

“OUR LADY OF THE RIVERS”: MARJORIE HARRIS CARR, SCIENCE, GENDER, AND
ENVIRONMENTAL ACTIVISM

By

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To my Canadian grandparents, Dorothy and Bill Macdonald, who made Florida their home in 1948; to my mother, Katherine Macdonald, who showed me how strong a woman can be; and to Mimi Carr, who made this dissertation possible

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Throughout the writing of this dissertation, my mother, Katherine Macdonald, served as a willing sounding board. A former member of Marjorie Harris Carr's Girl Scout troop, my mother has remained friends with Carr's daughter, Mimi Carr, for sixty years. Moreover, my mother's experiences as a professional woman in the 1980s provided inspiration for my writing. Like the Carrs, my family attended First Presbyterian Church in Gainesville. In 1982, a male

church volunteer asked my mother—divorced since 1976 and raising three children—to report her occupation for the church directory. My mother explained that she was a law student at the University of Florida, executive editor of the law review, and a clerk at a prominent local law firm—to which the man replied, “Oh, you’re a homemaker.” My mother never corrected him. After graduating that spring, she was hired as the law firm’s first female attorney.

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I had the pleasure of interviewing Marjorie and Archie Carr’s lifelong friend, Dr. J. C. Dickinson, Jr., before his death January 21, 2009, at age 92. He also permitted me to examine his records at the Florida Museum of Natural History, which he directed from 1961 through 1979. These papers included earlier correspondence with the Carrs, some of Marjorie Carr’s publication materials, and items pertaining to her museum work in the 1950s. Interviews with Dr. Tom Carr, Dr. Archie (Chuck) Carr III, Dr. David Anthony, Dr. Joe Little, Dr. Elizabeth

Wing, David Godfrey, and David Gluckman furthered my understanding of Carr's personal and professional life. Additional oral history material came from Darren Preston Lane's forthcoming documentary, *From Waterway to Greenway: The History of the Cross-Florida Barge Canal*. Lane traveled across Florida to interview many of the key players from both sides of the battle over the Cross Florida Barge Canal. His interviews provide fresh insights into the continuing debate over the barge canal and restoration of the Ocklawaha River.

I express my deepest gratitude to Mimi Carr, who shared her memories of her mother and father over the course of several lengthy interviews between 2005 and 2009. She also shared original photographs of the Carr family and entrusted me with treasured family books and papers, including her parents' love letters from the fall of 1936 through the summer of 1937. It was a rare honor to read these private letters, many of which were encased in envelopes that had resealed with time and humidity. These letters and additional documents offer a more complete picture of Carr's life than the one that existed before this new information was made available.

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CHRONOLOGY: THE LIFE OF MARJORIE HARRIS CARR

- 1915: On March 26, Marjorie Harris is born to Clara Louise (Haynes) Harris and Charles Ellsworth Harris in Boston, Massachusetts.
- 1918: The Harrises and seven other Boston families follow the Florida dream to rural Bonita Springs, where Charles Harris purchases a ten-acre orange grove near the Imperial River.
- 1927: On January 21, President Calvin Coolidge signs the River and Harbor Act into law. Among other things, the act authorizes preliminary studies and surveys of a cross-state ship and barge canal.
- 1928: The Harrises relocate to nearby Fort Myers, where Marjorie Harris attends high school.
- 1931: Charles Harris contracts pneumonia and dies.
- 1932: Marjorie Harris graduates from Fort Myers High School and enrolls in Florida State College for Women in Tallahassee, Florida, where she studies biology, ecology, botany, ornithology, and bacteriology.
- 1933: Harris spends the first of three consecutive summers working for the National Youth Administration, a New Deal agency. In return for leading a pioneering naturalist education program she designed for Lee County youth, she receives assistance with tuition, room, and board at Florida State College for Women.
- 1935: On August 30, President Franklin Delano Roosevelt authorizes five million dollars for construction of a thirty-foot-deep, sea-level ship canal that is estimated to cost one hundred forty-three million dollars to complete. The ship canal is justified as a public works project that will provide Floridians with much needed relief during the Great Depression. The United States Army Corps of Engineers was unable to recommend construction based upon the customary economic return basis, but Roosevelt was eager to create new jobs in the state.
- On September 19, a ceremony marks the official start of construction of the cross-state ship canal.
- In December, President Roosevelt transfers the power to authorize grants for projects such as the ship canal to Congress.
- 1936: Harris graduates from Florida State College for Women with a B.S. in zoology. Her honors include membership in Phi Beta Kappa and the science honor society Sigma Xi. She also becomes a charter member of the Florida Academy of Sciences.

Cornell University and the University of North Carolina decline to admit Harris to graduate school, informing her that women are not welcome in her chosen field of ornithology.

Harris becomes the first female federal wildlife technician. Through her work as a biologist at the Welaka Fish Hatchery, she is introduced to the Ocklawaha River and her future husband, herpetologist Archie Fairly Carr, Jr.

Michigan Senator Arthur H. Vandenberg challenges the cross-state ship canal, observing that the project had never received Congressional authorization.

Thirteen million cubic yards of material have been excavated, nearly 5,000 acres of right-of-way for the ship canal have been cleared, and four large bridge piers have been erected near Ocala. Because Construction funds for the cross-state ship canal are exhausted, however, construction comes to a stop.

1937: Marjorie Harris and Archie Carr elope and are married near the Everglades on New Year's Day.

Marjorie Harris Carr conceals her marriage while starting a new position as a laboratory technician and field collector at the Bass Zoological Research Laboratory in Englewood, Florida—a six hour drive from her new husband, who is finishing his doctoral dissertation at the University of Florida in Gainesville. The couple corresponds daily during a separation that lasts for six months.

Archie becomes the first student to receive a doctorate in biology at the University of Florida.

Marjorie and Archie spend their first summer together in Cambridge, Massachusetts, where Archie studies turtles on a Thomas Barbour fellowship to the Museum of Comparative Zoology at Harvard.

Carr enters the graduate zoology program at the officially all-male University of Florida, where Archie begins teaching biology in the fall.

1939: Marjorie and Archie lead students on the first of several research and collecting trips to Mexico.

1942: Carr graduates from the University of Florida with an M.S. in zoology. She publishes her master's thesis, "The Breeding Habits, Embryology and Larval Development of the Large-Mouthed Black Bass of Florida," in *Proceedings of the New England Zoology Club*. The same issue features "Notes on the Courtship of the Cottonmouth Moccasin," the first scientific paper Marjorie and Archie publish together.

The United States Congress authorizes construction of the Cross Florida Barge Canal along Route 13-B, which crosses the Ocklawaha River Valley in North Central Florida.

The estimated cost of the shallower barge canal is approximately forty-four million dollars.

1943: On June 20, Marjorie and Archie welcome the birth of their first child, Marjorie (Mimi).

1945: On May 10, Archibald Fairly Carr III (Chuck) is born.

The Carr family moves to Honduras, where Archie teaches biology at the Escuela Agrícola Panamericana. Marjorie and Archie explore the tropical rain forests on daily excursions. Carr publishes her findings on the birds of Honduras in subsequent years (see below). Archie describes the Honduran ecosystems—including humans' role within the ecosystem—in *High Jungles and Low* (1953).

1946: On December 1, Stephen Carr is born.

Writes “Notes on the Breeding Habits of the Eastern Stumpknocker, *Lepomis Punctatus Punctatus* (Cuvier)” for the *Quarterly Journal of the Florida Academy of Sciences*.

1948: On March 15, Thomas Carr is born.

1949: The Carr family returns to Florida.

1951: Writes “The San Geronimo Swift in Honduras” for the *Wilson Bulletin*.

1952: On January 1, David Carr is born.

Volunteers as a Girl Scout leader in Gainesville (through 1954).

1954: Joins the Board of Associates of the Florida Museum of Natural History at the University of Florida. Her donation of thousands of scientific skins from Honduras—including many species that were new to the museum—improves the museum's tropical ornithology collection.

1956: The Carrs move to Costa Rica, where Marjorie teaches biology and chemistry at the Escuela Metodista in San Jose while Archie helps establish the biology department at the University of Costa Rica (through 1957). Marjorie assists Archie with his sea turtle research as he creates a research and conservation station at Tortuguero.

1957: Joins the Gainesville Garden Club and begins work on the Paynes Prairie preservation campaign. She serves on the board of directors from 1958 through 1962.

1960: Cofounds the Alachua Audubon Society. She serves on the board of directors from 1960 through 68 and from 1972 through 1980.

1962: On November 8, Carr and fellow Audubon officer David Anthony host a meeting on the effects of the proposed Cross Florida Barge Canal. The movement to save the Ocklawaha River Valley begins.

1964: On February 27, President Lyndon Johnson ignites a ceremonial blast of dynamite near the Ocklawaha River, marking the official start of construction of the 107-mile Cross Florida Barge Canal.

1965: Writes “The Ocklawaha River Wilderness” in *Florida Naturalist*.

Awarded the Florida Audubon Society’s Award of Merit.

1966: Hundreds of activists travel to the annual water resources development meeting in Tallahassee to request that the proposed barge canal be rerouted to preserve the natural beauty of the river valley. State officials decide to continue construction along the current route before the public hearing even begins.

Construction of Rodman Dam and Reservoir in the Ocklawaha River Valley commences.

1967: Writes “What Do Users Want? Wilderness!” in the *Proceedings of the Annual Meeting of the Southeastern Section of the Society of American Foresters*.

1968: At the start of the year, three of the barge canal’s five navigation locks are complete and another is under construction, and sixty-eight percent of the canal right-of-way has been purchased.

By the fall, five hundred acres of Rodman Reservoir have been cleared, Rodman Dam and the St. Johns Lock are complete, and Eureka Dam is under construction.

On September 30, the U.S. Army Corps of Engineers closes Rodman Dam and floods the Rodman Reservoir. Thousands of dead trees float to the top of the pool. Invasive water weeds proliferate in the shallow reservoir.

1969: Carr cofounds Florida Defenders of the Environment (F.D.E.), which partners with the Environmental Defense Fund in filing a lawsuit against the United States Army Corps of Engineers for violating the public interest. Carr and F.D.E. develop a coalition of scientific, economic, and legal experts who contribute research to its environmental impact statement on the barge canal’s effects on the Ocklawaha regional ecosystem.

Carr spearheads the campaign to preserve Lake Alice on the University of Florida campus after the university and the Florida Department of Transportation announce plans to build a cross-campus highway and twelve-thousand-car garage that will destroy the lake.

1970: Writes “Modulated Reproductive Periodicity in Chelonia” (with Archie) for *Ecology*. The article reports on evidence from fifteen years of tagging at a *Chelonia mydas* turtle nesting ground at Tortuguero, Costa Rica.

Writes “Recruitment and Remigration in a Green Turtle Nesting Colony” (with Archie) for *Conservation Biology*.

Paynes Prairie State Park is created.

Awarded the Florida Governor's Award for Outstanding Conservation Leadership.

1971: The Cross Florida Barge Canal is halted at the judicial and executive levels.

Writes “The Fight to Save the Ocklawaha” at the Twelfth Biennial Sierra Club Wilderness Conference in Washington, D.C.

Joins the board of directors for the Florida Conservation Foundation, serving from 1971 through 1990.

1972: Writes “Site Fixity in Caribbean Green Turtles” (with Archie) for *Ecology*.

1973: Wins the National Federation of Business and Professional Women's Club's Headline Award.

1974: Wins the Fairchild Tropical Garden's Thomas Barbour Award.

Joins the board of directors of the Institute for Social Policy Studies, serving through 1978.

1976: Writes “An Interim Report on the Cross Florida Barge Canal” and the case history section for “In Defense of Rivers, A Citizens' Workbook: Impacts of Dam and Canal Projects,” published by the Delaware Valley Conservation Association.

Awarded the National Wildlife Federation's Conservation Service Award.

1978: Writes “The Ecology and Migrations of Sea Turtles: The West Caribbean Green Turtle Colony” (with Archie and Anne B. Meylan) for *Bulletin of the American Museum of Natural History*.

Awarded the New York Zoological Society's Gold Medal for achievement in biological conservation.

1980: Establishes the Environmental Service Center in Tallahassee with the goal of fostering cooperation between citizens, government, and business in developing sound environmental practices. The center closes in 1988.

- 1984: Awarded the Florida Audubon Society's Conservationist of the Year Award.
- 1986: The Cross Florida Barge Canal is officially deauthorized.
- 1987: On May 21, Archie Carr dies.
- 1988: Writes the preface to *Florida: Images of the Landscape*.
 Becomes a scientific fellow of the New York Zoological Society.
- 1989: Writes the foreword to *Ecosystems of Florida*.
- 1990: Writes the video script for the F.D.E. production "Restoring the Ocklawaha River" (with fellow Florida Defenders of the Environment officer Jack Kaufmann).
 Cowrites and edits "Restoring the Ocklawaha River Ecosystem" (an F.D.E. publication).
 Awarded the Teddy Roosevelt Conservation Award.
- 1991: Edits re-publications of Archie's *High Jungles and Low* and *Ulendo*.
 Awarded the Alexander Calder Conservation Award for Special Achievement.
 Awarded the Unsung Hero Award by the Miami Hosting Committee of the United Nations Environmental Program's Global Assembly of Women and the Environment.
- 1992: Edits "The Case for Restoring the Free-Flowing Ocklawaha River" (with David Godfrey, Jack Kaufmann, and Jeanne Marie Zokovitch).
- 1994: Edits *A Naturalist in Florida: A Celebration of Eden*, a collection of Archie's essays.
- 1995: Writes "Notes on the Birds of Honduras for the Years 1945-1949, with Special Reference to the Yeguaré River Valley, Department of Francisco Morazan," for *Ceiba*.
- 1996: Inducted into the Florida Women's Hall of Fame.
- 1997: Inducted into the Florida Wildlife Federation's Conservation Hall of Fame.
 On October 10, Marjorie Harris Carr dies in Gainesville at age 82.
- 1998: The land formerly set aside for the Cross Florida Barge Canal is named the Marjorie Harris Carr Cross Florida Greenway.
- 2010: Florida Defenders of the Environment enters the fortieth year of its campaign to restore the Ocklawaha River Valley to its pre-canal state.

Abstract of Dissertation Presented to the Graduate School
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ENVIRONMENTAL ACTIVISM

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Margaret F. (Peggy) Macdonald

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This dissertation is the first scholarly biography of Marjorie Harris Carr, who led one of the United States’ most influential grassroots environmental movements beginning in 1962. For thirty-five years, Carr struggled to stop construction of the U.S. Army Corps of Engineers’ 107-mile Cross Florida Barge Canal—which would have linked the Gulf of Mexico to the Atlantic Ocean—and to restore the dammed Ocklawaha River Valley to its pre-canal state. Her campaign coincided with the emergence of a national environmental movement that blended the science of ecology with a wave of potent environmental legislation signed into law by President Richard Nixon. Through Florida Defenders of the Environment (F.D.E.)—a coalition of volunteer scientific, legal, and economic experts from the University of Florida and other institutions—Carr demonstrated that the barge canal represented the conservation ethos of a bygone era.

Work on a cross-state ship canal first started in the 1930s as a means of providing economic relief during the Great Depression. Construction stopped when World War II commanded the nation’s economic and military resources. The canal remained in a state of suspended animation after Congress officially authorized the project in 1942 but failed to appropriate funds for construction. The project was resurrected in the 1960s as a shallower barge

canal that would follow the same path as the 1930s ship canal. Plans called for the completion of five locks and three dams, plus the dredging of a twelve-foot-deep channel across the center of the state. The Ocklawaha River would be dammed at two points, and the St. Johns and Withlacoochee Rivers would also be altered significantly.

Carr and Florida Defenders of the Environment demonstrated that the canal was a pork-barrel project that was neither economically nor environmentally sound. Canal boosters maintained that the canal would foster improved economic activity along the canal route, but F.D.E.'s economists accused the Corps of Engineers of fabricating an unrealistic benefit-to-cost ratio based upon incomplete and inaccurate data. In addition to proving that there was no economic justification for the canal, F.D.E. challenged the Corps of Engineers' nineteenth-century conservation ethos, which viewed the environment as a collection of natural resources to be manipulated and exploited by humans for human benefit alone. The Ocklawaha River Valley—which lay in the path of the Cross Florida Barge Canal—merited preservation as a unique regional ecosystem that supported a diverse variety of native flora and fauna, F.D.E. maintained. The Corps of Engineers had failed to include the loss of this environmental asset in its economic calculations. F.D.E. sued the Corps of Engineers in U.S. District Court for violating the public interest. Using its groundbreaking environmental impact statement to bolster its case against the Corps, F.D.E. won a temporary injunction against construction of the canal in January 1971. Days later, President Nixon halted construction of the canal. Carr led F.D.E.'s ongoing battle to restore the Ocklawaha River Valley until her death in 1997.

Carr's leadership of the campaign to save the Ocklawaha River Valley furthers our understanding of women's role as leaders of the nascent environmental movement of the 1960s and 1970s. Moreover, her biography—which begins in the early twentieth century and ends at

the century's close—contributes to our appreciation of women scientists' struggle to combine career and family. A lifelong naturalist and zoologist, Carr battled discrimination in academia and professional science, ultimately turning to conservation and environmental activism as an outlet for her professional aspirations. This dissertation positions Carr as a reference point from which conclusions can be drawn regarding other women scientists' experiences between the Great Depression and the late twentieth century.

This dissertation contributes to the historiography of women and science, taking a longer view of Carr's career as a scientist and environmental activist. Using primary sources previously unavailable to scholars, this dissertation reveals the complexities of Carr's thwarted career as a scientist in the mid twentieth century, which ultimately contributed to her successful leadership of one of the nation's most important environmental conflicts. This dissertation examines Carr's struggle to remain relevant as a female scientist—in the midst of institutionalized discrimination in academic and professional science—and positions her at the center of the nation's burgeoning environmental movement, which was strengthened by the campaign to save the Ocklawaha River Valley and other battles over Florida's environment. Ultimately, the environmental struggles of the late twentieth century were informed by competing discourses over the best use of the nation's air, land, and water, as a new environmental ethos challenged manifest destiny, which Americans had used to justify their exploitation of the earth for centuries.

CHAPTER 1 INTRODUCTION

The Ocklawaha is a wild, winding river that flows north toward the Atlantic Ocean (via the St. Johns River). As recently as the 1850s, Seminoles used this ancient river—located in remote Central Florida—for transportation. They camped along its banks, hunting black bear, panther, white-tailed deer, and turkey. In 1936, when the twenty-one-year-old scientist Marjorie Harris¹ (1915-1997) first encountered the Ocklawaha, its abundant flora and fauna remained relatively unchanged. Because the river was removed from the coast and far from Florida’s major cities, it remained largely undeveloped. Its expansive valley and varied habitats supported a diverse variety of native plants and animals. By sheer luck, the Ocklawaha lay mostly undisturbed for another three decades, dodging the massive development that accompanied the state’s postwar population boom of the 1940s and 1950s. This would all change in 1962, when the United States Army Corps of Engineers reached the final stage of its plan to dam the river at two points. Damming the Ocklawaha River would be a crucial step in the construction of a 107-mile canal that would enable massive barges to travel across inland Florida from the Gulf of Mexico to the Atlantic Ocean.²

The Cross Florida Barge Canal captured the attention of the scientist who had visited the river twenty-six years before. By the time she first heard about the Corps’ plan to dam the river, Marjorie Harris Carr was forty-seven and the mother of five children. She had studied the

¹ Throughout this dissertation, Marjorie Harris Carr is referred to by her maiden name (Harris) or her married name (Carr), depending upon the context of the chapter. The first chapter refers to Marjorie Harris as “Harris,” whereas the other members of her family are identified by first name only. In the sections that examine Carr’s life after marriage, Marjorie Harris Carr is identified as “Carr,” while her husband (Archie Fairly Carr, Jr.) and children (Mimi, Chuck, Stephen, Tom, and David) are identified by their first name only.

² Contemporary documents pertaining to the Cross Florida Barge Canal did not consistently hyphenate “Cross Florida.” The Marjorie Harris Carr Cross Florida Greenway is not hyphenated. Remaining consistent with the hyphenation of the Cross Florida Greenway, Cross Florida Barge Canal will not be hyphenated in this dissertation. Additionally, this dissertation uses the modern spelling “Ocklawaha” with a “c,” which officially replaced “Oklawaha” in 1992.

Ocklawaha River for decades, first coming to know the river through her work as a biologist at the Welaka Fish Hatchery near Palatka. Carr later visited the Ocklawaha routinely to conduct research on the river's substantial population of large-mouthed black bass, a species that was the subject of her master's thesis at the University of Florida in Gainesville in 1942. Nobody would demonstrate a greater commitment to the cause of saving the Ocklawaha River than Marjorie Harris Carr. Her campaign to save the Ocklawaha River Valley spanned four decades, garnered national media attention, and contributed to the development of an emerging environmental ethos that transformed the American consciousness in the late twentieth century. Although Carr's successful fight to stop construction of the Cross Florida Barge Canal has been the subject of several Florida studies, her role in this transformation has failed to achieve the scholarly attention it merits at the national level. This dissertation situates the campaign to save the Ocklawaha River at the forefront of the environmental revolution that swept the nation in the late 1960s and early 1970s.

Marjorie Harris Carr first fell in love with the Ocklawaha River as a new graduate of Florida State College for Women in Tallahassee. Her first choice was to start graduate school in the fall, but in the 1930s, women faced discrimination in the graduate admissions process—especially in the sciences. The director of the University of North Carolina's ornithology department told her point blank that women were not welcome in the field. Fortunately, the New Deal created fresh opportunities for women. Carr started work as the nation's first female federal wildlife technician at the Welaka Fish Hatchery. Through her work at the hatchery, Carr was introduced to the two loves of her life: the Ocklawaha River and her future husband, Archibald (Archie) Fairly Carr, Jr. (1909-1987), who was finishing his doctoral dissertation in biology at the University of Florida. They met when Carr—who had studied ornithology and

bacteriology as an undergraduate—traveled to Gainesville to use the university’s well-equipped laboratory to determine what had sickened some quail at the Welaka Fish Hatchery’s aviary. It was love at first sight. Despite tremendous financial difficulties, the two young scientists eloped and started a fifty-year partnership that combined science, family, and conservation. Nathaniel Reed, who served as the assistant secretary of the Interior for Fish, Wildlife and National Parks during the Nixon and Ford administrations, once described Marjorie and Archie Carr as the “dynamic duo.” Marjorie Carr’s work to restore and preserve the Ocklawaha and other Florida rivers led Charles Lee of the Florida Audubon Society to give her the honorary title “Our Lady of the Rivers.”

Marjorie Carr’s story—which cannot be told without also addressing the life of her husband, Archie—bridges the gap between the conservation mindset of the early twentieth century and the nation’s growing environmental awareness of the late twentieth century. Her biography contributes to the historiography of women, the environment, and Florida. Although environmental history and the history of women and gender have received national attention, Florida’s role in the environmental revolution of the 1960s and 1970s—like the role of women in environmental history—has only recently begun to receive the scholarly attention it deserves. Jack E. Davis’s *An Everglades Providence: Marjory Stoneman Douglas and the American Environmental Century* (published in 2009) emphasizes the importance of Douglas, the Florida suffragist, late-blooming environmentalist, and author of *The Everglades: River of Grass*, to the preservation of one of Florida’s greatest ecological treasures. Douglas’s involvement in the campaign to stop the construction of one of the world’s largest airports in the heart of the Everglades was a key factor in the creation of national environmental legislation designed to slow the pace of the tremendous postwar growth that threatened America’s environment—a

process that was especially visible in Florida, which was still very much a frontier state at the beginning of the twentieth century.

In a series of essays and her forthcoming doctoral dissertation, Leslie Kemp Poole illuminates the role Florida women played in organizing a national campaign to prevent the plume trade from driving several species of birds to extinction.³ Frederick Rowe Davis's *The Man Who Saved Sea Turtles: Archie Carr and the Origins of Conservation Biology* (published in 2007) chronicles the Florida scientist's rise to international prominence as the world's top turtle expert. Davis also acknowledges Marjorie Carr's environmental campaigns and her contributions to Archie's scholarly work. Each of these scholars places Florida at the center of an evolving national discourse concerning the future of human relationships with nature and emphasizes women's importance in shaping this discourse.

It is not the primary goal of this dissertation to provide a comprehensive history of the Cross Florida Barge Canal. This impressive feat has already been accomplished by Steven Noll and David Tegeder, whose *Ditch of Dreams: The Cross Florida Barge Canal and the Struggle for Florida's Future* (published in 2009) traces the canal from its origins in the dreams of sixteenth-century Spanish explorers to its demise at the hands of Richard Nixon in 1971. This dissertation will expand upon the work of Noll and Tegeder and other scholars who have addressed Carr's leadership of the Ocklawaha campaign by examining the events and historical forces that shaped her life in the years that preceded her work to save the river. Carr is a central figure in Sallie Rowe Middleton's "Cutting through Paradise: A Political History of the Cross Florida Barge Canal," which acknowledges her background as a naturalist and scientist but

³ See Leslie Kemp Poole, "The Women of the Early Florida Audubon Society: Agents of History in the Fight to Save State Birds," *Florida Historical Quarterly* 85 (Winter 2007), 297-323. Her forthcoming dissertation on Florida women's conservation in the twentieth century will further advance our knowledge of Florida women's efforts to preserve the state's flora, fauna, and wilderness.

depicts her primarily as a housewife.⁴ In contrast, Lee Irby's 2003 and 2005 essays on the Cross Florida Barge Canal stress the importance of Carr's scientific background to her activism.

"Although tagged with the moniker 'The Housewife from Micanopy,'" Irby maintains, "Carr upended gender stereotypes by pursuing a scientific approach to environmental activism."⁵ In

Women Pioneers for the Environment, Mary Joy Breton describes Carr as "another Florida environmental matriarch of the twentieth century," likening her influence to that of Marjory Stoneman Douglas.⁶

Scholarly treatments of Marjorie Harris Carr have been divided by an analytical phenomenon that historian Thomas Laqueur has described as an "interpretive chasm." On one side of the divide is the scholarly depiction of Carr as a scientist. The other interpretation is that Carr was a housewife. This dissertation argues that the self-described housewife label was a rhetorical device used by Carr and other women who functioned within the public sphere during a moment of political and cultural transition for women in the United States and other Western countries.⁷

The housewife persona served as an effective shield as Carr pressed local, state, national, and military organizations for further information about the canal. She sometimes masked the true extent of her scientific knowledge in her dealings with lawmakers, the Corps of Engineers,

⁴ See Sallie Rowe Middleton, *Cutting through Paradise: A Political History of the Cross Florida Barge Canal* (E.T.D. Collection for Florida International University, 2001), paper AAI3006860, <http://digitalcommons.fiu.edu/dissertations/AAI3006860> accessed February 7, 2009.

⁵ See Lee Irby, "A Passion for Wild Things: Marjorie Harris Carr and the Fight to Free a River," in Davis and Frederickson, *Making Waves*, 177-196; quote on 193. See also Irby, "'The Big Ditch': The Rise and Fall of the Cross Florida Barge Canal," in Jack E. Davis and Raymond Arsenault, eds., *Paradise Lost? The Environmental History of Florida* (Gainesville, 2005), 375-397.

⁶ See Mary Joy Breton, "Thinking Like a River: Marjorie Carr Saves a Wilderness River," in *Women Pioneers for the Environment*, 245-250, quote on page 245.

⁷ See Thomas Laqueur, *Making Sex: Body and Gender from the Greeks to Freud* (Cambridge: Harvard University Press, 1990).

and the media. David Anthony, Alachua Audubon Society's co-president (with Carr) and the second president of Florida Defenders of the Environment, explained how Carr exploited people's preconceived notions of her femininity: "She would say, 'I'm just a poor little housewife from Micanopy, but...'" and then just devastate her opponents with her total command of the subject."⁸

At the dawn of the 1980s, women's presence still was not welcome in politics at the state or national levels. Women first broke into the political arena of the late twentieth century by presenting themselves as traditional women—women who did not appear to challenge the gendered order that excluded them from the public realm—while in reality, they posed a direct challenge to the political order as it then existed. The non-threatening housewife strategy provided Carr—and such contemporaries as Paula Hawkins, the first woman elected to a full term in the United States Senate, and Corazon Aquino, the first president of the Philippines—with the moral authority of an earlier wave of female activists. In the late nineteenth and early twentieth centuries, Progressive reformers expanded the confines of the domestic sphere to encompass the larger community, thereby justifying their participation in social work, conservation, nursing, teaching, and other public activities that were new or had previously been the purview of men. In her essays, letters, public appearances, and telephone conversations with politicians, supporters, and opponents, Carr presented herself as a reasonable voice for environmental stewardship. Yet when it suited her cause, Carr downplayed her scientific background and played up the unassuming "housewife from Micanopy."⁹

⁸ *Gainesville Sun*, October 11, 1997.

⁹ Chapter five addresses the self-described housewife status of Paula Hawkins and Corazon Aquino in greater detail.

The women who first made inroads into the (male) political arena did not embrace feminism. By describing themselves as “housewives,” these women appeared to accept and endorse the traditional role of middle-class women and the gendered order as a whole—the very order that had barred women’s participation since the dawn of the republic. They were seen as feminine—not as feminists. Florida’s former Republican Party chairman Tom Slade recalled that Hawkins “was better looking than most people who ever ran for office.” These women manipulated their feminine image to infiltrate the (male) political realm in order to achieve their respective political goals.¹⁰

This dissertation seeks to broaden current interpretations of women’s leadership styles within the environmental movement to encompass the contributions of professional women such as Marjory Stoneman Douglas, whom Jack E. Davis describes as both a writer and philosopher; and Carr, a scientist and naturalist. In *Forcing the Spring: The Transformation of the American Environmental Movement*, historian Robert Gottlieb differentiates between “male” and “female” leadership styles, contending that the “male” style is based upon facts and science, whereas the “female” style stems from women’s direct experiences as mothers and nurturers. The Love Canal activists of the 1970s are characteristic of this experiential form of “female” activism, in which women became environmental activists after they witnessed their family members endure the toxic effects of industrial pollution in their homes and schools. Although Gottlieb acknowledges that the women who engaged in the Love Canal campaign and others like it were transformed from housewives who had previously functioned primarily within the private realm of the home, to politically active public figures, he overlooks the activities of female activists who do not fit into this mold. Women such as Carr and Douglas were not merely adopting

¹⁰ “Florida Senator Paula Hawkins, billed as the ‘housewife from Maitland,’ dies at 82,” *St. Petersburg Times*, December 5, 2009; “She Wins Votes, He Wins Senate Wives Club,” *The Deseret News*, February 14, 1982.

“male” leadership styles favoring facts over feelings. They formed single-issue organizations dedicated to studying local environmental issues, used the media to educate the public, and recruited state and federal assistance to achieve their goals.

In 1969, Carr cofounded Florida Defenders of the Environment (F.D.E.), which developed an environmental impact statement that functioned as the primary evidence in its legal case against the Corps of Engineers. The key to F.D.E.’s success was the coalition of scientific, legal, and economic experts who volunteered their services to the organization. Carr was the glue that held this coalition together. She harnessed the power of the activist science of ecology to convince politicians, the media, and the public that a completed Cross Florida Barge Canal would be an economic fiasco and an environmental tragedy. After a series of disappointing setbacks at the state level, she took the campaign to save the Ocklawaha River Valley to the national arena, presenting the scientific and economic argument against the canal to President Richard Nixon, who ultimately killed the canal.

This dissertation blends biography, cultural history, and environmental history in order to incorporate Marjorie Carr’s story into the larger historiography of women and the environment. This dissertation builds upon a larger body of work that examines opposition to federal agencies such as the Corps of Engineers and the Bureau of Reclamation, whose manipulation of the land came under attack with increasing frequency in the mid to late twentieth century. This dissertation also builds upon more than three decades of critical inquiry into the subject of women and work that reveals that cultural views concerning women’s biological differences from men justified both women’s exclusion from the “public sphere” and their acceptance there—within carefully prescribed feminine fields such as volunteer work, social work, teaching,

nursing, and conservation. As women's presence in higher education and the work force increased, university and employer practices enforced cultural notions of gender difference.

This dissertation uncovers the story of one of the nation's unsung environmental heroes while also addressing the larger issue of how American women surmounted the obstacles placed in their path during their transition from political exclusion to inclusion in national politics in the late twentieth century. Through her strong convictions, firm command of the new science of ecology, university connections, and phenomenal perseverance, Marjorie Carr championed a pioneering legal battle that provided the environmental movement with a landmark victory that would have far-reaching consequences for federal agencies, real estate developers, private industry, and state and national politics.

This dissertation applies a double lens to Carr's life and work. The narrative moves back and forth between the details of her life and the larger story of the fight to stop construction of the barge canal. The biography begins in the final moments of Florida's frontier history, examining Carr's naturalist upbringing in rural Southwest Florida. It touches on central themes from the history of women and science in the 1930s, when institutionalized discrimination in academic and professional science kept Carr from realizing her dream of achieving a formal career in zoology.

Chapter one analyzes Marjorie Harris Carr's youth in Bonita Springs, Florida, where she moved with her parents, Charles and Clara Harris, in 1918. Carr grew up in an undeveloped section of the Gulf Coast, where she learned to identify the state's bounteous flora and fauna. She also witnessed the effects of unregulated hunting firsthand, at a time when plume hunters nearly drove several species of Florida's native birds to extinction. When Carr attended Florida State College for Women in the 1930s, women could choose between a feminized curriculum

that trained them to fulfill the traditional duties of a wife and mother, or a liberal arts curriculum that prepared women to enter the professions. The discrepancies between these two paths were reflective of competing discourses in higher education. As a greater number of women participated in higher education and entered the professions in the early twentieth century, cultural tensions erupted over the nature of women's proper place in society. Carr followed a liberal arts path, studying ecology and other biological sciences. Carr became a Phi Beta Kappa scholar, was inducted into the science honor society Sigma Xi, and was appointed as a charter member of the Florida Academy of Sciences. Nonetheless, she was denied admission to graduate programs in ornithology because of her gender. This chapter traces the origins of Carr's later activism on behalf of Florida's environment to her youth, when she studied Florida's landscapes from the perspectives of a naturalist and a scientist. Although institutionalized discrimination resulted in the postponement of her graduate studies, Carr attained a first-class education through the state's gender-segregated system of higher education.

Chapter two reveals that despite Carr's excellent training in the biological sciences, she would continue to suffer the same discrimination in professional science that she had in academia. Although the New Deal opened up new opportunities for women, it did not eliminate entrenched biases concerning women's professional abilities. Carr was hired as the first female federal wildlife technician through the New Deal's Resettlement Agency. Yet the opportunity proved to be short-lived. Her supervisor was troubled by the agency's decision to hire a female biologist. Nonetheless, Carr's resettlement work resulted in her marriage to a fellow scientist, who would help her gain admission to the graduate zoology program at the officially all-male University of Florida. This chapter illuminates the tensions that existed within a marriage between two scientists during a time when men were expected to be the sole breadwinner.

Recently discovered letters reveal a side of Marjorie and Archie Carr that has heretofore remained obscured. The portrait that emerges depicts two aspiring scientists who struggled to balance their personal and professional lives. Archie's insecurities ultimately led Carr to place her husband's career before her own.

Chapter three examines the connection between hunting and conservation during Marjorie and Archie's four-and-a-half-year sojourn in Honduras, where they studied the native flora and fauna on daily horseback rides while servants cared for their growing family. Although Marjorie and Archie would later embrace an environmental ethos that condemned hunting for sport, in the 1940s they shot thousands of animals for natural history museum collections, research, and to eat. At the time it was considered necessary to kill animals in order to study them. Over the course of the 1950s and 1960s, however, the Carrs would come to realize how fragile the ecosystems of Central America were as they witnessed the rapid deforestation that accompanied the growth of commercial agriculture there. Marjorie Carr's letters to her mother, Clara Haynes Harris; friends Lucy and J. C. Dickinson; and others contribute to our understanding of the Carrs' conservation ethos as it existed in the 1940s. This material, previously unexplored by most scholars, makes it possible to scrutinize the ways Carr's early scientific career laid the groundwork for her later activism. Carr's letters from Honduras depict an early Cold War lifestyle that was free of the confines of domesticity.

In Honduras Carr enjoyed an informal career in science at her husband's side while servants supervised their children. She and Archie adopted more traditional gender roles upon their return to Florida in the fall of 1949, but Marjorie Carr remained engaged in science as much as possible. Throughout the 1950s, Carr continued to assist with her husband's turtle research. By the end of the decade, she was engaged in a variety of conservation projects through the

Gainesville Garden Club and the Alachua Audubon Society. Over the course of the 1960s, the focus of Carr's activism shifted from conservation to environmentalism. Rooted in the nineteenth-century view that the earth is composed of natural resources that should be harnessed by humans, conservation was espoused by the Corps of Engineers, which viewed the Ocklawaha River as a resource to be tamed and exploited for profit. Guided by the relatively new science of ecology, the environmental movement gained momentum at the same time that Carr's Ocklawaha campaign was at its peak.

The consequences of the transformation from conservation to environmentalism were profound. Since the first moment European conquerors and colonists had arrived in the "New World," they had viewed the land as a commodity to be exploited for profit. This mindset still thrived in the late nineteenth and early twentieth centuries, when several species of Florida's native birds were hunted almost to extinction in order to fuel a thriving international millinery industry that decorated women's hats with plumes and whole birds. Florida was in the vanguard of the environmental revolution of the 1960s and 1970s, when a developing environmental ethos transformed the nation's consciousness and ushered in a wave of pioneering environmental legislation. Inspired at the national level by the 1962 publication of Rachel Carson's *Silent Spring*, and at the state level by a series of near environmental catastrophes that thrust a powerful contingent of citizen activists into the spotlight, the nascent environmental movement was led by a loose-knit coalition of academics, writers, and citizen activists who used the science of ecology to foster a new brand of stewardship of the earth.¹¹

¹¹ For a thorough analysis of Americans' commodification of nature and its effects on the environment, see William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983). Florida women's leadership of the movement to stop the plume trade is discussed in greater detail in chapter one.

Carr's family reports that she left behind no letters, journals, or other personal records to document her personal life after the family's return from Honduras. The Florida Defenders of the Environment records provide extensive documentation of the campaign to save the Ocklawaha and other environmental matters, but the only remaining personal records Carr left behind are the ones utilized in the first three chapters. Consequently, chapters four through six focus more exclusively on her developing activist career than on her personal life. Chapter four scrutinizes Carr's early conservation career, utilizing oral history interviews, archival material, and newspaper articles to uncover the details of her campaigns to restore and preserve Paynes Prairie and Lake Alice in Alachua County, Florida; her opposition to the proposed route of Interstate 75, which sliced through her family's homestead and divided Paynes Prairie; and her later efforts to stop construction of a proposed turnpike from Jacksonville to Tampa because of the threat the highways posed to environmentally sensitive lands in North Central Florida. Oral history helps flesh out some of the details of Carr's life from the 1950s through her death in 1997. The 1950s were a transitional period for Carr, who gave birth to her fifth child at the beginning of the decade and was ensconced in an activist career by its close. Many of her conservation projects involved local land preservation. As Florida's unchecked growth increasingly encroached upon the state's remaining wild places, Carr and other activists realized that they needed to take action to protect large tracts of land that promoted biodiversity. By 1962 she was ready to take on a revolutionary campaign against the largest builder of dams, canals, channels, and reservoirs in the nation.

Chapter five begins to examine the politics of the controversy over the proposed Cross Florida Barge Canal in greater detail but also contends that Marjorie and Archie Carr represented a new breed of activist scientist, having discarded the conservation ethos of their younger days.

Archie's turtle studies led him to believe that scientists were ethically compelled to take action on behalf of the environment or there would be nothing left to stand up for. Carr helped her husband establish a sea turtle research and conservation station at Tortuguero, Costa Rica. In return, Archie supported all of his wife's conservation and environmental campaigns, writing letters to university officials and politicians to explain the ecological reasons that justified land preservation in Florida. Marjorie Carr would make the case that the barge canal was a dinosaur, a product of nineteenth-century thinking that should not be built for economic and environmental reasons.

Carr's campaign to save the Ocklawaha River officially started on November 8, 1962, when she and fellow activist David Anthony, a University of Florida biochemistry professor who cofounded the Alachua Audubon Society with Carr, held a public meeting. They invited representatives of the state conservation board to discuss the effects of the proposed barge canal on the Ocklawaha River Valley. The audience was composed of many members of the University of Florida community, including professors who would later form the nucleus of F.D.E. The campaign to save the Ocklawaha River was centered in Alachua County, which stood to gain nothing from the canal's construction. The threatened portion of the river was located primarily in neighboring Marion County, where government officials and businessmen touted the canal's economic benefits. Historians Steven Noll and David Tegeder contend that Marion County, which lacked a university, had dreamed of becoming an inland port city for decades. From the perspective of canal proponents, the college town of Gainesville was filled with "bird watchers" and "little old ladies in tennis shoes," the chosen epithets for Audubon Society activists and other conservationists and environmentalists. Canal boosters underestimated the threat posed by an environmental campaign backed by the intellectual

resources of the University of Florida, which boasted an impressive number of experts in ecology, hydrology, geology, finance, and the law—areas of expertise that would bolster F.D.E.’s case against the completion of the barge canal.

Construction of a cross-state ship canal had first started during the Great Depression as a means of providing economic relief to Florida. America’s involvement in World War II halted construction of the canal before much had been accomplished. In 1942, the canal project received Congressional authorization—this time in the form of a shallower barge canal. Yet Congress decided against appropriating funds for construction. Canal proponents pushed for funding for the next two decades. Construction along the Ocklawaha River started in 1964. By that point, Marjorie Carr had led a localized movement to reroute the canal around the Ocklawaha River Valley for more than a year. In a 1965 *Florida Naturalist* essay, Carr referred to this area as the Ocklawaha Regional Ecosystem. The essay laid the philosophical groundwork for the movement’s conversion from a regional movement that centered its efforts on lobbying state politicians, to a national environmental campaign that brought the little-known river to the attention of the nation. Chapter five concludes with an analysis of the Ocklawaha campaign’s transition from a conservation approach that emphasized the natural resources that would be lost if the canal were completed, to an environmental focus that emphasized the threat the barge canal posed to one of Florida’s largest uninterrupted, ecologically rich areas of land.

By the late 1960s, the Ocklawaha campaign had attracted the attention of the national media. The *New York Times*, *Reader’s Digest*, and other major publications decried the “rape” of the Ocklawaha. After reading about the courtroom success of a new legal organization named the Environmental Defense Fund (E.D.F.) in *Sports Illustrated*, Carr contacted the national organization’s leaders and convinced them to take on the campaign to save the Ocklawaha.

E.D.F. urged Carr and her allies—who were still operating under the auspices of the Alachua Audubon Society—to form an independent, single-issue organization dedicated to saving the Ocklawaha. They dubbed their new organization Florida Defenders of the Environment (F.D.E.—or E.D.F. reversed), and the two groups promptly started to develop the legal case against the Corps of Engineers.

F.D.E.’s first task was to complete an environmental impact statement, which contended that the barge canal should not be completed on economic grounds alone. In the space age, constructing a barge canal made no sense. The Interstate system facilitated cheaper, faster shipping via commercial trucking. Moreover, the economic benefits of the canal were exaggerated—especially since the Corps of Engineers had never factored the environmental cost of losing the ecological value of the Ocklawaha River into their calculations when determining the canal’s benefit to cost ratio. Finally, F.D.E.’s environmental impact statement stressed the catastrophic environmental consequences the canal posed to the Floridan Aquifer, the state’s main source of fresh water. Despite the Corps of Engineers’ claims to the contrary, F.D.E.’s hydrologists and geologists demonstrated that the porous aquifer—which interacts with the surface water along the canal—was vulnerable to saltwater intrusion and pollution from barge traffic.

In 1962, at the beginning of the campaign to save the Ocklawaha, Carr and her fellow activists failed to incorporate the science of ecology into their cause. That same year, Rachel Carson’s *Silent Spring* provided an alternative to the dominant discourse of conservation, which viewed nature as a collection of natural resources designed to be harvested by humans. This prevailing discourse operated on the assumption that humans had the right to exploit the land through the indiscriminate use of pesticides, by damming rivers, by dredging and filling along

the coast to create new land for condominiums, and so on. Carson was instrumental in providing a counter discourse, while Carr excelled at putting it to use to mobilize her fellow scientists and the public to stop construction of an antiquated barge canal.

Carson set the stage for the environmental revolution of the late 1960s and early 1970s. Florida stood at the center of the momentous process that recast nature from a commodity to be exploited to something to be protected. In the early to mid twentieth century, Carr had mastered an earlier form of ecology, which focused on single species within an ecosystem (primarily birds and fish in Carr's case). In the late twentieth century, she utilized the modern understanding of ecology—which stressed humans' role as either destroyers or stewards of the environment—in her campaign to save the Ocklawaha. A combination of Nixon's political aspirations and F.D.E.'s sophisticated legal, economic, and ecological arguments against the Cross Florida Barge Canal led the President to order a halt to its construction in January 1971. This marked the beginning of F.D.E.'s continuing efforts to restore the Ocklawaha River. In 2010, as the restoration campaign enters its fortieth year, the Ocklawaha remains dammed.

Marjorie Carr died in 1997, before seeing the Ocklawaha run free. The following year, the Florida Legislature named the cross-state greenway that follows the path of the incomplete barge canal the Marjorie Harris Carr Cross Florida Greenway. Sadly, the marker that identifies the greenway on Interstate 75 is the most commonly recognized symbol of Carr's success. Carr's story, however, fits into the larger historiography of the environmental movement, which originated in the United States. Her successful campaign to stop construction of the Cross Florida Barge Canal was an important element of the emergence of the environmental movement in the late twentieth century. I have fashioned out of Carr's life a significance that she would not have foreseen, casting her as a heroine of not only the modern environmental movement, but of

the larger struggle of twentieth-century American women to work within the constraints placed upon their gender while simultaneously crafting a more satisfying professional life.

CHAPTER 2

MARJORIE HARRIS CARR'S GIRLHOOD: A YOUNG NATURALIST GROWING UP IN FLORIDA

Marjorie Harris Carr was born in Boston, Massachusetts, on March 26, 1915. Her father, Charles Ellsworth Harris, was a farmer at heart. Originally from New Hampshire, Charles abandoned a career in law to teach Italian immigrants' children in Boston. Charles and his wife, Clara Louise (Haynes) Harris, were "snowbirds"—Northerners who wintered in Florida. In the early twentieth century, South Florida land speculators pitched the benefits of the state's tropical climate to all who would listen, claiming that an industrious individual could retire after running a family orange grove for ten years. In 1918, when Harris was three years old, her father relocated the family to a ten-acre orange grove in remote Southwest Florida. The Harris family moved into a modest house three miles south of Bonita Springs (formerly known as Surveyor's Creek), near the Imperial River. Charles and Clara's decision to move to rural Bonita Springs would instill a love of natural Florida in their young daughter, who would later champion the cause of restoring and preserving the state's wild and scenic rivers. The Harrises were joined by all of their female relatives and some family friends—twelve families in all—who moved to Fort Myers and regions further south to grow oranges.¹

These transplanted Bostonians attempted to create a small haven for New Englanders in sparsely populated Lee County, where Harris's father had purchased a house and approximately ten acres of orange groves on a small plot of land formerly occupied by the Calusa people. Massive shell mounds in nearby Estero provide evidence that the Calusa had inhabited the region as early as twelve thousand years ago. The parents of Harris's future husband, Archie Carr,

¹ Author's interviews with Mimi Carr, November 11, 2005 and August 6, 2008. Marjorie Harris Carr recounts her father's decision to purchase a small Florida orange grove in an April 24, 1989 interview with Everett Caudle, courtesy of the University of Florida Oral History Program.

would purchase a small orange grove in Umatilla, Florida, about a decade later, providing Harris and Carr with a shared connection to rural Florida. Yet very few small family citrus growers turned a profit in the early to mid twentieth century. As the citrus industry consolidated, Florida and California farmers formed cooperatives, which left little room for family growers to compete.²

Although oranges are actually native to Southeast Asia, Florida promoters had used images of citrus in subtropical Florida to lure tourists and permanent residents to the state since the late nineteenth century.³ Representing the clash between Florida's native plant life and the state's agricultural industry, the citrus industry was responsible both for improving Americans' health and permanently altering Florida's landscape and wildlife habitats. New World citrus was first planted in Hispaniola in 1493, during Columbus's second voyage to the Americas. It is believed that citrus was first introduced to Florida at St. Augustine in 1565. By 1774, when the naturalist William Bartram traveled up the St. Johns River, he reported finding wild orange groves scattered across the higher regions of land where he camped at night. Early promoters used images and narratives depicting Florida as a land of orange groves and Edenic gardens. The Harrises—originally a farming family—were drawn to the idea of escaping the big city lifestyle and retreating to a small patch of Florida orange groves. In reality, orange groves do not reach maturity for three to six years, and they seldom produce enough fruit to enable a small

² The Calusa encountered Ponce de Leon in 1513 and 1521, in addition to Spanish and Cuban settlers. They vanished in the mid 1700s. See "The History of Fort Myers," Greater Fort Myers Chamber of Commerce website (www.fortmyers.org/fort-myers-history.htm), accessed August 4, 2009. See also author's interviews with Mimi Carr, November 11, 2005 and August 6, 2008.

³ For more information on the spread of citrus from Asia to the Mediterranean and eventually to the Americas, see Raymond E. Crist, "The Citrus Industry in Florida," *American Journal of Economics and Sociology* 15:1 (October, 1955), 1-12.

farmer to turn a profit for about a decade, but promoters offered exaggerated visions of instant success.⁴

Marjorie Kinnan Rawlings, who won the 1939 Pulitzer Prize for fiction for *The Yearling*, made her home on a 72-acre orange grove in North Central Florida in 1928. When her husband, Charles, later returned to New York, Rawlings decided to remain in rural Cross Creek. Her writer's retreat became the setting for several of her novels, including *South Moon Under*, *Cross Creek*, *Golden Apples*, and *The Yearling*. The reclusive writer captured the rugged lifestyle of the Florida Crackers and their environment, making the land itself a main character in her writing. In *Cross Creek*, she described the allure of Florida citrus groves: "To walk under the arched canopy of their jadelike leaves; to see the long aisles of lichened trunks stretch ahead in geometric rhythm; to feel the mystery of a seclusion that yet has shafts of light striking through it. This is the essence of an ancient and secret magic. It goes back, perhaps...to an atavistic sense of safety and delight in an open forest."⁵

At the time the Harris clan settled in Lee County, Southwest Florida was a haven for small family citrus growers. Considered a luxury item since ancient times, oranges attracted such great thinkers as Rawlings, Harriet Beecher Stowe, Thomas Edison, and Henry Ford to Florida. Stowe managed a profitable orange grove in Mandarin for almost two decades. John James Audubon sketched Florida birds on orange branches when he visited the state in 1831. Combining images of religion, art, and nature, Florida advertisements and literature tantalized Americans with the promise of paradise. Oranges were frequently at the heart of these images.

⁴ Helen L. Kohen, "Perfume, Postcards, and Promises: The Orange in Art and Industry," *The Journal of Decorative and Propaganda Arts* 23 (Florida Theme Issue, 1998), 33-47.

⁵ Marjorie Kinnan Rawlings, *Cross Creek* (New York: Touchstone Books, published by Simon and Schuster, 1996), 16. For further analysis of the role of the land in Rawlings' writing, see Gordon E. Bigelow, *Frontier Eden: The Literary Career of Marjorie Kinnan Rawlings* (Gainesville: University Press of Florida, 1980).

By 1894, Florida's citrus industry produced five million boxes of fruit per year. At the turn of the century, Florida postcards depicted families at work in their private orange groves, but larger citrus operations became the norm as the twentieth century wore on. Large packing houses and citrus cooperatives had spread across the state by the 1920s.⁶ After a series of hard freezes in the late nineteenth and early twentieth centuries, the citrus industry relocated to Central and South Florida. Fort Myers was situated far enough to the South to provide excellent growing conditions for citrus. In 1895, Fort Myers was reported to be the southernmost point at which orange groves had been planted, but subsequent freezes later drove citrus growers farther to the South.⁷

Marjorie Harris's mother, Clara, had descended from Boston urbanites. Yet she and her husband Charles taught their only daughter to be close to the earth. Without a radio or telephone (and a long time before television was invented), the Harris family spent much of their free time reading about and exploring their newly adopted homeland. Charles, who was able to trace his lineage to Puritan farmers, was educated in law at Dartmouth College. Yet he had planned to carry on the family's farming tradition. When Charles's older brother, a beneficiary of primogeniture, inherited the New Hampshire family farm, Charles became a teacher in the Boston school system. This is where he met his future wife, Clara, and her sister Ruth, who were both teachers. In a time of massive urbanization in America, the Harris and Haynes families bucked a trend toward urban life. Charles Harris's decision to purchase a Florida orange grove

⁶ Kohen, "Perfume, Postcards, and Promises." See also Allen H. Andrews, *A Yank Pioneer in Florida: Recounting the Adventures of a City Chap Who Came to the Wilds of South Florida in the 1890s and Remained to Grow Up With the Country* (Jacksonville, Florida: Press of the Douglas Printing Company, 1950), 239.

⁷ Florida's liquid gold would become less of a luxury item and more a daily part of Americans' diet by World War II, which would coincide with increases in population growth that only experienced a significant period of decline in the twenty-first century. Crist, "The Citrus Industry in Florida." For an analysis of Florida's postwar population growth, see Gary Mormino, *Land of Sunshine, State of Dreams: A Social History of Modern Florida* (Gainesville, Florida: University Press of Florida, 2005).

reflected his longing to return to his farming roots. “His dream was to establish a small farm,” Marjorie Harris recalled. “In those days—this was back in 1918—they felt that having ten acres of citrus would support a person.”⁸ The Harris family followed the same Florida dream that would lead millions of Americans to start a new life in the Sunshine State. “My father,” Harris explained, “who was really a New Hampshire man, always thought, ‘Why should anybody stay up in New England where you can only be out-of-doors for a few months in the year, when there is Florida where you can be out-of-doors all year round?’” As Charles’s new bride, Clara’s decision to join her husband in Florida seems natural. What is more surprising is the fact that much of Clara’s family followed them. Perhaps they needed to combine family resources in order to afford the opportunity. Or maybe Charles and Clara’s zeal was so infectious that the members of the Harris clan merely got caught up in the excitement of the adventure. What prompted Clara’s extended family to join her in Florida remains a mystery, but they were part of a growing contingent of Northerners who moved to Florida in order to test their luck in the profitable orange industry.⁹

Soon after moving to Bonita Springs, however, Charles realized that his newly acquired orange groves would not provide sufficient income to support a family. Out of economic necessity, Charles continued to teach in Boston seasonally, while his wife and young daughter spent several winters in Florida without him. Charles continued this practice until Harris was seven years old, when the family settled in Florida together permanently. As the only child within both her nuclear family and the extended network of New England friends and family members who had migrated to the region, Harris had a lonely childhood. She turned to nature

⁸ Everett Caudle interview with Marjorie Harris Carr.

⁹ Author’s interviews with Mimi Carr, November 11, 2005 and March 7, 2007.

and literature for companionship, devouring Rudyard Kipling's *Jungle Book* stories and acting out scenes from the books outdoors. Unfortunately, the rest of the Harris clan was unable to cope with the grim realities of managing a small orange grove as readily as Charles had been. Unable to travel north for seasonal work like Charles, many of the other Boston families had no choice but to return to New England.¹⁰

Nonetheless, citrus remained a profitable crop even during the agricultural recession of the 1920s, when prices for citrus remained steady due to the lack of foreign competitors and the fruits' special climate and temperature requirements. While many American farmers witnessed a dramatic fall in crop prices after World War I, citrus growers enjoyed a nearly twofold increase in orange prices between 1920 and 1929.¹¹ However, family orange growers were less likely to reap the record profits that citrus cooperatives experienced in the 1920s. Large packing houses proliferated in this period, making it possible for cooperatives to sell their crop across the country. Family growers' roadside citrus stands could not compete with the cooperatives' organized marketing and shipping apparatus. "It was very common to have a house and a small grove and sell fruit," Marjorie and Archie Carr's daughter, Mimi, explained. "But nobody could make it. None of the families liked it." By 1930, the Depression contributed to a dramatic decrease in the price of oranges. Most of Marjorie Harris's relatives returned to New England in the early 1920s after a series of unsuccessful harvests in Lee County. Harris and her parents were among the only Boston families who stayed. The departure of the Harris family's

¹⁰ Ibid. See also Leslie Kemp Poole interview with Marjorie Harris Carr, October 18, 1990.

¹¹ For a statistical analysis of the Florida citrus industry in the 1920s, see Elizabeth Hoffman and Gary D. Libecap, "Institutional Choice and the Development of U.S. Agricultural Policies in the 1920s," *The Journal of Economic History* 51:2 (June 1991), 397-411.

transplanted New England support network heightened their sense of isolation in Bonita Springs.¹²

In 1922, when Charles Harris stopped teaching in Boston and joined the Harris family year-round in Bonita Springs, the tiny town was little more than a frontier outpost. Surrounded by wilderness, Bonita Springs was home to just 175 residents, according to 1920 census data. Its nearby beaches remained undeveloped, and many residents made their living off the sea. The majority of Bonita Springs' townsfolk worked on family citrus and vegetable farms. The town had a general store, one hotel, a loan and lease business, and a school. Unlike Marjorie Harris, who was an avid reader, very few of Bonita Springs' school-age children knew how to read and write. While most Bonita Springs residents were born in Florida, others hailed from regions as far away as Maine, Scotland, Germany, and Portugal. Except for two Hispanic families, all of Bonita Springs' residents were white, reflecting the extremely segregated residential patterns in rural Florida.¹³

To the Harris family, Bonita Springs was a naturalist's paradise. As a girl, Harris would explore the creeks, rivers, and beaches near Fort Myers (which was still a small town in the 1920s) with Chiquita, whom she referred to as a "Florida Cracker horse." Originally a wild mare descended from Spanish stock, Chiquita was Harris's main form of transportation for several years in grade school. Additionally, the horse provided Harris with the ability to interact with the Florida countryside—particularly its beautiful beaches, which were still covered in Native American shell mounds. "I could go to Bonita Beach to race along the hard, sandy edge of the Gulf, or go swimming on horseback," she recalled. "I'd take my saddle off and Chiquita and I

¹² Author's interview with Mimi Carr, August 6, 2008.

