started to strike down his herd. Eventually he became president of the Florida Livestock Association. The brochure he printed up when it came time to sell his property in 1932 makes it sound like a paradise for raising every kind of food and flower.

Near the end of his days, Blackman published his history of Orange County (1927), and his wife, Lucy Worthington Blackman did a history of the FAS from which this little story is largely taken. For many years the Florida Audubon Society met at Rollins, not only when the Blackman's were its leaders, but later when Professor A. J. Hanna, building a career in Florida history and archaeology, became president of FAS (1943-47) and held meetings on campus in the Annie Russell Theatre. In 1943 he wrote a book on the St. Johns in the American Rivers series, co-authored with novelist Branch Cabell. Hanna's was a career made out of the subtle mixture of river (nature) and culture.

Who are the developers today who fit the mold of the Dommerichs and the Blackmans? They had a comprehensive view of community building that would welcome the planning

system we have today and link growth more fully to education, transportation, agriculture, water resources, and conservation.



“Hiawatha”: The Dommerich House in 1896 on the eastern shore of Lake Minnehaha in Maitland had 30 rooms and was surrounded by 138 acres of landscaped gardens with sixty acres of orange groves. Photo, looking north, by H. J. Webber.

Photos courtesy of the Rollins College Archives

The original Audubon Society founded by George Bird Grinnell in 1886 folded in three years' time, but was revived a decade later as a state organization when first Massachusetts and later a dozen other states, seeing the devastation of the plumage industry on bird populations of the southern rivers and swamps, tried to get their members to discourage the buying and wearing of feathered garments and decorations. The National Audubon Society began to emerge in 1902, out of the confederation of the state organizations.

According to Mrs. Isaac Vanderpool, the Dommerich's were both ardent lovers of nature and appalled in their travels around Florida at “the tourist gun doing its deadly work unmolested from the decks of every steamer. . . in the St. Johns River. The seriousness of this matter was felt by them, and they deemed it their duty in some way to arrest the wanton destruction that sooner or later must result in serious trouble to those whose living depended on crops of fruit, grain, and vegetables.” See A. J. Hanna's three-page preparations for a life of Louis F. Dommerich.

A poem for Russ and Katie Moncrief. Each kayak shape represents the actual position on the Lower Wekiva where I encountered a rosary of wildlife; so grab a paddle and just follow the numbers weaving down and back.

8/13/99

Katie's Landing

1

"Did you see what
they're building down
there?" Russ asks
saying hello from
his new van

2

Kayaks unloaded
Bill waits on the bulwark
nautical map spread wide
a new channel to find
Chub Slough

3

five hops up
the boat-ramp ~ brown
head high ~ a grackle from
across the stream makes
her landing at
Katie's

4

*moments of river
rainbows of flowing
floating together*

5

long stretching
young doe at water's
edge ~ necks down and
tugs up on fresh greens
without minding

57

at the first
mooring a jetski
idle under tarp: its
nightmare a cypress
log ~ just below the
face of dancing
mirrors

56

a single
wild turkey
pecks among
roots in a hydric
hammock by the
first house

58

red wings
in the rushes and
grackles by the dozens
at every angle
and pitch

6

facing
a thousand
palm-Sunday
fronds with arches
lilts and glances of
glee running up
each shaft

7

irridescence at
both ends ~ bluette my
damsselfly ~ alights gently
just hitching a ride on
my knuckle

8

float
 without motion
 to a curlew toeing
 the mud ~ a sudden
 whumpy lift ~ bold
 the blur of white ~
 red-orange ahead
 orange aft

55

great blue
 tight behind a bank of
 spatterdock ~ white-
 feathered
 throat-pouch throttlng
 in the late sunlight
 all the time
 we pass

9

up-
 streaming
 school of six-inch
 silvers ~ only one has
 a triangle of fire
 for tail

10

around the
 bend of sight a
 commotion of black
 feathers ~ later one primary
 a footlong black kayak
 with thin white
 shutters

54

bullet-formed
 little blue or green
 speeds downstream
 flying without
 wings

53

a-
 head a
 hundred yards
 upstream ~ the double
 knobbed snout with
 a fifteen-foot trail
 draws a line
 thin

11

look down
 straight ~ large fat-
 faced fish ~ head like
 an owl ~ gliding in
 silence over
 sandbeds

12

high banks
 of brush ~ swamp
 palms fronting taller
 stands of riverine
 roses ~~ waiting for
 the star rush to
 bloom

13

a young tree
 just split at the knees
 still ~ never quite lost touch
 the toppled trunk lies not
 balanced across a narrow
 point ~ a top-
 heavy

T

14

behind a
 bend ~ without
 a notice ~ a large black-
 bird repeatedly pounds
 a root with a white
 object the size of
 my thumb-
 top

52

five and
 forty skimmers
 spreading out from
 bow to summer in
 all directions
 of light

15

*"Beauty
 is momentary
 in the mind...in the
 flesh it is immortal"*
Wallace Stevens

16

no fish
 beclawed
 silent and sleek
 as an owl ~ a black soft-
 ness moves ahead of us a
 white underbelly and
 striped face ~ down
 winging the
 river

51

along the
bottom a four-pound
turtle rumbles downstream
from the bed of a
“stingaree” Bill
pursues

18

sing the
purple-red anthers
of three string lilies
beside a young
hickory be-
daubed in
lichen

49

at a rest
stop ~ large
green leaves sun-
bathing ~ casual
reflections of
river turning
yellow

19

without
a rattle in long
sweeping slights
kingfisher swoops
out of sight
yielding
perch

17

sneaking up on a
sleeping gator ~ six feet
of leather ridges ~ Bill
readies my under-
water camera

50

in my
right ear a
distant pileated
calls down
the day's
end

20

far back
left in a sun-
patch clearing
scarlet hibiscus
abides taller than
all the under-
story

48

*“poetry
is a verbal
means to a
non-verbal
source”*

A. R. Ammons

21

we stop
ashore amid
squawks from black
vultures ~ in the tree
across ~ they drop
down from
branch to
branch

22

we walk
only on roots
every step beside
a purple spiral
uplifting a
pickerel-
weed

23

campin out
on the high bend
above Blackwater a
young couple has brought
fire to the river
and cooks

47

in a log
lying flat over
water a hollow the
shape of a football
once an arm-socket
now a well of
plenty

46
 to the east
 Buddha Thor
 grumbles and growls
 in the joys of his
 airborne river
 above

45
 wide banks
 of dollarweed and
 spatterdock jostling for
 sunbright in a snake
 of wavelets

26
*"the joy
 of all the be-
 ings is in be-
 ing"*
 Gary Snyder

27
 after
 patches of
 breeze ~ the cool
 of shade ~ then of
 a sudden a heavy
 sauna sweat

24
 baby gator
 head ~ frog-sized
 moves slowly out of shore-
 muck ~ back feet churn-
 ing like a duck
 no tail

25
 boy-again
 Bill ~ papparazzi
 paddling into the brush
 wary gatorling pinned
 a moment ~ by
 a Rascal
 kayak

28

giving
 himself away
 with a loud raucous
 calling ~ deep in the
 brush ~ a solitary
 limpkin

29

at
 the point
 of return of an
 offstream jaunt
 the raucous per-
 fume of the
 dead end
 swamp

30

below the en-
 trance of Blackwater
 Creek ~ schools of mullet
 cross sand patches in
 a tea-brown
 world

44

three
 retired couples
 lunching under a red roof
 pontoons slurping
 natives not
 quite

31

we land for
 lunch ~ Bill finds
 an empty apple snail
 light as a limpkin feather
 it curls ~ filling my fingers
 browns and blacks
 like muck

32

a second snail
 a perfect shirt button
 tightly spiraled in a
 hundred cells ~ many
 now transparent

43

up-
 ended
 wider than high
 a wall of oak-roots
 is unsoiled ~ like a
 cancanner's skirt
 showing river
 rump

33

two
 grand
 cypresses in the
 making ~ eight inches
 out of root-muck ~ even
 now stronger
 than fire

34

startling
 bellywhopper
 splash ~ a long wake
 sinks ~ then heavy breath-
 ing in the brush ~ hunt
 the woods for bear
 guess not

35

a pair
 of fishers
 "Not much. Jus'
 throwin' 'em back
 back, ya know."
 bright wishes
 no regrets

42

catching
 a Lower Wekiva
 rhythm ~ a single
 snag bops up
 and down in-
 cessantly

41

leaving
 the slough a
 giant blue startles up
 in slow motion taking
 the highest possible
 opposite
 perch

40

look straight
 into a long hollow
 log-face ~ cradle for a
 bromeliad spray
 as big as my
 basketball

37

the weak
the strong
the electric
the grave
the free
a string

38

palm tree
 blocking our way
 small arch to go under
 arms and head out over
 the bow ~ gritty bark
 scrapes my
 back raw

36

looking
 up Chub Slough
 a narrow meander
 of watercress and
 other graces ~ a
 sculptured
 riverscape

39

easing out of
 Chub a dozen eely
 gars gambol and wrestle
 twitching in combos
 in a black-brown
 soup

Enough Chub Slough

(time to return)

Muckwalking The Lower Wekiva State Preserve



Did I Bring a Lunch? Blackwater Creek, near the Railroad Grade

5/20/00

Our purpose today is to go down from Katie's Landing to the point on the east bank of the river where the creek that follows out of Yankee Lake enters the Lower Wekiva River. A few weeks back, in hiking the four-mile trail north in the Lower Reserve, we found this creek at the high-ground of the pine flatwoods and promised ourselves, looking at the topo-map, that someday we'd follow the three-foot wide rill down to the swamp and then the river. On the map it certainly appears that way, but we have learned that thirty-five-year-old maps, even if they were accurate to start with, don't always show where the river is now, what islands are where, and what constitutes a river bank.

Imagine an island in the river today where the main channel goes west. Now let a sixty-foot tree fall across that space connecting the bank on your left to the island head. Watch the river debris start to gather along the great snag. If no boating interests or park agents come with chainsaws to relieve the situation, eventually the river itself can move readily over to the other side. The tree will likely continue to grow, putting out green leafy branches above to double those now

anchored in the muck below. New roots take hold in the sand and muck below. Eventually the west channel of the river fills in with humus from a dozen miles away. Voila! a great place for gators to rendezvous.

The new larger volume of water flowing on the east now has the power and thrust to reshape the bank in the other direction and the map begins to be even more wrong. Even in a matter of a year or two of traveling to visit the same site (for example, the Twin Mounds just above the old railroad crossing), I have seen the vista change so drastically that I could not recognize it from the river just a few months later. When the water level changes, the corresponding accumulations of debris and aquatic plant growth is amazing. Trees are your best landmark along the river, but some are falling every day.

Bill has paddled on ahead and I am just floating with the current, about a mile or two an hour. I love the feeling of being in river suspension, like a particle of earth or a bay leaf. This is a special kind of downer. I allow the kayak to reverse and without watching where I am going, I focus on what has just been, watch up into the sky the waves of high cirrus streaming above the canopy on both sides.

Suddenly from the immediate left a large bird dives down almost directly toward me, its bright red shoulders announcing its species. It slants across the river and lands on the shore at the right. A log obscures for a moment what was there to catch and I paddle a bit to find a way to see. But the hawk, now less ominous on the shore, steps out into the water, wading like a toddler and pecking at the surface, strong talons spread wide no doubt to give her balance for a harmless drink or two. The wind is so strong today, blowing up river against the current, that at times the kayak reaches equilibrium between the currents of water and air. I sit then like a tree in its midst, watching the tiny droplets of duckweed float by like little columns of green ants.

Right now the water level is so low that we can bushwack along this creek on ground that is normally under inches or feet of water, inviting all hikers to a blackwater swamp-bed party. We pull our kayaks up out of sight from the river where a trickle of a stream about two feet wide and an inch deep goes over sand into the bend of the river. Sitting on a tree trunk at that precise point during lunch, I watch thousands of tiny fish fluttering around the edges of sand and algal growth. It seems as though every square inch of surface contains at least one half-inch fish. The large bream nosing up under the tree roots are looking for lunch themselves, but in this little creekmouth, no depth allows them in.

Once we step away from the river opening, the terrain becomes darker and fairly uniform. Bill with short boots on slogs down the center of the stream. The trick is to find firm sand to stand on because once the foot sinks into the muck, a suction effect occurs and it feels as though someone has both hands on the shoe and is trying to pull it off without unlacing.

I am negotiating the higher ground where mostly adolescent sabal palms, 5-15 feet tall, block the way with their wide-ranging fronds. The ground here is mostly firm and dried out. Near the creek

the firmness under the dry leaves starts to be deceiving and each step is an adventure. It reminds me of backpacking across the tundra of Denali in the summer of '88, only here the depth of sinking is much less. Muck is always earth with the illusion of ground. In a very dry season it can be nothing more than air covered with leaves.

The creatures of the muck are myriad. One of my favorites is the shell-crawler who piles up little balls of mud like a gourmet chef making a mound of melon. One has to imagine that the caverns under such a construction are especially intriguing. My mind does an Alice in Wonderland down a crayfish chimney, walks down the stairs of magical muck into the halls of seed and leaf graves. The crayfish and beetles who make such apartments share them with many other swamp folk, not always benign.

How long does it take for the leaf-fall of the hydric hammock or wetland forest to produce such a kingdom of loam? On the north end of Lake Apopka when Zellwood farms were in their prime, you could see, when the irrigation channels were very low, something close to five feet of the blackest earth on gaia. Zora Neale Hurston's great novel celebrates with tenderness the same habitat in the 'glades where Janie and Teacake learn their grand lesson in love and sharing by working side by side on the muck. It's the real Florida, the forest washed down, dried and fired, churned and burned, then swamped again until just right.

Wherever the central ridge of limestone recedes and the lakes and springs flow forth, the forest undresses in a hundred colors that turn to the most beautiful of deep browns and a black, not empty like night, but with a powerful body. The chemistry of this process is extraordinary because the leaves and branches break down into carbon, nitrogen, oxygen, and phosphorus. Creatures of the soil churn it up and are themselves bechurned by the beaks and snouts and claws of all the backboned swampers. Under every palm frond it pays to imagine a coral snake, next to every root a moccassin, among the dwarf palm and sawgrass a rattler; but year after year of such hiking, I almost never realize such marvels.

The creeklet moves deeper into the woods. Bill and I on different paths keep meeting up as the creek turns. Finally we get to a fork in the stream and follow the shallower one. The other bend seems deeper and blacker, not suitable for wading; but this one continues for a quarter mile or so zigzagging through denser and denser brush until it ends in a sump--a five-foot diameter of water oozing with green and brown stuff and having no further extension. On the far side of the creek a half-acre of saw grass is growing and beyond that we imagine the trail we were on last month when we descended from the flatwoods, but couldn't quite reach the river.

We cross with difficulty to the other side and decide not to proceed further since we are in effect looking at a not quite dry pond. Wishing we had long pants or better yet waders to forestall the fish-knife edges of the grass, we reluctantly reverse our path, legs fully scratched and boots covered with a boggy grime.

I remember well my first joy of sand and beach in 1952 when as a boy of eleven I moved from the Bronx to Holly Hill, Florida. The purity and fun of the salty ocean life thrilled me beyond expectation. But in my teen years as a camp counselor in western central Florida on the banks of Lake Tsala Apopka and along the Withlacoochee River I discovered soon the other real Florida where few yankees would want a condo or the briefest of time-shares. The thrill of watching dolphin and sharks in the early evening cruising the Halifax River above Daytona is equaled for me in the backwaters of Wekiva's swamps where limpkin reach down into the airy and watery muck for apple snails with that brown scimitar that preens his feathers bright black and brown with an occasional fleck of white meat.

The Common Earth the Soil

...The brown soil here, (just between winter-close and opening spring and vegetation) -- the rain-shower at night, and the fresh smell next morning -- the red worms wriggling out of the ground -- the dead leaves, the incipient grass, and the latent life underneath -- the effort to start something -- already in shelter'd spots some little flowers -- the distant emerald show of winter wheat and the rye-fields -- the yet naked trees, with clear interstices, giving prospects hidden in summer -- the tough fallow and the plow-team, and the stout boy whistling to his horses for encouragement -- and there the dark fat earth in long slanting stripes upturn'd.

Whitman: from *Specimen Days*

Limpkins and Turkeys Wild

5/9/02

Katie's Landing is closed for good, so we plan to launch at the Wekiva Haven Park a mile further on, at the end of the dirt road. After years of negotiation, the state of Florida, with help from the county, has bought the six acres of riverfront, once a midden for the indigenes. Our friends Russ and Katie Moncrief will be able to retire after years of providing the finest camp along the river. I slow down at Katie's to see the place stripped bare of all the trailers and RV's, concrete pads here and there, and down under the trees what I learned to call a steam shovel (a curious phrase even in the age of steam engines). Without any official designation, Katie and Russ have been the primary riverkeepers, especially down here. Charter members of the Friends of the Wekiva, they ran the camp and launching site here for a quarter century.



I once wrote a poem about them, lost now somewhere, with the title or central theme: "with river for monastery." The measure of their dedication is the small action repeated instinctively, but consciously, over and over, as a matter of elementary connection. It has a rhythm as sure as the waves of sand on the bare bottom and the ripples of liquid on the abiding surface.

Often the canoes they rented out came with a long-handled fish net to encourage folks to do their part to clean up the river. I can hear them now, both Russ and Katie, hauling the trash out of the spent energy of each canoe and paying the children of their customers small change for each beer can and soda bottle. Inside the canyons of their voices you can always hear how the river runs, how the drought curls up the land, or the hyacinths clog up the Little Wekiva so that Russ has to go out with his boat and grind them out with the little go-devil on the back.

At the fish camp I arrange for the landing fees and Bill shows up with Lisa and her blue Dagger kayak on top. We load down all the goods and head out on the river. It's been four months for me since our last jaunt—an uncommon gap in our once or twice a month sipping of the river's quiet.

I am still working to comprehend the reality of silence. In my spirit the river is always as quiet as the grandest of churches, though seldom as hollow when a noise arises. The cathedral's silence is generated in part by anticipation of the grand organ, the cascading of Bach's dimensions of faith, and the magic of the choir's spiritual collective. When I think back on my ten years in the seminary, the truest part of my religion was the beautiful Gregorian chant and the spirit of God in the chords and neums of it all. My soul was deep and cool in those daily ringings of the liturgy. How could I ever imagine that when I left it, it had left me?

As Lisa and Bill move ahead of me, I listen carefully to determine what makes the noises here so quiet. It isn't the absence of sound, but the lack of voices, of sayings of any kind. The river has a different rhetoric that reaches past the ears to the heart and the soul. One could pretend it was all a motet of the finest subtlety and reach: the parula warblers, squeezing out the last note of their calls, the sudden sputtering of the fifty-five little fish on the sandy edge, the plop of a nut or branch into the water, the pair of pileated woodpeckers squawking across the interior swamp, and the osprey's high-arched call. Of course, you might want to edit out the jumbo jets leaving the Sanford airport to fly overhead or the sound of a motorboat up stream because the river's quiet is not that accidental music. It is rather the fact that most of the motion of this place and this medium has absolutely no engine noise.

The breeze is delightful here on a May day in the 90's. By how many millions of leaves does it accumulate this almost inaudible whisper? The water is ghastly low and the current quite swift, but a thousand ripples and motions all about the gliding kayak make almost no sound and even less noise. In such quiet, a sound reveals more than a sight. The manner of camouflage, of blending in, of integration of all the living elements is so splendid that the best announcement of the presence of the limpkin is when one breaks the silence with a *kurr-ee-oww*. William Bartram called the species "the crying bird" because of this loud distinctive call. The sound of a gator is even more telling, proclaimed in a basso profundo grunt or better yet in the surely-larger-than-turtle splash.



15. Bartram's drawing of the "Crying Bird": Florida Limpkin (*Aramus guarauna pictus*). (From Barton, 1818: pl. 1)

Some of the quiet of Wekiva comes from the buoyancy of the kayak. It always amazes me that the weight of the world which I carry in my body-sack down to the launching doesn't push the fiberglass right down into the sand like a stake, hammer-driven. That's why the occasional jet ski or cabin cruiser or, God and government forbid, the airboat comes as such an intrusion on the Lower Wekiva. They spill over from the expanses of the nearby St. Johns River. I love to see the people having fun, but they have too many horses under their propulsion and seem out of phase in the elbows of Wekiva's open-air silence. The kayak is a native river-car that keeps the integrity of the river's calm. Of course, when you have to get over a log at the surface, it takes a few grunts and a whinny from the horse behind the paddle. Still it fits, as well as nine feet can, inside the many circles of predation and symbiosis one can find here all at once.

Two young bare-chested men now appear and pass us without a word, going upstream, the one carefully tending the kicker while the other stands on the bow, bow-and-arrow in hand, looking intently at the brown and white bottom for the sleek lines of a gar. Their stealth and intensity of gaze completely muffle the tiny engine at the stern.

We come upon a young snowy egret, a lesson in standing-stillness. Can she hear the snails or minnows underneath? And down inside the river's watery veins, how much aquatic brain power is devoted to listening for her? I try to imagine how loud they would have to play the commercial or run the trailer of coming attractions down there to get a scooter's attention. We are fifty feet

away and still don't exist in her mind. The breeze is creating that cirrus-white thinness at the edge of her neck and back.

Now suppose I say the word *Iraq*? Can I do that in here? Can I ask why someone would tape an explosive device to his body and walk into a party to stifle the joys of life? On the Lower Wekiva, you can't hear the tank rolling along a desert highway down to the river Jordan. About all you can hear is what God might say to do about it.

The snowy has finally been startled to a walk and now seems to imitate the reddish egret's tilted swerving dance, when the head bends to one side stiffly, as the bird prances in arcs this way and that. When the kayaks finally disturb the carolling angel, she flies off down the river and floats with grace to a snag several hundred yards away. Now that's as quiet as you can go. It is not so much an unbearable lightness of being, but a sense of loft and mystery. Part of that wonder is nature's much heralded indifference, but the key is that her quiet flight comes right to me, a sharing as of a delicious pasta dish full of all the fresh legumes and fruits and nuts du jour. It is a meal: for us, to us, and from us. Each time we approach, the egret repeats this scenario, a recitative that accents our movement in tandem.

The peace of the river is partly due to the congregation moving voicelessly in and out among the cubicles and columns of trees and roots, descending at times to the liquid crypts below or moving in schools of spirits down there. It is a garden of bodied spirits untouched by words. I have often written about the play of light upon the water, but all of that photon synthesizing with its many amplifiers, the trunks and leaves and fronds, is completely without sound.

The river for me is like a gigantic Quaker meeting. We hold our hands together—gator, apple snail, Bill, Carolina wren, spring lily, and cypress tree—and listen to the sunrise and sunset in our collective unconsciousness. Our minds are 100% alert and awake, but the noosphere is gone. No great speeches, no raps or spins or headlines, no promises and no protests. All words held “in abeyance,” as Whitman would say. It is impossible not to spoil such peace with these words. Even as quiet as words can be, on a page or moving through your eyes into your mind, they are not quiet enough to equal the experience itself.

Do you say these words as you read them? I wish for now I could write them without saying them. If you can stop the words in your head from sounding, then you can take yourself all the billennia back before the Big Noise which cosmologists imagine began the whole enterprise. How special at this end of the colossal, universal noise is Wekiva, like the second before the original ground zero of creation.

After a stop off for a swim, we come around a bend and Lisa spots a pair of turkeys scratching around on a small peninsula to our left. All I can see are these little heads bobbing up and down and moving along behind a horizontal trunk and some brush. Their feet in the driest of leaves crackle sporadically like a fire, and most of the time they are out of sight behind the natural blind. We are low to the water, so our eyes remain well below their line of sight. Three kayaks--

aqua, dark blue, aqua--move slowly in tight formation around the tip of the peninsula. I catch a glimpse then, first of one, then another body. They seem like brown laundry bags hanging from a cord until a head turns sideways and I get to see the beak and red wattles of the one bird.

They turn away from us for the time it takes us to clear the promontory, when finally one spots Bill, cops a plea, and launches into flight, crossing the river and landing with a spread of fan feather that is truly magnificent. It takes a major effort to get all that laundry up and over the blind and then across the forty feet of the river itself. On the other side, safe now and moving into a stand of ferns, he calls back to his buddy several times before the other, not because he sees us, but because he believes the staggered syntax of alarm from across the way, takes heed.

Now the second wild one launches into space between twigs and branches, a dark bobbing updraft and then a quick drop of the tail, fanned out to about fifteen inches broad. Because I am the last of the three kayakers, I get to report the safe landing to my buddies. I sense I am looking at the tail end of the evolution of flight—a heavy awkward lift-off in balance with a healthy plumpness. You can't hide it. This is an expense of energy that is definitely over budget. We are happy to see that these two have escaped the hunting season, probably by staying down here in the swamp between Blackwater Creek and the Lower Wekiva State Preserve.

Today should probably be named Limpkin Day. On the way down when we saw a patchy brown and white immature white ibis, it reminded me that we don't see as many limpkins these past few years as I expect. Just now a solitary one appears on the right. They almost always go about their business, long curved beak swinging back and forth across the shallows and wetbanks to find apple snails, minnows, and other tiny creatures of the shore diet. Turning up a side channel behind an island, I see that the unusually low water leaves a vast muddy shoreline on both sides. Here another limpkin, without protection of brush, recedes toward the woods a little, but is really not paying me the slightest attention.

Egrets and herons will watch you carefully as the current closes the distance and eventually, when you enter a certain invisible zone, take evasive action. Limpkins always seem to integrate some slight evasion with persisting on the path of gathering food and measuring the muck. Back here dozens of floating little islets of earth about the size of my hands or feet dot the surface, moving ever so slowly toward the mainstream. My paddle in the shallow water turns up a beautiful brown whirlpool of earth-cloud that looks like a perfectly pulled chocolate clay pot with multiple coils of light and dark bulges.

We reach agreement on the point of return, about four miles or so below our fish camp at the Blackwater Creek confluence. Here Bill and I once feasted our eye on the muck-romp of a couple of dozen baby gators. On the return trip, a more aerobic undertaking because we promised to be back before dark, I fall behind my companions a couple of hundred yards and so miss the first part of their sighting of a pair of limpkins on the right. I can hear the chirping of a lot of other birds. Bill and Lisa paddle on when I arrive, but I stop to see what all the other bird talk is about.

The current is quite strong in here, so I go past the second limpkin and back my kayak into a tree limb to use the snag as an anchor. The tall-legged one has been working his way in my direction and, barely noticing me, comes along the shore up to the base of the snag. I grab on to the end of it, no more than five feet away. The chatter of chicks is now quite loud and I look back to see the other limpkin, mulling about on the edge of the beach, some three yards behind us. Now a bunch of chicks emerges from the brush out onto the beach. They are three or four inches high and not distinguished by long beaks or legs, just little indiscriminate puffballs of down and full of the dickens, hopping over and pecking at each other. They look to me more like ducklings, but if they were, I think they would recede from me as a clear danger and their mother would be menacing me or pretending to have some sort of broken wing. None of that here. Just a casual nibbling around while the kids tear up the peace and quiet of the neighborhood.

The only thing that would seem to justify the indifference of these two mature limpkins would be the unlikely species difference my mind is concocting. If these are little limpkins, it is my first experience, and for the life of me I can't figure out how there's any survival value in this brood. Perhaps the long beak of the limpkin mother is such a terror down here upon all predatorkind that we needn't worry. I back off my perch and float down a little to get a better glimpse, but even that doesn't frighten them and the chatter goes on as I paddle back upstream. The best part of our quiet afternoon on the Lower Wekiva is this little puzzle and the smug assurance of the poker player who knows going home that he holds a full house: limpkins and turkeys wild.

National Wild and Scenic River 2000

In July 1996, FOWR co-founder and board member Fred Harden gave testimony to the Congressional subcommittee considering protecting the Wekiva as a Wild & Scenic River. More than just an argument to save a river, his speech is also a moving narrative of how all of us can effect change. The legislation was initiated by Republican Congressman Bill McCollum and finally reached passage in the year 2000. At present, the Wekiva River is one of only three such rivers east of the Mississippi.

To Know the River is to Love It A Primer of Facts and Affection

I am Fred Harden, here representing the Friends of the Wekiva River, Inc. and the citizens of Central Florida who support designation of the Wekiva River as a National Wild and Scenic River.

Let me take you on a visit to the Wekiva River in your mind's eye. You start about 30 minutes away from downtown Orlando, a metropolitan area of over one million people. After negotiating the traffic on I-4, you will board your canoe, floating, on translucent waters.

You begin your journey at the river's headwaters, Wekiwa -Springs, which is also a state park. We had to make special arrangements for you because, on summer weekends, the park fills quickly to capacity. You notice as you walk to your canoe, the variety of languages that are being spoken. International visitors are here, taking a breather from the heat and hurry of the theme parks.

The park ranger tells you that the river appears much as it did when Florida's native Americans first canoed it, over 9000 years ago. Alligators, descendants of the dinosaurs, still swim here, but only the bones of their distant cousins, the mastodons, are found in the riverbed today. Prehistoric shark's teeth abound. Silent signs of the past are found here and there along your journey -- old dock pilings from logging days, Indian middens that speak of those who lived off the bounty of this land.

