A Historical Geography of Southwest Florida Waterways

VOLUME TWO
Florida Harbor to Marco Island
Cover Credits:
1) Caloosahatchee River 2002, photo by Lee County Mosquito Control
2) Caloosahatchee River, Cape Coral Historical Society Museum
3) Caloosahatchee River Perspective map, David Pann

Cover design by Tom Cross
Gasparilla Pass, looking southeast past the causeway and abandoned railroad trestle to Gasparilla Sound with Charlotte Harbor in distance.

A Historical Geography
of Southwest Florida Waterways

VOLUME TWO
Placida Harbor to Marco Island

written by
Gustavo A. Antonini
David A. Fann
Paul Roat

art production by
Tom Cross, Inc.
design & Illustrations by
Patti Cross

edited by
Paul Roat
# Table of Contents

8 Introduction

12 Historical Development of Southwest Florida Waterways
12 The Boating Geography of Southwest Florida Before Coastal Development
18 Dredging History of Southwest Florida Inland Waterways
28 Dredging of Access Channels and Residential Canal Development
48 Case Studies: Rotonda West, Cape Coral, Marco Island
60 Photographic Record of Waterway Changes
82 Land Use and Land Cover Changes Along the Shoreline

104 Inlet Dynamics
104 Inlet Locations and Status
108 Inlet Features
109 Type of Inlets
110 Historical Changes

132 Altering the Caloosahatchee for Land and Water Development
132 Pre-development Geography
140 Land Reclamation or River Navigation?
142 Contemporary Geography
144 Changes on the Waterway and Along the Waterfront

158 Charting Waterway Changes

162 Glossary

164 Scientific, Technical and Boating-Related Information on the Waterways of Southwest Florida
Acknowledgments

This project has benefited from the advice and generous assistance of many representatives of federal, state, and local public agencies; individuals with non-governmental organizations; and private citizens. We gratefully acknowledge their interest and help in presenting this historical geography of Southwest Florida waterways.

Chuck Listowski (Executive Director, West Coast Inland Navigation District, WCIND) inspired us to consider as our task, not only providing the public with a broader understanding of the historic roots of coastal development, but also establishing a scientific baseline needed by planners and elected officials to set policy and implement waterway resource management. The WCIND Board — elected commissioners from Manatee County (Joe McClash, Chair), Sarasota County (Nora Paterson and Shannon Staub, Alternate), Charlotte County (Mac Hudgins and Lee County (Rd. Judge) — provided encouragement throughout the project.

A special note of thanks to the Florida Sea Grant (FSG) staff; its Director, Jim Cato; Assistant Director for Extension, Mike Spranger; Steve Kellar, Communications Director; Marine Agents Rich Novak (Charlotte County) and Bob Wasno (Lee County); and Betty Spivey, Office Manager, for their unstinting support. FSG cartographic staff, Bob Swett and Charles Sidman, provided invaluable help with GIS analysis and mapping.

Archivists at the National Oceanic and Atmospheric Administration (NOAA) and the Library of Congress were especially helpful with researching historic maps, charts, aerials, and ground photographs. They include: George Myers and Tyrone Holt (NOAA, Hydrographic Surveys Branch, Data Control Section); Joan Rikon (NOAA, National Geodetic Survey, Information Services Branch); Edward Redmond (National Archives, Cartographic Branch); and Mary Ann Hawkins (National Archives, Federal Records Center, Southeast Region). Michelle Pointer, National Air Survey Center, Bladensburg, Md., expedited the processing and printing of hundreds of archived aerial photographs in the federal collections. Don Fore, U.S. Army Corps of Engineers, Jacksonville Office, provided references on dredging by the Corps in the region. Victoria Basauri (Florida Sea Grant) assisted with this phase of the research.