¹³ 1920 United States census, www.rootsweb.ancestry.com/~flswphs/records/census/boni1920_full.htm (accessed August 4, 2009).

would go and jump in the waves.” Although Lee County made some of its beaches more accessible to tourists during the 1920s boom time through the addition of toll bridges and paved roads, the southwestern coastal areas remained relatively undisturbed until developers and former GIs who had been stationed in the region descended upon South Florida after World War II.¹⁴

In the 1920s, Bonita Springs was almost like an island unto itself. Harris would later describe South Florida as a naturalist’s dream, a place replete with diverse flora and fauna that were not found in North Florida.¹⁵ She would play alone outdoors for hours each day, relating to the wild boy character of Mowgli in Kipling’s *The Jungle Book* as she explored her own subtropical forest “jungle.” She encountered thousands of species of plants, trees, reptiles, mammals, birds, fish, and insects on her journeys through Southwest Florida. The Florida panther, Southern bald eagle, Eastern diamondback rattlesnake, water moccasin, dolphin, Florida Black Bear, and prehistoric creatures such as the North American alligator, manatee, stingray, loggerhead sea turtle, and several varieties of shark rivaled the wild animals Mowgli befriended in *The Jungle Book*. In addition to providing companionship on her adventures through wild Florida, Chiquita helped Harris cope with the isolation she felt growing up in a remote coastal settlement. Riding a horse to school lent Harris a certain air of sophistication that she cherished as a Yankee outsider in rural Florida.¹⁶

¹⁴ Marjorie Harris Carr, “Chiquita,” (n.p., 1996), in the Private Collection of Mimi Carr. See also Leslie Kemp Poole interview with Marjorie Harris Carr, October 18, 1990; author’s interview with Mimi Carr, August 6, 2008; “Sand in Her Shoes, River in Her Blood,” *St. Petersburg Times*, November 18, 1996. For more information on Lee County’s beaches in the 1920s, see “Town of Fort Myers Beach Florida Island History” (www.fortmyersbeachfl.gov/index.aspx?nid=60), accessed August 4, 2009. See Mormino, *Land of Sunshine, State of Dreams* for a detailed analysis of the postwar population and development boom in Florida.

¹⁵ Marjorie Harris Carr’s letters to Archie Carr, November 1936 through July 1937, in Private Collection of Mimi Carr.

¹⁶ *Ibid.* See also Leslie Kemp Poole interview with Marjorie Harris Carr, October 18, 1990. For information on Lee County’s beaches in the 1920s, see “Town of Fort Myers Beach Florida Island History”

Although Harris was proud of her New England heritage (especially her father's New Hampshire background), her Yankee accent gave her peers at school cause to tease and ostracize her. The wounds of the Civil War were still felt deeply in the South, and Harris and her New England kin were viewed as outsiders. Florida was a Jim Crow state. Endemic racial discrimination continued to plague African Americans, who lived in segregated neighborhoods or in separate small towns divided from nearby towns populated by whites. Vagrancy laws defied constitutional protections against enslavement of African Americans, who were often forced to work without wages in Florida and other Southern states.¹⁷ The reemergence of the Ku Klux Klan following World War I was particularly strong in Florida, where some of the most violent acts of racism emerged. In the interest of maintaining white supremacy in the state, Klan members burned African Americans at the stake, hanged them, and torched their houses, schools, and churches.¹⁸

The college town of Gainesville, Florida, played host to a massive Klan rally and march on New Year's Eve 1922, the night before the infamous Rosewood massacre. On New Year's Day 1923, approximately 500 whites formed a lynch mob after Fanny Taylor, a white woman, claimed that she had been attacked by a black man. Scholars now contend Taylor was actually involved in a consensual extramarital affair with a white man, who had hit her in the face. To conceal the affair, she fabricated a story about a black attacker. The target of the angry mob's wrath was the predominantly African American town of Rosewood, Florida, located about fifty

(www.fortmyersbeachfl.gov/index.aspx?nid=60), accessed August 4, 2009. See Mormino, *Land of Sunshine, State of Dreams* for a detailed analysis of the postwar population and development boom in Florida.

¹⁷ In the early twentieth century, race relations in Florida resembled conditions in other Southern states. See Jerrell H. Shofner, "The Legacy of Racial Slavery: Free Enterprise and Forced Labor in Florida in the 1940s," *The Journal of Southern History* 47:3 (August 1981), 411-426.

¹⁸ For more information on the Rosewood Massacre, see Richard Newman, "Rosewood Revisited," *Transition* 80 (1999), 32-39.

miles southwest of Gainesville. The mob set fire to every residence, the school, the church, and the Masonic lodge and murdered many of Rosewood's black residents, including women and children. Those who survived abandoned their homes and created new lives elsewhere, burying the story of their tragic loss for generations. A special grand jury charged with investigating the Rosewood massacre determined that there was no evidence that would support criminal charges. The only house left standing in Rosewood belonged to a white man. Nobody was ever arrested for the crimes committed at Rosewood. The state of Florida later sold the other Rosewood residents' property to whites. Most of the Rosewood survivors feared that they would lose their lives if they shared their stories about the carnage. To this day, the Klan thrives near Rosewood and in other parts of rural Florida. Justice for the survivors of Rosewood was finally served in 1993, when historians prepared *A Documented History of the Incident Which Occurred at Rosewood, January, 1923* for the State Legislature. The following year, Florida became the first state in the nation to pass legislation that would compensate victims of past racial violence.¹⁹

In the 1920s, Bonita Springs shared the same small-town Florida racial philosophy that had produced the Rosewood massacre. Although she was the child of Northerners, Marjorie Harris's upbringing in rural Lee County made her a witness to the type of discriminatory behavior that occurred throughout Florida. As mentioned previously, Bonita Springs was an entirely white community, and the town's schools, churches, and businesses were all run by whites for the benefit of white patrons. Whether Charles and Clara Harris were cognizant of this fact before they moved to the region is unclear. Yet it is evident that the primary reason for the

¹⁹ Newman, "Rosewood Revisited;" R. Thomas Dye, "The Rosewood Massacre: History and the Making of Public Policy," *The Public Historian* 19:3 (Summer 1997), 25-39; R. Thomas Dye, Larry E. Rivers, David R. Colburn, William R. Rogers, and Maxine D. Jones, "A Documented History of the Incident Which Occurred at Rosewood, Florida in January, 1923: A Report Submitted to the Florida Board of Regents," December 1993, Florida State Archives, Tallahassee, Florida.

family's move to Bonita Springs was to resume the farming life Charles had cherished in his youth, and to raise their daughter in the natural surroundings of wild Florida.²⁰

The Harris home was well stocked with field guides to the state's flora and fauna, in addition to the works of New England nature writers such as Henry David Thoreau and Ralph Waldo Emerson. Charles's New Hampshire-bred Puritan values molded Harris. These early years shaped her sense of stewardship of the earth, which she believed was a distinctively New England, Puritan trait. "My feeling is that a lot of the environmentalists here in Florida got their sense of environmental stewardship from...Puritanism and early settlers in New England," she said in the last decade of her life. "An awful lot of people who are interested in the environmental movement originally came from New England."²¹ Environmental historians such as William Cronon have chronicled the Puritans' manipulation of the land, which they viewed as property that belonged to colonists who "improved" it by exploiting its natural resources, even if the land had been hunted for generations by Native Americans. Nonetheless, Puritan teachings stressed the importance of civic service. Charles Harris instilled the ethic of Puritan stewardship in his daughter, who maintained a firm belief in the Democratic process throughout her life and translated that stewardship into an environmental sensibility.²²

²⁰ 1920 United States Census data for Bonita Springs, Florida. The 1920 Census describes all of its residents as "white," including two Hispanic households. For more on the Harris family's relocation to Bonita Springs, see author's interviews with Mimi Carr, November 11, 2005 and March 7, 2007; and Everett Caudle and Leslie Poole's interviews with Marjorie Harris Carr.

²¹ Marjorie Harris Carr elaborates upon her interpretation of Puritan stewardship in her October 18, 1990 interview with Leslie Kemp Poole.

²² Author's interviews with Mimi Carr, November 11, 2005 and March 7, 2007. William Cronon and other environmental historians paint an entirely different portrait of New Englanders, who treated the land as property to be "improved" upon for the benefit of proto-capitalist colonists. Yet Carr's interpretation of a Puritan sense of stewardship—as expressed in her oral history interviews with Everett Caudle and Leslie Poole—is inspired by her lifelong love of reading, including the works of Henry David Thoreau and Ralph Waldo Emerson, which she first read as a child. Carr's version of the Puritan ethic of stewardship was also shaped by the naturalist training she received from her New England-born parents. For more information on Puritan stewardship, see Jere Cohen, *Protestantism and Capitalism: The Mechanisms of Influence* (Hawthorne, New York: Aldine de Gruyter), 2002.

In addition, Charles and Clara Harris were naturalists who taught their daughter how to study, describe, and classify thousands of plants, animals, minerals, and other natural objects. Charles's appreciation for the natural environment began in childhood, when he studied birds and insects. He and Clara collected insects early in their marriage, and they shared their fascination with the outdoors with their daughter. Considering that the naturalists of the eighteenth and nineteenth centuries laid the foundation for the specialist work of modern zoologists, botanists, biologists, and ecologists, it is fitting that Marjorie Harris's first scientific efforts were as a naturalist in Florida. She conducted informal field investigations with her parents and on her own throughout her childhood, preparing for her later career in the "masculine" field of zoology, which requires physical work, in the case of Harris, in subtropical and tropical heat. Moreover, the zoologists of the early to mid twentieth century, Harris among them, were comfortable killing animals for sport and specimen collecting. Yet the same zoologists who readily combined science with hunting would also be the first to call attention to the degradation of animal habitats as the twentieth century wore on.²³

The Harris family observed the effects of rampant, unregulated hunting close to their home near the banks of the Imperial River, where they canoed several times a week. Harris and her parents observed the tragic consequences of the plume trade, which nearly eradicated South Florida's egret and heron populations. "I saw very few herons or waterfowl" along the river banks, Harris later observed. "People would come down and shoot anything that moved for sport." Sport was not the only motivation for bird hunting, however. The egret and other native birds were prized for their plumage, which was used to decorate women's hats in the United

²³ Robert Elman, *America's Pioneering Naturalists: Their Lives and Times, Exploits and Adventures* (Tulsa, Oklahoma: Winchester Press, 1982). Marjorie Harris Carr reflects upon her naturalist heritage in an October 18, 1990 interview with Leslie Kemp Poole.

States and Europe. The bird trade and the Florida land boom of the 1920s posed a substantial threat to Florida's avian population and wildlife habitats during Harris's youth. Witnessing the carnage firsthand contributed to the formation of Harris's environmental ethos in the years to come, reinforcing her belief that once wilderness was gone, it was gone forever.²⁴

Florida's second great land boom, which lasted from 1920 through 1925, had originally been centered along Florida's eastern coast between Palm Beach and Miami, but it soon stretched westward. Developers sold tracts of swampland for exorbitant amounts of money until late 1925, when the national press revealed scandal in land-sales practices and in government promotion schemes. Then a devastating hurricane hit Florida on September 19, 1926. That same year, a wave of hundreds of bank failures across the United States ensured the end of the Florida land boom of the 1920s. The boom has been characterized as the most prolific example of speculation in new real estate—"both above water and below it," as a contemporary analyst remarked—since land speculators took advantage of settlers moving to the West. Financing was no problem in the prosperous twenties, and exaggerated newspaper and billboard advertisements touting Florida sunshine and the state's lack of income and inheritance taxes drew buyers from the cold North and Midwest to purchase small lots from blueprints alone. Images of Florida as both the final frontier and the fountain of youth tempted buyers to purchase waterfront property along freshly dredged canals and sand-filled mangrove swamps in South Florida. Although southwestern Florida was spared much of the overdevelopment of Miami, Fort Lauderdale, and Palm Beach during the great land boom, the effects of progress had begun to take a toll on Lee

²⁴ The effects of the millinery industry on Florida's bird population are discussed in Leslie Kemp Poole, "The Women of the Early Florida Audubon Society: Agents of History in the Fight to Save State Birds," *The Florida Historical Quarterly* 85:3 (Winter 2007), 297-323. See also Jennifer Price, *Flight Maps: Adventures with Nature in Modern America* (New York: Basic Books, 1999); and Carolyn Merchant, "Women of the Progressive Conservation Movement: 1900-1916," *Environmental Review* 8 (Spring 1984): 57-85. For more information on the connection between Marjorie Harris Carr's girlhood observations of the depletion of Florida's wildlife in Southwest Florida and her later activist career, see Everett Caudle's interview with Carr.

County as well. After the 1928 completion of an east-west route (the Tamiami Trail/U.S. 41), traffic from South Florida started to make its way to the Gulf Coast, and greater numbers of tourists flocked to the west coast's shell-laden beaches. The 1920s ushered in a new wave of economic prosperity in St. Petersburg and Sarasota. Yet the bank failures of 1925 and 1926 turned newly created subdivisions across South and Central Florida into ghost towns.²⁵

Florida's second land boom took place before the advent of air conditioning and mosquito control, and unlike the resort towns of St. Petersburg and Miami, Lee County remained relatively rustic. Yet Florida was a leader in building roads to accommodate automobiles, which by the 1920s brought more tourists to the state than did railroads. Harris later recalled that paved roads were constructed from "rolled oyster shells dug from the extensive Indian mounds along the Gulf Coast." Originally designed for horses and ox carts, the heavy sand trails were more common than shelled roads in the 1920s. They were more difficult to travel on than the shelled roads, which were introduced later and were designed for automobile traffic. According to Harris, the oyster shell roads made excellent horse paths as well. "Once the roads were washed clean by the rain," she explained, "they became gleaming white."²⁶ Although few Bonita Springs residents rode for pleasure at the time, Harris delighted in standing out from the crowd.²⁷ "This

²⁵ Florida's first land boom lasted from 1782 to 1784, when the British Loyalists sought solace along Northeast Florida's coast, whose British population increased from 6,000 to 17,000. For more information on the second Florida land boom, see Homer B. Vanderblue, "The Florida Land Boom," *The Journal of Land & Public Utility Economics* III:2 (May 1927), 113-131. See also Gary Mormino, *Land of Sunshine, State of Dreams: A Social History of Modern Florida* (Gainesville, Florida: University Press of Florida, 2005), 45-62. Mormino chronicles the 1920s Florida land boom and its reemergence in the mid twentieth century (lasting from 1950 through the beginning of the twenty-first century). Despite the lingering national recession of the twenty-first century, the trend continues today throughout Florida. Unchecked development along U.S. 27, a highway dubbed the Orange Blossom Trail, has transformed miles of citrus groves into middle-class bedroom communities of Orlando. The view from the Citrus Tower, constructed in 1956 to lure tourists with an elevated view of Central Florida's 17 million citrus trees, today reveals more houses, restaurants, and gas stations than citrus. (See Mormino, 205.)

²⁶ Marjorie Harris Carr, "Chiquita," 2.

²⁷ Other Northerners who traveled to Lee County commented on Lee County's unusual oyster shell roads. In 1916, construction was completed on a single-track, shelled road that stretched from Fort Myers south to Naples. The shell roads fared better in Florida's strong rainstorms than the unsurfaced roads characteristic of many parts of the

gave me a certain prestige with my school mates,” she remembered. “Prestige that I needed since I was a Yankee, a girl and wore pants to school.” In the 1920s, it was still the norm for middle-class girls and women to wear long skirts or dresses and keep their hair long. But this style of dress did not blend with Carr’s outdoor lifestyle, and she kept her hair cropped short.²⁸

Harris and Chiquita cantered past palmettos and through cypress and pine wood forests, observing southwest Florida’s animal and plant life on daily rides. In time, she was able to classify thousands of species of flora and fauna. “We lived out in the woods,” Harris recounted, “and I had parents who could answer your questions about what is that bird, or what is that snake. I grew up with a great appreciation of the natural environment.”²⁹ She also witnessed the steady depletion of Southwest Florida’s natural resources as promoters conducted controlled burns to clear space for cattle ranching and the production of sugar and winter vegetables. The rich muck of the Everglades had been prized by commercial farmers since the nineteenth century. The United States government joined the state of Florida, local developers, and academic thinkers in heralding the exploitation of the Everglades as the best option for the future of the state, describing the marshlands as an “inhospitable and repulsive wilderness” that could be transformed into a “symbol for success in reclaiming waste places of the earth for man’s welfare and comfort.”³⁰ Since the turn of the century, the U.S. Department of Agriculture’s newly formed drainage bureau advocated draining the Everglades to free up “millions of acres which have from time immemorial been regarded as irredeemable and a menace to the

state. See Allen H. Andrews, *A Yank Pioneer in Florida: Recounting the Adventures of a City Chap Who Came to the Wilds of South Florida in the 1890s and Remained to Grow Up With the Country* (Jacksonville: 1950). Much of South Florida was not navigable by car in the teens and twenties, when a popular pastime was to “motor right into the heart of the Everglades” in a Model T Ford (Andrews, 84).

²⁸ Marjorie Harris Carr, “Chiquita,” 4.

²⁹ Everett Caudle interview with Marjorie Harris Carr.

³⁰ Davis, *An Everglades Providence*, quote on 383.

healthfulness of the State.”³¹ In the 1920s, the erection of a levee around Lake Okeechobee and persistent dredging had manipulated the Everglades’ natural floodplain significantly. By the 1940s, the same decade that Everglades National Park was established, Congress had been actively encouraging the development of commercial agriculture in the great wetland for a century. By the close of the twentieth century, the Everglades had been reduced to half its original size. The shrinking of the Everglades was palpable to the young Marjorie Harris. Lee County’s prairie and forest land bordered the Everglades, which developers were clearing for agriculture. After drainage and exposure to the air, the soil would sometimes catch on fire. “In the summers,” Harris recalled, “the sky would glow with the Everglades burning.”³²

Charles and Clara Harris considered Floridians’ tendency to clear land without reforesting to be both shortsighted and dangerous to the state’s fragile ecosystems. “I was brought up with a family that said, ‘Isn’t it a shame they don’t replant any of this?’” Marjorie Harris remembered. “When we would drive to Tampa or Tallahassee, the woods were not very pretty because they had been heavily timbered at that time, and there was no reforestation. There was no fence law, so there were cows. They burned a lot—indiscriminate burning—in order to get more [pasture]. And they had done turpentine, so from driving on it looked pretty bad.”³³ Harris’s parents stimulated her intellect through direct observations of nature, field guides, and exposure to works of literature in which nature featured prominently. “I read everything I could

³¹ The U.S. Department of Agriculture’s promotion of Everglades reclamation is detailed in Michael Grunwald, *The Swamp: The Everglades, Florida, and the Politics of Paradise* (New York: Simon & Schuster, 2006), quote on 143; for a comprehensive history of the Everglades, see Jack E. Davis, *An Everglades Providence: Marjory Stoneman Douglas and the American Environmental Century* (Athens and London: University of Georgia Press, 2009).

³² Everett Caudle interview. Mormino tracks the rise of Florida agriculture in *Land of Sunshine, State of Dreams*, 185-228.

³³ Everett Caudle interview.

find out about the wild things I saw around me,” Harris recounted. “Thornton Burgess was one of my favorite authors, and I could recite [Rudyard] Kipling’s *Jungle Books*.”³⁴

Harris witnessed the effects of commercial exploitation of forests for turpentine production and agriculture. The Lee County town of LaBelle was considered the center of the state’s cattle ranching industry at the time. Timber companies logged Florida’s native cypress trees to the brink of complete eradication and exploited native pines for timber and turpentine. Journalist Allen H. Andrews, who wrote about Florida’s native and experimental horticulture for *The American Eagle*, observed in 1950 that as a resident of southwest Florida for fifty years, he had seen the “wholesale destruction of Florida’s natural resources of timber, game, and marine life” on a scale that was identical to that described by Harvard herpetologist Thomas Barbour in *That Vanishing Eden*. Andrews predicted that the Florida’s flora and fauna would be lost if the state failed to enact aggressive conservation measures.³⁵ Northern firms first attempted to drain the Everglades in the 1880s, altering the land for agricultural purposes. The rich, dark muck of the Everglades was ideal for production of winter vegetables and sugar cane. By the time of the Harris family’s arrival in Southwest Florida in the 1920s, thousands of acres of the Everglades had been transformed into farmland. Meanwhile, developers transformed Central Florida’s pine forests into orange groves after a series of devastating freezes in North Florida.³⁶ Witnessing this destruction at such a tender age shaped Harris’s worldview, leading her to believe that wherever humans lived, they devastated the natural environment.³⁷

³⁴ Graham, Jr., “What Matters Most,” 94.

³⁵ Author’s preface to Andrews, *A Yank Pioneer in Florida*.

³⁶ Jerrell H. Shofner, “The Legacy of Racial Slavery: Free Enterprise and Forced Labor in Florida in the 1940s,” *The Journal of Southern History* 47:3 (August 1981), 411-426.

³⁷ Everett Caudle interview.

In 1928, the Harris family left their small orange grove in Bonita Springs and moved to Fort Myers, where Harris attended high school. Although Lee County was the largest county in Florida before it divided in the early 1920s, remote areas such as Bonita Springs lacked both the financial resources and the population base to establish a solid school system. The town's school stopped at the eighth grade. The move to Fort Myers necessitated a move for Chiquita as well. It would not have been practical to keep a horse in the (slightly) more urban setting of Fort Myers, so the Harris family found another home for Chiquita, marking the symbolic end to a bucolic childhood. Harris would always consider her time spent with Chiquita to be "one of my best childhood memories."³⁸

In 1931, Harris's life changed instantly and dramatically when her father died from pneumonia. Marjorie Harris was only fifteen years old. Compounding the difficulty surrounding her father's premature death was the fact that Charles was just months shy of qualifying for a pension from his former Boston teaching career.³⁹ A series of bank failures further diminished the family's savings. Left with no substantial means of support, Harris's mother first took a teaching position in a one-room school house in remote Sanibel Island and later taught in Bonita Springs and Fort Myers Beach. Losing her father at the onset of the Great Depression toughened Harris. According to her daughter, Mimi, Harris internalized her problems and never talked about the challenges she and her mother faced after her father's death. Harris refused to dwell on the past.⁴⁰ She downplayed her family's financial difficulties in her high school and college years, attributing them to the Great Depression. "Lots of folks had to

³⁸ Carr, "Chiquita," 4. See also Andrews, *A Yank Pioneer in Florida*, 107-108; and Everett Caudle interview.

³⁹ Author's interview with Mimi Carr, August 6, 2008.

⁴⁰ Author's interview with Mimi Carr, November 11, 2005.

scrabble,” Harris explained.⁴¹ She honed her ability to remain optimistic and focus on the task at hand, even in the face of seemingly insurmountable obstacles.

Upon graduating from Fort Myers High School in 1932, Harris was ready to leave home. “Mother wanted to go to college more than she wanted to live,” Mimi recounted.⁴² Finding the financial resources needed to attend college was a major hurdle. “We didn’t have any money,” Harris recalled, “and a full year at the college cost about two hundred and fifty dollars, which was really beyond our means.”⁴³ An unexpected inheritance of \$500.00 (considered a small fortune in the 1930s) from an aunt made it possible for her to matriculate at Florida State College for Women in 1932. Because of the family’s financial hardship, it would have been difficult for Harris to finance an education at a private or public college outside of Florida.⁴⁴

Indeed, money was not the only obstacle Harris faced. As a female, her choice of schools was limited. Florida’s public universities were segregated by gender and race. Just as Southern bathrooms were labeled “men,” “women,” and “colored” through the 1960s, there were three state universities in 1932 when Carr started college: the University of Florida in Gainesville for white men; Florida State College for Women in Tallahassee, reserved for white women only; and the coeducational Negro Normal and Industrial School, which would later become Florida A & M University, also in Tallahassee. (The state’s only public university for African Americans was always coeducational.) Single-sex education for whites offered distinct advantages for both faculty and students, however. Since the 1870s, women’s colleges presented women scientists with some opportunities for full-time employment as instructors in their respective fields;

⁴¹ Everett Caudle interview.

⁴² Author’s interview with Mimi Carr, March 7, 2007.

⁴³ Graham, Jr., “What Matters Most,” 96.

⁴⁴ Author’s interview with Mimi Carr, August 6, 2008.

whereas most coeducational institutions in the Eastern United States would not hire women as faculty members—especially not in the hard sciences. Female students benefited from a greater choice of majors than they would have been permitted to study at coeducational schools.⁴⁵

Between 1900 and 1930, American men and women attended college in roughly equal numbers at the undergraduate level. Because school teaching was one of the most popular career choices available to women, however, the majority of women in higher education were enrolled in normal schools or other teacher training programs.⁴⁶ When Harris started college, approximately five percent of women enrolled in private colleges attended the “seven-sister” schools, and just over twenty percent of women undergraduates enrolled in women’s colleges. The majority of women college students attended publicly funded institutions of higher education, and many of these were two-year teaching colleges. During the Depression, however, the previously feminized profession of teaching established marriage bars, lowering the value of a teaching degree for women.⁴⁷ Between 1929 and 1935, women’s enrollment in teacher’s colleges decreased, while men’s enrollment increased.⁴⁸ Although both of Harris’s parents and

⁴⁵ Ibid. The 1905 Buckman Act abolished all the state schools, except for the Negro Normal and Industrial School, which would later become Florida A & M University. At this point the state officially segregated white state universities by gender, prohibiting women from attending the formerly coeducational University of Florida, except during summer school. See also Rossiter, *Women Scientists in America, Volume One*.

⁴⁶ Mary C. McComb, *Great Depression and the Middle Class: Experts, Collegiate Youth and Business Ideology, 1929-1941* (New York and London: Routledge, 2006).

⁴⁷ Regarding the feminization of the field of school teaching, see John L. Rury, *Education and Women’s Work: Female Schooling and the Division of Labor in Urban America, 1870-1930* (Albany: State University of New York Press, 1991). For a discussion of the development of science as an inherently masculine field, and the barriers that excluded women from science education and the scientific professions, see “High Hopes, Broken Promises, and Persistence: Educating Women for Scientific Careers,” in *Women, Science, and Technology: A Reader in Feminist Science Studies*, Mary Wyer, Donna Giesman, Mary Barbercheck, Hatice Ozturk, and Marta Wayne, ed. (New York and London: Routledge, 2001), 1-78; Margaret W. Rossiter, *Women Scientists in America, Volume One: Struggles and Strategies to 1940* (Baltimore and London, 1982); Janice Law Trecker, “Sex, Science, and Education,” in *Women, Science, and Technology*, 88-98; and Sharon Lee Rich and Ariel Phillips, eds., *Women’s Experience and Education* (Cambridge: Harvard Educational Review Reprint Series No. 17, 1985).

⁴⁸ Claudia Goldin, Lawrence F. Katz, and Ilyana Kuziemko, “The Homecoming of American College Women: The Reversal of the College Gender Gap,” *Journal of Economic Perspectives* 20:4 (Fall 2006), 133-156.

an aunt had worked as school teachers, she elected to study science, a less popular major for female students in the 1930s. Fortunately, Harris was able to attend a college that emphasized the liberal arts tradition over vocational training.⁴⁹

Florida State College for Women was founded in 1905, after the passage of the Buckman Act, which restructured the state school system and ensured that white men and women were educated separately in state-controlled institutions of higher education. The curriculum of Florida State College for Women differed from those of the other Southern State Colleges for Women in Mississippi, North Carolina, South Carolina, Georgia, Alabama, Texas, and an outlying State College for Women in Oklahoma. Unlike its sister schools, Florida State College for Women was established as a liberal arts college. It was the only Southern State College that did not include technical and industrial training among its original purposes. The college's mission was to "teach the higher branches of education and the arts and sciences which were taught in similar institutions and which the governing boards might think necessary."⁵⁰

The Florida State College for Women 1909-1910 catalog summarizes its purpose as follows: "The college is not a normal and industrial school, but primarily a college of Liberal Arts. With this is associated a normal school and schools of Art, Music, and Expression. The College of Liberal Arts includes courses in Home Economics,⁵¹ which count for a regular

⁴⁹ Angel Kwolek-Folland, *Incorporating Women: A History of Women and Business in the United States* (New York: Twayne, 1998).

⁵⁰ T. H. Napier, "The Southern State College for Women," *Peabody Journal of Education* 18:5 (March 1941), 268-275. The Southern State Colleges for Women were established between 1885 and 1909.

⁵¹ In the early twentieth century, women scientists were increasingly restricted to a narrow range of feminized scientific fields. See Solomon, *In the Company of Educated Women*; Peril, *College Girls*; Ruth Bordin, *Women at Michigan: The "Dangerous Experiment," 1870s to the Present* (Ann Arbor: The University of Michigan Press, 1999); Horowitz, *Alma Mater*; and Saul D. Feldman, *Escape from the Doll's House: Women in Graduate and Professional School Education* (New York: McGraw-Hill, 1974). Women's second option for employment in academic institutions was as "assistants," which ranged from a teaching position that was lower in rank (and pay) than that of a lecturer, to that of someone who performed mundane tasks such as cataloguing or specimen preservation. See Rossiter, *Women Scientists in America*, Volume I.

degree.”⁵² The field of home economics—pioneered by Ellen Swallow Richards—opened new opportunities for women in science while simultaneously prohibiting them from expanding them into mainstream science. In 1911, Cornell University’s official policy was to appoint women to professorships solely in the field of home economics, and not in other academic departments. The university would not appoint a woman to an assistant professorship in the College of Liberal Arts and Sciences until 1947, and women were barred from full professorships in the college until 1960. By the 1920s, Florida State College for Women offered training in teaching, secretarial work, accounting, music, dietetics (a subfield of home economics), journalism, nursing, pre-medicine, and pre-dentistry.⁵³ Education was by far the most popular major at the college; women also graduated with degrees in chemistry, mathematics, physics, commerce, liberal arts, English, journalism, history, art, music, foreign languages, sociology, and home economics.⁵⁴

During Harris’s college years, American women were still struggling to free themselves from the constraints of nineteenth-century cultural norms. Professional women were forced to contend with the remnants of a pervasive domestic ideology that held that a woman’s profession should never come before marriage and family life. As an undergraduate student, Harris crafted a unique solution to the problem of whether to pursue a traditionally “feminine” path of study such as school teaching, nursing, or the “feminized” science of home economics, or to follow her

⁵² T. H. Napier, “The Southern State College for Women,” *Peabody Journal of Education* 18:5 (March 1941), 268-275.

⁵³ *Ibid.*

⁵⁴ See the Florida State College for Women annual, *FLASTACOWO XXI* (Tallahassee, Florida: Florida State College for Women), 1934.

dream of entering the “masculine” field of zoology.⁵⁵ She chose to double major in zoology and secretarial science. Her original plan was to train in both fields and seek employment as a secretary at a university zoology department. Harris hoped that one day, when a (male) zoologist became injured in the field, the department would replace him with her, since she would be the only person in the office capable of completing his work. Harris’s dream of entering professional zoology through the back door ended when a dean advised her that it was not practical to major in zoology and secretarial science because they both had extensive lab requirements. Soon afterward she dropped the secretarial major and completed a rigorous course of study in the natural sciences, concentrating in zoology, botany, biology, bacteriology, and ornithology.⁵⁶

Although Florida State College for Women offered a traditional liberal arts curriculum, the college had no organized graduate school. Advanced degrees for women were not included

⁵⁵ Colleges and universities that had previously been reluctant to hire women as full professors welcomed women scientists into the new field of home economics, invented by Ellen Swallow Richards, a Vassar graduate who became the first woman to earn a degree at the Massachusetts Institute of Technology in 1873. Unable to find employment with a number of private chemical firms because of her gender, Richards became M.I.T.’s first female faculty member in 1883. Her solution to the problem of discrimination against women in the sciences was to form a separate branch of science that addressed the concerns of women in the domestic sphere. See Robert Clarke, *Ellen Swallow: The Woman Who Founded Ecology* (Chicago: Follett, 1973). Home economics—also known as domestic science or euthenics—applied a scientific approach to household management. See also Peril, *College Girls*.

⁵⁶ “Special Voices: Two Florida Women,” Miami: Florida International University Media Center 1985 (1 videocassette—57 minutes.) (One copy, Florida International University, North Campus; also one copy, Private Collection of Mimi Carr.); author’s interview with Mimi Carr (January 30, 2009). Ruth Hubbard identifies cultural beliefs and the processes of professionalization as the cause of women’s greater successes in certain scientific fields compared to others. She cites Margaret Rossiter’s research confirming that more women achieved success in botany than zoology, astronomy rather than physics, statistics over mathematics, and anthropology instead of geology or paleontology. Within the sciences, certain professional organizations accepted women as full members, while others relegated them to associate status. Fewer opportunities for professional advancement were available to women in academic science, especially at prestigious universities. See Ruth Hubbard, *The Politics of Women’s Biology* (New Brunswick and London: Rutgers University Press, 1990), 44. Since its inception, science was conceived as a masculine activity. In the early twentieth century, the scientist as masculine explorer remained a popular image. See *To Cherish the Life of the World: Selected Letters of Margaret Mead*, Ed. Margaret M. Caffrey and Patricia A. Francis (New York: Basic Books, 2006), 19. More information on Marjorie Harris Carr’s studies at Florida State College for Women is available in author’s interviews with Mimi Carr; Everett Caudle and Leslie Kemp Poole interviews with Marjorie Harris Carr; and Graham, Jr., “What Matters Most.”

in the college's mission; consequently, the college offered no courses leading to doctoral degrees. Just as the Florida Legislature had purposefully separated the instruction of white male and female undergraduate students (in addition, the Florida Constitution barred the teaching of blacks and whites together), the purpose of women's education at Florida State College for Women was designated along gendered lines: "(1) Preparation for home duties; (2) cultivation of formal gentility and grace for their social value through a variety of accomplishments; (3) discipline of the 'mental powers' so that women might be ready for any emergency in life; and (4) more specific preparation for a variety of professional opportunities. Concurrent with all except the last there has been (5) a constant emphasis on religious and Christian purpose."⁵⁷

Florida State College for Women's official purpose might have appeared to conflict with the school's practice of offering its all-female student body the opportunity to pursue nontraditional majors. Although the school's education and home economics courses accounted for a significant portion of the total of classes offered, the college also taught many of the same courses offered at its all-male counterpart, the University of Florida. Among these were courses in the hard sciences and mathematics. One of Harris's major professors, Herman Kurz, represented the new direction women's colleges had taken in the first decades of the twentieth century. Eschewing the former practice of hiring women professors who published less but were also paid substantially lower salaries than male professors, the women's colleges of the early twentieth century had started to hire more male instructors, whose research and publications could raise the schools' stature. Kurz, a professor of botany, published regularly in scientific journals including *Ecology*, *The Science News-Letter*, *Botanical Gazette*, and *The American Naturalist*. In Kurz's field courses, Harris and her peers learned the fundamentals of ecology,

⁵⁷ Jno. J. Tigert, "Co-ordination in Florida," *The Journal of Higher Education* 4:3 (March 1933), 138-141.

focusing on the relationships of different organisms and their habitats within an ecosystem.⁵⁸ In keeping with her naturalist background, Harris made the unconventional decision to major in zoology early in her college career. “It was not a course that many women chose in those days,” she admitted, “but I had always been going in that direction.”⁵⁹

Harris blossomed in her first year at Florida State College for Women. She served as the circulation manager and a writer for *The Distaff, Spinner of Yarns*, the college’s quarterly literary magazine, whose main theme was life in Florida. Harris was also a member of the astronomy club. She lived on campus in a residence hall, which was supervised by two elderly matrons who monitored students’ behavior and enforced a curfew. Florida State College for Women was home to eighteen different sororities, but Harris did not join one. The college’s 1934 annual featured a sororities section with an illustration of life under Confederate rule in Florida, featuring a plantation house, Southern belles, and a prominent Confederate flag.⁶⁰ Campus life included athletics. Instead of competing against rival colleges for women, however, Florida State College for Women divided its students into two teams: the Evens and Odds. The teams had their own team colors, sporting events, and fans.⁶¹

⁵⁸ Herman Kurz was well published in the fields of botany and ecology. His publications include: “Influence of Sphagnum and Other Mosses on Bog Reactions,” *Ecology* 9:1 (January 1928), 56-69; “Cypress Buttresses and Knees in Relation to Water and Air,” *Ecology* 15:1 (January 1934), 36-41; “Factors in Cypress Dome Development,” *Ecology* 34:1 (January 1953), 157-164 (with Kenneth A. Wagner); “Hydrogen Ion Concentration in Relation to Ecological Factors,” *Botanical Gazette* 76:1 (September 1923), 1-29; “Northern Aspect and Phenology of Tallahassee Red Hills Flora,” *Botanical Gazette* 85:1 (March 1928), 83-89; “The Relation of pH to Plant Distribution in Nature,” *The American Naturalist* 64:693 (July-August, 1930), 314-341; and “Cypresses Change Shape According to Water Depth,” *The Science News-Letter* 21:562 (January 16, 1932), 37.

⁵⁹ Graham, Jr., “What Matters Most,” 96; Everett Caudle interview.

⁶⁰ Florida’s publicly funded colleges and universities played “Dixie” at sporting events well into the 1960s, provoking emotional responses among the fans in attendance. Moreover, students dressed up as Klan members at the University of Florida’s homecoming parade and Gator Growl pep rally through the 1960s. Photographs of these events were included in the University of Florida’s annual, *The Seminole*.

⁶¹ Florida State College for Women annual, *FLASTACOWO XXI* (Tallahassee, Florida: Florida State College for Women), 1934.

Harris was in her element at Florida State College for Women, but she did not know how she would be able to finance another three years of college away from home. Her small inheritance had run out, and Clara Harris was unable to contribute to her daughter's college expenses with her modest teacher's salary. "Then after my freshman year I found out about the National Youth Administration," Harris recounted. "In return for working all summer, N.Y.A. would pay your tuition, room, and board all year, plus fifty dollars in cash for yourself. This was a big break."⁶² During her first summer with the N.Y.A. in 1933, Harris performed clerical work at a daycare center near Fort Myers. (Most female N.Y.A. participants were restricted to clerical positions.) Hoping to avoid office work the following summer, she proposed an experimental naturalist education program that she would offer to preteens and teenagers in Lee County. Drawing upon her knowledge of the county's flora and fauna, she taught the children how to collect species and appreciate the interconnected habitats of the region. The N.Y.A. sponsored Harris's program for two consecutive summers. "I drove around in my mother's old Ford," she remembered. "I could live at home, and it worked beautifully. It was then that I became convinced that people will care for their environment if only they can learn a little bit about it."⁶³ Harris later explained that these summer programs taught her that anyone could become an environmentalist, once they were presented with the "facts." "There is a potential for the public to be very good environmentalists," she maintained, "if we would just give them the information."⁶⁴

At Florida State College for Women, Harris refined her understanding of the natural world. In addition to working with botanist Herman Kurz, she studied under zoologist and

⁶² Graham, Jr., "What Matters Most," 96.

⁶³ Graham, Jr., "What Matters Most," 96.

⁶⁴ Everett Caudle interview.

ornithologist Ezda Mae Deviney, Herbert Stoddard, and other early ecologists. It should be noted that the ecologists of the early twentieth century differed from those of the late twentieth century in their motivation. Although both groups studied the relationships between flora and fauna and their habitats, early ecologists were not averse to applying their studies to the more efficient manipulation and exploitation of the earth; whereas modern ecologists are more likely to use their research to fight exploitation. The science of ecology originated in the 1890s, but it did not come to the attention of the general public until Americans became more concerned about the environment in the 1960s, following the publication of Rachel Carson's best-selling polemic *Silent Spring*, which alerted readers to the dangers of indiscriminate pesticide use. Ecology has traditionally involved the study of interactions between organisms and their environment, but the term "ecology" has come to be associated with concern for the environment. Although the science of ecology has remained constant through the years, the application of this science has changed dramatically. Whereas earlier ecological studies tended to focus primarily on individual species, by the 1950s biologists had started to place more emphasis on the fuller set of interactions between flora, fauna, and habitat within an ecosystem. The acceptance of ecology into the academy in the mid twentieth century was accompanied by the rise of the activist scientist, who applied his or her ecological expertise to environmental problems caused by human manipulation and exploitation of the earth.⁶⁵

Harris's courses at Florida State College for Women were comparable with the science offerings available at Florida's men's university. In fact, Florida State College for Women trumped the all-male University of Florida by gaining the distinction of becoming the first

⁶⁵ Peter J. Bowler, *The Norton History of the Environmental Sciences* (New York and London: W. W. Norton & Company, 1993).

Florida college or university to receive a Phi Beta Kappa charter.⁶⁶ Her favorite courses were the ones that involved outdoor field trips. “I wanted to work with whole, live animals, preferably birds,” Harris explained, “in their natural surroundings.”⁶⁷ Her professors were among the first to study Florida’s forest ecosystems, including the relationship of controlled burns to forest health, which was still an understudied area at the time. Harris assisted Deviney, her major professor, in the zoology lab, and Kurtz’s botany courses cemented her ability to “read a landscape,” she later reflected. She embraced the women’s college experience and excelled in her studies.⁶⁸

Harris graduated from Florida State College for Women with a bachelor’s degree in zoology in 1936. Her major professors supported her decision to apply to graduate programs in zoology or ornithology, her chosen field. Because the majority of Eastern universities and private institutions would not admit women to graduate programs in the sciences (women who expressed an interest in science continued to be funneled into home economics programs), Harris was unable to enter graduate school immediately following the completion of her studies at Florida State College for Women. This was a personal example of the dialectic of opportunity and constraint women experienced in the 1930s and 1940s. She had received a first-class science education at Florida State College for Women, gaining top honors. Harris was inducted into Phi Beta Kappa, the nation’s oldest academic honor society; and Sigma Xi, the nation’s top honor society for research scientists and engineers. Sigma Xi elects its members based upon their research potential or achievements. The society publishes the award-winning bimonthly

⁶⁶ In 1935, Florida State College for Women was awarded Florida’s first (Alpha) chapter of Phi Beta Kappa, beating the all-male University of Florida. The national academic honor society granted the women’s college this honor for its scholastic strength in the liberal arts tradition. See McCandless, *The Past in the Present*, 97.

⁶⁷ Marjorie Harris Carr, foreword to Ronald L. Myers and John J. Ewel, Editors, *Ecosystems of Florida* (Orlando, 1990), xi-xiii.

⁶⁸ Leslie Kemp Poole and Everett Caudle interviews. Information on Marjorie Carr’s involvement in honor societies and extracurricular activities can be found in *Flastacowo*, the Florida State College for Women yearbook, and in her curriculum vitae.

magazine *American Scientist*. In 1936, Harris was appointed as a charter member of the Florida Academy of Sciences, the state affiliate of the American Association for the Advancement of Science. The Florida Academy of Sciences publishes the quarterly journal *Florida Scientist*, which Harris contributed to later in her career. Despite these academic accomplishments, both Cornell and the University of North Carolina turned down her application for funding and admission. At the time of Harris's graduation, the nation's top graduate schools closed their doors to most women scientists. Many schools continued to fight coeducation at the graduate level, especially in the hard sciences. Although Cornell was one of the nation's first coeducational universities in 1872, faculty members remained skeptical about women's capacity for abstract thought.⁶⁹

Those women who succeeded in attaining advanced degrees in science found it difficult to find employment. Women scientists' education and experience bore little weight in determining their rank or status at co-educational institutions: a man with a master's degree in chemistry automatically outranked a woman with a doctorate. At best, women Ph.D.s were hired as lecturers at co-educational institutions; more commonly, women with doctorates were ranked as "assistants." These hiring and promotion discrepancies stemmed from male scientists' resistance to the increasing tide of female college graduates, who were shunned from graduate school and barred from prestigious "masculine" positions. Aspiring undergraduate women who expressed an interest in science were encouraged to eschew the more "masculine" fields such as physics, chemistry, and zoology, in favor of the "feminine" field of home economics. In the

⁶⁹ Ruth Bordin's *Women at Michigan* describes the discrimination against women that continued at the top public universities as they became coeducational in the late nineteenth century. For more information on women science faculty members' struggle for equal opportunity in tenure and promotion at Cornell University, see The Cornell Women's Handbook, "History of Women at Cornell," Cornell University Women's Resource Center website, http://wrc.dos.cornell.edu/aboutus/handbook/chapter_01.html (accessed June 16, 2009).

1920s and 1930s, this was the only academic field in which women could be promoted to full professor, department chair, or dean.⁷⁰

Harris's struggle to finish her science education and embark upon what would become a short-lived professional career in zoology mirrored a similar battle among millions of professional women in the United States who had lost ground in their fight to maintain and advance gains for women in education and employment in the 1930s. A decade after gaining the suffrage in 1920, American women of the middle class appeared to have succumbed to a renewed call for Victorian domesticity. According to historian Regina Morantz-Sanchez, marriage increased in popularity for all American women in the 1920s. Polls indicated that educated women preferred marriage to careers in the 1920s, and the Great Depression threatened to eliminate the small gains professional women had made in the previous decade. Public hostility toward working women in the 1930s—combined with Depression-era disruptions in the economy and the malaise of the times—contributed to women's failure to preserve gains even in feminized fields such as nursing, teaching, social work, and library work. Women working in “masculine” professions such as medicine experienced sharper losses, dropping to a total of just five percent of all medical doctors in the 1930s. Moreover, women's membership in professional organizations dropped in the 1930s, as public support for women's careers dwindled. The renewed emphasis on companionate marriage encouraged younger professional women to turn their backs on the agenda of the first wave feminists, which had included the formation of segregated professional organizations in order to further the needs and goals of women (including equal opportunity in education and the professions).⁷¹

⁷⁰ Rossiter, *Women Scientists in America, Volume One*.

⁷¹ Women's unequal participation in the public sphere can be traced to the early republic, when the United States Constitution failed to extend citizenship to women. This legal precedent ultimately sanctioned women's lack of

Polls conducted in the 1930s indicated that women were more interested in companionate marriage than higher education and professional careers.⁷² Besieged by a lingering domestic ideology that stressed that (middle-class) women's role as wife and mother was paramount, women of Harris's generation had to contend with a contemporary version of the pre-Enlightenment view that women were inferior copies of men.⁷³ Nowhere was this clearer than in

equal access to higher education and the professions until Title VII of the Civil Rights Act of 1964 barred sex discrimination in the workplace, and Title IX of the Education Amendments of 1972 made sex discrimination in higher education illegal. See Barbara Miller Solomon's pioneering examination of the rise of women's education in America, *In the Company of Educated Women: A History of Women and Higher Education in America* (New Haven: Yale University Press, 1985). Linda K. Kerber's *Women of the Republic: Intellect and Ideology in Revolutionary America* (Chapel Hill: University of North Carolina Press, 1980) popularized the concept of Republican Motherhood. The ideology of separate spheres for women and men is further elucidated in Mary P. Ryan's *Cradle of the Middle Class: The Family in Oneida County, New York, 1790-1865* (New York and Cambridge: Cambridge University Press, 1981), and in Nancy F. Cott's *The Grounding of Modern Feminism* (New Haven: Yale University Press, 1987) and *The Bonds of Womanhood: "Woman's Sphere" in New England, 1780-1835* (New Haven: Yale University Press, 1997). Important new insights into women's battle for equal access to higher education are found in Lynn Peril, *College Girls: Bluestockings, Sex Kittens, and Coeds, Then and Now* (New York and London: W. W. Norton and Company, 2006); Linda Eisenmann, *Higher Education for Women in Postwar America, 1945-1965* (Baltimore: The Johns Hopkins University Press, 2006), Ruth Bordin, *Women at Michigan: The "Dangerous Experiment," 1870s to the Present* (Ann Arbor: The University of Michigan Press, 1999); Amy Thompson McCandless, *The Past in the Present: Women's Higher Education in the Twentieth-Century South* (Tuscaloosa and London: The University of Alabama Press, 1999); Helen Lefkowitz Horowitz, *Alma Mater: Design and Experience in the Women's Colleges from Their Nineteenth-Century Beginnings to the 1930s*, 2nd Edition (Amherst: University of Massachusetts Press, 1993); John L. Rury, *Education and Women's Work: Female Schooling and the Division of Labor in Urban America, 1870-1930* (Albany: State University of New York Press, 1991); Leslie R. Wolfe, ed., *Women, Work, and School: Occupational Segregation and the Role of Education* (Boulder, San Francisco, and Oxford: Westview Press, 1991); Sharon Lee Rich and Ariel Phillips, eds., *Women's Experience and Education* (Cambridge: Harvard Educational Review Reprint Series No. 17, 1985); and Saul D. Feldman, *Escape from the Doll's House: Women in Graduate and Professional School Education* (New York: McGraw Hill, 1974).

⁷² Regina Markell Morantz-Sanchez, *Sympathy and Science: Women Physicians in American Medicine* (New York and Oxford: Oxford University Press, 1985), 322-351.

⁷³ Thomas Laqueur, *Making Sex: Body and Gender from the Greeks to Freud* (Cambridge, Mass.: Harvard University Press, 1990). Laqueur traces changing interpretations of gender from ancient to modern times, contending that the Greeks considered women to be inferior copies of men, but still essentially the same as men. Laqueur maintains that modern binary constructs for men and women (active/passive, rational/irrational, and so on), which stem from the view that men and women are inherently different, emerged gradually. See also Kerber, *Women of the Republic*. Women of the early republic had responded to their exclusion from citizenship by amending republican ideology to suit their needs. The mainstream republican ideology borrowed heavily from Aristotlean philosophy, which delineated separate spheres for women and men: (male) republicans would function in the public sphere of politics while women would care for hearth and home in the private sphere. Attempting to forge an acceptable space in the public arena, women of the early republic crafted the idea of "Republican motherhood." Countering the prevailing view that there was no need to educate women (since their proper place was believed to be in the private sphere), women maintained that their education was essential to the health of the new republic because they instilled the doctrines of Republican citizenship in their (male) offspring. Therefore, while embracing their perceived domestic responsibilities, women succeeded in overcoming one of the greatest

higher education, which set strict limits on women's participation in certain academic fields and professions.⁷⁴ The sciences were still in the process of professionalization, and women were actively excluded from all but the lowest levels. After graduation, Harris found the search for full-time employment in the sciences to be an uphill battle. Most of the available positions for women combined low-level laboratory work with clerical duties. In this sense, the dialectic of opportunity and constraint was palpable to Harris, who had accomplished the impressive feat of graduating with a science degree but was rejected from pursuing an advanced degree in her field. Her experience was shared by the majority of women scientists of her time, who were also unable to find appropriate employment in their field.⁷⁵

limitations of their assigned sphere: lack of education, which correlated to women's inability to advance professionally.

⁷⁴ Beginning in the late eighteenth century, women capitalized upon the concept of Republican motherhood as a means to establish women's literacy. As the nineteenth century progressed, academies for white girls and women proliferated. Prior to this development, formal education had been reserved for white boys and men only. Nonetheless, higher education remained a masculine realm well into the antebellum era. See Solomon, *In the Company of Educated Women*; Peril, *College Girls*; Horowitz, *Alma Mater*; Bordin, *Women at Michigan*; Feldman, *Escape from the Doll's House*. Horowitz traces the evolution of women's education, which began with academies in the late eighteenth century. Separate seminaries for males and females replaced academies in the early nineteenth century, with the goal of preparing men for the ministry and women for teaching and Republican motherhood. When Vassar College opened in 1865, it became the first true college for women (the first to offer a complete liberal arts curriculum).

In 1848, the Seneca Falls Convention marked both the rise of the suffrage movement and the push for women's colleges in the United States. Echoing Mary Wollstonecraft's *A Vindication of the Rights of Woman* (1792), the Seneca Falls Declaration of Sentiments stressed that women could not reach their full potential while they continued to be denied admission to institutions of higher education. Moreover, the Declaration of Sentiments accused men of "monopoliz[ing] nearly all the profitable employments." See the Declaration of Sentiments, <http://www.usconstitution.net/sentiments.html>, accessed June 14, 2009. The Seneca Falls delegates further complained that women were barred from teaching medicine, law, and theology. Delegates to the Seneca Falls Convention linked women's disfranchisement to their lack of equal access to education and professional opportunities, asserting that women's inferior status in society would remain constant as long as this imbalance prevailed. See Peril, *College Girls*; see also Rosemarie Zagari, "The Rights of Man and Woman in Post-Revolutionary America," *William and Mary Quarterly*, Third Series, Volume 55, No. 2 (April 1998), 206-07, which analyzes the debate over women's right to an education.

⁷⁵ McCandless, *The Past in the Present*; Peril, *College Girls*; Rury, *Education and Women's Work*; Leslie R. Wolfe, ed., *Women, Work, and School: Occupational Segregation and the Role of Education* (Boulder, San Francisco, and Oxford: Westview Press, 1991); Sharon Lee Rich and Ariel Phillips, ed., *Women's Experience and Education*; Horowitz, *Alma Mater*; and Rossiter, *Women Scientists in America, Volume One*.

Far more seasoned women scientists with doctorates faced discrimination in hiring and promotion at Eastern universities and colleges. Cornell University's failure to promote women to full professorships is a case in point. The university failed to promote Anna Comstock to full professor four separate times before finally promoting her in 1920, when she was in her sixties. A nationally recognized naturalist, Comstock's ability and scholarly merit were not in question. Cornell's science department followed a longstanding, national trend of keeping women scientists at the assistant professor, lecturer, and assistant levels only. Still, Cornell held the distinction of graduating the first female doctorate in science (Caroline Baldwin Morrison) in 1895.⁷⁶

After World War I, the reality of women's slow progress in higher education and the professions was compounded by a new emphasis on companionate marriage. In the interwar years, women's status as mates came to outrank their traditional value as mothers, which women had capitalized upon previously as a means to gain access to higher education. Twentieth-century proscriptions against mixing work and marriage were reinforced by the new language of science, in which (male) scientists used ostensibly objective evidence pertaining to women's biology in order to justify their "natural" role in society. Therefore the sexual division of labor was merely a natural outcropping of men's and women's "different" biological makeup.⁷⁷

In 1936, gender was the deciding factor in Cornell University's rejection of Harris's application to its graduate program in science. Arthur Allen, the director of the ornithology

⁷⁶ Although Cornell had been a pioneer in the area of undergraduate coeducation, the university was slow to accept women as equals on the faculty. In 1911, Cornell promoted Martha Van Rensselaer and Florence Rose to full professor. The university's first women full professors functioned within the prescribed "feminine" field of home economics, lessening their potential threat to the university's male faculty. See *The Cornell Women's Handbook*, "History of Women at Cornell," Cornell University Women's Resource Center website, http://wrc.dos.cornell.edu/aboutus/handbook/chapter_01.html (accessed June 16, 2009).

⁷⁷ Hubbard, *The Politics of Women's Biology*, especially 2, 102. Hubbard contends that all science is subjective, gendered, and therefore political.

laboratory, informed her that there was no place for women in the field. The University of North Carolina also denied Harris admission and fellowships. As mentioned previously, large public universities and prestigious private institutions fought coeducation at the graduate level. Hoping to pursue a professional career in science and earn enough money to enter graduate school in the near future, Harris began searching for nearby positions in government work. This led to a short-lived position as the nation's first female federal wildlife technician with the Resettlement Administration in Welaka, Florida, where she first encountered the Ocklawaha River.⁷⁸

The next chapter chronicles the challenges Marjorie Harris faced in government work and private industry. Her supervisor at the Resettlement Administration was as reluctant to work with a woman scientist as Arthur Allen had been at Cornell University. In her next professional position at the Bass Lab in Englewood, Florida, Harris would fight to remain engaged in scientific pursuits instead of performing the secretarial duties her employer often requested of her. Harris's biggest challenge would be to find a way to combine work and marriage. She and her future husband, Archie Fairly Carr, Jr., would enter into a passionate yet tumultuous relationship that posed personal and institutional challenges to the continuation of Harris's career in zoology.

⁷⁸ Graham, Jr., "What Matters Most," 97.



Figure 2-1. Charles Ellsworth Harris. Courtesy of Mimi Carr.



Figure 2-2. Clara (Haynes) Harris. Courtesy of Mimi Carr.



Figure 2-3. Marjorie Harris (center) with childhood friend Ralph Maglathlin (1916). Courtesy of Mimi Carr.



Figure 2-4. Two-year-old Marjorie Harris in Boston, Massachusetts (1917). Courtesy of Archie Fairly Carr III.

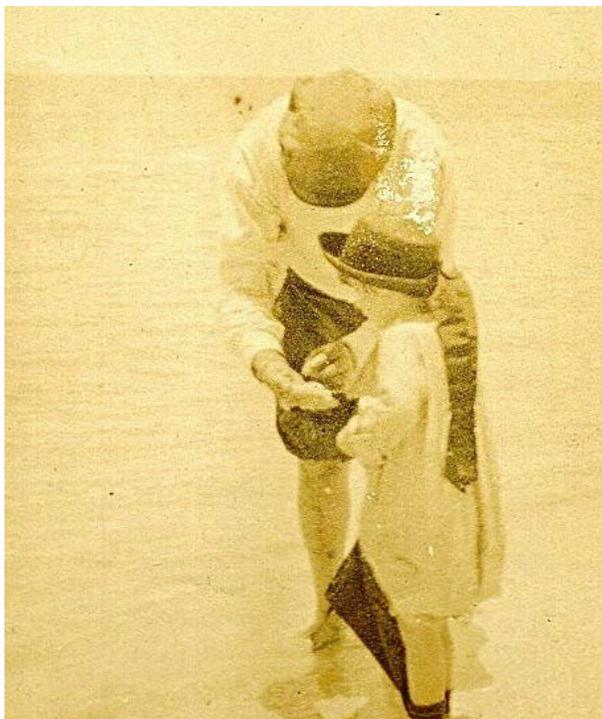


Figure 2-5. Marjorie Harris examining seashells with her father, Charles Harris, at Sanibel Island, Florida, in 1919. Courtesy of Mimi Carr.