The river is approximately 20 miles long, flowing north to the St. John's River. Along the way, it is fed by three main tributaries and hundreds of springs of various sizes, some flowing into tiny streams, others within the river itself. The water will be tannin colored further downstream, a natural occurrence due to the hardwood swamps that help feed the river.

You launch amidst the splashing of children and the laughter of picnickers in the park. As you leave the main spring, you glide into the lily pads and spot herons and egrets searching for a

mid-morning snack. Overhead, a hawk watches with wary eye. From the moist forest, a Carolina wren calls.

As you continue downstream, you pass forested islands. In places the river narrows and provides a canopy of welcome shade. There are few manmade intrusions here. An otter, curious and quick, allows us the privilege of seeing him. An osprey dives into the silent waters and leaves with a small bream clutched tightly in its talons.

Halfway down the river, you encounter more canoes. A guide in one of them tells the group that this river is one of the most, if not the most, popular rivers in Florida for canoeing. His group is from the Phillips Corporation in the Netherlands. They wanted to see some of the real Florida, as advertised by the Seminole County Chamber. 'Ecotourism' is coming of age in Florida.

Farther downstream, you meet a group from Rollins College. It is an environmental science class studying the riverine habitat. Students from the University of Central Florida and numerous high schools also use the river for learning. Suddenly, the silence is shattered! A pileated woodpecker ripsaws a dead cypress in search of a food.

Overhead, a swallow-tailed kite performs its graceful aerial ballet. Off the bow, a mullet jumps, creating sun diamonds of spray. Along the bank, in a sandy flat, black bear tracks are seen. Small wild orchids bloom on the tree branches and swamp lilies flower at the water's edge. Limpkins and wood storks feed in the shallows. A barred owl calls from the depths of this ancient forest.

As you end your journey, you meet a group from the Friends of the Wekiva River. They tell you this river system is zealously guarded by many citizens of Central Florida. The Friends' efforts to provide protection for the Wekiva began in earnest in 1981, with a core of about nine members. Through their efforts, others became involved. Local and state government agencies, the St. Johns River Water Management District (SJRWMD), bi-partisan elected officials, including one Republican and one Democratic governor, joined grassroots citizens and newspapers to begin protecting the river.

State land purchases, with the urging and overwhelming support of the citizens, went from 20,000 acres in 1985 to approximately 50,000 in 1995. Within the river basin, exist a state park, a state preserve, a state reserve, a state forest, a county park and numerous buffer lands.

Due to the combined efforts of dedicated Floridians, strengthened growth management rules set by the Florida Department of Community Affairs, minimum flows and levels, recharge protection, riparian habitat protection and stronger stormwater rules passed by the SJRWMD were instituted. These measures provide protection and management guidance for the river and its associated resources, as well as hunting, hiking, fishing, horseback riding and educational

opportunities. By adding the Federal Wild and Scenic status to these state measures, you will assure that the river will remain a treasure for future generations.

Due to the combined efforts of the above groups and the land purchases, the Wekiva River now has more protection at the state level than any other river in Florida. Among its state designations are Outstanding Florida Waters, Aquatic Preserve (first such freshwater river in in our state), State Canoe Trail, State Wild and Scenic River (also a first). All that is lacking is the recognition of the Federal government that this river is indeed a valuable resource.

The Wekiva adds to the economy and the quality of life in an urban area. It is an educational, recreational, and natural resource available to over one million inhabitants of Central Florida and over 25 million domestic and international visitors.

Later this week, the founder of the FOWR, will be buried at Arlington National Cemetery. Col. Russell F. Fisher retired from the Air Force in 1970 after flying bombers in WWII and serving in Korea, Japan, and the Pentagon. Rather than "letting George do it," when he saw urbanization, waste water and storm water pollution, and indifference threatening to turn the river into an urban dump, he took action. In 1981, at the age of 64, Col. Fisher mobilized a group of interested citizens and the story I have given you began. He passed away this July fourth: on July fifth, members of the FOWR received, in the mail, information on the Wekiva River he had sent July third.

Congressional leaders have been calling for citizens to be involved, to tackle their concerns at a local level, to handle problems at home. This is a prototype of citizen involvement, of citizens calling on decision makers to help them protect a river system. This river provides an increasingly populous urban area with quality of life: economic, recreational, educational and natural resources. What better way to reinforce those who have made a difference at the local level solving problems by grassroots involvement than to designate this oasis of green a National Wild and Scenic River?

On behalf of the many citizens who love and care for this river and in memory of a fine American, Col. Russ Fisher, I respectfully urge you to grant this designation. We also thank Rep. Bill McCollum for introducing this legislation.



Old Cypress Log along Blackwater Creek

Pat and Fred Harden have both served as charter members and past presidents of the FOWR, living along the Lower Wekiva on a five acre plot with its own spring. For many years they used to hold a large party there called The Flamingo Fling. Everyone had to wear something salmon-pink, to stand out like the long-necked bird of south Florida. They would invite all the Friends and include all the local politicians (who wouldn't miss it for a TV op) regardless of their voting pattern.

In the 1990's, Pat was appointed to the board of the Saint Johns River Water Management District, where she served for eight years, including several as chair. During this time she had to resign from FOWR to avoid any conflict of interest. I remember the day she took a few of us new FOWR board members up to the district offices in Palatka to see how the system works. They have hundreds of scientists and public relations people to carry on the research, education, and permitting functions of their monitoring and protection of the waters of the St. Johns River basin and the public water supply. This is where the state watches closely the relationship between growth, water supply, and water quality. They also have independent land acquisition programs that dovetail in Wekiva with the state's Natural Lands Acquisition group of the Department of Environmental Protection. Pat's experience on the WMD board has been invaluable in the recent issues raised by the proposed Wekiva Parkway that will have such a critical impact in the last run of the river, Blackwater Creek and Seminole Springs.

Building the River Community, Step 4

At the end of the fourth run, we have reached the turn of the century. Many more acres have been acquired for posterity and Wekiva has received national protection as a Wild and Scenic River. This award may seem a little like winning a beauty pageant, entirely superfluous to actual health. However, funding from the federal government is now available, enough to pay studies, for example, the effects of nitrate buildup in the spring flows on the populations of apple snails and limpkins.

Of course, ecology and democracy begin at home. In the business of making community work, it is necessary to have fun and spiritual renewal in our yards and neighborhoods as well as in the wild. The forces of technology are working against the simple experience of our natural communities and our neighborhoods, but celebration is always readily. Maybe the whole basin should revive the Flamingo Fling.

Whitman's Quaker Spirit

I.

William Bartram's "On the Dignity of Animal Nature"

In the summer of 1999 I picked up a book by Thomas P. Slaughter entitled *The Natures of John and William Bartram*, attracted by the idea of a biography that featured a father-son relationship, especially of two botanists whose historic trips to Florida had always intrigued me. It is a special grace when a child follows a parent's vocation or genius and then in many ways outstrips the forebear.

In teaching William Bartram's *Travels* (1791) I had always been struck by the unusual spiritual ecology in the Introduction and in many of the natural descriptions that fill the rest of the book. As he puts it, "This world, as a glorious apartment of the boundless palace of the sovereign Creator, is furnished with an infinite variety of animated scenes, inexpressibly beautiful and pleasing, equally free to the inspection and enjoyment of all his creatures." He starts then right away to detail the excellence of the glories of the vegetable world with long catalogues of flowers and trees that remind me of Whitman. Then he argues that plants and animals have a greater affinity in God's system than we usually accord them. Especially in their vital principle, he finds no essential difference, for example, between the seeds of plants and the eggs of oviparous animals. He follows then with three extraordinary examples of such "animated scenes": the yellow pitcher plant interacts with the rain and eats insects, the bear cub at Mosquito lagoon weeps over his murdered mother, and amid the butterflies at Turtle Mound the leaping spider captures a bumble bee in a long struggle. Bartram's is the first spirit to inform the animated scenes of Wekiva I have gathered here. His understanding of ecology is regularly both scientifically precise and personally spiritual. His concept of vitalism was soon to be cast into the graveyard of metaphysical concepts, but it enjoys a revival today in the phrase "intelligent design."

I had never had any exposure to Quaker life or people, so the part of Slaughter's book that eventually interested me most was the Quaker teaching that God was primarily on the inside, a Seed of growth, a Light that guides us. To the Bartrams, revelation in the Bible and in Nature were correlative. God in scripture was outside, but considered secondary to "that of God" in each of us. For Bartram, that means plants and animals, rivers and forests, too. So, if a passage of scripture or a flight of an egret happens to enlighten us, it comes from this power of God within. For the Bartrams, then, pursuit of an understanding of nature and its underlying laws of ecology embodied an act of faith, but one to be conducted with accuracy.

Gradually it dawned on me that the peculiar mode of non-theological Christian deism that Quakers and the Bartrams subscribed to is very much closer to my own experience of God, especially in the last few decades. All summer long Slaughter's book had a profound effect on me.

When I returned to Florida in August, I looked up the local Quaker meeting and started to attend their silent services and study their basic tenets.¹ I wanted to know more about the Quaker ecology in Bartram; so I researched first the correlation between Quakerism and empirical science.² While other Christians were also curious and followed the discoveries of science, they often found scruples between their literal understanding of the Bible and their experience. Since Quakers prefer works to words and internal leadings from God to authoritative prescriptions and interpretations of church figures, it was no problem for a Quaker scientist to discover any new fact about God's creation. For Quakers, the laws of nature can fully replace the laws of the Bible or the church (or else simply advance and articulate them) because their eyes and minds were God's. They were using their intelligence to understand God's work and design in creation.

One day in the middle of my excitement about Bartram's Quaker spirit, it crossed my mind that the identity I felt with Whitman twenty-four years prior was largely what I found agreeable in Quaker tradition. I started to comb through Whitman biographies and criticism to see what others had uncovered about Whitman's Quaker roots and connections (details in the next section).

Suddenly I had a new sense of integration in my life. The love of nature expressed in Wekiva came into focus with the lifelong identity I had felt with all the movements of peace inside my own soul, my family, the college, and the larger national and global concerns. It was an enduring joy to pull all of these endeavors together, but the most astounding part was learning to listen for God from the inside. Since I had always done that without thinking that God was already there, I had ironically missed the truth that all along my faith in a provident God was revealed by my own free, intellectual, natural, and soulful pursuits. Furthermore, the horror I had come to feel of all public ceremony, preaching, and protestation was erased by the silent meetings for worship and my involvement in education and the protection of the river rang true as what Gary Snyder calls the "real work."

Quite a few personal revelations followed for me out of the experience of Quaker meetings for worship that I will only summarize, because my story is not the story I am telling, only in so much as it is yours as well, when you step into your own Wekiva, into the mysteries of the wild flower or the animated scenes of your own neighborhood. One peculiar discovery for me was the strong sense that God was my mother in me. Even

¹ A simple, personal religion, which avoids creeds and systematic theology, Quakers find the same spirit in us that tradition held for the bible. They generally refuse set forms of worship, have no trained ministers, refuse to take oaths on the grounds that the truth is always to be spoken, and put an emphasis on practice rather than preaching. Individual freedom in this regard is cherished, but some form of humanitarian work is assumed to flow from a conscience keen on justice in the community. By and large, Quakers have been pacifists, opposed to slavery, supportive of native rights, concerned for the welfare of prisoners, and opposed to capital punishment. George Fox began the movement in England in 1647; and American Quakers arrived in 1650, many settling in Pennsylvania and New York. They have suffered from two major schisms created by Elias Hicks in 1827 and John Wilbur in 1845.

² Arthur Raistrick has compiled the most comprehensive list in *Quakers in Science and Industry*. John Dalton, Joseph Lister, William Allen, James Logan, Thomas Lawson, Arthur Eddington, and Kathleen Lonsdale are among the most prominent including of course the Bartrams of Philadelphia and their cohorts in the Royal Society, Peter Collinson and John Fothergill.

though she died in 1968, she has always remained present to me as a guiding force. A second was the feeling that all the events of my life had to be reconsidered, especially the sudden dark despair that I fell into at twenty-four that nearly was the death of me and took a year and a half to recover from. But the strangest epiphany of all came with the realization that if you could be following the God from within without knowing it, then there is no telling who is a Quaker.

The day I got this sense, I was driving down a crowded highway in Orlando and it was a sudden exhilaration to realize that we don't have any idea how many or which other people might be kindred spirits of this kind. I later learned that George Fox, the founder of the Religious Society of Friends, had a similar experience at the original Pendle Hill and it guided him the rest of his life. Since the day in 1976 when I was first gathered in the light of Whitman's poetry, I began to feel the "intelligent design" of the earth and my own life as one, a personal order outside the boundary of myself or of our species. Life happens, species evolve through arbitrary changes, we make decisions without a particular plan, but at some points we have the blessing of hindsight that reveals nature's destiny, the divine intelligence of our small part in the wild and scenic river of our home place.

My final step was to reverse Bartram's travels and visit Philadelphia, partly to follow out the last leg of the unusual journey that these four Whitman interludes chronicle. I wanted to sift through the best Quaker libraries and archives in America to answer the question: did Bartram get his ecology from his Quaker upbringing and research? If so, then likely Whitman had as well. After some preliminary days of building a bibliography at Swarthmore's extensive collection of the Religious Society of Friends, I came across an article by Kerry S. Walters, a comparison of Bartram and the Peaceable Kingdom of Edward Hicks. It talked about an unpublished manuscript of William's—a 4400 word essay in the Bartram papers downtown at the Historical Society of Pennsylvania—that seemed to be about the relationship between God, humans, and animals. In the catalogue it was described as "on morality."

I find this a most unusual document of American history because it represents the answer to my question, as though Bartram himself had decided to simplify my research. In the essay he defines his own and his father's deistic Quakerism and its sense of ecology in one grandly overarching tour of Bartram's own experience. Like me, he was looking back over his life and patching together the pattern that would make sense of it. Although I cannot be sure of the date of the essay at this time, it seems to represent a much more advanced version of the spiritual ecology that I have described in the introduction of the *Travels*.

I have entitled the essay *On the Dignity of Animal Nature* and present it in the appendix below as the first great document for the restoration of America, the protection of wildlife, and the equality of native Americans of all species and nations. To read this essay is to read the heart of *Leaves of Grass*, but written, I suppose some ten or twenty years before Whitman was born. In it botany, zoology, anthropology, ecology, democracy, and theology are woven into one fabric of enlightenment idealism.

In Whitman's voluminous textual legacy I find no reference to John or William Bartram, but I have no difficulty now imagining the connection between the two men and my own writing. William Bartram was an artist and a botanist, fully understood the connection between habitat and organism, and between life forms and organisms. He had a spirituality that grasped all of this in one stroke, like Whitman, but he was an introvert like me and it seems never grew into the communitarian work that Whitman espoused—aside from his great contribution to literature and botany. Different gifts, one spirit.

II. The House of God

7/29/01

How many ways can we take the measure of this phrase? As a child I remember voices of parents, nuns, and priests using it to teach respect for or the proper conduct inside the church or before the tabernacled presence. To be sure, among Catholics the differences between churches is enormous—God living as it were in everything from castle to cattle-loft. Among the various other denominations of Christians, the belief in the Divine Presence, in the Eucharist, or among members of the Church in worship or song covers another whole spectrum of the phrase. All of these are just preludes, however, to the Father's House which is, by definition, in heaven.

Even though most believers will say that God is omnipresent or everywhere (part I suppose of knowing everything), almost all have a sense that at certain times and places, the Presence is more than commonly tangible or assured. If I walk into St. Margaret Mary's Catholic Church on Park Avenue today, that Presence or sense of the House of God will be overpowering even though each parishioner has a different degree of faith or contribution to that reality. Many would say that even if not one soul in that church believed or held up the bargain of the House, it would still be "of God."

Most of my life now has been attending a different House of God, the hallowed halls of creation. From the cosmic fire-works to the Wekiva eelgrasses, to the exquisite wasp at our seventh-floor window, nothing moves me to respect more than the House Made of Dawn, as Scott Momaday and his Kaiowa people refer to it. I add to creation, in my own delight, the whole of the human population, its cultures and creations, cities and slums, vessels and machines, telescopes and mountains of garbage. I admire the works of humans, but my appreciation of the poetry, music, dance, painting, and architecture is an extension of my rapture in the House Made of Dawn. I often feel a much greater presence of God in the pure habitats of Wekiva than in the subway or the mall, but usually wherever I see people, the place becomes charged whether it is a church rimmed in gold or under the simple cloth of subsistence. But this House of God is not the most important one.

In my Catholic upbringing we were taught that our bodies are the temples of the Holy Spirit, as though we ourselves were a tabernacle. I never fully believed this, even

though by taking communion with faith, I was clean and simply moving God from one golden chalice to another. But now, thanks to Walt Whitman, I see God is always within me as the embodiment of all of creation in its evolutions from the Big Bang to this point. This transcendental concept in its scientific scope joined to a Quaker faith that God's Spirit is open to each human heart makes me stand on or rather in very firm ground, "tenon'd and mortis'd in granite," as Whitman puts it ("Song of Myself" 20:419). The greatest respect accrues to the body when it holds firmly and without question to the whole of the House Made of Dawn.

Finally, inside the healthy body-house operates the mind. I will not separate the actions of God in body from those in mind, but the question of whether or not creation of the Godly self is also a House Made of Dawn is perhaps worth asking. As we make our selves and include a spiritual dimension to our story—what these interludes partly are doing—we are constructing our own temples out of our daily activities on behalf of our multidimensional community.

As a college professor I have evolved as a teacher from lecture to discussion, from questions to multiple answers to deep complexity. My idea as a teacher has been to take off whatever collar of orthodoxy I might currently have and let each student, asking the enduring questions, seek her own or his own truth. That truth starts out in discussion with words about values, but it tests itself in action every day. This is a form of practical, ethical reasoning, which is the foundation of a liberal education, based on the most up-to-date scientific research, the latest theories to explain the data, and the varieties of philosophical critiques or paradigms. However, this happens for all of us, not so much in a classroom as in the practical experience of laboratories, field work, studios, offices, families, churches, and theaters. It starts especially in each journaling mind. Seek truth and goodness for yourself, I urge my students daily.

Here's the exciting discovery of this roundabout presentation and the four interludes. When I look back at a lifetime of haphazard intellectual pursuit, very little of my searching has not had a divine significance or intelligent design to it, apparent if at all, only in hindsight. So, if you could watch it all growing in time-lapse photography, the result would be a fine cathedral, as Whitman said of the organic structure of his thirty-seven years of revisions and expansions of *Leaves of Grass*, through eleven editions and many more reissues.

Journaling is the essence of the transcendental quest for the House of God within. The Quaker and Whitman insistence on the suppression of creed is a democratic way to pass the communion to each individual, inside or outside the Church rosters. Skepticism, even temporary atheism, agnosticism, and the scientific refusal to step across the boundary of values are all a part of seeking such a personal truth, of openness to the light of dawn. No house that I so build is better than any other house that you so build and that makes it all a global Force in each tribe, nation, sect, or religion.

Quakers place a high priority on listening with the heart. Their quest for Truth is practical. It requires a certain setting aside of the frivolous or egotistical pursuit and reaching out with compassion to the problems of others, to the hunger and thirst for justice, the sorrows of those in mourning, the problems of victors and victims, and so

forth. Doesn't that sound like a description of "Song of Myself"? So the Light of God has both an intellectual and an emotional force. Both require a sitting in silence—no outside authority and no internal control problems. Such a state of composure is not constant, but the embrace of the simple, out-going life is the best beginning for such a quest and leads to a consistency between faith and practice in the river community.

III.

Whitman's Quaker Spirit

1/24/04

Whitman's mother had a profound influence on the poet all his life, but it is impossible to tell how much of her family's Quaker roots affected his poetry and his life. We don't know how many meetings for worship or first day school sessions he attended as a boy. As an adult, he never became a member of a Quaker meeting and explicitly said he would not. Biographers generally agree, however, that a major influence on Whitman's whole career was the fiery Long Island Quaker, Elias Hicks, a friend of his mother and father. Hicks was so outspoken in his defense of the truth of the inner Light, as opposed to scripture, that he caused a schism in American Quaker meeting houses in 1827. Whitman admired Hicks all his life and even wrote a tribute to Hicks in his later years, recounting an extraordinary experience of seeing the man in action as a boy of ten. Many have surmised that the prophetic voice of the poem owes something to this experience.

As our study of his journaling mind in the last interlude reveals, the poet was born anew and the political journalist transcended in the early 1850's. Whitman underwent a change of calling, if you will, from one kind of writing to another. He went below the issues of justice that he was fighting in the press and, following his Quaker heritage, suddenly stood up, as it were, to address a national meeting for worship. In the face of the daily rollercoaster of the political news, he found a center in himself of the entire universe and he imagined a complete spiritual enactment of the sense of equality guaranteed by the revolution. His voice changed to another person and grew rapidly to achieve a clarity of form and matter that created, and indeed still creates, the next phase of democracy. He became an American constitutional fundamentalist, calling us to read the declaration of independence literally and to apply it equally to the ecological as well as the social community.

When Whitman's opens his song with the phrase "creeds and schools in abeyance," he is harkening to the Quaker truth that real religion is an attitude of mind that all folk share and is not to be found, either exclusively or automatically, in the orthodox principles and practices, rituals or forms of sacrament, words or interpretations of the learned clergy. Religion is at the heart a leading of the light or truth, a growth from a seed idea or experience of God's goodness, of the fruits or gifts of creation. It is fully democratic and protected under the first amendment. Whitman understood all his life

that his inner, indwelling divine spirit was growing with the cosmos, the earth, the islands of Paumanok and Manhattan, and the leaves of grass. His song is ecological, growing fully out of his place and its creatures. He melded the sense of humility of the Quakers with the sense of optimism of the transcendentalists.

The ground of literature is once and for all entirely shifted by the voice of this poem because it aligns all interpretation with the autonomy of the reader, the absolute authority of each reader to hear this leading voice from within. Each of us is the child of the same universe (or God) come to this same development, to the great hymn of worship and camaraderie, the democratic freedom from aristocracy and hypocrisy. The ecstasy of "Song of Myself" is spread to all its readers. America's (and Wekiva's) faith is in the heart of God within the reader, the song of that choir in the house of self.

One key ingredient of this new voice was very much not a Quaker concept: Whitman's equalizing of the body and the soul. Whitman's voice owes just as much to its sensual bodily existence as it does to its spiritual. He understood the necessity for a celebration of the body and a restoration of the spell of the sensuous in all its forms. The body electric and erotic was for him a perfect counterpart of the soul or spirit. Sexuality was a religious text of the creation which the majority of his Victorian culture wanted to erase, and this in the face of the most astounding scientific discoveries to show that the body is a dynamic flow-through thing made of atoms from the beginning of time. Not being the scientist that William Bartram was, Whitman did not get his understanding of the dignity of animal nature from the broad study of animal behavior. All the more surprising then that he insisted on the body as equal to the soul in its effluence of beauty, truth, and goodness. This departure from Quaker and Puritan values is a unique part of his song's appeal.

Aside from his poetry, it seems, Whitman did not fully or directly embrace the Quaker causes of his day. Whitman was outspoken as a political journalist, to be sure, but as Jerome Loving has spelled out quite carefully, his career does not follow the strong anti-slavery position that Lucretia Mott preached in Quaker and other meetings across the northeast. Whitman saw the problem of secession as greater than the likelihood that African slaves would soon be given full citizenship and acceptance. In practice he preferred the peace initiative and the free-soil compromises it required to the likelihood of a war and secession.

Was Whitman then a pacifist? Jerome Loving argues that the poet was not fit or eligible to fight at forty-three years of age, but this is not the key issue. His brothers brought up in the same household had his same mixture of religious cultures, it would seem: a father who believed in the war of revolution and a mother who as a Quaker might have opposed violence to achieve power. Each of the Whitman children made different decisions when faced with the fact of the Civil War.

Whitman went to the war scene at first to help his wounded brother, but when he saw the reality of the battlefield, he intuitively settled in the tents rather than joining ranks with the unionists. At this point, like many a Quaker leader before him, he turned his life upside down for this heartfelt cause. The suffering and death he witnessed and

celebrated in *Drum Taps* confirmed his notion that the hero of feudal aristocratic literature was a mask for the common and average soldier of whatever rank on either side. He never as far as I know renounced the war itself—a war perhaps he sensed was necessary to keep democracy intact—but he celebrated the fervor and the spirit which guided his comrades through the pain and suffering of it, helped each wounded soldier he met keep contact with his family and his home place. His autobiographical writings do not reveal that he had a special leading or calling to all of this, but in fact he did. At first it seemed at odds with his poetic mission, but eventually was swallowed up into it.

It means a great deal to me that the poet interrupted his poetic career for mercy's and mourning's sake. In the stench of the hospital tents his optimism and his manifest destiny were only somewhat muted. A telling revelation about Whitman's authentic Quaker spirit, as Loving reports, is that he didn't tell the soldiers about his poetry or read them his poems. Indeed, before and after the war when he would hang out with the working men of any kind, he remained to them an unlettered comrade.

The key question in all of this is not so much whether the poem has Quaker trappings (for example, the use of the ordinal as reference for months), but whether, as William Sloane Kennedy has pointed out, Walt was a Quaker in his own life and spirit. In other words, to what extent was the poet authentic in that voice? Was he a democratic charlatan or a pharisee? Many of the critics of Whitman have referred to his entourage of promoters and friends at the end of his life as his disciples, imagining he is preaching some sort of false religion.

Kennedy, who knew the poet in his later years, would say yes, he lived like a Quaker. In a brief essay entitled "Whitman's Quaker Traits," Kennedy outlines Whitman's passion for freedom, guidance of the soul by the inner Light, self-respect, respect for every other human being, sincerity and plainness, placidity, silence (do you believe that?), and unconventionalism. Kennedy allows that this list is more true of Walt in his later years than in his passionate youth, a kind of reversal toward his mother's teachings. In his mid-life, the poet spent a great deal of energy in self-promotion, which is to say that he was trying to spread the spirit that would build the land anew.

When Mary Austin wrote her great study of ecology and culture in *The Land of Journey's Ending*, she prophesied that the Southwest would someday produce America's finest culture because the spirit of the land was working through all who took root there. I remember thinking when I first read her book that after seventy-five years it had not yet come true and frankly that a land could not have a spirit. However, in the past twenty years I have watched one growing in central Florida and now I am thinking that unless we become kindred spirits, share a basic spiritual ecology with each other and with the land community, Wekiva is lost.

Last year at the opening of a county commission meeting, I stood with fellow residents to recite the pledge of allegiance. As I stumbled in my mind over the phrase "under God," it seemed very clear to me then, as now, that we all stand together in Wekiva, in the ecological community as our common body. Even a pure materialist who believes in no God can say that phrase in good faith, if what is at the heart of our common task is to preserve life and community in the way that we were born to it.

Whitman's insistence on the body as equal to the soul and Bartram's tracing of divine intelligence and morality in the deep ecology of animal instinctual and developmental behaviors is the best hope for our unity. The best way to work out the issues of the Wekiva is to recognize that each member of the community has at least this much reason to work together to preserve and restore the natural world that begets and sustains us.

Democracy of all forms requires adherents and a message, a newsletter, web site, foundations and funds, networking, enthusiasm, and aplomb. The cause requires many talents, so we can all pick and choose in our small and local setting. Some like Whitman are led to make a much larger statement. The I and Myself of his song is meant to belong as much to you and me as to Whitman. It is the voice of God calling inside us to do what we can to make a world of equality work, to see beneath the surface of the material world the grand progress of earthkind inherent in each of its creatures.