State, local, and private sources provided historic maps, charts, aerial photographs, and ground photographs. Sources include: Sara Nell Gran, Ft. Myers (private postcard collection); Southwest Florida Historical Society, Ft. Myers; Fort Myers Historical Museum (Stan Mulford and Jackie Kent); Cape Coral Historical Society Museum (Ann Cull); Collier County Museum, Naples; Bonita Historical Society (Jane Hogg); Charlotte Harbor Historical Society (U.S. Cleveland); City of Naples (Jon Staiger); City of Marco Island (Nancy Richie); Collier County Natural Resources (Doug Suitor); and John Pulling (private photo collection). Archeologist George Luer (Gainesville) offered information on the aboriginal canals in Southwest Florida. Harvey Hamilton, Captain of Mr. Ashlee, out of Four-Winds Marina, Pine Island, was a first-hand source of the colorful history of Cayo Costa and Punta Blanca settlements. Captain Dave Tinter, Manatee World, Ft. Myers, assisted with the Caloosahatchee reconnaissance. Area residents Terry Forgie (Cabbage Key), Jack Alexander (Rotonda), and Jim Kalvin (Collier County) offered historical commentaries and photograph annotations.

David Doyle, Senior Geodest, National Geodetic Survey, generously supplied the information necessary to transform historic source maps and charts from obsolete geographic reference systems to modern ones for use in geographic information system (GIS) computer programs.

The senior author wishes to thank all the boaters, short residents and friends in Southwest Florida who came to his assistance in many ways and thereby made this book possible. Special mention is made of Jim Gustin, Amanda Miller, Pat Riley, Hat Rogers, Ken Stead, and Kiko Villaln.

Rae Ann Wessel (Ecosystems Specialists, Ft. Myers), who organized a field trip on the Caloosahatchee and provided the senior author with invaluable insights on the river’s historic and current conditions, deserves special thanks. Steve Bouthelle (Lee County Natural Resources Division) and Bob Wasno (Lee County Marine Agent) gave unstinting assistance in responding to seemingly endless requests for advice and assistance.

Contemporary vertical aerial photographs and digital imagery were obtained from the South Florida Water Management District, Ft. Myers (Tomma Barnes); Southwest Florida Water Management District, Tampa (David Tomasco); and the Florida Department of Transportation (Ted Harris). The University of Florida Digital Library Center (Stephanie Haas) scanned the larger photographs and maps. Contemporary oblique aerial views were provided by Gary Sibley, Aerial Photographic Services, Sarasota, Fla. Lee County Mosquito Control staff made the special effort to photograph the present day Caloosahatchee from the historic view point shown on the book’s cover.

The Florida Marine Research Institute (St. Petersburg) provided geographic information system (GIS) coverages of contemporary bathymetry, seagrass beds, and mangroves.

A special note of thanks to the following individuals who reviewed the manuscript for technical accuracy and style: Steve Bouthelle (Lee County Natural Resources Division); Jim Cato and Steve Kellar (Florida Sea Grant Program); David Futch (journalist); Elliot Kampert (Charlotte County Planning Department); Chuck Listowski (West Coast Inland Navigation District); John Morrill (University of South Florida/New College, Environmental Studies Program); Max Sheppard (University of Florida, Coastal Engineering Department); John Staiger (City of Naples); and Warren Yasos (Florida University, Teachers College).

Meredith Manzella (Coastal Printing, Inc., Sarasota) shepherded the manuscript seamlessly through the process of proofreading, typesetting, printing, and binding.

The West Coast Inland Navigation District provided funds for the research and publication, through the Regional Waterway Management Program.
About the Authors

Gustavo A. Antonini is Sea Grant Professor Emeritus at the University of Florida and Managing Member of the waterways consulting firm, Antonini & Associates, LLC. Gus received B.S., M.A., and Ph.D. degrees from Columbia University in New York City. He was a Professor of Geography at the University of Florida from 1970 to 2000 and affiliated with the Florida Sea Grant Program, as the Boating Extension Specialist, from 1988 to 2000. The Sea Grant Boating Program he directed received the Governor’s Council for a Sustainable Florida Year 2000 Award.

Prior to 1988, he worked mostly in the Caribbean and Latin America on natural resource and watershed management issues. Since 1988, Gus has focused on Florida coastal management and marine recreation planning projects, dealing with boat live-aboards, derelict vessel removal, hurricane recovery, artificial reef monitoring, anchoring, waterway management and boat traffic evaluations.

Gus has boated in Florida for 30 years and has cruised the Caribbean, Bahamas and U.S. eastern seaboard aboard a Cheoy Lee Cruisaire 35, La Vida, which also serves as a self-contained field station for waterway research. Gus holds a Merchant Marine Master’s Ticket (100 tons), and is a 28-year member of the U.S. Coast Guard Auxiliary.