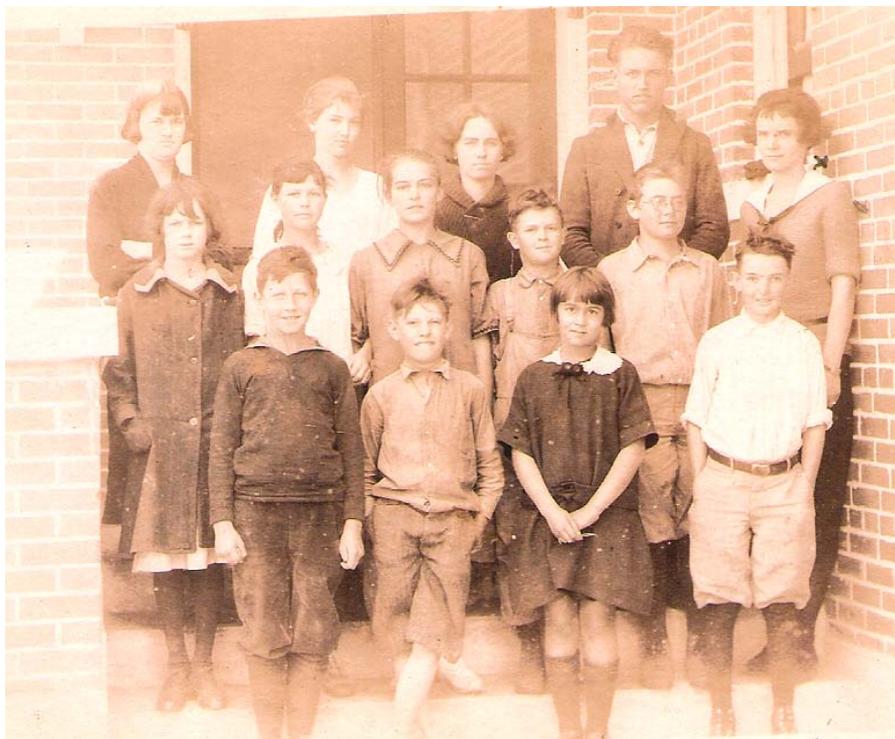


Figure 2-6. Nine-year-old Marjorie Harris (front row, second from right), Bonita Springs School, Lee County, Florida (1925). Courtesy of Archie Fairly Carr III.



Figure 2-7. Marjorie Harris's childhood home in Bonita Springs (1920s). Courtesy of Mimi Carr.



Figure 2-8. Marjorie Harris riding her horse, Chiquita (1920s). Courtesy of Mimi Carr.



Figure 2-9. Marjorie Harris (center) with alligator skin, Bonita Springs (1920s). Courtesy of Mimi Carr.



Figure 2-10. Marjorie Harris, Fort Myers High School senior picture (1932). Courtesy of Archie Fairly Carr III.



Figure 2-11. Marjorie Harris in Florida State College for Women graduation regalia (1936). She was a member of the Phi Beta Kappa and Sigma Xi honor societies. Courtesy of Mimi Carr.

CHAPTER 3 BLENDING SCIENCE AND MARRIAGE IN THE NEW DEAL ERA

Gender discrimination prevented Marjorie Harris from proceeding directly to graduate work in zoology after she completed her bachelor's in science at Florida State College for Women.¹ Soon after graduation, however, the Resettlement Administration hired her as the first female federal wildlife technician. Harris was assigned to the Welaka Fish Hatchery, located near the St. Johns River in North Central Florida. This position served three key purposes in her professional and personal life. First, Harris's work at the fish hatchery inspired her later research on the large-mouthed black bass of Florida, which would become the subject of her master's thesis. Second, this position introduced Harris to the Ocklawaha River, whose preservation and restoration would later command thirty-five years of her attention. Third, Harris's work at the fish hatchery prompted her to conduct research at the University of Florida in Gainesville, where she met Archie Carr, who was completing his doctoral dissertation in herpetology. Their meeting prefaced the establishment of a personal and professional partnership that would benefit both scientists in their future scholarly and conservation activities. As the young couple began their partnership, however, Harris would face a series of challenges to her ability to combine marriage with a scientific career.

The Welaka Fish Hatchery was part of America's national fish hatchery system, which was founded in the late nineteenth century. The purpose of the national fish hatcheries, which were under the jurisdiction of the Commission of Fish and Fisheries (created by the U.S. Department of State in 1871), was to ensure that America's public waters remained stocked with an abundance of native fish. Hatchery employees gathered information on the nation's fishery resources, which were undergoing a rapid decline (especially in regions that had experienced

¹ Frank Graham Jr., "What Matters Most," 96.

extensive logging); identified the causes of the decreasing supply of fish populations; and defined and protected U.S. fishing rights. The agency was also responsible for reporting its findings on the nature of the fish decline and any recommended remedial action to Congress, which expanded the agency's powers in 1872 to include culturing native fish species in hatcheries for the purpose of supplementing the declining supply of native fish in America's rivers, lakes, and streams. The Commission on Fish and Fisheries was a forerunner of the Fisheries Program of the U.S. Fish and Wildlife Service, which is charged with conserving native fish species. The National Fish Hatchery System of the Fisheries Program continues to supplement native fish supplies through its breeding and restocking program. Today, the national hatcheries, which were originally charged with replenishing fish supplies for recreational purposes, culture more than 100 aquatic species to replace fish lost through natural disasters, pollution, habitat loss, dam construction, and other events that interfere with the natural life cycles of native fishes.²

Established in 1926, the Welaka National Fish Hatchery was incorporated into the U.S. Fish and Wildlife Service in 1938.³ The only national fish hatchery in Florida, the Welaka Fish Hatchery is a warm water hatchery whose purpose is to raise fish native to the Southeast and release them into rivers, streams, and lakes.⁴ The hatchery is divided into two units: the Welaka Unit, which includes the ponds at the hatchery's headquarters near an aquarium; and the Beecher

² U.S. Fish & Wildlife Service Web site, <http://www.fws.gov/fisheries/fisheries.html> (accessed October 11, 2009).

³ The U.S. Fish & Wildlife Service, which is an extension of the Department of the Interior, is responsible for partnering with local, state, and federal agencies and communities to conserve, protect, and stock fish, wildlife, plants, and natural habitats. The National Fish Hatchery System is charged with restoring native aquatic species protected by the Endangered Species Act. U.S. Fish & Wildlife Service Web site, <http://www.fws.gov/fisheries/nfhs/> (accessed October 11, 2009).

⁴ "Men from the World War I Veterans Labor Camp Building Cages and Houses for the Aviary at the Welaka Fish Hatchery," Florida State Archives, <http://ibistro.dos.state.fl.us/uhtbin/cgiirsi/1zOBwmgLqQ/STA-FLA/131010181/9> (accessed February 7, 2010).

Unit ponds three miles further south, near Beecher Spring. The Welaka Unit is fed by the St. Johns River and a 423-foot deep well. The aquarium houses native species of Florida fish that are raised at the hatchery for the purpose of replenishing the native fish supply in local waters. The remote location is also home to an abundance of water birds, deer, raccoons, opossums, squirrels, rabbits, and turkey. The nearby St. Johns River has been described as the “bass capital of the world.” Harris’s studies of the fish of the St. Johns would later lead her to select bass as the subject of her graduate thesis at the University of Florida, “The breeding habits, embryology and larval development of the large-mouthed black bass of Florida.” As a wildlife technician, her duties at the Welaka Fish Hatchery included a mixture of biological research, field research and collecting, and aquarium management.⁵

As the nation’s first federal female wildlife technician, Harris benefited from the expanding professional opportunities the New Deal made available to women. Although the New Deal in particular and Depression conditions in general contributed to the feminization of clerical work, which benefited employers who compensated female employees at a lower rate than what they had previously paid male employees who performed the same tasks, the New Deal also played a major role in increasing women’s presence in public life in the 1930s.⁶ After women gained the suffrage, the 1920s witnessed a sharp backlash against women’s concerns. Yet the election of Franklin Delano Roosevelt, the hardships brought on by the Depression, and the implementation of the New Deal programs redefined relationships among the federal

⁵ Welaka National Fish Hatchery Web site, <http://www.fws.gov/southeast/welaka/> (accessed October 11, 2009).

⁶ For more on the feminization of clerical work and unequal pay for women, see Angel Kwolek-Folland, *Incorporating Women: A History of Women and Business in the United States* (New York: Twayne, 1998); Ruth Milkman, *Gender at Work: The Dynamics of Job Segregation by Sex During World War II* (Urbana: University of Illinois Press, 1987); and Alice Kessler-Harris, *In Pursuit of Equity: Men, Women, and the Quest for Economic Citizenship in 20th-Century America* (New York and Oxford: Oxford University Press, 2001).

government, society, and the individual, resulting in an overall improvement in women's status that would not be matched until the 1960s.⁷

Nonetheless, the American public was slow to accept women's entry into public life. Four-fifths of Americans surveyed in a 1936 Gallup poll expressed the opinion that married women should not work if their husbands were employed. The federal government's official policy reflected this public sentiment: Between 1932 and 1937, 1,600 married women whose husbands also worked for the government were dismissed from government service. Still, women benefited from the social and economic restructuring that accompanied the New Deal.⁸ Between 1923 and 1939, the total percentage of women employed by the federal government increased from 15.8% to 18.8%, representing an increase of 90,000 government positions for women.⁹ In academic and professional science, women were perceived to be a threat. Since the dawn of the industrial age, women's labor had been compensated at a lower rate than men's, and women had been relegated to sex-typed jobs. As women's presence in science increased, these practices were extended to that field as well. Cultural beliefs about gender difference persisted in the 1930s, when women accounted for approximately fifty percent of the work force.¹⁰

⁷ Indeed, women's advancement and social reform have coincided throughout American history, beginning with the joint antislavery and women's rights movements of the 1840s and resurfacing in the 1960s with the Civil Rights Movement, antiwar movement, and the reemergence of feminism. Susan Ware, *Beyond Suffrage: Women in the New Deal* (Cambridge, Massachusetts and London, England: Harvard University Press, 1981), 4-6.

⁸ Although women faced significant discrimination in academia and in the workforce throughout the 1930s, the New Deal era was also a time of great progress for women in politics and the professions. President Roosevelt gave women a prominent role in the development and administration of New Deal programs, and Eleanor Roosevelt championed women's causes throughout her husband's presidency. Despite the lack of an organized women's movement, the 1930s ushered in a new era of opportunity for women—especially college-educated women—in public life. Ware, *Beyond Suffrage*, 1-2.

⁹ The New Deal's Works Progress Administration accounted for 18% of this increase. Roosevelt also appointed women to top administrative positions in select New Deal agencies. Ware, *Beyond Suffrage*, 61.

¹⁰ Employers' reactions to the perceived threat women posed to men in the workplace are examined in Sonya O. Rose, *Limited Livelihoods: Gender and Class in Nineteenth-Century England* (Berkeley and Los Angeles: University of California Press, 1992); John Rury analyzes similar practices in higher education in *Education and Women's Work: Female Schooling and the Division of Labor in Urban America, 1870-1930* (Albany: State

One unresolved issue at the time concerned the future of the nation's college-educated women. Although some would pursue graduate educations or professional careers in the early twentieth century, most college-educated women who worked after graduation entered the female-dominated (and socially acceptable) positions of school teacher, nurse, librarian, social worker, or clerical worker.¹¹ Yet the Depression era represented a time of social and economic reform, followed by a period of global war. Historically, American women's employment has experienced dramatic upswings during periods of great expansion and national emergencies, leading to important (temporary) progress.¹²

The Resettlement Administration's decision to appoint a woman to the biologist position at the Welaka Fish Hatchery was indicative of this overall shift in women's favor. Not all government bureaucrats supported the extension of traditionally male-dominated positions to women, however. After spending four years at an all-female institution, Harris enjoyed the camaraderie of her male colleagues at the Welaka Fish Hatchery. Yet being the only female biologist at Welaka posed a unique problem for her. "The program's director was very uncomfortable with a woman biologist," she recounted. "He didn't know what to do with me."¹³ Zoology was an unusual career choice for a woman to make in the 1930s. It involved getting dirty in the field: collecting and preserving myriad insects, spiders, reptiles, fishes, mollusks, birds, and other assorted creatures; hunting for specimens by hand or by rifle; and engaging in a

University of New York Press, 1991); and Mary C. McComb, *Great Depression and the Middle Class: Experts, Collegiate Youth and Business Ideology, 1929-1941* (New York and London: Routledge, 2006).

¹¹ Ware, *Beyond Suffrage*, 24.

¹² *Ibid.*, 60-61.

¹³ Graham, Jr., "What Matters Most," 96.

host of activities women traditionally shunned. To Harris, however, studying nature in rural Florida was second nature.

In addition to working with fish, Harris, who had specialized in ornithology at Florida State College for Women, assumed research responsibilities in the aviary housed at the Welaka Fish Hatchery (see Figure 3-3). World War I veterans constructed the aviary during the hatchery's expansion under the New Deal.¹⁴ In the fall of 1936, Harris's colleagues were unable to identify the source of a mysterious illness that afflicted the hatchery's quail population. The hatchery's laboratory lacked the equipment required to diagnose the disease, but Harris suspected that it was a condition that also affected chickens. "I had minored in bacteriology," she explained, "so I took the quail over to a laboratory at the University of Florida." Harris's supervisor refused to allow her to test her hypothesis during working hours, so she conducted her research at the university's laboratory at night and drove back to Welaka in time to start work the following morning.¹⁵ While Harris toiled over the microscope, the young herpetologist Archie Carr worked well into the evenings on his doctoral dissertation in the zoology department, just down the hall from the laboratory. The young male scientists at the officially all-male University of Florida were awestruck by the presence of a twenty-one-year-old, female scientist who had descended upon the science building in high heels and a lab coat, toting caged birds. One graduate student said "Miss Harris" was the most beautiful woman he had ever met. Another

¹⁴ "Aviaries at the Welaka Fish Hatchery," Florida State Archives, <http://ibistro.dos.state.fl.us/uhtbin/cgiirsi/XSyyQaDAyU/STA-FLA/131010181/9> (accessed February 7, 2010).

¹⁵ Marjorie Harris Carr, *Special Voices, Two Florida Women: Marjorie Carr, Marjory Stoneman Douglas*, video production (Florida Atlantic University/Florida International University, Joint Center for Environmental and Urban Problems, 1985).

graduate student, Horton Hobbs, reported to his friend Archie Carr that he had just met the love of his life. That prompted Archie to introduce himself to Harris.¹⁶

She helped finance their courtship by convincing her supervisor at the fish hatchery to purchase a collection of local fish specimens from Archie. He reciprocated by nominating her for full membership in the Florida Academy of Sciences, of which she was already a charter member at the associate level. (As science underwent the process of professionalization in the early twentieth century, it was customary for women to be excluded from full participation in professional organizations such as scientific academies.)¹⁷ The two-hour drive from Gainesville to Welaka was also assisted by Archie's brother, who loaned him a truck he had inherited from an aunt. Archie's brother was impressed with Harris's "business-like" demeanor when he first met her, in addition to the fact that she wore boots. "She was a conservationist from the very beginning," he explained, while Archie was a hunter first and became interested in conservation gradually.¹⁸

Archie teased Harris for taking a position sponsored by the New Deal. "I love to look at you even if you are a resettlement woman," he wrote in December 1936. "You talk so cute too."¹⁹ Archie, a Southerner, was amused by Harris's New England accent. Although the pair

¹⁶ Author's interview with Dick Franz of the Florida Museum of Natural History, February 27, 2009. The title of Archie Carr's doctoral dissertation was "The Geographic and Ecological Distribution of the Reptiles and Amphibians of Florida" (Ph.D. thesis, University of Florida, 1937).

¹⁷ Marjorie Harris to Archie Carr (November 8, 1936), in Private Collection of Mimi Carr. Marjorie thanked Archie for nominating her to the Academy and asked if she would be subjected to the same process as a first-time nominee or if her status could simply be changed from associate to member. In the same letter she referred to her recent shipment of several species of fish to Archie, all of which she had preserved in formaldehyde at the Welaka fish hatchery. She also supplied Archie's colleagues with various research specimens, including quail ovaries. Marjorie's early correspondence with Archie was both cordial and professional, discussing research specimens and specimen requests for Archie and his colleagues. The letters also reveal their blossoming friendship. For more information on the practice of relegating female scientists to the status of associates versus full members of professional organizations, see Rossiter, *Women Scientists in America, Volume One*;

¹⁸ Author's interview with Dr. Tom Carr, August 13, 2008.

¹⁹ Archie Carr to Marjorie Harris (December 6, 1936), in Private Collection of Mimi Carr.

had just met in October, Archie already signed his letters with love. Yet Archie's next letter, which he wanted to be a "cheerful, happy first love letter," was instead filled with doubts. Harris had lost her position at the Welaka Fish Hatchery after a colleague took credit for her discovery of the cause of the quails' illness. Archie investigated the abrupt termination of Harris's employment and confirmed her suspicions. Barred from testing her hypothesis regarding the cause of the quails' illness on company time, Harris had burned the midnight oil at the university laboratory and proved that the quail suffered from a common chicken disease. Yet her efforts had gone unrecognized at the fish hatchery by all but one person, who promptly announced that he had discovered the source of the birds' illness. Although Harris and Archie's letters do not reveal the full story regarding her response to this unfortunate situation, it is clear that her reaction to her coworker's false claim resulted in her own dismissal. A frantic search for a new position ensued, driving Archie closer to his love interest while simultaneously leaving him feeling inadequate as a potential provider for Harris. This crisis caused the young couple to make a rushed decision about the future of their relationship.²⁰

Archie had already proposed to Harris, but marriage was a risky venture during the Great Depression. Archie feared that she would only agree to marry him because of the turmoil stemming from her dismissal from the fish hatchery. Moreover, he was unable to support her financially, so they would have to live separately while he finished his dissertation. This scenario would only be feasible if Harris could find work as a biologist, and even then, the newlyweds would have to endure more than half a year of separation. Archie advised Harris to heed her mother's advice and think with her mind, not her heart. He claimed that his love was

²⁰ Carr letters, December 1936 through January 1937, in Private Collection of Mimi Carr; author's interviews with Mimi Carr. Later in life, Marjorie Harris Carr rarely discussed this incident with her children, which was in keeping with her practice of internalizing problems.

selfish because had little to offer her as a struggling graduate student, while what she offered him was priceless. “I have so much to gain,” Archie warned Harris. “You are everything I need and want. You will make my life far more important and satisfying than it could be without you. Can I do these things for you? Listen to your mother and stop feeling and think. This is a warning, my dearest, because I’m going to marry you the minute you weaken. I’m going to be a louse and take a wife I can’t support, and let her live away from me and work, and ignore the risk of losing her respect—the minute you weaken. You are magnificent. I profit so greatly. I don’t want to clip your wings. Think hard.”²¹

Although his intentions were serious, Archie did not want to curtail Harris’s professional ambitions. He was aware of the implications of their potential marriage for her career in science. This explains why his letter contained both a marriage proposal and a plea to be reasonable and end their affair. He confided that writing a three-ream dissertation left him sleep deprived and admitted that his letters might be “screwy.” The following day, Archie sent Harris a hand delivered letter that revealed the depths of his insecurity. “Your earthly loveliness is as stable and indomitable as a rainforest,” he professed.²² “I’m too skinny and probably will be bald in a couple of years. My right arm is pretty well wrecked. I have to do almost as much physical work as mental to feel right. I should have been a farmer or a mackerel fisherman, and I’m trying to be a scholar.”²³ Archie’s father, Archibald Fairly Carr, Sr., was a Presbyterian minister who had relocated the family from Fort Worth, Texas, to Savannah, Georgia, in 1920. While attending college there, Archie developed osteomyelitis in his arm. Although penicillin would

²¹ Archie Carr to Marjorie Harris (December 1936), in Private Collection of Mimi Carr.

²² Archie Carr to Marjorie Harris (mid-December 1936), in Private Collection of Mimi Carr.

²³ Archie Carr to Marjorie Harris (dated simply “Sunday”), in Private Collection of Mimi Carr. This letter was never mailed; it was likely written in mid-December, the day after the previous excerpt.

have cured the disease quickly, it was not available at the time. As a result, Archie underwent six major operations on his right arm. The surgeries resulted in an immobilized elbow and enormous scars, which Archie usually kept covered. “It was a big blow to Archie emotionally,” his brother Tom explained, adding that Archie had to decide whether he wanted his arm to be permanently frozen in a straight or bent position. He decided that the bent position would be more functional, so his doctors ensured that his right arm remained in that position for the rest of his life (see Figure 3-5).²⁴

Archie spent a year in a cast and weighed a slight one hundred and nine pounds upon leaving the hospital in Atlanta. His father promptly found work for him as a manager of a terrapin farm in Tidewater, Georgia. The physically demanding job was therapeutic: Archie caught one hundred pounds of fish to feed the turtles each day.²⁵ This early experience with turtles stimulated Archie’s interest in the species at a time when very little was known about them. In 1930, the Carr family moved to Umatilla, Florida, where Archie’s father planned to enjoy semi-retirement. Archie enrolled at the University of Florida in Gainesville and his father worked part-time work as a minister at a small church in Umatilla. He planned to use the profits from a small orange grove on their property to supplement his modest income from the church. According to Tom Carr, hunting and fishing were his father’s true passions. The Carr family’s hunting cabin in the Ocala National Forest still remains, and a campaign is currently under way to preserve it. As children, Archie and Tom learned about the outdoors and science from their father, who shared the work of Einstein and other scientists with his congregation and enjoyed

²⁴ Author’s interview with Dr. Tom Carr, August 13, 2008.

²⁵ Archie Carr to Marjorie Harris Carr (March 28, 1937), in Private Collection of Mimi Carr.

quoting cosmology in his sermons. Both of the Carr brothers went on to complete doctorates in science.²⁶

Archie felt inadequate as a suitor. In particular, he was sensitive about his disabled right arm. He speculated that Harris would meet many men through her work in zoology, men who would value what he described as her great friendliness, beauty, and unique relation to men—“a Whitmanesque camaraderie that is a delight to behold.” He was nearly six years her senior. Archie cautioned Harris against settling for him when she would be better off marrying a more suitable companion. Admitting that he had an inferiority complex, he claimed that in this case it was justifiable. “In brief I don’t think I’m good enough to hold you,” Archie confessed. “You’re my destiny but yours is elsewhere. I love you. Goodbye.”²⁷

Shortly after the letter was delivered to Harris, Archie reversed his position dramatically and ordered her to “burn that damned letter.” He wrote that his love for her was more powerful than he ever imagined human emotion could be. He pleaded with her to marry him any way she wished: “Secretly or at your Uncle Adolph’s. Down at the fish house. In St. Francis’ Cathedral. With you I’ll submit to the rites of the Buddhists, the Baptists or the Mormons. I’ll take the weird vows of Mb’u’q at the headwaters of the Khablh. Or I’ll bring you home and let my dad do it. He’s good. Please marry me, Margie. I adore you. If we wait something will happen.”²⁸ Archie was convinced that Harris would meet another man while he finished his doctorate in Gainesville and she worked in another city. He believed the only way he could hold on to her love was to marry her immediately. “Let’s take a chance,” he begged her. “Let’s make

²⁶ Archie Carr to Marjorie Harris (dated simply “Sunday”), in Private Collection of Mimi Carr. This letter was never mailed; it was likely written in mid-December, the day after the previous excerpt.

²⁷ Archie Carr to Marjorie Harris (dated simply “Sunday”), in Private Collection of Mimi Carr.

²⁸ Archie Carr to Marjorie Harris (December 22, 1936, afternoon), in Private Collection of Mimi Carr.

everybody miserable. If we don't, and quick, we face a good chance of going through life without each other. That, to me, is the most repulsive and revolting thought that I can summon to consciousness...I'd just as soon die now if I could be resurrected when you decide to marry me."²⁹

Harris read Archie's passionate letters over and over. She had fallen hard for the herpetologist poet. Archie was not Harris's first lover, but his passion was overwhelming, and they were kindred spirits. She wasted no time accepting his proposal. Just seven months shy of completing his doctorate, Archie contemplated abandoning his degree in order to find a job that would pay enough for the young couple to live together. He claimed he would leave the university without a single regret if she wanted him to, but if not she would need to find other employment as soon as possible. Shortly after being fired from the Welaka Fish Hatchery, Harris applied for a position as a biology technician at Bass Zoological Research Supply in Englewood, Florida. Archie had made several research trips to the Bass lab, and he had been friends with the owner, Jack Bass, for several years.³⁰

Although Archie encouraged Harris to seek work there, he was reluctant to speak on her behalf: if he told the Basses they were engaged, she would not be offered a permanent position, since it was still customary for female scientists to resign their positions upon marriage. Archie asked Harris if she would consider working as a secretary in Gainesville if she was unable to secure a position at the Bass lab. There were very few opportunities for employment in the biological sciences in Gainesville—especially for women. The university's zoology department had no openings, and the best non-faculty positions (held by Archie and a fellow graduate

²⁹ Ibid.

³⁰ Archie Carr to Marjorie Harris (December 22, 1936, evening), in Private Collection of Mimi Carr.

student) paid just \$43.50 per month. After expenses, this left Archie with only \$3.50 to live on each month. He held out hope for the summer, when they might find research fellowships together in Virginia. He was already thinking in terms of the scientific partnership they would develop.³¹

For the time being, however, Archie was powerless to bring about a positive resolution to their financial dilemma. Yet instead of dwelling on their looming separation, he focused on his overwhelming love for Harris, penning love lines with the flair of a poet. “My love for you is all-pervading,” he gushed. “It’s as fundamental to my life as metabolism. It is my life. When I lie awake at night and listen to my heart it beats, ‘Margie...Margie,’ so loud in the dark I think everybody must hear. I think you must hear...Oh my darling, we must be going to be awful happy—I love you forever.”³² For the next several days, Archie’s love for Harris eclipsed his anxiety over their immediate future. “My love for you is my life these days,” he opined. “You are my ultimate choice—the end of my existence. I worship you.”³³ And on Christmas day he put pen to paper as only a smitten herpetologist could: “If I stepped on a dozen rattlesnakes a day I’d step off the last two or three casually—with ennui and a jaundiced eye. I don’t know whether I think of you a hundred or a thousand times a day. But I do know, my darling, that the thought of you never ceases to thrill me.”³⁴

Although Harris was an avid reader, she felt ill equipped to respond to Archie’s love letters with passionate prose of her own. Instead she compared her feelings to those expressed in the work of renowned poets, explaining that for the first time, she truly understood the feelings

³¹ Ibid.

³² Ibid.

³³ Archie Carr to Marjorie Harris (December 23, 1936), in Private Collection of Mimi Carr.

³⁴ Archie Carr to Marjorie Harris (December 25, 1936), in Private Collection of Mimi Carr.

the writers had captured on paper. Archie had majored in literature as an undergraduate student before switching to biology, and he later became famous for his creative prose. A prolific writer, he refused to adopt the dry scientific writing style typical of his profession. Although the self-deprecating Archie poked fun at his “eternal verbosity,” portions of his love letters deserve to be published for their poetic style and narrative power. Days before their elopement, Archie compared Harris to the beauty of the cosmos. “Sometimes to me you are something tiny and infinitely precious which I must watch over tenderly and keep very close to me forever,” he promised. “Sometimes the beauty of you expands and mounts to Andromeda and beyond, and I look up and gasp at the cosmic splendor of it and whimper, and beg you to come back to me. Sometimes you are just the loveliest woman I have ever known. Always I love you...I adore you—now and the day I die... When the electrons of the last atoms that have been me fly out of their orbits it will be in quest of you.”³⁵

This was the last letter Archie wrote Harris before they eloped. On New Year’s Day, 1937, Judge Platt married the couple at the Charlotte County Courthouse in Fort Myers.³⁶ They honeymooned on a beach not far from the Everglades.³⁷ Although none of their friends or family had witnessed the ceremony and they were separated by hundreds of miles following their brief honeymoon, Marjorie and Archie felt like they were walking on air. “My Archie I am so very glad we were married January 1,” Marjorie Harris Carr reflected several months later. “That is

³⁵ Archie Carr to Marjorie Harris (December 27, 1936), in Private Collection of Mimi Carr.

³⁶ Archie Carr to Marjorie Harris Carr (March 26, 1937), in Private Collection of Mimi Carr; author’s interview with Dr. Tom Carr (August 13, 2008).

³⁷ Author’s interview with Dr. Tom Carr, August 13, 2008.

ours with all its enchantment, Night Herons, mystery and Saw Grass marshes. It was so beautiful.”³⁸ Archie remembered that the moon was pretty the night they got married.³⁹

Blinded by love, the newlyweds were completely unprepared for the pain their impending separation would cause them. Moreover, Carr’s decision to marry Archie would have important short-term and long-term consequences for her professional career. Marriage practically constituted professional suicide for women scientists in the 1930s, when almost three quarters of female scientists were single and nearly two thirds of all unemployed female scientists were married. Federal policy undermined married women’s tenure in the workforce through section 213 of the Economy Act of 1932, which made spouses (customarily wives) the primary targets of workforce reductions. In addition, universities strengthened their antinepotism rules during the Depression, making it even more difficult for married female scientists to advance professionally.⁴⁰

For these reasons, the Carrs decided against sharing the news of their nuptials with colleagues, friends, or coworkers for as long as possible. Beginning with his first letter to his new bride, Archie masked his wife’s married name. He addressed this letter to “Miss Margie Harris” at Zoological Research Supply, where Carr had just started her new position as a biology technician. Yet the letter inside the envelope bore Carr’s new name: “Mrs. A. F. Carr, Jr., General Genius, The Basshian Unity, Englewood, S. Fla.” The letter contained news that the Carrs’ elopement had wreaked havoc in the University of Florida zoology department. Archie

³⁸ Marjorie Harris Carr to Archie Carr (May 24, 1937), in Private Collection of Mimi Carr.

³⁹ Archie Carr to Marjorie Harris Carr (March 26, 1937), in Private Collection of Mimi Carr.

⁴⁰ The percentage of female scientists who were married had increased from 18.2% in 1921 to 26.4% in 1938, reflecting an increase of more than 45%. Yet the unemployment rate for married women scientists in 1938 was 22.0%, compared to just 4.3% for unmarried women scientists. Married women scientists accounted for 64.9% of the total of unemployed women scientists in this time period. Margaret Rossiter, *Women Scientists in America: Struggles and Strategies to 1940* (Baltimore: Johns Hopkins University Press, 1982), 141-42.

joked that talk of elopement, rape, and suicide pacts had reached J. Speed Rogers, the department chair and Archie's supervisor, whom Archie reported was in "a hell of a lather." Archie attempted to play down the rumors in the department, but he had little to lose should the truth be revealed, since female spouses were almost always the ones to lose their jobs in such situations. Nonplussed, Archie waxed eloquent about Carr's "consummate intelligence," their true compatibility, and their friendship, which was already closer than any he had experienced.⁴¹

Meanwhile, at the Bass Lab in faraway Englewood, near Fort Myers, Carr was in an "utter daze" over becoming Archie's wife. She told Archie she enjoyed her new position there, "but I couldn't have stood it if we hadn't gotten married."⁴² Although she handled the separation better than her husband, it was still palpable. "What a heaven we have together," she wrote, "and what utter agony apart. Neither of us can stand that horror of separation again. What had we better do? See each other more often or farther apart?"⁴³ The physical demands of Carr's work at the Bass Lab took her mind off of their separation much of the time. It was not uncommon to preserve hundreds or thousands of the same species throughout the day. Carr packed cans of Arachnoidea one morning until her hands hurt. "Formaldehyde is not a good skin lotion," she quipped. The work was more than mechanical, however. She also had discretion to choose which animals to collect and preserve, and she sought more sales opportunities, where she could market Bass specimens to universities and museums. She asked Archie what would be a good series of animal specimens to prepare for general college biology courses. "For instance a series showing evolution of gills by using Siren, Necturus, and Amphiuma," she inquired. "Or a representative collection of Arachnids. If you have any ideas please shoot them along. Dr.

⁴¹ Archie Carr to Marjorie Carr (January 4, 1937), in Private Collection of Mimi Carr.

⁴² Marjorie Carr to Archie Carr (January 5, 1937), in Private Collection of Mimi Carr.

⁴³ Marjorie Harris Carr to Archie Carr (February 16, 1937), in Private Collection of Mimi Carr.

Rogers mentioned that he would like some of these sets made up but was so vague that we are in the dark as to just what to prepare.”⁴⁴

When Archie was on a research trip to the Northeast, he struggled to maintain his composure in front of his colleagues while he pined for Carr. “It’s hell to live through a day without hearing from you,” he wrote. “I worship you, my first love. Life is tolerable. I can eat and work, and even laugh. But forever more I’ll be incomplete when you’re not with me. Please don’t think I’m just a lover separated from his mistress. No, beautiful, that’s bad enough, but it’s much deeper than that. My soul is an encysted organism doomed to half-life till conditions become propitious for its emergence. The only real satisfaction I get from life these days comes with the thought that someday I shall rest my head forever on your lovely breasts and the live warmth of you will release my encysted soul, and together we shall live completely once more. I’ll always remember these months of waiting, my wife. And the thought of them will keep me grateful to you for ending them, and I shall adore you forever.”⁴⁵

Carr began to learn the zoologist’s tools of the trade at the Bass lab, including how to run boats.⁴⁶ She used a variety of boats while questing for sharks, dogfish, jellyfish, snakes, eel, turtles, seahorses, and myriad water creatures. She enjoyed classifying rare and possibly new species. Three weeks after their wedding, Carr felt confident enough to attempt catching alligators. The next day she and her Bass colleagues embarked upon a cruise on the *Virginia*, the research boat the Carr brothers had helped Bass sail to Englewood. Carr marveled at her new status as Mrs. A. F. Carr, Jr., but she also relished her new position. Her excitement over her

⁴⁴ Marjorie Harris Carr to Archie Carr (dated simply “Thursday”—no postmarked envelope), in Private Collection of Mimi Carr.

⁴⁵ Archie Carr to Marjorie Harris Carr (January 23, 1937), in Private Collection of Mimi Carr.

⁴⁶ Marjorie Harris Carr to Archie Carr (another “Thursday” letter), in Private Collection of Mimi Carr.

new job prompted Archie to ask her not to stay away from him for such a long time ever again. He did not want her to become too comfortable with long periods of separation from her husband. On an early expedition at the Bass Lab, Carr collected fifty live cockroach specimens by hand. She expressed the unease she felt watching insects molt, combining scientific observations and illustrations with pledges of devotion. “Oh, how every part of me wants you tonight,” she wrote Archie, “for I am your wife.” At this point none of Carr’s relatives, friends, or colleagues was aware that she was a married woman. She could only share her excitement about her secret nuptials in her letters to Archie.⁴⁷

Archie was not as good at keeping secrets as Carr was, however. Just two days later Archie confessed to Carr that he had told Rogers about their wedding. He thought it was necessary to tell Rogers because he had control of Archie’s future in the department. Pending the Legislature’s approval of the university’s budget, Rogers had offered him a full-time instructorship in the department. Rogers’ and Professor Sherman’s wives were already gossiping about the Carrs’ elopement, Archie advised his wife, and concealing it from Rogers would have been imprudent. He told Archie he was glad they were married. Additionally, Rogers offered to help Marjorie Carr get a job in the department.⁴⁸

Carr began to plead with Archie to pay her a visit at the Bass Lab in Englewood, which was three hundred miles away (nearly a six-hour trip by car). Yet any visit by Archie would be extremely complicated, since he had been friends with owner Jack Bass and lab manager Stewart Springer before he met Carr. Archie had obtained a fellowship at the Bass Lab, where he conducted research toward the completion of his dissertation on the distribution of Florida’s

⁴⁷ Marjorie Carr to Archie Carr (January, 1932), in Private Collection of Mimi Carr.

⁴⁸ Only part-time work was available in the biology department, so Marjorie kept her full-time position at the Bass Lab until Archie graduated. Upon enrolling in the University of Florida’s graduate program in zoology in the fall of 1937, Marjorie was hired as a part-time assistant in the department.

reptiles and amphibians. Archie and his brother, Tom, had helped Jack Bass sail a 54-foot, two-masted schooner, the *Virginia*, from Mobile, Alabama to Englewood in July 1935, when the Carr brothers were both students at the University of Florida. Bass purchased the schooner, which had been built in Mobile in 1865, for use as a laboratory and collecting vessel.⁴⁹ Archie asked Carr how they could possibly conceal their passion from Bass and his wife Else, and how the Basses would react if they found out about the true nature of the Carrs' relationship. Carr could not risk losing her position at the Bass Lab, which paid forty dollars a month (just \$3.50 less than Archie's monthly salary), plus room and board. Her new job offered extensive hands-on training in specimen collection and preservation. The Bass Lab supplied some of the East Coast's most prestigious colleges and universities with research specimens. The entry level position would provide Carr with a broad understanding of a diverse set of native Florida wildlife species, provided that she could conceal her excitement over her brand new marriage and cope with her husband's reluctance to visit her at the lab.⁵⁰

Carr's hidden marriage was not the only problem she faced at the Bass Lab, where she resisted Jack Bass's efforts to demote her to the status of lab secretary. "A young man recommended by Dr. Norris is coming down to act as Jack's secretary," Carr informed Archie. "Jack, however, hints that maybe I'll be swapped for him. I had better misspell some words for him. You'd be impressed at the typist I've turned out to be."⁵¹ Unfortunately, Carr's concerns as an undergraduate at Florida State College for Women had been justified: in order to fulfill her

⁴⁹ Tom D. Carr, "A Voyage to Remember" (N.P., N.D., in the Private Collection of Tom Carr). Carr reported that Jack Bass spent the majority of the voyage in his cabin due to seasickness. The other crew member, a mechanic, worked on a faulty auxiliary engine throughout the trip and was also debilitated by seasickness. The Carr brothers' navigation skills failed when a hurricane churned up rough seas in the Gulf of Mexico. Through the aid of the Carrabelle lighthouse on Florida's Gulf Coast, the Carrs steered the ship through gale-force winds and docked the schooner. Bass and his associates took the *Virginia* on many collecting trips in the years that followed.

⁵⁰ Marjorie Harris Carr to Archie Carr (January 1937), in Private Collection of Mimi Carr.

⁵¹ *Ibid.*

dream of working as a zoologist, she apparently had to prepare for a side career in clerical work. Yet she preferred working in the zoological supply end—specimen collection and preservation—to secretarial work.⁵² Carr’s letters, like Archie’s, include a mixture of eloquent professions of love and detailed descriptions of specimen collecting, including illustrations and scientific problems and questions. She also described the inner workings of the Bass lab—tension between Else Bass and workers; the lavish meals and cocktails they enjoyed at the Bass lab despite the Depression; the constant stream of visiting scientists; and sometimes hilarious tales from collecting expeditions.

Archie’s letters blended a newlywed’s bliss with morose predictions of personal failure, compounded by the fact that he could not afford even to visit his new bride at her new place of work in Englewood. Even if he could afford it, they would have to conceal their new marriage from Carr’s employer and Archie’s friend, Jack Bass, who would likely relieve Carr of her duties at the Bass Lab upon learning the news. “I’m still wondering about my coming down there,” Archie wrote one week after they were married. “Will it make it tough for you? Can we be matter of fact and casual? Can I stand around and listen to Jack’s banalities and laugh for him when I’m crying for you? Can I work with snakes and you with *Necturus* in the daytime, and not compromise you at night? Can we dissemble convincingly when all the world must see my heart? Can I look at you as I do at Else [Jack Bass’s wife] or Stewart [Springer, the laboratory manager]? Can we do all this and *do you want to*? These aren’t rhetorical questions. Answer me with your mind.”⁵³

⁵² Marjorie Carr to Archie Carr (early January, 1937), in Private Collection of Mimi Carr. Although Marjorie saved most of Archie’s envelopes, which include the postmarked date, Archie usually saved the letters only. Without the postmark, the only date available is the day of the week, at best. This letter had no date.

⁵³ Archie Carr to Marjorie Harris (January 8, 1937), in Private Collection of Mimi Carr.

The newlyweds remained cautious throughout the first months of their marriage, seldom seeing each other in person. Instead, the couple sent letters and telegrams to each other at least once each day. From the day Carr arrived at the Bass Lab, she longed for letters from her new husband. “I stay in a state of coma until mail time,” she wrote Archie.⁵⁴ Yet his communications were not always comforting. Archie’s writing blended poetic rhapsodies of love with anxiety and depression over their speedy marriage and painfully long separation. Not to be overshadowed by her literary paramour, Carr’s voice grew stronger across the months of separation. At first sounding somewhat like an infatuated young girl, her letters would soon reveal a newfound confidence as she became immersed in her field and laboratory duties at the Bass Lab. Carr made her longing for more than the life of a homemaker clear through her pleas for Archie’s consent regarding her career ambitions.

Archie wanted to keep his new bride close to him, and he worried that she enjoyed her independence at the Bass Zoological Research Supply laboratory too much. Carr did her best to assuage Archie’s fears, constantly reassuring him that she loved him as much as he loved her. Economic necessity kept them apart, leaving behind a trail of passionate love letters that open a window into the early trials Carr faced as an aspiring zoologist who planned to pursue a career in academia, at her husband’s side. She wanted to build a scientific partnership with her new husband, but a married woman’s struggle for professional relevance in the sciences was an uphill battle in the 1930s. While Archie was despondent over his inability to provide for his wife financially, Carr grappled with the challenges her secret marriage posed to her ability to navigate a new position in a scientific field coded as masculine.

⁵⁴ Marjorie Harris Carr to Archie Carr (June 5, 1937), in Private Collection of Mimi Carr.

From the moment Carr started working at the Bass Lab, Jack Bass exploited her clerical talents. Archie worried that Bass would attempt to have an affair with his new employee. On one of her first nights at the laboratory, she was awakened in her quarters and summoned to take dictation (while still in her night clothes). "I was rather surprised to hear that Jack has started his midnight dictating so soon," Archie wrote Carr soon after she moved to Englewood. "I can't see what he hopes to gain by such precipitousness. Please be careful. And please believe when I ask you to be careful, that it's your peace of mind I'm thinking of and not selfish jealousy. I told you once that I would never worry you with jealousy and I won't. But listen mug. Mrs. Bass is as cunning and cold and merciless as a weasel where her own interests are concerned. If Jack gives the slightest hint of having designs on you you will be fired like that. And if she thinks he's falling in love with you she'll divorce him and take everything he's got and stamp you in the mud and laugh like hell. This sounds lurid, but you should have seen Ruby. If Jack gets hard to handle and the weather looks heavy to windward and you want to keep the job, go to Else and deflate her. Tell her you're married and want to work there but that you don't want her goddamned husband. Ask her to help you plan some way of getting Jack in bed with her instead of in the lab with you. This would be somewhat delicate, but I think Else likes a certain amount of frankness and I know you could put it over. That's what I would do if things got hard to take."⁵⁵

While Carr and Archie tackled the problem of concealing their marriage from the Bases, they faced the additional hurdle of coping with their family's reactions to the news of their elopement. Archie revealed the truth to his mother, Louise Carr, within weeks of the wedding ceremony. Although she was chagrined that they had not had a church wedding, Louise wrote

⁵⁵ Archie Carr to Marjorie Harris Carr (January 10, 1937), in Private Collection of Mimi Carr.

her new daughter-in-law promptly to offer her blessing.⁵⁶ “Of course I am very sorry you two saw fit to go about it in just that way,” she admitted. “I can’t even pretend to see any sense in it, unless frankness might jeopardize the job [Carr’s job at the Bass lab].”⁵⁷ She scolded Carr for failing to realize how difficult their separation would prove to be. “I make allowances for two poor kids in your states of mind not having more than half of what the lord and a college education gave you,” she chided. “Didn’t you know, you babes-in-the-woods—or was it the Everglades?—that a boyfriend (ugh!) is a lot easier to stand separation from than a husband?”⁵⁸

Unlike Archie’s mother, Carr’s mother was not privy to the inner workings of the couple’s relationship in the beginning. Before they eloped, Carr had told her mother that she and Archie planned to marry. Clara Harris and some of Carr’s aunts reacted negatively to this news. They believed that the recent college graduate should devote her affections to her widowed mother. Carr contributed a significant portion of her salary from the Welaka Resettlement Administration and later the Bass lab to her mother’s monthly car payments and mortgage. Clara insisted that Carr must not marry any time soon. Reflecting on the elopement three months later, Archie told Carr he was ashamed of hiding the truth from her mother. Referring to the day he picked Carr up at her mother’s house for their rendezvous with Judge Platt, who married the couple, Archie confessed he was “not at all proud of not telling your mother where we were going that night.”⁵⁹

⁵⁶ Author’s interview with Dr. Tom Carr, August 13, 2008. As a minister’s wife, Louise Carr was disappointed that her son had forgone a traditional church wedding ceremony. Several months after the elopement, Louise Carr and Marjorie’s aunts orchestrated a formal wedding ceremony performed by Archie Carr, Senior.

⁵⁷ Louise Carr to Marjorie Harris Carr (January 19, 1937), in Private Collection of Mimi Carr.

⁵⁸ Ibid.

⁵⁹ Ibid.

Carr was wise to have hidden the marriage from her mother, however. Clara reacted violently when Carr finally told her four months after the event. Clara depended upon her daughter, and she considered the marriage to be somewhat of a loss. Yet the marriage provided Louise Carr with an ally who would help her cope with her son's depression, which grew more severe with each passing week that the couple spent apart. In March, Louise Carr asked her daughter-in-law if she could "get away from business long enough to come and spend a weekend" with Archie at his parents' home. Louise promised to help arrange a visit with a "honeymoon effect" and advised Carr to "come *any time*, just as you would go home."⁶⁰

In a subsequent letter, Archie told Carr that she would have been better off if she had stayed with Kenneth, a scientist she dated after ending a romantic entanglement with Jack Young. "I think you were wise to change from Young to him. I think you might have been wiser if you had stuck with him," Archie wrote in his typical self-deprecating manner. "Chemists always make plenty of money. And Kenneth would never have married you until he was in a position to set you in platinum."⁶¹ Archie required endless reassurances of Carr's love for him. She usually tempered his doubts with hopeful visions of their future together, but at times Archie's dark letters required harsher responses. After one particularly stark letter, Carr sent an immediate response. "Later I will write again and soothe you," she promised, "but now you see just how I feel this minute. Damn it to hell. I did not make a mistake New Year's night. No. It would not have been better to marry Kenneth. Or Young or George or Joe or anyone else in God's Heaven. It is you that I love. YOU. Archie Carr. And I always will. Don't you dare think that if you left me it would be better for me...that I'm young and that the hurt would soon

⁶⁰ The emphasis is Louise Carr's. Louise Carr to Marjorie Harris Carr (March 20, 1937), in Private Collection of Mimi Carr.

⁶¹ Kenneth's last name is not mentioned in Archie and Marjorie's letters. Archie Carr to Marjorie Harris Carr (late March 1937), in Private Collection of Mimi Carr.

be over and I would laugh and be better off. That's all tommy rot. When you married me I was a girl but now I am a woman. And I adore you. And I will stick to you so tight, so tight. You can't get away. There is nothing you can do to get away or get me away. What you need to do is to come and sleep with me. I will kiss your doubt of us away and you will know that you are my husband. Please come."⁶²

Archie explained that the only way he could afford the bus fare to Englewood would be if he stopped eating for a week. In an effort to conserve money, he had already switched to hand rolling cigarettes instead of purchasing them in packs. Yet when Carr offered to send Archie cigarettes, he was offended, explaining in his next letter that he had described his financial state to her only to explain why he could not visit that weekend. Archie's anger did not dissuade Carr from volunteering to pay his bus fare to Englewood. Moreover, she offered to support him over the summer while he finished his dissertation. Instead of lifting Archie's spirits, however, Carr's offer of assistance left him feeling emasculated. "Listen," he admonished Carr. "It's unpleasant enough for me to have to meditate on your puttering about in mudpuppy guts all day."⁶³ It was not the onerous process of preserving mudpuppies that troubled Archie—he was uncomfortable with his inability to support his wife. "For you to think you must support me is more than I can bear," Archie complained. "After all, I have my pride. Or I should have anyway. Great God in heaven....You are a good wench Margie. I love you. But a Carr was never supported by a woman. Not financially."⁶⁴ Archie viewed his wife's relative financial security at the Bass Lab

⁶² Marjorie Harris Carr to Archie Carr (late March, 1937), in Private Collection of Mimi Carr. This excerpt comes from a letter Marjorie wrote in response to Archie's letter advising Marjorie that she would have been better off with her former lover Kenneth, a successful chemist. Normally patient and reassuring when Archie's insecurity reared its head, this letter shows Marjorie's growing frustration with Archie's doubts.

⁶³ Due to a botched order at the Bass Lab, Marjorie had prepared a seemingly endless procession of thousands of mudpuppies. She complained about the tedious preparation process in several letters to Archie.

⁶⁴ Archie Carr to Marjorie Harris Carr (April 3, 1937), in Private Collection of Mimi Carr.

as a blow to his manhood. When Carr asked Archie to let her cover his expenses while he finished his doctorate in the spring of 1937, the new husband made it clear to his wife that she had crossed a line.

Rather than sinking into despair like her phlegmatic husband, Carr began searching for a practical solution to their financial predicament. She hunted for scientific positions first in Gainesville and Tallahassee, and later discovered a potential summer position directing the Key West Aquarium. The job would pay more than three times Archie's salary at the University of Florida.⁶⁵ The directorship belonged to Archie's friend Leonard "Gio" Giovannoli, who had asked Archie to fill in for him over the summer. This would have made more regular visits with Carr possible, but Archie needed to remain in Gainesville through the end of July to defend his dissertation. He had already turned down a summer research fellowship in Virginia for the same reason. If the aquarium opportunity fell through, Archie planned to work as a teaching assistant in comparative biology at the university or make lantern slides to meet expenses. The uncertainty of his employment and the weight of their separation plagued Archie. "The whole layout strengthens my conviction that I was a damned impulsive ass for marrying you," he wrote Carr in his characteristic self-flagellating manner.⁶⁶ "I cannot but regard my inability to mate with the woman of my choice as a cosmic catastrophe...prolonging this torture would be suicide."⁶⁷

Carr proposed a solution: she could take the aquarium directorship for the month of July, enabling Archie to assume the directorship after he defended his dissertation. "Let's both go

⁶⁵ Archie Carr to Marjorie Harris Carr (April 1, 1937), in Private Collection of Mimi Carr. The salary at the Key West Aquarium would have been \$150.00 per month, compared to Archie's spare salary of \$43.50 at the University of Florida.

⁶⁶ Ibid.

⁶⁷ Archie Carr to Marjorie Harris Carr (March 14, 1937), in Private Collection of Mimi Carr.

down to Key West,” she suggested. “Couldn’t I take care of things [at the aquarium] until you got your degree?”⁶⁸ Archie was not amenable to this idea, however. “I think Gio would rather turn over his job to an intelligent gibbon than to a woman,” Archie maintained. Archie informed Carr that Giovannoli had said he would leave his position July 1 if he could find a “capable” person to take his place. “Coming from him, that stipulates male,” Archie explained. “If he knew you he might be more apt to acquiesce, but he would only foam at the proposition, not knowing you.”⁶⁹

Although Archie was adamant that it was Giovannoli (who would visit the Carrs in Honduras in the 1940s) who was uncomfortable with a woman becoming the director—albeit temporarily—of the Key West aquarium, Archie’s failure to consider discussing the matter with his friend merits closer scrutiny. Even if his friend believed women were incapable of holding executive positions in the sciences, it would have been an appropriate gesture for Archie to inquire about the feasibility of his wife assuming the aquarium position until Archie could take over in late July. The fact that Archie was unwilling to even suggest the idea to his close friend implies that he held reservations about his wife holding an administrative position with a salary that would have been more than three times his current salary at the university. Although the job would have lasted no longer than a month, it would have set a disturbing precedent in Archie’s view.

Archie’s conception of their budding scientific partnership was not an equal one. Insecure about his own prospects for a successful career in herpetology, the young Archie Carr did not want his wife’s career to surpass his own. While Carr was concerned that Archie

⁶⁸ Marjorie Harris Carr to Archie Carr (early April 1937), in Private Collection of Mimi Carr.

⁶⁹ Archie Carr to Marjorie Harris Carr (April 5, 1937), in Private Collection of Mimi Carr.

questioned her ability to take the Key West position, it would appear that he actually feared she would excel at the job. Even if the position was only temporary, Archie found the prospect of his wife holding a more prestigious and better paying job than his own to be unpalatable.

Despite Archie's selection of a scientist and naturalist for a mate, he still clung to traditional mid-twentieth-century notions of the breadwinner husband and the domestic wife. Archie was uncomfortable with the idea of Carr compensating for what Archie perceived to be his failure to earn a living and support his wife financially, even though she prefaced her offers of financial support with an explanation that this would only be a temporary solution while he finished his dissertation.

Archie viewed Carr as a young novice and an optimist. Although the couple formed a scientific partnership that lasted a lifetime, they entered this partnership with differing interpretations of their proper roles. In the case of the Key West aquarium position, for example, Archie never seriously entertained the notion that Carr could run the aquarium in his stead, even though her education, her prior experience managing the Florida State aquarium, and her work at the Welaka Fish Hatchery made her an ideal candidate for the job. Archie was not comfortable with the idea of his wife taking this prestigious position. He ignored her repeated requests to intervene on her behalf. "Again," Carr implored Archie, "you don't think there is a chance in the world Giovannoli would let me pinch hit for you for a month? I had charge of the Florida State Aquarium for three months. Hell I could do it...Chuck I know I could."⁷⁰ Archie's letters reveal that he feared his wife would become too independent.

Carr acquiesced to her husband's wishes. She still viewed Archie as a mentor and hoped to learn from him. She expressed an interest in auditing his ecology class and asked him

⁷⁰ Marjorie Harris Carr to Archie Carr (April 13, 1937), in Private Collection of Mimi Carr.

numerous questions about specimen preservation, anatomy, proper dissection methods, and other techniques that her colleagues at the Bass Lab lacked the experience to provide sufficient training in. Carr asked Archie if he was sorry he had married “such a young incompetent girl,” and she promised to improve with age.⁷¹ Carr’s feelings of inadequacy were eclipsed by her husband’s, however. “I shouldn’t have married you,” he lamented. “You shouldn’t have married me. You married a god damn fool. You married beneath you. You made a mistake. Do you realize it yet? You will before fall.”⁷² He now referred to their wedding as “your indiscretion of Jan. 1.”⁷³

In late April, Louise pleaded with Carr to come to the family’s home in the small town of Umatilla for a short honeymoon. She called her son “pathetic” and said it would do him a lot of good if Carr would visit him there. “I get awfully out of patience with him for being so emotional about the situation [their separation],” Louise wrote Carr. “But I do feel very sorry for him. He is most madly in love with you and separation from you is making him prey to all sorts of foolish fears about the future.” It was Louise’s hope that if Archie could see that his parents accepted his marriage to Carr during a visit to the family home, he would feel more secure about the marriage. She referred to Archie as “the poor distraught lover” and warned Carr that she feared the consequences if Archie did not get the full-time instructorship at the University of Florida upon graduation.⁷⁴

While Louise planned a therapeutic reunion for her son and daughter-in-law, Carr grappled with a third pregnancy scare in thirty days. Archie had come to view these episodes

⁷¹ Marjorie Harris Carr to Archie Carr (early April, 1937), in Private Collection of Mimi Carr.

⁷² Archie Carr to Marjorie Harris Carr (March 24, 1937), in Private Collection of Mimi Carr.

⁷³ Archie Carr to Marjorie Harris Carr (March 27, 1937), in Private Collection of Mimi Carr.

⁷⁴ Louise Carr to Marjorie Harris Carr (April 21, 1937), in Private Collection of Mimi Carr.

with a sense of humor. “Either you are endowed with the most excessively unorthodox physiology south of the blue ridge,” he teased Carr, “or you are completely unlearned in the ancient and indispensable science of chronology.”⁷⁵ Carr continued to panic over her irregular periods even though Else Bass had arranged for her to use ortho-gynol after a prior pregnancy scare.⁷⁶ Later in life, Carr claimed that she had not used birth control. Nonetheless, the Carrs delayed starting a family for the first six years of their marriage. Between 1943 and 1952, Carr gave birth to five children.⁷⁷

The visit in Umatilla had healed Archie’s wounds for the moment, just as Carr’s first visit to Umatilla had calmed his fears over the Christmas holidays. In both instances, Archie’s mother reached out to Carr, affectionately requesting that she visit her son in Umatilla to end his doubts over their relationship and pull him out of his depression. Archie’s letters remained optimistic for weeks. He abandoned his brooding tales of inadequacy and returned to his favored style of love letters. “You are a moonflower, but I cannot crush you with my hands, nor your breasts with the weight of my body,” he began his first letter after their brief honeymoon. “You are a white bird, but you drink with me the hot blood of a fresh killed kid. Your face is wild as my heart; you take my passion with joy; you rebel with me and curse and love and jibe at your race. You are geisha and nun, ouled nail and Vestal, cocotte and regina. You feed me lotus, but as the mist gathers you show me Vega and compute for me its weight. You sit with me long hours on the banks of the Styx and fish for small carp with boiled peanuts. And when the moon is under you daub the regal scarps of Olympus with bawdy drawings. You mold cleverly to your body as

⁷⁵ Archie Carr to Marjorie Harris Carr (April 16, 1937), in Private Collection of Mimi Carr.