**The Great Golden Digger Wasp
Shell Island**

Chapter V

Seminole Forest and the Blackwater Creek: The Promise of Restoration

- Blackwater Creek and the Seminole State Forest** [An overview of Run V. 3pp]
- The Chemistry of the Golden Silk** [We weave our way through spider paths and come upon a place of restoration. 4pp]
- Bald Cypress** [The logging of the cypress trees in the Wekiva basin is a story of extraordinary energy and scale. How extensive was the extraction and what will it take to restore the habitat to pre-1930's levels? 13pp]
- Maple River Syrup** [Theseus cannot have entered Athens more triumphantly than our return from a trip to Seminole Creek. 4pp]
- Sulphur Run** [Kayaking with Bill up the shallow, snag-strewn stream that enters Blackwater Creek, we do some hiking back in the swamp, looking for the outflow of Shark's Tooth Spring. 5pp]
- Building in the Basin** [How the muck flows down-and-around-stream on the Blackwater Creek. 4pp]
- The Noiseless Patient Hitchhiker** [Why do mosquitoes have to bite? What good are they? The Blackwater after the three great hurricanes is a lesson in insect ecology. 5pp]
- Cypress Dome: A Natural History of History** [Moran's painting of Ponce de Leon in Florida evokes a reevaluation of historical versus biological time and colors a visit to fort San Marcos in St. Augustine. A return to native Florida at the time of contact. 9pp]
- Where the Bears and the Timucuan Roam** [Saving the best for last, this adventure with my friend Jim reaches the spiritual center, the numinous caves, and the sacred totem of all my Wekiva adventures. 6pp]
- Good News: Scrub Jays Making a Comeback** [A recent newsletter report shows how the promise of restoration can be achieved. 3pp]
- Envoy** [Like the river, this book really has no end; but here are my conclusions. Where can the Wekiva go from here? 4pp]

V. The Promise of Restoration



Blackwater Creek and the Seminole State Forest

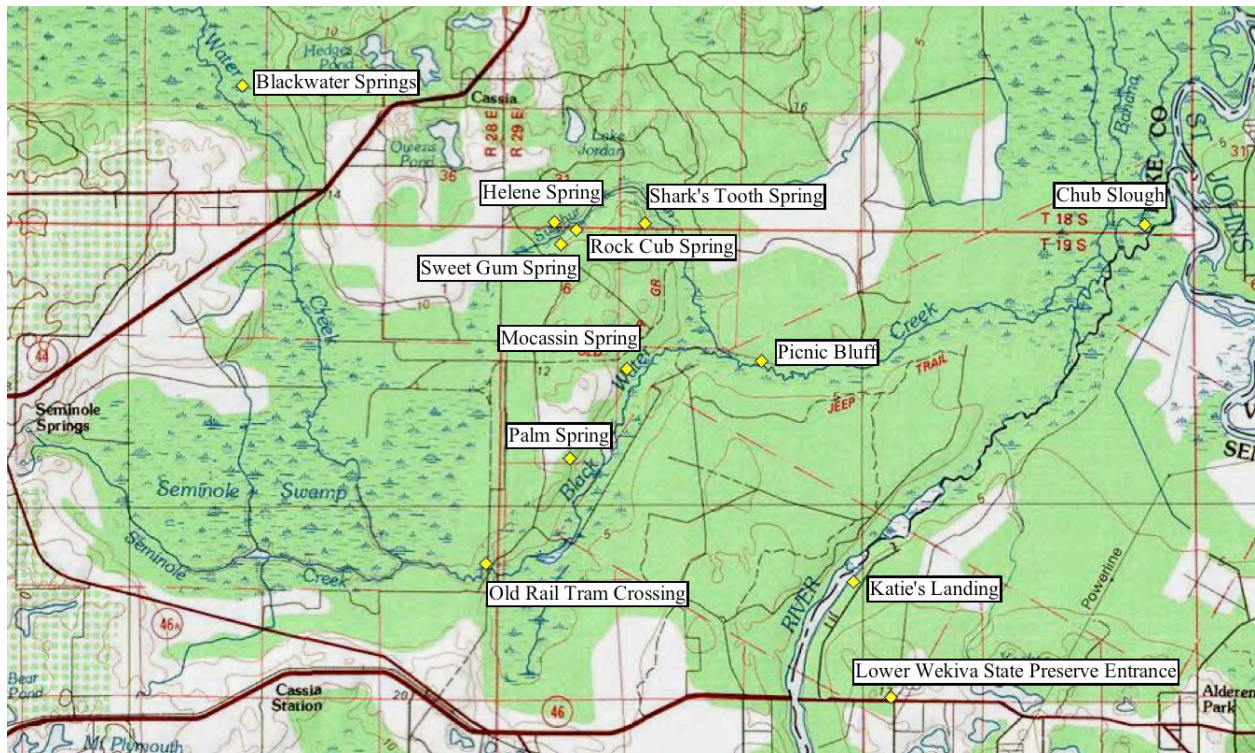
Blackwater Creek could be its own wild and scenic river if only it “paid tribute” to the St. Johns, instead of the Wekiva. We’re talking the difference of half a mile or so where one channel of the creek enters twice (and not so obviously) into the Lower Wekiva, while all the other channels and flows of the creek spill down farther into the larger swamp that feeds directly into the St. Johns River.

The Blackwater drains the largest segment of the Wekiva basin, an area equal to the other two sub-basins. It is the wildest portion of Wekiva and right now in a state of undevelopment that makes you wonder why it was originally left out of the Wekiva’s designation as an Outstanding Florida Waterway.¹ Most of what you find “way out here” in Lake County are nurseries, cattle and horse farms, and the remains of the timber industry now long past. Every October, in the small town of Umatilla about ten miles to the west, they hold the Florida Black Bear Festival.

¹ Some early nineteenth-century maps show the Blackwater curving like a bow from above Hontoon Island over to Tracy Lake (now a swamp) and then southwest to Seminole Creek and then southeast down to the Wekiva and the St. Johns. Of course, the same swamp can feed two or more rivers or creeks in opposite directions, as indeed the Green Swamp, west of Orlando feeds two major Florida rivers, the Withlacoochee running northwest and the Hillsborough southwest.

The Blackwater sub-basin provides the primary wildlife corridor for the bears between Wekiva and the Ocala National Forest, and hence the state is still actively adding on to the already large holdings of the Seminole State Forest, 25,000 acres so far. In the last fifteen years, this might be the only place in central Florida where preservation is outstripping growth. But don't count on that for long, because the land speculation in Lake County is now in a frenzy as the state legislature gets ready to decide with the expressway authority where to put the last leg of Orlando's outerbelt and hence where growth is going next.

The Blackwater gathers far north of SR 44 in the wetlands surrounding Lake Tracy and especially Lake Norris. It has a number of small springs, first at Camp La Noche (on the north end of Lake Norris) and then six miles south, along the east side of the run, just before the route 44 bridge. From there it skirts the west side of the Seminole Forest and is joined from the west by Seminole Creek, a trefoil of clear fresh streams emanating from Messant Spring (20 cfs), Seminole Springs (37 cfs), and Drotty Spring (much smaller). Most of these springs grace a single parcel of land called Seminole Woods: 6000 acres, about 1000 buildable. The state has been trying to negotiate the purchase of this property for decades and if the Wekiva Parkway is ever completed, Seminole Woods will be the primary land acquisition to mitigate the project.



TOPO! © 2011 National Geographic (www.topo.com)

From the Seminole Creek, the Blackwater then charges briskly east across the middle of the Seminole State Forest, flowing under a bridge that links the north parking lot at route 44 with the south lot at route 46, just west of the bridge over the Lower Wekiva. The Florida Trail

coming from Seminole County crosses that bridge, enters the state forest, and takes you north to Ocala National Forest through the best hiking terrain in mid Florida. Open to the public on a regulated basis,² the SSF is the best-kept secret in central Florida outdoor recreation, esp. for hunting, fishing, horse trails, and undisturbed canoeing with a few primitive campsites.

Above the Blackwater bridge is Sulphur Island, 2.5 square miles of upland in the shape of a pear. Sulphur Run, the principal sculptor of this limestone base, starts somewhere in the swamp to the west, arches around to the north, and, fed by small springs there, settles down south again to meet the Blackwater a half mile east of the bridge.

Blackwater Creek, in some sense, is the Wekiva that time forgot. Much of the upper half of it is not really navigable now because in the private lands north of Seminole Creek no one removes the overgrowth and log litter. From Seminole Creek on down to the Lower Wekiva and the St. Johns, it is narrow and shaded, smooth and occasionally shallow. It has no homes or docks or traffic, few landing spots, but many little back alleys. It makes a very special day to paddle the whole stretch, from the bridge to the Lower Wekiva, and then upstream to pull out at Katie's Landing.

In the face of the river and its community, you can't wrap your mind around Blackwater Creek any more than the rest of Wekiva. In Seminole Forest, your I quickly becomes i. You can't see it or know it all, as an individual or a group. So much is simply unexamined life, indeed undiscovered species, esp. in the orders of cave creatures and the snails endemic to each spring run.

Strangely enough, as in the Little Wekiva, we find no evidence that the Timucuan settled along the creek. The State Forest has only one native mound listed, in an upland site that I have twice failed to find. However, in one of the following essays, we find a place along Sulphur Run where the tribe might have gathered to celebrate their forest rituals or hold their own version of the black bear festival.

As we seek to restore the Seminole State Forest to the sand scrub, longleaf pine, and wetland cypress that dominated the riverscape a century ago, the economics of transportation and development threaten this most primitive portion of Wekiva's basin. The addition of so many thousands of acres in the 1990's has made it possible to open the river basin to the Ocala National Forest and to embark on large-scale projects of restoration. If the forest continues to enjoy the current restricted human use for just 50-100 years, such as is now practiced, populations of scrub jays, red-cockaded woodpeckers, and even ivory-billed woodpeckers will potentially thrive again. In this chapter we will follow the history of cypress logging in the basin seventy years ago, and it will help us to realize that this time around we have full knowledge of the consequences of unrestricted development and the advantages of design with nature.

² Except for the scheduled hunting days, if you want to take a vehicle into the Forest, you have to get a permit from the ranger and the combination to the lock at the north or south gate.

The Chemistry of Golden Silk



7/21/99

Think of the word *objectivity*, grasping reality by the handle of an object, like choosing a word. Because the human species is an imaginative animal, we desperately need objectivity to survive, to "get a hold on" ourselves, as we say. All forms of physical activity (work, sports, and chores) are handiwork and governed by and further support our marvelous mind-body coordinations.

For years I have been contemplating the right time to "retire" from playing basketball and wondering which part of my body would send the message of pain to quit. Pain I have had aplenty, but it has always receded so that now, as I near sixty, after more than fifty years of twice-a-week hoops, it occurs to me that it may be my mind which gives out first and makes me hang up the sneakers because the time it takes a message to get from mind to muscle is becoming embarrassing.

No one can look at the human body for long without recognizing that objectivity is not enough to comprehend it--everything in an organism is connected to everything else through multiple systems. So, the next dimension above the human as object is the habitat or the ecosystem. The body interacts with the environment like the individual in a family, so that we desperately need to go beyond objectivity to what, "systemicity"? Systematic thinking: the harder you pull on an object, the stronger the sense of system you will get.

The systemic dimension is something in solution that can be mixed in a vat or gland, spun out like rubber or pushed out like perspiration and carbon dioxide. My image for this higher level of complexity is the noiseless patient silk. In the case of the golden silk spider, building webs across many of our Wekiva trails, that means geochemistry.

8/2/99

We park in the north lot off route 44 near Cassia. My son Sean and I are making our way along the Florida Trail heading south in the Seminole Forest, just above the open meadow for primitive camping along Pine Road, really just an abandoned jeep trail. Each major opening with trees or high bushes on the side of the path is marked by a golden gate. Typically the golden silk spider is one and a half to two and a half inches long with alternating patches of brown and yellow on her legs. The distinctive feature is an abdomen that is long and more rectangular than cylindrical. The surface of her thorax looks like a finely embroidered jewelry case with gold beading fit for an Anglo-Saxon queen.

When you walk along the trail, the web and the spider are nearly invisible so that we constantly stop short and let out an "Oh, no!" when the face comes up quickly upon the web. Instinctively we want to avoid the spider's gummy thread (and its bite, if it comes to that), but not to worry. Objectivity should tell you that this web is not made for humans, nor is its stinger deadly to so large a creature. Usually the female is above us because the web is strung from above, sometimes as much as ten to twenty feet tall and as wide as it takes to be tied across the path from tree to tree or shrub.

I'm not sure why, but when we bushwack off the trail, we don't seem to find so many golden silks, but here as we descend on the path into the bottomlands, they occur about every ten or twenty yards. Do they fight for the best locations for their golden gates? Do they get more food because every animal who uses the path carries an entourage of insects in the caravan?

When you find one of these webs, try moving around in the light until you can see the color of the web itself, fully golden at the right solar angle. If you clap your hands, the spider will retreat a little. To navigate past one of these webs, find the lowest scaffold line and duck under. The web seems designed to avoid whatever walks or flies lower than three or four feet. Sometimes, however, the best ploy is to move around the tree or bush that anchors the spider's world to the earth.

The secret of the spider's incredible construction is evolution and chemistry. She has protein factories in her five glands, each strumming out different kinds of silk through spinnerets and all this is integrated with a highly developed neurophysiology. Reacting to the slightest

tickling of the web, she moves a thousand parts of her intricate body, all in consort, through the chemistry of attack behaviors with toxins to stun the prey and gold ribbons to wrap it up for lunch.

Passing under and around these fine works of animal artifice, Sean and I finally come on our return path to a place where the trail ascends a fairly steep slope, but ahead to the right is a deer-path or some other animal's by-way; so we abandon the trail markers to explore. Soon we come to a small rill and a three-foot wooden bridge. Following the water flow back up stream about forty feet, we locate the tiny spring at the base of a cliff (laugh, all you mountaineers) about twenty feet high and not quite vertical. This is Florida and a sheer drop is still a cliff, however shallow.

The hole is slightly bigger than a gopher's den-mouth and the water spreads forth in a two-foot wide streamlet that is perfectly clear and two inches deep. The water seems potable, and not much of any sulphur is emerging. The rill fumbles here over limestone pebbles that glisten in a thousand gold and white, earth brown and grey nodules. Is this the central drinking place for the four-leggeds of the forest and does that explain the chain of golden webs down the path from the uplands--catching the deer flies and mosquitoes that worry us mammals on the way to water?

For Sean and I, this is a Ponce de Leon experience. The map shows Sulphur Run initiating in the swamp on the other side of the forest ridge and curving like a three-mile question mark dotted at the juncture with Blackwater Creek, just below the bridge on Pine Road. We scramble back and forth in extreme delight because of the magic of the karst aquifer which can poke out anywhere under its fat-gutted belly and start another finger of the Wekiva River system. We know we are not the first to find this place, but that doesn't matter. The heat of a 90° July day is very much relieved in this shady emanation of the river.

Now here is the key, the knot of this discovery, the system inside which this hike and this fountain of youth operates. This summer, while I was at Cornell doing research on John Nolen, the archdruid of urban planning in the eastern half of our country, I got one of those phone calls a parent dreads, that a crisis had arisen in my son Sean's family. Many phone calls later and upon my return, Sean and I got this chance to hike and to talk. At thirty-three he is beyond my parental direction, a parent himself. Without going into details, I think Sean would agree that he was in the worst pickle of his life, completely obsessed as we all get when suddenly a very complicated catastrophe erupts.

The problem for magnanimals like us is that with all our imagination and knowledge, we still have times when we cannot get a grasp of objectivity and the balance inherent in the whole system. No technologies of telescope or microscope can ever quite create the whole view. Reality is like the Wekiva itself. Her little tendril streams and delicate spider webs all flow together in a superb system of geochemical interdependence too grand for any one or any species, either to prehend or to comprehend.

Our celebration at the discovery of this spring was a release from the cage of Sean's problems. It did not erase the problem or even ignore it, but rather found a larger system into which it fit more comfortably. It reminded me of Whitman's fine poem about how nature flows unconsciously through our every heartbeat.

There Was a Child Went Forth

*There was a child went forth every day,
And the first object he look'd upon, that object he became,
And that object became part of him for the day or a certain part of the day,
Or for many years or stretching cycles of years.*

*The early lilacs became part of this child,
And grass and white and red morning-glories, and white and red clover, and the song of
the phoebe bird,
And the Third-month lambs and the sow's pink-faint litter, and the mare's foal and the
cow's calf,
And the noisy brood of the barnyard or by the mire of the pond-side,
And the fish suspending themselves so curiously below there, and the beautiful curious
liquid,
And the water-plants with their graceful flat heads, all became part of him....*

If Wekiva restores us, why shouldn't we work to restore it?

Bald Cypress The Millennial Tree

I

6/25/03

Getting up from my writing table, I stop to pick up a small black thread on the white carpet. It quickly wriggles with life and, to tell the truth, I drop it as if it were a rattler. It coils then into a tight ring at my feet, and I can see now a string of lights, six or seven yellow spots along its spiral.

If you had just walked up, you'd say it was one of those little snails, about 3/8 of an inch wide, you see along the river's edge. Going outside to drop it into the border grass by the garage door, I can see by sunlight that it has a beautiful array of golden, shiny feet that follow behind the two antennae, moving across my palm by slight gees and haws toward a desire for home.

The feet move along smoothly, like the treads of airport corridors, except noiselessly, in a wild and chaotic motion. I am watching a magical transport system for a thin long body. According to my insect guide book, it should have seventeen segments, but I can't see that well to count.

This millipede has come into our stream of consciousness as an accidental interruption, but in fact, no part of life is really out of bounds on our multi-dimensional journey. Arthropods are, of course, supremely important in the river's economy, but this little crawler fits our purpose here quite well as one of evolution's strangest locomotives.

I want to celebrate the great-souled loggers between 1890 and 1944 who extracted almost all the old growth pines and giant cypress from Wekiva and the rest of the coastal swamps of the southeast. How in the world do you haul a giant cypress out of Blackwater swamp and get it to Palatka. Wouldn't it take the equivalent of a thousand human feet to saddle up one of these hundred-foot long logs and haul it to the mill?

This is not a whiney story, simply to bemoan the loss of our ancient heroic trees, but an exploration of the fiber of the men who took them down. Their legacy will last longer than the heart pine and cypress they milled if we take from them the courage and strength to restore Wekiva and other places like it, so that the giants stand once again. Endurance is the key. Outdoors, fallen pine doesn't last that long in Florida, thanks to all the forces of compost; but cypress is as close as wood gets to immortality because it has chemical inhibitors resisting swamp decay. So we are hard put to find a worthier wood for door or shingle or majestic sign.

II

It was a strange, hot summer day at Good Counsel Camp where I had been a counselor for several years in succession. The head of the camp, Monsignor George Cummings, had arranged to erect a new sign, out on Route 41, just south of Inverness. The sign itself was a large flat piece with jagged edges that had carved onto it the simple name of the camp in a Gothic font.

This is nothing extraordinary except that the old country boy--as close to a cracker native as a priest might come--had gotten three large segments of a giant cypress tree to hold the sign. I can imagine the big grin on the Monsignor's face as he plunked down his dollars for one of the last of the old growth trees from the swamps of the Withlacoochee River. This was west central Florida about 1960.

Before we arrived for the orientation of counselors, two of these logs had been set up on end as pillars and the third of about the same size—four or five feet in diameter—was to be laid across the top and secured by hefty metal ropes. I never saw how they got the logs into the area in the first place nor how they stood up the first two, fifteen feet high, but today was the exciting conclusion to this long-held dream. The camp he had built and run for years, the signal ministry of his life, would now come to a remarkable and enduring exclamation point.

They had hauled in a special crane, larger even than the one that unloaded and stacked the pieces of the sign. Working in the bright sun that even now builds such giants, they wrapped the third log in massive cables and hooked it to the boom, working for the better part of an hour to get the balance just right so it could be lifted, swung above the columns, laid crosswise on top, and secured with chains.

I am trying, without data and the proper engineering skills, to estimate what strength it takes to lift that many cubic yards of tightly wound wood that it took a thousand years or so to grow. Have you ever looked into the freshly cut core of a mature cypress? It looks like an armature of the most finely wrapped wires, barely enough room for my penknife blade to mark one ring.

Everybody stood way back, the engine raced, and the haul began, up to a level of five or ten feet, when the tether broke loose, the log dropped, and the boom went crashing backwards, completely crushing the left side of the cab and a goodly amount of the motor housing, recoiling the whole machine in a torturous flash. My heart stopped.

Miraculously the operator got to jump away from the crumpled wreck, and we all crowded around in shock. Composure is the norm in this life, but when it gets shattered by accidents of this magnitude, the effect lasts as long as memory. The scene changed little for the rest of the summer, a testimony to a project where all the factors had not been fully calculated.

III

THE VISTA

On my doubling a long point of land, the [St. Johns] river appeared surprisingly widened, forming a large bay, of an oval form, and several miles in extent. On the West side it was bordered round with low marshes, and invested with a swamp of Cypress, the trees so lofty, as to preclude the sight of the high-land forests, beyond them; and these trees, having flat tops, and all of equal height, seemed to be a green plain, lifted up and supported upon columns in air, round the West side of the bay....

William Bartram: *Travels*

Wekiva has cypress trees at every turn, but never the kind of vista that Bartram got on the St. Johns, three miles north of Palatka, where he stopped to admire for us his most important find among the trees of Florida. Especially, in its narrow creeks and tributaries, the Wekiva turns so abruptly and is often under the canopy itself, so that one doesn't grasp the cypress world as flat-topped (hence the name, bald cypress).

When Bill and I kayak the Blackwater Creek, we usually put in at the concrete bridge that once belonged to the Carter property, but since 1990 a part of the Seminole State Forest. Whether we go up or down stream, it isn't very long before we see one of the stumps left by the Wilson Cypress Company of Palatka in the late 1930's and early 1940's. At many places along our route, you can see between the trunks of hundreds of hardwoods, their feet (and knees) in the muck, their heads it seems in the clouds. It is almost as dark as the rain forests of Alaska. Even back far off the creek, you can sometimes spot an old giant cypress cut. In the seventy years since the old growth cypress were felled, not much else has changed in Blackwater.

A fallen pine log or its sheered stump turns readily in the bottomlands to red-orange crenellations, here and there powdered with bright green mold. Sometimes a stump is populated with little white and orange mushrooms, tiny pagodas on the mountainside of a delicate Japanese screen painting.

The stumps of cypress, on the other hand, take on a more grisly aspect, often with very unusual hollows and webs. Weather and termites work diligently toward compost, but it just takes forever with a cypress because it has a chemistry to repel most of the beetles, fungi, borers, centipedes, and millipedes that want to suck on wood. Some of these trunks get covered with strangler fig and other roots, constricted by ominous snake-guardians. You'd like Adam and Eve to pop up so we could take another snapshot of the Fall.



The stump in this picture sits on the left/north side of the creek, just about ten lazy kayak minutes downstream from the bridge. Just for fun, let's put it back up on its feet and recreate the process by which the Wilson Cypress Company harvested it in 1936 or 1937.¹ Let's imagine this bounty is shipped to Boston to build a house for the descendants of Emerson. It only seems fitting, since Ralph was the one who said, in writing about the creative process, "Wisdom consists in keeping the soul liquid."

The bald cypress holds the river spirit as well as any of us because its adaptations to water are indeed its edge over the other trees of the forest. In this way, the cypress has drawn a ribbon around almost every lake in Florida and along most river banks. So this tree, fully alive, quite likely stood sentinel here, as much as a hundred and twenty-five feet straight up. That's what the crew of canoers or hikers from the Wilson Cypress Company would first see when they made their inventory of worthy specimens.

THE GIRD

...The Cupressus disticha stands in the first order of North American trees. Its majestic stature is surprising, and on approaching them, we are struck with a kind of awe, at beholding the stateliness of trunk, lifting its cumbrous top towards the skies, and casting a wide shade upon the ground, as a dark intervening cloud, which, for a time, precludes the rays of the sun. The delicacy of its colour, and texture of its leaves, exceed every thing in vegetation...

William Bartram (continued from above).

Indeed, Bartram had it right, from the first. The cypress is a poet's tree, its leaves of grass like a sweet caress. Everywhere I roam in the basin, I close my eyes and put the leaves of the forests to a lengthy test of touch. You can feel the differences. The cypress leaf has flat thin

¹ Extensive records of the Wilson operation are preserved in the Putnam County Archives in Palatka. A map book of land holdings and inventories provides a precious record of what almost all the parcels in the protected Wekiva basin once held. This forty-acre parcel is marked as "Cut" in 1936 and 1937.

bracts, soft and fine padlets, with a give to them that makes them attractive to rub and squeeze; such a contrast to the sleek, upward tower of strength the Timucuan sculptor carves, opening a six-foot log to a tribal totem vision or a river canoe.

If we simply cut this Blackwater beauty down while it is still translating sun into dewy leaflets, the weight of the river that it holds in its giga-celled, glucose factory would preclude any kind of river shipment. Indeed, if we had a crane strong enough to lift the green tree right out of the swamp, the bottom of the log where the cut had been made would gush like a waterfall, a small spring really, for about an hour, emptying like a pipette, uniformly.

I saw this once in my front yard when a relatively young laurel oak broke in half during a fierce storm and landed on my neighbor's car-port. The next day the twenty-five foot section of the still-standing trunk was cut and lifted by a crane, slowly, up over the remaining trees to be sliced like a sausage and put into a rusty old truck on the street. Sad to say, it wet its pants profusely the entire time, as though someone had turned on twenty hoses, all at once, full force.

So to extract this Blackwater cypress right, we have to hike or paddle out here at least a year in advance of harvest time and cut a clean girdle around the tree to the depth of the cambium layer, in effect short-circuiting the process of sap-flow (carbohydrate transfers) and eventually causing the whole tree to rinse itself out in advance of our return. This first little engineering trick probably halves the actual weight of the log and leaves it standing buoyant.

To make this deep six-inch gouge around the tree, we might erect a scaffold where two or three of us could wale away at the same time. In colonial times, before the invention of the steam engine, only the trees right on the water were felled and logged, so that they could be floated to a mill up or down stream and there a team of mules could haul the segments up to a table for the saw.

THE TRAM: Through the Forested Wetlands

...It generally grows in the water, or in low flat lands, near the banks of great rivers and lakes, that are covered, a great part of the year, with two or three feet depth of water, and that part of the trunk, which is subject to be under water, and four or five feet higher up, is greatly enlarged, by prodigious buttresses, or pilasters, which, in full grown trees, project on every side, to such distance, that several men might easily hide themselves in the hollows between. Each pilaster terminates under ground, in a very large, strong, serpentine root, which strikes off, and branches every way, just under the surface of the earth; and from these roots grow woody cones called cypress knees, four, five, and six feet high, and from six to eighteen inches and two feet in diameter at their bases. The large ones are hollow, and serve very well for beehives; a small space of the tree itself is hollow, nearly as high as the buttresses already mentioned....

William Bartram (continued from above).

It was simpler, hauling out the old-growth pines from the uplands, because they are much thinner, lighter, and far more plentiful. Pictures in the Florida archives show the old growth logs slung neatly to the bottom of a five-foot axle that turns a pair of 10-foot high wheels. The log

sags at both ends, some 40 feet long and 3-4 feet thick. The contraption built for this purpose dwarfs the men and their team of six or more oxen pulling it over an upland path.

The log is centered and held by a lever over the axle so that it doesn't teeter-totter at every little lump in the earth. The loggers all look weary at the enterprise and yet there has to be just as much satisfaction at the end of a hot Florida day, after hauling over the rough palmetto roots and soft sand ruts, to say that you hauled out such a river treasure from the pine flatwoods.

Often for the pines, no road building was necessary. However, to topple the giant cypress without preparation of the river bed and swamps for hauling it out would be the height of folly. So even before the girdling, a crew of laborers would have to dredge the creek or dig canals deep enough to float the logs out to the St. Johns. Then with a steam engine and a wench on the boat, they could pull the logs through the swamp to the canal.

In the Hontoon Island section of the St. Johns River, I have paddled up and down the twenty-five feet wide and perfectly straight canals through the swamp; they run for the most part east and west, at right angles to the main stream. Think about the task of cutting the trees and pulling the stumps and snags out of the swamp in order to set the dredge to work on building such a canal. I have not found any remnants of such activities in the Wekiva basin to date.

We do know that in the early days of steam-boating, they did dredge the shallow Wekiva just to get the twelve to fourteen inches of draft they would need to haul citrus, pine lumber, and people up and down the river to Clay Springs (Wekiwa's nineteenth-century name) and beyond that overland to the town of Apopka. So not even Rock Springs Run and the Upper Wekiva, occasionally found to be deep enough for such a log, would have been ready to float out our treasure. "This river is very shallow and impossible to drive logs out by it," writes William Gallagher on a color-coded map showing the densities of pine and cypress for logging purposes.²

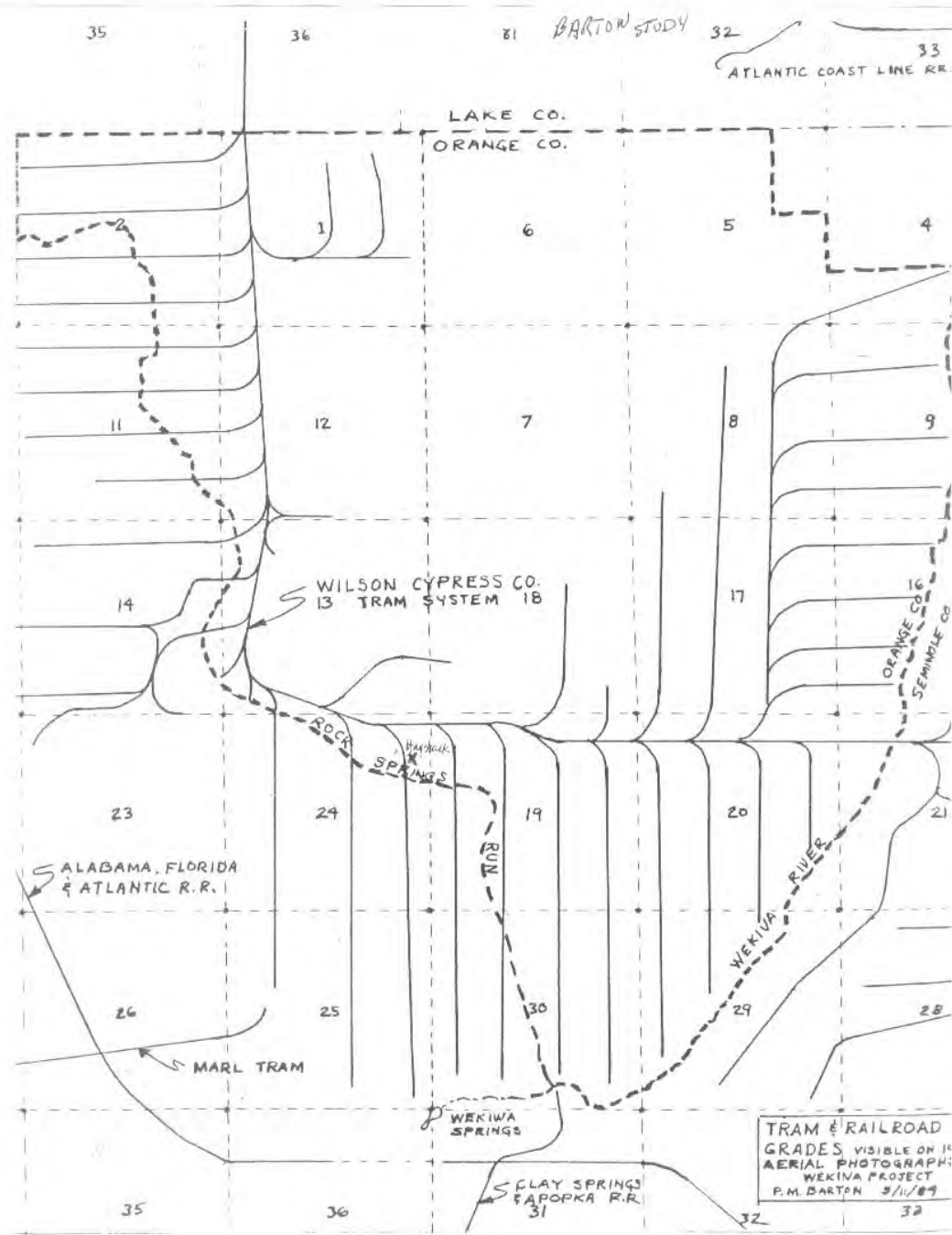
However, in the late 1930's the industry provided Wilson with a third option for hauling out our homeric logs, the railroad bed built on a causeway of debris. When the tracks across the uplands reached the swamp, they cut a narrow swatch of the forest down and laid the logs lengthwise, belly to belly. Then building up a bank around it, they laid shorter logs sideways, unslabbed. Finally, putting the narrow-gauge tracks on top of that, they brought a pile-driving tram down across the Blackwater and beyond that to the rest of the river. The swamps of the whole Wekiva basin north of the upper river were connected by tramways all the way from the St. Johns crossing at Crows Bluff near Hawkinsville.