When not boating or consulting on Southwest Florida waterways, Gus is training on his bike for ultra-marathon brevets or cycle-touring in some distant, exotic locale.

David A. Fann is a geographer with the Florida Sea Grant College Program, University of Florida, Gainesville. He received a B.S. in Technical Journalism and a M.S. in Geography from the University of Florida. He performs Geographic Information System (GIS) analyses, creates map-based educational publications for recreational boaters, and participates in field data collection whenever possible. Along with A Historical Geography of Southwest Florida Waterways, Volumes One and Two, his primary focus in recent years has been the Regional Waterway Management System project in Manatee, Sarasota, and Lee Counties. This project gathers information on waterway conditions and boat populations, analyzes both kinds of data in a GIS, and provides the results to county policy makers, facilitating an efficient, region-wide approach to waterway management.

Before returning to the University of Florida in 1993, David did rocket science with Martin Marietta Aerospace at Kennedy Space Center and Cape Canaveral Air Force Station. He began his career as a technical writer/editor at Martin Marietta’s Orlando Division.

For more than 30 years, David has sailed and fished Florida waters.

Paul Roat is a Florida native who has spent most of his life on the barrier islands of Manatee and Sarasota counties. Paul graduated from the University of South Florida with a degree in photojournalism and has spent 25 years writing or editing community newspapers, magazines and books. Paul works with Tom Cross Inc., a consulting firm specializing in environmental and marine writing and graphics. He is news editor for The Islander, a community newspaper based on Anna Maria Island.

La Vida, the authors aboard, with sails and sheets eased off the wind, somewhere along the Southwest Florida coast.
1941 - The Changing Sea and Earth

“... the sea, too, lay restless, awaiting the time when once more it should encroach upon the coastal plain, and creep up the sides of the foothills, and lap at the bases of the mountain ranges... so the relation of sea and coast and mountain range was that of a moment in geologic time.

For once more the mountains would be worn away by the endless erosion of water and carried in silt to the sea, and once more all the coast would be water again, and the places of its cities and towns would belong to the sea.”

— In Under the Sea-Wind: A Naturalist’s Picture of Ocean Life
Rachel Carson
©1940
Published by Simon and Schuster, New York. p. 271.
Coastal Southwest Florida has undergone dramatic changes in the past 120 years. The vast mangrove forests, expansive seagrass meadows and serene sawgrass tracts have been changed into housing developments and waterfront condominiums. The once-quiet towns and fishing villages have been transformed into bustling communities. Unfortunately, the new residents to the coast are all too often unaware of the region’s history.

The great naturalist and ecologist, Edward O. Wilson, in remarking on man’s alteration of the environment, speaks of managing the human “footprint” on natural systems as society’s greatest challenge in this the new century.

Yet, there are few such places where man’s footprint is more starkly visible than the coast of Southwest Florida. In little more than three decades, a blink of an eye in human history, this coastline has gone from a mostly pristine region of small towns and coastal communities to one of immense development that has markedly changed the face of Southwest Florida.

Massive dredging and fill projects have reshaped the land and waterways. We have made land where nature did not, and dug waterways in areas nature picked to be seagrass beds. It is only through understanding these changes made throughout the years that we can fully appreciate the alterations to this once-pristine landscape.

As a society, we are intensely proud of our history and progress as a nation, tend not toward retrospect and focus intensely on the future. But to truly understand the immense changes that we have wrought on scale that is not readily observable or comprehensible, we need a point of reference and historical perspective if we are to derive necessary lessons from that history.

_A Historical Geography of Southwest Florida Waterways, Volume Two, Placida Harbor to Marco Island_ offers readers a glimpse of the changes that have occurred in the region. Visual depiction of the manmade changes that have taken place are shown through maps and photographs.

As in Volume I, the authors chronicle magnificently the magnitude of cumulative impacts of thousands of smaller actions and among many jurisdictions over a relatively short time.

Only by learning of the past can we understand the needs of the future. Dr. Antonini and colleagues unveil the complex history and geography of this interesting and beautiful area. Southwest Florida with its rare ecosystems should be managed and nurtured in the coming years.

The authors have done us all an incalculable service yet again. They have provided us with invaluable information, insight and guidance we will surely need to address the difficult issues of environment and community that lie ahead.

Ronald C. Baird
Director
National Sea Grant College Program