⁷⁶ Ortho-gynol was an early spermicidal jelly or cream intended to be used in combination with a diaphragm. Else Bass also had a background in science. When Jack Bass met her in Washington, D.C., she was working as an x-ray technician. Archie Carr to Marjorie Harris Carr (March 26, 1937), in Private Collection of Mimi Carr.

⁷⁷ Author’s interview with Mimi Carr, March 7, 2007.

garments the refinements of man—you are without shame when they are stripped from you... You are complete. The consummate femaleness of you does not eclipse Homo and Amphioxus and Proto-amoeba. Nothing is lacking. You are my mate.”⁷⁸

As their separation neared its final stretch, Carr was beginning to see the light at the end of the tunnel. Still, she had become accustomed to deprivation, and the prospect of their reunion seemed intangible. “Being with you is such a state of perfection I start and wonder is it true,” she questioned, “or is it some Utopian dream?”⁷⁹ Carr continued to immerse herself in her duties at the Bass Lab, even as she prepared for her pending troth pledging ceremony. She enjoyed her frequent nighttime duties, which helped take her mind off of their separation. “The nights are far the worst,” she lamented. “At night it is so alone and so quiet, with only the clams burbling, and it’s cool at night and I would love to be in your arms tight with coolness over us.” Carr’s task on that particular night was clam pegging. “First I place some two hundred Quahogs on the anterior part of their umbo,” she explained. “Then armed with pegs I stand in the middle of them and pretend not to notice them. The minute one opens his valves to get a breath of air or slap at a mosquito I swoop down and peg him. However they are quite wary and grow sly as the night goes on. While I am pegging one two or three behind my back burble at me but the minute I turn around they are all smugly closed.”⁸⁰

Carr’s collecting activities were physically exhausting. One grueling grasshopper expedition lasted from 4:30 a.m. to 10:30 p.m. “We picked steadily all day and netted nearly six thousand of the beasts,” she informed Archie. “I am as sore as the day I tried some of Martha Graham’s stunts for three hours without stopping.” It is unlikely that Jack Bass considered the

⁷⁸ Archie Carr to Marjorie Harris Carr (April 28, 1937), in Private Collection of Mimi Carr.

⁷⁹ Marjorie Harris Carr to Archie Carr (May 28, 1937), in Private Collection of Mimi Carr.

⁸⁰ Marjorie Harris Carr to Archie Carr (undated, June, 1937), in Private Collection of Mimi Carr.

environmental impact of his company's collecting expeditions on the marine, insect, and animal life of Englewood. Carr became adept at coaxing myriad species out of their hiding places, catching many species with her bare hands. "I caught two king snakes yesterday," she boasted. "Big devils and one was a male I know. They both were infested with ticks. They are nice beasts, the snakes, and damn strong aren't they?"⁸¹

While the other women at the Bass Lab, Else Bass and Vergie Springer, spent the majority of their time entertaining, keeping house, and caring for their children, Carr dressed in overalls and boots and worked outside or in the laboratory with the men. Although she viewed herself as an equal at the Bass Lab, not all of her male colleagues and supervisors treated her as such. She voiced her frustration over repeated incidents of sexual harassment to her husband. "May I vent my spleen to you? Men and their damn eyes and god-damn nasty tongues make me sick," she complained. "Can you realize how utterly weary and worn out one gets after, say, nine years of constantly butting up against it? From the first 'old-friend-of-the-family-kiss' of some old fool who you knew damn well tried to squeeze your arm and more. I have so many times wanted to slap 'em...but no, must evade and pull away and frown and smile and shake head. If only you knew how damn mad it makes me. When you make a simple statement and have it constantly twisted into a sort of shady lip-licking smokehouse implication. The other night, a simple thing, I was seated on the arm of a chair watching a ping pong game and swinging my feet. A ball went wild and went under the chair. I tried to stop it with my feet. When I said 'Gee I should have had my feet together,' I hear a sort of shady 'Oh, yeah. Why Margie. Not you.'...Archie, if some day I shock you by insulting some man for some slight remark it will be because of the piling up of many years. Hell I'm not a prude. You know that.

⁸¹ Marjorie Harris Carr to Archie Carr (June 24, 1937), in Private Collection of Mimi Carr.

Things my family, close friends say are all okay. But it's the freedom and liberty any man thinks he can take that makes me want to draw blood. The lecherousness of scientists is pretty raw at times."⁸²

Jack Bass took advantage of Carr's live-in status at the lab. On one of her first weekends at the lab, she was awakened near midnight and summoned—in nightwear—to sort through fresh specimens in the lab. Carr later claimed that Bass had misrepresented the facts regarding the full-time nature of the position. She wanted him to regard her work instead as a part-time research fellowship, which would have more prestige. Carr believed the job was a useful six-month to twelve-month introduction to practical zoology. She thought a new graduate—male or female—would learn the essentials of specimen collection, preservation, and laboratory techniques. She did not consider the position permanent, however; she still wished to pursue graduate studies in zoology.⁸³

Had Carr's colleagues been aware of her marriage to their good friend Archie, they might have been less inclined to take advantage of her. However, it took three months before the Basses began to suspect the truth. "I think Else and Jack are quite sure we are married and Stew [Springer] by this time too," Carr informed Archie. "I bet you told him."⁸⁴ Springer had just visited Archie at the zoology department. Throughout his visit Archie referred to his wife as "Miss Harris," being careful not to give away her marital status in order to protect her position at the Bass lab.⁸⁵ By this time Carr had earned Springer's respect. He informed Archie that Carr

⁸² Marjorie Harris Carr to Archie Carr (June 3, 1937), in Private Collection of Mimi Carr.

⁸³ Marjorie Harris Carr to Archie Carr (February 16, 1937), in Private Collection of Mimi Carr.

⁸⁴ Marjorie Harris Carr to Archie Carr (April 5, 1937), in Private Collection of Mimi Carr.

⁸⁵ Ibid.

was “a damn good technician.”⁸⁶ It was actually Carr who first revealed their marriage at the Bass lab, telling Springer’s wife Vergie in March. On the eleventh of that month Carr wired Archie, informing him that Jack and Else Bass were scheduled to depart that weekend on a schooner; Springer would leave Tuesday; and Vergie “knows all and is pleased.” Carr asked Archie to visit over the weekend, as she often did—but this time the cats were away. Vergie would have found it difficult to keep the Carrs’ marriage secret from her husband, who was friends with Archie. Carr’s admission to Vergie Springer, combined with Archie’s daily letters, ensured that it was only a matter of time before the Basses would find out.⁸⁷

Even after everyone at the Bass Lab discovered that Carr and Archie were married, it was clear that the couple would not be able to live together until the summer or fall. “I’ve been trying so hard to get the idea of not seeing you for months through my head,” Carr explained to Archie. “But I can only cry myself to sleep.”⁸⁸ Nighttime was the most difficult period of the day for Carr, who spent her free time reading and smoking in bed. She became a serious smoker during their separation, a habit that would ultimately lead to her death. Smoking was a popular pastime at the Bass Lab. On one occasion, Jack Bass pushed a practical joke past the boundaries of acceptable behavior, placing the lighted “cherry” of a cigarette down Carr’s back in the lab. When it burned her and smoke started billowing from her shirt, he apologized, saying he did not realize it would hurt. This was one of the more visible incidents of sexual harassment that Carr endured at the lab. Although lighting cigarettes and smoking while working around formalin and other chemicals seem dangerous today, it was common practice at the Bass lab, likely leading Carr to develop her lethal addiction.

⁸⁶ Ibid.

⁸⁷ Marjorie to Archie—Western Union telegram (March 11, 1937), in Private Collection of Mimi Carr.

⁸⁸ Marjorie Harris Carr to Archie Carr (April 9, 1937), in Private Collection of Mimi Carr.

Carr's days were filled with laboratory and field work. As the weekends grew near, however, she sent off a barrage of letters and telegrams to Archie, imploring him to come down for the weekend. A new development made the prospect of visiting Carr at the Bass lab more attractive. After concealing their marriage for three months, she wrote apologetically that both Else and Jack Bass had found out. Else was apparently "quite sentimental about the whole situation," according to Carr. "[She] says when you come down we can take Jack's mother's house for your stay."⁸⁹ Carr gave Springer notice that she would resign her position at the Bass lab at the end of the summer or early in the fall. "So you see my bridges are burning," she warned Archie, "and I really am going to be your wife next fall."⁹⁰

Meanwhile, Archie had become a rising star in herpetology. When Archie began his studies at the University of Florida, his dissertation advisor and committee members were pioneers in the field of zoology. Rogers taught ecology at the university, and his students conducted pioneering research in the field of herpetology, conducting regular field research in Florida's understudied ecosystems. Some of the nation's most influential zoologists visited the University of Florida's zoology department when traveling to Florida to collect specimens for their museums. Thomas Barbour (1884-1946), a Harvard biologist and director of its Museum of Comparative Zoology, exerted the greatest influence over Archie's professional career. Barbour provided Archie with turtle specimens, prints, and mentorship. In return, he asked Archie to wait until Professor Stejneger died before publishing his work. "A very peculiar situation," he confided in Carr. "He is Stejneger's very best friend. It suits me, however."⁹¹ Barbour

⁸⁹ Marjorie Harris Carr to Archie Carr (April 9, 1937), in Private Collection of Mimi Carr.

⁹⁰ Marjorie Harris Carr to Archie Carr (undated—likely June 1937), in Private Collection of Mimi Carr.

⁹¹ *Ibid.*

predicted that Archie's work would provide a major contribution to herpetology, and he apparently wanted to shield his friend Stejneger from the effects.

Ironically, Harvard had the best Florida herpetology collection at the time, which prompted Archie to visit the Northeast for dissertation research and to meet some of the nation's top herpetologists, including Stejneger.⁹² Just two weeks after their wedding, Archie traveled with his colleague Horton Hobbs to Harvard, the Smithsonian, the American Museum in New York City, and the Philadelphia Academy of Science. His turtle expertise preceded him, as Archie met many professional contacts he had corresponded with for years. "The trip will be of immense value, not only in rounding out my thesis, but in settling some questions about turtles that have bothered me for a long time," Archie explained to Carr. "I have great plans for turtles. Nobody knows much about them. *Pseudemys*. But me. And I'll know a lot more when I come back. My thesis is going to be a bitch. A hundred and sixty species and for each at least one page on habitat and biology, a full page map, and another page of distribution data. That makes around 480 pages, which staggers me. It must be finished by April. I'll have to work like the devil. Tell me it's for you. I have two courses: I can let the thought of you drive me insane, and seethe and foment and get nothing done. Or I can think of you lotus-face and the stars in your eyes and the song of your voice and the fierce sweetness of those two nights of ours and the perfect years before us, and think of time and work as distance between us—and run like a fiend. And that's what I'll do, of course. But it's hard, hard—the worst job I ever had, and the most worthwhile."⁹³

⁹² Author's interview with Dr. Tom Carr, August 13, 2008.

⁹³ Archie Carr to Marjorie Harris Carr (January 8, 1937), in Private Collection of Mimi Carr.

Thomas Barbour, the director of the Museum of Comparative Zoology at Harvard University, would later invite Archie to return to Harvard for a summer fellowship. His patronage helped establish Archie in the field and provided a great deal of intellectual support. Archie served as a Thomas Barbour fellow for seven summers, beginning in 1937. Barbour's sponsorship helped Archie conduct vital research into turtles.⁹⁴ The pair began corresponding in January 1934 when Archie sent Barbour a copy of *The Florida Naturalist*, hoping to curry favor with the distinguished and influential scientist. The magazine featured Archie's latest paper, "A Key to the Breeding-Songs of the Florida Frogs."⁹⁵ Barbour became increasingly interested in Archie's research. In April 1937 Barbour invited Archie to study the museum's turtle collection for a month that summer.⁹⁶ Carr accompanied Archie to Cambridge each summer starting in 1937, when Archie completed his first research fellowship at the Museum of Comparative Zoology at Harvard. While Archie worked in the turtle collection, Carr worked in the ornithology collection. Barbour, director of the museum, furthered both the Carrs' careers through these summer fellowships. Unfortunately, the influence of Barbour, who became a dear friend to both the Carrs, ended with his death in 1945.

Although Archie was already starting to gain recognition as a herpetologist, the strain of completing his dissertation was taking a toll on his new marriage. He informed Carr that his dissertation needed to be completed by July, so June would be "one hell of a month."⁹⁷ He lamented the likelihood that they would see each other seldom if at all in June. He viewed his inability to find the time or the money to be with his wife as a personal fault. "If you keep

⁹⁴ Frank Graham, Jr., "What Matters Most," 97.

⁹⁵ Thomas Barbour to Archie Carr (January 24, 1934), Carr Papers.

⁹⁶ Thomas Barbour to Archie Carr (April 30, 1937), in Carr Papers.

⁹⁷ Ibid.

yourself happy in spite of being married to me you will have done a good job,” Archie declared.⁹⁸ Although Carr always reassured Archie that she loved him and would wait for him, she remained preoccupied with laboratory and collecting work, which was draining. “Oh wise and venerable spouse,” she wrote after a particularly arduous collecting trip, “I am battered. Bruised in a hundred places. Two large black spots designate the place my hip bones gouged through my flesh. All this from eeling. But by golly what eeling. At present 85 are slithering around in a Shedd can.”⁹⁹ She boasted about the challenges of collecting in South Florida, claiming that most biologists limit their forays to the Apalachicola region and lake region, “as if the peninsula ends there. I hate that sort of professional timidity,” she asserted. “It takes a brave soul to dip down into south Florida.”¹⁰⁰ She and her Bass colleagues scoured the South Florida earth and seas for insect and animal specimens, ranging from cockroaches to spiders, jellyfish to snakes, and large predators such as wolves and alligators.

While Archie dwelled on their current separation, Carr looked forward to working and publishing together in the future. She chided him for taking a defeatist attitude concerning their marriage. “Your letter breaks my heart,” she scolded. “Why do I fail so miserably in showing you how deeply I love you? Have I told you too insistently how young I am? Do you think I am an immature little girl who does not really know her mind—heart—life? Is it just a romantic statement to you when I say—my husband I love you with my life. And I will forever. Ah Archie—you don’t know how you have hurt me. For the first time that cold dread you speak of closes down on me for it seems you do not look into my heart. Maybe when we are together you will know. But please believe me. So many men and women work together...Do you suppose

⁹⁸ Ibid.

⁹⁹ Marjorie Harris Carr to Archie Carr (April 9, 1937), in Private Collection of Mimi Carr.

¹⁰⁰ Ibid.

I'll ever get to the place where it will be [scribbled article title] by A. F. and M. H. Carr, Jr.? I think it would be fun. But first you must learn to trust my heart and *know* beyond a shadow of a doubt that I am your wife forever more.”¹⁰¹

As Archie had initially warned Carr that he would be too busy preparing for his July dissertation defense to see Carr at all in the month of June, he agreed to participate in a ceremony that would make their union official in the eyes of their families, friends, and colleagues. Although their marriage was already legally binding, Archie and Marjorie Carr's families (especially their female relatives) craved the ceremony of a formal Christian wedding. Archie's father presided over a troth pledging ceremony at the Bass Lab on June 11, 1937. Before the ceremony, Carr's mother and aunts offered their advice to the bride. “I laughed and laughed,” she informed Archie. “The quality of linen, French nighties, and the making of chutney. [On] June 11 I'll laugh and look at you and wink and you'll laugh too. And it will be sweet. Aren't you glad?”¹⁰²

Although they had already been married for more than five months, Carr donned a white wedding gown and the couple enjoyed all the trimmings of a formal wedding. The troth pledging ceremony was held shortly after the end of Prohibition. Tom Carr, who had never been exposed to alcohol before, recalled that Marjorie Carr's aunts kept him well lubricated.¹⁰³ Carr worked at the Bass lab for another month while Archie prepared to defend his dissertation. They spent the weekend of the wedding ceremony at Carr's family home in Bonita Springs and took a formal honeymoon to Key West after Archie defended his dissertation in July. With the

¹⁰¹ The emphasis is Marjorie's. Marjorie Harris Carr to Archie Carr (late June, 1937), in Private Collection of Mimi Carr.

¹⁰² Marjorie Harris Carr to Archie Carr (May 24, 1937), in Private Collection of Mimi Carr.

¹⁰³ Author's interview with Dr. Tom Carr, August 13, 2009.

dissertation behind them, Archie and Marjorie Carr were able to live together as newlyweds at long last. “It will be a new and peculiar feeling to be with you and not have the dread of separation hanging over us,” Carr had predicted in June.¹⁰⁴ “I think sometime I shall go mad with love of you... This has been a scrambled spring. I am glad it is nearly over. You and I, we have been tried... I want you to hold me very tight to you. I want to wake up and be in your arms and kiss you when you are asleep.”¹⁰⁵

After the Carrs’ troth pledging ceremony, Marjorie Carr prepared for the transition from her independence in Englewood to married life in Gainesville.¹⁰⁶ “Do you know you’ve never seen me longer than five days in succession? At Christmas,” she reminded Archie. “Can you realize how heavenly it will be to live together? I don’t believe either of us can fully realize it or we couldn’t exist apart. I want to look at you and look at you and look at you for eternity.”¹⁰⁷ Although Archie had pleaded with Carr to forget him or, at the very least, to love him lightly over the course of their separation, they emerged from their separation stronger than they might have been otherwise. “I promised you my soul. I give it to you my dear,” Carr said. “We have a most beautiful thing, a most rare and precious thing in our love. And I have not the slightest qualm as to our ability to receive and nurture it. We are supreme and invincible. So far I have been a person of few if any gods. I have had ideals but I’ve not been crushed when they were shattered. I have been glad of my ability to adjust myself and rearrange my ideas as I grew.

¹⁰⁴ Marjorie Harris Carr to Archie Carr (June 14, 1937), in Private Collection of Mimi Carr.

¹⁰⁵ Marjorie Harris Carr to Archie Carr (June 2, 1937), in Private Collection of Mimi Carr.

¹⁰⁶ Marjorie Harris Carr discussed her Key West honeymoon in a 1985 speech in Islamorada in the Florida Keys. “Speech by Marjorie Harris Carr about Responsible Industry and Protecting the Keys,” http://everglades.fiu.edu/two/transcripts/SPC958_2.htm (accessed February 7, 2010).

¹⁰⁷ Marjorie Harris Carr to Archie Carr (June 22-23, 1937), in Private Collection of Mimi Carr.

Believe me when I say I give my life to you. It is my only desire to be your wife.”¹⁰⁸ Carr accompanied Archie on his summer fellowship to Harvard, working in the nearby ornithology laboratory.

In the fall of 1937, Carr audited courses in zoogeography and the history of biology at the University of Florida. In that same year, Kathleen Vertrees Wheeler became the first woman to graduate from the University of Florida with a bachelor’s of science in agriculture. In 1938, Juliet Carrington earned a bachelor’s of science in entomology and was the first woman to graduate from the college of agriculture with high honors. Women were slowly integrating themselves into the student body at the University of Florida, but their numbers were small. When the university officially reintroduced coeducation in 1947, there were six hundred and one female students and eight thousand, one hundred and seventy-seven male students (a 14:1 male to female ratio). Even fewer women attended U.F. in the 1930s (especially at the graduate level), and they sometimes encountered resistance to their presence on campus. Although many colleges and universities consigned women scientists to separate laboratories, Carr formed strong professional relationships with her male colleagues in the biology department, joining them on numerous collecting trips and working with them in the laboratory.¹⁰⁹

Unfortunately, graduate funding opportunities for women at the University of Florida remained scant. Although it is now common for professors’ spouses and family members to receive free or reduced tuition, in the 1930s and 1940s, the university’s antinepotism policies prevented Carr from enjoying this privilege. Consequently, she applied for a graduate scholarship to cover her expenses. “I’m back in school again,” Carr wrote Jack Bass. “Next

¹⁰⁸ Marjorie Harris Carr to Archie Carr (June 16, 1937), in Private Collection of Mimi Carr.

¹⁰⁹ Mary Ann Burg, Kevin McCarthy, Phyllis Meek, Constance Shehan, Anita Spring, Nina Stoyan-Rosenzweig, and Betty Taylor, eds., *Women at the University of Florida* (Published by the University of Florida’s 150th Anniversary Committee, 2003), 33-40.

semester I'm applying for a scholarship. There are four open and I hope to receive one." Two of Carr's undergraduate professors, Drs. Deviney and Kurz, were providing two of the required letters of recommendation, and she asked Bass to write the third. She provided the name of the dean of the graduate school and his address and instructed Bass to send the letter before November 30th.¹¹⁰ Bass's response to Carr exemplified the uphill battle against gender discrimination that she faced in the 1930s.

In a letter dated one week after the scholarship deadline, Bass expressed the frustration he had experienced upon learning that Carr had secretly married Archie before starting work at the Bass Lab. Although she had considered her position to be a scientific fellowship, Bass viewed her primarily as a laboratory assistant and secretary. "Last spring, I was terribly disappointed to hear that you and Dr. Carr were going to [sic] get married," he replied, "as I felt that we had a laboratory assistant, technician, and secretary who would fit into permanent plans for expansion of the Laboratory. It is very understandable that you cannot live in Englewood while your husband teaches in the University of Florida. If it were not for the fact that Dr. Carr has visited us often, here at the Laboratory, we would hold a grudge against him for taking you away from us."¹¹¹

Carr left behind no letters in which she expressed her frustration with Jack Bass's reluctance to assist her with the scholarship application. However, given the fact that she had devoted half a year of service to the Bass Laboratory, it is realistic to conclude that she was disappointed by her former employer's actions. Although it must have been reassuring to hear that Bass wanted to retain her services at the laboratory, it had never been her intention to remain

¹¹⁰ Marjorie Harris Carr to Jack Bass (November 12, 1937), in Private Collection of Dr. Tom Carr.

¹¹¹ Jack Bass to Marjorie Harris Carr (December 6, 1937), in Private Collection of Dr. Tom Carr.

in the laboratory technician position permanently. At the same time, Carr was probably frustrated by Bass's failure to meet the scholarship application deadline, in addition to the condescending tone he took in his letter. Bass complained that he could not write a letter of recommendation on Carr's behalf unless she provided him with the name of the person who would receive the letter, although she had made it clear in her initial request that the letter should go to the dean of the graduate school at the University of Florida. He then proceeded to list the positive qualities Carr exhibited while in his employ, focusing especially on the clerical tasks she performed.

"While you were here," Bass wrote, "you had a great number of different duties, among them was acting as secretary for me. In this work, you were competent in filing, typewriting, and general office work....There was a great deal of technical work to be done, such as the injection of frogs and salamanders. These specimens did not come in at regular intervals and it was often necessary for you to spend many hours at night to keep caught up with this work. I do not remember ever hearing you grumble, or ever seeing that the work was not accomplished as soon as physically possible. Your powers of observations, as well as your scientific notes, were always accurate, so that we were able to use them to our full extent. Everybody here at the Laboratory is awfully sorry that you are not with us," Bass concluded, "and should you, at any time, desire to return, we certainly would be glad to have you back."¹¹²

Carr had intended to enlist Bass's help in writing a recommendation for a graduate scholarship. Yet the type of letter Bass proposed to write would have been suitable only for another assistant or secretarial position. Carr had been correct in surmising that there was no room for advancement at the Bass Lab. Unfortunately, this was one of her only paying positions

¹¹² Ibid.

in the sciences. The 1930s was an inhospitable time for women scientists, especially in the South. After spending six months as Bass's diligent employee, he was reluctant to write a strong recommendation for a scholarship. As a provider of generous fellowships to (male) graduate students who used his facilities to conduct academic research, Bass was fully cognizant of the qualities he should stress in a letter of recommendation for a graduate scholarship. Yet he focused on Carr's secretarial and assistant skills instead of discussing her general intelligence and fitness for advanced study. This was especially egregious since Carr's competition for the scholarship consisted exclusively of men, and a letter touting her secretarial skills would only reinforce stereotypes and diminish her chances of receiving a scholarship.

Bass's reluctance to write an appropriate letter of recommendation for Carr might have stemmed from the controversial circumstances surrounding the end of her service at the Bass Lab. While Carr was still in Bass's employ, Archie wrote Bass to try to make amends. "I wish to apologize for my temerity and presumption in marrying a member of your staff without your permission. I won't do it again," he wrote the Basses with tongue in cheek. "When I eventually deprive you of your mudpuppy executioner you will no doubt look for a new one. Be careful this time. You may get another wife in sheep's clothing."¹¹³ Although Archie attempted to use humor to make the best of a sore situation, it did little to relieve Bass's disappointment over Carr's departure.

Archie's concerns over clipping Carr's wings had been astute. In time, their marriage would effectively end her formal career in zoology. Yet Carr's marriage to a successful herpetologist would also help her develop professionally, beginning with her acceptance into the University of Florida's graduate program in zoology. Archie's colleagues, including Thomas

¹¹³ Archie Carr to Jack and Else Bass (April 28, 1937), in Private Collection of Dr. Tom Carr.

Barbour, extended their support to Carr as well, enabling her to join a close-knit group of Florida zoologists. Carr and Archie would postpone starting a family for the first six years of their marriage while she completed her graduate work and accompanied Archie on collecting and research trips. As the next chapter will show, the Carrs' greatest research opportunity presented itself shortly after the birth of their second child, when Thomas Barbour arranged for Archie to take a sabbatical from the University of Florida in order to teach at the Escuela Agricola Panamerica in Honduras. While Archie conducted pioneering turtle research, Carr became an authority on the birds of Honduras. Carr carved out a niche in the field of ornithology, which was slow to professionalize and therefore remained open to women practitioners. Marjorie and Archie Carr would function as equal partners in the local zoological community of Honduras.



Figure 3-1. The Welaka National Fish Hatchery is located in Putnam County, which borders Alachua County (where Gainesville is located) and Marion County (where Ocala is located). The Ocklawaha and St. Johns Rivers cross Putnam County.



Figure 3-2. Aerial view of the Welaka National Fish Hatchery.

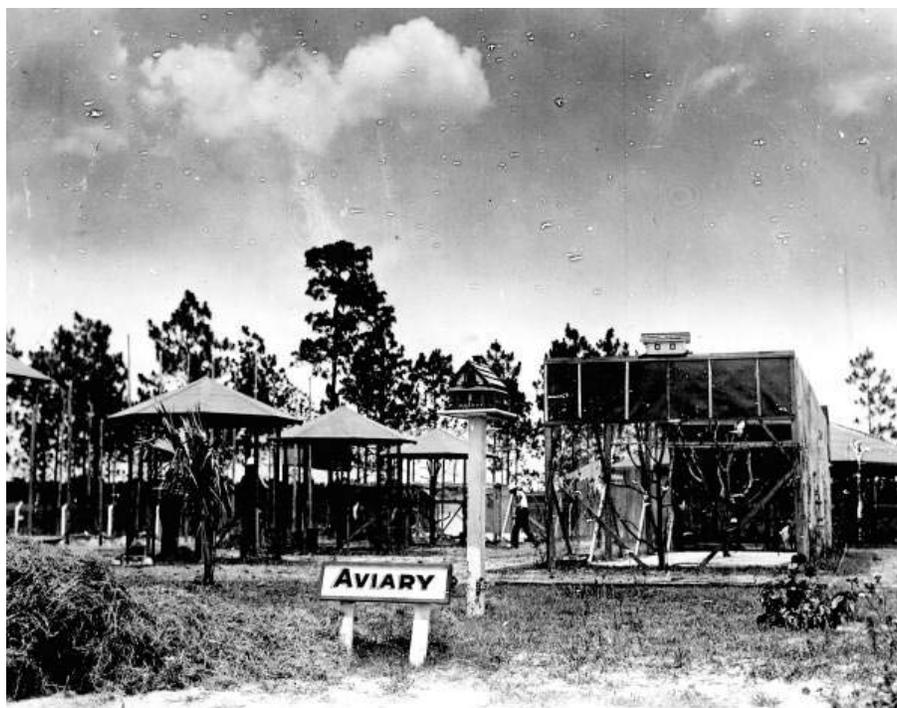


Figure 3-3. The aviary at the Welaka Fish Hatchery (1935). Courtesy of the Florida State Archives.



Figure 3-4. Stewart Springer and Marjorie Harris Carr with snakes at Bass Zoological Research Supply Laboratory, Englewood, Florida (1937). Courtesy of Archie Carr III.



Figure 3-5. Archie Carr and Marjorie Harris Carr's troth pledging ceremony (June 11, 1937).
Courtesy of Mimi Carr.

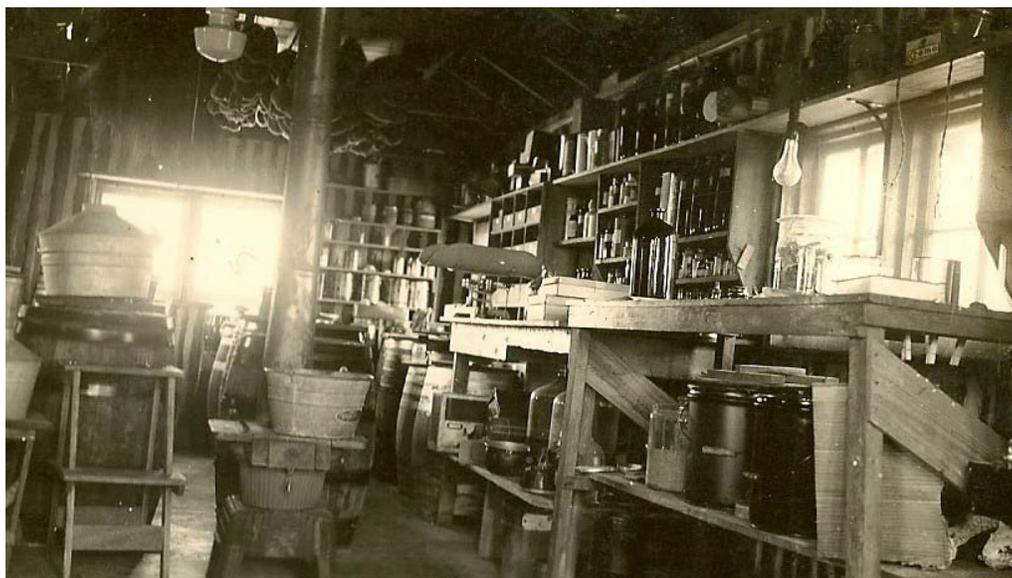


Figure 3-6. The interior of the Bass Lab, where Marjorie and her colleagues prepared zoological specimens for university research. Courtesy of Mimi Carr.

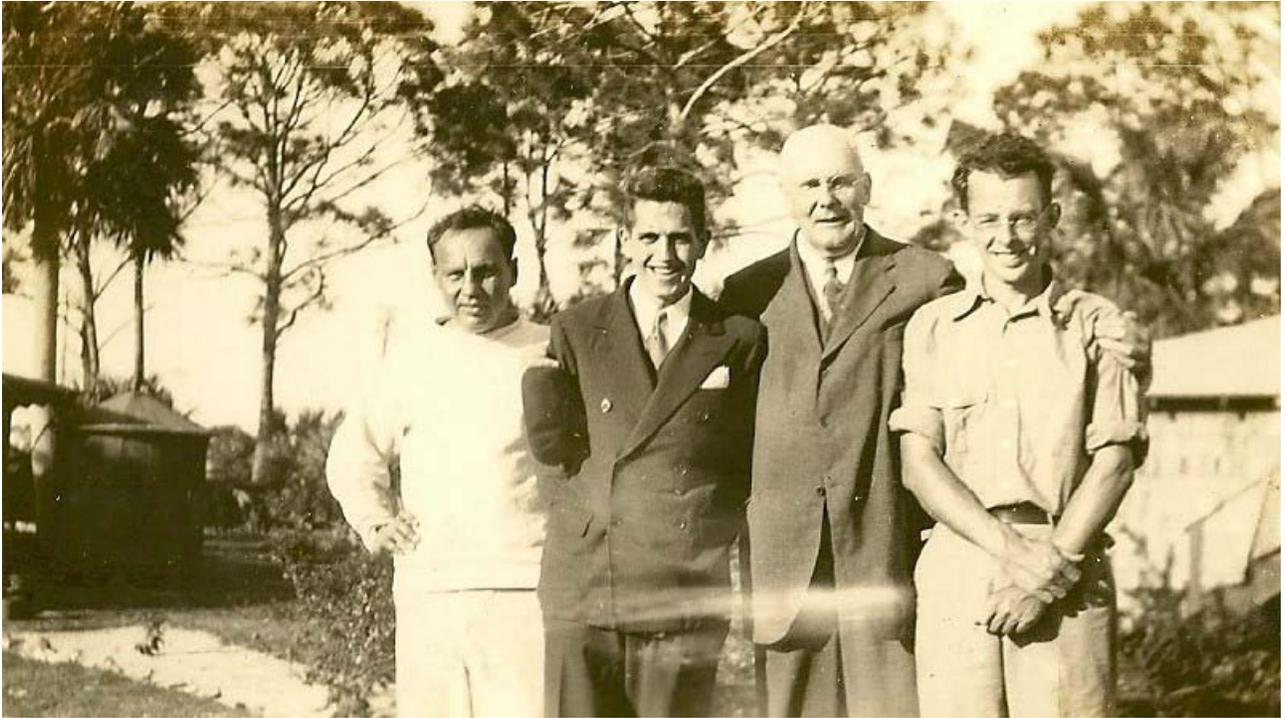


Figure 3-7. Bass Lab manager Stewart Springer (second from left), owner Jack Bass (second from right) and two unidentified lab workers (1937). Courtesy of Mimi Carr.



Figure 3-8. The exterior of the rustic Bass Lab (1937). Courtesy of Mimi Carr.



Figure 3-9. Thomas Barbour, director of the Museum of Comparative Zoology at Natural History (late 1930s). Courtesy of Mimi Carr.



Figure 3-10. Marjorie Harris Carr on a collecting and research expedition at the River Styx near Gainesville (December 1937). Courtesy of Mimi Carr.

CHAPTER 4
HONDURAS IN THE 1940s: A NATURALIST'S PARADISE

Between 1937 and 1943, Marjorie and Archie Carr spent seven summers in Cambridge while Archie worked as a Thomas Barbour fellow at the Museum of Comparative Zoology at Harvard. Barbour worked with Archie on turtles while Carr alternated between performing mundane laboratory work considered appropriate for women technicians and studying in the Ornithology Department. The Great Depression raged on, Carr was delighted to be able to accompany her husband to Cambridge. As grateful as she was to find temporary employment at the museum, the tasks she was required to perform were beneath her education and abilities. “One year I changed all the alcohol in the bottles where reptiles were preserved,” she later recalled, “and another year I took apart owl pellets.” She was eventually permitted to conduct research in the Ornithology Department. “I wanted to do [zoological] research,” she explained, “but I couldn’t get a job in research. I eventually was able to do it because my husband had a research job.”¹

On weekends, the couple engaged in regular collecting excursions for adventure and to supplement Archie’s fellowship. “We rented a room from a Mrs. Murphy in Cambridge,” Carr recalled. “On weekends Archie and I collected marine animals off the coast and we filled up Mrs. Murphy’s cellar with pickled specimens. We would get dogfish from a fishing boat in Rockport. The Sicilian fishermen took great delight in watching us inject various colored fluids into the circulatory systems of the dogfish. One of the Sicilians had an uncle who was a mortician, and he would make running commentaries on our technique.”²

¹ Frank Graham, Jr., “What Matters Most: The Many World of Archie and Marjorie Carr,” *Audubon* (March 1982), 97.

² *Ibid.*

Upon their return to Gainesville each fall, Carr continued her studies at the University of Florida. At one point the necessities of the wartime economy led her to take a temporary position as a nurse's aid.³ Yet her main focus remained the completion of her graduate degree. Carr's graduate specialty within the larger field of zoology was ichthyology, the study of fish. The subject of her graduate research was the large-mouthed black bass, a native fish that was a practical choice to study because of wartime gas rationing, which made it inconvenient to conduct research far from home. In addition, Carr had prior experience with the species at the Welaka Fish Hatchery. She conducted original research, becoming one of the first scientists to discover social parasitism among freshwater fishes. The parasitic chub sucker, Carr revealed, laid its eggs in the nests of the large-mouthed black bass. Because the chub sucker fry bear a strong resemblance to bass fry, the bass are tricked into protecting the young chub suckers after hatching.⁴

While Carr completed her graduate work, she and Archie delayed starting a family. Carr conducted much of the research for her master's thesis in Hogtown Creek, Bivens Arm Lake near Paynes Prairie, and other local waterways.⁵ She also accompanied Archie on local collecting trips, which was how the Carrs first met their lifelong friend J. C. Dickinson, Jr. Like Archie, Dickinson would complete his B.A., M.A., and Ph.D. in biology at the University of Florida, where he later became the director of the Florida Museum of Natural History. The Carrs also led groups of students on holiday collecting excursions in Mexico. These were incredibly rustic trips, J. C. Dickinson, Jr. remembered. The Carrs loaded food and collecting supplies onto

³ Frederick Rowe Davis, *The Man Who Saved Sea Turtles: Archie Carr and the Origins of Conservation Biology* (New York and Oxford: Oxford University Press, 2007), 63.

⁴ *Ibid.*, 98.

⁵ Author's interviews with Mimi Carr and author's interview with J. C. Dickinson, Jr. (February 22, 2008).

the back of a truck and camped under a tarp.⁶ Nonetheless, these trips were among the highlights of the college careers of Archie's young students.⁷ The couple's three exploratory trips into the Mexican wilderness only whetted their appetite for further adventures in Central America. Marjorie Carr observed that these trips "had been so satisfying, so exhilarating and provocative, that we were more than ready for the move to Honduras in 1945."⁸

After Carr graduated from the University of Florida in 1942, Thomas Barbour helped her publish her thesis on the breeding biology of bass in the *Proceedings of the New England Zoological Club*.⁹ In that same year, Carr also published "Notes on the Courtship of the Cottonmouth Moccasin" with Archie Carr. Barbour practically adopted the Carrs, Dickinson observed. Standing at six feet, six inches tall and weighing more than three hundred pounds, Barbour traveled to Florida regularly during the 1930s and 1940s to meet with fellow herpetologists and expand the M.C.Z. collection. He purchased a Florida license plate in an attempt to mask his Yankee heritage, "but when he opened his mouth you knew," Dickinson recalled. Dickinson came to know Barbour when he spent time at the David Fairchild Botanical Garden while Fairchild was writing *Vanishing Eden*.¹⁰

Because Archie's position at U.F. kept Carr tethered to the small college town of Gainesville, her options were limited after graduation. In the 1940s, professional opportunities for married scientists were limited. Carr could have pursued a doctorate in zoology, but the time

⁶ Author's interview with J. C. Dickinson, Jr. (February 22, 2008).

⁷ Author's interviews with Mimi Carr.

⁸ Marjorie Harris Carr, foreword to Archie Carr, *High Jungles and Low*, 2nd ed. (Gainesville: University Press of Florida, 1992), viii.

⁹ Marjorie H. Carr, "The Breeding Habits, Embryology, and Larval Development of the Large-Mouthed Black Bass in Florida," *Proc. New England Zool. Club* 20 (1942): 43-77.

¹⁰ Author's interview with J. C. Dickinson, Jr. (February 22, 2008).

seemed right to start a family. In 1943, Marjorie and Archie Carr welcomed their first-born child and only daughter, Mimi. The war continued, and Marjorie Carr contributed to household expenses by teaching science in Alachua, a small town ten miles north of Gainesville, when Mimi was a baby. Approximately one year after Mimi's birth, Carr became pregnant again—a trend that would continue with little interruption over the next several years. Ultimately the couple would welcome five children within the space of a decade. Reflecting upon his experiences in Honduras, Archie would later joke, “My wife is a naturalist too, between babies.”¹¹

In January 1945, acting upon Barbour's advice, Archie Carr traveled to the Escuela Agrícola Panamericana (E.A.P., or Zamorano) near Tegucigalpa, Honduras. Barbour had suggested that Wilson Popenoe, the school's founding director, might be able to help Archie answer some unresolved questions about turtles. As it turned out, Popenoe, a longtime United Fruit Company employee and former plant explorer for the U.S. Department of Agriculture, possessed no knowledge of turtles (nor a formal university degree), but he offered Archie a teaching position at the E.A.P.¹² At the time the school had no Ph.D.s on its faculty, and Popenoe realized that the addition of an established university professor would add prestige to the fledgling school.¹³ Archie was surprised that Popenoe was interested in his turtle research, which involved testing an original theory that turtles migrated between Central America to Africa annually to spawn. “I must say I was surprised that he thought the [United] Fruit Company would be interested in hiring an individual whose chief interests are so wholly devoid of

¹¹ Archie Carr, *High Jungles and Low*, xix.

¹² Malo, *El Zamorano*, 222. Archie Carr also discusses the reasons he traveled to Honduras in *High Jungles and Low*; and in Frank Graham, Jr., “What Matters Most: The Many Worlds of Archie and Marjorie Carr,” *Audubon* (March 1982), 90-105.

¹³ *Ibid.*, 413.

practicality,” Archie wrote to Barbour. “But Dr. Popenoe thought that Mr. Zemurray and you, the directors of the school, would have no objections... From my standpoint, I am crazy about the place and the possibilities for doing some pioneering work in natural history.”¹⁴

Barbour had encouraged Archie to begin revising the taxonomy of turtles, which was incomplete and flawed. A great deal had been published on freshwater turtles, but the literature on sea turtles was a mixture of folklore and fact. Archie corrected this problem with his 1952 publication of *Handbook of Turtles*.¹⁵ “I decided to become the world’s sea turtle man,” he explained.¹⁶ “I couldn’t decide whether the turtles in the eastern Pacific were exactly the same as those in the Atlantic or slightly different. Since museum collections of sea turtles are inadequate, I began to meditate on the possibility of my going down where the oceans are close together to compare their turtles directly.”¹⁷ Archie’s pioneering sea turtle research in Central America, the West Indies, Africa, and Australia in the 1940s and 1950s would establish his international reputation as an expert on sea turtle breeding and migration.¹⁸

The E.A.P., tucked away in the high valley of the Yeguaré River in the mountains of southern Honduras, had just graduated its first class of agriculture students. “I walked about the palm-grove campus and through the school buildings and brand-new staff residences,” Archie reflected, “all built in gracefully solid colonial style of hand-cut rhyolite from the school quarry,

¹⁴ Archie Carr to Thomas Barbour (January 10, 1945), in Private Collection of Mimi Carr.

¹⁵ Archie Carr, *Handbook of Turtles: The Turtles of the United States, Canada, and Baja California* (Ithaca, New York: Comstock Publishing Associates, 1952).

¹⁶ Graham, Jr., *What Matters Most*, 98.

¹⁷ Archie Carr, *High Jungles and Low*, xx.

¹⁸ For an excellent biography of Archie Carr, see Frederick Rowe Davis, *The Man Who Saved Sea Turtles: Archie Carr and the Origins of Conservation Biology* (Oxford and New York: Oxford University Press, 2007). See also Graham, Jr., *What Matters Most*; and Malo, *El Zamorano*. Carr’s international travels are documented in his short stories and books, including *High Jungles and Low* and *Ulendo: Travels of a Naturalist In and Out of Africa* (Gainesville: University Press of Florida, 1993).

timbered and beamed with Danlí cedar and pine from the mountainside, and roofed with half-round tiles of red school clay.” Dr. Popenoe actually knew nothing about sea turtles, but he offered Archie a job, and Archie accepted immediately. Unable to serve the armed forces in a traditional manner due to his osteomyelitis, he taught introductory physics (perhaps his least favorite subject) to cadets for two years with the Army Air Force Pre-Flight Program at U.F. The E.A.P. position would enable him to resume the naturalist’s lifestyle that teaching physics had prevented him from enjoying full-time. When he traveled home to give Carr the good news, she started packing before he even finished the story.¹⁹

As naturalists, the Carrs had long dreamed of exploring the lower latitudes, and the decision to uproot their family and move to the rural high tropics was instantaneous. Among the factors that drove Archie to accept Popenoe’s job offer so quickly was the deprivation he and Carr had experienced since the start of the Great Depression. In addition, wartime rationing had forced most Americans to go without quality meat and produce for years. When Archie toured the E.A.P., he was particularly impressed by the school’s vast stores of fresh steaks that animal husbandry students delivered to the faculty, in addition to the newly constructed, impressive faculty residences. The war was coming to a close, the Carr family was expanding, and their Honduran sojourn would provide them with a high quality of life that would never be matched.²⁰ The Carrs could explore the forests on quality horses that were available for purchase at twenty-five dollars apiece. Archie received an initial three-year leave of absence from U.F., the Carrs sold their house in Gainesville, and the family moved south, Archie preparing the way in April and Carr following with the children in July. “The school gave us a pleasant house and cheerful

¹⁹ Carr, *High Jungles and Low*, xx-xxi.

²⁰ *Ibid.*, xix.

servants to run it,” Archie later recalled, “and we had a strawberry bed and no morning classes and three months out of the year to collect and explore and get to know the tropics.”²¹ Archie’s responsibilities included teaching two classes per semester at the agricultural school and conducting a biological survey of Honduras for the United Fruit Company.

The E.A.P. was established in 1942 under the direction of Samuel Zemurray, who was then the United Fruit Company’s top executive. The school’s mission was to provide rural men from tropical America with free tuition, board, clothing, and other educational expenses without requiring the students to work for the company after graduation.²² Zemurray pleaded with the United Fruit Company to use its \$200 million wartime surplus to construct the agricultural school in Honduras, which lacked an agricultural education program. Wilson Popenoe helped realize Zemurray’s dream of establishing a practical school with a hands-on agriculture program. Popenoe created a handsome school on a parcel of rural land covered by a forest of native palms and pastureland.²³ The E.A.P. had an international student body, a strict code of discipline, and a hands-on curriculum that required students to assist with campus agricultural production.²⁴

Thomas Barbour served as the original eminent conservationist on the E.A.P.’s first board of directors.²⁵ Barbour and David Fairchild had played a major role in raising public awareness of the problems of habitat loss and dwindling flora and fauna populations in Florida and the tropics. In *That Vanishing Eden: A Naturalist’s Florida*, Barbour argued that the state’s

²¹ Ibid., xxi.

²² Zamorano did not graduate its first female students until 1983. Simón E. Malo, *El Zamorano: Meeting the Challenge of Tropical America* (Manhattan, Kansas: Simbad Books, 1999), 343.

²³ Malo, *El Zamorano*, 19-21.

²⁴ Ibid., 22-33.

²⁵ Ibid., 213-21.

remaining wildlife was in dire need of protection and preservation.²⁶ He documented the effects of habitat destruction on Florida's birds and other animal species, citing Florida's unchecked commercial growth as the main culprit. Barbour also faulted the government for its maltreatment of the Seminole Indians, showing a level of concern for both nature and culture that was rare among naturalists. Barbour recommended several books on Central America to Carr soon after Archie accepted the position at the E.A.P. Yet none of the books provided any references on the flora and fauna specific to Honduras, which only increased her excitement over the prospect of collecting there. "You know how I have always wanted to spend at least a few years in South or Central America," Carr wrote Barbour, "but I never dared hope for such an opportunity as this."²⁷ Barbour anticipated the couple would provide the M.C.Z. with many scientific skins. He had completed two-thirds of a book on Central America, but he said his notes would be of little use to the Carrs.²⁸ This unpublished manuscript, *The Stars Differ*, addressed the problems of deforestation and habitat loss in Central America.²⁹ Barbour's influence on Archie can be seen in *High Jungles and Low*, which Archie began writing while in Honduras; in it Archie expresses equal concern for the native Honduran peoples and their natural surroundings.³⁰

When Archie arrived in Honduras, he oversaw the completion of his family's villa. "It is a jewel of a house and I wish you could see it," he informed Barbour. "It's the same basic plan

²⁶ Thomas Barbour, *That Vanishing Eden: A Naturalist's Florida* (Boston: Little, Brown, and Co., 1946).

²⁷ Marjorie Harris Carr to Thomas Barbour (March 9, 1945), in Private Collection of Mimi Carr.

²⁸ Thomas Barbour to Marjorie Harris Carr (March 12, 1945), in Private Collection of Mimi Carr.

²⁹ Although Marjorie Carr read Thomas Barbour's final manuscript on Central America, tentatively titled *The Stars Differ*, it was never published after his death on January 8, 1946. Marjorie Carr mentions receiving the manuscript with excitement in an October 7, 1945 letter to her mother.

³⁰ *Ibid.*, 222. See also Thomas Barbour, *A Naturalist in Cuba* (Boston: Little, Brown, and Co., 1945).

as the other three faculty houses but with improvements.” Having been able to identify all of the frog songs of Florida, Archie marveled at his unfamiliarity with Central American frogs. “The rainy season has begun here and the frogs are singing—lots of them,” he wrote, “and I don’t know a single one.”³¹

In addition to being ignorant of Honduran frog song, the Carrs had to sharpen their Spanish, of which Marjorie Carr knew very little. She began taking lessons immediately, first learning common commands to use with the servants. Mimi’s knowledge of Spanish outpaced Carr’s, however. Soon two-year-old Mimi was able to translate whatever Carr wished to tell the servants. Carr frequently called upon Archie to translate Mimi’s sentences. Only days after landing in Honduras, Carr hired a nanny for Mimi, “a pretty fifteen-year-old girl who does nothing but care for Mimi from six to six.” The Carrs wasted no time making use of their new servants. On their first weekend together in Zamorano, they climbed Mount Uyuca. “We drove the first 2000 feet, about six miles, in 45 minutes and climbed the last 1000 feet in about 30 minutes,” Carr wrote home. “The latter part goes straight up and is covered with a cloud forest at the top. The big trees—all damp and dripping—are covered with epiphytes including lots of orchids.”³² Cloud forests are rainforests located on high, tropical mountains. A climb up to a cloud forest begins in the hot, steamy lowlands and changes as one climbs higher through changing vegetation zones, which become cooler as the elevation increases. The highest zone is typically covered in mist and fog; the high moisture levels foster the growth of epiphytes, ferns, and mosses.

³¹ Archie Carr to Thomas Barbour (June 3, 1945), in Private Collection of Mimi Carr.

³² Marjorie Harris Carr to her mother (July 9, 1945), in Private Collection of Mimi Carr.

Marjorie and Archie Carr were thirty and thirty-six years old respectively when they moved to Honduras. Despite Archie's relatively young age, he would soon become one of the earliest advocates and most powerful voices for conservation of tropical rainforests and sea turtles.³³ Yet Archie advanced scientists' understanding of tropical ecology at the expense of the same fauna he sought to protect: his favorite collecting tool was a shotgun. "With respect to my attitude toward varmints," Archie admitted, "I have always been afflicted with a Dr.-Jekyll-and-Mr.-Hyde complex—an altogether unresolved conflict between the instincts of a naturalist and the urge to shoot things."³⁴ The Carrs shot and killed thousands of animals for science, sport, and sustenance, preparing scientific skins for use in research collections at Barbour's Museum of Comparative Zoology at Harvard; at the American Museum in New York; at the Florida Museum of Natural History in Gainesville; and at the E.A.P. Barbour was eager to add the Carrs' specimens to the M.C.Z. collection, and he agreed to furnish them with all of the firearms, ammunition, technical advice, and other appropriate tools for killing and preserving specimens.³⁵

Much to Barbour's dismay, the Carrs' collecting was delayed in the first months of their Honduran sojourn. They had to wait longer than they had expected for the required firearms to arrive. Archie joked that the Honduran government must have feared that the Carrs were attempting an insurrection. Two weeks after arriving in Honduras, Carr had informed Barbour that she was "impatient to find out what the birds are here. Practically all are strange to me," she confessed. "As soon as Archie's guns arrive we'll collect some."³⁶ She complained that gun

³³ Ibid., 433.

³⁴ Carr, *High Jungles and Low*, 162.

³⁵ Ibid., 434.

³⁶ Marjorie Harris Carr to Thomas Barbour (July 17, 1945), in Private Collection of Mimi Carr.

shells were non-existent in Honduras, “and everything cries out to be shot—ducks, deer, pigeons to eat and many others to skin.”³⁷

Three months after Carr’s arrival in Honduras, the firearms and ammunition required for collecting were still missing. “Our guns haven’t come yet,” she complained to her mother. “It is infuriating, for I can’t do anything but slobber at the mouth over the birds.”³⁸ Without the means to shoot the birds, Carr was unable to collect and preserve specimens to ship to the States.

Another item she was missing was pants. When Carr prepared for the family’s move to Honduras, she had not realized that it was still not acceptable for women to wear pants in Central America. Yet they were a necessity given the Carrs’ daily rides on horseback.³⁹ Since pants and other American style clothes were not readily available in the outlying towns near the E.A.P., and Carr was usually unable to accompany Archie on his occasional research trips to the States, she would soon learn to make her own clothing and outfits for her growing family. In her letters to friends and family Carr made regular requests for shoes, clothing, children’s books, and other things she could not acquire in Honduras, where goods cost two to three times what they did in the States.⁴⁰

While the Carrs waited on Barbour’s initial shipments of weapons and ammunition to arrive, they borrowed firearms from colleagues at the E.A.P. Carr started to prepare bird skins within weeks of her arrival in Honduras.⁴¹ She and Archie also hunted a variety of wild game. “The rice field is ripe and the doves and rice birds come in droves all day long,” she informed

³⁷ Marjorie Harris Carr to Thomas Barbour (July 31, 1945), in Private Collection of Mimi Carr.

³⁸ Marjorie Harris Carr to Clara Haynes Harris (October 7, 1945), in Private Collection of Mimi Carr.

³⁹ Marjorie Harris Carr to Clara Haynes Harris (July 15, 1945), in Private Collection of Mimi Carr.

⁴⁰ Marjorie Harris Carr to J. C., Lucy, and Dick Dickinson (April 13, 1948), in Private Collection of Mimi Carr.

⁴¹ Marjorie Harris Carr to Clara Haynes Harris (July 30, 1945), in Private Collection of Mimi Carr.

her mother. “We go down every day and shoot a few pigeons to eat. The States doves are thick now and then there are also the big local white-winged pigeons.”⁴² Archie once boasted to a Gainesville friend and colleague that he had just shot sixty-five pigeons in two days.⁴³

Although not all hunters of the late nineteenth and early twentieth centuries were naturalists, many naturalists of this period were hunters. John James Audubon (1785-1851), the artist who inspired the Audubon Society movement, shot thousands of birds while preparing his sketches for *Birds of America*. “Hunting was the cultural frame out of which his encounter with birds emerged,” Audubon’s biographer explained.⁴⁴ The conservationist George Bird Grinnell (1849-1938), who was tutored by Audubon’s widow and founded the National Audubon Society in 1886, was among the gentleman (and lady) hunters who first made the case for conservation of the nation’s avifauna. By definition, hunters destroyed life, but their appreciation of the outdoors led them to be the first to notice and speak out against the habitat destruction that decimated the assorted species they enjoyed hunting. Moreover, naturalists furthered the study of biology in this period by killing specimens for scientific research and for display in museums of natural history. “Collecting” specimens with a firearm became a necessary evil. By the late nineteenth century, the effects of rampant development, habitat destruction, and over hunting on the nation’s wildlife came to the attention of Grinnell, whose Yale education centered on natural history. As editor of *Forest and Stream*, a weekly magazine designed for sportsmen and naturalists, Grinnell espoused the creation of a game warden system that would be financed by

⁴² Marjorie Harris Carr to Clara Haynes Harris (October 31, 1945), in Private Collection of Mimi Carr.

⁴³ Archie Carr to J. C. Dickinson (January 16, 1948), in Private Collection of Mimi Carr.

⁴⁴ See Richard Rhodes, *John James Audubon: The Making of an American* (New York: Alfred A. Knopf: Distributed by Random House, 2004), 75. See also Jack E. Davis, *An Everglades Providence: Marjory Stoneman Douglas and the American Environmental Century* (Athens & London: The University of Georgia Press, 2009), 167.

hunting fees. Grinnell advocated hunting regulation, habitat conservation, and the establishment of a national park system. He also served as a conservation consultant for President Theodore Roosevelt and started *Audubon* magazine in 1887.⁴⁵

Naturalists systematically study and identify natural objects in order to understand the larger connections between them and their habitats. In this sense natural history was a precursor to ecology and conservation.⁴⁶ Nonetheless, the meaning of the term conservation has always been subjective, ranging from the managed exploitation of natural resources for human gain to the preservation of flora, fauna, and their habitat for their own sake.⁴⁷ The Progressive conservation movement of the late nineteenth and early twentieth centuries stemmed from a philosophy of efficient management of natural resources. While President Theodore Roosevelt took an unprecedented role in involving the United States government in purchasing and protecting forest land, his selection of Gifford Pinchot to head the newly created U.S. Forest Service in 1905 established the precedent of scientific management of public lands for the nation's economic benefit.⁴⁸

Pinchot applied Frederick Taylor's principles of efficiency to forestry management. Trees came to be viewed as harvestable crops, and wildfires were considered to be completely within the control of humans. "The first principle of conservation is development," Pinchot

⁴⁵ "George Bird Grinnell: Appraising the Work of a Key Conservationist," panel organized by Carolyn Merchant and chaired by Donald Worster, American Society for Environmental History 2009 Annual Conference in Tallahassee, Florida; see also Davis, *An Everglades Providence*, 165-68. Roosevelt and Grinnell founded the first national conservation organization, the Boone and Crockett Club, in order to preserve their favorite hunting grounds, according to Davis.

⁴⁶ Paul Lawrence Farber, *Finding Order in Nature: The Naturalist Tradition from Linnaeus to E. O. Wilson*, Johns Hopkins Introductory Series in the History of Science (Baltimore, Md.: Johns Hopkins University Press, 2000), 2.

⁴⁷ Davis, *An Everglades Providence*, 151.