So when Bill and I paddle two miles upstream from the bridge, we encounter two sets of wooden posts crossing the creek, about a mile below the confluence of the clear, spring-fed Seminole Creek with the dark Blackwater, fed largely by the swamps. This remnant of a railroad bridge from the logging days of the last century is our best indication about how to haul this mammoth cypress out of here.

The map below does not show Blackwater Creek and Lake County, but it gives a sense of how extensively the Wekiva swamps were harvested in Orange County. All those trees were carried north on the line between section 35 and 36 on the tramway up to Crow's Bluff.³

² *Ibid.*. Gallagher was one of Wilson's surveyors who studied the Upper Wekiva near Shell Island and scribbled this caution in the margin.

³ See Barton's study.



THE CART, THE RAFT, and the MILL

So on our topo map, the Blackwater rail spur runs from south of the creek across the dark waters above the three little patches of springs (Palm, Mud, and Moccasin). It heads straight north to a T at Grade Road, now a jeep trail crossing the middle of Sulphur Island and then Sulphur Run where it turns northeast again, following the direction of SR 44 to the St. Johns, just west of Deland.

The rest of the transport system is comparatively easy then. Another group of workers roll or crane the logs into the wide and deep St. Johns, tie them together into a raft (50 ft. wide and 10 times as long), and haul them with tugboats up to the mill in Palatka, about 40 miles away. We are talking 25-40 foot logs of cypress. Some not fully dried out by the girdling operation inevitably cause problems for the men on the raft and have to be cut loose in this journey. Many of these “sinkers” have been recovered in recent times, a prize for serious woodworkers who will gladly pay a premium price today.

When the tugboat reaches the mill in Palatka, fenders built out into the wide St. Johns accommodate the loading of logs and lumber. The individual log is set with a cluster of dog-claw hooks that help haul the unit up a long high incline and into position for a giant saw, 25ft. high, that will break the log into the desired shape for the maximum amount of board feet. After another year or more of drying in tall stacks, the 32- or 16-foot boards are loaded on barges or lighters to be taken to Jacksonville and shipped to Boston and abroad.

One giant cypress, of course, was enough lumber to build two or three whole houses so that the lengthy process at minimum wages was well worth it for the Minnesota lumber tycoon, A. E. Wilson and his brother Henry. He started operation in the 1890's, at the tail end of the pine-logging boom in Florida, by purchasing an existing mill in Palatka. When the jig was up for pine, Wilson saw the remote cypress as an even more lucrative quarry and starting in 1927, calculated that it would be worth the trouble of building the railroad to nowhere through the forested wetlands. He was a conquistador of another type and generation, navigating the swamp ecology and building America out of Florida's finest old growth.

So now, we can return to our girdled tree on Blackwater Creek, standing like an empty apartment building ten stories tall, except for the ivorybills and other woodpeckers who are taking advantage of the vacancy. Even though it's right on the creek, this cypress was probably not felled into it, but had to be hauled north about a half-mile and loaded onto a rail car. How in the world did they do it?

THE CUT

...From this place the tree, as it were, takes another beginning, forming a grand strait column eighty or ninety feet high, when it divides every way around into an extensive flat horizontal top, like an umbrella, where eagles have their secure nests, and cranes and storks their

temporary resting places; and what adds to the magnificence of their appearance, is the streamers of long moss that hang from the lofty limbs and float in the winds.

William Bartram (continued from above).

It always takes a little time to get the whole picture, and we still have quite a task to go. But why should we be less enterprising, less tough and gritty than the owner and his crews, looking at the problem of getting this particular cypress to Palatka and Concord. The job of cutting it down is not so formidable, since we can use a crosscut saw. Two strong men, working in tandem, can handle this prize in a day or two, cutting through it three or four. If the tree is much wider than our six-foot saw, then we can get two saws welded together to handle the extra girth with plenty of pull-through space.

What sound did the giant cypress make, after its seasons of desiccation, as it crashed through underbrush and crushed every sapling in its descent, down to its very knees? It is a moment for an Anglo-Saxon scop to sing his sobermost elegy for a millennium of Florida dropping in four seconds flat. But here is where my mind balances Thoreau's elegy for the Death of the Pine with Whitman's "Song of the Broad Axe." My problem is not at all with taking the tree, but with taking almost all the trees that define the ecosystem.

While the sawyers no doubt cheered for their accomplishment, the hardest part was yet to come. Of course, a chain saw would make it much easier today. Recently, a grand cypress tree at the college dried up during a five-year drought and gave up its leaves in April because it was situated too far up on the bank from the current lake levels. Pictures of that very spot in the college archives show that the lake's water used to be much closer to the tree. It was the first time I ever saw a cypress tree dead of anything other than lightning.

My students and I marveled at the splendid and eerie skeleton hung with moss, not thinking much more about it, until one day I came to work and saw that they had leveled the tree to the ground in less than an hour. I wish now that I had urged the authorities to leave the monument standing for another hundred years, especially for our ospreys and eagles to perch on and for our students to learn some ecology. The answer to the lost giant cypress, however sad, is simple: plant a new one.

By some weird precognition, perhaps, my class and I had already done so the previous semester. When Jean and I built our five-foot pond in the back yard, we peopled it with a bright purple-and-gold water lily and a small cypress tree in a five-inch pot. Pencil thin, it rose up to about four feet. Every day I would check the pond and watch for the newest little leaves to pop out of the ridges of the young bark. The tree was thriving mightily in its micro-habitat.

Entirely submerged in water, it grew up rather quickly, though not in girth, and soon, after any heady wind, we would find it toppled off its pedestal in the pond. At the time I was teaching an introductory course entitled, "I Hear America Singing." It was a first-year class who had great chemistry and a very special sense of community that I wished to celebrate. So one day at the end of the semester, we took our baby "pond" cypress down to the lakeside and planted it together, hoping it would be the start of a millennium of growth at the college.

THE SKID

It should be easier now to go back to our Blackwater cypress and not tremble so much at the gaping hole in the forest where the monument stood for centuries, a tower and a symbol worthier for the American dream than any I know.

When the sawyers dropped this tree, they had to choose a direction that would enhance their prospect for taking its tonnage through this hydric hammock, up a forty-foot incline, and onto a rail car. At regular intervals, along the grade for the tram, the men would clear a working area around a substantial spar-tree from the top of which they would attach a cable and pulleys that could reach down through the woods and the swamp a half-mile away or more. Attached to the giant log and by a navigation as complicated as heart surgery, this cable enabled the steam engine and its team of skidders to drag and jockey, lift and angle that titan through whatever openings they could find or create, until it got to the clearing and was lowered onto the tram.

Some of the giant logs Wilson lumbered were so big that they had to split them like firewood into three or four segments. Bill Dreggors, the folk historian of West Volusia County, tells of one monster that was twenty-five feet in diameter.⁴ I doubt that any man who spent a month hauling one cypress to the river tugs imagined himself bigger or better than the tree. More than likely, the spirit of the tree made each of them stronger and more resilient.

I see Wilson's men in photos standing like Lilliputians upon the huge segments of cypress, as many as twenty across the top. Weary and proud at once, they pose in testimony to the long haul through the swamp, over cypress knees, crossing deep muck pockets to the uplands where the slithery sand can swallow your weary feet and stretch your Achilles tendons to thin painful threads.

But I want to see up close the face of the man (or beast) that spends all day with his partners, pulling and hauling a saw or a cartwheel loaded with such a dense burden of centuries of Wekiva growth. Is it like the fierce-eyed Florida hunter I saw in a nineteenth-century photo the other day, a full grown panther slung over his shoulder, dead weight now, what before in triumph was light to fly through the air and crunch a human collarbone in one jawful slam? The logger of Wilson's day is largely, like the panther, gone from these woods. So let us now praise famous men.

⁴ See the documentary film, *Florida's Giants: The Bald Cypress*, narrated by folk historian Bill Dreggors (Deland: West Volusia Historical Society, 1997).

IV

ASAD EXPERIENCE?

*At times I feel as if I am spread out over
the landscape and inside things, and
am myself living in every tree, in the
splashing of the waves, in the clouds and
the animals that come and go, in the
procession of the seasons. There is
nothing...with which I am not linked.*

C. J. Jung, *Memories, Dreams, and Reflections*

What exactly was the ecological price of the cypress logging in Wekiva? It is difficult to tell because extensive study of cypress swamp ecology has not yet been done.⁵ One of the first losses that comes to mind is the ivory-billed woodpecker, but no one can say for sure what caused that extinction. Some thirty-five to forty species of trees, shrubs, and vines are common to this extraordinary habitat, some no doubt gainers and some losers for the dismissal of the dominant or climax species. From a human point of view, it is the experience of the giant cypress swamp which is certainly changed, and in many cases, completely lost.

We know that A. E. Wilson and his investors did quite well in their enterprise. According to Robert Tindall, who has studied the company's financial records, they declared no stock dividends for the first ten years, but for nearly fifty years thereafter, a dividend of 100% was declared for the dozen or so investors in three separate families. At its peak in 1942, Wilson's mill in Palatka was the second largest of its kind in the world, shipping forty-five million board feet of lumber, mostly cypress.

About the long-leaf pine, the lumber barons did not know what we know, that it requires fire regimes to restore their kind in the forest. The Wilsons, it seems, had no ecological concept of renewable resources and sustainable harvesting. Why weep now for the losses of the past if we know how to restore them?

Someday our children could be looking again at the four-foot wide pines of old. Take a walk out behind Rock Springs, on the trail toward Wekiwa Springs, and you will see some slash and long-leaf pines that have not been disturbed in over a hundred years and who have enjoyed the luxury of controlled burning for the past twenty years so that new generations now stand beside them, a sun-burst of needles all alone at the crown.

Fortunately for the cypress trees, the Wilson Cypress Company ran out of cheap labor in the war years and closed down its operation because, as the chairman of the board put it, "There

⁵ See "Regeneration of the Bald Cypress" by Keenan Dunham; the handbook of cypress swamp science is Myers and Ewel; for trade book representations of Florida's swamps, see Bransilver and Richardson or Larson as listed in the bibliography.

just was no more marketable timber.” Records of the company’s inventory of trees reveal why the company did not actually take every tree. Some of the maps indicate an evaluation of “poor quality” and others seem to contain no record, perhaps indicating plots they didn’t own or never did inventory. Furthermore, in some parts of the bottomland where stumps still provide us a record of their extractions, you can see a considerable stand of “new” cypress, about seventy years old.

According to Katharine C. Ewel, expert on the cypress swamps of Florida, “Cypress seeds cannot germinate when soils are flooded.” Once germinated, they cannot survive extended flooding, but depend on regular water-level fluctuations. Otherwise, they grow too slowly to survive competition from the faster growing hardwoods. We won’t know how far the extraction extended until we make a new inventory.

Looking at a map, for instance, of the familiar stretch where Blackwater and Seminole Creeks converge, the record shows clearly that in this one forty-acre plot they inventoried 550 cypress and 40 hickory trees, and then, in another hand overwritten, it says, “Cut February, 1936.” Hence, it would be useful to take such information and ground-truth some of it by walking the plot and counting the stumps versus the young trees. In this way we could learn in which terrains recovery is already underway and what the best conditions for restoration of others will be. All the Wilson records can be used as a backbone for an historical analysis that would initiate a viable plan for restoration of some of the cypress stands of old.

The giant cypress, like almost everything in Wekiva, is a hero without a name. The men who spent the months accomplishing the task of a harvest were part of an enduring legacy of the river and its contributions to our Florida culture. I have to laugh at those who make fun of tree huggers. Sometimes I think they just want to be assured, like all of us, that they get their share of human hugs. But we all have to love the tree standing, the tree as strut, the cypress as canoe, or the six-foot owl totem carved by the Timucuan native craftsman. We sing the song of the human accomplishment through grime and sweat that brings the most enduring wood from the swamp to these transformations of the tree and to the satisfaction of these basic human needs and the fulfillment of our creative spirit.

This is all despite the scale of the tree. One giant survivor of the species is alive and growing in a park nearby in Sanford. It is 47 feet in circumference, 17.5 feet in diameter, and the largest in board feet yet to be measured. The park was donated to the county in 1927 by M. O. Overstreet, a major developer of the region. The locals have named it the Senator because the donor served in the state legislature for years.

The tree has been estimated by the Forest Service to be 3000-3500 years old. This date has not been corroborated by alternate measurements, but the tree’s girth is greater than others that have been reliably measured at 1600 years of age. Therefore, it is probably at least 2500 and the oldest living creature in Florida—withstanding more hurricanes than human history tells.

Every year when I take my students out to see the Senator and to write about that tree and its sister, a thousand years younger, I tell them how it is older than the Temple of Solomon or the city of Rome. Even as a living thing, it exceeds human political endurance and parallels the most ancient enduring religious traditions. Indeed, it has seen more Christmases than the carpenter son’s Nazareth.

Such grandeur, however, can easily be matched by the fiber of the laborers' efforts in every phase of the log's felling, transport, milling, carpentry, and craft. By modern standards, they worked for nothing (a dollar or two a day, unless you operated one of the pieces of heavy equipment). It takes an enduring swamp community to raise such a tree and it calls for the same "heroism" of groups like the Audubon Society, the Rotary Club, the Defenders of Wildlife, the Sierra Club, and the Nature Conservancy to keep it so.

The workers who accomplished these incredible feats lived in communities with names like Markham, Lake Sylvan, and Cassia. The majority of them were black men. Less than fifty years or so from the Surrender, the boom years of Central Florida started. The first black township in America, Eatonville, has been sung by Zora Neale Hurston in her magnificent novel *Their Eyes Were Watching God*. This town is on the southern edge of the Wekiva basin, but in the railroad center of Sanford, the black communities of Goldsboro and Georgetown have similar celebrated histories of the late nineteenth century. This is where many of the cypress logging crews came from.

When I think of what their eyes were watching, it isn't the great hurricane of 1926 so much as the giant cypress, the crystal blue springs, the delicious oranges, and many of the heart-pine floors of America. Cypress logging at a dollar a day got many families in the Wekiva region through the depression and into the war years.

The river communities of trees and people go through vast changes under the pressures of a succession of land uses. A healthy ecology in the newly protected lands will allow for natural restoration of the long-leaf pine and the cypress. If we design with nature when we build the necessary roads and communities and if we help existing developments retrofit their habitats for the sake of the river and its ecology, then the legacy of those great lumberjacks will be established, even if not all their towns and communities have endured to celebrate the anonymous giants of old.

Now here's the kicker: the A in A. E. Wilson stands for Asad, and the E stands for Experience.⁶

⁶ Robert Tindall told me this in an email, insisting it's no joke.

Maple River Syrup



Drawing by Jim Duby

3/6/03

We pull out from the launching site at Blackwater bridge at 9:30 am in the middle of February, excited to go upstream for the first time in perhaps a year. Last month Bill lost his father and has been doing his grieving largely without the river. My mind is seriously overloaded on too many levels, but to get me through I have been singing a song to myself, all day long at work, that goes to the tune of the Happy Wanderer (warning: this song is seriously addictive for the weary mind):

I am the Multi Processor
 I do five things at once;
 I welcome interruptions,
 But I focus for the nonce.

Falderee, falderahh, falderee, falderahahaha
Falderee, falderahh, I focus for the nonce.

These are difficult times for the nation and I am acutely aware of being in a kind of civil war quandary, not unlike the years that followed Whitman's publication of *Leaves of Grass*. As we saw earlier, he had a reasonable position: avoid bloodshed in the present, try simply to contain the problem by insisting that new states be free, and then await the coming of conscience to the south.

Today, I suspect, we would call his a preference for cold war rather than violent regime change. The determination of both sides to have their way at the expense of peace and the union was extraordinary. How can any human make decisions of this kind? I have been opposed to

every war America has fought since I was old enough to be taught the five reasons for a just war according to St. Thomas Aquinas. I was fifteen.

But these past couple of months as I have stood on the local busy corner where peace Orlando has been holding up its signs to eight lanes of intersecting traffic, I have struggled to know what to write on a sign that would make sense of the complex issues. It isn't easy to define a free soil democrat's position in one paragraph. It must have been clear in the Civil War, as it is not here now, that both sides had God on their side, the one in whom we trust. The proposed war on Iraq unfortunately looks too much like a renewal of the Crusades after nearly a thousand year's pause.

Blackwater Creek knows none of this, doesn't ask us to honk for peace or hold up a flag. That's what I did the first time I went out to Colonial and Orange Avenues. I wanted to show my country men, women, and children that I felt patriotic in doing so, to be supporting an idea of my own about how to handle these extraordinary moments. In hindsight, I regret the echo of religion in the "Honk for Jesus" mode since America is about the end to religious persecution and wars.

Many honk, most are non-responsive, and a few give me the finger. Given no other way to respond, not even one word, unless they roll the window down and holler, they choose the obscene. Others do the imperial thumbs down or shake their heads or frown their opposition. I try to read every fellow citizen as the cars cruise by. Most are surprised to see the small demonstration in the midst of their busy Saturday noons.

The Blackwater seems to have no human traffic but us. She carries, however, a billion flags along the banks on both sides. The trees are almost all bare, with a few beginning the spring green, but the red maples have put out such an incredible amount of seedpods that they look at first like a magnificent new growth of full red leaves. Except for these solid red masses, you can see through the swamp on both sides all the way to daylight on the horizon. When our kayaks pass under them, we see there's a bright sinewy and muscular form to each cluster of samaras.

When you were a child, did you tear one apart at the seed and use the two gooey sides to stick one on your nose? You can see the delicate ridging of the wing on this seed by holding it up to the light. It has all the form of a great raptor's wing with a widening and lengthening of primary feathers, with a decrescendo at the end. Maple seeds come in twos and you can make the pair twirl downward like a red-shouldered hawk descending a thermal. Each pair droops from a single thin thread in bunches that make me hungry. Today they seem to have clusters of these arching up over themselves in gestures of excess befitting the courts of Europe's baroque "maniarchs."

The sky is bright above and the air quite cool. The current is swift and the river fat and dark. Wherever there are any snags jutting out from her black smoking body, a wedge of maple seedlings gather among the other floating debris and spread a light red and butterscotch blanket on the water's surface while the river rolls underneath. For a time they are the only fixture in the flow, around and about.

Back deep in the woods I scan for deer or bear, but today the truth is about the love-birds chasing and chipping after each other for reproduction time. The strangest story emerges as some warblers along the left side (without binoculars I can't be sure what kind) are making their way upstream with us. It is impossible to tell whether a little grey squirt dodging this way and that is

the same bird each time, but my mind creates perhaps one bird out of many who is following or accompanying us.

When I call this possibility to Bill's attention, he is skeptical with me as he must always be, so I tell him about how frequently a yellow-throated warbler will "hike" Fall Creek with me, in upstate NY, for several miles. It has something to do, I think, with keeping a pace on the path. One will choose a side and follow along, usually chirping all the way. After a while, you keep looking to see that black forehead and the brighter than canary throat.

Our aim today is to make our way up to the confluence of the Blackwater with Seminole Creek, but I am not sure we have enough time for that against today's heavy flow. Most of the congestion of hyacinths and other water-floaters has been swept clear in the November flooding, it seems, and we move without delay around familiar bends. Now a kingfisher is dislodged by our appearance and launches the first of many flights ahead, shooting out directly like a skeet, then arching to a new perch. The wings seem like tumbling thin triangles, rapidly flashing across that white neck band. He lets out a raspy glawgling that signals a certain indignity, I always assume, at being disturbed, and perhaps a warning to a mate that he is heading out.

At some point after Moccasin Spring, where we see a pair of young men camping and later fishing, we start to look at double channels and eventually take a move deeper into the swamp on the right. Leaving the main channel, we start to get into river-in-the-round where the density of trees is uniform and one can no longer define the creek by a tree line with occasional snags. The water here is shallower and no cutting of the channel has ever been done. But we are still going upstream.

The clearest sign of this is the thin and narrow descending navy of maple-seed samaras. They move ever so lightly over the surface back in here, a very slow motion of the kind a batter needs to meet a Nolan Ryan fastball. Bill is up ahead threading us through the debris and the trees, knee deep in Wekiva. You have to be gauging the distance between each pair of trunks up against the thirty-two inch width of the kayak. Soon we are bellying over logs and sandbars, the flotilla of leaves and seedlings is harder and harder to locate, and we are enjoying the possibility of being boxed in.

No warbler leads the way now and no kingfisher would be caught dead in here. This would be a good place to find fifty white ibis getting ready to rook, their long orange beaks twitching through the mud and mussels for their brunch of larvae and such. My mind begins to wonder about the millions of maple seeds. What a cache of food this would be for some hungry critter. Are there seed-eating fish or turtles that awaken to this early springtime feast? What does it take for one of these pods to win the lottery and be the next generation of river maple?

Just about the time the current disappears, Bill spots up ahead an opening to the creek's main channel and after some struggling and humping—whatever word can describe the sudden throwing forward of your shoulders with the quick hurry-up force of your butt to catch up—we gradually move the kayaks over bars of sand and log into a free-floating status. It ain't pretty, but it works.

Back on the open trail again, we make our way past some old pilings that mark the place where the old railroad grade was constructed for the extraction of the old growth cypress trees. Here the channel divides into three, each with its own large rusted culvert which the rangers are planning to remove soon. They too have to wait for permits to do this un-construction work.

Why should something built without a permit seventy years ago await the approval of another state agency? Ironies abound back here, but the system for protecting our watershed is so far working and eventually we can all cheer when the Blackwater flows naturally in this lumber-forgotten-spot which only a few have ever even seen.

Bill recalls the day when the water was so much lower in the culvert that he kayaked through the thing for its twenty-five foot length. Now if you tried it, you'd be scraping all the way through, since the water is filling two-thirds of the six-foot diameter. Bill is considering doing it anyway. The river has carved out channels on all sides of these construction items and forgotten altogether why they were ever here.

We stop for lunch and discuss much of our river business and the course we are working on together called The River Community. I wish that Freud had studied the river rather the dream-recollections of his patients. Psychiatry would now make more sense I think if sublimation of this kayak kind were at the foundation of the soul's understanding. Emerson said, "Wisdom consists in keeping the soul liquid." He was trying to explain how to remain creative in a chaotic world of chores and wars. We resist channel and we resist being stranded without it. We fight for peace, or for war. But keeping the spirit or soul liquid is indeed the solution to most problems.

Deep in the Blackwater I can hear Bill up ahead now, probably a football field away, whistling like a boy. It makes me want to cry for joy that his grief is here, now, for the nonce lifted. It took me four years with my own dad's passing, to get back to level. I take this agony of seed as a sign of the very complicated postures of patriarchy that culture has cooked up, whereas the river can carry all that away in a simple spring flowing.

Reluctantly we turn about, with yet an hour left on our schedule. What took nearly three hours upstream will rewind in one. Suddenly, however, a transformation occurs that cannot be described. Was it the wind? Did the rising heat of the early afternoon cause it? We descend in a steady stream of rosy maple seeds and are surrounded, indeed conducted along a pink and red carpet. A feeling of exhilaration, of parade begins to rise in us. You can't really get white water thrills in Florida, but this is like that, only silky smooth and placid, like Saranac Lake in early loon-day.

Archie Carr has a beautiful description of jubilee in the St. Johns when he comments on Bartram's sighting of the same. That's a frenzy of fish that no science seems to be able fully to explain, but this is a gigantic winding procession of maple genes, covering now most of the center of the creek on both sides of the kayak and when a narrow turn arrives, the full stream is red and pink. Nothing could be finer. A feast and a procession fit for kings.

Sulphur Run



10/21/99

Yesterday Bill and I loaded his kayaks into Blackwater Creek at the bridge and went downstream in high water to explore Sulphur Run. I had to duck as far over as I could to squeeze under the bridge.

As we moved quietly in the broader than usual blackwaters, I tried to figure out what makes this stretch of creek so different from the rest of the river. As we passed by some spots memorable from photos, I began to think it was the colors. You feel as though you're in a bright tunnel and the land defining the river is inside rather than outside your tunnel space. Once in a while that space broadens and the tunnel disappears, but most of the float you definitely feel you're moving down the bloodstream of a larger reality.

You may be thinking that I am trying to be Carl Sagan or Stephen Hawking, riding some cosmic wagon through outer space or something; but actually this tunnel **is** reality and time whereas the clock or computer keeps virtual time, a made-for-television simulation of the space-time continuum. Even a photograph captures some sense of the tightness of the green and brown walls through which our aqua kayaks flow, over black silk ripples.

So part of the mystery and identity of Blackwater is engulfing us in its own *intimacy*--the word Bill suggests to describe the unique quality of this part of the creek (pronounced "in-time-i-see"?). I for one am glad I checked in.

In a half hour or so we arrive at the entrance to Sulphur Run on the left. It frames the Seminole Forest high ground, a horseshoe shape of wetlands with a small flow up and over and then down to Blackwater, fed we assume by a number of small springs--one of which called Shark's Tooth we discovered earlier this year on foot. Once before we tried kayaking up here, but after passing a cattle owner's gate, were stopped by the shallow waters and the debris of many trees.

Today it is much different and for the first half-hour or so we make good progress, though much of it at sharp angles to skirt a variety of snags. Not much wildlife lingers around to witness this tug and haul, but the din of mosquitoes is remarkable--even to us swamp-rats--and so we reluctantly take out the spray can. It leaves a flowery fragrance that we carry with us and every now and then discover.

"What's that smell?"

"I think it's your bug spray, Steve!"

After the first half mile, at this water level, Sulphur Run is barely 15-30 feet wide and just about every ten yards of it, going upstream or down, has at least one fallen tree or log to scrape over, scratch through, or end run. Often a loop in the trunk allows us to lie on our backs and slip under. I use my arms on the trunk to push the kayak deeper in the water, slip my butt off the seat so my feet go to the very front of the bow, lower my shoulders into the seat hole area so only my head is above the gunnels, then leaning my head back horizontal to the canopy, I bend my head back so that my nose scrapes just under the bark. If the space proves too low and neither end of the tree allows clearance, then we have to contemplate, as the last resort, portage.

Sometimes the log is completely under water and almost perfectly horizontal to both the sandy bottom it lies in and the water surface. Now we search for the slightest indentation in the log. If it's not too thick, we back up and take a run at it, vaulting over, scraping the bottom with a long water-tempered sound that becomes a kind of comforting base to the noisy splashing and thrashing it takes us to paddle over.

When a downed tree seems to allow water at both ends, we each take a side and sometimes one chute works while the other doesn't. We try to remember that for the return trip. The number of tortuous crossings of this kind accumulates over the length of the afternoon and we are conscious that energy for the return haul will have to be equal. In actual fact, the water level can change a few centimeters during the day, so that it can be worse coming back.

Halfway up the eastern side of the run I hear the sound of a great woodpecker: tap-tap-tap-tap-tp-tp-tp-tp. The heft and the force of it have to belong to a bird the size of the pileated woodpecker, but I hear them regularly in my yard and their pounding, though persistent, is intermittent, thump-thump---thump-thump. This sounds loud and fat at first, but then tapers off at the end while increasing in frequency. It gives you the impression of a mechanical hammer on some sort of spring and at the end of the sequence the speed of the decrescendo of the tap accelerates into silence.