⁴⁸ Ted Steinberg, *Down to Earth: Nature's Role in American History* (New York and Oxford: Oxford University Press, 2002), 138-51.

wrote, “the use of the natural resources now existing on this continent for the benefit of the people who live here now.”⁴⁹ Among the problematic outcomes of the government’s treatment of ecosystems as natural *resources*—elements of nature that should be exploited for human benefit—was its policy of valuing certain species over others. Economy trumped ecology, and conservation of one species sometimes involved the destruction of other species, including those animals that interfered with commercial agriculture and hunting interests. By the 1880s, when overhunting and habitat loss had led to a dramatic decline in deer, waterfowl, bison, elk, and fish species favored by hunters and tourists, early twentieth-century game managers—following Pinchot’s lead—promoted the preservation and breeding of these popular species. The Welaka Fish Hatchery is an example of these early efforts to restore depleted specimens to the nation’s forests for the benefit of sports hunters and fishermen.⁵⁰

The dark side of the early conservation ethos can be seen in the active role the federal government played in exterminating species considered to be pests or a burden to the agriculture and livestock industries, resulting in the near extinction of the bison and grey wolf. Roosevelt’s own description of the shooting of a puma near the Grand Canyon reveals the conservationist’s mindset regarding large, predatory mammals: “The big horse-killing cat, the destroyer of the deer, the lord of stealthy murder, facing his doom with a heart both craven and cruel.”⁵¹ The federal government’s “conservation” policies contributed to the extinction of wolves and other large mammals.⁵² The Department of Agriculture’s Predatory Animal and Rodent Control

⁴⁹ Ibid., 141.

⁵⁰ Ibid., 138-51.

⁵¹ Donald Worster, *Nature’s Economy: A History of Ecological Ideas, Second Edition* (New York: Cambridge University Press, 1994), 260.

⁵² Worster, *Nature’s Economy*, 258-290.

Service attempted to eradicate animals that threatened the nation's livestock because they "no longer have a place in our advancing civilization," according to a biologist employed by the department's Bureau of Biological Survey. The federal government began regulating hunting on public lands in an effort to replenish wild game, yet federal regulations often benefited sports hunters over subsistence hunters, including Native Americans whose prior treaties guaranteeing hunting rights were overlooked when the national parks system was first established.⁵³ Despite its flaws, the conservation movement ushered in by Progressive era social reformers served as the inspiration for the modern environmental movement of the late twentieth and early twenty-first centuries, which will be discussed in greater detail in chapters four and five.⁵⁴

Marjorie and Archie Carr lived off of the land in Honduras, supplementing the produce from their garden with freshly killed meat. "There was plenty of game to shoot and a little-known wilderness at your doorstep," Archie boasted. "The volcano-set Pacific shore was sixty miles to the south and the hot, lush banana coast a hundred miles to the north; you could climb a mountain three miles away and find any sort of weather you hankered after."⁵⁵ The Carrs hunted and ate macaws and other tropical birds, sea turtle meat and eggs, iguana, monkeys, manatee, rodents, and a host of additional animals. As Archie's turtle conservation efforts increased in the 1950s, critics pointed out his hypocrisy in arguing for the conservation of sea turtles while

⁵³ Steinberg, *Down to Earth*, 138-151. For more information on the commodification of nature in the nineteenth century American West, see William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York and London: W. W. Norton & Company, 1992).

⁵⁴ For more on the disparities and connections between conservation and environmentalism, see Jack E. Davis, *An Everglades Providence: Marjory Stoneman Douglas and the American Environmental Century* (Athens & London: The University of Georgia Press, 2009); Davis, "Conservation Is Now a Dead Word": Marjory Stoneman Douglas and the Transformation of American Environmentalism," in Davis and Raymond Arsenault, eds., *Paradise Lost? The Environmental History of Florida* (Gainesville, Florida: University Press of Florida, 2005); and Mark W. T. Harvey, *A Symbol of Wilderness: Echo Park and the American Conservation Movement* (Seattle and London: University of Washington Press, 2000).

⁵⁵ Carr, *High Jungles and Low*, xxii.

continuing to consume them. “I appear to be at one moment dejected over the precarious survival state of sea turtles,” he explained, “and at the next drooling over the thought of eating them. Today I try to do better.”⁵⁶

While in Honduras, however, the Carrs sampled a variety of native animals. One of Carr’s favorite dishes was boiled armadillo. “They were elegant,” she wrote Barbour. “Like pig I thought. I believe there is more meat for size than any little animal I’ve eaten.”⁵⁷ On an early collecting trip along the Choluteca River—Honduras’s largest river near the Pacific, located a short drive from the E.A.P.—Carr acquired her first scarlet macaw. “We crossed two mountain ridges covered with long leaf pine trees,” she informed her mother. “I got an immense thrill when we came upon a flock of Macaws sitting in the pines along the roadside. They were huge and unbelievably brilliantly colored—red, blue and yellow. They were very common in the Choluteca River Valley and we must have seen over 100 during the day.”⁵⁸ Still lacking her own firearm, Carr asked Archie’s colleague George Hogaboom to shoot one of the majestic tropical birds for her. She promptly skinned the bird and took it home for the servants to prepare. “It was simply delicious,” she wrote Barbour. “Like good duck I thought. Our cook boiled it for eleven hours, however.” The main purpose for the collecting trip was to find specimens of the *Anableps* or “four-eyed fish,” which was common in the Choluteca River. The *Anableps*’ eyes are divided such that they are able to see under and above water at the same time. After collecting several samples of *Anableps*, the Hogaboom shot three iguanas. “The largest was over

⁵⁶ Graham, Jr., *What Matters Most*, 101.

⁵⁷ Marjorie Harris Carr to Thomas Barbour (n.d.), in Private Collection of Mimi Carr.

⁵⁸ Marjorie Harris Carr to her mother (July 22, 1945), in Private Collection of Mimi Carr.

5 feet long and weighed 25 pounds.”⁵⁹ Carr lamented that they had planned to eat the iguanas, “but the buzzards flew off with the bodies when our backs were turned.”⁶⁰

In addition to the nation’s diverse animal life, Honduras was home to what Archie described as an “almost infinite variety” of plants in the 1940s. High mountains and steaming lowlands provided the right conditions for numerous habitats to flourish.⁶¹ The Carrs spent a great deal of time exploring the cloud forests of the high mountains surrounding the E.A.P.: Uyuca, Monte Crudo, El Portillo, El Volcán, Rancho Quemado, Peña Blanca, San Juancito and others. Some of their collecting expeditions led to the discovery of new species of fish and other animals.⁶² In contrast to the Colombian rainforests, which had been cleared and cut back for agriculture by the 1940s, the Honduran rainforests contained as many as five layers of tree canopies with 200-foot specimens that blocked direct sunlight. The ocelot, puma, and jaguar hunted there, joining such jungle fauna as the sloth, several species of monkey, the quetzal, mountain goat, and myriad parrots, among other species. The valleys were home to the coyote, numerous snake and frog species, the armadillo, tarantula, fox, deer, skunk, and more.⁶³ Yet the high cloud forest was relatively devoid of flora, a condition Archie considered a mystery.⁶⁴

Archie’s light teaching schedule allowed him to join Carr and a rotating assortment of visitors and colleagues on regular collecting and research trips. He taught chemistry and biology in Spanish, which improved with time. Archie’s lectures blended traditional science with

⁵⁹ Marjorie Harris Carr to Thomas Barbour (July 31, 1945), in Private Collection of Mimi Carr.

⁶⁰ Ibid.

⁶¹ Carr, *High Jungles and Low*, 24-25.

⁶² Malo, *El Zamorano*, 434.

⁶³ Carr, *High Jungles and Low*, 30.

⁶⁴ Ibid., 34-35.

conservation, making him an anomaly at the E.A.P. He attempted to raise his students' awareness of the connection between traditional agricultural methods and environmental degradation, encouraged them to consider the impact of agriculture on forests and fauna, and helped them appreciate the benefits of sustainability in food production. At the time, Honduras still had an abundance of "virgin" or old growth forests, and the concept of biodiversity was rarely considered in relation to tropical agriculture. Archie challenged his students to practice visionary agricultural techniques so that the consequences of Honduran agriculture would not be as catastrophic as it had been elsewhere in the tropics, including Colombia.⁶⁵

Over the course of the Carrs' first year in Honduras, Archie struggled to balance his turtle research with his other obligations with the E.A.P. and United Fruit Company. Although his teaching load was not demanding, the time requirements nonetheless interfered with his ability to travel all over Central America to research turtle migration. Carr assisted Archie with his turtle research whenever the couple was able to get away. She conducted her own research at the same time, collecting and preserving approximately 2,000 scientific skins between the summer of 1945 and the fall of 1949. At the time, there were no adequate field books to help her identify the birds. Little was known about the species she collected, increasing the value of her research and specimens.

Carr prepared assorted scientific skins at a rapid pace, shipping them to Barbour for use in his museum and elsewhere. "We go collecting a horse nearly every day," she reported to Lucy Dickinson. "I finished 52 bird skins last night. We have a mountain of bats too. Also a weasel, skunk, rabbits, squirrels and so forth. Sunday Archie and I went caving. Nothing there. We want to find a bat cave. A week ago we rode up to Uyuca (I do mean rode—didn't look at the

⁶⁵ Malo, *El Zamorano*, 434.

view a single time). We had lunch in the highest milpa and then caught grasshoppers for Hub [Dr. Theo Hubbell at the University of Florida]. I felt not unlike Heidi.”⁶⁶

The older Carr children have some memories of their mother’s preservation activities. Chuck’s are mostly impressionistic. Mimi, the eldest of the five Carr children, has stronger memories. One of the earliest is of her mother’s brown hands—tanned in the Honduran sun—working with German-made dissection tools to preserve specimens. Carr stuffed cotton in the birds’ gutted bodies until it came out of their eyes, her daughter recalls, mimicking the repetitive motions she used to see her mother make so often. Another persistent memory is of the hours-long walks they took with the servants each afternoon, passing more ox carts than automobiles. After the deprivation of the long Depression years, Marjorie and Archie Carr enjoyed their comfortable lifestyle in Honduras. “It was a lovely life and they knew it,” Mimi explained. “The war was ending and things were calming down. If you were an outdoorsy type, it was beautiful.”⁶⁷

Before the Carrs moved to Honduras, Carr continued to accompany her husband on collecting and research trips, even though she was caring for baby Mimi and pregnant with Chuck. Yet having household help in Honduras made it possible for her to complete unfinished work and start new projects. “I’m writing a small fish paper,” she wrote her mother two months after reaching Honduras. “I did the work a year ago and haven’t been able to write it up since then.”⁶⁸ Carr published her work the following year in the *Quarterly Journal of the Florida*

⁶⁶ Marjorie Harris Carr to Lucy Dickinson (November 23, 1945), in Private Collection of Mimi Carr.

⁶⁷ Author’s interview with Mimi Carr (March 7, 2007).

⁶⁸ Marjorie Harris Carr to her mother, Clara Haynes Harris (September 8, 1945), in Private Collection of Mimi Carr.

Academy of Sciences; the paper continued to be cited in biology journals more than a decade later.⁶⁹

Although Carr's publications centered exclusively on the Honduran flora and fauna, Archie's work focused on both the ecosystems and the people of Central America. The Honduras Marjorie and Archie Carr encountered in the 1940s was one of the poorest nations in Central America. Aside from its Mayan ruins and the colonial architecture of its capital city, Tegucigalpa, Honduras remained mostly undeveloped. Honduras lacked roads, and outside of the airport in Tegucigalpa, cow pastures functioned as landing strips for the small airplanes that provided the only reliable means of transportation throughout the country. A violent underworld thrived in Tegucigalpa and the nation's rural areas, replete with local warlords. It was common for men to display pistols on their belts for safety and machismo. Yet the most common condition of the rural Hondurans—the descendants of the Maya—was extreme poverty.⁷⁰

In a series of letters describing Honduran culture and nature, Carr discussed her amazement at the industriousness of the rural people she encountered in the face of their impoverished living conditions. "The reasons why one country is more successful than another is a constant source of interest to me," she mused. "The smug way we more fortunate blame it on the human beings of these countries certainly is not fair or true. I keep saying to myself, 'There, but for the Grace of God, go you.' I am convinced it is a group of lucky coincidences that has made our country the success she is."⁷¹ The small towns surrounding Zamorano were

⁶⁹ Marjorie Harris Carr, "Notes on the Breeding Habits of the Eastern Stumpknocker, *Lepomis Punctatus Punctatus* (Cuvier)," *Quarterly Journal of the Florida Academy of Sciences* Vol. 9 (1946), 101-106. Carr's paper was cited repeatedly in David K. Caldwell, Howard T. Odum, Thomas R. Hellier, Jr., and Frederick H. Berry, "Populations of Spotted Sunfish and Florida Large-Mouth Bass In a Constant-Temperature Spring," *Transactions of the American Fisheries Society* 85 (1957), 120-134, which continues to be cited by biologists today.

⁷⁰ Malo, *El Zamorano*, 22-33.

⁷¹ Marjorie Harris Carr to Clara Haynes Harris (October 23, 1945), in Private Collection of Mimi Carr.

filled with people dressed in tattered clothes, and the majority of the young men who studied at the E.A.P. came from farming families who still used primitive tools and antiquated methods. Carr's description of a student project at the E.A.P. demonstrates the school's incorporation of modern agricultural practices with practical, low-cost techniques and supplies. "Today they are making ensilage for their new trench silo," she explained to her mother. "Ox carts bring in the corn stalks. While one bunch of boys fills the cutter another bunch tramps the chopped stalks down in the trench. These boys really learn by doing work." Although Carr was impressed with the students' progress, she expressed misgivings about the state of Honduran agriculture writ large. "Honduras is a pitifully poor country, really," she lamented. "Our valley [the E.A.P.] is a garden in the wilderness. It just shows what could be done with modern methods. While we use machinery here they also teach the boys how to make home made implements that will work on the farm."⁷²

Despite the inescapable poverty of Honduras, Carr was taken with its natural beauty, as her description of the ride from Tegucigalpa to the valley of El Zamorano reveals. "The roads are out of this world," she wrote her mother upon arriving in Honduras. "Hard clay, dried into ruts and strewn with great rocks that fall constantly from the hills. The road out of Teguc climbs and winds up mountains and then down into the valley of El Zamorano. The ride has beautiful scenery. The pine trees are covered with many varieties of air plants—many blooming. There are many springs up in the mountains and little freshets pass over the road. We passed lots of little caravans of burros, loaded down, on their way to market. Also two trucks and buses. It took one and a half hours to drive the 16 miles. You come down out of the pine covered mountain to a level green valley—almost round. You pass a little native town of Hicorita, cross

⁷² Marjorie Harris Carr to Clara Haynes Harris (August 17, 1945), in Private Collection of Mimi Carr.

a rocky stream drive through a grove of coyol palms and then you are at our house—a big cream stucco house with a high steep pitched roof of red tile and a deep front porch.”⁷³

Just as the horse had been Carr’s chosen form of transportation in Bonita Springs, it was the easiest way to get around Honduras. One of her first explorations of the local flora and fauna was on a horse ride to San Antonio, an old silver mining town located near Zamorano. “The trail led up a deep ravine the sides of which were covered with pines,” she recounted to her mother. “A mountain stream rushed along over beautifully colored volcanic rocks. We came to a place where the water seeped down the side of a steep wall and found large blooming orchids—orchids four inches across. We must have ridden twelve miles over very steep roads so we were tired at the end. Saw a big flock of emerald green parrots flying against the dark green forest.”⁷⁴

At the same time that the Carrs were in Honduras, another scientific couple was living in Colombia. Although not a scientist by means of formal education or training, Nancy Bell (Fairchild) Bates serves as a useful reference point in the process of contextualizing Marjorie Carr’s experiences in Honduras. In contrast to Carr, who engaged in full-time collecting and research activities with Archie, Nancy Bates assisted her husband part-time with his work. Moreover, Carr pursued her own research and collecting agenda in Honduras, with the goal of amassing a unique collection of natural birds and publishing her research findings. The granddaughter of inventor Alexander Graham Bell and the daughter of naturalist David Fairchild, Nancy accompanied her husband, naturalist Marston Bates (author of *Where Winter Never Comes: A Study of Man and Nature in the Tropics*, which Archie referred to in his letters

⁷³ Marjorie Harris Carr to Clara Haynes Harris (July 3, 1945), in Private Collection of Mimi Carr.

⁷⁴ Marjorie Harris Carr to Clara Haynes Harris (July 15, 1945), in Private Collection of Mimi Carr.

from Honduras) to the jungles of South America in the 1940s.⁷⁵ The couple lived in the remote town of Villavicencio, Colombia—in the shadow of the Eastern Andes—for more than six years while Marston studied the ecology of the mosquitoes that carry the yellow fever virus. Nancy was in the latter stages of pregnancy when she arrived in Colombia, and as the 1940s progressed she gave birth to three daughters there.

Nancy served as an assistant to her husband, working part-time in the Rockefeller Foundation laboratory, accompanying him on collecting trips, and explaining the significance of his work to scientists and other visitors who visited the lab. Nancy's role as Marston's assistant and the primary caretaker of the couple's children stands in stark contrast to the Carrs' working relationship, which stood on more equal footing. While the Bateses constructed a nursery and playground at the laboratory where Marston spent the majority of his time, the Carrs left the care of their children in the hands of a staff of servants while they engaged in full-time collecting activities in the cloud forests. The Carrs' colleagues in Zamorano referred to them as the biology professor and his ornithologist wife, while the locals in Villavicencio called the Bateses the doctor and his señora (wife). Moreover, Nancy called Marston "the Boss" in person and in writing, while referring to herself as a "housewife" throughout her book on Colombia, *East of the Andes and West of Nowhere: A Naturalist's Wife in Colombia*.⁷⁶

Nancy did bibliography work for Marston, but unlike Marjorie Carr, she did not know her way around the laboratory. Marston worked at the Rockefeller lab in Colombia, which was geared mainly toward the manufacture of yellow fever vaccine. His job was to study yellow fever in Villavicencio, which involved regular inspection of local ditches and ponds for mosquito

⁷⁵ Marston Bates, *Where Winter Never Comes: A Study of Man and Nature in the Tropics* (New York: Charles Scribner's Sons, 1952).

⁷⁶ Nancy Bell (Fairchild) Bates, *East of the Andes and West of Nowhere: A Naturalist's Wife in Colombia* (New York and London: Charles Scribner's Sons, 1947).

larvae.⁷⁷ Like Carr, Nancy helped her husband collect specimens—primarily mosquitoes, butterflies, moths, fish, and frogs. Yet Nancy’s role was as a traditional assistant. She did not collect with the purpose of publishing her research. In fact, most of her time was spent caring for their children, even though the family also employed a team of servants. Nancy worked at the lab each morning from nine to noon, and then looked after the children for the rest of the day.⁷⁸

Marjorie Carr and Nancy Bates disagreed with the view that the people of Central America were somehow responsible for their poverty. “It is true that Colombia is not advanced in many of the ways we treasure, that there are poverty and misery in abundance, that the greater proportion of the wealth is in the hands of the few,” Nancy conceded. “But we do not believe that this came about because of a fundamental inability to do better in the people themselves. When foreigners come down and start damning the dirt, the inefficiency, the lethargy of ‘these people,’ I wonder just how far they themselves would have gotten if they had been born into the same environment.” These comments echo the sentiments Marjorie Carr expressed on the preceding pages.⁷⁹

Unlike Nancy Bates, who assisted her husband at the laboratory in the mornings but spent the majority of her time caring for their children, Marjorie Carr routinely left her children in the hands of the family’s servants for twelve or more hours per day. Even when Carr was at home—especially in the latter stages of her pregnancy—the servants played with and cared for her children while she prepared specimens. Archie helped out with childcare when Carr traveled throughout Central America to examine museum bird collections, add to her own collection, and travel with guests. On one such trip, a hired driver escorted Carr, her Aunt Ruth, and Carr’s

⁷⁷ *Ibid.*, 53-55.

⁷⁸ *Ibid.*, 82, 113.

⁷⁹ *Ibid.*, 122.

mother in the Carrs' recently acquired Ford pickup truck to Guatemala and San Salvador. "I had to stay home to take care of Mimi and Chuck," Archie wrote Lucy and J. C. Dickinson's son Dick. "Or at least to make Tina take care of them and Tita cook for them and Juan clean up after them and a gal you don't know wash for them."⁸⁰

At the time of the trip, Carr was pregnant. "Mother was pregnant the whole time she was in Honduras," Mimi recalled.⁸¹ She continued to ride on collecting trips until the final weeks of her pregnancy, when riding a horse became too cumbersome. At that point she shifted her focus to preserving specimens and preparing notes on her collection. "Pregnancy is no obstacle," Archie wrote a pregnant Lucy Dickinson, hoping to encourage his friends to visit them again before they left Honduras. "Nothing ever happens to women as near full term as you'll be then, Lucy. Nothing could. As for your self esteem, eschew it. You should feel no shame over basic function. Jesus, you ought to see Margie; and she is this way nearly all the time."⁸²

Giving birth in Honduras posed its own unique challenges. Carr came to prefer natural childbirth. Her first two children were born in the United States, where the standard hospital birth involved the use of heavy anesthetics for the mother. The dosage was often so high that the mother would be unconscious throughout much of labor and delivery, resulting in a lengthened and more complicated recovery period. In Tegucigalpa Carr "wasn't given so much as an aspirin tablet and all they did was to turn the bed around and tie two ropes to the posts for me to hold on to," she wrote Lucy the week the Carrs' third child, Stephen, was born. "The amazing thing was how good I felt right away. Ten minutes after Steve was born Dr. Lazarus and I were having a cup of coffee together while watching the three nuns cope with Steve. I do believe I could have

⁸⁰ Archie Carr to Dick Dickinson (July 11, 1946), in Private Collection of Mimi Carr.

⁸¹ Author's interview with Mimi Carr (March 7, 2007).

⁸² Archie Carr to J. C. and Lucy Dickinson (January 16, 1948), in Private Collection of Mimi Carr.

walked right out of the hospital that morning and felt fine.”⁸³ After the birth of her fourth child, Thomas, Carr wrote Lucy about the advantages of natural childbirth. “You know what you are doing and can cooperate and do more and much, much faster,” she explained. “The best thing is your feelings afterwards.”⁸⁴ Carr told Lucy she wished she had given birth to Chuck in Honduras.

A major factor that shaped Carr’s glowing endorsement of natural childbirth and motherhood in general was the constant presence of servants in her home. Toward the end of the Carrs’ Honduran sojourn, Felipa—whom they had invited to move to the United States with them—accompanied the family on a camping trip to Agua Azul, Cortez. “We are ideally fixed up here,” Carr boasted. “Felipa and the four [children] have bunk beds in one room and Archie and I and a lab table have the other room. We go out on the Lake at least twice a day. In one two-hour jaunt around the south end of the Lake saw about fifty wood ibis, fifty American egrets, three spoonbills, thirty pichichis, thirty least bittern, sixty jacanas and one hundred cormorants. Twenty little blue herons—a few each [male and female]—coots, Florida gallinules, Little green herons, snowy egrets, Muscovy ducks, ringed kingfishers, rails, pelican (one). Saw only about twelve grebes and sixteen big crocs.”⁸⁵

The Carrs had become accustomed to life with servants, and they were reluctant to give their comfortable lifestyle up as they planned for their return to Florida. “I’m pleased with the servants,” Carr wrote her mother in the early months of their Honduran sojourn. “We are really quite a tranquil family. I’m enjoying having free time immeasurably.”⁸⁶ Carr set her own

⁸³ Marjorie Harris Carr to Lucy Dickinson (December 7, 1946), in Private Collection of Mimi Carr.

⁸⁴ Marjorie Harris Carr to Lucy Dickinson (March 18, 1948), in Private Collection of Mimi Carr.

⁸⁵ Marjorie Harris Carr to J. C. and Lucy Dickinson (July 28, 1949), in Private Collection of Mimi Carr.

⁸⁶ Marjorie Harris Carr to her mother (September 17, 1945), in Private Collection of Mimi Carr.

schedule in Honduras, devoting more time to work than to childcare or domestic chores. “Our cook prepares delicious soups for lunch and supper and she bakes bread every day,” she wrote. “This is really the easiest life I will ever lead. Imagine arriving at six after being away all day to find one’s house all in order, a fire burning, babies fed and put to bed and asleep, supper ready and waiting, the bed turned down and plenty of hot water for the bath—and all your clothes clean and ironed!”⁸⁷ As the Carrs prepared to leave Honduras, they realized that things would change dramatically—especially for Marjorie Carr—with four children and no help.

The Carrs’ expenses had been quite low at El Zamorano. They grew some of their own produce, hunted and fished near their home, paid no utilities, and had few bills. They paid each servant approximately six dollars per month. The family was able to save much of Archie’s \$200 (U.S.) monthly salary.⁸⁸ Carr appears to have devoted more time to specimen collection and preservation than she spent with her children. Infant Chuck’s first words were “Tina” and “Tita,” the servants’ names.⁸⁹ The Carrs had become so dependent upon the labor of servants that they invited two of their servants to return to the States with them in 1949. The salary of a University of Florida professor was not substantial enough for the Carrs to afford domestic help at standard American rates. If the Carrs could convince some of their Honduran servants to accompany them to the United States, however, the family would benefit from their help while compensating them at a lower rate. Felipa, who became the Carrs’ nanny after Tina married, and Juan, the gardener, were interested in working for the Carrs in Florida. Unfortunately for the Carrs, however, Felipa was unable to pass an English test required of all Central American

⁸⁷ Marjorie Harris Carr to her mother (November 18, 1945), in Private Collection of Mimi Carr.

⁸⁸ Marjorie Harris Carr to her mother (September 11, 1945), in Private Collection of Mimi Carr.

⁸⁹ Marjorie Harris Carr to Sara Beard (April 18, 1946), in Private Collection of Mimi Carr.

immigrants to the United States. Juan spoke better English than Felipa, but he ultimately remained in Honduras as well.⁹⁰

Although the transition to life without servants was certainly a difficult one for the Carrs, Archie's international reputation as a leading sea turtle expert was established with the publication of *Handbook of Turtles: The Turtles of the United States, Canada, and Baja California* in 1952 and in *High Jungles and Low* in 1953. Following the example of conservationist Aldo Leopold, Archie used his writing to educate the public about the importance of species and habitat preservation. Frederick Rowe Davis documents Archie's transition from natural history to ecology and conservation in *The Man Who Saved Sea Turtles: Archie Carr and the Origins of Conservation Biology*.⁹¹ Archie's experimental turtle tagging program is an example of his practical application of the new science of conservation biology. He blended groundbreaking scientific research into the migration and breeding patterns of sea turtles with compelling nature writing and an effective conservation program that continues to thrive today. The assistance Carr provided to Archie over the course of his career has been largely overlooked. Together they transitioned from naturalists who killed specimens for scientific research and display in museums, to activist scientists—in large part due to Carr's attempts to convert Archie from a hunter to a conservationist/environmentalist.⁹²

Archie's conservation ethos developed as a result of the influence of his mentor, Thomas Barbour; the tutelage of J. Speed Rogers and other professors at the biology department at the

⁹⁰ Marjorie Harris Carr to Lucy and J. C. Dickinson (July 28, 1949), in Private Collection of Mimi Carr. The Carrs asked the Dickinsons if they would be willing to pay Juan a \$20 monthly salary plus boat fare to Honduras, but this plan never came to fruition. Marjorie Harris Carr to Lucy Dickinson (August 9, 1948), in Private Collection of Mimi Carr.

⁹¹ Frederick Rowe Davis, *The Man Who Saved Sea Turtles*, 9.

⁹² For further analysis of the influence of natural history upon the development of ecology and conservation biology, see Davis, *The Man Who Saved Sea Turtles*.

University of Florida; and through his encounters with the local people of Central America while he and Carr collected animals.⁹³ The rural mountain folk they met along the way practiced the custom of inviting travelers to dismount from their horses and enjoy a cup of coffee in their homes. “Dr. Karl Schmidt, a famous herpetologist, once wrote that naturalists make the best ambassadors because folks are pleased with your interest in their land, and therefore their natural suspicions toward a stranger are allayed,” Carr explained. “Perhaps this is why we always felt en rapport with country people—whether in Mexico, Honduras, Costa Rica, or any of the other small nations of the Central American isthmus.”⁹⁴

Archie learned that the Central Americans he encountered at the E.A.P. and the tourists he encountered often had different views of the region’s future from those of its rural inhabitants. At the University of Florida, the Carrs learned to appreciate the relationships between nature and culture. In *High Jungles and Low*, the people of Central America are as central to the narrative as the region’s flora and fauna. Archie was also remembered fondly by E.A.P. alumni, who came to hold some of the top political, financial, and academic positions in Central America. The connections Archie formed with his students and colleagues at the E.A.P. blossomed into lucrative partnerships that helped him accomplish his research and conservation goals in the decades to come.⁹⁵

Archie visited Central America (particularly Costa Rica) yearly for about four decades as he established and directed the Green Turtle Research Station at Tortuguero on the Caribbean coast, where the Costa Rican government established a national park on a twenty-mile stretch of

⁹³ Ibid., 84-85. See also Carr, *High Jungles and Low*.

⁹⁴ Marjorie Harris Carr, foreword to Archie Carr, *High Jungles and Low*, xiv.

⁹⁵ Davis, *The Man Who Saved Sea Turtles*, 84-86.

green turtle nesting beach.⁹⁶ The Carrs had faith that conservation would work in Central America. “Conservation takes a lot of education anywhere,” Carr admitted. “It requires people to take the long view. In Latin America it takes a special kind of message, and it is needed in massive doses, immediately.” Although the pressure to clear land for agriculture and develop the beaches for tourism remains strong, the respective governments of the Central American isthmus are cooperating to preserve a wildlife corridor, *Paseo Pantera*. The Wildlife Conservation Society (W.C.S.) and its partner, Archie’s Caribbean Conservation Corporation, started working on *Paseo Pantera* (the Central American Biotic Corridor) in 1990. Its purpose is to address the economic health of the respective nations and local peoples while also preserving a series of ecosystems stretching from Mexico to Panama. Chuck Carr worked with Wildlife Conservation International as coordinator for projects in Mesoamerica and the Caribbean.⁹⁷

In *High Jungles and Low*, Archie described the E.A.P. as being “at a crossroads of inter-Americanism” in the 1940s. “The war was on, and funds for buying the favor of our neighbors flowed freely. Projects to court the people with the promise of technical or agricultural enlightenment sprouted like mushrooms.”⁹⁸ Most of these programs flopped, prompting Archie to recommend the following steps in Central America: improve the quality of the personnel the United States sends to the tropics; stop underestimating the intelligence and sensitivity of the rural Latin American people; avoid irresponsible spending for unnecessary technical assistance; increase opportunities for Latin American students to go to the United States for training; support the expansion of public health programs; accelerate and expand agricultural research and education; and encourage and help the Latin American countries in establishing and maintaining

⁹⁶ Marjorie Harris Carr, foreword to *High Jungles and Low*, xiv-xv.

⁹⁷ *Ibid.*, xv.

⁹⁸ Archie Carr, *High Jungles and Low*, 37.

campaigns of conservation and restoration of renewable resources.⁹⁹ “Of the three principal areas in which technical help from us is most badly needed—nutrition, public health, and conservation,” Archie continued, “the last seems to me at once the most basic and the field in which the least is being done. It is surely the most difficult.”¹⁰⁰

Making the case for an ecologically sensitive solution rather than an outdated conservation program based solely upon regulation of hunting, Archie explained the scientific basis behind the decline in Honduras’s environmental sustainability. The Yeguaré River did not produce enough fish to feed the locals, who turned to dynamite or dropping rocks in the river to catch small water creatures. A simple conservationist approach to this problem, Archie suggested, would be to establish a wardenship to regulate fishing. Yet regulation alone would not return the Yeguaré River or other Central American rivers to productivity, he explained, because the root of the problem could be found in the region’s spring fires and summer rains. These environmental conditions flooded the rivers with soil and sediment, turning them into the equivalent of storm sewers. Because the silt suffocates most water creatures save for those small enough to take refuge under stones, Archie theorized, the river’s larger fish populations were in decline.¹⁰¹

“Fish depletion is not to be handled as a problem apart but as a symptom of a more general and basic disorder,” Archie maintained, emphasizing the connections between organisms and habitats within an ecosystem. “The river is lean because the land is lean, and the ills of the two cannot be treated separately. Forests, wildlife, and hydraulic heads are all parts of an integrated whole, and none suffers or is restored separately. The river is sterile because the

⁹⁹ Ibid., 38-43.

¹⁰⁰ Ibid., 43.

¹⁰¹ Ibid., 46.

hillside above is sterile. The firewood famine in the city and the diminishing water supply are not separate afflictions but different signs of the same disaster. Fishing is poor in the high tropics for the same reason that a thousand miles of night driving on the highways shines no eyes of wild things...The idea that tropical America is still an unspoiled wilderness dies hard. The average North American is surprised to learn that the Latin countries have any depletion problems at all, and is frankly incredulous when told of their urgency. A workable plan for restoration and maintenance of a landscape is not easy to devise. The factors involved are complex and their interrelationships almost endless. An immense amount of data on the physical and biological makeup of the region must be gathered before anything that the public can see can be done.”¹⁰²

Archie had a talent for distilling complex scientific processes in simple yet lyrical prose. *High Jungles and Low*, which issued an ecological wake-up call for Central America, predated Rachel Carson’s *Silent Spring* by nearly a decade. Five decades after the publication of *High Jungles and Low*, Archie’s recommendations for U.S. involvement with Central America were still considered on target.¹⁰³ Unfortunately, environmental conditions have deteriorated significantly in Honduras. The coyotes that used to howl outside the Carrs’ faculty residence at the E.A.P. are rarely if ever heard on campus now.¹⁰⁴ Most of the coyol palms surrounding the school and throughout Honduras were eliminated by a lethal palm disease introduced to the region in the 1960s.¹⁰⁵ Most of the rainforests the Carrs knew in the 1940s are vanishing or no

¹⁰² Ibid., 48.

¹⁰³ When *El Zamorano* was published in 1999, Malo maintained that Archie Carr’s seven recommendations for Central America were still valid and would be an efficient strategy to address the concerns of the twenty-first century. Malo, *El Zamorano*, 442.

¹⁰⁴ Ibid., 437.

¹⁰⁵ Ibid., 443.

longer exist.¹⁰⁶ Although Marjorie Carr had reported spotting more than one hundred scarlet macaws at a time, they have not been seen near Zamorano since the late 1960s. New roads and unrestricted hunting are thought to have driven the macaws to eastern Honduras, where there is less human encroachment upon the birds' habitat.¹⁰⁷

When the Carrs returned to Gainesville in the fall of 1949, Carr started to compile her notes on the tropical birds of Honduras. She prepared a catalogue of the region's birds with notes on their habitat preference and available habitats in the area. She worked on the project sporadically over the course of the Carrs' four-year stay in Honduras, finishing her work in the final months leading up to the family's return to the States in August, 1949.¹⁰⁸ Her articles included "The San Geronimo Swift in Honduras," which she and J. C. Dickinson, Jr. published jointly in 1951; and multiple references in Burt L. Monroe, Jr.'s 1968 study of Honduran birds, *A Distributional Survey of the Birds of Honduras*. After the 1951 publication of "The San Geronimo Swift in Honduras," Carr did not publish independently for fourteen years, when she first wrote about the Ocklawaha River.¹⁰⁹ Without domestic help, raising a large family commanded most of Carr's attention. She also assisted Archie with his turtle research and taught biology and chemistry in public and private schools. Carr finally found the time to publish her findings from the Honduras trip, "Notes on the Birds of Honduras for the Years 1945-1949, With Special Reference to the Yeguaré River Valley, Department of Francisco Morazán," in 1995.¹¹⁰

¹⁰⁶ Ibid., 446.

¹⁰⁷ Ibid., 438.

¹⁰⁸ Marjorie Harris Carr to J. C. Dickinson (November 20, 1948), in Private Collection of Mimi Carr.

¹⁰⁹ "The Ocklawaha River Wilderness," *Florida Naturalist* 38 (1965), 3-A.

¹¹⁰ In 1951, Marjorie and J. C. published their Honduran findings jointly in Marjorie Harris Carr and J. C. Dickinson, Jr., "The San Geronimo Swift in Honduras," *Wilson Bulletin* 63 (1951), 271-73. Nearly a half-century later, Marjorie was finally able to publish her research on the birds and bird habitats of Honduras in "Notes on the

In the 1950s Marjorie Carr faced the challenge of combining child rearing and science. In keeping with the gender norms of the times, she assumed the role of primary caregiver for her family, which increased to five children in 1952 with the surprise addition of David. Nonetheless, chapter four will demonstrate that Carr remained active in zoology, albeit on a smaller scale than in Honduras, where she had domestic help. She devoted as much time as possible to the Florida Museum of Natural History at the University of Florida, where she was named an associate. Carr was often on her own with the children while Archie embarked upon lengthy international research trips. When Archie traveled to Africa in 1952, Carr took the children to some of the region's abundant lakes, rivers, and beaches, where she taught them how to identify Florida's flora and fauna, as her parents had done. She also shared this knowledge with her daughter's Girl Scout troop in the early 1950s. By the late 1950s, when all of her children were of school age, Carr embarked upon a conservation career that focused primarily on land preservation. As postwar development and an influx of millions of residents inundated Florida, the state's natural spaces were being developed at an unprecedented rate. Carr's conservation efforts—which were conducted through the local Garden Club and Audubon Society—marked the beginning of her lengthy career as an environmental activist. Although she was unable to blend caring for a large family with a full-time position in science while her children were young, she kept up with the advancing field of ecology through extensive reading and through land preservation. The seeds of Carr's later environmental activism were planted long before she learned that the U.S. Army Corps of Engineers was planning to build a barge canal that would destroy the Ocklawaha River and cut the state in two.

Birds of Honduras for the Years 1945-1949, With Special Reference to the Yeguaré River Valley, Department of Francisco Morazán," *Ceiba* 36 (1995), 277-334.



Figure 4-1. The San Antonio mining town near El Zamorano, Honduras. Photo by Margaret Hogaboom. Courtesy of Mimi Carr.



Figure 4-2. The Carrs' faculty villa at the Escuela Agrícola Panamericana in El Zamorano.
Photo by Margaret Hogaboom. Courtesy of Mimi Carr.



Figure 4-3. J. C. Dickinson, Jr. (who later became the director of the Florida Museum of Natural History) and Marjorie Carr prepare bird specimens after a collecting expedition. Dickinson's son, J. C. Dickinson, III., sits to the right of his father; Chuck and Mimi Carr sit beside their mother while she works. Courtesy of Mimi Carr.



Figure 4-4. Archie (left) and Marjorie Carr (right) prepare for a ride through the Honduran rainforest (1945). Photo by Margaret Hogaboom. Courtesy of Mimi Carr.



Figure 4-5. Mimi and Chuck Carr play with sea turtles (1946). Courtesy of Mimi Carr.



Figure 4-6. The Carrs' nanny, Tina, feeds Chuck and Mimi by candlelight (1947). Courtesy of Mimi Carr.



Figure 4-7. Marjorie Carr (center) with colleagues on a collecting and research trip in Honduras (1948). Archie is third from the left, looking down. Courtesy of Mimi Carr.



Figure 4-8. In 1948, Marjorie and Archie Carr's growing family included Chuck (left), Tom, Mimi, and Steve. Courtesy of Mimi Carr.



Figure 4-9. Marjorie Carr examines the massive trees of the Honduran cloud forest near El Zamorano (1947). Photo by Margaret Hogaboom. Courtesy of Archie Carr III.



Figure 4-10. Marjorie Carr with a toucan she killed to add to her tropical bird collection (1947). She donated more than 2,000 bird specimens to the Florida Museum of Natural History at the University of Florida, the American Museum of Natural History in New York, and the Museum of Comparative Zoology at Harvard. Courtesy of Archie Carr III.

CHAPTER 5 MARJORIE HARRIS CARR'S EARLY CONSERVATION CAREER

Marjorie Carr's conservation career started at the local level in the 1950s. Like many of her female contemporaries, Carr's volunteer service started with town beautification work. From there she branched out into land preservation campaigns in Gainesville and Micanopy. Carr's activism took a more controversial turn with her opposition to the construction of three proposed highway projects that would cross environmentally sensitive lands: Interstate 75, a cross-campus thoroughway and two-thousand-car parking lot on the University of Florida campus, and a proposed turnpike that would have connected Jacksonville and Tampa. Carr's initial activist projects helped her develop successful grassroots leadership strategies that would prove instrumental to her success with the campaign to save the Ocklawaha River. Unlike her early projects, Carr's opposition to the turnpike took place in the 1980s. Yet it is included in this chapter—in conjunction with an examination of her leadership of two earlier campaigns designed to protect the environment from the encroachment of major road projects—to show the progression of Carr's leadership style over the course of her long career in conservation and environmental activism.

Each of the three highway projects that Carr opposed was designed without considering its impact on the environment. Developers failed to engage in land planning as they transformed Florida's environment. The emergence of the state's Interstate highway system is a prominent example of this lack of foresight. Carr and her colleagues were outraged by the rampant destruction of Florida's landscape. "The nation's road builders have needlessly damaged or destroyed a shocking amount of unique American landscape, not so much because they build unnecessary roads, but because of their narrow-minded attitude in selecting the location of new roadways," Carr observed. "The state highway directors are responsible for selecting the routes

which our highways follow, and cheapness of right-of-way apparently has been their main criterion. Too often this has resulted in roadways ripped straight through National and State Parks and unique areas of natural beauty.”¹

Carr’s observations of a series of profound changes in Florida’s environment over more than thirty years as a Florida resident stimulated her interest in conservation. Hundreds of thousands of soldiers who had trained in the state during World War II returned as residents after the war ended. Florida’s inexpensive housing and low cost of living made it an ideal place to raise a family, and the gradual introduction of air conditioning starting in the 1950s helped residents tolerate the state’s subtropical climate. Carr and others who witnessed the decline of Florida’s natural landscapes challenged the dominant pro-business ideology that was central to the state’s rapid, unchecked growth. Women’s clubs and other organizations with strong female memberships provided female activists with the institutional support required to launch effective conservation campaigns.²

Historian Alice Kessler-Harris has argued that postwar America embraced a gendered social order that revolved around family life and depended upon (middle-class) women’s labor as housewives.³ Scholars have viewed middle-class women’s conservation activities in the nineteenth and early twentieth centuries as an extension of their role as protectors of the home. Carolyn Merchant championed this line of argument a quarter of a century ago, characterizing

¹ Marjorie Harris Carr, review of George Laycock’s *The Diligent Destroyers*, 1970, Florida Defenders of the Environment Papers, Box 33.

² For a useful discussion of the Florida’s postwar growth, see Lee Irby, “A Passion for Wild Things: Marjorie Harris Carr and the Fight to Free a River,” in *Making Waves: Female Activists in Twentieth-Century Florida*, ed. Jack E. Davis and Karl Frederickson (Gainesville: University Press of Florida, 2003); and Gary Mormino, *Land of Sunshine, State of Dreams: A Social History of Modern Florida* (Gainesville, Florida: University Press of Florida, 2005).

³ Alice Kessler-Harris, *In Pursuit of Equity: Men, Women, and the Quest for Economic Citizenship in 20th-Century America* (New York and Oxford: Oxford University Press, 2001).

Progressive era women's conservation between 1900 and 1916 as a socially acceptable form of civic outreach for middle-class women who lacked suffrage. Thousands of women across the United States engaged in species and habitat preservation work in order to protect and improve the world their children would inherit.⁴

Focusing primarily on the maternal motivations behind women's conservation and environmental activism obscures the contributions of professional women, including scientists and writers. The limnologist Ruth Patrick (a contemporary of Carr) was one of the pioneers of the developing field of ecology. Patrick was in the vanguard of scientists working on the groundbreaking concept of biodiversity. She studied the relationships between microscopic organisms and the fresh water ecosystems they inhabit, demonstrating the effects of pollution on different species within an ecosystem. Today scientists refer to the "Patrick Principle," which considers biodiversity as an important indicator of the health of an ecosystem. Throughout her adult life, Carr familiarized herself with current biological research. The land preservation campaigns Carr spearheaded in the 1950s and 1960s stemmed from her awareness of the importance of biological diversity to the health of an ecosystem. Other noted female environmentalists of the mid to late twentieth century include Rachel Carson, who blended science and writing to increase awareness of ecosystems and pollution; and Marjory Stoneman Douglas, who was also a writer. Both Carr and Douglas were Florida transplants who embodied a strong sense of environmental stewardship in their adopted state.⁵

⁴ In "Women of the Progressive Conservation Movement: 1900-1916," *Environmental Review* 8 (Spring 1984), 57-85, Carolyn Merchant argues that women's conservation activities in the Progressive era stemmed from their desire to protect their middle-class lifestyles, influenced by the separate spheres construct. For further discussion of the ideology of separate spheres, see Leonore Davidoff and Catherine Hall, *Family Fortunes: Men and Women of the Middle Class, 1780-1850* (Chicago, 1991). See also Steven Noll and David Tegeder, *Ditch of Dreams: The Cross-Florida Barge Canal and the Fight for Florida's Future* (Gainesville, forthcoming).

⁵ See the American Philosophy Society Museum Web site, <http://images.google.com/imgres?imgurl=http://www.apsmuseum.org/undaunted/images/audubon.jpg&imgrefurl=ht>

Historians have portrayed the postwar era as the dawn of consumerism and domesticity, a time when most white, middle-class women willingly traded in their temporary wartime jobs and “returned” to domesticity.⁶ Although some scholars have viewed Carr’s experiences in the 1950s through the lens of postwar domesticity, this approach obscures the impact of crucial events that shaped her developing environmental ethos in this period. Scholars have contended that Carr abandoned her formal career in science in order to care for her growing family, characterizing the 1950s as a period of professional inactivity and domesticity for her. Carr even appeared to her daughter Mimi to be the image of a “classic 1950s housewife,” yet she was in the process of

[tp://www.apsmuseum.org/undaunted/audubon.html&usg=__3TYauPJZu1wmcQp3byJxZcFeUWA=&h=258&w=392&sz=30&hl=en&start=19&sig2=2wK0Py1Qg5wpEFsQGvgbCw&tbnid=gWqX5abhBMO1rM:&tbnh=81&tbnw=123&prev=/images%3Fq%3Djohn%2Bjames%2Baudubon%2Bin%2Bflorida%26gbv%3D2%26ndsp%3D20%26hl%3Den%26sa%3DG&ei=MuTNSsasC5XkmZDv6IMD](http://www.apsmuseum.org/undaunted/audubon.html&usg=__3TYauPJZu1wmcQp3byJxZcFeUWA=&h=258&w=392&sz=30&hl=en&start=19&sig2=2wK0Py1Qg5wpEFsQGvgbCw&tbnid=gWqX5abhBMO1rM:&tbnh=81&tbnw=123&prev=/images%3Fq%3Djohn%2Bjames%2Baudubon%2Bin%2Bflorida%26gbv%3D2%26ndsp%3D20%26hl%3Den%26sa%3DG&ei=MuTNSsasC5XkmZDv6IMD) (accessed September 12, 2009); the Academy of Natural Sciences Web site, <http://www.ansp.org/research/pcer/rp/index.php> (accessed November 13, 2009); and Patrick’s biography on the Academy of Natural Sciences Web site, <http://www.ansp.org/research/pcer/rp/biography.php> (accessed November 13, 2009).

⁶ Before the 1980s, historians largely overlooked women’s experiences in postwar America, focusing instead on the political, military, and economic ramifications of the Cold War buildup of the military-industrial complex; the post-Depression economic recovery and transition to a society grounded in conspicuous consumption; and the United States’ expanding role in the world economy and global politics. Lizabeth Cohen would later address the central role of women’s contributions as “consumer-citizens” to the development of the postwar, consumption-oriented society in *A Consumer’s Republic: The Politics of Mass Consumption in Postwar America* (New York: 2003). Beginning in the 1980s, scholars focused overwhelmingly on Cold War domesticity in the United States, suggesting that women’s wartime gains in employment and autonomy were lost when World War II servicemen returned home. Examining postwar propaganda that encouraged American women to “return” to the home after filling in for men in the workforce for the duration of World War II, these first studies centered on the domestic ideology that millions of women allegedly subscribed to in the postwar years, contending that there was little resistance on the part of (white, middle-class) women to America’s renewed emphasis on the ideology of separate spheres for men and women. See Karen Anderson, *Wartime Women: Sex Roles, Family Relations, and the Status of Women During World War II* (Westport, Connecticut and London, 1981). Anderson stressed that women’s wartime advances in economic status declined rapidly in the postwar period. Employers viewed women as a useful source of cheap, temporary labor. The majority of women were forced to abandon their jobs, either by discriminatory employment practices, marital concerns, or societal pressures. Those women who remained in the work force, Anderson maintains, were marginalized in low-paying “feminine” positions including clerical work, nursing, and school teaching. See also Sherna Berger Gluck, *Rosie the Riveter Revisited: Women, the War, and Social Change* (Boston, 1987). This collective biography of women war workers reveals the difficulties facing women who chose to continue working after the war, in addition to documenting other women’s satisfaction with domesticity. Early works focusing exclusively on the cult of domesticity failed to address alternative belief systems, instead characterizing the lives of women of all classes, races, and ethnicities as fitting into one monolithic domestic pattern that was only available to select middle- and upper-middle-class women. In ignoring the impact of class, race, and ethnicity on women’s “choices” to work or remain in the home, the early historiography of postwar women failed to account for the participation of increasing numbers of women in academia (especially as undergraduate college students) and the workforce (increasing their presence both in traditional “pink collar” fields and in the professions).

quietly reinventing herself, utilizing her experiences as a naturalist and zoologist as a springboard to an unconventional career that would still allow her to fulfill the traditional duties as a wife and mother.⁷

The history of women's conservation and environmental activism demonstrates the active role women played in redefining their status in American society. As mentioned previously, women's conservation and environmental work began in the late nineteenth century, at the height of the influence of the ideology of domesticity. In the late nineteenth and early twentieth century, women such as Jane Addams had broken free of the ideology of domesticity, pioneering the field of urban environmentalism in part as an alternative to college-educated women's main options upon graduation: marriage, school teaching, or nursing (which would ideally be conducted only before marriage). They applied the principles of social science and medicine—germ theory was still relatively new—to urban environmental and public health reform. Six decades after Addams spearheaded the field of urban environmentalism, Carr would take a similar approach to environmental activism. Like the educated women of Chicago's municipal reform movement, Carr would apply her own expertise and work with (mostly male) academic experts and a male-dominated system of government to effect environmental change on a monumental scale. Also like Addams, she did not accomplish this feat alone. But there was nobody who worked longer or more steadfastly to stop what was perhaps the most ill-conceived public works project to date: the Cross Florida Barge Canal.

Conservation had been considered within the purview of elite, middle-class white women since the nineteenth century, yet Carr's conservation activities helped her develop the leadership skills needed to apply her understanding of complex ecological issues to the environmental

⁷ Author's interviews with Mimi Carr (November 11, 2005 and March 7, 2007).

challenges of the late twentieth century. The path she forged in the 1950s combined the traditional responsibilities of a wife and mother with the aspirations and abilities of an ecologist. Moreover, it reveals the inadequacies of the concept of domesticity as a unilateral category that encompasses the experiences of all (middle-class) women of the postwar era.⁸

Not all married women who raised families in the postwar era subscribed to the ideology of domesticity. Yet scholars have couched women's reform work in this period (and especially in the first half of the twentieth century) in terms of "domestic feminism" or "municipal housekeeping," contending that their involvement in the "masculine" public realm was an extension of their duties as wives and mothers in the "feminine" private sphere. Historians have also applied the concept of domesticity to women's conservation and environmental activism, focusing on the differences between men's and women's encounters with nature. Since the 1990s, however, scholars have shifted their focus away from domesticity, revealing the complex economic, social, moral, and scientific arguments women articulated in defense of environmental preservation, justice, and reform.

Women's conservation activities in the United States started with the woman's club movement in 1860. Denied the suffrage, excluded from the formal political process, and still

⁸ The 1990s ushered in a new wave of scholarship focusing on the incongruities between domestic ideology—as seen in proscriptive literature—and the realities of postwar women's lives. In shifting their focus away from the ideology of domesticity, the new historians of the postwar era concentrated on the experiences of women who did not fit into the scope of earlier inquiries into this period: working class women, minorities, and women who resisted domestic containment. See Joanne Meyerowitz, ed., *Not June Cleaver: Women and Gender in Postwar America, 1945-1960* (Philadelphia, 1994). She argues that when scholars treat the postwar period solely as an age of women's containment within the domestic realm—as Elaine Tyler May did in *Homeward Bound: American Families in the Cold War Era* (New York: 1988)—they "erase" the history of women's diverse experiences and lend credence to the domestic stereotype. Linda Eisenmann's *Higher Education for Women in Postwar America, 1945-1965* (Baltimore, 2006) asserts that only upper-middle class women could afford the leisure of the domestic ideal in the postwar era. Further, whereas the domestic ideology permeated mainstream thought at the time, women's presence in the workforce actually increased in the postwar years, as did women's undergraduate enrollment. At the same time, Eisenmann stresses, women of all classes struggled to balance education, career, and home life. Also see Nancy A. Walker, ed., *Women's Magazines 1940-1960: Gender Roles and the Popular Press* (Boston and New York, 1998). This collection of postwar magazines examines some alternative views and critiques of domesticity printed in women's magazines.

largely barred from participation in higher education, woman's clubs offered opportunities for education and increased women's presence in the informal political realm through social reform. By the 1880s, most cities and towns across America had woman's clubs. The club movement espoused middle- to upper-middle-class values and embraced the ideology of separate spheres for men and women while also providing women with a venue for socially acceptable public work. In addition to founding libraries, clinics, and kindergartens, and lobbying for improved working conditions in factories and better living conditions in the cities, woman's clubs campaigned to preserve natural areas. In 1895, Florida clubwomen established a statewide federation to promote the interests of the mostly white, middle- and upper-class members whose elite status relieved them of many of the domestic obligations that prevented other women from engaging in club work. The club movement progressed from woman's clubs to a profusion of special-interest clubs, including garden clubs and Audubon societies. Members of the Florida Federation of Women's Clubs founded the Florida Audubon Society in order to protect the state's birds from over-hunting and possible extinction from the plume trade. Garden clubs and Audubon societies provided women conservationists with the opportunity to serve as leaders of local, statewide, and national conservation projects, although these women rarely held leadership positions over men. Whether serving in national clubs such as the Federation of Woman's Clubs or small grassroots organizations devoted to single issues, women expanded their public influence through their club work.⁹

⁹ Over the past fifteen years, scholars of women and the environment have questioned the utility of framing women's activism exclusively in terms of the ideology of domesticity. Beginning with the premise that women who had capitalized upon domesticity in the late nineteenth and early twentieth centuries (in order to justify their entry into the public realm as social reformers) ceased using gender as a tool of social organization as they were integrated into the public realm, scholars have started to search for new frames of analysis of women's activism. See Cameron Binkley, "'No Better Heritage than Living Trees': Women's Clubs and Early Conservation in Humboldt County," *The Western Historical Quarterly* 33 (Summer, 2002), 179-203. Binkley employs domesticity as a tool of analysis, but she concludes that early women conservationists abandoned the "rhetoric of feminine sensibility" after they had increased men's respect for women's political and social equality. For more on the role of woman's clubs, garden

Women were the foot soldiers of the conservation movement of the late nineteenth and early twentieth centuries, but scholars have characterized the Progressive conservation movement as an example of municipal housekeeping, or women's "attempt to sweep up the city as they would their kitchens."¹⁰ When the Florida Audubon Society was established in 1900, most of its presidents were male, yet the efforts of its many female members were essential to the organization's early successes. Women's contributions were responsible for the founding of Florida Audubon and the establishment of bird protection laws and bird preserves. Women also maintained the society's records, finances, and correspondence, wrote articles and pamphlets that increased public support for Audubon projects, led meetings, and networked with members of other conservation organizations, yet their role in early Audubon work has been ignored or marginalized, historian Leslie Kemp Poole has observed. Yet Florida Audubon's female membership thrust the issue of the plume trade into the national spotlight. Audubon women launched a nationwide public education campaign geared toward curbing women's desires for fashionable hats decorated with bird feathers, wings, heads, and entire bodies. By the 1880s, the

clubs, and Audubon societies in establishing the conservation movement of the late nineteenth and early twentieth centuries, see Jack E. Davis, "Up from the Sawgrass: Marjory Stoneman Douglas and the Influence of Female Activism in Florida Conservation," in *Making Waves: Female Activists in Twentieth-Century Florida*, ed. Jack E. Davis and Kari Frederickson (Gainesville: University Press of Florida, 2003); see also Jennifer Price, *Flight Maps: Adventures with Nature in Modern America* (New York: 1999); Carolyn Merchant, "Women of the Progressive Conservation Movement: 1900-1916," *Environmental Review* 8 (Spring 1984): 57-85; and Leslie Kemp Poole, "The Women of the Early Florida Audubon Society: Agents of History in the Fight to Save State Birds," *Florida Historical Quarterly* 85 (Winter 2007), 297-323.