My exploratory mind has been hoping for a bear sighting in this remote area, but could this be even better--an ivory-billed woodpecker? Call out the troops. Fill these swampy woods with Audubon folk. Let's find this tapper. The last confirmed sighting of the ivory bill in America was just before the end of the war and so this greatest of the swampland carpenters is given up for lost.

Two years ago while looking through early editions of Mark Catesby's great collection of bird, animal, and plantlife from the Carolinas to Florida, I got a big kick out of seeing his drawing and reading his description of the ivory-billed. The prince of woodpeckers was so common in 1721 that Catesby remarks that Indians from Canada were keen to make necklaces out of the bills and came to Carolina to hunt and trade for them. In Catesby's drawing, the ivory's

bill is at least fifty percent longer and slightly fatter than the pileated's. So the chance of confusing the two on sighting is rather slim, if you get a good view of the hammer. The other distinctive feature is the prominence of white on the wings. Here we are perhaps as much as a quarter of a mile away from the mysterious sound and the woods are as thick as it gets.

My mind wanders backward now to when we first rode into the Seminole Forest from route 46. Bill and I were flustered to see the lumber trucks with large pines loaded on them from what looked like a clearcut operation of an acre of flatwoods. These are the first cuttings we have ever seen here since 1990 and they do not conform to what we heard from the Forest Service last year, at the FOWR board meeting, about the selective logging they were going to do for the health of the forest.

When I see that truckload of young trees, older than their neighbors, I begin to imagine the demise of the red-cockaded woodpecker (not here, but in old-growth pinelands across the southeast). Here is a place where in a hundred years such trees, dying a natural death and left standing, could begin to provide worthy habitat for all the wood cutters. A forest is not just a collection of logs, two-by-fours, and pine bark mulch. Each tree has the potential to develop cavities, thanks to the large families and tribes of tappers and gnawers. The pileated is now the grand arch-excavator of the forest-kind, leaving four and five inch holes which many creatures get to use.

This work of the chisel-beaks is supported by all the lightning and wind that, like Beowulf wrestling with Grendel, rip large healthy limbs from their sockets. This allows the beetles and other wood-chewers to do their carpentry. All this housing development can weaken the tree, but fortunately the feathery builders don't put all their holes in a few trees and the storms follow an arbitrary random pattern of disruption.

I understand the need for lumber from tree farms, but I can't comprehend the State of Florida spending millions to preserve the Wekiva basin and its wildlife ecology while practicing a fallen concept--the clear-cut of the whole tree--for the sake of some operating funds. In this case, we later found out that their plan is to extract the slash pine so as to restore the longleaf that was native.

But the ivory-billed in my mind is a bird who might come back if we had the habitat that it needed. Only God knows if she is altogether gone. Recently in the bayou country, a credible report of a pair has been getting much attention, but as of today no confirmations have been made. I imagine it is the extraction of cypress trees in here that has much to do with it, even though the species was in decline decades before. Henry Stoddard, the ornithologist who wrote the book on quail, lived nearby in Chuluota as a boy in the 1890's. In his *Memoir of a Naturalist* he recalls climbing to the crown of cypress trees to gather ivory-bill eggs for the handsome fee of fifty cents apiece. No small help to his poor family.

Rounding the next sharp turn, I fail to duck in time under a branch and my straw hat, companion of many years, gets thrown off the back. The stream is carrying it up against a log and it's threatening to drown there. I can't turn around or maneuver backwards easily to get it, so we move on with great reluctance and the promise that we will find it on the way back.

Gradually as the afternoon fills up, we notice the dark tannin water turning to thin orange and the water is clearer and cooler. We think we must be near a spring, perhaps even the outflow of Shark's Tooth. Excitement is building--fueled by the degree of difficulty and the possibility of

finding a new source of the marvelous Wekiva. Bill is always reminding me, from his years of diving experience, that these little boils can come and go like the woodpecker. The more experience you have of something, the more you think of it as a system, coming and going. I tend to think in my inexperience that this spring has to be the one I know from hiking and have since located on my topo map.

We look left and right for a channel of clear water to explore, but finally get to a spot where we can't paddle any further without hauling out and over a tree. Beyond that, several more obstructions loom. So we get out on opposite banks and explore on foot, hoping to see whether we are close to any upland regions or additional streams and how much clear paddling we can expect ahead.

I take the left side, bending under ten-foot sabal palms, and head straight west, hopping from log to log and hoping for higher ground. It is all soggy, but passable. I tap the palm fronds on the ground to loosen any snakes and test the ground for footing. Across the way I hear Bill marveling about the incredible amount of buttressing on some of the oldest trees.

For me the greatest wonder in here comes from the random arrays of rotten trunks, lying prostrate where the storms have thrown them. One looks like a bright orange canoe, hollowed into a powdery mesh of pulp that seems almost edible, like a giant, oblong pumpkin pie or sweet potato. The engines of recycling in this wetland forest are silently churning in full swing. A cypress stump I find completely hollowed, four to five feet high, a thin almost paper shell left from almost a century ago and inside this cavity a delicious array of webs and leaf-matter, brown and green, mold and mossy patterns on the walls.

I sometimes pack along a bow-saw to help us make our way up shallow waters, but now I feel the full pleasure of uncut woods and uncut stream-beds. That's an important measure of wilderness here, just a half-hour from the sprawling metropolis of Orlando. The deeper I go off the "trail" of the stream, the more uncertain each step becomes. This is no place for hiking. Park rangers normally build boardwalks six feet over such bottomland because the muck and leaf litter is more of a mirage than anything to step on.

Soon I have walked so far that I am wary of losing my line of return. It seems, in the geometrical simplicity of the mind, that returning to the run at the same ninety degree angle should be easy, but I know from experience of my own folly, hiking Alaska tundra and leaving my pack on a hill to explore the glacial river below, that even if you can see for miles around in unobstructed wilderness, it is impossible to recognize where exactly you came from and therefore where you must return to your kayak or pack.

You're thinking of course that Bill and I can call to each other, but you would be surprised how soon the human outcry gets muffled in these dense woods. My loud "Bill?" gets no answer now. Last month, leading a small party to the Twin Mounds which sit behind two little islands on the Wekiva mainstream, I called as loud as I could for fifteen minutes to get other canoers to come to our side of the island, but they went right past and never heard us. As the parula warbler flies, it couldn't have been more than a hundred yards. I could see glimpses of them, but they were out of earshot.

Making my way back, then, for a hundred yards or so to the run, I don't come out at a recognizable spot. I find Bill upstream so the kayaks are below us, who knows how far. Even though I tried to go straight out and straight back, I triangulated to the north. "No fool, no fun,"

they say in these parts. There is nothing straight about the run, nor to the path I could take going around so many half-grown sabals and fallen trunks and soggy patches of bog. Self-tracking is the only real help. So many creatures have it, but of all the animals, we humans have evolved through streeting and mapping into creatures who don't readily smell their own way in wild land.

Both of us now move upstream and the waters look pretty clear. I follow a little creek, hoping it's the spring's trail, but its width is too stationary and eventually it dries up into a muddy open space. To think that before I was born, men and beasts actually carried ton-loads of old-growth cypress out of here amazes me. I wish that they had practiced sustainable harvesting. Think of the scale of that when the trees could be thousands of years old: about one tree a century per acre. Still, I would like to have been part of the project of getting even one of those seniors out of here and onto some rail-bed. The map shows a tram crossing somewhere along here which we have passed without notice or just didn't quite reach.

Further up the run we come to a palm that makes a perfect hemisphere, a bridge over about fifteen feet of the run. We name it the golden arch of triumph, for the colorful epiphytes that glare in a slender shaft of sunlight. Retracing our steps back to the kayaks, we haul them forward and eventually with difficulty reach the arch and a little beyond before deciding to return rather than haul out and portage again. Perhaps if we get twenty more inches of rain, the rest of Sulphur run would open up for us. Meanwhile, a dream vision of the ivory-bill is knocking at my brain-door. The way the hammer fades is spooky, like a night with no moon, but still awash with a thin spidery whiteness, like the breath of the moon.

It was a fantasia out there, in blackwaterland, under the golden arch of triumph. I have to find a new hat.¹



Mark Catesby's drawing of an ivory-billed woodpecker from the early eighteenth century.

¹Cornell's ornithology laboratory, I found, has an actual recording of the ivory-billed on its web site, a distinct two-stroke percussion: bam-BAM and not at all the long rapid tapping we heard. But the news in 2005 is that a few sightings have been verified in a fully restored swamp in Arkansas, indicating that some of the sightings elsewhere since 1944 indicate that a restoration of the species is yet possible.

Building in the Basin



Photo of a Drawing by Jim Duby

6/3/00

As Bill and I unload the kayaks, our minds are full of the problems we both encounter as board members for the Friends of the Wekiva. Last night's meeting was completely devoted to the immediate political battle concerning a new development proposed in Lake County between highways 46 and 46-A where the bear traffic is highest. Once again the emergency of this new development has overwhelmed our long-term mission of education and appreciation of the river and its basin ecosystem.

Today, because of the wretched drought that is choking the earth, the Blackwater Creek is flowing five and a half feet below the bridge and very quickly our attention is turned to the biophysics of the river and the delight of seeing new dimensions of an old familiar path. Immediately the water is deep and brown, the angle of morning light directly in our eyes as we move east. Bill borrows my extra hat, a baseball cap with a Magic logo. We usually make it to the river in the afternoons after a short day's work, but today we are early enough to catch the sun in our eyes and a wide variety of bird chatter along the banks.

As we move down stream, the land is more prominent than usual, wide banks of gradual descent have bright new grasses racing down to the new water level. On the opposite side we see the tree trunks exposed where the current has carved underneath them so that now their roots hang like wigs hideous enough for halloween. It is a lesson in river dynamics to see the land

exposed in this way. Because the water at normal levels is so black with tannin, there is no other way to see into this part of the forest. Here, for instance, is a sabal palm which below the surface took root in the log of a downed tree, growing out of the cut end of a discarded piece of cypress.

Pretty soon Bill is remarking about how cloudy the water seems, and indeed on this bright sunny day you can see, where the creek depths are just a foot or two, quite a bit of tiny particulate matter. We are used to seeing such cloudiness in the water after rain, when much of the minuscule muck gets stirred up. So how can this be happening now without a rainstorm for the last five months?

Even though the water is full of silt, we are also struck by how much of the bottom, in some places, seems to be exposed sand. Down there you can see a lattice-work of wood of every thickness, a history of all that erosion and storm have wrought along these banks. Xylem at the bottom gets covered with sand, creating ridges and mounds at various angles. At one point Bill is sure he sees a large pipe in the sandy bottom, but when we sidle up and poke at it, the foot-round, ten-inch long metal shaft turns out to be the cut end of a palm trunk as smooth as steel.

I start to calculate the depth of muck, on this side and that. Why are there any sandy spots in the river bed? We are doing what geologists get excited about when a highway cut or other natural rift produces a revelation of the strata and the dynamics of Gaian shapes. Drought undresses the river bottom and reveals the distributions and dimensions of muck. I'm wishing I had taken a course in stream ecology.

The first observation that helps me understand the creek's sculpture is that a five-foot bank opposite a three foot elevation produces a sheer drop on the high side and a graduated bar on the other. The depth of water and the amount of overarching tree-cover seem to be the prime factors determining the amount of muck underneath. Some large percentage of the falling leaves will certainly flow down stream until obstructed, as long as the flow is full, but the distance across from bank to bank alters the amount of downstream energy for displacement. Where the riverbed is so wide as to become a flats, with water overflows going immediately into marshes or swamp, the amount of muck increases.

I put my paddle down vertically to test the bottom--how far through the muck will it go before the firm ground of sand (supported here by limestone) is felt? My kayak paddle is about seven to eight feet long and here it goes nearly halfway down, even though there's only a few inches of water over the rich brown soup. It slides very easily through, even though you can see whole leaves lodged in the watery compost. When I pull the paddle out, great long hairy masses stick to the white paddle head. A gentle knock on the gunnel and gravity again takes over, depositing the liquid leaves of yesteryear back into the riverbed. Meanwhile in the water, as if from a small underground nuclear explosion, a huge single cloud of muck mushrooms up to the surface with dozens of little knobs across the cap.

Even though the sand itself is moving down the river to the sea in small increments, we presume the sand bed to be stable. In some puzzling situations, the river narrows and yet is shallow so that one wonders where the volume of water has suddenly gone. In such low and narrow water, we can see that almost none of the water from the swamp is able now to supply runoff to build the river; so we must be experiencing a bottleneck, a place where sand and rock in the bed have built a temporary and partial dam. Here the bottom is almost completely bare and visible to us. In a few instances I actually get grounded when I fail to find the darker side where

the water is a little deeper and a trace of muck is holding to the bottom or roots on that side. In such space we can see patches of algae attached to small mounds, a series of green skullcaps.

This is a world of cream and coffee where the light does not mix much with the darkness. As we float down stream over beds of sand and muck with logs and branches obliquely thrown across this pattern, fish of all sizes flash across our vision when their background is light. Just as the large passing shadow of a raptor overhead startles the lower mammal to escape into the underbrush, the fish, acutely aware of the giant bass and catfish, take quickly to the cover of small crevasses and sticks. They seem to us to be speeding upstream, but in fact they are most often in equilibrium with the slender gravity of the current and their mouths are ever ready to eat. That's economics for you, the big fish eat the little fish that don't take cover. Do the little fish ever dive into the muck to escape?

The big issue the other night at the board meeting was the unusual offer of a well-to-do Lake County land owner to pay the FOWR a large sum of money to help him stop the development of a property adjacent to him. We are a low budget, grass roots organization with enormous clout. Members of our little troop are long-practiced and expert political activists who attend meetings and insist on scientific and ecological data to be a part of the proceedings. We often play against the lawyers of some very big predators--sometimes exotics from some larger waters like Wal-mart--but frequently from local property owners who feel they have the right to the accumulated land value that Florida's population expansion keeps on inflating.

So now some group of investors wants to build 320 units on 489 acres right in the middle of the west-side corridor for Florida black bears and in the most immediate upland area of Rock Springs and a couple of dozen minor springs which create much of the flow for Blackwater Creek. All the studies of Florida hydrology show that the uplands immediately to the west of these springs are responsible for or directly related to those flowcharts. The water district has maps which actually indicate the amount of rainfall that enters the aquifer in one place as opposed to another. We don't want parking lots, roads, and concrete housepads hanging out over the prime recharge territories.

Like the Heathrow project on the east side of the Wekiva, this property has pre-1992 vested interest, it seems, and that allows it to be developed as though it were not inside the crucial Wekiva River Protection Area. If the FOWR finds no irregularity with this grandfathered exclusion from the Protection Act, then the owners will be able to build. No one should be denied their legal right to develop property within safe guidelines, so that when the wetlands are subtracted from those 489 acres, and the legal density of one unit per acre is calculated, they should be allowed 218 units.

However, the question of septic tanks and wells, as opposed to some sort of municipal substation providing sewer and water, is still up for discussion. The Friends will surely oppose any commercialization of the property and lobby for some sort of animal corridor, esp. for the bears, and perhaps another underpass. The key issue of contention is the proposed golf course. One course already built in the basin and permitted to pump twelve million gallons a day has recently been cited for actually pumping seventy-two million. That's close to twice the water coming out of Wekiwa Springs itself. In addition, the problems of pesticides, fertilizers, and retention ponds in this golf course proposal will have to be investigated.

When Bill and I talk about this, I have a strong feeling that we cannot be taking money from any source for a particular endeavor, without compromising our integrity. We cannot with verbal or written contract show up as lobbyists for one landowner against another. Our group is not for hire. As pleasant as it might be to "fight money with money, for a change" (Bill's first reaction), we have to accept all contributions without conditions. I think one part of the public perception of the FOWR may indeed include a hidden notion that we too are big fish (property holders) who are only playing a territorial game of our own--the NIMBY idea. I know only the board members well enough to say, but this is not who the Friends are.

The only way this proposal can work is if this gentleman commits his considerable resources to the long-term protection of the whole Wekiva basin. Our group decides to fight democratically, on a day to day, issue by issue basis. If he wants to double our treasury for the sake of many generations and all central Floridians, not just to stop the project across from his pasture, then welcome aboard. It really doesn't matter because we will fight his battle anyway and without spending much money. The real question this time is whether we need a big-time legal presence to prevail. Sometimes the little fish have a way of winning out, but sometimes they need a good lawyer.

In a democracy, money can talk in the dark recesses of government and commerce. It hides in the backsides and shadows of the sunken logs and it can lash out to swallow unsuspecting prey. This developer will not make a harmless golf-course here, though elegant golf course designs exist with a minimal impact. As it turns out, the folks who want to live this close to the river will have to travel to a safer place for their golf. They will be better served to create a recharge-friendly village with transportation west toward Apopka for their commercial needs. Every new resident who buys into this development is potentially a strong advocate for partial restoration of the habitat.

If all of Lake County follows the development patterns of Orlando and Tampa, the drawdown on Blackwater could dry up all the little springs, creating the equivalent of a permanent drought far worse than today's low waters. Kissengen Spring in Polk County, for example, has been measured since in 1931, flowing as much as 21 cubic feet per second; but over the years the average rate has steadily declined. In the dry season of 1946 it had its first moment of failure and now is completely dry.¹ That isn't going to happen here, however, because everyone is watching. Droughts are great, as long as they are part of the yin and yang of it all.

Downstream Bill has stopped to show me the gnarled undertrunk of a tree that has the shape of a red-shouldered hawk, perched for action. When the rains return to Blackwater, this fellow will be engulfed and have to transform himself into an osprey to catch fish. Bill's imagination is playing this figure in a deep-throated Timucuan fugue and all the way back up stream I can feel his excitement at the discovery. When we get to the bridge, his imagination is rewarded by the sentinel at the top of a sabal palm snag, a live version of the totem we have been carrying in our minds all the way back to port.

¹ The phosphate industry uses enormous amounts of water in mining operations and that was the major factor in the decline of the spring flow.

The Noiseless Patient Hitchhiker



**gopher tortoise erasing a tire tread
Seminole State Forest**

6/13/10

When we park at the Blackwater Creek bridge, we meet a young father who has come to fish with his little boy, hair the color of the creek. It's nine am and the boy has taken to sitting in the truck so the father asks Bill if he has some bug spray. "I forgot to bring some and the mosquitoes or no see-ums are really bothering my son," he regrets. As Bill digs out his green and orange can, the boy emerges, wondering why the world has to have so many little critters that bite.

Two weeks ago we paddled upstream here at the creek and today we plan to go down to the bluff on the north side, just after the entrance of Sulphur Run into the Blackwater. It has been nineteen months since I paddled a kayak--a left elbow tendon was torn that eventually required surgery--so I am getting back into my kayaking slowly.

I feel like a boy from the Bronx again, remembering the first day of warmer weather after a long winter when we suddenly decide to get out bat, ball, and glove to start spring training. How do you balance the excitement of playing again against a sore arm from throwing too hard on the first day?

This morning I came a half hour early and while waiting for Bill at the gate to the Seminole State Forest, did my Tai Chi exercises. So now the deep slow breathing of the eight brocades is helping me find my balance of energy through patterns and circles of

slow arm motion. I move out across the fishing pond created by the wide bend of the river here and find the current. Just float a while. Under the bridge I make a slight bow of the head to acknowledge all the river masters who have preceded me.

The river's energy moves from sky to earth to aquifer to river and to sea in a pattern of motion that can contain whole lifetimes. The current now is quite swift (for a creek with a gradient of about a foot and a half per mile) because this year our rainy season is early and the creek is full with new water. Of course, some of the water carrying this kayak on its broad whale's back is older than I am, two months shy of the fullness of a biblical lifetime.

Without taking a stroke, I seem to be moving at about one mile per hour now, the pace of a walk that can take all of life in. With my fiberglass exoskeleton, I feel like a nine and a half foot turtle, upside down and riding on his own back, his back legs tucked in and these two bright yellow blades attached to his front feet ready to paddle. I reach out then to slow my progress just in time to observe an unusual community of waterbugs filling a narrowing pathway in the creek.

It always appears that swarms of waterbugs on the surface are a single organism, usually in the circular pattern of a roundabout that accelerates almost into an orgasm. But I'm at a loss to comprehend this set of four or five chorus lines, crossing my bow and passing each other. This is a very well choreographed maneuver, each bug following the next at a regular distance (3-5 inches) and staying in line between the two lines of traffic going the other way.

You can't see their bodies so much as the flash of morning light they create in their 2-mph wake. I can't see a path any one bug takes to head back south or north. Are they lining up by following the earth's magnetic pole? I wish I had a net to catch one and ask. I wish the boy at the bridge were here. Oh well, if wishes were kayaks, this whole creek would be full of kids.

Now I am riding straight into the early morning angles of aurora's golden tresses. A drama of feeding emerges, as two large dragonflies, golden orange with the sun shining through them, are looking like three-inch B-52's diving into the water and plucking out waterbugs or some other larval dainty on the rolling surface of glass. Another form of fly-fishing.

I pass the spot on the right where folks sometimes park to camp and fish, remembering the young couple I surprised on the last Christmas bird count, embarrassment all around. Most of the time when you're out in the SSF it feels like you are all alone with a garden full of Eden's creatures--especially on the water, once you get a quarter mile beyond the bridge.

As soon as Bill catches up, we both start to talk about how different the river looks here--so much more light and less canopy, a far thinner woods. You couldn't tell in the past how the landscape held its trees beyond a certain distance of dark forest. The four

hurricanes of 2004 were an enormous force upon the forest stands, three of their eyes actually crossing over the Wekiva basin in a single summer--Charles, Frances, and Jeanne. We have not been kayaking the Blackwater since then because for a few years the forest rangers had no time for trimming deadfall on the creek and then my elbow had me on the disabled list.

As we make our way around the many new snags, we can also see quite a few trees of different species that are standing in various stages of decomposition, attacked no doubt by the tribes of beetles and borers who can smell a stressed-out tree from far away and come to hasten its end. Perhaps they watch TV hurricane tracks like we do, but lick their awls and augurs in grateful anticipation of dispatching the wounded survivors.

As this newer, brighter creek unfolds, we see much more pennyroyal, spatterdock, and hyacinths basking in the solar energies. Bill starts spotting apple snail eggs, just as we saw upstream two weeks ago when we also encountered our first limpkin on this run. The snails deposit patches of little white gooey balls on the stems of aquatic vegetation, a promise of food for the tribes of ibis and limpkins who can use their long curlews to extract a precious river appetizer.

Still largely coasting all the way, saving my strokes and strength for the return, I rest my paddle, balanced across the cockpit. A damselfly almost immediately lands on the bright yellow blade on the right, an electric blue color pattern that is unforgettable. Just about an inch long, the two bulging eyes in front and the shoulders of the thorax behind them are neon blue, as though they had been dipped in the brightest color of our healthiest springs. The five large segments of the abdomen are black or dark, with slightly blue seams, and the tail end is as blue as the front.

Scientists actually speak of the ten segments of the damselfly's abdomen--1 and 2 are very short and 8-9-10 together also shorter than the center segments--and they get most of their identifiers from the notch at the very end which they call a tail. When I was a boy, I thought it obvious that the creature had an outsized stinger, but now I understand it is completely harmless to our species. In fact, this one might be more helpful than bug spray against the mosquito. I can't see its tiny tail as this beautiful creature, flying with invisible wings, glides slowly down the paddle toward the gunnel. As often happens, a damselfly will take a ride on my bow for major portions of a mile. I always want to use the pronoun *she*, but since I can't smell or tell the gender difference, perhaps I should avoid the issue.

I wonder if the boy at the bridge would be afraid of this blue-tipped dancer or fall in love with it as I have. No bream or bass he might catch today and certainly no catfish could boast as bright an outfit. I reach to the black grip on my paddle and she brushes across my hand before floating off into river-space, a true damsel clearly in no distress.

Bill has gone now well on ahead, but I catch up to him with his nose into the bank taking pictures for his writer's blog-site, mostly the standing-still delights of the river. It's hard to

take anything but a mind-shot of a winged dancer who lands on your hand. The advantage of the mind as camera is that it captures motion without blur and can be developed anew long after in the darkroom of memory.

We pass my second landmark for this portion of the river, a giant cypress stump left over from the golden age of Wekiva's logging in the late '30's and early '40's. My old photo of that remnant shows a weird yellow aura surrounding the edges of the five foot high trunk and today, because the river is much wider, we pass within just twenty-five feet of it. All down the river, thanks perhaps to the hurricanes, we see thriving young cypress digging deep their roots and knees, beginning the reach of a thousand years or more.

Ever since I did the research about the magnitude of the cypress logging in Wekiva's basin¹, I have tried to get a project of restoration funded, but could never find the expert who would take it on. Perhaps the hurricanes are showing us not to bother. A few more recurrences of 2004 will get rid of all the hardwood intruders who recklessly built in the bottomland and make room for an entirely new giant cypress stand to celebrate the year 4000.

Sometimes when I just coast along without making a stroke, I give up steering around the hundred sticks and branches that hang down or pop up out of the water and just move my torso aside. Today from the overhanging branches I am bemused by the light energy from many different shapes and structures of spider webs. These weavers evidently swing like Tarzan (or Jane) back and forth across the creek from anchors high above or else they crawl all the way down to the tip of the branch nearest the water.

The river is a giant circulating nest of all the insect life going from nymph stages to emerge on land and cross over into winged flight. So the spiders are just waiting for their palm pilots to ring up a breakfast tune on the xylophone of the orb or weave. Another bug has climbed out of the river molts and spreads its wings before the wind and the web.

A stick standing straight up out of the water is coming right at me now, so I bow my head to the left to let it glide by, along the right side. Suddenly from under the bow a cracking sound. The branch flies into my shoulder and snapping back again deposits a huge spider into the cockpit, landing directly into the empty cup holder in front of my seat. I flinch and scream at once (a phrase a boy should not hear) before my eyes try to see exactly what it is.

I bend my head over slowly. Never saw this one before, long black legs that have subtle pale white rings, the body small and black. I am happy I see no red anvil betokening the dangerous black widow. I don't like to just kill a spider unless I know it is lethal, so I take a piece of the broken branch and try to get it to climb on so I can let it ride the river by

¹ See Song of Wekiva, V. "Bald Cypress."

itself. It jumps around quite lively and I abandon the simple plan of capture and release. Do spiders have adrenaline too?

Fear waxes and wanes in us as we try to imagine solutions to our distressing problems. I have picked up many a spider in my kayak that made for pleasant conversation all the way back to the launch site, but for the first ten minutes now I am watching the well and contemplating murder. Finally Bill closes the gap between us and I tell him a huge eight-legged has joined me for the trip. I'm thinking now I will just let her find a resting place until we get out at the bluff for lunch. As though reading my mind, she disappears under my seat.

Now the north side of the creek broadens into swamp and the channel takes a series of sharp turns, right and then back left. I'm dancing with the waterbugs myself now, strophe and antistrophe in a Greek comedy. We used to encounter a large gator or two here on the back end of these ess curves, but perhaps they are taking their solar lounge in the backyard, out of sight. Sometimes the monsters we fear actually are more comfortable in retreat.

The flanks of the forest now open up on both sides, that bright yellow-green light filling the sky, reflecting off the low brush that stretches for a quarter mile to a tree line on the far horizon. I catch up to Bill at the entrance to Sulphur Run on the left, but we have no expectation that it could be navigable today, and so move on. A few pine trees emerge on the left and a low bank is rising, so we know the target of our trip and lunch time is near at hand. Mindful of my mysterious passenger, I try to convince Bill that perhaps because of the high water, we may be passing the bluff which is our target, but his firm memory of the place will not be deceived.

Some folks have been camping here often enough to build a seat across two low stumps and to haul in a small round table. A hefty load of charcoal from fire wood fills a four-foot circle, giving us a sense of wild home. We start to roam around the perimeter of our chosen lunch-site and find a half dozen interesting species of wildflowers, Bill taking more pics. I tell Bill the story of my spider companion, who I hope is climbing out of my half overturned kayak while we lunch. Funny now how much smaller she looks when I'm standing safely outside on firm ground than she seemed jumping around between my two bare legs. Not more than two inches long.

Bill and I munch around the site for a half hour, planning a year's worth of monthly field trips for the Friends of Wekiva--a project we hope will renew the spirits of our organization through direct engagement with the river basin. Today's trip could work great if we had some expert on damsel-, dragon-, and butterflies to help us understand the lately blooming science of insect ecology.

Insects and their predators are the most important and predominant dimension of life in and on the river-forest, not just in Wekiva of course but across the habitats of the globe. They constitute 80% of the species on earth, fitting between the water, the air, the plants, and the fauna in far more ways than any other life forms. They are the original

energy of metamorphosis, a lesson for humans in developmental adaptation. A recent textbook estimates 750,000 species of them and thanks to the internet that number is rising swiftly as science more easily spreads its news and flies away. To watch the interplay of the insect world with the rest of the ecosystem is to begin to comprehend the subtlety and sophistication of the song of creation, here and now.

I start back early as Bill explores a little further downstream. Pretty soon he catches up and leaves me in his wake as my arms are weary. I am laboring not to haul too much of my weight, against the current, and preserve the newfound utility of my left arm. Heading now west into the sun, my legs are getting far more sun than they should--I didn't think to sunscreen my shins and calves--so I get out my old mosquito shirt to cover them.