¹⁰ Recent scholarship has focused on the limitations of the focus on domesticity, including the backlash that stemmed from women's use of their alleged special moral qualities as wives and mothers as a justification for reform work. Urban planners maintained that women such as Lady Bird Johnson were incapable of understanding the "real" problems of the city and distanced themselves from Johnson's city beautification movement. Historians have supported this idea, according to Maureen A. Flanagan, by "isolat[ing] women's environmental ideas and work from those of professional men, categorizing women's work as beautification or domestication in specific counterpoint to male advocacy of function, rationality, and planning; thus scholars focus on 'municipal housekeeping' whenever considering women [when] women sheltered a variety of environmental causes." Flanagan faulted historians for caricaturing women's environmental work as "the attempt of women to sweep up the city as they would their kitchens." In dwelling on domesticity, Flanagan maintains, historians have perpetuated the false dichotomy that men's work is political/public while women's work is domestic/private. See Maureen A. Flanagan, "The City Profitable, the City Livable: Environmental Policy, Gender, and Power in Chicago in the 1910s," *Journal of Urban History* 22 (January 1996), 163-190; quotes on pp. 164-165.

trend had been responsible for the deaths of hundreds of thousands of birds—especially Florida’s wading birds such as egrets, roseate spoonbills, flamingos, herons, and ibis. Their plumage fueled the growth of the seventeen-million-dollar-a-year New York millinery industry that resulted in the total destruction of rookeries from Tampa to the Everglades.¹¹

Florida Audubon dedicated itself to saving the state’s birds from the plume trade. The organization hired a game warden to patrol a one hundred forty-mile wetland that had proven lucrative to plume hunters, who ignored state and federal laws prohibiting hunting in established rookeries. In 1900, the Lacey Act offered federal protection to birds, but enforcement was another matter. Audubon’s first warden, Guy Bradley, was shot to death and became the movement’s first martyr. Another warden was killed three years later. Their deaths brought even greater attention to Audubon’s cause and increased its membership. In 1903, the society created the United States’ first national bird refuge at Pelican Island on Florida’s eastern coast—part of the national bird refuge system sanctioned by the conservation-minded President Theodore Roosevelt. Florida Audubon combined forces with the Florida Federation of Women’s Clubs (established in 1895) on the plume trade issue, designing a public education campaign that targeted plume hunters and sportsmen alike, as both groups contributed to the decimation of Florida’s native and wintering birds.¹²

May Mann Jennings, married to former Florida governor William Sherman Jennings, was an active conservationist and “the most politically powerful woman in the state” in the early twentieth century, according to historian Linda D. Vance. As president of the Florida Federation

¹¹ Poole, “The Women of the Early Florida Audubon Society,” 297-301; Jack E. Davis, “Alligators and Plume Birds: The Despoilation of Florida’s Living Aesthetic,” *Paradise Lost: The Environmental History of Florida* (Gainesville: University Press of Florida, 2005); Mark Derr, *Some Kind of Paradise: A Chronicle of Man and the Land in Florida* (New York: William Morrow and Company, 1989), 136-37.

¹² Poole, “The Women of the Early Florida Audubon Society,” 305-311.

of Women's Clubs, Jennings contributed to the creation of Everglades National Park, which was dedicated in 1947. In 1920—the year that women finally gained the vote—Florida Audubon elected its first female president, Katherine Bell Tippetts. After being widowed in 1909, Tippetts took over her husband's business interests and founded the St. Petersburg Audubon Society. The well-educated businesswoman lost a close race for a seat in the Florida Legislature in 1920, but she convinced the legislature to name the mockingbird the state bird and promoted state bird campaigns throughout the country. Ten federal bird refuges had been established in Florida's coastal nesting areas by this time, although poachers destroyed southwest Florida's Alligator Bay Rookery in 1916, shooting eight hundred birds and burning the rookery. Funding for wardens remained a critical issue. Conservationists were assisted by changing tastes in women's hats, however. After prostitutes donned hats adorned in plumes, middle-class women lost their taste for feathered hats, and the demand for fresh feathers declined. In the opening decades of the twentieth century, women's involvement in Audubon Society and women's club conservation projects increased their political clout in an era where women lacked full civic status. Florida women had proven their ability to conduct effective grassroots campaigns that slowed the pace of environmental destruction in their state.¹³

Like so many of the women conservationists of Florida who came before her, Marjorie Carr's activism stemmed from her appreciation for the state's scenic landscapes. At the beginning of the Carrs' marriage, Marjorie Carr expressed an early interest in establishing a home in rural Florida. One week after their troth pledging ceremony, Carr asked Archie if living close to campus was truly a necessity. "Are there any places a little away from things?" she

¹³ Ibid., 319-23.

inquired. “Wouldn’t prices be lower farther from campus? And you could have a turtle pen.”¹⁴

Archie shared his wife’s distaste for city living. On a research trip to New York City, he complained to Carr that he hated cities “on principle.”¹⁵ Upon their return from Honduras in September 1949, the Carrs fulfilled their dream of living in the country when they decided to raise their family in the small North Central Florida town of Micanopy, located ten miles south of Gainesville, while Archie resumed teaching biology at the University of Florida. In that same year, the department promoted him to full professor, but the family had sold their house when they moved to Honduras and lacked the resources to buy a new one. Instead, they started to build their own house on some forested land near a sinkhole pond they named Wewa, after the Seminole word for water.

The Carr family homestead is located on approximately two hundred acres in Micanopy, a town so small that it made Andy Griffith’s Mayberry seem like a thriving metropolis in comparison. The Carr children came of age in a different world from their suburban school peers in Gainesville. Lacking the commercial and government infrastructure of nearby Gainesville, Micanopy’s charm lay in its rustic location at the edge of Paynes Prairie, where the Carr children were immersed in the beauty of natural Florida.¹⁶ For about a year after the family moved to Micanopy, there was no telephone in the house.¹⁷ The Carrs designed their house with just enough room to accommodate four children. On New Year’s Day 1952, the Carrs welcomed the surprise addition of their fifth and final child, David. (Mimi Carr suspects that her parents

¹⁴ Marjorie Harris Carr to Archie Carr (June 18-19, 1937), in Private Collection of Mimi Carr.

¹⁵ Archie Carr to Marjorie Harris Carr (January 25, 1937), in Private Collection of Mimi Carr.

¹⁶ “Sand in Her Shoes, River in Her Blood,” *St. Petersburg Times*, November 18, 1996; author’s interview with Archie Carr III (March 18, 2009); Graham, Jr., “What Matters Most,” 98-100.

¹⁷ Author’s interview with Mimi Carr (March 6, 2009).

used the rhythm method of birth control.) Carr cared for the children in relative isolation, enjoying a daily routine that was different from those of most other faculty wives in suburban Gainesville.¹⁸

The Carrs owned one automobile in the 1950s, a yellow Dodge truck with a wooden frame around it. Each weekday morning, Archie dropped the school-aged children off at their respective schools in Gainesville on his way to work. By the time Mimi was in junior high school, the daily commute from the country to the city in a truck that was sometimes filled with livestock offended her preteen sensibilities. “I was about twelve years old and I was embarrassed to be riding in the truck to start with,” Mimi explained. One morning she asked her father to drop her off at the corner just before they arrived at school so that her friends would not see her sitting in the front cab with her father and three of her four brothers (David was still too young to attend school). Instead Archie stopped the truck—which he had loaded with two steers from the family’s herd, which he planned to sell in Gainesville—right in front of the school. “And just as we pulled up those poor cows defecated and urine came out all over,” Mimi recalled with horror. “The kids paid no attention to me. They were fascinated with the cows.”¹⁹

At the dawn of the 1950s, Florida—especially the state’s rural areas—was still recovering from the Great Depression. Micanopy’s residents were primarily farmers, a section of the population that felt some of the greatest effects of the Depression. The cottage industry of harvesting Spanish moss for use in stuffing cushions and mattresses still thrived in Micanopy. Archibald (Chuck) Carr III remembers watching men with long poles collecting the Spanish moss from the tall trees lining the Carr estate. Many of his childhood memories highlight the

¹⁸ Author’s interview with Mimi Carr (July 08, 2006).

¹⁹ *Ibid.*

strong presence of wildlife inside and outside his home. The Carrs shared Wewa pond with a female alligator for more than forty years. On one occasion, the alligator treed Archie after he attempted to photograph her, leaving him stranded high in the tree until his wife came home. The Carrs kept a pet otter inside their home. The otter would follow the family on long walks to a nearby creek, where it swam freely before following them back to the house. The young otter practiced swimming in the toilet bowl. Although the Carrs loved snakes—Archie had kept an un-caged boa constrictor as a pet in his office in Honduras—they taught their children to avoid Florida’s venomous snakes and to keep their eyes on the ground when they walked outside. Chuck recalled spotting a large diamondback rattlesnake near the house when he was a child. He ran inside and got his mother, who came out with a double-barrel shotgun and “shot the rattle right off the snake.”²⁰ Mimi recounted a similar occasion when her mother’s talents were required to quell a disturbance among a pack of dogs outside the house. “I remember thinking how brave she was,” Mimi recalled, “going out in her pink nylon pajamas with a broom.”²¹ Carr experienced a strong connection to nature. “Mother was a real naturalist, I think more than my father,” Mimi explained. “I mean to walk with her, she was always so aware of her surroundings. It was just part of her soul.”²²

The Carrs’ return to the States affected the entire family, but the transition had the greatest impact on Marjorie Carr. The scientific partnership she shared with Archie did not come to an end in the 1950s, but it became overshadowed by the responsibilities of caring for a large family. Carr remained involved in zoology as much as she could considering the time

²⁰ Author’s interview with Archie Carr III (March 18, 2009); Archie Carr, *A Naturalist in Florida: A Celebration of Eden*, Ed. Marjorie Harris Carr (New Haven and London: Yale University Press, 1994), 2-9.

²¹ Author’s interview with Mimi Carr (July 8, 2006).

²² Author’s interview with Mimi Carr (July 23, 2005).

constraints of raising five young children without the assistance of domestic servants or relatives. With no relatives living nearby—Carr’s mother lived in Fort Myers at the time, and Archie’s parents remained in Umatilla—Carr devoted the majority of her time to child care and housekeeping. Although biological conservation gradually became the prime focus for the Carrs, they also wanted to provide their children with a stable home life. The Carr children later explained that their parents never tried to force their beliefs on them. “We would talk about biological conservation around the dinner table,” David Carr recalled. “And that was just their normal conversation.” Still, the Carrs encouraged their children to find their own path in life. “I recall them bending over backwards to accommodate whatever interests we might have,” David remembered.²³

Carr devoted as much time as possible to each of her five children, balancing the needs of caring for baby David with leading a Girl Scout troop when Mimi reached Scouting age. Carr served as a Girl Scout leader from 1952 to 1954 in Gainesville. She also helped each of her sons complete the requirements for their Boy Scout nature merit badges. Ever since she had led the summer naturalist tours with the National Youth Administration while in college, she had believed in the importance of educating children about the environment. If people did not learn to appreciate nature as children, she feared, they would be less inclined to act as good stewards for the land as adults. Carr’s Girl Scout troop included her daughter Mimi and several of her friends and schoolmates. She led the girls on nature tours, taught them camping skills, and held meetings in the Carrs’ Micanopy home, where one former Girl Scout recalled that a pet otter, goats, ducks, and other animals wandered freely through the house. The Carrs also had a Mexican burro named Donkey Hotey. The Carr children were aware that their upbringing

²³ “The Family Carr,” *Gainesville Sun*, December 6, 1993.

differed from those of their peers. “We were sort of hermit-like,” Chuck remembered. On weekends, while their schoolmates watched movies at the Florida Theatre in downtown Gainesville, the Carr kids went on nature hikes, fished, and explored the woods together.²⁴ “It was like being landlocked out there [in Micanopy],” David explained.²⁵

The Carrs turned to nature, music, and books for entertainment and inspiration. Archie played the guitar and quoted the Bible by verse. The family listened to records (mostly Latin music and show tunes), but they did not own a television until the mid 1960s. “We could watch the news, and news specials, and a half hour after the news we’d shut it off,” David recalled. “It was to encourage reading and other, more wholesome things, including homework.” Like many Florida households, the Carrs lived without air conditioning throughout most of their children’s youth. Much of their time was spent outdoors. David remembers his father’s fondness for the family’s one-hundred-pound alligator snapping turtle named Jasper, who lived in a small koi pond near the house. “When you’d come home with another kid, Daddy’d be in the kitchen, cutting up strips of calf’s liver,” David recounted. “He’d put it in a coffee cup and go out and dangle it over the pond. He loved to show anybody who came around how he could dangle the calf’s liver over, and this great big turtle would come up.” Archie would howl with laughter as he dropped the dripping meat into the turtle’s mouth, to the amazement of his children’s young friends.²⁶

Although the Carrs were isolated in Micanopy, the idyllic setting of the family homestead provided Carr with a refuge from the social obligations that preoccupied faculty wives living in Gainesville. The daily routines associated with cooking, cleaning, and caring for a family of

²⁴ Author’s interview with Elizabeth Powell (March 11, 2006); author’s interviews with Mimi Carr.

²⁵ *Gainesville Sun*, December 6, 1993.

²⁶ *Ibid.*

seven consumed much of Carr's time, but being removed from the Gainesville social scene freed her to pursue intellectual activities. During the four-and-a-half years she spent in Honduras, Carr had become accustomed to spending her time with Archie in the outdoors, working on her specimen collection indoors, and reading. By comparison, the move to Micanopy made Carr less of a recluse than she had been in Honduras. She and Archie spent much of their free time reading books that shaped their growing conservation ethos, including Fairfield Osborn's 1948 book *Our Plundered Planet*; Aldo Leopold's 1949 book *A Sand County Almanac*; Rachel Carson's 1962 book *Silent Spring*; Eugene P. Odum's 1953 book *Fundamentals of Ecology*; Marston Bates's 1955 book *The Prevalence of People and Man in Nature*, published in 1961; Barry Commoner's 1966 book *Science and Survival*; Raymond Dasmann's 1959 book *Environmental Conservation and A Different Kind of Country*, published in 1968; and Paul Ehrlich's 1968 book *The Population Bomb*.²⁷ Each of these books examined the growing threat that humans posed to the environment through overpopulation and the manipulation and exploitation of nature. These works also stressed scientists' social responsibility, emphasizing their obligation to provide the citizenry with accessible scientific information that would help them make responsible decisions for the planet. Carr would later convince the authors of several of these groundbreaking environmental works to lend their support to the campaign to save the Ocklawaha River.²⁸

²⁷ Archie Fairly Carr, "Thirty Years with Sea Turtles: Perspectives for World Conservation," Fairfield Osborn Address, in Archie F. Carr, Jr. Papers, Department of Special and Area Collections, George A. Smathers Library, University of Florida, Gainesville, Florida.

²⁸ Chapter six addresses the scientific community's support for Florida Defenders of the Environment's opposition to the construction of the Cross Florida Barge Canal. Bates, Ehrenfeld, Odum, Commoner, Dasmann, and Ehrlich were among the prominent authors who lent their names to a January 27, 1970 letter to President Richard Nixon signed by more than one hundred and fifty scientists. The letter, orchestrated by Marjorie Carr, requested that Nixon take action to save the Ocklawaha River from catastrophic environmental damage.

The Carr family's Micanopy retreat was intended to serve as a source of inspiration for Archie's writing. In addition, it furthered the development of the Carrs' conservation ethos and provided a constant source of entertainment and education for their children. David, the baby of the family, required his mother's attention more than the four older Carr children, who were like a tribe, Chuck observed. The Carrs' rural homestead and the many lakes, ponds, and creeks that surrounded it functioned as an expansive playground for the Carr kids. When Archie traveled to the Caribbean, Brazil, West Africa, or Portugal to research the breeding grounds and migration patterns of sea turtles, Carr was sometimes left alone with the children for weeks or months at a time (although she and the children accompanied Archie on several trips to Costa Rica). Between June and September 1952, Archie traveled to the Shire River Valley of Nyasaland in East Africa to take part in a medical survey of insects. During Archie's lengthy research trips, Carr used nature as an ally to keep the children occupied. She took the family to the University of Florida-owned Lake Wauburg (at Paynes Prairie), where the children swam and played along the shore for hours while Carr read the latest works in the biological sciences and conservation.²⁹

Carr learned to manage her time carefully so that she could blend parenting with professional and volunteer work. Soon after returning from Honduras, she started to catalogue the bird skins she had donated to the Florida Museum of Natural History and the University of Florida's biology department beginning in 1947.³⁰ Carr had amassed a sizable collection of more than 2,000 tropical birds in Central America. She had an advanced degree in zoology, had

²⁹ Author's interview with Chuck Carr (March 18, 2009); author's interview with Mimi Carr (March 07, 2007); Archie Carr's curriculum vitae, J. C. Dickinson, Jr. Papers, Florida Museum of Natural History, Dickinson Hall, University of Florida.

³⁰ H. B. Sherman (Acting Head of Biology Department) to Marjorie Harris Carr, May 1, 1947, J. C. Dickinson Papers, Florida Museum of Natural History, University of Florida. Sherman thanked her for a gift of seventy study skins collected in Honduras. "The species included in this gift are with only a few exceptions new to our collection and form a valuable addition," he informed Marjorie.

published in the field, and was an expert in Florida and Central American ornithology. Carr's work had been incorporated into the ornithology collections of the Escuela Agrícola Panamericana in Honduras; the acclaimed American Museum of Natural History in New York City; and the Museum of Comparative Zoology at Harvard University.³¹

In March 1954 John Allen, Interim President of the University of Florida, invited Carr to join the Board of Associates of the university's Florida State Museum of Natural History (now the Florida Museum of Natural History). "As an Associate of the Museum," Allen informed Carr, "you would be in a position to help in the task of its reorganization and would also find its facilities at your disposal for the furtherance of your own studies. The association would appear to be mutually beneficial, since it would promise to contribute to the advancement of Ornithology here."³² Although the associate position did not come with a salary or stipend, it provided Carr with an institutional affiliation that helped to advance her career. J. C. Dickinson, Jr., then serving as the museum's curator of biological sciences (five years before becoming its director), said the board of associates rarely held official meetings, which accommodated Carr's active home life. At this point the museum had already acquired 1,000 of her Honduran bird skins. Carr's work was considered to be of the highest quality, and many of the specimens she preserved were rare or had not been discovered before. Although Archie's clout and international reputation likely played a role in convincing the administration that Marjorie Carr would be a worthy addition to the board, his wife's sizable donation of scientific skins improved the museum's collection greatly. In addition, she was already an experienced board member,

³¹ Marjorie Carr began donating to these museums while she was living in Honduras. When Marjorie first began collecting there, she discovered species that had not yet been catalogued in natural history museums. She shipped her early skins directly to Thomas Barbour at Harvard, who kept many specimens for the Museum of Comparative History and forwarded others to the American Museum.

³² Letter from Vice President John S. Allen to Marjorie Harris Carr, March 20, 1954, J. C. Dickinson Papers, Florida Museum of Natural History, Dickinson Hall, University of Florida.

having served on the board of directors of the Gainesville Garden Club. Carr's formal affiliation with the Florida Museum of Natural History bestowed her with a level of prestige and professional autonomy that distinguished her from her faculty wife peers.³³

After joining the board of associates at the Florida Museum of Natural History, Carr assisted with the process of relocating and reconceptualizing the museum, which moved from the flooded basement of the Seagle Building in downtown Gainesville to the University of Florida campus. By this point the four oldest Carr children had reached school age, but David was still at home. Whenever she could get Archie to watch David, Carr would head to the museum to catalogue specimens and contribute to the museum's transition. Although a professor's schedule tends to be somewhat flexible, Archie supplemented his regular teaching and research duties with substantial writing projects. Between 1952 and 1956 alone, he published three books: *Handbook of Turtles*, *High Jungles and Low*, and *The Windward Road*. This high level of productivity left Archie with very little time to assist Carr with child care duties. Much of Archie's time at home was spent writing, and he complained to J.C. Dickinson, Jr. that this was an extremely difficult task to accomplish with a large family. Still, Archie enjoyed spending time with the children in the garden and wooded grounds outside their house. He taught them to decipher different frog songs and insect chirps as they explored the woods together. The Carrs instilled an appreciation of Florida's flora and fauna in their children, as their parents had done for them. The abundant wilderness that surrounded their home functioned as an outdoor laboratory for Marjorie and Archie Carr and an amusement park for their children.³⁴

³³ Author's interview with Dr. J. C. Dickinson, Jr. (February 22, 2008); Thomas Barbour Papers (in Private Collection of Mimi Carr); Marjorie Carr's Honduras correspondence (in Private Collection of Mimi Carr).

³⁴ Archie Carr to J. C. Dickinson, Jr., October 1, 1948, J. C. Dickinson, Jr. Papers, Florida Museum of Natural History, Dickinson Hall, University of Florida.

In August 1956, the Carr family relocated to Costa Rica, where Archie established a research station at Tortuguero and served as a technical advisor and director of the biology department at the University of Costa Rica through November 30, 1957.³⁵ Marjorie Carr taught biology and chemistry in English at the Escuela Metodista. The Carrs' sabbatical in Costa Rica was not as luxurious as their stay in Honduras. Costa Rica's hot, sandy climate was less hospitable than the temperate Honduran mountains. Whereas the Carrs had enjoyed the assistance of a team of servants in Honduras, in Costa Rica their only servant was a part-time laundress. Most of Carr's time was consumed by the responsibilities of teaching, which was an ideal profession in Costa Rica since she could work while her children were in school. This would be the last time the Carrs would uproot their family. Archie normally traveled alone on subsequent international trips while the children were still living at home, but Carr continued to assist him with research at Tortuguero, where they monitored nesting green sea turtles. They published their findings jointly in several prestigious scientific journals.³⁶ Upon reaching age twelve or thirteen, each of the Carr children spent a couple of summers at their parents' research station on the Costa Rican coast.³⁷

By December 1957, when the Carr family returned to Micanopy, all five of their children had reached school age, which freed Carr to engage in volunteer work during the daytime. One

³⁵ Author's interview with Archie Carr III (March 18, 2009); Archie Carr's curriculum vitae, J. C. Dickinson, Jr., Papers, Florida Museum of Natural History, Dickinson Hall, University of Florida; Graham, Jr., author's interview with David Godfrey (December 19, 2008); "What Matters Most;" and Caribbean Conservation Corporation website, <http://www.cccturtle.org/aboutccc.php> (accessed March 22, 2009).

³⁶ Author's interview with Mimi Carr (March 7, 2007). Marjorie Carr's joint publications with Archie Carr include "Modulated Reproductive Periodicity in *Chelonia*," *Ecology* 51 (2): 335-337, 1970, 2 tpls.; "Recruitment and Remigration In a Green Turtle Nesting Colony," *Biological Conservation*, 2 (4): 282-84, 1970, 3 tpls., 1 fig.; "Site Fixity In Caribbean Green Turtles," *Ecology* 53 (3): 425-29, 1972; and "The Ecology and Migrations of Sea Turtles: The West Caribbean Green Turtle Colony," *Bulletin of the American Museum of Natural History* 162 (1978), with Archie Carr and Anne B. Meylan.

³⁷ *Gainesville Sun*, December 6, 1993.

of her first acts was to pressure Micanopy's town council to preserve the towering canopy of live oaks that shaded the historic downtown streets. She convinced town leaders to designate the Spanish moss-covered trees as "wards of the town," which protected them and the nearby nineteenth-century shops from demolition. Developers erected modern buildings in other sections of Micanopy, but Carr's beautification work helped preserve the historic charm of the pedestrian friendly downtown. An avid reader, she also worked to expand the small town library's natural history and literature collections.³⁸

Carr soon moved from beautification work to larger conservation projects. Her first major project proved to be a painful failure. As the Dwight Eisenhower Interstate system expanded across the nation, several parcels of rural Micanopy farmland lay in the proposed path of Interstate 75, a highway that would connect South Florida to North Florida (and extend as far north as Michigan). Archie's longtime friend and former colleague Leonard Giovannoli (whose Key West Aquarium position intrigued Marjorie in 1937) informed the Carrs that the proposed route for Interstate 75 would cross their Micanopy property and divide nearby Paynes Prairie. The local courts designated the Micanopy parcels as farmland for the purpose of compensating landowners. Before the Carrs bought their homestead, it had been used for tobacco farming. Yet the Carrs had purchased the land as a nature retreat where Archie could write and they could raise their children in natural surroundings.³⁹

Carr decided to take a stand against the construction of Interstate 75 through sections of Micanopy and Paynes Prairie. Archie was busy writing *The Windward Road*, and he decided not to get involved in what he was certain would be a losing battle. Although Carr realized there

³⁸ Author's interviews with Mimi Carr.

³⁹ Author's interview with Archie Carr III (March 18, 2009).

was no stopping the multi-billion-dollar Eisenhower Interstate highway program—which funneled nearly two hundred million dollars into Florida during the first three years of construction—she wanted to voice her opposition to highway planners’ decision to build the road through Micanopy, Paynes Prairie, and her own backyard. At this point in their careers, Archie’s conservation activities were primarily limited to his writing and academic research, but Carr’s approach was becoming more confrontational and political in nature. She went to court to challenge the state’s classification of all of the Micanopy lands that the Interstate would cross as farmland. She sought a higher rate of compensation for the fifteen acres of her family’s homestead that had been condemned for the purpose of building the Interstate.⁴⁰

“My mother went to the judge here in Gainesville, and made this appeal that it wasn’t just rural farmland as far as she, and especially her husband, was concerned,” Chuck explained. “It was a wild area, and it was bought for a higher use than just watermelon farms and cattle. It was a retreat for a man whose writing was very important to his income, if you will. She made this case, and the judge rejected her argument. And I have this vivid memory of her at the stove that evening, and there are tears in her eyes. Then she explained this thing, and it was the first time I had ever seen my mother defeated by any damn thing. It left an impression about my mother, and about challenging the system, and about the power of the U.S. government, and a whole lot of things.”⁴¹ The standard procedure for right-of-way acquisition was for the state to pay property owners for the condemned land. Because the federal government reimbursed the state for only ninety percent of the cost of the right-of-way, the judge was reluctant to reimburse the

⁴⁰ *Gainesville Sun*, December 6, 1993. The cost of the Eisenhower Interstate highway program is examined in “Skyway Financing Scheme without Justification,” *St. Petersburg Independent*, April 18, 1958; for a summary of the right-of-way compensation process, see “All’s Not Rosy: Here’s Some of the More Darker Corners,” *Times Daily*, October 25, 1960.

⁴¹ *Gainesville Sun*, December 6, 1993.

Carrs at a higher rate than what had already been determined to be adequate compensation for Micanopy farm land. By the time Interstate 75 opened in 1964, almost fifteen acres of the Carrs' peaceful nature retreat were interrupted by the incessant noise of high-speed traffic along Interstate 75. In that same year, eighteen thousand snakes were killed by automobile traffic along Paynes Prairie.⁴²

To Marjorie Carr, the tremendous noise pollution from Interstate 75, which crossed the Carrs' homestead and isolated approximately ten acres of their land, was a daily reminder of the mounting threat Florida's rapid postwar development posed to the state's rural areas. Although the construction of Interstate 75 forever altered the bucolic setting of the family's nature retreat, it also steeled Carr's resolve and prompted her to fight future proposals to build new highways in Central Florida. One of Carr's later and more successful campaigns against the construction of a major highway project was conducted through Florida Defenders of the Environment (F.D.E.), the environmental interest group she cofounded in 1969 to save the Ocklawaha River from the Cross Florida Barge Canal. Carr and F.D.E. argued that a proposed three hundred and eighty-five million dollar turnpike linking Jacksonville to Tampa was not necessary. She contended that the Department of Transportation had not proved that a new road was warranted or that existing roads could not be upgraded. "The Florida Defenders of the Environment decries the lack of planning and public input that has gone into justification of this project and the process of route selection," she announced at a 1988 press conference, adding that F.D.E. "advocates the development and publication of a plan that demonstrates integration of all the available modes of transportation in response to perceived needs of the future." Select city and county governments opposed specific road corridors, but at the time, F.D.E. was the only organization to challenge

⁴² Ibid.; *St. Petersburg Independent*, April 18, 1958; *Times Daily*, October 25, 1960.

the overall concept of building a new turnpike. The turnpike would have passed through Micanopy, which was already traversed by Interstate 75 and the four-lane State Road 441, both of which had had a negative impact on the wildlife and habitats of Paynes Prairie. The proposed turnpike would have reduced travel time between Jacksonville and Tampa by one hour; in the process, it would have passed through several environmentally sensitive areas in Central and North Central Florida. One proposed route would have placed the turnpike close to Gainesville and Micanopy, making it possible that Paynes Prairie would be interrupted by a third major highway.⁴³

In response to mounting opposition to the proposed turnpike, state Department of Transportation officials admitted they had attempted to proceed too quickly and with too little public input into the planning process. In an attempt to speed the process of planning and building the turnpike, the D.O.T. canceled a series of public hearings, which incited greater outrage amongst opponents of the project. State Department of Transportation Secretary Kaye Henderson admitted that the state had made several mistakes in the planning process for the proposed toll road. He apologized for the agency's "errant judgment" and decided to delay the completion of the feasibility study indefinitely until public concerns were satisfied. Turnpike opponents criticized the D.O.T.'s decision to build the road through the nine-thousand-acre Ordway/Swisher nature preserve in Putnam County, through numerous Marion County horse farms, and through an Ocala subdivision. Henderson vowed to keep the public better informed

⁴³ "Environmental Group to Fight Tampa-Jacksonville Turnpike," *St. Petersburg Times*, November 25, 1988; "State Ponders Building a Turnpike between Jacksonville and Tampa," *Gainesville Sun*, May 15, 1987.

about proposed turnpike routes through a series of public hearings, but opponents demanded an end to the project.⁴⁴

“I think the recent excitement over the proposed cross-state toll road points up one entire area that has not been addressed,” Carr said. “It is very important that we begin to plan for transportation of human beings and goods for the future in an efficient, environmentally sound way. We need to make those plans now.... We are losing large amounts of undeveloped land.... People do like to have a way to get from here to there. But you don’t need three ways to get from here to there. And you don’t need to get there a few minutes sooner. I think that’s what people are getting upset about, the redundancy.” Asked if she opposed the very idea of the turnpike, or just the proposed routes, she answered, “I see no reason for it. They [D.O.T.] have not presented any valid arguments for it.”⁴⁵

Carr joined the president of the Marion County Audubon Society and the president of the national Nature Conservancy in expressing their opposition to the proposed turnpike in a series of letters to Attorney General Bob Butterworth. In response, Butterworth—who faulted Henderson for botching early planning for the turnpike—criticized him for spending state funds to develop new roads without first demonstrating the need for them, especially since the state’s road-building program faced serious financial difficulties. Butterworth recommended that the D.O.T. make improvements to U.S. 301, Interstate 75, and other existing roads instead of building a toll road. Echoing environmentalists’ concerns, Butterworth stressed that the proposed turnpike would open undeveloped, environmentally sensitive rural areas for development. He asked Henderson for documentation that the road was needed. In March 1989,

⁴⁴ “The Incredible DOT,” *Gainesville Sun*, December 1, 1988; “Area Residents give DOT Plan a Cool Reception,” *Ocala Star-Banner*, December 16, 1988; “Toll Road Study Deadline Extended,” *Ocala Star-Banner*, December 16, 1988.

⁴⁵ “Managing Growth in State Leads Environmentalist’s Concerns,” *Gainesville Sun*, December 11, 1988.

the D.O.T. halted all work on the road and decided not to include it in the state Turnpike Authority's five-year plan for construction. In September 1989, Henderson resigned. He started a new position as a lobbyist for an engineering consulting firm that had been awarded D.O.T. contracts totaling forty-seven million dollars in four years, an amount that was more than three times the amount of its closest competitors.⁴⁶

The primary motivation for building the Jacksonville-Tampa turnpike was money. Preliminary reports indicated that the proposed turnpike would generate approximately five hundred and twenty-eight million dollars over fifteen years. Henderson, a major financial contributor to Bob Martinez's successful 1986 gubernatorial campaign, was appointed Secretary of the D.O.T. after Martinez won office. At the time, the Miami-to-Wildwood main line of the Florida Turnpike was paid off, and the turnpike produced one hundred and thirty-one million dollars in annual revenue. Henderson and Martinez planned to expand the state's toll roads to generate additional revenue, but by 1988 a cash shortage forced them to find new sources of construction funding. The Republican governor opposed a gas tax increase; instead he and Henderson planned to borrow against the annual Florida Turnpike revenue to construct new toll roads. Martinez and his allies pushed for nearly two and a half billion dollars in turnpike expansion projects through the regular 1989 legislative session and three subsequent special sessions. Although Carr had been unable to stop the construction of Interstate 75 through Micanopy and Paynes Prairie, this time her successful leadership of the anti-turnpike movement prevented the D.O.T. from building an unnecessary toll road designed to generate income at the expense of ecologically sensitive areas.⁴⁷

⁴⁶ "Butterworth is One of Many against Road," *Ocala Star-Banner*, March 1, 1989; "Ex-DOT Head's Firm Gets State Bonanza," *Ocala Star-Banner*, October 11, 1990.

⁴⁷ *Ocala Star-Banner*, October 11, 1990.

Carr had revealed the main driving force behind the construction of toll roads in undeveloped areas. In addition to generating revenue through tolls, the proposed turnpike would have opened rural lands for development. The Jacksonville-Tampa turnpike extension would have transformed Micanopy's historic district into a truck stop. For the most part, Micanopy has resisted the type of development that normally accompanies major highways. Today a few small businesses line the Micanopy stretch of U.S. 441, including Pearl Country Store & Barbecue, a gas station and convenience store with a hometown atmosphere. A sign with the letters "BBQ" inside a neon outline of a pig lights up the store window. Pearl, which David Carr and his wife Peggy purchased in 2002, offers country breakfasts, boiled peanuts, Florida nature guides, the New York Times, and Wi-Fi access, which makes it arguably the most cosmopolitan feature of Micanopy. Pearl also boasts a self-serve copy machine, which would have pleased David's mother, since Micanopy had no copy machine in the early years of her campaign to save the Ocklawaha River. The pedestrian-friendly, historic downtown area still has no traffic lights, gas stations, fast food chains, or convenience stores. Several small antique shops, an ice cream store, and an independent book store without air conditioning are among downtown Micanopy's offerings. Micanopy's historic charm led to its selection as the location for the 1991 film *Doc Hollywood*, in which Michael J. Fox plays a big city doctor who must adjust to life in a small town.

In contrast to Micanopy's historic downtown area, the garish adult entertainment complex Café Risqué dominates the scenery near Interstate 75. Other businesses near the Interstate exit include a couple of gas stations, a Knights Inn hotel, a fireworks store, and Smiley's antique mall, which competes with the downtown antique stores. Several closed gas stations and restaurants near Micanopy's Interstate 75 exit attest to the challenges faced by local

businesses that must contend with the greater number and more appealing variety of restaurants, strip malls, and gas stations within a stone's throw of nearby Gainesville's four Interstate exits. The majority of the travelers along Interstate 75 pass through North Central Florida without noticing Micanopy. Most tourists' only contact with the town comes through their exposure to the many brightly colored billboards featuring pictures of sultry women with the Café Risqué motto "We Bare All" announcing the presence of the town's most infamous attraction. Located approximately two hours from the major metropolitan centers of Jacksonville, Tampa, Orlando, and the Atlantic beaches, Micanopy has escaped the development that would have accompanied the proposed Jacksonville-Tampa turnpike extension.⁴⁸

After the failure of Marjorie Carr's first attempt to oppose the construction of an interstate highway across environmentally sensitive lands, she came to appreciate the importance of collaborating with established statewide and national organizations. She channeled her subsequent conservation activities through the Gainesville chapters of the Garden Club and Audubon Society, which had a powerful statewide and national infrastructure that aided Carr and other conservationists in their local campaigns. As an officer and board member of the Gainesville Garden Club and Alachua Audubon Society—which she cofounded along with David Anthony and others in 1960—Carr worked closely with University of Florida experts and government officials on a variety of local conservation projects. She served on the board of directors of the Gainesville Garden Club—whose membership was mostly female—from 1958 through 1962. In contrast, the majority of the Alachua Audubon Society members were professional men, including faculty from the University of Florida and prominent local

⁴⁸ "Restoring Heritage: Barbecue, Breakfast Attract Local Crowd," *Gainesville Sun*, November 18, 2002.

businessmen. Carr served as president and a longtime board member of the Alachua Audubon Society.⁴⁹

As the Carr children witnessed the emergence of their mother's activist career, they offered their support. Combining full-time conservation work with the demands of caring for a large family was a challenge.⁵⁰ Carr scheduled face-to-face meetings when her children were in school and conducted other business at home over the telephone. The Carrs' conservation activities were a regular topic of dinnertime conversation. Although the children did not always understand all of the scientific terms and theories their parents discussed at the dinner table, these talks shaped their understanding of the world and encouraged them to become involved in conservation, first through their mother's projects and later in their own professional and volunteer activities.⁵¹

Marjorie Carr's first major project with the Gainesville Garden Club involved the preservation of Paynes Prairie, a 17,346-acre prairie made famous by the naturalist William

⁴⁹ Harold L. Platt has shifted the dialogue regarding Progressive women's activism away from domesticity, describing the work of Jane Addams and other female reformers as environmental in focus. Instead of basing their decades-long battle for municipal reform in Chicago's slums on their presumed moral superiority to corrupt male politicians, Addams, Florence Kelley, and other well-educated, middle-class women reformers (including two women with doctorates) developed new forms of social science and public health analysis to improve living conditions for the city's working-class immigrant population. Platt reframes their work as a pioneering form of environmental justice—urban environmentalism. Addams and her allies battled a corrupt municipal system based upon the “paternalistic benevolence” of machine politics and graft. In the process, they shifted public discourse away from prevailing nativist, xenophobic views of immigrants as ethnic “others” who were responsible for their own poverty and fatal diseases; to the language of class, which identified municipal policies that favored tenement slumlords over residents and condoned irresponsible public health and workplace standards as the source of immigrants' horrific living and working conditions. See Harold L. Platt, “Jane Addams and the Ward Boss Revisited: Class, Politics, and Public Health in Chicago, 1890-1930,” *Environmental History* 5 (April 2000), 194-222.

⁵⁰ Rachel Carson adopted her nephew, but she never married. She, Marjory Stoneman Douglas, and Marjorie Kinnan Rawlings maintained their independence emotionally and financially. Marjorie Harris Carr is unique in the sense that she married a fellow scientist and conservationist who supported her activist career. As the mother of five children, Carr sacrificed the financial independence the aforementioned environmentalists and writers experienced, but she gained the emotional support of a close-knit family; the financial support of a professor husband; and, perhaps most importantly, the intellectual support of a husband who supported her activist work financially and by offering his scientific expertise publicly and privately.

⁵¹ Author's interview with Archie Carr III (March 18, 2009).

Bartram in the late eighteenth century. The Carrs had read Bartram's *Travels through North and South Carolina, Georgia, East and West Florida* and considered Paynes Prairie (which Bartram had dubbed the Great Alachua Savanna) to be a natural treasure. In 1964, Archie provided an ecological description of the prairie in *Ulendo*:

“Paynes Prairie is fifty square miles of level plain in north-central Florida let down in the hammock and pinelands south of Gainesville by collapse of the limestone bedrock. It drains partly into Orange Lake to the south and partly into a sinkhole at its northeast side. The sink used to clog up occasionally, and for years or decades the prairie would be under water. The people called it Alachua Lake in those times and ran steamboats on it...Nowadays the prairie is mostly dry, with shallow ponds and patches of marsh where ancient gator holes have silted up but never disappeared, and with patches of Brahma cattle here and there out into the far spread of the plain, like antelope in Kenya. The prairie is about the best thing to see on U.S. Route 441 from the Smoky Mountains to the Keys, though to tell why would be to digress badly. But everybody with any sense is crazy about the prairie. The cowboys who work there like it and tell with zest of unlikely creatures they see—a black panther was the last I heard of—and people fish for bowfins in the ditches. There used to be great vogue in snake catching on the prairie before the roadsides became a sanctuary. People from all around used to come and catch the snakes that sunned themselves along the road shoulders. When William Bartram was there the prairie wrought him up, and his prose about the place was borrowed by Coleridge for his poem ‘Kubla Khan.’ The prairie has changed since then, with all the wolves and Indians gone. But still there are things to make a crossing worth your while, to make it, as I said, the best two miles in all the long road south from the mountains.”⁵²

⁵² Archie Carr, *Ulendo: Travels of a Naturalist In and Out of Africa* (Gainesville: University Press of Florida, 1993), 160-61. Originally published by Alfred A. Knopf (1964).

Long ago, massive pachyderms, llamas, several varieties of camel, bison, sloths, glyptodonts, and giant tortoises and the robust insects they fed upon roamed the prairie.⁵³ Archie traveled past the prairie daily on his way to and from the University of Florida. On one occasion he spotted seven hundred and sixty-five snakes during one crossing, but today travelers are unlikely to find even one snake traveling along the road.⁵⁴ Although the increased traffic from U.S. 441 and Interstate 75 has played a significant role in the dramatic decline in the population of native snakes, Archie blamed the reintroduction of the armadillo for much of the damage. Although Florida's native armadillo species had become defunct, no more than thirty or forty nine-banded armadillos from Central 1920s. Since then they have spread across the state and into neighboring states, earning the unfortunate distinction of becoming the most common form of road kill.⁵⁵

The armadillo, with its protective armor, has few predators in Florida. Those who are able to penetrate its tough exterior include panthers, bobcats, and bears, whose numbers are not strong enough in the state to keep the armadillo population under control in Florida's altered ecosystem. So the nine-banded armadillo remains free to wreak havoc in peninsular Florida. They dig their burrows under orange trees, drying out the roots and destroying them. The armadillos also destroy the forest floor, whose rich layers are home to an important mixture of mold, organic debris, organic soil, and mineral sand, making the floor unsuitable for life. As a result, the state's insect, lizard, salamander, and snake populations have experienced a

⁵³ Ibid., 205-6.

⁵⁴ Ibid., 161.

⁵⁵ Graham, Jr., "What Matters Most," 92; Archie Carr, "Armadillo Dilemma," in Marjorie Harris Carr, Ed., *A Naturalist in Florida: A Celebration of Eden* (New Haven and London: Yale University Press, 1994), 204-5.

catastrophic decline in regions inhabited by the armadillo. The reintroduction of one species, Archie lamented, spoiled the natural world in a very subtle yet profound way.⁵⁶

In the 1930s, the armadillo had not reached Alachua County. Even in the 1940s, Archie and his students and colleagues could collect a wide assortment of snakes on the prairie, which was visited by herpetologists from around the globe due to its reputation for snakes.⁵⁷ “But I drove around here one day last week, made a complete loop, and didn’t see a single snake,” Archie reported in 1982, “where forty years ago, even twenty years ago, there would have been two hundred. There aren’t any! I haven’t seen one here in ten years. It seems odd that the only snakes I see anymore in Paynes Prairie are big, six-foot diamondback rattlers,” he complained. “Some say that’s because rattlers live in the holes made by the armadillos.” Archie shot any armadillo he saw near his home in Micanopy, leaving the carcass on the ground to attract bald eagles.⁵⁸

The danger the armadillo poses to Paynes Prairie is matched by the greater threat of development. The prairie was purchased for industrial development at the turn of the century, but through a series of mishaps, it remained relatively undisturbed when Marjorie Carr spearheaded its preservation 1957. Phosphate mine owner William Camp, who was one of Florida’s biggest land owners (in 1907 he owned 150,000 acres of Florida real estate), bought prairie because he wanted to plug Alachua Sink, recreate Alachua Lake, and harness the lake’s overflow to produce electricity. Soon after purchasing the prairie, Camp discovered that the plan to flood the prairie was too costly, so he abandoned it. While he was deciding how to derive the most profit from his property, Camp rented grazing rights to cattle ranchers. Since flooding the

⁵⁶ Archie Carr, “Armadillo Dilemma,” 206-9.

⁵⁷ Graham, Jr., “What Matters Most,” 91.

⁵⁸ Graham, Jr., “What Matters Most,” 92.

prairie was not cost effective, Camp's next plan was to drain it. Gainesville's city leaders were thrilled with the plan to drain the prairie, but the industrialist died two weeks after discussing the plan with them. Camp's son Jack inherited prairie and continued his father's practice of renting it out to cattle ranchers. Jack began raising his own livestock and soon had a herd of 3,500 cattle that gave birth to 2,000 additional calves each year. Nonetheless, the younger Camp decided it would be more lucrative to follow through with his father's plan to drain the prairie. When Micanopy's town leaders learned of Camp's plan in 1919, they considered draining Orange Lake and Tuscawilla Lake for development. The water from these lakes would join be channeled—along with water drained from the prairie—into the Ocklawaha River, transforming 150,000 acres of “bad lands” into an area suitable for development. Interest in draining the lakes eventually waned, but Camp was still interested in draining the vast prairie. In 1926, local support for draining increased as U.S. 441 (the “Dixie Highway”) was constructed on Paynes Prairie. Although the outrage Micanopy citizens expressed over the plan to drain the town's nearby lakes pressured town leaders to abandon the idea, the prairie was privately owned, so Jack Camp did not face the same obstacles to his plan to drain the prairie. By 1931, Camp had nearly completed the drainage process. Occasional flooding resulted during heavy rains, but in time the canals did their job and the prairie became dry again.⁵⁹

Camp had free reign over Paynes Prairie until the Gainesville Garden Club—with Carr's assistance—embarked upon a public education and conservation initiative.⁶⁰ The Florida Department of Transportation had launched a program of setting aside roadsides as preserves. Carr and others set aside roadside of U.S. 441 through Paynes Prairie as a preserve. Prairie was

⁵⁹ Lars Andersen, *Paynes Prairie: A History of the Great Savanna* (Sarasota, Florida: Pineapple Press, 2001), 128-39.

⁶⁰ *Ibid.*, 134.

privately owned, so preserve designation applied only to areas immediately adjacent to the highway. In 1970 Florida Dept. of the Environment bought the rest of Paynes Prairie and established it as a state park. Four years later, the prairie was designated Florida's first official wildlife sanctuary. Yet at that point the sanctuary only protected a small stretch of land immediately adjacent to the span of U.S. Highway 441 as it crossed the prairie because the majority of the prairie still remained in private hands.⁶¹ "Mr. Camp, who owned the prairie, said, 'Absolutely delightful!'" Carr recalled. "'And if anybody steps off your preserve onto my land, I'll shoot them.'"⁶²

Jack Camp's wrath was not the only thing that stood in the way of the transformation of the entire prairie into a wildlife preserve. Alachua County Commissioner Edgar Johnson championed a proposal to flood the prairie and revive the defunct Alachua Lake was given serious consideration. The idea of conservation and protection of a unique prairie and wildlife sanctuary lost support among many Gainesville and Alachua County citizens and developers who would have preferred to see the development of a lake for fishing and tourism. Even some members of the Gainesville Garden Club and Alachua Audubon Society approved of the plan. The proposal to flood the prairie eventually ran out of steam after the county commission denied funds for a feasibility study.⁶³

Paynes Prairie's fate ultimately rested in the hands of the state. In 1963, Florida established a pioneering land conservation program with a "bathing suit tax" on outdoor clothing and equipment. In 1968, Republican governor Claude Kirk replaced that tax with a documentary stamp tax that funded the state's land conservation program with proceeds from all land

⁶¹ Andersen, *Paynes Prairie*, 134-39; Everett Caudle interview with Marjorie Harris Carr.

⁶² Everett Caudle interview.

⁶³ Andersen, *Paynes Prairie*, 129-39.

transactions in Florida. The documentary stamp tax, which was later bolstered by the passage of the Florida Land Conservation Act in 1972, evolved into Florida Forever, the nation's largest land-buying program. Florida Forever provides state monies to purchase state forests, state and local parks, water management district lands, and state wildlife preserves, banning development on these lands permanently. The program also negotiates preservation agreements with private land owners.⁶⁴

In 1970, the State of Florida used funds from its land conservation program to purchase Paynes Prairie from Camp for \$5.1 million, transforming it into Paynes Prairie State Preserve. The state proceeded to restore the prairie's native flora and fauna, as much as possible, using Bartram's *Travels* as a guide. Several of the species Bartram described had become extinct or only existed elsewhere in Florida by the 1970s, but the state made every effort to restore the prairie's original flora and fauna, including reintroducing bison in 1975. Other species Bartram sketched and described in his *Travels* include wild horses, originating from horses the Spaniards brought to Florida in the sixteenth century; bison; an diverse assortment of reptiles, amphibians, and birds; the Florida panther (which abandoned the prairie and have not been reintroduced to the prairie); and other species. The state also purchased a stretch of railway line that ran through the prairie and converted it into hiking trails. Human-made canals and ditches have been harder to eliminate. Today Paynes Prairie is a 21,000-acre state park and wilderness preserve with open uplands, wetlands, freshwater marshes, and wet prairie.⁶⁵

⁶⁴ "Recharging Florida Forever: Rising Land Prices and a Flat Budget Have Eroded the State's Leading Conservation Program," *Florida Trend*, October 1, 2006; "Florida Could Run Out of Land-Buying Money by Oct. 1," Bruce Ritchie, *Environmental News from Florida's Capital*, August 20, 2009, http://bruceritchie.blogspot.com/2009_08_01_archive.html (accessed April 1, 2010).

⁶⁵ Andersen, *Paynes Prairie*, 134-39.

In the late 1960s, while Carr was working to convince the State of Florida to take action on Paynes Prairie, another one of Gainesville's most important environmental treasures was also at risk. The Carrs had enjoyed viewing the diverse wildlife of Lake Alice on the University of Florida campus since the 1930s. Archie's students wrote ecological descriptions of the Lake Alice ecosystem, wading past alligators while conducting their research. Lake Alice and Bivens Arm Lake (near Paynes Prairie) were among the bodies of water the Carrs visited most. In an essay written shortly before the university community discovered that Lake Alice was being considered as the site of a cross-campus throughway, Archie described the sad state of the lakes he had explored for decades. "Both used to seem to me to rank among the wonders of the world," Archie reflected, "and much of their old magic is gone. Water hyacinths, in the virulent phase they get into when they grow near civilized man, were the chief cause of the sad change."⁶⁶ Sewage and agricultural runoff had polluted both lakes, adding substantial doses of nitrogen and phosphorous, which caused devastating plankton blooms or submerged plants that depleted the lakes' oxygen levels. Tens of thousands of fish floated to the top of the lake, followed by the growth of a thick blanket of water hyacinths. Occasionally university and city of Gainesville officials sprayed herbicides on the hyacinths in Lake Alice and Bivens Arm. The hyacinths died, sank to the lake bottom, and created a different form of pollution that further decimated the biota of the lakes. Regular poisoning eventually killed off the hyacinths at Bivens Arm Lake, which also produced the unintended consequence of distorting the ecology of the lake. The high levels of nitrogen and phosphorous at Lake Alice continued to support the growth of water hyacinths, however, essentially hiding the lake beneath for a period of several years.⁶⁷

⁶⁶ Archie Carr, "Water Hyacinths," in Marjorie Carr, Ed., *A Naturalist in Florida*, 216.

⁶⁷ *Ibid.*, 218-19.

Archie recommended a more effective and ecologically sensitive course of action for the eradication of water hyacinths in Florida's bodies of water: removal of the nutrients at their source through prevention of agricultural runoff and more effective sewage disposal methods. "As long as the exudations of humanity pour in the hyacinths will riot and grow marvelously tall and crowd together joyously in hydroponic splendor," he cautioned. "And each spring they will celebrate the spread of man with fields of lovely flowers."⁶⁸ Today, Florida's standard treatment of the hyacinth problem involves limited use of herbicides and the introduction of two weevils and a moth that feed upon hyacinths, in addition to physical removal of hyacinths when warranted. The goal is to keep the destructive plants at the lowest possible level in the state's rivers, lakes, and ponds, and to prevent the spread of hyacinths before a serious outbreak clogs a body of water.⁶⁹

In the late 1960s, however, University of Florida and Florida Department of Transportation (F.D.O.T.) planners envisioned a more permanent treatment for Lake Alice's problems. In the fall of 1969, the university community learned that plans were well under way for the construction of a four-lane, limited access, campus throughway and 2,000-car parking lot along sections of Lake Alice. The highway would link West University Avenue with U.S. 441 south of Gainesville. The State Road Department had already completed a preliminary survey at that point and was in the final planning stages. Marjorie Carr, who was also heavily involved in the campaign to save the Ocklawaha River at that point—in addition to leading the Paynes Prairie preservation project—helped organize an ad hoc committee to investigate and oppose the proposed cross-campus throughway as soon as she heard about it from Archie and her colleagues

⁶⁸ Ibid., 219.

⁶⁹ Marjorie Harris Carr, Notes to Archie Carr, *A Naturalist in Florida*, 252.

at the zoology department. She employed the same grassroots strategies as those she used in her other conservation campaigns, enlisting the assistance of university experts and the Alachua and Florida Audubon Societies, who contacted university and state representatives to express their concern over the imminent destruction of the lake and its surrounding wilderness area.⁷⁰

Opponents shared their outrage at a U.F. Campus Land Use and Planning Committee meeting, objecting to the proposed highway's route and its effects on the sixty-acre campus lake. John H. Kaufmann, an associate professor of zoology who worked closely with Carr on the Ocklawaha campaign, claimed that construction would "immediately and irreplaceably destroy the major wildlife values of the entire lake area," leaving behind "at best a landscaped pond devoid of visible wildlife and surrounded on all sides by roads and parking lots." Kaufmann, Carr, Joe Little, and some of their University of Florida colleagues organized the Ad Hoc Committee on Lake Alice within days of learning about the highway. "Many people in the university and Gainesville are aware of Lake Alice as one of the few spots remaining where one can see an alligator or an egret in its natural surroundings," Kaufmann explained. "Relatively few appreciate the functions it serves in the teaching and research programs of the university, or of the potential it has as a scenic and educational facility for both the university and the public."⁷¹

University of Florida zoology, entomology, and botany professors routinely used the lake and its wooded north shore for undergraduate and graduate research and instruction. Archie wrote University of Florida President Stephen C. O'Connell to convey his dismay over the proposed highway and to inform the president of his and his colleagues' plans to develop the

⁷⁰ "Road to Divide UF Campus Already Divisive," *St. Petersburg Times*, October 19, 1969.

⁷¹ *Ibid.*

lake and its shore as the site of a campus research station. Throughway proponents maintained that Lake Alice was already damaged by past construction and pollution, rendering it unfit for research and education. Moreover, they contended that the university's predicted growth made the development of Lake Alice at a future date future inevitable. Therefore it was pointless to develop the area for biological use, when the university could establish research stations elsewhere on campus. The main reason proponents cited to support construction of a four-lane highway over Lake Alice was that Gainesville was in urgent need of another north-south traffic artery with access to campus facilities, and the proposed route through Lake Alice would best accomplish this goal, from an engineering standpoint.⁷²

Kaufmann admitted that Lake Alice had changed over the years, but he disagreed with the idea that its biological usefulness had been destroyed or that it could not be restored. "There are good prospects for repairing much of the damage done so far," he explained. "Areas that are set aside soon enough become inviolate because they are the last open areas amid the steel and concrete. The possibility that future expansion will eliminate the wildlife is a poor excuse for irrevocably destroying it now." The speed with which U.F. and the state were moving forward with plans for construction of the throughway shocked the university community. Kaufmann criticized planners for proceeding with "undue haste and too little publicity."⁷³

The Florida Audubon Society pleaded with Governor Rubin Askew, the state Cabinet, and the Board of Regents to intervene on behalf of Lake Alice's wildlife. "The campus is in kind of a turmoil over this thing," claimed Martin Northrup, Florida Audubon's assistant executive director. The route favored by university and state planners would cut through Lake

⁷² Ibid.

⁷³ Ibid.

Alice Wildlife Sanctuary, an established refuge for herons. Florida Audubon informed state representatives that more than forty percent of all of Florida's native bird species had been spotted at Lake Alice. They contended that the highway was "incompatible with the philosophy of a sanctuary."⁷⁴

Both Kaufmann and University of Florida law professor Joe Little first became involved in conservation through the effort to protect Lake Alice from the proposed cross-campus throughway. They worked closely with Carr on the opposition and became heavily involved with Florida Defenders of the Environment. At the start of Little's participation in the Lake Alice campaign, stopping the throughway appeared to be an impossible feat. "The cross-campus highway was a done deal," Little recounted. "Mr. O'Connell himself told me that, face to face." The Florida Department of Transportation and President O'Connell had already signed off on the project when they scheduled a campus hearing on the matter at the J. Wayne Reitz Union, the campus student center. The meeting hall overflowed with protestors, alerting the Department of Transportation and O'Connell to the groundswell of local opposition to the throughway. Before that meeting, campus and state officials had failed to consider the throughway's impact on Lake Alice. Planners had tunnel vision as they prepared to dredge and fill the majority of Lake Alice in preparation for construction. "It was a case of progress versus swamps and alligators," Little maintained. "It was real. It was a done deal."⁷⁵

F.D.O.T. and O'Connell abandoned the campus throughway project after they became cognizant of the extent of campus and community support for Lake Alice. After the reversal, campus organizers acquired a great deal of respect for O'Connell. Little was an untenured

⁷⁴ "Society Seeks to Block Road," *St. Petersburg Times*, November 13, 1971.

⁷⁵ Joe Little became active in the Alachua Audubon Society, serving as President in 1973. He served as the Legal Chairman of Florida Defenders of the Environment starting in 1970, as a trustee from 1977 to the present, and is currently F.D.E.'s vice president. Author's interview with Joe Little (December 19, 2008).

faculty member at the time, but he suffered no professional repercussions from his activism, even though throughway opponents were relentless in their approach to conservation. “Marjorie was absolutely fearless,” Little recalled. “She was unremittingly determined, she was brazen.”⁷⁶

Marjorie Carr and the other leaders of the opposition worked to inform the public that state and university officials were “putting something over on the public,” Kaufmann recalls. Although fellow activists agreed that the cross-campus highway—like the Cross Florida Barge Canal—was a bad idea scientifically, economically, and morally, Carr was the only one who believed that it could be stopped. “Margie,” Kaufmann remembered, “from the very beginning, saw this as... ‘We’re going to win this.’”⁷⁷

Once the throughway project was stopped, the opposition shifted its focus to restoration efforts. The university addressed the problem of sewage drainage and agriculture runoff at Lake Alice, and Carr (working through Alachua Audubon Society) coordinated the planting of cypress trees along the edges of the lake. The lake’s water hyacinth population has been reduced significantly. Museum Road, a two-lane road with no shoulders, represents the university’s compromise with the opposition. Engineers designed a narrow road that skirts the northern edge of the lake. Plans for a 2,000-car parking lot on the lake were abandoned. Instead of dredging and filling Lake Alice, it was restored and remains the campus nature retreat that the Carrs struggled to preserve. Today students, Gainesville residents, and tourists stop at Lake Alice to spot alligators, turtles, fish, and birds in the daytime. Every day at dusk spectators wait outside a bat house located near the lake’s north shore to watch thousands of bats fly over the lake in search of mosquitoes and other insects. University students conduct research in an experimental

⁷⁶ Ibid.