Looking ahead as I paddle, I see a spider walking or rather hopping across the water coming towards me and angling toward the shore. This comic sight sets me to wondering where my spider comrade is by now. A dog or an otter dropped off a couple of miles from home might find its way back to where I picked him up, but what does a spider do in such a case of transport? To get back home, she would have to hug the stillwater shoreline and take to land when the current switched sides. Or maybe all she has to do is wait for a favorable wind to swing from tree to tree. Can she make her web at the bluff and find the same accommodations of life or will she head downstream to the nearest facsimile of her old abode?

Sensing that the heat is beginning to slow my progress--a high of 97 today is no longer a prediction--I pull over into the shade, gulp down the rest of my water supply, pull off my cap and glasses, and throw the cold river over my head and back. It is amazing how quickly the whole exhausted body responds to a cool river bath. That and a sweet-n-salty granola bar.

Bill has waited for me at a point of water outflow just east of the bridge and we pull back into the landing, exhilarated by this new form of the river the hurricanes have created. "Funny," he says, "how much heavier these things are in return," as we both proceed slowly to load the kayaks onto our cars.

As I go to haul mine up on my right shoulder, there she is again, moving down into the back corner. I tell her she will be much happier if she gets out now and avoids the half-hour drive back to the suburbs at up to 50 mph. She only comprehends inches per second. The part of me that wanted to dispatch her to an ultimate netherworld (or a heavenly web site) is now thinking that once I get this blue capsule up on the old Buick, that will be the last of her.

Wrong again, mighty nature boob. I guess she grabbed onto the seat strap or found some crevice to hide in as the wind howled and the tie-straps groaned all the way to Maitland. I saw her again, in the cockpit still, as I unloaded my kayak and stood it up against the wall in my garage.

It is difficult to maintain a scientific attitude about this ominous and heroic journey from the river to our neighborhood. All life is a blessing, of course, but when one critter instinctually latches on to your own devious path and hangs in there, you want to call her a destiny, a sign, an assurance that you are doing the right thing, that fears of insects and other creepy biters should not be allowed to keep us from the many favorable and benign tokens in our lives. Better to carry that fear along for the ride until it becomes just another familiar friend in the garage.

I am going to go out there now and see if I can find her.

*A NOISELESS patient spider,
I mark'd where on a little promontory it stood isolated,
Mark'd how to explore the vacant vast surrounding,
It launch'd forth filament, filament, filament, out of itself,
Ever unreeling them, ever tirelessly speeding them.*

*And you O my soul where you stand,
Surrounded, detached, in measureless oceans of space,
Ceaselessly musing, venturing, throwing, seeking the spheres to
connect them,
Till the bridge you will need be form'd, till the ductile anchor
hold,
Till the gossamer thread you fling catch somewhere, O my soul.*

Whitman: *Leaves of Grass*

Cypress Dome

A Natural History of History

LOCAL ANTIQUITIES

The brook, older
than manuscripts, tells
the news:

the hills, out in the
rain,
antedate altars:

when the painter turns
from “absolute”
paint, it begins to

crack: weeds and
bushes
where cities stood

put the rubble
down: we
separate

our things from
things, but only
changing with change

stays beyond things
and us, mocks change’s
mocking changes.

A. R. AMMONS

From *Brink Road*, ©1966 by A. R. Ammons
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Robert J. Curtis
PORTRAIT OF OSCEOLA
1838. Oil on canvas, 30" x 25"

From *Celebrating Florida: Works of Art from the Vickers Collection*. Photo by James Quine.

I.

We stand atop the empire state building of our static imaginations, afraid to change the way we think about ourselves and our river communities. Blind to the poetry of biochemistry, we cling to historical, linear concepts of time instead of embracing the circular, symmetrical and alternating currents of the cell. Chemical sequences inside the cell may be diagrammed as going → or ←, but the equilibrium of cell insures for every vector there is a counterforce. I want to set up the vector that will take us from this year back out of historical time into the womb of life and the first embryonic stem cell. We will be encountering what J. T. Fraser has called biotemporal time.¹

Imagine you are at the top of a giant cypress that stands this past thousand years beside an elegant spring of the Wekiva. You can see all the way down to the limestone at the base of central Florida's civilization. You need courage, you feel, to face the tasks ahead, so you decide in this waking dream-state to take the dive, all the way down to the point where biosphere meets noosphere, where nature becomes culture, the edge indeed where the natural history of history begins.

What the heck, it's so far down you decide to throw in just a flip or two, before you plunge feet first into the mouth of the wide boil. It's only 150 feet. Every tree species knows the limits of loft in its building, and in Florida the giant cypress has literally thousands of years of lightning, droughts, floods, and hurricane winds to tell it how tall a tower of un-Babel to build. The trunk of this cypress is so straight and broad it seems much like a cliff with a slight overhang. Over there in the high oaks we can see a pair of ospreys have set their house of branches without roof, shingle, or tar. Let's find an open space here, without intervening branches, and let go our gravity.

We fly down together, a brief and painless reverse launch, immediately accelerating into a new dimension of time, slow enough for the profoundest contemplation. The body at high speed leaves the mind in near-perfect stillness, as though a swallowtail had suddenly clutched the soft white flower-sphere on a buttonbush:

- 1) 2000-1950 air travel, airboats, jetskis, cars, motorboats, land acquisition, the protection law, Sweetwater Oaks and Disney World, the Wekiwa State Park, Canaveral's Man on the Moon, the last dusky seaside sparrow: The Age of Retirement and Theme Parks
- 2) 1950-1875 car travel, trains, coastal development, the last ivory-billed woodpeckers, giant cypress, virgin longleaf pine, horse and buggy, steamboats and skidders: The Age of Wintering and Logging
- 3) 1875-1775 the Civil War, the Seminole Wars, the Trail of Tears, plantations and slavery, the Revolutionary War, the last wolves: The Age of Settlement and Warfare

- 4) 1775-1513 galleons, clippers, boats along the St. Johns, horses, plantations, Fort San Marcos, missions, and the last Timucuan communities: The Age of Spanish Exploration and Conquest. We land at the point where history first touches Florida.

II.
Ponce De Leon in Florida



The Cummer Museum of Art and Gardens: Jacksonville, Florida
Thomas Moran: *Ponce de Leon in Florida*, 1877-78
Oil on canvas, 63 x 115 in.

4/19/02

You sit in front of this painting and it sucks you into Florida wilderness, a hydric hammock with some ephemeral pool to the left and a spring in the deepest background. It could be Wekiwa or any other major spring along the St. Johns. It moves back on the right of center to a small medallion of pale blue sky—the rest of the heavens covered entirely in a canopy of fronds, vines, and leafy branches. From a distance of fifty feet, a soldier of the Spanish realm, with helmet and bright red cuirass moves with a rifle through the brush toward you. He has emerged from a troop of sixty soldiers and their leader far off under tall trees in a clearing about three hundred yards away. If you ask who these men are, they come in conquest to a land where

even now no one knows them. Only history can tell who they are. The swamp and the sabal palm care not, know less, that it is 1513 and Spain has arrived to an outland it can only settle in fifty years and only defend after that for two hundred more. The cypress and some of the oaks in here will still be sapping up when The Fountain of Youth is being superseded in American mythology by fifty cubic feet of shore-stone called Plymouth Rock. History comes and goes like the glint of the firefly, a brief twinkle of illuminism with only a faint trace of afterglow. In Florida, Moran seems to have caught a glimpse of the time that precedes history.

Given the size of the canvas in this bright room of Jacksonville's finest museum—it seems to fill almost the entire wall—one has to wonder why the human scene Moran illuminated is so far away, so overwhelmed and repressed in detail. The chief of the Spaniards is set off smartly against the lichen-bright oak in the background, but only the title of the painting could reveal who he is and what the occasion. Landscape dwarfs the conquistador of yesteryear, but only so much as is required to register that this is the history of the search for treasures in America's wild world. He gave the whole state its name—after the flowers of Easter, the day when he arrived—and he gave it as well the myth of the eternal return, a spiritual image of Florida that has survived longer than the monarchy that coined it.

III. The Natural History of History

How are we to say what the natural history of history is? History, according to nature, is a species of time-consciousness. It belongs to an organism that keeps track of when things happen, that builds upon the multidimensional cyclical seasons of the sun a permanent record in two directions, backward but mostly forward in time. History is a straight line made out of a circle. Just as there is no sense in pretending that Ponce de Leon (who eventually died of an arrow wound) or his Fountain of Youth actually exist and function in present time and forward, the normal concept of time itself is outmoded.

As many surmised at the beginning of the twentieth century that (the old) God is dead, so now Time has likewise passed away into something new. In the face of the facts of gravity and energy and their simple conversion as a factor of mass and velocity, we know that simple time does not exist. Our plunge from the cypress dome is showing that. Time is a myth as colorful and as problematic as the Fountain of Youth. Sitting in the Cummer Museum we know that if the universe contracts tonight, the whole vector of simple time (what Fraser calls historical time) will be undone and mortality will become immortality. Ponce de Leon will be ahead of us briefly and then the sea will swallow our peninsula and eventually calcium will close out of the picture entirely. The big question then will be whether the brief history of history was worth all the expansion in the swamp gone back to chaos. It is not difficult to imagine, using Moran's cues, that the illumination of history is but a brief and ephemeral flutter in the black-as-peat Florida jungle, one step removed from implosion into a black whole.

It seems clear that this painting, which Moran hoped would stand in the U. S. House of Representatives together with other monumental western landscapes of Yellowstone and the Tetons, did not identify a particular place for the Fountain of Youth nor a particular event in time, for example a peace treaty or the erection of a fort. Instead, the painting recalls in general the fact of Contact itself, Native Americans seated casually in front and to the left of the first Spanish governor in what is now the United States. The Timucucans did not, I presume, have time on a recorded line moving forward with Manifest Destiny of any kind. The question, then, is how does the helmet of history fit into the patterns of native nature.

Moran's view of Ponce de Leon's negotiation of this scene shows that even now, we live in our immediate real world outside of history, for example, right now being made in the Middle East (is World War III in progress?). For most of us the war on terrorism isn't really happening in the Florida swamplands any more than the Fountain of Youth is going on there. By contrast, non-stop biological magic is happening in every cell. Actually, the Fountain of Youth is visible in kindergartens all over the transcendental world, easy enough to visit any weekday.

IV

Castillo de San Marcos St. Augustine, Florida

4/20/02

The black crow is diving and squawking at the great blue heron, out over the meadows and marshes of the Matanzas River. A lonely oak stands sentinel, beyond the newly constructed outer battlement of the ancient fort. The nearest perch is half a mile away, and the harried heron sweeps back and forth evading his pursuer, each time just at the last second. This is an event both birds will remember—the yin of a panic inside the yang of a pursuit. But it is no history. The heron has her autobiography in her head, but without recording the dates or places for others to see later. The crow is a different story in a larger social unit, no doubt; but both of them here are just playing out mutual instincts of preservation and escape, as mundane as the delivery of the morning paper, as opposed to the headlines which might sell it. How quickly the headlines change, marking the rising or setting of a sun each day.

Meanwhile history records that this mammoth fort was built of coquina stone (1672-95) to protect St. Augustine from British invaders who burnt the original wooden fort that in some sense dated back to the founding of the city in 1565. The outer walls slant inward as they rise so that it is a pyramid without a peak, a monument of such mass that it will not likely stop being history for a long time. Just up the St. Mark's river a mile to the north, history records as well the first free black settlement in America at Fort Mose (1738). On a crude map of the era, you can see the words "Negroe Fort" marking the outpost. Here blacks, sold out by their fellow humans

and ripped out of Africa, brought their native songs and their family tribal lore to a strange Florida habitat and climate. Only recently have scholars recovered some of the scraps of those stories to inscribe into the text of American or Florida Studies.

The brown grackle flies up to the slanted face of the exterior battlement wall and grabs hold of a corner of the coquina stone—not a ledge, really, but a slight knob to which the wary bird can attach two little feet. It seems precarious, but satisfying, as she marvels in the bright sun at the crowds of tourists. Are grackles tourists when they migrate? We know of course that they stop to eat in busloads, but do they look around and contemplate retiring here? It reminds me of the time we had a beautiful concert on the Lower Wekiva River at Katie's Landing, to celebrate Wekiva Awareness Day, and a local flock of fifty grackles came from across the flats and all up and down the river to sit in the cypress trees. Some just listened, but the majority squawked along. They wanted to be a part of Marble Feather, a Celtic jazz group with twelve-string guitar, bass, synthesizer, and percussion, singing their songs of Florida and the Wekiva.²

Human tourism in St. Augustine is almost always about history—a vacation being a time out from real work to contemplate the great encounters, those wars and invasions, battles and executions that we are told have shaped who we are. Hard to argue that it matters a great deal when Florida gets traded for Havana in the aftermath of one war and then back again after another, just twenty years later. Still, we defend our territory like the crow and celebrate the dawn of any new enterprise in great convocations like the grackles.

Now a few young men in confederate costumes enact the training drills by which this fort was defended from 1825 through the Civil War era. A pigeon lands on the drainpipe that extends from the deck to the outer wall and a second lands right beside her, the first sidling up the curved little ramp into the dark and crusty wall. Later, when we descend into the bowels of the fort, the same pair arrive in a small window of the dungeon we tramp through, a much more imposing appearance, but they are still not even close to making history. It strikes me that with respect to the large motions of history, we all stand like two pigeons in a drain pipe. Okay, if you want something a little more glamorous, two ospreys on a cypress dome. But, even if we are the actors, as in a battle, a protest march, or a migration to the suburbs, our actions are short and simple compared to the outcome which becomes a portion of the history lesson.

² Angela Sterling Forest, *Marble Feather*, 2000. The group has since disbanded.

Emerson: On the Right Side of History

*...Slow slid the vessel to the fragrant shore
 Loitering along Matanza's sunny waves
 And under Anastasia's verdant isle.
 I saw St. Mark's grim bastions, piles of stone
 Planting their deep foundations in the sea
 Which spoke to the eye of Spain...*
 Ralph Waldo Emerson: "St. Augustine"

When it's over, someone writes our history, just as Moran records Ponce de Leon's encounter with the Timucuan. As far as the painting goes, they forever remain nameless, both the tribe and the individuals. It is an entirely imagined event, a concoction of a scene from a myth, some assume, about the narrow personal quest of a Spaniard for something other than gold, silver, and exotic plants. Anyone who reads the *relaciones* of the Spanish conquistadors or the depositions of their subordinates and captives understands the cloud of unknowing in which they wrote of themselves and their encounters.

That's history for you. Throw up a timeline and hang your best clothing on it for the neighbors to admire. However, the Castillo de San Marcos, with its four triangular abutments, certainly is no fairy tale. It gave the settlers not so much immortality, as postponement of death. So the troops of tourists tramping around St. Augustine today, discovering like Twain at each new corner the next "oldest" house, are getting a sense of history. This is especially true if they ride in a carriage behind the clap of a horse's hooves named Dolly. In this endeavor I am riding behind the wisdom of America's first great philosopher who visited St. Augustine in 1827, just after Spain's withdrawal. His journal is full of the cruel conditions for natives, Minorcans, and slaves, but his poetry rises slightly above that.

Emerson had it straight in his essay on history when he spoke of no dates, no events, and no persons. For him the person was not an inhabitant of a once-occurring war or election, but the possibility of a long cosmic journey in which all the energy that mattered was consistent.

So, does it matter if we live inside the forces of history, as of evolution, barely able at any point to discern our changing place? What seems to be important is, as Florida Audubon's Clay Henderson once put it, to be on the right side of history, to make the right choices, to support the enduring causes. A citizen of the river community would want to do that by using biochemistry to balance history. This means, in our journey backwards in time, to cross over and join the

Timucuan at Wekiva, to inhabit their biotemporal imagination. Hence, we need above all else to restore the Timucuan to Wekiva.

In the bowels of this fort they put on display the implements of all the players. We see the Timucuan atlatl in the context of the swords of the sixteenth- and seventeenth-century Spain, their bow and arrows opposing a heavy pistol. They exhibit the images of de Bry (based on Le Moyne) which show Timucuan bent over a field of corn. A scholar's footnote calls our attention to the fact that the plow shown by de Bry is not authentic, but rather the intrusion of a European for a native implement. In the same way Moran, lacking any Timucuan models, imports his western natives into Ponce de Leon's presence, but Florida's swamps he supplies in details which are exquisitely accurate because of the sketches he brought back to New York from his regular visits to Florida. So we find that the reruns of history are full of migrants and exotics, concoctions and anachronisms, sometimes entirely inadvertent, for our delight.

History was really the courage of actual warriors and defenders, the crafts of the coquina masons (mostly their slaves and natives), the patience of mothers and farmers, and the stamina of the workers, all governed by the pompous rhetoric of Castille. Without alphabetic record and numerical calculations, history died quickly with the memories of a Timucuan tribe, said to have faded in 1729 when the last one expired in exile in a suburb of Havana.

Of course, the last of the Timucuan is undoubtedly now part Seminole or part Hispanic or part African—perhaps all three—and thoroughly American, that is, speaking some dialect of English and living anywhere from here to Anchorage. She is more difficult to trace than the oldest house in St. Augustine. She belongs still to the biosphere, you see, and is moving through life, not through text or cultural artifact. I like to imagine her, sitting on the banks of the St. Johns River, catchin' a mullet so big that all the neighbors gather around like gulls, but in perfect awe, until she invites them to join the feast. Timucuan who once sat at the feet of Ponce de Leon in Moran's imagination are now lost back into life, ten times more precious than the Daughters of the American Revolution who can trace themselves back to the beginning of our British history, because that much more rare and undiscovered.

There is a curious ownership in the affairs of history that tribal traditions do not seem to evince, a kind of private property of text. The provenance of Moran's painting, for example, makes for a great allegory of this process. The succession of people ready to pay first \$10,000 (about \$200 a square foot), now ten million, shows art history as commodity. Intended first as a national treasure, this fine painting soon became a perfectly private one. Then Henry Flagler, the oil-rail-tourist tycoon, used it as the signature piece of his commercialization of St. Augustine's history in a hotel (part of Flagler's history theme park); after that it "fell" again into private hands; and finally it was "acquired for the people of Florida by the Frederick H. Schultz family and Nations Bank" (itself now the acquisition of another entity) and fostered by the Cummer Museum. Meanwhile, the longer America endures, the stronger the biotemporal imagination of Moran becomes. He has given us an icon of the edge between nature and culture, of the balance between growth and preservation that the endurance of the spirit of Wekiva really needs.

Emerson and the transcendentalists were interested when they started the American declaration of independence from the culture of Europe to couch the history of America in a new context of natural history. Whitman especially wished us to stop making myths out of feudal heroes and patronage art. I don't know exactly what he would do with Ponce de Leon and the first contact in Florida, but I think he and Thoreau would have applauded Moran's zooming out so far that the swamp, indeed the fountain of youth itself, are contained in a hydric hammock as big as the Tetons or Yellowstone Falls. Moran doesn't go so far as the Chinese screen painters to make the human figure as small as the butterfly, but the effect is given of both a dwarfing of human history and a closeup of the always rapidly changing and very slowly evolving natural world.

Not since I was a boy, have I gone to the Fountain of Youth in St. Augustine or to Ripley's Believe It or Not, two youthful adventures of growing up in credulity. Moran too has placed the same skepticism in our hearts by having that soldier in the foreground en garde against the jungle. To enter the bastion of St. Mark now is to enter a different time zone, to walk inside a text that has more or less stood still while we changed. However, to enter the swamp in the imagination of Moran and de Leon is to move through the almanac of ever-changing patterns of dove mating. Culture is not exactly as meaningless as the GACT nucleotides that form part of the transcription material of DNA, but it does not combine and regenerate itself in the blindly erotic and compulsive manner of organisms and species.

This is not to deny the history of culture wars and the miscegenation of ideas and forms which American art is always throwing at us. It just seems a shame that often culture has little capacity for recognizing that all that it does in some sense comes from the inside and that every new child born *tabula rasa* into a culture, as Emerson maintained long ago, is a fountain of youth to the species, nation, and family.

Where the Bears and the Timucuan Roam

Eight years ago Jim and Sandy, two of our best friends, left the college and Florida for southwestern Virginia, promising that the move would not change our friendship. Indeed, the constellations of our friendships in both places are now quite different, but through frequent calls, letters, and visits our friendship has remained the same. This week they came to visit us on spring break, so Jim and I, as usual, spent several days of hiking and exploring.

3/16/00

It's Monday the thirteenth of March, as we pack our water, food, and maps to set off for the Seminole Forest, just twenty minutes' drive away. Our plan is to locate the little known Shark's Tooth spring which my son Sean and I found last fall, just off the Florida trail. Reports of another spring in the area add seasoning to our quest. What other springlets are flowing out of the limestone ridges of Sulphur Island and feeding into the shallow bed of Sulphur Run?

At the car we spray our ankles, pants, and boots to forestall the redbugs and ticks because we will most certainly be going off the trails. The weather is perfect, clear with a high in the low seventies. The world is new green and the excitement of bird song has almost all the critters primed for reproduction. Hope is a thing with hormones and this is its highpoint.

At the north gated entrance to the Forest off route 44, near Cassia, we pay our \$2 in the metal cylinder. Jim checks out the hunting schedule--which I should have done before we set out--and luckily we have arrived five days before the last scheduled hunt of the season. We are hunters, too, but only with our feet, our inner and outer senses, and an ordinary camera. And you, dear reader, what are you tracking among these words? Perhaps we have more surprises in store than we can imagine.

The ground is soft as we set out down the trail through an upland, a former pasture of longleaf pines and grasses. We had a good rain two days ago, but the season and the year have been unusually dry so that the ground beneath the canopy we now enter is crackling with leaves and needles. Even though these areas are managed thoroughly by a team of ranger fire-dragons, leaving black scars on the lower trunks of many trees throughout the 20,000 acres here, the amount of light tinder from even one year's fall is extraordinary. It smells delicious and softens every step along the path, crumpled by human and other animal feet to a slightly finer carpet. If you go by the evidence of the trail register, not many humans are commuting to this forest. Indeed, on many days, no one clocks in.

It was a year ago when I first introduced Jim to the Seminole Forest and now we spend most of our time recalling that hike, as once again we are moving east along the pasture, then through the slash pine and palmettos. We investigate a variety of dry sinkholes and lakes, find ourselves at Lake Jordan watching a sandhill crane cruise across to the other side and disappear entirely in the tall brown grass and cypress knees. A red-tailed hawk circles down over the

western shore. Panning a dock on the north side with my binoculars, I spy a kestrel spying us. The old dock on this side is years beyond use and sits 4-5 feet above the current water level.

You can read the level of water supply in Florida, just about anywhere along this walk; or you can get it off the web sites of the U. S. Geological Survey and the Saint Johns River Water Management District. These agencies have a number of river and spring gauges, operating full-time by solar energy and flashing up immediate short-term and long-term data into cyberspace. They provide excellent charts revealing the pattern of decline over the past fifty years, fifty days, or fifty hours. When you look at this data, you can easily recognize the major hurricanes and rainy seasons since they appear as gigantic spikes of surface water increase with corresponding loading of the aquifer and spring pressure. Just as easily as the financial newscasters can read the upward trends in the flow of capital and profit during the last fifty years, we can say with relative certainty that since 1950 this forest and river basin has lost something close to 30% of its water capacity, in spite of the large volumes of rain-exchange we have had.



Jim, contemplating the run out of Helene Spring

Of course, for every drop that is invested from the skies, a drop and more has been sold off by the transpiration and perspiration of earthkind (forget for a moment all the other forms of sprinklers and valves in our manufactured plumbing systems). It all takes place every second in the pits of the water stock exchange called the cell. No one knows for sure whether this current bear market in our Florida water economy will throw us forest folk into a depression. However, it is amply clear that the inverse correlation between human population growth and water use is a big factor, in spite of all the Greenspans who have tried to regulate the development of wetlands, the conservation of water, and the density of population in Florida.

The music of the wind and the birds in the trees reminds us that despite the current drought and fire danger, all of which nature in Florida has seen before in greater extremes, this new season will be just as blessed as the last. I take a deep breath and wonder how they calculate the total volume of photosynthesis and transpiration, the power and the pump, of the Seminole State forest. It feels like a day of glorious banquets and a thousand lovely baths. Seven hundred people at the SJRWMD are working hard to insure that in the next doubling of our region's population--expected in the next twenty years--we will have water to drink and use. Now they predict that by 2010 we will be the first humans in Florida who have to pay for their water from some source other than the aquifer.

We reach a three-way intersection of the dirt path and following a small green and yellow signpost, start the descent along Pine Road to the culvert marking Sulphur Run. From a distance of a hundred yards, we see the deep darkness of the green where water flows. This is a different realm. A slender turkey crosses the sandy roadbed and we walk to investigate. For several minutes, while we try to find him among the bushes--we can see into the woods quite a distance now--he stands, stock still, blending with the browns and greys of the forest floor. Just when we turn to move on, he scurries toward the cover of the shallow creek we just crossed over.

Sulphur Run slithers through the middle of a swamp that just about circles a two-square mile area of upland called Sulphur Island. On the topo map, this island rises gradually from the hydric hammock to a height of seventy feet, taking the shape of a pear with the stem at the bottom. If you imagine the top of the pear has a clock-face, Sulphur Run goes from about nine on the clock to four in the east. There it empties into Blackwater Creek on its way to the lower Wekiva. Except in the highest of water seasons, the run is far too shallow and cluttered with snags for anyone to paddle up from the Blackwater.

We head now south along the Florida Trail toward Shark's Tooth Spring, a two-foot wide rill coming out of a hole just a little bigger than my thigh. When we arrive at the little footbridge for the path thirty feet below the spring, we sit for lunch, sharing apples and granola bars and water until we are fully rested.

Much of the human world now finds the faucet, the sink, and the water fountain or cooler more common than this natural equivalent. No office friends would camp in admiration in front of a faucet, turn it on, and feel the spiritual resonance Jim and I feel here. Putting water into closed plumbing systems, as we humans do, hugely takes away its usefulness for all other forms of life. To this extent, we have lost the openness, community, and democracy of water which it has enjoyed from the time of the first garden of creation.

Earthkind is waterkind. We feel that truth quite deeply here amid noises in the bushes. I begin to imagine that perhaps the bears and the deer or other critters are getting impatient, waiting in the brush, above and below, for us to finish our lunch before they come to the best place in their building to snatch a drink at the cooler.

It is useful to hold the measure of human friendship up to this forest ecology. Pairs of other animals can be observed in a variety of natural settings, but all the evidence of ethology shows little affinity in other species for independent friendships among adults. Only in the world of Winnie the Pooh or the Lion King, for the sake of the childhood imagination, do we see friendship between and within species. What really makes us different from the other animals? Is there any sense in which we are superior, above the other species?

Aristotle talked about the human as a social animal, but friendship is something much larger than that, and to me more precious by far. Without blowing up the balloon of anthropocentrism, I like to think of the humble human as a magnanimal, mostly because of our capacity to be kind, to build and maintain a healthy relationship which endures, reveals, and evolves. One cannot take a friendship for granted. One has to keep the eyes and ears at alert to know the range of suffering and joy that each life in its separate world enfolds. It largely grows, not from talking and email, but from doing things together.

The Greeks had a word for that, *synergy*, and in all my closest friendships there has been an electrical charge I could almost smell, a connection when we get together for dinner, some project, or an outing. I am groping here for a truth I know that every friend comprehends, intuitively and without question. So how different is that quality from the synergy of forest ecology where many species and populations of species, plant and animal, have a thousand interacting points in the energy transfers, the decomposition, the predation, the feeding, and the reproduction of the community of the forest?

We move out away from the gravelly run, south and up, climbing twenty to thirty feet above the trail and back to the high noon of Sulphur Run. Here Pine Road intersects with two other jeep paths, one south and one west by southwest, and we head out on the latter, keeping an eye out for the thick dark green and the tall sabal palms indicating a path of water flow. Immediately we feel the distance widens between us and the run; but when it gathers closer to us, we bushwack through palmettos (carefully), hoping to find new sources for the ten-foot wide stream.

Sure enough at the first bend in the topo-map where the lines of elevation converge almost to a point, there is a steep drop and we find the spring we've been hoping to discover. Well, it's more like a seep. Out from under a small tree is the only place where one might imagine an opening into the hill that would take us to the face of that great limestone water tower just below the surface of Sulphur Island. The rest of the water oozes out in several muddy places and barely creates a stream. I drop a few oak leaves through the tree roots and watch their little barks. Some stick to the sand and some get lofted on the clear stream and move briskly for a few feet. Smart tree, to put down roots right over the little spring mouth. All this seepage converges to a narrow and less vigorous rill that heads north and east into the run, somewhat out of sight. This spot reminds us of many a mountain seep along the Appalachian Trail or the Iron Mountain range of Jim's Virginia region.

Heading back to the trail with a sense of accomplishment, I am still thinking there is one more likely spot on the topo map where the spring the ranger mentioned two months ago might exist. So we proceed along the sandy road, just as before, keeping an eye out for the tall sabal palms. Another third of a mile later we once again penetrate the brush and descend, soon to a steep ridge, a much denser jungle, and finally a shining little stream. The water again is perfectly clear and the flow is much more copious than Shark's Tooth. Here green-patched and shell-flecked limestone rocks have tumbled out of the bottom of the hill in several places and half a dozen holes appear at various levels, the lower ones making streamlets of their own.

I whip out my camera, as Jim hops and vaults from rock to palm tree base to rock again, across the thirty-yard stretch. I am puzzling over an irregular boulder, sitting upright and facing into the first big hole. It looks like a stocky animal of some sort who is sipping at the stream. Between the two readily discernible ears, there's a fist-sized hole (as though brain surgery had been performed). A pocketful of dry oak leaves are nestled in there. Below its shoulders are stubby front feet, and a broad rump sticks up a little behind. The whole figure is about as big as UGA, the famous bull-dog mascot. In fascination, I find myself angling and clicking a half-dozen pictures of the little beast from every angle, then some more of the rest of the vents and

streams and tree trunks. I finish with one of Jim sitting in the middle of the bluff which yields this magical treasure: earth-made water, as clean as you please, and water-made stone to drink it.

We start to take stock of our discovery and I am wanting to name the spring for the rock-figure. "Rhinoceros," "hippopotamus," "litho-hippo," I crank out names for Jim's approval. "How about Lithopotamus Springs?" Who knows? It doesn't need a name, really, but it is a particular and unique place in all this earth, just like the rest of us plants and animals, so we want to be able to proper-name it. In the world's census of water bodies, it needs to be counted. It changes and therefore can tell us things. Clearly, at some seasons of high water, it flows from those higher cavities and makes quite a gush. I feel like John Muir "discovering" ever new glaciers (except that he had the pleasure of being guided there by the natives). I wonder where the nearest Timucuan mound would be.

We are filled with an indescribably deep pleasure. It's not just the hike, the natural history, the sandhill ecology, or the mystery of water. All these are a part of what many now call "deep" ecology, the biocentric experience. But what happens when friendship is joined to all that? Perhaps that is why so many grass roots groups call themselves Friends of the Lake Apopka or Friends of the Wekiva.



Rock Cub Spring

Ready to turn back north to our car and home, we walk west again and unwillingly south a little, expecting to find the road or path we took last year when we went down the west side of Sulphur Run and crossed on a defunct road with a washed-out culvert. Eventually, after a few confusions of path, we recover our old trail and are heading directly north to the field below the parking area. Just to do something different, when we see a narrow path veer off the choppy, old jeep trail, we head slightly west of due north on this nearly overgrown footpath or animal track.

Soon we discover, walking amidst palmettos and scrub, dry bear scat, fairly frequently occurring on the path, like every other hundred feet. Maybe someone should mark this as the Bear Trail, heading north toward the Ocala National Forest. Gradually the scat becomes more and more fresh, until Jim finally quips: "Pretty soon we'll come around a turn and discover a bear with his pants down." I am getting more than a little excited because somehow, after four decades of outdoor activity, I have never encountered a Florida black bear in the wild and here we seem to be on a path where several have recently been loping along like us.

Finally we see a pile so fresh we think we need to follow tracks, but none can be found and farther along the piles disappear. At this point, the picture of a mother and cubs preceding us and then breaking off the trail enters my slow brain. Half a day later, when describing to Jean at home the rock we found at the spring, I begin to realize that the most likely form for the animal sipping at the spring is a bear cub. How could I have missed the possibility that the rock is a native artifact, perhaps even chipped and leveled to fit in that place? I wait eagerly today to look at those photos to see any evidence that we have discovered an example of Timucuan stone art. No matter if it is, by an archaeologist's standards: in our mind now, this will always be Rock Cub Spring.¹

¹ In subsequent visits to this now favorite site, I have found that the rock in the shape of the bear cub is actually moveable, flat at the bottom, and not an outcropping of a larger foundation. Furthermore, it looks as though it would fit neatly into the space just east of it, as though it were possibly the handiwork of some human who jarred or cut it loose, wishing to make a shrine of this found sculpture.

Good News The Florida Scrub Jay Is Coming Back

2/5/2009

FOWR newsletter report

Of the many tribes of birds that inhabit our peninsula and the Wekiva River basin, the Florida scrub jay is the star. It is the only bird species endemic to Florida, i. e. found no where else in the world but in our state. In 1920 ornithologists estimate there might have been 10,000 of the bright blue, scratchy-throated jays in the whole state; but now Ralph Risch says we are down to around 6000.

Risch is the biologist running a highly successful research program in the Seminole State Forest and he gave the FOWR a marvelous slide show at the February meeting. In a very entertaining style of commentary, Risch detailed all the unusual behaviors of these friendly keystone dwellers of the ancient scrub habitats. These oldest parts of the state, desert ecosystems really, date back to the time when most of central Florida was a few island clusters and south Florida was under the sea. With hindsight we can say that upland development has destroyed so much of the scrub that now the species that depend on it are endangered or threatened.

The ideal shape of the scrub habitat for the jays to flourish is a recently burned community of sand live oaks, myrtle oaks, and Chapman's oaks to an average height of just two meters. It also has to have some wide stretches of sandy or at least open



spaces, so the jays can plant their acorn seeds to make it through the winter. Each fall, believe it or not, each jay has to hide from 3000-6000 acorns in order to survive the winter. What a prodigious feat of memory! Ralph treated us to the variety of ingenious ways they have of marking the ground where the acorn lies deep below the surface.

Their other favorite foods for the rest of the year are anoles, grasshoppers, butterfly larvae, spiders, and small snakes, all quite scarce during the cold of winter. Of course, if you want to band the jays for study, your best bet is a peanut which they will often come and eat right out of your hand. I once had the thrill of this experience in a coastal Brevard scrub

Before Risch started his banding of scrub jays in the 25,000 acres of Seminole State Forest, we probably had only 20 scrub jays left; but this month he has counted 122, down a little from the peak of 180 he has registered. With an elaborate system of

tiny, colored ankle bracelets, Risch can tell from a distance the sex and the identity of each bird.

The success of this program is due largely to the efforts of the burn crews of the forest service who in the last few years have completed the restoration of about 50% of the scrub habitat available in the forest. Risch is also keeping track of the number of available territories, now close to forty. Those scrub habitats will be fiercely defended in the acorn planting season by from one to five jays and might cover anywhere from 7 to 40 acres. So the good news is just beginning and the upside for population growth is very promising.

A few years ago a group of local high school students started a very reasonable campaign to have the legislature adopt the Florida scrub jay as the state bird, replacing the Northern mockingbird, Whitman's favorite. That effort fell short in Tallahassee, partly because legislators argued the bird was in decline from habitat loss. But in three short years the jays have made a spectacular recovery, showing once again, that if we preserve and restore a habitat, then manage it well, all the wildlife will thrive. Perhaps the legislature should reconsider.

Thanks so much to Joe Bishop, the forest manager, Mike Martin his cohort, and all the many volunteers who have pitched in with Ralph Risch to bring back to prominence our friendly, Florida star.

Building the River Community, Step 5

All across the state now the scrub jays are being watched by a vast crew of citizen scientists, volunteers who work with biologists on state owned and private lands to insure the proper management of the wildlife in the precious scrub. The idea of enlisting the recreational time and energies of the local community is spreading across the state. People are adopting the river and its species, working to extract harmful exotics, looking to manage their own yards in ways conducive to a healthy river.

This year the FOWR has joined the local Seminole County Rotary Club in initiating another citizen effort, the Wekiva Promise. The idea is to get volunteers in every neighborhood to endorse the principles of lawn and yard management that will help conserve water and reduce the nutrients and nitrates flowing out of the aquifer and deteriorating the quality of aquatic wildlife and the health of our water supply.

Those who take the promise will be issued a decorative lawn icon to announce their support of the river ecology. Such a promise, a positive statement, goes much further than any protest. It expands the forces of volunteer community work from PTAs, school crossing guards, hospice, neighborhood watch, meals on wheels, garage sales and recycling into lawn care, landscaping, water conservation, septic tank maintenance, and river cleanup. Voluntary compliance with the state's best management practices

can spread then to the companies providing pest management, irrigation, lawn maintenance, and landscaping with native plants.

We need a grand chorus to sing the song of Wekiva, not only when we are enjoying its springs and river runs, its upland trails and wildlife, but also through participation in ongoing projects of restoration on both the public and private lands that we own in community.

Envoy



7/04/2005

At the turn of the millennium Congress named the Wekiva a National Wild and Scenic River. Meanwhile all the powers that be in Florida were moving to complete the outerbelt for metro Orlando by crossing over the Lower Wekiva to hook up at Interstate 4, just below the St. Johns. After ten years of working to block this road rage and the inevitable development that comes of it, FOWR and other environmental groups changed our minds and decided to support the idea because the expressway authority and other forces were open to a variety of mitigations and concessions.

The primary advantage we saw was to preserve the Seminole Woods property and thereby to complete the animal corridors to the north. State Road 46 was becoming a traffic nightmare and four lanes was absolutely necessary. Roadkill was already bad and would only be multiplied by making it a four-lane highway. FOWR began to imagine that if the outerbelt virtually replaced this road, we would fight for it to be completely elevated, designed with a whole new concept of plant and animal protection. The most important habitats could be preserved and the whole forest area safely designed for fire regimes and water conservation.

In 2002 Governor Jeb Bush appointed a Task Force to study the issues. For three months prior to that meeting we helped form The Wekiva Coalition to gather our information and prepare all our recommendations to bring to the governor's commission in a handsome booklet.¹ After negotiations with the governor's staff, the coalition got four positions on the panel of thirty delegates. All the state agencies and most of the local governments were represented as well. Pat Harden, our most seasoned veteran, was the FOWR representative, but behind the scenes were a half-dozen others working the room and providing additional materials when needed.

¹ Florida Audubon, the Sierra Club, the Nature Conservancy, and the Defenders of Wildlife provided a great variety of resources and information, but we had many individuals from other groups and agencies.

All the time I attended the meetings of the coalition, I was thinking (sometimes out loud to the group) that this was a dangerous undertaking and would likely backfire on us all. The community support for Wekiva is very strong. What if they dangle these plums in front of our noses, get us to endorse the highway and agree on its actual path, and then in the final analysis use budgetary constraints and the fine print to evaporate the ecological design, the watershed protection, and the curbs on development in north Orange and Lake County? In that case, the public who support us would be completely disenchanted with our falling for the oldest of shell games and cooperating with the wolf in the deprivations of the farm. So far, however, bait and switch does not appear to be their game.

The task force held pairs of public meetings each month for half a year in advance of the legislative session in the spring, using the facilities of the Department of Transportation in Orlando. It was big-time political theater, a large low-ceilinged room with seats for several hundred facing the principals with lights, state of the art projection facilities, television setups for several stations, and teams of staff support behind each of the speakers. I signed in at the desk in the back, gathering reams of information the task force had already generated, and filled out a card to have my five minutes later in the morning when the public was invited to comment on the proceedings.

Seats were at a premium, so I settled in among a group of strangers who turned out to be lawyers associated with development interests. They were scoffing most of the time about how one-sided the progress of the meetings had been. Meanwhile, a succession of fine powerpoint presentations from government and non-profit organizations were addressing major issues in the project.

The 1000 Friends of Florida, dedicated to environmentally friendly growth management, set forth ideas about how to preserve the watershed while opening up so much new land to development. Their proposal outlined a new system of laws to assure that local governments would use the latest data about watershed recharge areas to steer development away from the most vital upland reaches so as to assure the spring flows of the river and the ecological community depending on that. Their proposals would require more restrictions and of course potential court challenges. It was a compelling presentation that the task force seemed inclined to accept.

As happens in such meetings, the recommendations to come out of all these presentations were not going to be voted on this month, but in fact were being decided while we watched. Objections brought up today would be resolved in public or behind the scenes so that the next meeting would be coming in with something to vote on that had for the most part been approved. All around the room earnest one-on-one conversations were proceeding in various dugouts, as it were, while the game was being played on the field of microphone and powerpoint.

I watched Charles Lee of Florida Audubon and our own Pat Harden work the table over diligently with questions and observations that were guiding the doubtful panel members toward a public understanding. They were no strangers to the panelists, bringing more experience to the scene than most of the government employees and elected officials. Supporting them was the one basic fact: the historical decline of spring flows in the face of rising population and water use.

The skeptics needed assurances about how the new laws would work with the old bureaucratic system and Pat especially, through her work with the Water Management District,

was not just competent to explain. She could entune her commentary with native accents and good humor, all the common language by which one charms an audience and wins approval. She was one of the few sitting at the table whose public interest was not supported by a paycheck.

When the public comment session began later in the day, I started to be very nervous. My plan, as always, is to speak for children as an educator who uses the river as a teaching tool. I wanted to remind the task force about the stellar history of protection of the Wekiva that commends our community to all who visit or settle here. As each new speaker got up, I adapted my planned remarks accordingly until the surprise of the day arrived.

A thirteen-year-old girl, playing hooky I supposed from some middle school in the basin, stood up and said how much she loved the river and how she couldn't believe it when she read in the paper that anyone would dream of putting a highway over her favorite place. You had to laugh. She got mad and came down here to set us straight: "You can't do this." At once both sweet and imperious, as only an adolescent can be, she had passion and good will on her side.

The audience was stunned, at first, but then she carried on to say that she had looked at the proposals and the gains for wildlife and watershed which were a part of the task force's intention. However, she was still skeptical and wanted everyone to know that righteous anger awaited them if they ignored the treasures of the Wekiva.

I felt as though by some magic Pat Harden had entered her next life and was already taking up the task of river community. My own speech evaporated because it had an embodiment far beyond any rhetoric of mine. In my own democratic vista, Alexandra some day becomes our governor.²

In the spring of 2003, the Task Force reported to the legislature a long set of recommendations which the Wekiva coalition could completely support. It was a bright day for us to see that all our preparation had paid off, but unfortunately a group of disgruntled local governments, including John Land, the mayor of Apopka, felt left out in the process. They hired a proven development lobbyist and effectively torpedoed the proposed legislation. The governor, to save face it seemed, appointed a second commission with fewer environmentalists and more of the disgruntled opposition, hoping to find some common ground before the next year's legislative session. Oh brother, we thought, here it comes.

However, confronted by the same data and hundreds of hours of now boring presentations, they came to the same conclusions with quite a few more refinements about how to carry the law out so that everyone's interests would be protected. From this teacher's point of view, the opposition in the first task force got caught without doing their homework or didn't sign up for the class or simply thought it would all go away. Faced, however, with the essential and complicated facts, they backed the next version of the bill and it passed unanimously in the 2004 legislature.

The highway, however, is far from built at this time. A third commission is charged with the job of implementing the law, the state's checkbook is open to purchase the four large parcels of land, but calculating the fair price of land in a speculative market is not easy. By law, all the land or development rights must be purchased before the Parkway can be built. It may all fall apart yet, but it looks as though sometime in the next decade a triumph of our social capital in

² Her full name is Alexandra Bunker and I found out later she was home schooled.

central Florida will have built a parkway designed with state of the art regional ecology. If so, everyone from the governor to Alexandra can be proud.

It is 150 years today since Walt Whitman built his parkway into the heart and mind of America. He was not blind and deaf to the troubles and the terrors of life. Who of us can afford to be? But he always remained optimistic in the near future, as I am today, on the birthday of his *Leaves of Grass*. He was fond of saying that America itself is the greatest of poems. That's my song and yours.

*The spotted hawk swoops by and accuses me, he complains of my
gab and my loitering.*

*I too am not a bit tamed, I too am untranslatable,
I sound my barbaric yawp over the roofs of the world.*

*The last scud of day holds back for me,
It flings my likeness after the rest and true as any on the shadow'd
wilds,
It coaxes me to the vapor and the dusk.*

*I depart as air, I shake my white locks at the runaway sun,
I effuse my flesh in eddies, and drift it in lacy jags.*

*I bequeath myself to the dirt to grow from the grass I love,
If you want me again look for me under your boot-soles.*

Whitman: "**Song of Myself**" final stanza

Appendix:

On the Dignity of Animal Nature [William Bartram's unpublished manuscript, courtesy of the Historical Society of Pennsylvania, is a rough draft of a larger essay which I title "On the Virtues: Divine, Human, and Animal," but embedded within it is a smaller, more astounding treatise which I title: "On the Dignity of Animal Nature." A more definitive text has recently been published in Hallock and Hoffman. 9pp]

How Big Was Bartram's Ark? [Ruminations on William Bartram's place among American nature writers in view of his unpublished ms on the Dignity of Animal Nature. 9pp]

Bibliography:

Florida and Wekiva

Whitman and Bartram

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On the Dignity of Animal Nature

Or

The Virtues: Divine, Human, and Animal

An unpublished manuscript by
William Bartram

Title, transcript, and editing supplied by Steve Phelan
from the Bartram Papers, vol. I, folders 81 and 83
courtesy of The Historical Society of Pennsylvania

Introduction:

I made this transcript from xerox copies in 2004 and then corrected it in 2009 with the help of the dissertation transcript by Nancy E. Hoffman. Since then, Hallock and Hoffman have published their version with even further revisions, not incorporated here.

In order to make clear that the treatise on animal dignity is embedded into the larger essay on the virtues, I have used a blue font for the more telling passage. It is clear from the illustration of the ms below that Bartram was still revising this piece and far from having a fair copy. In this transcription I have left out many of the deletions and corrections that would not make for smoother reading.

It may be also, that, as we are Creatures of the supreme Being, made for a certain and indispensable purpose in this Vast System of Creation, as instruments, Members, or Organical beings designed and created to form a part in the Whole and act and perform a certain part. And then again each individual hath a particular part to act and perform in the Human System. The Almighty, being the Sovereign Creator, his divine Intelligence is diffused through every part of his works which directs and rules all. The most secret, invisible, and insensible operation in us may be the effects of this divine Intelligence acting after various manners, either directly or by various agencies, the secret causes unknown to us and the effects not sensible to us at all time.

Thus the Divine Intelligence may act arbitrarily or independently of the System of order established by himself for the various orders of his works in the Vast Universe; for every part of his works may be in themselves perfect, agreeable to the intent and design for which they were created, yet imperfect in comparison to their Creator or of the Universal System. And although the Universe may act and operate by established Order and system or by secondary Intelligence, yet we suppose the Supreme Intelligence secretly directs and overrules the whole, varies, alters, and ever creates new intentions according to his Will, perfect Wisdom and Omnipotence.

But with respect to the Divine Virtues or his superior attributes, they are invariable, unalterable in themselves because they are the attributes of himself, as: Truth, Mercy, Justice, Righteousness, Benevolence, Love, Charity, Benignity, Immutability, Patience, Pardon, etc. And likewise with respect to the Moral or Human Virtues, their principal or Archetypal Ideas are unalterable, perfect, and eternal, but with respect to us, as they affect our senses and affections are rather to be considered as qualities because we use and apply them for our various purposes, but still Our Reason informs us of their real and perfect nature and when we listen to and obey her dictates, we make use of all our senses or affections innocently.

For it is properly our duty but to subdue our Passions and affections, not to destroy and annihilate, and only retain or admit such as we find by experience contribute to improve the Heart and beautify the Body or Mind. It is true, if we find that our passions are formidable, importunate, and intrusive and our intellectual and mental powers are weak, it may be the safest to drive such passions and importunate affections from our bosom and as it were expel them out of sight and keep them under foot. As Our Lord hath said, it is better to lose an Eye or an arm than to suffer those members to delude us to our destruction.

I own that of all Our passions, sentiments, and affections Dissimulation is the most mischievous and indignant, and I believe that no person more highly approves of simplicity and sincerity than myself.

Yet hard and difficult as it is with me, I must own that in a certain degree Mankind, **especially those nations who have adopted the present system of refined civilization**, could not live without associating some degree of this pernicious vice in their moral system; for most people are now obliged to arm themselves with it in their own Defense. If indeed we only used it as a defensive armour, it might be allowed in some degree reasonable. Dissimulation seems to be a species of what modern Philosophers call Instinct. Since in animals we find that almost every order of the Animal Creation are actuated by it, more or less, but then, wherever we observe it in animals, it is for their own defense, for protecting their young, for procuring only a necessary subsistence, or for their safety.

Dissimulation then appears to be not only a necessary affection in our minds, but also an important one, if used aright that is, only in our own defense and never to hurt or wrong another person. Was not there a virtue in the dissimulation practiced by the Wife of Ulysses?

I allow there was more heroism in the virtue of the [wife?] of Lucretia, and don't imagine, my friend, by these arguments that I approve of dissimulation, according to its worst or generally received sense or construction. That's impossible, be assured. I abhor it and almost shudder at recollecting the mischief that has [been] and may be perpetrated by hypocrisy.

There are perhaps many species of Dissimulation. Coquetry may be one of them and even Courtship, when there's no real evil intended. In short, there are many varieties of this passion both innocent and pleasing. However, it's a pity we had not another term for innocent and defensive dissimulation. Deception carries rather a bad meaning. Let us call it Artifice. I think we must under some name or other admit this affection of the mind in some degree among our necessary passions, at least in our present state of existence. Thus we have taken a view of dissimulation, one of the most formidably dangerous passions in our nature, if not kept under strict rule or regulation.

Revenge comes next in order of importance. I think it may not on any account be admitted, as we can do well without any degree of it.

Pride I shall include entirely also. We may admit a small degree of resentment. Hatred we have not the least use for.

Now let us take a view of the virtues. The first Order of Virtue I have already mentioned under the attributes of the Deity which are copies for our imitation, but which in our state of nature it is not possible for us to equal, no more than a painter can produce the original animal being on canvas.

The secondary Order of Virtues, or such as are accommodated to our nature and which we have in some degree the use and control of, I shall first enumerate. The Masculine Virtues are Valor, Intrepidity, Courage, Love in every [sense?], Strength, Generosity, Magnanimity, Piety, Clemency. Those which belong to the Female Sex are particularly Chastity, Modesty, Meekness, Sensibility, Charity, Humility, Affection, Commiseration, Timidity, Love, etc.

I shall forbear entering into a full description of the [81v] merits of all the virtues, or the Powers and effects of our Vices and deformities, which I shall leave to thy own imagination because after nice and refined examination and application, may produce a needless embarrassment and confusion. For, in some instances, an excess of some of our virtues becomes vice or deformity. Indeed, it seems that what we generally term vices are inseparable from their opposite Virtues, as the shadow is to Bodies, and which serves as the Color obscure in Painting which presents the object in a stronger and more natural light. But this is not the case with the Divine Virtues, which we imagine to be the Attributes of the Deity, which are intrinsically good and perfect, perfectly apparent and beautifully, requiring no opposite or relief to attach our notice, love, or esteem for the Object.

Thus it appears that Reason or that Divine Monitor which has been supposed by the Ancient Philosophers an emanation from the Divine Intelligence and which constantly accompanies us in this Life, points out to us, either immediately in every one of us or by the advice and direction of another person, what is right and true virtue, or our exact duty in the [exercise?] of the Virtues, Affections, and Passions. No doubt but this Monitor resides within us individually, but through a habit of indulging our passions and affection or by [listening?] to their seducing language and feelings we cannot [or] do not attend to the Voice of Reason. And it is by the powerful seductions of our passions and affections that we neglect to purify the Heart and disgrace the Mind.

Knowing the Uncertainty of our term of Existence here in this life and being convinced of the clearness and accuracy of thy judgment, the purity and simplicity of thy Heart and the strength and firmness of thy Mind, I consider it as a duty incumbent on me to declare my sentiments freely on a subject though of little moment to Mankind in general at this time, yet to me of much importance. Namely, of the Dignity of Animal Nature with respect to the Station or Degree they hold in the grand System of Creation in this world. When considered in a physiological sense, the great Naturalist and Philosopher Linnaeus has constituted the whole terrestrial system under three grand divisions which he calls kingdoms in Nature, viz.

1. Minerals or *Lapides*, a confused mass of inanimate matter mixed together consisting of four elements, namely, Earth, Water, Air, and Fire.
2. Vegetables, which are organical bodies, animated, but not having sensation.
3. Animals, which are living organical, self-moving Bodies endowed with sentiment.

At the head or first in the animal Kingdom, he hath placed Man, a being exclusively endued with Wisdom, the power and the prerogative (above all other terrestrial beings) of knowing himself and his creator. This Wisdom (*Sapiens?*) he imagines to be a Ray, emanation, or particle of the Divine Intelligence communicating with this spirit or mind of man which is the source of human Knowledge and the power of [forming?] Ideas and Understanding.

Having taken a view of the Physical Nature of Animals, we shall next endeavor to examine their Ethical or Moral Nature. Of man we have already fully treated. Now, since we have no certain knowledge that animals below the order of Mankind have no Intellectual Powers and since we suppose that all Metaphysical Knowledge is attained by analogy or comparing Ideas, which is Reasoning or Understanding.

If we examine and compare those actions and movements of animals which they have in common with us, we find little or no difference. Why then have we not every reason to believe that those actions and movements are excited and proceed from the same motives or cause?

After all the pains and labor which Buffon has taken to explain away their Intellectual and Rational Powers, He has thereby sufficiently established a truly wonderful Instinct and Intuitive Knowledge or Understanding which he at the same time asserts to be the same and in common with Man. And in reality it is the most useful, worthy, and divine part of our nature; for this

Knowledge is Innocent, indispensable, and Truly Divine since it was created and appointed by the supreme being for the best and most important purpose in our state of existence here. I think it must be the opinion of every rational being that our well being in this life ought to be the chief concern of all our actions and operations.

I do not say that Man is not the first order of Beings in this world and accordingly his formation is such as enables him to subjugate and even tyrannize over every other animal and probably would long ere this have destroyed the whole animal creation if his arms were not withheld by the Supreme Creator and Preserver. But this does not prove because he is the most powerful that he is the most divine.

We say this divine intelligence penetrates and animates the Universe. This is the immortal Soul of nature, of living moving beings, of vegetables, and is in the elements.

I cannot believe, I cannot be so impious, nay my Soul revolts, is destroyed by such conjectures as to desire or imagine that Man, who is guilty of more mischief and wickedness than all the other animals together in this world, should be exclusively endued with the knowledge of the Creator and capable of impressing his love, gratitude, and homage to the Great Author of Being who continually feeds and delights us and all his creatures with every good and enjoyment.

It is so evident that if Man is alone endued with Intelligence and Reason, generally he acts as if he seldom consulted or obeyed the dictates and advice of that Divine Monitor. Nay those who are celebrated by most men [83Ar], the Greatest and most Illustrious Characters on Record demonstrate that they seldom were actuated or influenced by this divine monitor, as Nimrod, Alexander, Julius Caesar, Hannibal, and even Cato. Their actions represent Madness and intoxication. Cato seems to be the most virtuous and harmless for he injured no one but himself, yet in that he certainly was guilty of a most irrational and mad action.

Thus it appears I think that we act most rationally and virtuously when our actions seem to operate from simple instinct, or approach nearest to the manners of the Animal creation. For if we examine minutely the morality or manners of animals, and compare them with those nations of tribes of the human Race who yet remain in the simple state of primitive Nature as Our Indians, who have had but little intercourse with White people, we shall find but little difference between their manners and the Animal creation in general.

Having resided some considerable time amongst several of these Nations, I can give a pretty concise view, both of their Arts and sciences, and their Morality.

In the first place, the Male and female mate and unite in reciprocal Love and affection for the purpose of reproduction, the female shows greatest tenderness and solicitude for the young offspring, and both contribute to rear them up to a state of maturity, and don't abandon them until they are old enough and able to maintain and defend themselves.

They Build Houses, retreats, or castles for defending themselves from the injury of the Climate, and for the defense and preservation of their lives and their offspring, to hoard up provision against a time of necessity, and to have when convenient. They risk their Lives in defense of persons and property, and likewise to obtain and defend their beloved mate or consort; they comfort, defend, feed and protect their aged and decrepit parents, relations, and friends.

Being born with a naked and defenseless skin, natural Instinct, Intuitive knowledge, or Reason tells them so, and that the Creator hath formed them, with Members after such manner and form as to enable them to fabricate natural materials of which Instinct, knowledge, or Reason directs them how to form these manufactures into Clothes to cover their skin, to defend them from the scorching Sunbeams in the South and the rigorous chilling winds and biting frosts in the North, or to make use of furred skins of Animals for the same purpose.

This [scene?] comprehends most of the wisdom, Knowledge, and understanding of Nations in a simple state of nature. In their attitude and expressions of homage to the great Spirit the Almighty, they look aloft with an awful countenance, uttering a voice of ejaculation. When in a state of rest and tranquility or when their heart is warmed and animated with gratitude and Love, they sing Hymns and Odes or when the Heart Throbs with sorrow, and the whole frame is agitated with pain and anguish either through bodily disease or conflict of passion and afflictions for the Death of a parent, Friend or Child, we need not ask them or converse with them by words to know the cause or meaning of all those various actions, operations, and affections. They speak themselves, they commune with the archetypal system of Ideas in each one of us. We know without asking a single question. Though we observe it in a nation we never saw or heard of before.

Now all these, actions and movements, only being some what varied according to different organization, we observe in the Animal Creation, likenesses which we call instinct in them or a Divine Intuitive knowledge; but we can't confess it to be Reason or Intelligence because forsooth it will detract from the Dignity of Human Nature. But where is the proof of this Dignity of our Nature, any farther than being the first order of Animal in point of Bodily frame and organization calculated for carrying Arts or modifications to a greater extent and variety.

But we only excel animals in such things we particularly possess and we may possess some Arts or Modifications, more complicated than what they have. But yet we must confess that some animals possess Arts [83Br] or systems of modification in Ingenuity beyond the power of Human art scarcely to imitate much less, equal or excel, namely, the combs, honey, and wax of bees, the Webs and Nests of Spiders, the Houses or Cells of the Innumerable Tribes and species of Madreporas, Corals, Sea Sponge, and beside innumerable other Instances of the Arts and Operations of Animals which might require large volumes only to enumerate.