⁷⁷ Interview with Jack Kaufmann excerpted from “A Tale of Two Women: Marjory Stoneman Douglas and Marjorie Harris Carr,” Florida International University Everglades Digital Library, <http://everglades.fiu.edu/two/index.htm> accessed October 31, 2008.

garden next to the bat house. The Baughman Center, a nondenominational chapel and meditation center, was erected on Lake Alice's western edge in 2000. University of Florida students, alumni, and community members use the chapel, which offers a scenic view of Lake Alice, for weddings, funerals, and memorial services. There are no signs at Lake Alice to commemorate the efforts of Marjorie and Archie Carr and their colleagues to save and restore the lake, and few members of the university community remember that the campus landmark was almost destroyed in the name of progress.⁷⁸

Over the course of an activist career that lasted for forty years, Marjorie Carr came to believe citizen activism was the key to successful environmental campaigns. "It is now abundantly evident that if our Paradise is to be protected, the initiative and force will have to come from the grassroots," she stated. "The action will have to start at the local level and move upward. That is natural and proper in a democracy. Here in Florida we have indicated over and over again that the public places great value on the preservation of original landscapes, wildlife and ground water. It is the citizen who must lead; and to lead effectively the citizen needs to have certain basic knowledge."⁷⁹

Carr's involvement in beautification work in Micanopy left a living legacy for the town, which recognized her contributions to Florida conservation by erecting a historic marker in her honor, as part of the Great Floridians 2000 program.⁸⁰ Carr's inability to stop Interstate 75 from encroaching upon the family homestead served as a painful lesson. The devastation she witnessed in Micanopy and on Paynes Prairie was magnified many times over when Interstates

⁷⁸ Everett Caudle interview with Marjorie Carr; Archie Carr Papers, Department of Special Collections, George A. Smathers Library, University of Florida, Gainesville.

⁷⁹ Marjorie Harris Carr, foreword to Peggy Cavanaugh and Margaret Spontak, *Protecting Paradise: 300 Ways to Protect Florida's Environment* (Fairfield, Florida: Phoenix Publishing, 1992), 3-4.

⁸⁰ "Micanopy Honors Its Three 'Great Floridians' with Historic Markers," *Gainesville Sun*, May 4, 2000.

4, 10, 75, and 95 facilitated the movement of millions of tourists across the state—especially after the 1971 opening of Walt Disney World in Central Florida. Carr’s later successes at saving Lake Alice from the campus throughway and preventing the construction of a Jacksonville-Tampa turnpike that would have damaged environmentally sensitive areas were shaped by the sting of defeat in her own backyard. She realized that effective conservation campaigns required an organized, autonomous group of individuals; effective utilization of the media to sway public opinion; persistent grassroots attempts to influence local, state, and national politicians; and competent representation in the court system. These local conservation projects had prepared Carr for the national campaign to save the Ocklawaha River—a battle she would lead for thirty-five years.



Figure 5-1. Like her parents before her, Marjorie Carr taught her children about Florida's flora and fauna. Marjorie and her five children—Mimi (bottom left), Tom, David (center), Steve, and Chuck (bottom right)—at Cedar Key (1953). Courtesy of Mimi Carr.



Figure 5-2. Marjorie Carr rescued historic downtown Micanopy's live oaks by convincing town leaders to declare them wards of the town. Photo by Peggy Macdonald.



Figure 5-3. Wewa Pond on the Carr family homestead. Photo by Peggy Macdonald.



Figure 5-4. Cattle rest under live oak trees at the Carr family homestead. Photo by Peggy Macdonald.



Figure 5-5. Another view of Wewa Pond. Photo by Peggy Macdonald.



Figure 5-6. A tree-lined section of Paynes Prairie State Park. Photo by Peggy Macdonald.



Figure 5-7. Another view of Paynes Prairie State Park. Photo by Peggy Macdonald.



Figure 5-8. An alligator crosses Lake Alice at the University of Florida. Photo by Peggy Macdonald.

CHAPTER 6 PROTECTING PARADISE: MARJORIE HARRIS CARR LAUNCHES THE CAMPAIGN TO SAVE THE OCKLAWAHA RIVER

In 1962, one of Marjorie Carr's Garden Club associates advised her that the U.S. Army Corps of Engineers was planning to construct a cross-state canal along a section of the Ocklawaha River in Putnam County (see figure 6-2). Although the river was located in neighboring Marion and Putnam Counties, and Carr's local Audubon Society chapter represented the interests of Alachua County, she had become acquainted with the scenic river while working at the Welaka Fish Hatchery in the 1930s, so she decided to investigate the potential environmental effects of the proposed Cross Florida Barge Canal. Carr and David Anthony, who served as co-presidents of the Alachua Audubon Society, invited representatives of the state board of conservation to provide Alachua Audubon Society members with more information about the canal. The November 8, 1962 meeting that followed marked the beginning of Carr's involvement in the ongoing campaign to protect and restore the Ocklawaha River. By 1965, the campaign to save the Ocklawaha River Valley consumed Marjorie Carr. "This really did become the most important thing in her life," her daughter Mimi recalled. "That's what she did every day." *Florida Naturalist* published Carr's 1965 essay on the Ocklawaha River Valley, "The Ocklawaha Wilderness," which reflected the campaign's new environmental focus. In her essay, Carr articulated the damage that the Cross Florida Barge Canal (see figure 6-1) would cause to the Ocklawaha ecosystem. The language of ecology would prove to be a much more effective tool for Carr and her colleagues than their initial campaign strategy, which centered on the natural resources that would be lost should the canal be completed. The next challenge for the defenders of the Ocklawaha River would be to demonstrate the need for a public hearing in which the interests involved could express their opinions, show that the Corps of Engineers was utilizing unsound engineering techniques (including its failure to conduct accurate scientific

studies of the canal's impact on the Floridan Aquifer), and demonstrate that the current benefit to cost ratio was unrealistic. Carr continued to assist her husband with his research and writing on turtles, in addition to leading efforts to transform Paynes Prairie into a state park and to save Lake Alice on the University of Florida campus. Four of Carr's five children had left home by this point in time, freeing her to devote her full attention to her conservation activities. In the late 1960s, the Ocklawaha would attract the attention of a national environmental campaign that awakened America's environmental consciousness. In the mid-1960s, however, the Ocklawaha campaign remained disorganized and regional in focus. Carr and her supporters would suffer a crippling blow at the public hearing they fought so hard to achieve.¹

Carr's connections to the University of Florida were central to the success of the Ocklawaha campaign. Marion County's pro-business climate fueled its strong support for the proposed canal, which boosters claimed would provide Central Florida with substantial economic benefits. The more liberal Gainesville in Alachua County was populated by a solid base of intellectuals who questioned the canal's alleged economic and recreational benefits. Under Carr's leadership, a growing coalition of University of Florida professors would come to question the logical and moral soundness of destroying a river in order to construct an outdated barge canal.²

Canal boosters never stopped to consider the environmental effects of the canal. Politicians and special interests had pushed for the canal since the early twentieth century, gaining approval for a cross-state ship canal during the Great Depression. However, the public works project was only approved as a means of providing economic relief. At the peak of the

¹ Interview with Mimi Carr, *From Waterway to Greenway*.

² Luther Carter, *The Florida Experience: Land and Water Policy in a Growth State*, (Baltimore: Johns Hopkins Press, 1975), 279.

Depression, approximately one quarter of Americans was unemployed. As the nation turned its attention and economic resources to World War II, funding for construction of the ship canal was canceled, and the canal remained incomplete. However, boosters continued to push for the canal's completion, touting the canal's economic and defense benefits. In 1942, Congress authorized construction of a shallower barge canal, but no funds were appropriated for construction. Years of costly economic restudies followed. In 1958, an economic restudy concluded that the barge canal's recreational and economic benefits justified the cost of construction. With the direct assistance of Presidents John F. Kennedy and Lyndon B. Johnson, funding for the canal was authorized. The Corps of Engineers planned to complete the canal along the same route as the one designated during the Depression—Route 13-B, which crossed the Ocklawaha River.³

The Corps of Engineers wasted no time putting their long-awaited canal funds to work. They planned to construct a high-level lock barge canal that would be twelve feet deep and one hundred-fifty feet wide from the St. Johns River to the Gulf of Mexico with five locks, two earth dams, and several canal crossings. The estimated federal cost of construction was \$145,300,000 in 1963 dollars. However, Corps of Engineers benefits for the canal erred on the low side. Congress distributed funds incrementally. Canal funding through fiscal year 1963 totaled \$1,885,100. Congress authorized an additional \$1,000,000 to initiate construction of the canal

³ See Bill Partington, "History of the Cross-Florida Barge Canal," *Environmental Impact of the Cross-Florida Barge Canal with Special Emphasis on the Oklawaha Regional Ecosystem* (Gainesville: Florida Defenders of the Environment, March 1970); Charles E. Bennett, "Early History of the Cross-Florida Barge Canal," *The Florida Historical Quarterly* Vol. 15 (October 1966): 132-144; and J. Richard Sewell, "Cross-Florida Barge Canal, 1927-1968," *The Florida Historical Quarterly* (April 1968), 369-383.

from Palatka to the St. Johns Lock and from there to Rodman Pool. The leaders of the campaign to save the Ocklawaha realized they needed to take action immediately.⁴

The Ocklawaha River's name comes from the Muscogee (Creek) word *ak-lowaha*, which means "muddy" or "muddy water." The sand-bottom Ocklawaha is actually crystal clear, although the natural byproducts of the dense tree swamp surrounding the river give the water a light tan stain. The Muscogee and later the Seminole peoples used the river for transportation and hunting. In the 1960s the Ocklawaha was one of Florida's last relatively undisturbed rivers. The largest tributary of the St. Johns River, the Ocklawaha is among a small number of major North American rivers that flows north, traveling for seventy-eight miles from its source in Lake Griffin, Lake Eustis, Lake Harris, and Lake Dora in Central Florida, before it joins the St. Johns River approximately eight miles north of Lake George near Welaka. Silver Springs' massive daily output of crystal clear water flows into the Ocklawaha River at Silver Springs Run (see Figures 6-4 and 6-5). Tourists used to travel along the river on steamboats, savoring the exotic beauty and impressive wildlife of the canopied, subtropical river valley. In the 1960s, the Ocklawaha was home to a diverse population of fish species, including channel catfish, chain pickerel, a large variety of sunfish species, speckled perch, and massive largemouth black bass, which were the subject of Marjorie Carr's master's thesis. According to Carr, the river valley also supported several types of herons, limpkins, gallinules, rails, wood ducks, anhingas, snakes, turtles, alligators, deer, raccoons, otters, the Florida panther, bobcats, and black bears (see Figures 6-3 and 6-6).⁵

⁴ "Army Corps of Engineers Summary of Civil Works Projects under Construction and Surveys in Progress," January 1964, 8, Series 301, Box 29A, Folder 1, Mildred and Claude Pepper Library; "Summary of Civil Works Projects Under Construction and Studies in Progress," December 1965, Series 301, Box 29A, Folder 4.

⁵ Clarence J. Simpson, in Mark F. Boyd, *Florida Place-Names of Indian Derivation* (Tallahassee, Florida: Florida Geological Survey, 1956); Marjorie Harris Carr, "The Oklawaha River Wilderness," *The Florida Naturalist* 38

Carr had known the Ocklawaha River for thirty years. “The first time I went up the Ocklawaha,” she remembered, “I thought it was dreamlike.”⁶ The majority of the river is located in Marion County. Carr first learned that the Corps of Engineers planned to build a barge canal along a path that crossed the Ocklawaha River from a board member of Florida Audubon and the Florida Federation of Garden Clubs. After attending a Corps of Engineers hearing in Jacksonville, the woman wrote the district engineer to find out more about the canal route. He informed her that “not much” would happen to the Ocklawaha. The Garden Club advised the leadership of the Florida Audubon Society to research the canal route, but Florida Audubon was reluctant to do so because a member of the Corps of Engineers sat on its board of directors. Thus the onus fell upon Carr, who—along with David Anthony, a U.F. professor of biochemistry and relative of Susan B. Anthony—added a program on the environmental impact of the Cross Florida Barge Canal on the Ocklawaha River Valley to the Alachua Audubon Society’s regular conservation lecture series.⁷

The November 8, 1962 meeting, titled “The Effects of the Cross Florida Barge Canal on Wildlife and Wilderness,” featured Dr. John Wakefield of the Florida State Board of Conservation and Dr. Robert F. Klant of the Florida Game and Fresh Water Fish Commission, was the first public inquiry into the proposed canal. Ironically, the Board of Conservation was one of the agencies responsible for overseeing the canal’s construction. The meeting, which was held in the P. K. Yonge school auditorium in Gainesville, focused on the environmental impact

(August 1965); Florida Defenders of the Environment, *Restoring the Ocklawaha River Ecosystem*. Steven Noll and David Tegeder examine the history of the Ocklawaha steam boat industry in *Ditch of Dreams*.

⁶ “Sand In Her Shoes, River in Her Blood,” *St. Petersburg Times*, November 18, 1996.

⁷ See Everett Caudle’s April 24, 1989 interview with Marjorie Carr, Samuel Proctor Oral History Program, University of Florida; and Leslie Kemp Poole’s October 18, 1990 interview with Marjorie Carr, Florida Defenders of the Environment headquarters, Gainesville, Florida.

of the canal at a time when planners typically failed to address a construction project's environmental impact. The Corps of Engineers had exercised its authority to manipulate Florida's waterways for decades without being requested to justify their actions or examine the environmental costs of their work. The organization was neither prepared for nor overly concerned about the potential resistance of a small group of "bird watchers."⁸

The University of Florida community was outraged by the Corps of Engineers' proposed route for the canal. "They weren't really against the canal," Mimi Carr explained, "they just wanted to protect the river...at this point."⁹ Marjorie Carr was shocked not only that the Corps of Engineers planned to build the Cross Florida Barge Canal along the Ocklawaha River, but that the agency had offered only vague explanations of how construction would proceed. "Here, by God, was a piece of Florida," she explained. "A lovely natural area, right in my back yard, that was being threatened for no good reason."¹⁰ At the Alachua Audubon Society meeting on the barge canal, the two state representatives used an oil painting of the proposed barge canal to describe its route: no detailed explanation, supporting documents, or job specifications. The audience responded with a "blizzard" of questions that the state representatives were either unable or unwilling to answer. The members of Alachua Audubon quizzed the representatives about the canal's potential impact on the aquifer, the benefit-cost ratio, and the damage the canal

⁸ Everett Caudle interview; Leslie Kemp Poole interview. The date of the Alachua Audubon Society meeting on the Cross Florida Barge Canal's environmental impact on the Ocklawaha River has been reported two different ways. Carr informed Poole that the meeting was held on November 2, 1962, in their 1990 interview. A 1971 newspaper article stated that the meeting was held on November 8. See Ed Pavelka, "Fame Has Come to Marjorie Carr But to Her, It's a Family Affair," *The Gainesville Sun* January 25, 1971. At the time of Poole's interview, Carr said she still had a "Xerox copy" of the original meeting flyer in her files.

⁹ Author's interview with Mimi Carr (July 23, 2005).

¹⁰ Leslie Kemp Poole, interview with Marjorie Harris Carr, October 18, 1990.

would cause to the Ocklawaha River.¹¹ “We were all astounded that they had planned to build the canal right down the Ocklawaha River,” Marjorie Carr remembered.¹² “It enraged everybody,” Mimi recounted. “And after that, everybody started pulling up their sleeves.”¹³ Because the state representatives had failed to provide satisfactory answers to their questions at the meeting, Alachua Audubon Society members—under Carr’s leadership—launched an investigation into the barge canal’s effects on the Ocklawaha.¹⁴

The Corps of Engineers planned to dam the river at two points and flood 27,350 acres of hardwood forest to create a shallow barge canal and a reservoir that would provide its regular water supply. As Carr and her colleagues researched the Corps’ plans for the canal, they began to question the extent of the alleged economic benefits of the canal. None of the Corps of Engineers’ economic studies and restudies produced realistic benefit to cost ratios that justified the expense of the canal’s construction and maintenance. “It was a ridiculous thing,” Carr contended. “It would destroy a beautiful river and it didn’t bring in any money! That really stuck in my craw.”¹⁵

Carr challenged the Corps of Engineers’ economic studies of the canal, contending that the Corps had inflated predicted barge traffic and recreation benefits in order to justify the cost of the canal’s construction. Canal boosters maintained that the project would enrich the economy of North Central Florida. They based their argument upon estimated barge traffic projections

¹¹ Marjorie Harris Carr, “The Fight to Save the Oklawaha” (paper presented at the Twelfth Biennial Sierra Club Wilderness Conference, Washington, D.C., September 25, 1971).

¹² Everett Caudle interview.

¹³ Author’s interview with Mimi Carr (July 23, 2005).

¹⁴ For more on the November 8, 1962 meeting, see the Everett Caudle and Leslie Kemp Poole interviews with Mimi Carr.

¹⁵ *St. Petersburg Times*, November 18, 1996.

and the alleged recreation benefits that would accompany the construction of artificial reservoirs near the canal's dam structures. Yet the biggest motivation behind the construction of the canal had always been graft. The Cross Florida Barge Canal was a pork barrel project designed to funnel Congressional appropriations to the U.S. Army Corps of Engineers, line the pockets of construction companies, and draw federal funding to Florida districts in order to keep state lawmakers in office. Carr believed that the ultimate weapon to combat poorly conceived projects that were not in the public's best interest was the democratic process. She played an important part in shaping the discourse of the burgeoning environmental movement with a coordinated letter writing and lobbying campaign that targeted state and federal politicians that she later supplemented with a legal campaign bolstered by the scientific and economic expertise of Florida Defenders of the Environment (F.D.E.), the single-issue organization she cofounded in 1969. One of Carr's main strengths in the campaign to save the Ocklawaha was her use of the media to educate the public and put pressure on state and federal politicians. For nearly seven years before the inception of F.D.E., Carr led the Ocklawaha campaign under the auspices of the Alachua Audubon Society.

Carr cofounded the Alachua Audubon Society in 1960, along with H. K. Wallace (a colleague from the U.F. zoology department) and Enid and John Mahon.¹⁶ From its earliest days, this local chapter of the Florida Audubon Society focused more on conservation and land preservation than on bird watching. Its core membership was composed of University of Florida professors who were interested in nature and conservation. Carr held a variety of executive positions with Alachua Audubon, including co-president (with David Anthony) and chair of

¹⁶ "The Fight to Save the Ocklawaha River," paper presented at the 12th Biennial Sierra Club Wilderness Conference in Washington, D.C., September 25, 1971, Florida Defenders of the Environment Papers, Department of Special Collections, George A. Smathers Library, University of Florida, Gainesville; Leslie Poole interview; Frederick Rowe Davis, "'Get the Facts—and Then Act': How Marjorie H. Carr and Florida Defenders of the Environment Fought to Save the Ocklawaha River," *The Florida Historical Quarterly* 83:1 (Summer 2004), 50.

conservation. She also served on the board of directors of Alachua Audubon (1960-1967) and Florida Audubon (1960-1968; 1972-1980). From its inception, Carr observed, the Alachua Audubon Society's leadership and membership—which included a strong contingent of University of Florida professors—was more devoted to conservation than to bird watching.¹⁷

Following the meeting, Carr and her Alachua Audubon associates pondered what their organization's next course of action should be. She was determined to intervene on behalf of the Ocklawaha. "I felt the destruction of the Ocklawaha was like the murder of the Genovese girl in New York," she observed. "The people who stood by and watched her be killed were not criminals, but they were partly to blame because they refused to be involved. And here, here in Florida, is this beautiful river which was to be murdered. In the beginning, the more I learned about it the stronger I felt that somebody had to do something to prevent its destruction."¹⁸

Carr wrote the Corps of Engineers to express her concerns regarding the proposed canal route's effects on the Ocklawaha River. The Corps replied that her fears were unfounded; the river would "be left intact except for the part between Sharpes Ferry and Rodman Dam." The Corps' response infuriated Carr. "It was like saying that one is just going to cut off the rooster's tail—right behind the head," she explained. "That forty-five-mile stretch was the heart of the river." Alachua Audubon Society members reacted by mailing maps of the canal route to conservation groups across the state, writing letters to their Congressmen and state officials, and embarking upon the tedious process of gathering further information on the barge canal. "We

¹⁷ For more on the founding of the Alachua Audubon Society, see Everett Caudle and Leslie Kemp Poole's interviews with Marjorie Harris Carr.

¹⁸ Marjorie Carr, excerpted from Ed Pavelka, "Fame Has Come to Marjorie Carr But to Her, It's a Family Affair," *The Gainesville Sun*, January 25, 1971. Carr referred to the 1964 murder of 28-year-old Catherine "Kitty" Genovese in New York City. Genovese was stabbed repeatedly, raped, and robbed outside her Queens apartment while her neighbors ignored her screams and cries for help.

were quite sure that if our elected representatives realized the truth,” Carr recalled, “they would take appropriate action. Boy, were we naïve. They paid no attention to us.”¹⁹

In the beginning, Carr thought the campaign to save the Ocklawaha would be relatively short and effortless. “I thought when we started out this would be simple,” she reflected in the late 1960s. “All it would require, I felt, was to point out a few things to the Corps of Engineers. They would need to understand that the Ocklawaha is a treasure, that there is an alternate route and that a lot of people really want the Ocklawaha River saved. I thought once these things had been explained to them we could get the canal’s course changed.”²⁰ Carr and her fellow activists were aware that the public and most major newspapers at the state and national levels supported the canal. Moreover, the Corps of Engineers had an abundance of political clout and great amounts of time and money had already been invested in the canal project. Therefore, Alachua Audubon’s leaders agreed that it would be impractical to call for an end to the canal project as a whole; instead, they suggested that the canal be rerouted around the Ocklawaha.²¹ F. W. Hodge, who was the president of Alachua Audubon at the time, attempted to enlist Florida Audubon’s help in garnering support and assistance from the state’s other conservation groups, but the statewide organization was slow to come on board. Opposition was minimal on the Gulf Coast, where a dam was already in place and Florida Power Corporation had donated the Withlacoochee backwaters area—known as Lake Rousseau—to the Canal Authority. For the moment, Carr and her fellow activists in North Central Florida were on their own.²²

¹⁹ “Fight that Blocked Canal Work Started in Gainesville in 1962,” *Sarasota Herald-Tribune*, January 24, 1971.

²⁰ George Laycock, *The Diligent Destroyers* (New York, 1970), 52-66; quote on 64.

²¹ Leslie Poole interview.

²² Florida Defenders of the Earth Papers; Davis, “Get the Facts—and Then Act,” 53; James Lewis, “Canal Recreation Decision Due,” *Marion Times* (undated).

Carr and her allies coordinated a direct action campaign to increase public awareness of the threat the canal posed to the Ocklawaha. They maintained a “get the facts” strategy that utilized scientific, economic, and legal research; expert testimony; a grassroots letter writing campaign; and public education. At the same time that Carr and Alachua Audubon spearheaded efforts to save the Ocklawaha, another group of activists launched a separate campaign based in Ocala in neighboring Marion County. Composed of a mixture of Alachua Audubon Society members and locals who lived near the Ocklawaha River, the group assumed the name Citizens for the Conservation of Florida’s Natural and Economic Resources, Inc. Margie Bielling explained the sense of shock and concern that she and other members of Citizens felt upon learning of the Corps of Engineers’ plans for the Ocklawaha River. “The more research I did, the less logical it seemed that they should be building this canal at all, let alone using the Ocklawaha,” she recounted. “The land cut would have been disastrous.”²³

Bielling, like Carr, understood the ecological ramifications of the proposed canal. Bielling had a bachelor’s in biology from the University of Florida and taught science at the high school level. In 1964 she applied her background in microbiology to her research of the hydrology and geology of the Ocklawaha River Valley, paying special attention to the impact of the proposed canal on local aquifers. Bielling shared her research with Carr and the Alachua Audubon Society, helping to produce a series of brochures that informed the public about the ecological dangers of the canal.²⁴ Her father, John Couse, was another key player in Citizens. A

²³ Interview with Margie Bielling, *From Waterway to Greenway: The History of the Cross-Florida Barge Canal*, DVD, directed by Darren Preston Lane (Gainesville, Florida: forthcoming, 2010). Citizens for Conservation was incorporated in 1964. Marjorie Harris Carr to Mrs. Forrest, February 12, 1965, Florida Defenders of the Environment Papers; Davis, “Get the Facts—and Then Act,” 54.

²⁴ *Ocala Magazine*, June 29, 2007, <http://www.ocalamagazine.com/specPubsNews/templates/cityscape.aspx?articleid=1159&zoneid=12> ., accessed February 4, 2009.

retired Palm Beach County businessman, Couse's political and business contacts in South Florida proved beneficial to the Ocklawaha campaign. Another important Citizens leader was retired army colonel Walter Hodge, who served as president of both Citizens and Alachua Audubon in 1965.²⁵ Already balancing a full-time teaching job and a young family, Bielling traveled to Gainesville with the goal of finding an existing conservation organization to assume leadership of the Ocklawaha campaign. She met with Hodge, whose wife advised her to get in touch with Marjorie Carr. Alachua Audubon Society members worked loosely with Citizens, but their efforts remained uncoordinated, which ultimately dampened their effectiveness. In the fall of 1965, the Federated Conservation Council—an alliance of sixteen non-profit organizations including Audubon Society chapters, Garden Clubs, Women's Clubs, environmental education clubs, and river and fishing clubs—expressed its support for the Ocklawaha campaign, with the Alachua Audubon Society continuing to function as the leading organization behind the fight.²⁶

Alachua Audubon's approach was to determine the facts about the barge canal and convey them to government agencies and the public. Instead of resorting to emotional attacks, the Ocklawaha campaign was based upon the principle of applying sound scientific and technical information to decisions that affected the environment. Finding accurate details regarding the Corps of Engineers' construction plans proved to be a challenging task, however, because the Corps disseminated very little information about the project to the public. This problem was exacerbated by the fact that newspapers did not yet have environmental writers in the early 1960s. Carr and her Audubon Society colleagues had a difficult time obtaining specific

²⁵ Noll and Tegeder, *Ditch of Dreams*, 149-50. John Couse's influence would prove helpful in convincing Nathaniel Reed to take a stand against the Cross Florida Barge Canal. In turn, Reed would help sway President Richard Nixon to halt construction of the canal.

²⁶ Interview with Margie Bielling, *From Waterway to Greenway: The History of the Cross-Florida Barge Canal*, DVD, directed by Darren Preston Lane (Gainesville, Florida: forthcoming, 2010). Davis, "Get the Facts—and Then Act," 58.

information about Route 13-B and its effects on the Ocklawaha. Early in the process of researching the canal, they discovered that the Corps had not conducted studies on the canal's potential effects on the lands and wildlife that lay in its path.²⁷

Carr's scientific understanding of the Ocklawaha River Valley stemmed from her graduate studies at the University of Florida in the 1930s and 1940s. "The young men, and later women, who were in the graduate program could pick out a group of animals that they were interested in, but nobody had ever worked with those in this area [Florida]," she explained. "Eden opened up before you."²⁸ By the 1960s, University of Florida biologists had developed a sophisticated understanding of the flora and fauna of the river valley and their relationship to the Ocklawaha ecosystem. Professors and students had conducted ecological studies of North Central Florida for decades, focusing on the relations of individual species to their respective ecosystems—including the Ocklawaha regional ecosystem. "So when the barge canal came along, which would have destroyed this whole ecosystem," Carr recalled, "you had a whole bunch of people who were very upset and could speak with authority."²⁹

Alachua Audubon and Citizens shared members and leadership, often blurring the lines between the two organizations. Bert Dosh, the editor emeritus of the *Ocala Star-Banner*, routinely supported the canal and reported on the failures of Carr and Citizens. After an unsuccessful Citizens campaign to eliminate a \$10,000,000 congressional appropriation for the

²⁷ Michael Blumenfeld, Assistant Secretary of the Army (Civil Works), and Bob Bergland, Secretary, Department of the Army, to Honorable Walter F. Mondale, President of the Senate, and Honorable Tip O'Neill, Speaker of the House of Representatives, April 11, 1979 (F.D.E. Papers, Box 8). Regarding the availability of information on the Corps' plans for the canal, see F.D.E. Papers. The group was routinely denied access to information, but Carr and her colleagues invoked the Freedom of Information Act in order to gain access to government documents relevant to their campaigns to reroute the Cross Florida Barge Canal or stop its construction; to deauthorize the canal; and to restore the Ocklawaha River Valley.

²⁸ Everett Caudle interview.

²⁹ *Ibid.*

construction of Rodman Dam and Eureka Dam and Lock along the Ocklawaha River, Dosh informed his readers that “Every member of the Florida delegation in Congress is standing firmly in support of the canal.” The article included an excerpt from a letter from Representative Syd Herlong, Jr. to Marjorie Carr, whom he identified as a director of Citizens. “As much as I admire and respect you and Archie, I regret to advise you that I don’t plan to do anything to interfere with the orderly construction of the Cross-Florida Barge Canal,” Herlong informed Carr. “I would be less than honest if I didn’t tell you that I’m a supporter of the canal. I do give you full credit for the sincerity of your point, but I think that the overwhelming majority of the people I have the honor to represent are strongly in favor of this waterway and I must respect their views. This is easy to do when I personally agree with them because I believe this project will be most helpful to all of Florida.” Carr and her allies faced an uphill battle against formidable opponents: a coalition of state and national politicians, most of the Florida press, and the Corps of Engineers. Even the U.S. Fish and Wildlife Service supported the construction of the barge canal, noting its outstanding recreational advantages if the public had access to the canal bank³⁰

After the passage of the Rivers and Harbors Act of 1899, the Corps of Engineers became the nation’s most prestigious engineering organization, charged with oversight of all construction along the nation’s navigable waterways. Although Congress was ultimately responsible for decisions related to Corps projects, lawmakers gave serious consideration to the desires of local interests, as demonstrated by the successful lobbying efforts of Congressman Bennett and other Florida politicians. The Corps was responsible for flood control projects that improved

³⁰ “In Heated Session—Foes of Canal Question Route,” *The Tampa Tribune*, October 5, 1965; R. N. Dosh, Editor Emeritus, “Right of Way for Canal,” *Ocala Star-Banner*, October 3, 1965. Bert Dosh’s statement and Congressman Herlong’s letter were excerpted from the *Ocala Star-Banner* article.

agriculture, navigation, and residential areas across the nation. Yet the Corps also had a long history of destroying wetlands and manipulating the land without considering the consequences. Since 1802 the Corps had applied Enlightenment-era views of the domination of nature to its engineering projects. Its castle logo is believed to be modeled after the city gates of Verdun, France. Critics have described the Corps as a “ruling class” and an “untouchable empire.”³¹

Compounding the fact that the Corps of Engineers obscured the specific details of the canal’s pending construction was the challenge of organizing a large-scale environmental movement capable of countering the canal’s strong support among politicians, businessmen, and the press. In the early years of the Ocklawaha campaign, Carr continued working through the Garden Club and Audubon Society while a separate group of concerned citizens emerged. The Garden Club provided Carr with early financial assistance, and her leadership of Alachua Audubon lent authority to her correspondence. At first, Florida Audubon was reluctant to support Carr, fearful that challenging the Corps of Engineers would lead to political repercussions against Audubon in Tallahassee. Eventually, Florida Audubon took a stand against Route 13-B, becoming only the second statewide organization (after the Garden Club) to do so. National organizations including the Izaak Walton League, National Audubon, Nature Conservancy, Sierra Club, and Conservation 70s also supported the Ocklawaha campaign.³² Carl

³¹ See Courtney T. Hackney and S. Marshall Adams, “Aquatic Communities of the Southeastern United States: Past, Present, and Future,” in Hackney, Adams, and William H. Martin, eds., *Biodiversity of the Southeastern United States: Aquatic Communities* (New York, 1992), 747-760. Hackney and Adams suggest that the Corps of Engineers, which was initially devoted exclusively to military operations at the time of its origin in 1802, branched out into civilian projects early on because they were the U.S. government’s only organized group of engineers. Before the Civil War, the Corps had assumed responsibility for a variety of civilian canal, river clearing, drainage, and other waterways projects. See also J. Richard Sewell, “Cross Florida Barge Canal, 1927-1968,” *The Florida Historical Quarterly* (369-383). See also Todd Shallat, *Structures in the Stream: Water, Science, and the Rise of the U.S. Army Corps of Engineers* (Austin: University of Texas Press, 1994); George Laycock, *The Diligent Destroyers* (New York: National Audubon Society and Ballantine Books, Inc., 1970).

³² Leslie Poole interview. For a fuller discussion of Florida’s early conservation movement and its connection to the state’s Audubon Societies (and Garden Clubs), see Carolyn Merchant, “Women of the Progressive Conservation Movement: 1900-1916,” *Environmental Review* 8 (Spring 1984): 57-85; and Leslie Kemp Poole, “The Women of

Buchmeister, president of the National Audubon Society, considered the Cross Florida Barge Canal to be a national environmental catastrophe. He went so far as to claim that the barge canal was “one of the greatest political and economic boondoggles in the history of the United States. [Boondoggle] was a term that was very endearing,” Nathaniel Reed recalled. “The term ‘environmentalist’ wasn’t in our dictum at that time.”³³

Ocklawaha supporters found little respect for the sanctity of the Florida environment in Washington, D.C. Congress’s reluctance to block \$10,000,000 in canal appropriations was not the only setback for the Ocklawaha campaign. Bradford Patton of the Southwest Florida Audubon Society expressed the organization’s concern for the future of the Ocklawaha in the fall of 1965, emphasizing the river’s natural beauty. The official White House response informed Patton that the economic benefits from the canal’s construction outweighed the river’s scenic value. The White House reiterated the fact that the matter had been settled for years and construction had already commenced. Under these circumstances, the Johnson White House concluded, it was impossible to stop construction of the barge canal.³⁴

The political establishment of the early to mid 1960s was devoid of an environmental consciousness; moreover, women like Carr struggled to be taken seriously in a political realm dominated by men. The late twentieth century was a period of political and cultural transition for American women. As their role in formal politics evolved from exclusion to inclusion, two women whose names became synonymous with Florida politics crafted—independently—a subtle strategy that placated critics of women’s entry into political spaces that had conventionally

the Early Florida Audubon Society: Agents of History in the Fight to Save State Birds,” *The Florida Historical Quarterly* 85 (Winter 2007), 297-323. For more on Florida Audubon’s involvement in the Cross Florida Barge Canal opposition, see the Florida Defenders of the Environment Papers, Smathers Library, University of Florida.

³³ Interview with Nathaniel Reed, *From Waterway to Greenway*.

³⁴ R. N. Dosh, Editor Emeritus, “Right of Way for Canal,” *Ocala Star-Banner*, October 3, 1965.

been reserved for men, while simultaneously providing the required justification for their admission into those spaces. Marjorie Harris Carr and Paula Hawkins (1927-2009) stood on opposite sides of the Cross Florida Barge Canal debate. Hawkins embarked upon her first and only term in the United States Senate in 1981 as part of the Ronald Reagan landslide, when the Democrats lost control of the Senate to the G.O.P. By that point Carr had spent more than a decade lobbying the Florida Legislature and United States Congress to kill the canal. Hawkins, who was the first woman elected to statewide public office in Florida, the first woman elected to the United States Senate from the South, and the first woman without marital or familial political connections ever to be elected to a full term in the Senate, backed legislation that would breathe new life into the canal. Despite their political differences, however, Carr and Hawkins shared the common experience of navigating a political system that was hostile to women. One of Carr's biggest adversaries, State Senator George Kirkpatrick of Gainesville, once angered women's groups and grammarians alike with the following advice for rape victims: "If it's inevitable, then you might as well lay [sic] back and enjoy it." He also helped ensure the demise of the Equal Rights Amendment. This larger-than-life politician embodied the chauvinistic character that Carr and Hawkins were forced to contend with in Florida and national politics in the late twentieth century.³⁵

³⁵ Kirkpatrick made this offhand remark comparing the construction of two four-lane roads in Gainesville to the act of being raped while speaking to the Gainesville Homebuilders Association. "Eppes, Kirkpatrick Shoot for State Senate," *Gainesville Sun*, September 2, 1982; "Senator Admits He's A Bully, But He Gets Things Done," *Gainesville Sun*, July 16, 1995; "George's Way," *Gainesville Sun*, February 7, 2003. See also "Paula Fickes Hawkins: Senator, 1981-1987, Republican from Florida" (<http://womenincongress.house.gov/member-profiles/profile.html?intID=103>), accessed December 18, 2009. In 1954, Hazel Abel, a Nebraska businesswoman who had no political family ties, was elected to complete the last two months of the term of a Nebraska Senator who had died in office. "Paula Hawkins, first woman senator from South, dies at 82," *The Gainesville Sun*, December 5, 2009.

In the preceding chapters, I use Marjorie and Archie Carr's first names to differentiate between them in a clear, consistent manner. In this chapter I refer to Marjorie Harris Carr by her last name instead of her first because Archie Carr is less central to the narrative; in addition, when comparing Marjorie Carr to Paula Hawkins, it is simpler to use the historical actors' last names.

Unlike Carr, Hawkins was not a college graduate. The former model became active in Republican politics as a community activist and quickly branched out into national political campaigns. In the 1970s, she became the first woman in Florida to be elected to a statewide political office, serving two terms on the Florida Public Service Commission. In 1980, Hawkins was swept into office on the crest of the Ronald Reagan landslide. At one of her first national press conferences in Washington, D.C., a reporter from a major television network asked Hawkins who would do her laundry now that she was a U.S. Senator. The reporter's question encapsulated the reaction of the previously all-male political establishment to the unexpected presence of women in politics in the late twentieth century.³⁶

Carr and Hawkins devised a sophisticated methodology that eased their transition into the male-dominated realm of twentieth-century politics without appearing to challenge the restrictions placed upon women by the gendered social order of their time. Both women were self-described housewives, an occupation that was presumed to be a woman's natural calling.³⁷ In the early 1960s, when Carr launched her campaign to save the Ocklawaha River, women lacked the full civic status they needed to participate as equals in the American political process—a condition that had not been remedied effectively in the 1970s, when Hawkins first entered politics at the state level. In 1960, most workplaces remained segregated by gender, with approximately seventy percent of employed women working primarily with female coworkers.³⁸

³⁶ *Gainesville Sun*, December 5, 2009. Quote excerpted from interview with Paula Hawkins, Samuel Proctor Oral History Program, University of Florida.

³⁷ Hawkins' community activism commenced shortly after her arrival in Florida, where she volunteered for the Republican Party. Her campaigns involvement included serving as the co-chair of Richard Nixon's presidential campaign in Florida. The political connections she formed through her campaign work helped her win election to Florida's public service commission from 1972 to 1979. For more on Hawkins' early forays into politics, see "Paula Fickes Hawkins: Senator, 1981-1987, Republican from Florida" (<http://womenincongress.house.gov/member-profiles/profile.html?intID=103>), accessed December 18, 2009.

³⁸ Linda K. Kerber, *No Constitutional Right to Be Ladies: Women and the Obligations of Citizenship* (New York: Hill and Wang, 1998), 173.

Moreover, a woman's presumed status was not that of a worker at all, but a homemaker. In *Hoyt v. Florida* (1961), attorneys for Gwendolyn Hoyt, a Tampa woman accused of murdering her husband with a baseball bat, argued that she was unable to receive a fair trial because of Florida's practice of exempting women from jury service, a problem that could only be solved when the State mandated women's registration for jury service. At the time, Hillsborough County's jury pool included 68,000 potential male jurors and just 218 prospective female jurors. Although 46,000 women were registered to vote in the county, registration for jury duty was optional for women; as a result, only "one-tenth of one percent" of women participated in jury service in Florida, which was tantamount to excluding women from jury service, according to United States Supreme Court Chief Justice Earl Warren. Hoyt's defense team had appealed their client's murder conviction on the grounds their client's inability to receive a trial of her (female) peers. Warren's original intention was to reverse the Florida Supreme Court's decision because Florida's jury selection process excluded women, which violated Hoyt's constitutional right to due process.³⁹

Instead, the U.S. Supreme Court ruled that "exemption" (rather than exclusion) from jury service continued to be a female privilege because of each woman's (perceived) primary obligation to nurture her family. The Warren court, which already faced serious repercussions from the *Brown v. Board of Education* decision requiring the desegregation of public schools, reached the unanimous decision not to overturn *Hoyt v. Florida*. Supreme Court Justice John Marshall Harlan explained why the Court had ruled that the State of Florida was not obligated to compel women to register for jury service: "Despite the enlightened emancipation of women from the restrictions and protections of bygone years, and their entry into many parts of

³⁹ *Ibid.*, 155-57, 177-188.

community life formerly considered to be reserved to men, woman is still regarded as the center of home and family life.”⁴⁰ The Court maintained that the State of Florida was under no obligation to compel women to register for jury service, upholding a legal precedent whose roots can be traced to the eighteenth century law of coverture, which sanctioned a husband’s control over his wife’s body, earning capacity, and property.⁴¹

In a climate in which the highest court in the land upheld the Enlightenment-era precedent of coverture, providing legal validation for the continuance of an equally antiquated view of women’s innate domesticity, Marjorie Carr and Paula Hawkins’s decision to *perform* domesticity—to use the label as a rhetorical device while they surpassed its limitations in practice—could be read as a conservative response to outdated social norms designed to limit (middle-class) women’s activities to the home. Read another way, however, their adoption of the housewife persona could be viewed as subversive. Portraying the image of a housewife played directly into the hands of men such as Kirkpatrick, who were certain to find a *homemaker* politician to be less threatening than a *feminist* politician who aspired to be treated as an equal. In reality, Carr, who had the composure and commanding presence of a highly educated scientist, considered herself the equal of her (male) peers. From an outsider’s perspective, however, Carr and Hawkins appeared to accept their assigned (domestic) role in society, even as they infiltrated the upper echelons of state and national politics at a time when women were grossly underrepresented.⁴² Fully cognizant that their presence in the public sphere represented a

⁴⁰ Ibid., 181.

⁴¹ Ibid., 176-213.

⁴² Here I borrow the concept of performing femininity from Jo Burr Margadant, ed., *The New Biography: Performing Femininity in Nineteenth-Century France* (Berkeley: University of California Press, 2000). Margadant’s collection of essays concern the performative nature of constructing a successful feminine self in nineteenth-century France, when women borrowed from or rejected dominant masculine models to “stage” a persona of their own design. Women’s created public selves responded to popular views of women in ways that

threat to the gendered order, Carr and Hawkins employed the rhetorical strategy of the self-described housewife as a means to bridge the gap between the safer image of the traditional, domestic woman of the past and the more threatening image of the feminist or modern woman of the late twentieth century, a divide that had become prevalent in late-twentieth-century discourses on womanhood.⁴³

The male-dominated news industry appeared to take Carr's self-described housewife status at face value. In 1966, an *Atlanta Journal and Constitution Magazine* article on Carr's fight to save the Ocklawaha was labeled "One Woman's Fight to Save a River," conjuring images of the epic battle between David and Goliath.⁴⁴ A 1971 *Houston Chronicle* feature

provided them the authority and legitimacy they needed to function in the public realm. According to Margadant, women engaged in an "artful subversion of the discourses that oppressed them," in which women expanded upon prevailing views of their moral and spiritual authority as women—previously limited to the domestic sphere—to assert their authority in social reform in the public arena. (Margadant, 89-93). As women appeared to assume feminine roles, they were actually exposing traditional notions of femininity as nothing more than an act. Through this process women transformed their identities into something of their own creation. (171-97). Like the nineteenth-century women Margadant describes, Marjorie Carr performed femininity—especially in her private interactions with politicians, when the housewife moniker helped her arrange meetings or lobby on behalf of the environment. Carr supplemented her housewife persona with a "masculine" knowledge of science, creating a public identity that was palatable to (male) politicians who were sometimes put off by the more militant tactics of other environmentalists. For more on performing femininity, see Mary Louise Roberts, who examined deliberate acts of gender subversion practiced by the "New Woman" of France in the final decades of the nineteenth century. These new women entered the public sphere as journalists and actors, performing what Roberts describes as disruptive acts of gender subversion designed to reveal the fluidity of cultural notions of femininity. French playwrights including Paul Hervieu and Jules Case furthered the New Woman's agenda, writing plays that offered new visions of twentieth-century womanhood that eclipsed what the playwrights presented as women's comfortable domestic imprisonment in the nineteenth century. See Roberts, *Disruptive Acts: The New Woman in Fin-de-Siècle France* (Chicago and London: The University of Chicago Press, 2002).

In the late twentieth century, Marjorie Carr and Paula Hawkins practiced a modified variation of performing femininity as an expedient intended to ease their transition into the male-dominated political realm. Their self-described housewife status offered them relatively safe passage into the previously all-male world of American politics. In an era of perceived gender crisis, when second-wave feminism threatened to uproot the established gender order, the tactic Carr and Hawkins employed enabled them to play a central role in state and national politics, where their very presence challenged the order from within.

⁴³ By the time Marjorie Carr and Paula Hawkins started their activist careers, the 1963 publication of Betty Friedan's *The Feminine Mystique* and the widely disseminated 1953 English translation of Simone de Beauvoir's 1949 classic *The Second Sex* had contributed to the spread of second-wave feminism in the United States. These and other feminist manifestos sparked serious debate about women's status in the late twentieth century.

⁴⁴ *The Atlanta Journal and Constitution Magazine*, August 14, 1966.

highlighted Carr's sensational success in "Woman Took on Army Engineers to Save River in Florida."⁴⁵ In 1974, a *Christian Science Monitor* story on Marjorie appeared under the headline "Housewife who Roared."⁴⁶ Since 1962, Carr had worked thirty- to fifty-hour weeks (without pay) on the Ocklawaha campaign. Yet these articles stressed that Carr was happily married with five children, which made her successful activist career more palatable. Even in the 1980s, newspapers continued to use the courtesy title "Mrs." when referring to Carr, Hawkins, and other married women—a title that proved useful during their gradual transition from the sidelines to the front lines of the process of political decision making.⁴⁷

With the possibility of stopping the canal's construction seeming to be off the table, Carr suggested a new route for the Cross Florida Barge Canal that would shorten it by ten miles, reduce the total cost, and—most importantly—steer clear of the Ocklawaha River. In response to the repeated requests of the defenders of the Ocklawaha to reroute the canal, the Corps of Engineers asked Carr to propose a more acceptable route. "They asked me where I would make the canal," Carr exclaimed. "*They were asking me.* I thought this was ridiculous. I took a pencil and drew a line. Just like that! After that they called it 'Mrs. Carr's route.' I think they were a little upset that they hadn't brought it up themselves, but once they make up their minds on a route they are not interested in any alternates. And they defend their choice to the very last."⁴⁸ A

⁴⁵ Jan. 31, 1971 letter referred to *Houston Chronicle* article, "Woman Took on Army Engineers to Save River in Florida." In Barbara Laxson to Mrs. Marjorie Carr, January 31, 1971 (F.D.E. Papers, Box 8).

⁴⁶ *The Christian Science Monitor*, July 1974.

⁴⁷ For a detailed analysis of women's transition from exclusion to inclusion in mainstream politics, see Catherine E. Rymph, *Republican Women: Feminism and Conservatism from Suffrage through the Rise of the New Right* (Chapel Hill: University of North Carolina Press, 2006); and Susan M. Hartmann, *The Other Feminists: Activists in the Liberal Establishment* (New Haven, Connecticut: Yale University Press, 1998), *From Margin to Mainstream: American Women and Politics since 1960* (New York: Knopf, 1989), and *The Home Front and Beyond: American Women in the 1940s* (Boston: Twayne Publishers, 1982).

⁴⁸ Laycock, *The Diligent Destroyers*.

Corps representative later confirmed Carr's suspicions. "To my knowledge, the Corps did not look at any alternative routes in detail or in cost after the '42 study," admitted Sam Eisenberg, a retired member of the U.S. Army Corps of Engineers. "Everything that was done after that followed along the 13-B route." Eisenberg claimed that the final Corps of Engineers report that triggered Congressional funding for construction of the canal in 1964 was "a very minimal type report" that was approximately an eighth of an inch thick, indicating that little consideration was given to the environmental impact of the canal as construction plans were finalized.⁴⁹

"Mrs. Carr's route" would have directed the canal through sand hills sparsely populated with shallow-rooted pines. The channel would have entered the St. Johns River through the Ocala National Forest and Lake George. Moreover, the alternate route would not have required costly reservoirs. The Corps of Engineers decided against Mrs. Carr's route because it did not require reservoirs, among other reasons. Without reservoirs there would be no new recreational benefits, and the Corps' already inflated benefit-cost ratio would collapse.⁵⁰ The canal opposition would later argue that recreational opportunities along an unaltered Ocklawaha surpassed those available in a human-made reservoir that is expensive to maintain and plagued by hydrilla.⁵¹

The Corps was only humoring Carr when it asked for her input on the canal route. Both the Corps and the press made light of the opposition. The Chief of the Army Corps of Engineers, Lieutenant General W. F. Cassidy, labeled Carr and her supporters "little old ladies in tennis

⁴⁹ Interview with Sam Eisenberg, Environmental Impact Study Manager, U.S. Army Corps of Engineers (Retired), *From Waterway to Greenway: The History of the Cross-Florida Barge Canal*, DVD, directed by Darren Lane (Gainesville, Florida: forthcoming, 2010).

⁵⁰ Laycock, *The Diligent Destroyers*. Congress' July 23, 1942 authorization of construction of the canal was based on a Corps of Engineers benefit-cost ratio that offered a marginal return in exchange for the cost of construction. The benefits included recreation opportunities in the canal's impoundments and alleged enhanced land values along the canal route. See also "Barge Canal: Boon or Boondoggle?" *Daytona Beach Morning Journal*, December 20, 1969.

⁵¹ See Florida Defenders of the Environment, *Environmental Impact of the Cross-Florida Barge Canal with Special Emphasis on the Oklawaha Regional Ecosystem* (Gainesville, 1970).

shoes,” reassuring politicians and local interests that the canal’s opponents were not to be taken seriously. At the time, no active Corps of Engineers project had ever been stopped in its tracks. During the same timeframe, pesticide corporations smeared Rachel Carson a “bird and bunny lover,” seeking to discredit her best-selling exposé on the dangers of D.D.T. and other chemical pesticides.⁵² Although the Corps belittled canal opponents in public, behind the scenes their strategy was to bypass the opposition by starting construction as soon as possible.⁵³

In the 1960s, the Corps of Engineers’ current and anticipated projects in Florida—not to mention their other major projects across the United States—included the channelization of the Kissimmee River, the extension of the Intracoastal Waterway, and flood control projects in the Everglades National Park and Lake Okeechobee. A January 1965 Corps map depicts a future Florida that resembles Frankenstein’s monster, with sections cut apart and stitched back together from Key West to Pensacola (see Figure 6-1). Corps mapmakers severed the Florida panhandle from the rest of the state and placed it at the southwestern corner of the map, near Key West. For administrative purposes, Florida was divided into three parts: the Mobile District oversaw the Pensacola region; the Savannah District managed a slice of Florida’s northeastern edge; and the Jacksonville District supervised projects throughout the remainder of Florida. The map’s disturbing dissection of Florida’s northwestern tip, combined with the sheer volume of current and proposed Corps projects, speaks volumes about the Corps of Engineers’ vision for a redesigned Sunshine State that would place nature firmly under human control.⁵⁴ Congress trusted the Corps implicitly. In fiscal year 1964, Congress appropriated more than a billion

⁵² Linda Lear, introduction to *Silent Spring* (xvii).

⁵³ Laycock, *The Diligent Destroyers*; also see Leslie Poole and Everett Caudle interviews.

⁵⁴ See Figure 5-1, a 1965 U.S. Army Corps of Engineers map, “Civil Works Projects in Florida,” Claude Pepper Library, Florida State University, Tallahassee.

dollars for Corps of Engineers civil works projects and nearly a billion and a quarter dollars for fiscal year 1965, the most Congress had ever designated for Corps projects up to that time.⁵⁵

The Fiscal Year 1965 appropriations included \$14,150,000 in construction funding and \$254,700 in operation and maintenance costs for flood control projects in Central and Southern Florida; \$16,000 for investigations into navigation locks in Central and Southern Florida; \$137,000 for investigations into flood control projects at Everglades National Park; \$250,000 for operation and maintenance of the Intracoastal Waterway from Jacksonville to Miami; \$100,000 for investigations of the Intracoastal Waterway from St. Marks River to Tampa Bay; and \$4,000,000 for construction of the Cross Florida Barge Canal, the Corps' chief navigation project in Florida.⁵⁶ The 1965 funds included \$4,000,000 for construction of the Cross Florida Barge Canal, under the authority of Public Law 675, 77th Congress, 23 July 1942. These funds were in addition to the \$1,000,000 fiscal year 1964 appropriation for construction of the barge canal. The Corps' fiscal year 1963 estimate for the total cost of construction was \$145,300,000, considered conservative by canal opponents. The Corps planned to use the fiscal year 1964 \$1,000,000 appropriations to begin work on the canal from Palatka to St. Johns Lock and from St. Johns Lock to Rodman Pool.⁵⁷

Carr embraced the language of Congressional funding in her plea for a new route for the barge canal and ultimately demonstrated that the Corps of Engineers had exaggerated the canal's economic benefits. In the first years of the campaign to save the Ocklawaha River, Carr and her

⁵⁵ "Congress appropriates \$1,220,400,200 for fiscal year 1965 Army Engineers Civil Works Program," 1, report issued by the Office of the Chief of Engineers, Department of the Army, August 1964, Series 301, Box 29, Folder 5, Claude Pepper Library, Florida State University, Tallahassee.

⁵⁶ Marjorie Carr's opposition to the Corps of Engineers' construction of the "missing link" is discussed in chapter six.

⁵⁷ "Army Corps of Engineers Summary of Civil Works Projects under Construction and Surveys in Progress," January 1964, 8, Series 301, Box 29A, Folder 1, Mildred and Claude Pepper Library; "Summary of Civil Works Projects Under Construction and Studies in Progress," December 1965, Series 301, Box 29A, Folder 4.

supporters called upon state and national politicians to reconsider the economic feasibility of an active Corps of Engineers project—authorized and funded by the U.S. Congress—at a time when it was considered unpatriotic to question the government. Carr thought it was wrong to place a dollar amount on every species, body of water, or forest in Florida. If that was what it took to protect the state’s unique ecosystems, however, she was willing to speak in terms of the financial costs of environmental destruction. At first, Alachua Audubon and Citizens placed great importance on the economic value of the wild turkey population that depended upon the Ocklawaha. The groups also stressed the negative impact that the canal would have on hunting and fishing in the river valley. Speaking in the language of nineteenth-century conservation—which viewed nature as a collection of natural resources that should be managed for the benefit of humankind—did little to further the Ocklawaha campaign.⁵⁸

The river was under consideration for inclusion on a national list of wild, scenic rivers that deserved protection from development. In 1963 the Departments of Agriculture and Interior concluded that the Ocklawaha met the established study criteria and should be considered for inclusion. Yet the Corps of Engineers was slated to begin work on the Cross Florida Barge Canal the following year, and such a classification would have forced the Corps to select an alternate route for the canal. When the Corps informed the Senate about its plans to construct the canal along a portion of the Ocklawaha, the river was removed from the list of rivers considered for the wild river study. A Department of Agriculture administrator later admitted that the barge

⁵⁸ Carr, “The Ocklawaha River Wilderness;” Florida Defenders of the Environment, *Restoring the Ocklawaha River Ecosystem*; see also Marjorie Harris Carr, “An Interim Report on the Cross-Florida Barge Canal,” *In Defense of Rivers, A Citizen’s Workbook: Impacts of Dam and Canal Projects*, (published by the Delaware Valley Conservation Association), 138-46. For a detailed analysis of the conservation focus of the early campaign to save the Ocklawaha River Valley, see Noll and Tegeder, *Ditch of Dreams*.

canal “may have been one reason why the Ocklawaha was not considered in wild and scenic rivers legislation.”⁵⁹

Carr pleaded with President Lyndon B. Johnson—who became the canal’s new champion after President Kennedy’s assassination on November 22, 1963—to prevent the destruction of the Ocklawaha. Her request fell on deaf ears, and she was forced to reach out to the First Lady instead. Lady Bird Johnson succeeded in delaying the President’s approval of funds for initial construction of Rodman Dam for two days, but the President was a firm supporter of the canal.⁶⁰ In February 1964, President Johnson traveled to Palatka, Florida to start construction of the Cross Florida Barge Canal with a ceremonial blast of dynamite. Johnson’s speech touted the alleged economic benefits of the canal: “Today, we accept another challenge—we make use of another natural resource. We will construct this canal across North Florida to shorten navigation distances between our Atlantic and Gulf coasts. When this canal is completed, it will spark new and permanent economic growth. It will accelerate business and industry to locate along its banks. It will open up new recreation areas. I wish all of you—and the canal—Godspeed.”⁶¹

To canal boosters, the start of the canal’s construction was a long-awaited dream come true. Nonetheless, Carr and her colleagues were not ready to admit defeat. In addition to destroying tens of thousands of acres of wildlife habitat through the creation of a series of locks, dams, and reservoirs, salt water and pollution from barge canal traffic would have contaminated the Floridan Aquifer, the state’s major source of groundwater. The defenders of the Ocklawaha River sought a public hearing to address the issue, but canal backers ignored their repeated

⁵⁹ M. M. Nelson, Deputy Chief, U.S. Department of Agriculture, Forest Service, to William M. Partington, Florida Defenders of the Environment, April 7, 1970, Florida Defenders of the Environment Papers Box 33.

⁶⁰ See Leslie Poole and Everett Caudle interviews.