I will agree that it is impossible that any Animal will or can weave a piece of Brocade, make a complete ship, a watch or Clock, Mariner's compass, Iron or steel, a Sewing Needle no

larger the Eye Lash and small as a hair which shall contain eleven others, one within another. And It is equally impossible for man to make a Spiders Web, a Honeycomb with Wax and Honey, after the manner of the Apis mellifica, a Madrepore or Sea sponge, etc.

Man no more than any other Animal possesses a creative power, that is, a man alone cannot make a living Animal indued with a Nature or powers of reproduction. He can at most only work upon or modify matter already created to his hands and so can most other Animals in some degree or other.

Various animals tutor and educate their offspring or young, teaching them the proper means of self-defense and of procuring their prey or food and even pointing out to them what is salutary or noxious; they have the faculty and powers of improving, altering or modifying their Manners and arts according to circumstances. They can, not only improve one another, but are taught and improved by Mankind in an infinite variety of Instances. Their actions, voice, and movements demonstrate Understanding, i.e. the Power of Reasoning or deduction by a wise perfect comparison and arrangement of Ideas or notions.

Every Animal hath a Language, both by words or sounds, perfectly articulate, and by actions, which is perfectly understood apparently without error or mistake by every Individual, both old and young, of the same Tribe or Race. They appear to have besides an Universal Language, understood and intelligible to every Tribe at least of the same Order, i.e. all birds understand this common Language and in like manner, all the Tribes and Families of Quadrupeds, and without doubt Reptiles, Amphibia, Insects, and fish have a common or universal Language.

Now if Animals have a vocal Language, it is self evident that they have Intelligence; they have Ideas and Understanding.

There is something so Aristocratic if a Philosopher may use the expression in the Epithet of the Dignity of Human Nature, because, a Man as viewed in the chain of Animal beings according to the common notions of Philosophers, acts the part of an Absolute Tyrant. His actions and movements must, I think, impress such an Idea on the minds of all Animals or Intelligent Beings.

Man is cruel, Hypocritical, a Dissembler. His dissimulation exceeds that of any being we are acquainted with for he dissembles dissimulation itself. Moreover, he curses and damns dissimulation in order more completely to dissemble and deceive. He calls to his aid the sacred Name, being, and Attributes of the Supreme being and all the Virtues, the more completely to cover his purpose.

Nay the Whole of Human or Worldly Wisdom is a continual [series?] or practice of [83Av] of Deceit, fraud, dissimulation, and hypocrisy. The more any Man or Woman approaches to Honesty and simplicity, the more he is accounted a Fool, and he is on the broad road and

hastening on to Poverty, contempt, and Misery until Death releases him from oppression and disgrace. Behold a picture or representation of [the Dignity of Human Nature](#).

But it is time to return to our Text. Let us endeavour to improve the Heart and embellish the Mind. To improve the human Heart is to admit of the use and exercise of a certain degree of the Passions and affections which contributes to make the Intellectual Man or the Mind Dignified, Amiable, and Worthy in the sight of The Creator. This perfect degree of mediocrity is determined or pointed out to us by consulting that friendly Monitor Reason or the Divine Intelligence. The Passion of Covetousness is one of the most formidable enemies. This passion, if we give way to it, becomes insatiable. It is the parent of contention and contention begets violence and War.

The Love of Power, Riches, Magnificence and Fame are the offspring of this passion and seem to be the sources or parents of all Our moral Misery. They even mediately affect our bodily Health, bring on diseases Of Body and Mind, and shorten Life.

The ambition and desire of getting Riches, of being able to live in a state of Affluence and magnificence, cut off most of the People at a premature age amongst civilized Nations and together with intemperance, War and the use of spirituous Liquors, destroy the chief of Mankind.

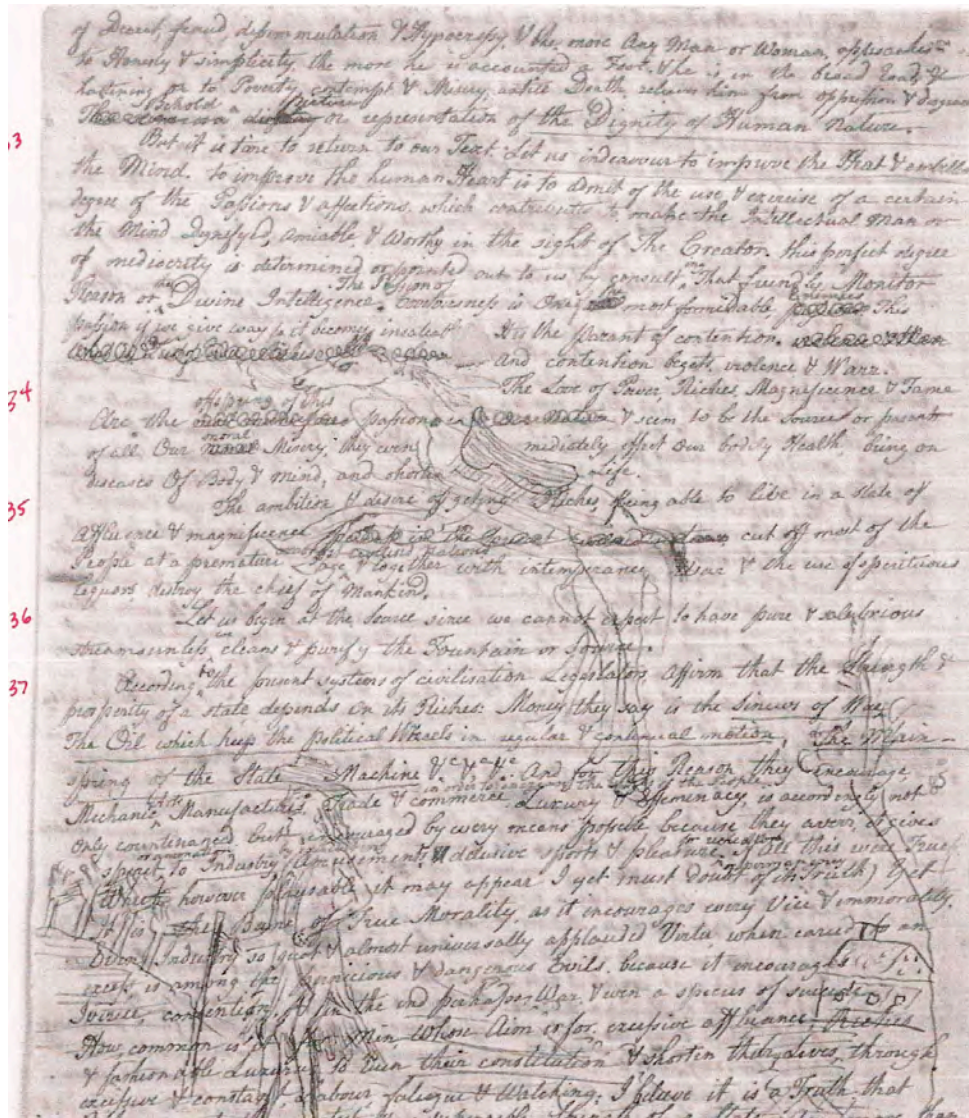
Let us begin at the Source, since we cannot expect to have pure and salubrious streams unless we cleanse and purify the Fountain or Source.

According to the present systems of civilization, Legislators affirm that the Strength and prosperity of a state depends on its Riches: Money they say is the Sinews of War, the Oil which keeps the political Wheels in regular and continual motion, the Mainspring of the State Machine, etc., etc., etc. And for this Reason they encourage Mechanical Arts, Manufacture, Trade, and commerce in order to exercise the [?] of the People. Luxury and Effeminacy is accordingly not only countenanced, but encouraged by every means possible because they aver it gives spirit or animation to Industry by exhibiting Amusements and delusive sports and pleasure for recreation. If all this were True, which however plausible it may appear I yet must doubt of its truth or permanency, yet it is the Bane of True Morality, as it encourages every Vice and immorality.

Even Industry, so great and almost universally applauded Virtue, when carried to an excess is among the pernicious and dangerous Evils because it encourages Avarice, contention, and in the end perhaps War and even a species of suicide. How common is it for Men whose Aim is for excessive affluence, Riches, and fashionable Luxury to ruin their constitution and shorten their lives through excessive and constant Labour, fatigue, and Watching. I believe it is a Truth that Riches is not the greatest and indispensable Strength of a State any more than [83Bv] of private Families.

But in my opinion Population and Virtue are the most sure and lasting Foundations. By Virtue I mean Morality because according to my meaning or apprehension of Morality, it

includes both our duties to one another and all inferior animals and Religion which is our duties to the Deity. The duties which we owe to God are Homage, Love, gratitude, and Adoration. These affections are indispensable to which we add Humility, Resignation and fear of transgression proceeding from love, reverence, and veneration.



Bartram Manuscript: 83A verso (written over sketches of a horse and a farmer)

Temperance I esteem a Maxim to which we should look or recur in all our actions and concerns in or through Life.

Plainness, Frugality, Economy are virtuous affections which a well regulated Mind approves and recommends, but in all these it is necessary that temperance and mediocrity should present the Mirror, for an excess in either disgraces the mind and vitiates the Heart.

It might be inquired what is the catalogue or enumeration of the Passions or affections that we are allowed to associate with the mind? Perhaps all of them in some degree or other, but must be regulated by Reason or that divine monitor within. In reality we cannot avoid it for the very feeling or consciousness of the existence or being or those passions or affections is a degree of their admission or use. And it is the Business of the Mind (or our proper business) to watch and observe their operations and movements (The proper study of Mankind is Man).

Now on taking a view of our system of Human Knowledge (understanding), and supposing it to be just, it will appear that there is a necessary and indispensable intercourse, connection, and harmony existing between Our Material or Human and our Intellectual Nature; and that when contemplating the Creature Man in our present Life, they are equally divine as being the effect and production of the Creator. There is a mutual dependence for one could not exist without the other. Here in our present Substance and form and perhaps after this Life, in a future state of existence and perhaps in another World or Planet, both of our natures may be equally in like manner connected and dependent under some subtle form or other.

The Divine Monitor (Reason), the Mind (or Soul), and the Corporeal part or System of sensation have a mutual dependence, connection, and intercourse. Every Idea, sensation, passion, affection, and reflection vibrate and act together at the same instant in more or less degree. The Mind as a Mirror takes notice or cognizance of every operation or motion of the sensations, passions, and affections. Reason decides on them; but if Reason be corrupt in and for the perfect performance of this high office, why do we err? I answer: the Mind is often seduced by the interposition of our Passions and affections, by which means we can't sufficiently attend to and obey the dictates of Reason.

How Big Was Bartram's Ark!

Ruminations on William Bartram's Place among American Nature Writers
in View of His Unpublished Ms on the Dignity of Animal Nature

I. *The Travels*

William Bartram was a simple, peaceful man with an incredible array of talents. History has not given him full credit for his remarkable understanding, especially his comprehensive and radical new world view that grew out of his traveling experiences in the Southeast. His most important achievement, in my mind, is that he flattened the Great Chain of Being with one grand hammer's blow. Crushing the hierarchy inherent in the *Scala Naturae* constructed by Plato and Aristotle, he imagined in its place a divine democracy which acknowledges the infusion of God's understanding and intelligence in every part of creation.

For the metaphor of the great chain he substitutes a harmony between body and soul, matter and spirit, very much akin to what Whitman would begin to chant seven decades later. Most especially, his philosophy of nature carves out a strong argument for a biological foundation of ethics when he boldly compares the behaviors of animals, native Americans, and Europeans. "We do better," he maintains after a critique of his own civilization, "when our actions seem to operate from simple instinct or approach nearest to the manners of the animal Creation."

These ideas are all inherent in Bartram's *Travels* (1791), but a comprehensive version of them is only found in his unpublished draft ms which I have entitled, "On the Dignity of Animal Nature or The Virtues: Divine, Human, and Animal." This document constitutes a prose creation account to explain the holistic relationship between God, nature, and humankind. It is a piece of pragmatic philosophy in the manner of Dewey, except that Bartram's praxis is a composite of botany, ethology, and ethnography. His picture of creation is all the more startling for its timing, embracing the era of contact and constitution, circa 1800.

God rolls through all that Bartram meets on his travels and shines forth in every part: wind, lightning, limpkin, rattle-snake, developmental stages of the mayfly, cypress domes, vistas of marsh and savanna, roiling patterns of fish congregations; the councils and communities of Creeks, Choctaws, and Cherokees; and especially in his own pure and simple heart. Species inhabiting the plant and animal kingdoms (the latter including humans) are regularly referred to as tribes and operate or fulfill their domains with equal force, fervently like the sections of a Bach choir. They sing a Canticle of the Cosmos, like Walt Whitman or Ernesto Cardenal. They are not following the same old hierarchical

song of Genesis (where humans are the rulers of nature), but rather play out a creation system that is growing, like a forest or a river, with ever new melodies and forms.

In Bartram's new world view, God is co-dynamic with instinct, with passions, and even with sin. If William had our understanding of molecular biology, he would say that God is in the genes. Creation is emerging within us. This is a scientific deism where all the divine intelligence is still designing and enchanting us and the other animals.

So in the first instance, Bartram's ark is sailing across the Atlantic, full of all the plants, seeds, drawings, stories and accounts, descriptions, and ideas he gathered on his journeys. This is Bartram's gift to Europe; and the Romantic Age was nursed on it from its infancy. It is a marriage of Linnaean science and Quaker theology (can you feel the subtle paradox of both these phrases?). Recently I spent a full day rummaging around this ark by reading through the extensive indexes in Harper's naturalist edition of the *Travels*. What an incredible array of scientific knowledge and artistic understanding, spanning everything from the physical to the moral attributes of each creature, species, tribe, and nation. The supremely fine lines of his drawings match the delicacy of his scientific descriptions. They provided Europe a full picture of the new America, as though the new Noah had just landed in London.

II. "On the Dignity of Animal Nature"

But Bartram's ark goes much further in his unpublished manuscript. Here he seems to be America's first Peace Corps volunteer, stepping out of his experiences of the southeast and expanding himself into the cosmos like Leonardo's microcosmic man. He redraws the spiritual foundation of the natural world in this extraordinary and confusing draft of an essay. His philosophy of life in America constitutes a new version of Plato's *Republic* which keeps the idealism and focus on the virtues, but reconstitutes them in the plant and animal world of nature.

Bartram's biology, sixty years in advance of Darwin's account of our origins, is by no means essentialist or static. It makes room for the idea of evolution and of species multiplication. It embraces an innate or intuitive ecology and represents the first voice in America inclined to ratify a bill of both animal and human rights through its ethology and ethnography. This essay taken together with *The Travels* forms two parts of an ecological Utopia.

The opening sentence of his rough draft makes you wonder how much Bartram had written to precede it: "It may be, also, thus, as we are Creatures of the supreme Being, we were made for a certain and indispensable purpose in this Vast System of Creation." In spite of the confusion about the layout of the pages and paragraphs of this

document, it is possible with careful content analysis to see what William Bartram was constructing without having the page or more which is implied by the opening sentence and without knowing who is included in the “we.”

It seems from incidental references like “thy” and “my friend” that Bartram was writing a friend or relative (see ¶s 3, 7, and 13). The essay takes the form of an epistolary letter in the manner of the Renaissance humanists, a commentary on his experience in the *Travels* that caused him to redefine drastically the prevailing estimate of the Great Chain of Being. He never mentions the book itself, but in the middle of the essay, as he begins his argument about animal dignity, he writes: “Having resided some considerable time amongst several of these Nations, I can give a pretty concise view, both of their manners and the Animal creation in general” (¶22). In this he reminds me of Raphael Hythloday in More’s *Utopia*, except that this is no fiction. Bartram is integrating the science of his day with his own actual experience, already fully reported.

The structure of the essay supports this comparison because he starts with God and the system of creation. He leaves out altogether the nine choirs of angels and their counterparts in Hades.¹ Then he moves to humans and the vices incumbent upon a court life that thrives on dissimulation. By comparison to animals, who only dissemble to survive in the struggle for existence, the European courtier and hence his colonial American counterpart is excessive when it comes to vicious deceit and hypocrisy.

Even though there is a reference to Jesus (“as Our Lord hath said” ¶4), the whole essay seems quite deist and universalist. Perhaps the friend to whom the essay is written was a Christian, like Sir Thomas More, but, two hundred years later, entrenched in the capitalist and colonial enterprises of Euro-America.

It seems likely, then, that the friendship is a spiritual one because the plural first person pronoun in the opening sentence is carried over into several personal confessions about William’s struggles to live a simple life and to use his passions and affections innocently, the central theme of the essay (¶s 5-12). In this respect, Plato seems to be the primary source of the discussion about virtues because throughout the essay idealism and the force of Reason (philosophy) govern the discussion of human morality in dealing with the passions and affections.

Bartram then introduces as a digression his astounding argument for considering nature itself as the philosophical ground of ethics, and especially for seeing the life of the animals, from birth to death, as a model for human behavior. Largely anticipating the last thirty years of animal behavior studies and the moral sense in humans, Bartram sincerely argues that animals must have reason, understanding, and ideas to go along with their passions and affections so that they develop basic values that readily compare to those of native Americans. At one point, after showing that animals have

¹ In the second paragraph, however, he does allow for the possibility that God leaves the operation of the order and system of the Universe to a “secondary Intelligence.”

language (at once serving both the species and earthkind), he boldly claims that they must therefore have intelligence, ideas, and understanding.

Was he reading Pico della Mirandola when he says, “There is something so Aristocratic if a Philosopher may use the expression...the Dignity of Human Nature, because, as viewed in the chain of Animal beings according to the common notions of Philosophers, a Man acts the part of an Absolute Tyrant” (§34)? He goes on to assert that “Man is cruel, Hypocritical, a dissembler” and imagines that animals and other intelligent beings are not fooled. The tone here and later in the essay is one of remarkable anger for a man of simplicity and peace.

Pico’s famous essay “On the Dignity of Man” celebrates our uniquely Protean position on the great chain of being. Beasts and angels are static and unchanging, whereas humankind has the better lot: “On man when he comes into life the Father conferred the seeds of all kinds and the germs of every way of life. Whatever seed each man cultivates will grow to maturity and bear in him their own fruit.” So we can be vegetative like plants, sensitive like brutes, rational like heavenly beings, intellectual like an angel or the son of God, or solitary in the darkness like God. “Who would not admire this our chameleon?” Pico asks.²

By contrast, Bartram is a biological democrat. He seems to want the European self-styled, civilized elite to stop practicing the tyranny of feudalism on the tribes of animals and native Americans. Philosophers need to start recognizing Divine Intelligence in all of creation. This radical idea seems to be an extension of the Quaker attention to “that of God in each of us.” It also conforms to Bartram’s experiences and observations of animal behavior. His focus on behavior as a proof of moral (divine) intelligence is profoundly consonant with current leading edge experimentation on the genome of the fruit fly and its consequent behaviors (see Jonathan Weiner’s fascinating study: *Time, Love, Memory*.)³

The heart of Bartram’s essay is really an attack on the hypocrisy of the eighteenth-century conquistadors of all nations, primarily for being colossal liars, fakers, and dissemblers. The principal target of this digression into animal dignity might have been France’s leading naturalist, the Comte de Buffon (mentioned in §16). Bartram took

² “On the Dignity of Man” as found in *The Renaissance Philosophy of Man* (Chicago: U Chicago P, 1948), 225.

³ At the end of twentieth century, leading scientists working on the ethos of animal mind are Griffin and de Waal, but many others have since followed up on their work. Darwin, of course, was a keen observer and compiler of the expressions of emotions in animals (mammals really) and humans; however, he didn’t cross the line into ethos. What he did understand in consonance with Bartram was the universality of the evidence. The discoveries of Seymour Benzer and other explorers of gene expression in the fruit fly when joined to recent studies of spindle neurons in hominids, great apes, some whale and dolphin species, and elephants promises to extend the scope of the evidence for moral order in the large-brained animals even further. Furthermore, the new science of epigenetics is revealing another source of “intelligence” in cell membranes as they monitor their environment and regulate molecular pathways.

exception to Buffon's notion that somehow European nature and natives were superior (hardier, etc.) to their new world counterparts and especially chided him for dismissing the evidence for intelligence in animals.

So let's recapitulate here. First we have the virtues of the creator that stand behind both the vast system of the universe and the smaller system of human life. Bartram never mentions the biblical account of creation and may indeed conceive of Genesis as an account of a terrestrial special creation, but his theology becomes immediately original and revolutionary. He advocates the notion that God as creator can work inside or outside the system in his capacity as ruler and preserver. Like Meister Eckhart of the medieval mystical tradition, Bartram imagines that God "waxes and wanes" when governing the on-going creative world and the process is organic: "The seed of the pear grows into a pear tree, the seed of the plum grows into a plum tree, and the seed of God grows into God." This is why Bartram suggests that we trust our animal instincts.⁴

That world according to Bartram is evolving and changing, as Ovid understood, not just in the ages of Mankind, but in the ages of animals outside of human development. In all parts of creation God still has an active hand and designs through intelligence, inside or outside the systems. No ark made of trees is big enough to hold all the new world's species, especially if we have to include the extinct megafauna. Darwin is standing off in the next century when Bartram creates this world view to sustain an ethical framework, *Systema Virtutum*. God's virtues are the immutable part, the archetypes that humans, following reason, can understand. Like the painting of a real animal, Bartram remarks, our virtues can only be a weak copy of God's attributes on a poor canvas.

It seems likely from the few pointed references to painting that Bartram's friend might share this interest, a fellow botanist and illustrator perhaps such as Benjamin Smith Barton or even the young Quaker painter Edward Hicks. Clearly William's world view could easily have charged the imagination of the peaceable kingdom because the world of animals and the world of American natives are deeply intertwined in the experience of the travels and the philosophy revealed fully in this draft.⁵

The peaceable animal kingdom begins to appear in the essay with what seems at first like a digression into a study of Dissimulation that is inserted into his lists of human virtues. In a single sentence paragraph which is most notable for its interpersonal framework, he starts to look at this vice as something quite natural in

⁴ Jefferson, in a letter to Thomas Law (13 June 1814) says that "Nature has implanted in our breasts . . . a moral instinct," but never imagines that the animals have it as well nor thinks of it as governed by Divine Intelligence as an active force in every part of nature.

⁵ Scholars have noted that Bartram's book takes almost no account of the revolutionary war and largely ignores the conflicts between natives. His handling of animal and native mores in the manuscript also avoids the issue of killing for food or intertribal warfare. The utopianism of Bartram's views matches those of Edward Hicks and puts many readers off.

animals. As “we” zoologists have found, animals use dissimulation “for their own defense, for protecting their young, for procuring only a necessary subsistence, or for their safety” (§ 6).

The real turning point of the essay comes then at paragraph thirteen when Bartram begs leave of his friend to follow a hobby horse of his own, a small matter to mankind “of much importance to me,” the Dignity of Animal Nature. “If man alone is indued with Intelligence and Reason,” Bartram writes, “he acts as if he seldom consulted or obeyed the Divine Monitor” (§20). Giving a list of imperial tyrants of classical times, Bartram asserts that their actions represent “madness and intoxication.”

By contrast, he argues, “we act most naturally...when we imitate the animals.” Then he examines in detail the mores of the animals and compares them at length to the Indians, until finally it does seem simple enough. Our philosophers, he says, can’t call all that animal behavior virtuous because that would detract from the dignity of human nature. He shows then in short paragraphs how they make extraordinary things, educate their young, sing or speak a language of their own species and a more universal language among tribes and families of other species.

When the flower hunter is done with this digression (full of righteous passion itself), he calls the reader back to his “text,” as though he is preaching a sermon on the animal kingdom of God: “Let us endeavor to improve the Heart and embellish the mind” (a phrasing rekindled from paragraphs four and thirteen).

This time he switches from dissimulation to covetousness and presents an attack on the budding idea of America’s manifest destiny and a life of exploiting the riches of the nation instead of cultivating the virtues of its citizens. Implied in this statement is a sense that the treatment of animals and natives is a part of the degradation overlooked by the greed and quest for riches of many Euro-Americans.

These are Quaker ideals, to be sure, but the central exercise of comparing animal behavior to native Americans is extraordinary. Why have not the textbooks of colonial American history been full with the understanding of this message? Primarily, it’s because he never polished the piece or submitted it for publication. However, in the last hundred years a steady stream of Bartram scholars have been mentioning this draft without following through to publish it, a situation about to change.⁶

Perhaps Bartram lacked the courage to say it out loud or beyond his friend’s hearing. Once this essay is published (Feb. 2010), however, there should be no excuse. Even though Bartram’s essay did not reach his contemporaries, his ideas did through

⁶ Thomas Hallock and Nancy Hoffman have prepared a new collection of unpublished letters and essays forthcoming in 2010 by the University of Georgia Press. The two most comprehensive treatments to which this essay is indebted are by Earnest (1940) and Walters (1989). Some treatments identify two different mss in folders 81 and 83 (cf. Hoffman’s dissertation and the study of Waselkov and Braund).

the *Travels*. We now have to say that a different vision of nature and our place in it, one thoroughly consistent with our constitution, could have emerged. The essay is implied in the *Travels*, but here Bartram declaims fully on animal dignity. These are by far the earliest and most radical declarations for the rights of nature appearing at the dawn of the rights of man. It represents an ecological constitution for America that one only wishes had been taken up by Thomas Jefferson and his band of revolutionary aristocrats.



The author, in the spirit of Bartram,
exploring the swamps of Spring Hammock.

III. Bartram's Place among America's Nature Writers and Philosophers

I find myself now considering the ark of Bartram's imagination, trying to take the measure of his place among America's finest nature writers. He would surely be the

founding father of them all, had only this draft manuscript and the book of travels as well had the benefit of some understanding editors. Of course, no amount of editing can turn the *Travels* into a classic like *Walden*.

If you take Thoreau and Emerson together as one, adding especially the scientific imagination brought to light in the former's study of seed dispersal in forest ecology, then his revolutionary spirit and his bountiful transcendental philosophy, you are close to the scope of Bartram's world view. However, Thoreau just didn't have a way to expand from *Walden* into more than the regional flora and fauna and mountain habitats to include the human scale. He lacked the perspective to be found through contact with a variety of native tribes. Perhaps he fully abandoned the classical foundation of western society and the great chain for a very important reason, but lost in the process the animal-human nexus of Bartram's radical revision. He didn't read the *Travels* carefully enough or else he skipped all the tribal visits. I can't see Thoreau engaged with wonder at the Cherokee maidens in the strawberry fields or drawing the hardiness of Mico Chlucco the way I imagine Wordsworth and Coleridge taking notes.

Bartram is one of the few nature writers who could almost match the scope of Muir's walk to the gulf, his scaling of the Sierras, and his surveys of the glaciers of Alaska. Would that Bartram's experience of the South had persisted longer for him to turn out chapters on the limpkin and the gator to rival those of Muir on the water ouzel and the douglas squirrel. However, on the level again of contact and ethology of both natives and animals, Muir like Thoreau had the moral sense to write about the rights of animals, but not so much to speak for an equal peace and understanding of the native Americans. In "The Country of the Chilcat" Muir comes close in one dramatic scene when the chief tells him that white men are only interested in what they can get out of the natives and therefore talking to them is like trying to speak to someone across a raging stream. By and large, however, Muir's imagination does not arc across that river and does not recommend a better democracy, more inclusive of Alaskan natives.

The best example of a nature writer with Bartram's comprehensive scope would be Mary Hunter Austin. She lived at times among the natives and wrote an ecology of the Owens valley and the desert southwest that subordinated the waves of human history to the sparse embraces of the desert ecosystem. For Austin, the spirituality of the places she wrote about infused all the creatures and spoke out against the oppression of an unequal democracy, especially between man and woman, Euro and native American. She gathered in her ark (read first *The Land of Little Rain*, 1903) the native poetry and ritual, but had far less of their animal understanding. Her theology was equally mystical, but seldom became a part of her best writings on the land. Her breakdown of the chain of being is distinctive, focusing more on the male-female than the human-animal disparities. Her concept of genius was fully earthbound and instinctual.

Bartram was more interested in undoing the pride of Pico della Mirandola's humanist optimism about the human Proteus or chameleon and so the force of his argument in this draft manuscript is squarely and directly placed on the new republic. I wish this letter had been sent to Jefferson. What was it that the revolution against England was destined to uphold? Bartram's ark has the advantage over all later scions of American nature writing of being drawn and designed in parallel with the American constitution. If Jefferson is the architect of our political heritage, then Bartram should be standing right across the Schuylkill river from him, asking for a more inclusive natural history, one that all the revolutions of the science of biology for the past hundred years even more thoroughly support. Bartram's imaginations about the simple dignity of animal and human nature make more and more sense every day. It is a pity the friend who presumably received a polished version of this essay was no John Burroughs or Roderick Nash, someone to advertise its unusual perspective. Perhaps then it might have changed the course of America's history of misconception and mistreatment of both natives and animals.

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Whitman and Bartram

This bibliography represents the long tradition of scholarship and science on which my writing depends. I am grateful for all those who have labored before me in these fields.

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