⁶¹ Sewell, “Cross-Florida Barge Canal,” 378-82; see also Florida Defenders of the Environment Papers.

requests. Canal boosters faulted Ocklawaha supporters for waiting until the barge canal was already underway before initiating their protests. “You don’t stop something like this after it’s started,” Congressman Syd Herlong insisted. “The canal is going to be completed.”⁶²

The Alachua Audubon Society urged Florida politicians and governmental bodies to take strong steps to oppose the completion of the Cross Florida Barge Canal. In a series of letters, Marjorie Carr and David Anthony, acting on behalf of the Alachua Audubon Society, advised their representatives that the “present route of the canal will obliterate the Ocklawaha River and its heavily forested valley from Silver Springs down to its confluence with the St. Johns.” Carr and Anthony also voiced their concern over the introduction of heavy industry along the river’s banks. “The mere presence of an industrial barge canal in the heart of a section of Florida long dedicated to the various out of door pleasures of man will damage and degrade the character of the entire wilderness area,” they warned. “We believe that in years to come the wilderness of the Ocklawaha River wilderness area will mean more to the economy of Florida if it is preserved than if it is destroyed.”⁶³

In a letter to Florida’s congressional delegation, Carr and Anthony suggested an immediate course of corrective actions. First, the fourteen congressmen should request the immediate suspension of construction of the barge canal from the Silver Springs area to the St. Johns River. Carr and Anthony also urged the congressmen to direct the U.S. Army Corps of Engineers to offer plans for a new canal route from the Silver Springs area to the St. Johns River, avoiding the Ocklawaha River regional ecosystem. They stressed that the Corps of Engineers should work with the Department of Agriculture and the Department of the Interior to prepare

⁶² Editorial by Paul Ferguson, *Marion Sentinel* editor, “Much about Marion: Tossed Salad,” *Orlando Sentinel*, September 28, 1965.

⁶³ “Opposition to Barge Canal Voiced by Alachua Group,” *Ocala Star-Banner*, July 21, 1965.

the plans for an alternate route. Finally, Carr and Anthony requested that a public hearing on the barge canal be held in North Central Florida in order to allow the public to offer input on the new plans before their approval. “The Ocklawaha River will become a symbol,” Carr and Anthony predicted, “whether of man’s folly or man’s wisdom remains to be seen.”⁶⁴

Canal boosters ignored the growing opposition movement and proceeded with plans to secure right-of-way for the barge canal. In an *Ocala Star-Banner* article, Bert Dosh had stressed the importance of securing a large crowd for an upcoming Ocala Canal Authority meeting scheduled to address the acquisition of canal right-of-way. To his dismay, those in attendance included a vocal group of Citizens members who asked the Authority why there had been no public hearing on the canal since 1940. Canal Authority Chairman L. C. Ringhaver admitted that he was unable to offer an explanation, and he attempted to shift the focus of the meeting back toward the procedure of obtaining right of way for the canal. State Conservation Director Randolph Hodges accused the questioners of having “ulterior motives,” adding that “some people may not be aware of it, but if we take time to have some projects of the canal restudied it would seriously jeopardize construction of the canal in a time in the foreseeable future.” Indeed, stalling construction of the canal long enough to inform the public about its negative environmental impact would be a major boon for the Ocklawaha campaign. Citizens members resumed their questioning, asking what benefits the canal would provide that would counter its harmful effects to the Ocklawaha River Valley. One crowd member asked if the canal was such a “flimsy project” that it could not withstand the close scrutiny a public hearing would bring. An unidentified female attendee asked, “What would be the harm of a public hearing?” At that point, Ringhaver advised the crowd that the canal’s feasibility had already been established and

⁶⁴ Ibid.

reminded those in attendance that the purpose of the meeting was to discuss right of way acquisition and not whether the federal project should have further public hearings.⁶⁵

The *Florida Times-Union* (published in Jacksonville, which overwhelmingly favored construction of the canal) reported that the canal opponents' two main objections to the canal—the threat it posed to the Floridan Aquifer and salt water intrusion—were unfounded. Colonel Giles Evans of the U.S. Army Corps of Engineers assured those in attendance that underground water did not flow long distances through the length of the state. He claimed that the canal would be built in a “sag” in the land and would not affect the state's main source of drinking water. When someone in attendance asked how the Corps planned to handle the issue of oil flecks from the barge canal damaging fishing along the river, officials responded that the switch from a proposed ship canal to a barge canal eliminated the threat of pollution from barge traffic. In addition, the height of the Atlantic and Gulf Coast locks—twenty feet above sea level—would eliminate the danger of saltwater intrusion. Hodges admitted that a great deal of concern had been shown over possible damage to the state's wildlife and fish as a result of the canal. He attempted to assuage canal opponents' fears about the canal, informing the crowd that the Board of Conservation—composed of the governor and his Cabinet (instead of an independent group of scientists and other appropriate experts)—had studied all aspects of the canal and was certain that it posed no threat to the state's wildlife.⁶⁶

The Corps planned to step up construction efforts in order to complete the canal sooner than early projections of eight years. In order to do so, Congress would have to increase its annual appropriations to more than \$20 million per year. Governor Haydon Burns supported this

⁶⁵ “Canal Opponents Want Hearing,” *St. Petersburg Times*, October 5, 1965.

⁶⁶ *Florida Times-Union*, October 5, 1965.

strategy, stating that “the canal is of no value to anyone until the first barge is across the waterway.” Increasing the pace of construction would also solve the problem of contending with the canal’s opposition, who continued to press for a public hearing to discuss the advisability of completing the canal along Route 13-B.⁶⁷

According to Corps of Engineers literature distributed to Congress, standard procedure for any Corps project includes public hearings in the initial stages of investigation. “The desires of the people concerned are fundamental in making final recommendations to Congress,” a 1965 Corps report states. The Corps explained that successful projects include benefits that will exceed costs, feature sound engineering design, meet the needs of the people concerned, and make the fullest use possible of the natural resources involved. In addition, projects are designed to improve available recreation opportunities and minimize the loss of existing recreational values. “Plans for recreational development are coordinated throughout the planning stages with local interests and interested State and Federal agencies,” the Corps stressed.⁶⁸ The Corps’ statements regarding the planning process for its projects contrasted with the way plans for the construction of the barge canal had been realized. Approximately twenty percent of the estimated cost of the barge canal had already been expended by the fall of 1965, yet no public hearing had been held, although the Corps maintained that this was standard procedure.⁶⁹

Carr and her fellow activists had begun to harness the power of the press. Newspapers across the state covered their struggle to schedule a public hearing. Canal proponents were slowly realizing that they would have to address the activists’ concerns—at least on the surface.

⁶⁷ R. N. Dosh, Editor Emeritus, “Right of Way for Canal,” *Ocala Star-Banner*, October 3, 1965.

⁶⁸ “Water Resources Development by the U.S. Army Corps of Engineers in Florida, U.S. Army Engineer Division, South Atlantic, 1 January 1965,” Mildred and Claude Pepper Library, Series 301, Box 29A, Folder 4.

⁶⁹ “Barge Canal Progress Is Discussed,” *Florida Times-Union*, September 30, 1965.

The long-awaited public hearing would prove to be a farce. Yet it would also prove to be a turning point in the campaign to save the Ocklawaha, which shifted its focus from conservation to ecology. The Ocklawaha fight began during the emergence of the environmental movement, which reoriented activists' focus from the conservationist goal of preserving natural resources for human use to an ecology-based perspective favoring the maintenance of sustainable relationships with nature. In the nineteenth and early twentieth centuries, dams and reservoirs symbolized human ingenuity and determination. The structures would "improve" upon nature and serve the needs of a population that increasingly abandoned rural life and embraced the modern city, opening up opportunities for engineers to manipulate natural resources to supply the material needs of city residents. In the late twentieth century, the U.S. Army Corps of Engineers received billions of dollars in annual funding for projects that shaped the land according to human will. Just as manifest destiny had been used to justify America's expansion into the American West in the nineteenth century, in the twentieth century, the prevailing view continued to be that humans were destined to dominate and control the natural world.⁷⁰

Yet the American public was on the cusp of a paradigm shift in its environmental consciousness that would begin to give preference to stewardship over exploitation. Ironically, the growth of suburbs after World War II—which in turn fueled Americans' increasing dependence upon the automobile—contributed both to the rapid deterioration of environmental qualities and a new appreciation for nature, which had become more accessible to suburbanites than it was to city dwellers. Mounting pollution from heavy industry and the electric power industry threatened the nation's water, air, and land. In the absence of strict, national environmental regulations and enforcement agencies, industries regularly disposed of raw

⁷⁰ Ibid., 38-47.

sewage and chemicals in waterways, emitted vast amounts of toxins into the air, and disposed of toxic waste near residential areas. The science of ecology—a potentially subversive science that would empower scientists and citizens alike with the ability to discern evidence of environmental degradation—provided activists with the expertise required to mount a successful challenge to some of the more environmentally insensitive programs of federal agencies such as the Corps of Engineers and Bureau of Reclamation. The focus of ecology had gradually evolved from the study of single species to analyses of the complex interactions between species and habitats within an ecosystem—a transition influenced by the 1953 publication of Eugene P. Odum and Howard T. Odum’s *Fundamentals of Ecology*. The Odum brothers provided environmental activists with a sophisticated new language and philosophy that emphasized the centrality of the ecosystem to all living things.⁷¹

Ecology’s maturation also contributed to the rise of activist scientists who acted on a sense of commitment to their local communities and the country at large by using their scientific expertise to evaluate and comment on deteriorating environmental conditions and challenge irresponsible government programs that lined the pockets of state and local officials and contractors while damaging the environment. Aldo Leopold was in the vanguard of a growing group of writers whose combined scientific and literary talents awakened a new generation of environmentalists. Leopold’s early career with the U.S. Forest Service afforded him an insider’s perspective on the philosophy and methodologies behind federal conservation programs. He

⁷¹ For an in-depth analysis of the centrality of ecology to the rise of the national environmental movement, see Donald Worster, *Nature’s Economy: A History of Ecological Ideas, Second Edition* (New York: Cambridge University Press, 1994). For an excellent summary of the connection between ecology and Florida’s environmental movement, see Jack E. Davis, *An Environmental Providence: Marjory Stoneman Douglas and the American Environmental Century* (Athens and London: The University of Georgia Press, 2009), 412-17. For a useful examination of the connection between postwar suburban growth and the rise of the environmental movement—in addition to an analysis of the rise of environmental legislation in the 1960s and 1970s—see J. Brooks Flippen, *Nixon and the Environment* (Albuquerque: University of New Mexico Press, 2000).

abandoned his career in wildlife management to cofound the Wilderness Society and advocate environmental ethics. His message reached its widest audience after his death with the 1949 publication of *Sand County Almanac*, which espoused a land ethic that emphasized cooperation over competition.⁷²

Leopold's *Almanac* set the stage for Rachel Carson's 1962 publication of *Silent Spring*, an indictment of the United States' indiscriminate use of D.D.T. and other pesticides. *Silent Spring* aided in the transition from conservation—or the idea of preserving nature *for* humanity—to environmentalism, whose goal was to protect nature *from* humanity. Carson's message contributed to the growth of the public's awareness of the connections between human actions (including unregulated pesticide use) and ecosystems—or the “web of life,” as she so lyrically described the relationships between species and habitat. The ways humans interact with the environment, Carson stressed, affect all life: poisoning an ecosystem with what she termed “biocide” affects not only the targeted insect, but the species that feed upon it, their habitat, and humans who are also supported by the flora and fauna within the ecosystem. *Silent Spring* empowered citizen groups to challenge pollution and other environmental hazards at the local level.⁷³

Aldo Leopold and Rachel Carson were not the nation's first activist scientists, however. Florida led the nation both in terms of the science of ecology and citizen activism. Marjorie and Archie Carr's ecological awareness—which began with their undergraduate training in the 1930s at Florida State College for Women and the University of Florida, respectively—continued to be refined throughout their graduate training at the University of Florida, and in Honduras, Costa

⁷² Davis, *An Environmental Providence*, 412-17.

⁷³ *Ibid.*

Rica, and Africa, which became the subject of Archie's *Ulendo*. Archie—like Aldo Leopold—wrote about nature with colorful, accessible prose. His University of Florida training had stressed the importance of including human culture as an important variable in the study of ecosystems. For decades his research had considered the impact of human practices upon the survival of several species of sea turtle. By the time the environmental movement was beginning to flourish, Archie lamented that too few scientists acted upon their ethics and involved themselves in global and local environmental struggles.

“The trouble is not mad scientists destroying the world,” Archie purported, “but politicians not planning beyond their noses, and chambers of commerce clamoring for growth and profit, and people in general being too passive and far too fertile and abundant. As I see it, the thing to blame scientists for is not what they do, but what they don't do—their leaving to engineers, politicians and military men the decisions that change the earth and determine the way our descendants will live. Obviously scientists ought to be more active in the struggle to put the strong tools that their discoveries have created into the hands of more responsible, humane, and fore-sighted planners than those who are now in charge. I believe scientists are coming to see that this is so.”⁷⁴

Although Archie was frustrated with the slow pace of environmental activism and awareness, Florida was actually years ahead of the national curve. In 1946, the Florida Audubon Society challenged the state's indiscriminate use of D.D.T., long before the publication of Carson's *Silent Spring*. Audubon expressed its concerns about the pesticide's fatal effects on Florida's avian and marine life. The state board of health and the Florida Anti-Mosquito

⁷⁴ Archie Carr to Miss Lore Rensoy-Otzen (February 12, 1971), Box 33, Florida Defenders of the Environment Papers. Reflecting Archie's international acclaim, Archie received and responded to letters from readers from around the world. Rensoy-Otzen wrote from Norway to express her concerns about human indifference to the environment and pollution.

Association protested the state's practice of spraying D.D.T. throughout entire cities, which the organizations viewed as a public health threat of epic proportions. In the 1950s, a popular pastime for Mimi Carr's childhood friends in Gainesville was to chase the mosquito spray truck as it made its weekly rounds, spraying a fine mist of D.D.T. on everything in its path. In 1957, the state created the Florida Air Pollution Control Commission in response to the air pollution generated by its thriving phosphate industry. Mirroring activists' use of scientific expertise in the Echo Park campaign, citizens offered scientific proof of the phosphate industry's role in polluting Florida's air with sulfur oxides and fluorides and insisted upon government intervention. The year prior, the marine biologist Robert Hutton drafted one of the first environmental impact statements as part of a collective action opposing the dredging and filling of Boca Ciega Bay in St. Petersburg. The bay's sensitive estuarine environment had already suffered the Corps of Engineers' dredging of a fifteen-foot-deep ship channel and extensive plume hunting. Developers' plans to create fill land in the bay were ultimately approved, but Hutton's study served as a useful prototype for future environmental impact studies. The created land is now home to Eckerd College, whose students are likely unaware that their waterfront campus was created artificially.⁷⁵

The influence of the science of ecology upon the burgeoning environmental movement could not find a clearer form of expression than Marjorie Carr's March 1965 essay, "The Ocklawaha Wilderness," published in the August issue of *Florida Naturalist*. The essay begins with an ecological survey of the Ocklawaha River Valley and its flora and fauna. The essay demonstrates a shift in Carr's strategy from a focus on the Ocklawaha River as a valuable natural resource that provided clear economic rewards to humans—measured in terms of such tangible

⁷⁵ For more information on the transition from conservation to environmentalism in Florida and the nation, see Davis, *An Everglades Providence*, 407-19, 500-528.

experiences as hunting and fishing—to the view that the Ocklawaha River is of value to humans by virtue of its ecological uniqueness. The Ocklawaha River, Carr contended, was an ancient ecosystem that was home to a unique sampling of flora and fauna that were threatened by the construction of the barge canal. The native flora and fauna supported by the river valley required “a big piece of unbroken woods” in order to continue to exist in the state. “Today, as Florida’s population increases and its wilderness decreases, more and more people, with a variety of interests are coming into the Forest,” Carr explained. “Students, ranging from grade school to college, come here on field trips; winter visitors, groups of youngsters, Boy Scouts, Girl Scouts and families come for a day or a week, just for the pleasure of being in natural Florida woods.”⁷⁶

Carr’s essay was peppered with details about the damage that a completed barge canal would inflict upon the Ocklawaha Valley. Lake Eaton in the Ocala National Forest “will be wholly drowned along with forty-five miles of the river, if the Cross-Florida Barge Canal construction continues as presently planned,” she warned. “Five outstanding Florida springs are located in or very near this natural wilderness area... This valuable complex of wilderness which, mostly by plain good luck, remains as a sample of the original Florida, if saved and cared for could forever serve the enjoyment, inspiration and education of man.” By focusing on the value of the land itself—not as a natural resource fit for consumption, but as a treasure to be protected from human exploitation—Carr changed the composition of the movement to save the river from one of limited scope related to the protection of local hunting interests to a movement of national significance. The environmental movement in Florida and the nation was in its infancy, and speaking in terms of the innate value of nature was a powerful new tactic that would

⁷⁶ Carr, “The Ocklawaha River Wilderness.” Although Carr stressed the value of the Ocklawaha River Valley to nature tourism, her argument centered primarily on the merits of preserving the Ocklawaha River ecosystem—one of the largest unbroken tracts of land in Florida and one of only sixty-eight wild and scenic rivers remaining in the nation—because of its ecological diversity.

expand the influence and reach of the Ocklawaha campaign. If the Rodman and Eureka Dams were completed, Carr pointed out, approximately 27,000 acres of riverine forest would be flooded and more than thirty miles of the mile-wide Ocklawaha Valley would be converted to a “shallow, snag-filled reservoir.” Moreover, Rodman Dam would drastically reduce the flow of water to the last ten miles of the Ocklawaha River, blocking native fish and manatees from traveling up the Ocklawaha (and resulting in their death in the dam and lock structures), and leading to additional disastrous consequences for the flora and fauna along that section of the river.⁷⁷

Although dredging of the barge canal had already commenced along select portions of the Ocklawaha River, construction of the Rodman and Eureka dams and reservoirs was not scheduled to begin until 1966. Activists’ opposition to Route 13-B intensified throughout 1965, when Alachua Audubon, Citizens, the Florida division of the Nature Conservancy, and other Florida conservation organizations lobbied Florida Governor Haydon Burns and the Florida Canal Authority to schedule a public hearing on the Cross Florida Barge Canal—something that had not occurred since the inception of the barge canal project in 1942. “It isn’t too late to save the Ocklawaha,” Carr insisted. “The canal lives from appropriation to appropriation. It’s based on a six-and-a-half-year construction period. The cost of the canal is estimated at one hundred and seventy-one million dollars including interest.”⁷⁸ The Florida Canal Authority’s chairman, L. C. Ringhaver, repeatedly tabled requests to set a date for a hearing. His actions prompted Mrs. Kenneth R. Morrison—chairman of Florida Bi-Partisans (a civic affairs study group investigating the barge canal)—to warn Governor Burns in writing that if the canal authority did

⁷⁷ Ibid; see also Florida Defenders of the Environment, *Restoring the Ocklawaha River Ecosystem*.

⁷⁸ “Audubon Joins Stand against Barge Canal,” *St. Petersburg Times*, May 10, 1965.

not schedule a meeting that week, Florida Bi-Partisans and other civic organizations from across the state would hold a “protest boat-a-cade” on the Ocklawaha River to draw national attention to their cause. Along with Florida Bi-Partisans, Alachua Audubon, and Citizens, statewide organizations that supported the Ocklawaha included the Izaak Walton League of America’s Florida division; the Federated Conservation Council; and the Florida Audubon Society.⁷⁹

Time was of the essence. The Corps of Engineers planned to let contracts for Marion County projects including construction of Rodman and Eureka Dams and reservoirs by February 1st, 1966. “The valley will be turned into a reservoir,” Carr explained. “In effect that will mean killing 27,000 acres of unbroken forest.”⁸⁰ Governor Burns invited the defenders of the Ocklawaha to voice their concerns at the January 25, 1966 Annual Water Resources Development Meeting in Tallahassee. “Burns invited us because we had raised so much hell,” recalled Bill Partington, an officer of the Florida Audubon Society.⁸¹ The meeting had originally been scheduled to coordinate the state’s water-related public works projects before presenting an official budget request to Congress, which raised the ire of activists, who had requested a meeting designed specifically to address the planned route for the barge canal. Activists also complained that Tallahassee was an inconvenient location and requested a hearing closer to the proposed site of the barge canal. Politicians should visit the Ocklawaha River before deciding upon its fate, activists contended. Although the Corps of Engineers assured activists that they

⁷⁹ “Barge Canal Hearing Plan Draws Fire,” *St. Petersburg Times*, December 12, 1965; “Early Decision May Come on Holding Canal Hearing,” *Ocala Star-Banner*, December 6, 1965. The newspaper article only identified Mrs. Kenneth R. Morrison, the leader of Florida Bi-Partisan, by her husband’s name. In the early days of the Ocklawaha campaign, Marjorie Carr signed most of her letters to politicians as “Mrs. Archie Carr, Co-Chairman for Conservation, Alachua Audubon Society,” but as the campaign wore on, she switched to “Marjorie H. Carr,” updating her official title as it changed to Co-President of Alachua Audubon, Vice-Chairman of Florida Defenders of the Environment (F.D.E.), and later President of F.D.E.

⁸⁰ “Citizens Attack Florida Barge Canal Project,” *Sarasota Journal*, July 26, 1965.

⁸¹ *Lakeland Ledger*, January 24, 1971.

would do everything possible to preserve the wild and natural state of the Ocklawaha River Valley, the river's defenders claimed that the canal would destroy the river's wild status and natural beauty. Marion County officials supported the canal, which was predicted to be a boon to the region's economy. Ringhaver admitted that the canal would alter approximately forty-one miles of the Ocklawaha River Valley, but he maintained that construction would also improve access to recreation opportunities for the public. The Citizens group was the most vocal in criticizing the state for failing to schedule a hearing that would focus exclusively on the issue of rerouting the canal. At the time, two miles of the eastern segment of the canal were already complete. On the western end, extensive dredging and bridge and lock construction were underway.⁸²

More than three hundred and fifty people—ranging from concerned individuals to representatives of every major conservation organization in the nation—converged upon Tallahassee to speak not against the canal, but on behalf of the Ocklawaha River; approximately sixty people made presentations to state officials, requesting an alternate route for the Cross Florida Barge Canal. Most of the speakers assured Randolph Hodges of the Board of Conservation and Secretary of State Tom Adams that they did not oppose the canal's construction—only its present route. Carr had publicized the event in newsletters published by state and regional chapters of the Audubon Society and Garden Club, as well as in other conservation groups' newsletters throughout the state. Canal boosters, meanwhile, resorted to paying supporters to attend. “All these men arrived in their double-breasted suits, and they filled the well of the hall,” Carr recalled. “We, on the other hand, were just around on the perimeter

⁸² Ibid.; “Canal a Surprise to Housewife Who Led Fight,” *Lakeland Ledger*, January 24, 1971; “Early Decision May Come on Holding Canal Hearing,” *Ocala Star-Banner*, December 6, 1965; “Barge Canal Foes to Have their Innings,” *St. Petersburg Times*, January 24, 1966. See also “Environmental Impact of the Cross-Florida Barge Canal with Special Emphasis on the Ocklawaha Regional Ecosystem” (Gainesville: Florida Defenders of the Environment, 1970), 55.

and up in the gallery. We outnumbered them. It was fantastic.” Canal proponents—including state legislators, county and port officials, waterways officials, and contractors—were given the floor until the early evening. State Senator L. K. Edwards of Marion County, a longtime canal supporter, said he would “hate to see anything done to stop the canal now.” He pointed out the canal’s alleged economic benefits, including increasing land values and cheaper transportation costs for businesses. Although the water resources development meeting was also devoted to projects that were unrelated to the canal, the backers of those projects also expressed their support for the construction of the barge canal along its current route.⁸³

Those who favored rerouting the canal around the Ocklawaha traveled from all over the state to share their concerns that the current route would destroy thousands of acres of trees and cause irreparable damage to the river valley. Adams made light of their concerns, chiding them for failing to realize how difficult it would be to change the route. Adams claimed the only other suitable water source to fill the canal and operate its locks would be Silver Springs, a popular tourist destination and a main source of water for the Ocklawaha River. Tapping into Silver Springs as a water source for the canal would “render the Ocklawaha a stagnant stream,” Adams predicted, “from Silver Springs to the St. Johns River.” The new route would also cost an extra thirteen million dollars and reduce the canal’s recreation benefits, he said, reading from a Corps of Engineers report explaining why rerouting the canal was not feasible. Nonetheless, Hodges assured those in attendance that the results of the hearing would be compiled and sent to the

⁸³ Marjorie Harris Carr, Everett Caudle interview; *Lakeland Ledger*, January 24, 1971; *Ocala Star-Banner*, December 6, 1965; “Oklawaha River Backers Speak Up at Hearing,” *St. Petersburg Times*, January 26, 1966; Florida Defenders of the Environment, “Environmental Impact of the Cross-Florida Barge Canal;” Leslie Poole and Everett Caudle interviews with Marjorie Harris Carr; *Pork Barrel and Pheasant Feathers*, video, directed by Holly Fisher, 1966.

Board of Conservation for study, although it would be some time before a recommendation—if any—would be made.⁸⁴

Although river defenders expected to plead their case to the governor or his cabinet, Tom Adams served as the meeting's chair. "He bullied every one of us," Carr recalled. The canal opposition had been scheduled to present their findings early that afternoon, but canal proponents did not cede them the floor until the early evening. Carr had urged those in attendance not to express any opposition to the canal at the hearing. Instead, they were directed to request officials to consider the merits of selecting an alternate route that would spare the Ocklawaha. Defenders of the Ocklawaha River Valley made the case that if the barge canal were constructed along its currently planned route, the Ocklawaha's wild state and natural beauty would be ruined. They also predicted that the artificial reservoirs—which proponents claimed would improve upon the river's natural recreation values—would become clogged with exotic water weeds and tree snags. Proponents countered that the Corps of Engineers would preserve as much of the Ocklawaha's natural beauty as possible.⁸⁵

In a stunning blow to the river defenders, activists found out after the alleged public hearing the real business decisions concerning the canal had already been made in private on the morning of the hearing, without the knowledge or participation of those who had requested a public hearing on the canal project. The committee dismissed testimony of conservationists before hearing it. Nathaniel Reed called the botched public hearing an epic event that contributed to the growth of Florida's environmental movement. According to Reed, the Chief of the Corps of Engineers and his staff "grossly misplayed" the hearing. "And I was there not as

⁸⁴ Ibid.

⁸⁵ *Ocala Star-Banner*, December 6, 1965; Florida Defenders of the Environment, "Environmental Impact of the Cross-Florida Barge Canal;" Leslie Poole and Everett Caudle interviews with Marjorie Harris Carr; *Pork Barrel and Pheasant Feathers*, video, directed by Holly Fisher, 1966.

an opponent,” he added. “I was there to learn. A neutral observer would have been totally aghast at the proceedings. It was the most rigged public hearing that I have ever been to or hope to go to in my lifetime. The opponents were allowed three minutes each at five o’clock in the afternoon. The proponents had the entire day. It was a statewide scandal. Every newspaper picked it up. This thing was totally rigged.”⁸⁶

The January 25 hearing had shown that the balance of power favored canal proponents. This chapter in the canal story ended with a painful defeat for the defenders of the Ocklawaha, but they considered the public hearing to be a watershed. “I learned later,” Partington recalled, “that only one copy of the hearing record was made and our arguments never were forwarded to Congress. We went away mad and wounded, but we never forgot. I think of that meeting as the turning point in Florida conservation history, because people from the Florida Keys to the Panhandle met each other for the first time. Splintered groups began talking about organizing a united front.”⁸⁷

Although the Corps of Engineers and canal proponents had been reluctant to reconsider their plans to build the canal along the Ocklawaha River, there was a precedent for rerouting Corps navigation projects. At the same time that the Corps was preparing to construct the Cross Florida Barge Canal, it had also been authorized to build the Gulf Intracoastal Waterway from Carrabelle to St. Marks, Florida. The Gulf section of the Intracoastal Waterway would have traversed the Carrabelle, Crooked, and Ochlockonee Rivers, but the Corps agreed to “consider the advisability of providing an alternative route in lieu of the authorized route,” according to Corps literature. Because the Freedom of Information Act was not signed into law until July 4,

⁸⁶ Interview with Nathaniel Reed, *From Waterway to Greenway: The History of the Cross-Florida Barge Canal*, DVD, directed by Darren Preston Lane (Gainesville, Florida: forthcoming).

⁸⁷ *Lakeland Ledger*, January 24, 1971.

1966, however, Carr and her fellow activists lacked the ability to access official Corps of Engineers files. Even after the passage of this crucial law, however, the Corps obstructed access to official information through a series of delays and failures to reply with the requests of Carr and other activists.⁸⁸

Rebuffed by officials in Tallahassee, Carr retreated to Micanopy to prepare for the next confrontation. While the Ocklawaha defenders prepared a new strategy, the Corps of Engineers started work on Rodman Dam in 1966, using a massive new machine designed to clear forest as quickly and effectively as possible. F. Browne Gregg, the designer of the experimental “crawler-crusher,” estimated that the machine crushed approximately four thousand five hundred acres of trees in five weeks. “They destroyed the forest along the river as fast as they could,” Marjorie remembered. By the fall of 1968, five thousand, five hundred acres of Rodman Reservoir had been cleared, Rodman Dam and the St. Johns Lock had been completed, and Eureka Dam was under construction. The Corps closed Rodman Dam on September 30, 1968, and flooded Rodman Reservoir. Thousands of dead trees that the crawler-crusher had bulldozed floated to the top of Rodman Pool after the reservoir was flooded. Just as activists had predicted, hardwood trees surrounding the reservoir started to die, while hydrilla prospered.⁸⁹

“It was a horrible sight to see,” Florida Presbyterian College biology professor George K. Reid observed. “This is a crime against nature.” The Corps had destroyed all of the trees in a twenty-mile section of the Ocklawaha forest in preparation for the barge canal. A Corps

⁸⁸ “Summary of Civil Works Projects Under Construction and Studies in Progress,” December 1965, 49, Mildred and Claude Pepper Library, Series 301, Box 29A, Folder 4. The Florida Defenders of the Environment Papers contain an entire folder concerning problems and strategies related to the Freedom of Information Act.

⁸⁹ Marjorie Harris Carr, Everett Caudle interview; Gregg later supervised the creation of a series of artificial lakes and underground tunnels for Walt Disney World. Interview with F. Browne Gregg, *From Waterway to Greenway: The History of the Cross-Florida Barge Canal*, DVD, directed by Darren Preston Lane (Gainesville, Florida: forthcoming); Florida Defenders of the Environment, *Environmental Impact of the Cross-Florida Barge Canal*.

spokesman later admitted that the organization had not anticipated the adverse publicity that followed its use of the crawler-crusher and the flooding of “Lake Ocklawaha” (Rodman Pool). Another chapter in the Ocklawaha campaign had ended in failure for the defenders of the river. After their decisive defeat in Tallahassee, Carr and her allies realized that they had to aim higher. The activists commenced an intensive public education campaign, complemented by an improved legal strategy backed by an ecological study highlighting the canal’s consequences for Florida’s environment.⁹⁰

By 1966 Mimi, Chuck, Stephen, and Tom Carr had reached college age. Only David, the youngest of the Carrs’ children, was still living at home with his parents. Carr devoted most of her time to the campaign to save the Ocklawaha River, which meant that there were many nights when David and Archie had to fend for themselves at dinner time. Because the Carrs were both too busy to devote much time to household chores, they employed the services of a part-time housekeeper. David offered occasional assistance to his mother’s cause by taking potential supporters on canoe rides along the Ocklawaha or providing office assistance. In 1970, David started his freshman year at the University of Florida, but he continued to live at home with his parents. He often called his mother at the F.D.E. office in Gainesville to ask if she was coming home for dinner. Carr later apologized for devoting more time to the Ocklawaha than to her family as the campaign progressed, but Archie was equally preoccupied with his own research and writing.⁹¹

Carr continued to support her husband’s turtle research throughout her campaign to save the Ocklawaha. In 1968, she spent five weeks at the Tortuguero research station in Costa Rica,

⁹⁰ *Burlington County Times*, January 20, 1971; *Miami Herald*, Thursday, January 21, 1971. Florida Presbyterian College was renamed Eckerd College after Jack Eckerd, the founder of Eckerd Drug Stores, made a substantial donation to the school.

⁹¹ “Fame Has Come to Marjorie Carr But to Her, It’s a Family Affair,” *Gainesville Sun*, January 25, 1971.

where she tabulated the results of fifteen years of turtle tagging. This data provided the foundation for several subsequent articles that she wrote with Archie, including two pieces that were published in the prestigious national journal *Ecology*.⁹² Just as the science of ecology now informed the debate over the Cross Florida Barge Canal, beginning in 1970, ecology and conservation formed the theoretical framework of all of Archie's research projects, historian Frederick Rowe Davis has observed. While Archie's groundbreaking turtle studies commanded international attention to the plight of endangered sea turtle populations, Marjorie Carr harnessed the activist science of ecology to raise awareness of the threatened Ocklawaha River and to foster environmental stewardship at the national level.⁹³

Science remained at the heart of Carr's campaign to save the Ocklawaha, which stands in contrast to certain scholarly interpretations of women's environmental activism in the late twentieth century. Historian Robert Gottlieb makes a distinction between male and female leadership styles within the environmental movement. He contends that within the antitoxics movement that emerged in the 1970s, women's leadership skills were derived from their experiences "managing their homes, engaging in activities concerning their children's schools, and in holding their families together." Gottlieb contrasts this "feminine" style of leadership with the "masculine" leadership style that leaders of the mainstream conservation and environmental organizations espoused—a leadership style that was grounded in science and policy. He maintains that there were no women leaders of environmental groups at the

⁹² As mentioned in chapter four, Marjorie Carr's joint publications with Archie Carr include "Modulated Reproductive Periodicity in *Chelonia*," *Ecology* 51 (2): 335-337, 1970, 2 tpls.; "Recruitment and Remigration In a Green Turtle Nesting Colony," *Biological Conservation*, 2 (4): 282-84, 1970, 3 tpls., 1 fig.; "Site Fixity In Caribbean Green Turtles," *Ecology* 53 (3): 425-29, 1972; and "The Ecology and Migrations of Sea Turtles: The West Caribbean Green Turtle Colony," *Bulletin of the American Museum of Natural History* 162 (1978), with Archie Carr and Anne B. Meylan.

⁹³ For an excellent analysis of Marjorie's joint publications on sea turtles with Archie Carr, see Frederick Rowe Davis, *The Man Who Saved Sea Turtles* (206-209).

beginning of the movement; by the 1970s, there were only a handful, and most of these women leaders adopted “male” leadership styles. Gottlieb’s history of the environmental movement of the late twentieth century is comprehensive in scope, yet it largely overlooks Florida campaigns and leaders—including Marjory Stoneman Douglas’s leadership of Friends of the Everglades and Marjorie Harris Carr’s leadership of the campaign to save the Ocklawaha River. Although Gottlieb contends that women seldom served in formal leadership positions within established conservation organizations such as the Audubon Society and the newer professional organizations such as the Environmental Defense Fund at the start of the environmental movement, Carr and other Florida women activists served at the helm of both types of conservation and environmental organizations.⁹⁴

One of the reasons behind Carr’s successful leadership within the male-dominated field of environmental activism was her background in academic science. Unlike the activism that was characteristic of the antitoxics movement—in which women leaders constructed arguments that stemmed from personal experiences with toxic pollution and its effects on their families and communities—Carr’s authority was based upon her scientific understanding of the effects of the proposed barge canal upon the Ocklawaha ecosystem. A graduate of the University of Florida’s zoology department, Carr functioned as a member of the academic community of Gainesville. She drew upon the intellectual resources of the University of Florida, an established bastion of professional expertise, to coordinate and disseminate scientific, economic, and legal information that bolstered the Ocklawaha defenders’ developing case against the Cross Florida Barge Canal.

⁹⁴ Robert Gottlieb provides a thorough examination of the development of the national environmental movement in *Forcing the Spring: The Transformation of the American Environmental Movement* (Washington, D.C. and Covelo, California: Island Press, 1993); see especially 206-230; quote on 209.

Using Gottlieb's model for female and male leadership styles as a guide, Carr's would have fallen into the "masculine" category—like most of the other women leaders of the early environmental movement—because she emphasized science, economics, and politics over traditional women's concerns. However, judging the sensitivity of environmental organizations by their commitment to issues pertaining to women and gender seems counterproductive when the efficacy of single-issue campaigns focusing on one environmental cause would be undermined by branching out into social issues. Moreover, the subtext of Gottlieb's argument on female and male leadership styles appears to be that the expertise and policy-driven approach to environmental activism is male, whereas female activism stems from women's personal experiences within their presumed cultural role as nurturers. As a female scientist, Carr's leadership style does not fit within the gendered constraints of this female/male leadership style dichotomy.

The next chapter examines the role Marjorie Carr and Florida Defenders of the Environment played in the emergence of a statewide and national environmental movement in the late 1960s and early 1970s. Carr's continuing battle to stop construction of the barge canal and restore the Ocklawaha River garnered national media attention and stood as an example of the effectiveness of science and citizen activism in resolving environmental controversies. Her persistence never waned. When she reached retirement age, Carr's influence was at its peak, and she remained active in the fight for restoration until terminal illness sapped her energy in the late 1990s. The final chapter of this dissertation considers Carr's environmental legacy.

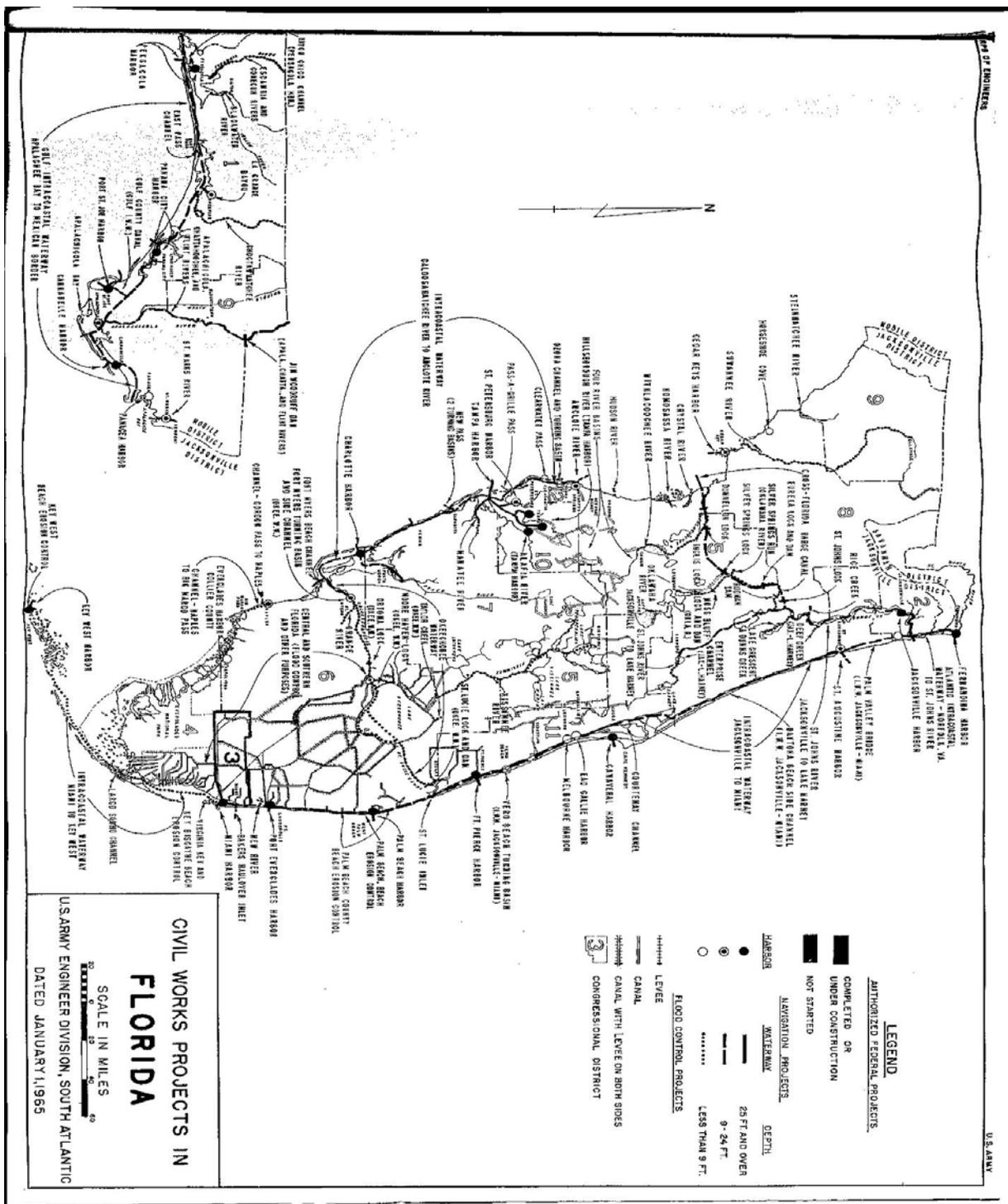


Figure 6-1. A 1965 U.S. Army Corps of Engineers map detailing the organization’s active and planned civil works projects in Florida. The Cross Florida Barge Canal is identified with a thick, black line. Note Florida is severed, with the panhandle near Key West. “Summary of Civil Works Projects Under Construction and Studies in Progress,” December 1965, Mildred and Claude Pepper Library, Series 301, Box 29A, Folder 4.



Figure 6-2. The Ocklawaha River in the early 1960s, before construction of the Cross Florida Barge Canal. Courtesy of the Florida State Archives.



Figure 6-3. An aninga dries its wings after diving for fish. Photo by Peggy Macdonald.

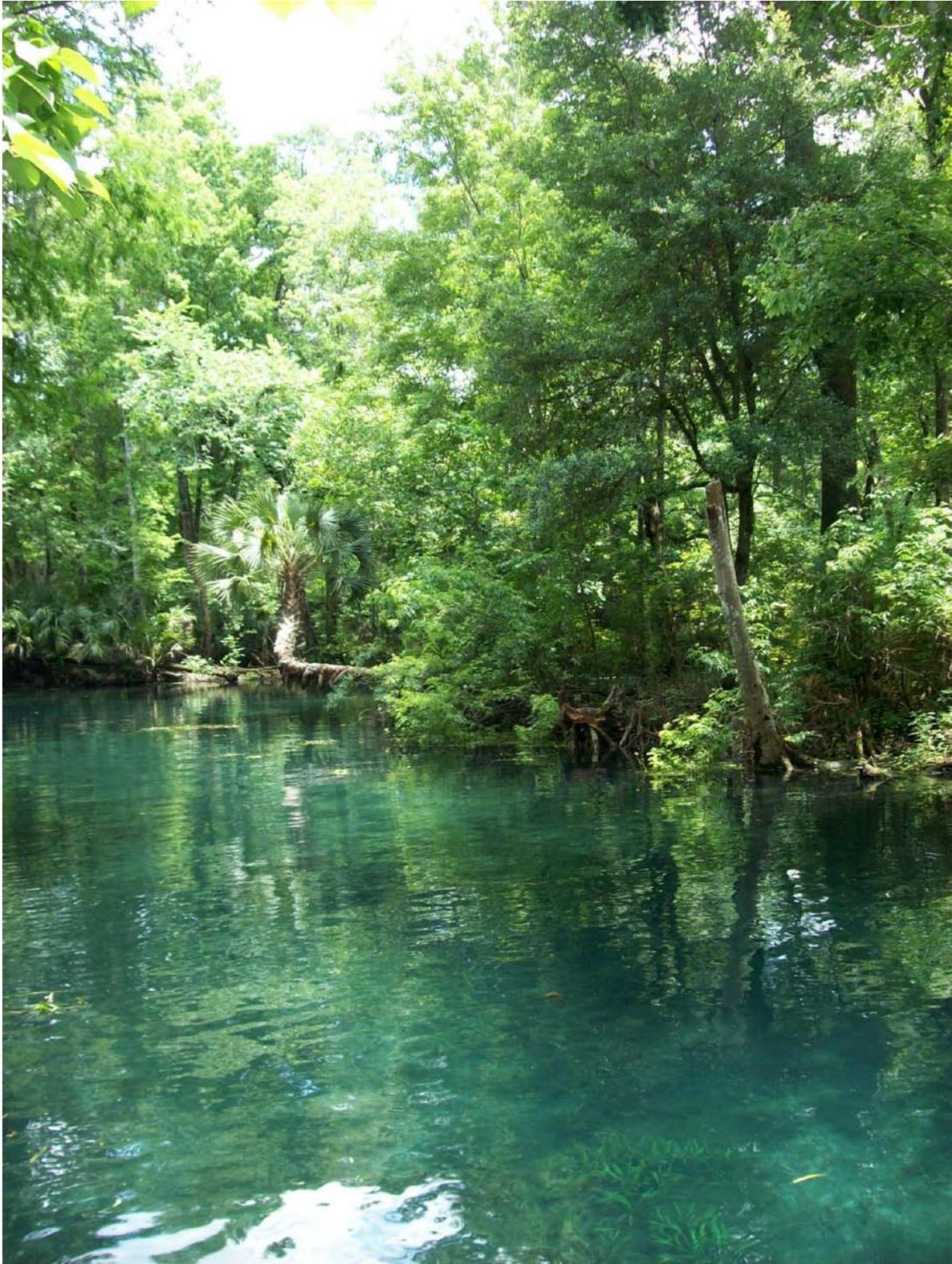


Figure 6-4. The Silver River (pictured) carries the crystal-clear waters of Silver Springs to the Ocklawaha River. Photo by Peggy Macdonald.



Figure 6-5. Like the Ocklawaha River, Silver Springs (pictured) lay in the proposed path of the Cross Florida Barge Canal. Photo by Peggy Macdonald.



Figure 6-6. Turtles bask in the sun to remove algae from their shells at Silver Springs, approximately nine miles from the Ocklawaha River. Photo by Peggy Macdonald.



Figure 6-7. Construction of the U.S. 19 bridge over the Cross Florida Barge Canal in Inglis, Florida (late 1960s). Courtesy of the Florida State Archives.



Figure 6-8. Construction of the St. Johns Lock, late 1960s. Florida's terrain has been transformed beyond recognition. Courtesy of the Florida State Archives.



Figure 6-9. Florida Governor Claude Kirk presents Marjorie Carr with the Governor's Award for Outstanding Conservation Leadership (1970). Archie Carr is at right. Courtesy of the Florida State Archives.

CHAPTER 7
FLORIDA DEFENDERS OF THE ENVIRONMENT AND THE DEATH OF THE CROSS
FLORIDA BARGE CANAL

By the late 1960s, Marjorie Carr and her colleagues had transformed the campaign to save the Ocklawaha River from a regional movement to one of national significance. Carr and like-minded activists questioned the economic and environmental soundness of bringing a nineteenth-century dream to life in the late twentieth century. Florida Defenders of the Environment would prove that the Cross Florida Barge Canal would devastate Florida's environment while providing no real economic benefits to Central Florida. The organization would show that the U.S. Army Corps of Engineers had in fact manipulated economic data to inflate the canal's alleged economic and recreational benefits. Throughout the twentieth century, a group of politicians and business leaders had kept the dream of the barge canal alive in order to curry favor with political constituents and profit from the construction of the canal, as opposed to its actual operation. F.D.E. proved that the Corps of Engineers inflated estimated barge traffic in order to justify the cost of the canal's construction. Moreover, the nation's Interstate highway system rendered water transportation obsolete. Rachel Carson had enabled environmentalists to articulate humans' threat to sensitive ecosystems through the language of ecology. Starting in 1965, Carr applied this new language to the Ocklawaha campaign, alerting the state of Florida and the nation to the threat federal agencies such as the Corps of Engineers posed to the environment.

The defenders of the Ocklawaha warned that the Cross Florida Barge Canal would cause more harm than it would do good, slicing through the state's main source of drinking water and polluting it further with the byproducts of the barge traffic that would travel across the center of the state. Activists raised concerns about the reliability of the benefit to cost ratio developed by

the U.S. Corps of Engineers, contending that the canal's economic benefits had been blown out of proportion in order to justify the cost of construction. Carr and her allies also challenged the Corps of Engineers' contention that damming the Ocklawaha River at two points and creating a pair of reservoirs to facilitate barge travel along the canal would improve the river's recreational benefits. She stressed that the recreational benefits provided by an unaltered Ocklawaha River Valley surpassed any alleged benefits from the creation of two artificial reservoirs.

At the time of the Ocklawaha campaign, the United States was at a cultural crossroads. Ecology—a science that considered the connections between humans and all aspects of their environment—blossomed amidst the backdrop of social unrest, as American citizens began to question their nation's involvement in the Vietnam War and were awakened to the inequalities embedded in their culture's racial and gender hierarchies. At the dawn of the 1970s, the campaign to save the Ocklawaha River Valley helped a growing number of Floridians and Americans redefine the concept of progress. Environmental controversies have swirled around competing versions of the best possible use of natural resources since the early twentieth-century battle over the Hetch Hetchy River Valley, when thousands of conservationists campaigned against the construction of a dam and reservoir that would transfer water (and power) from the majestic valley to San Francisco.¹ Unlike Hetch Hetchy—whose dam and reservoir provided clear, tangible benefits to Californians (albeit at the expense of the health of the river valley's ecosystem and the flora and fauna that thrived upon it)—the benefits of the Cross Florida Barge Canal were debatable. Proponents maintained that the barge canal would bring trade and profit to Central Florida, transforming the small inland city of Ocala into a thriving port city and

¹ For a thorough examination of John Muir's involvement in the struggle to prevent the construction of a dam and reservoir at California's Hetch Hetchy River Valley, see Robert W. Righter, *The Battle Over Hetch Hetchy: America's Most Controversial Dam and the Birth of Modern Environmentalism* (New York: Oxford University Press, 2005).

increasing barge traffic along the Gulf and Atlantic coasts. Those who fought against the canal, and to protect the Ocklawaha River Valley questioned the legitimacy of these economic projections and considered the environmental gamble of the Corps of Engineers' ill-conceived engineering decisions to be too great a risk for Floridians to tolerate.²

As the 1960s progressed, the science of ecology bolstered and transformed the 1950s preservationist message. The evidence-driven environmental impact statement countered the engineering expertise of federal agencies such as the Bureau of Reclamation and the U.S. Army Corps of Engineers, which represented the conservation ethos of a bygone era. The tool of the environmental impact statement lent authority and credibility to the embryonic environmental movement as it challenged the nineteenth century worldview embodied by such federal agencies as the United States Forest Service, the United States Fish and Wildlife Service, and the Department of the Interior, which managed nature as a resource to be altered and consumed at will by humans.

A great deal had changed since the early-twentieth-century fight over Hetch Hetchy, a battle in which the opposing sides held conflicting views of how humans could make the best possible use of the river valley—with one side favoring its recreational benefits while the other preferred to dam the river and create a reservoir that would provide San Francisco with water and hydroelectric power. By the 1950s, when the Bureau of Reclamation proposed to build a similar dam at Echo Park, a wilderness ethos had developed. Although opponents relied upon scientific techniques to bolster their political campaign against the dam, the science of ecology was still

² See Righter, *The Battle Over Hetch Hetchy*, for a detailed analysis of the Hetch Hetchy campaign. Righter argues that dam opponents' letters contained references to nature tourism and failed to encompass the wilderness ethic others scholars have ascribed to the activists. See Righter, especially 206-8. Another factor that distinguished the Hetch Hetchy dispute from the Ocklawaha campaign was that the defenders of the Hetch Hetchy Valley—operating at the beginning of the twentieth century—struggled to protect the valley not for the sake of preserving wilderness, but to safeguard the valley for humans' spiritual renewal and recreational use.

not readily accessible to activists. After Carr and her colleagues suffered a hard defeat in Tallahassee in 1966, they widened the scope of their campaign beyond the limitations of traditional grassroots campaigns, embracing ecology and forthcoming federal legislation to strengthen their case against completion of the Cross Florida Barge Canal.

In January 1964, President Johnson referred to the Ocklawaha River as a natural resource to be exploited for the benefit of man. Within a few short years, however, the American people's tolerance for pork-barrel projects that destroyed the environment while benefiting local developers had started to wane. *Silent Spring* paved the way for citizen engagement in localized, single-issue campaigns that challenged government or corporate projects that privileged profits over environmental stewardship. Environmentalists' weapon of choice would be the environmental impact statement, which exposed the disastrous consequences of projects designed without consideration of their ecological consequences. One such project was the colossal Miami jetport, which the Dade County Port Authority planned to erect in the Big Cypress Swamp, located six miles upstream from Everglades National Park. The Port Authority planned to build one of the largest airports in the world there, complete with a "super-train" that would ferry travelers through the Everglades. South Florida's growth was considered to be an inevitable fact of life, and the Port Authority did not perceive any conflict between the urban sprawl that would accompany the billion-dollar, thirty-nine-square-mile "jetport of the future" and its chosen location inside the vulnerable, ecologically important Everglades ecosystem.³

The Miami jetport would have deprived the northwestern portion of Everglades National Park and the Ten Thousand Islands of their main source of fresh water. The proposed airport's runways would accommodate the largest jets the industry could produce and stretch for six

³ Davis, *An Everglades Providence*, 485; Michael Grunwald, *The Swamp: The Everglades, Florida, and the Politics of Paradise* (New York: Simon & Schuster, 2006), 254.

miles. Acting on behalf of the National Audubon Society, Joe Browder patched together a coalition that included the Miccosukees, alligator poachers (who realized that the airport threatened their livelihood), hunters, and environmentalists. He convinced Marjory Stoneman Douglas to serve as the movement's figurehead, transforming the seventy-nine-year-old author of *The Everglades: River of Grass* into an environmentalist for the first time in her life. *River of Grass*—along with Leopold's *A Sand County Almanac*, Wallace Stegner's *This Is Dinosaur* on Echo Park, and Carson's *Silent Spring*—helped set the stage for the environmental movement. Although *River of Grass* offered no solutions to the environmental problems of Florida or the nation, it articulated the benefits of a healthy Everglades to life—including human life—and became the bible of Florida environmentalists in the late 1960s, according to Douglas's biographer, Jack Davis.⁴

Although older statewide and national organizations such as the Audubon Society and the Izaak Walton League continued to play an important role in the growing environmental movement, single-issue organizations experienced greater success as they challenged the programs of conservation-minded federal organizations such as the Bureau of Reclamation and Corps of Engineers.⁵ Another indispensable ally to Florida's new environmental movement was the Republican Party. Walter Hickel, President Nixon's interior secretary, took a personal interest in the state's alligator population, which had fallen from a total in the millions to an estimated 20,000 wild alligators. Hickel and Governor Kirk—who had dug a ceremonial shovel full of dirt at the start of the jetport's construction before Nathaniel Reed convinced him to

⁴ Davis, *An Everglades Providence*, 459-485; Jack E. Davis, "Up from the Sawgrass: Marjory Stoneman Douglas and the Influence of Female Activism in Florida Conservation," in *Making Waves: Female Activists in Twentieth-Century Florida*, ed. Jack E. Davis (Gainesville: University Press of Florida, 2003), 148; Grunwald, *The Swamp*, 254-56; Flippen, *Nixon and the Environment*, 50-58.

⁵ Ibid.

withdraw his support for the project—visited the Everglades to investigate the poaching problem. After a night of beer-fueled alligator hollering, Hickel pledged to increase funding for alligator protection and to consider the implications of the jetport, which would devastate the Everglades' native flora and fauna. Meanwhile, Congress was busy drafting the National Environmental Protection Act, which would require environmental impact statements before federal approval or funding was made available for major development projects. Jetport opponents commissioned Luna B. Leopold (Aldo Leopold's son), a former University of Miami professor who specialized in river hydrology, to lead the Florida team as they drafted an environmental impact statement on the Everglades jetport. At the same time, Dade County commissioners requested an independent study of the jetport's impact, and the National Academy of Sciences provided sixty scientists with a grant to conduct a study of South Florida's planning and water needs with a special emphasis on the implications of the jetport.⁶

The Everglades jetport attracted the attention of the national media. On September 17, 1969, the Leopold report was released to the public, suggesting that the jetport would wreak havoc on the South Florida ecosystem and Everglades National Park. The following day, the National Academy of Sciences report confirmed the results of the Leopold study. The County Commission's independent study was finally released in December. Predictably, the Commission's report sanctioned construction of the jetport—as long as it was limited to runways only. In what would be the first of several important environmental decisions for his administration, President Richard Nixon ended the debate by ordering a halt to the jetport's construction. The Port Authority begrudgingly entered into negotiations with the Departments of the Interior and Transportation and Governor Kirk's office, resulting in the creation of the

⁶ Davis, *An Everglades Providence*, 463-88.

“Jetport Pact,” through which the Port Authority agreed to a new location for the jetport in exchange for federal reimbursement of the twelve million dollars the agency had invested in the jetport.⁷

The American public began to question the soundness of the Corps of Engineers’ manipulation of the Everglades ecosystem. The change in public opinion from unquestioning acceptance of Corps projects to suspicion came as a shock to this elite organization. The Corps was a fraternity whose engineering expertise had traditionally commanded respect and authority. Since the nineteenth century, the Corps had applied its technical expertise to state and federal projects that utilized and “improved” natural resources. The Corps was not accustomed to having its engineering decisions questioned. Yet the blossoming environmental movement—symbolized by Florida’s opposition to the desecration of the Everglades and the Ocklawaha River— was composed of experts of a different sort who were no longer willing to defer to the expertise of the Corps or other conservation-minded agencies.⁸

When the U.S. Army Corps of Engineers formed its initial plans for construction of a barge canal along the Ocklawaha, St. Johns, and Withlacoochee Rivers, no government agency questioned their designs. The Corps, it turned out, maintained complete oversight over the planning, construction, and evaluation of its own projects. Over the years, Herbert Hoover, Dwight Eisenhower, and other presidents had recommended various solutions to remedy this inherent conflict of interest, but their proposals were never acted upon. When Route 13-B was selected as the most appropriate path for the barge canal, the Budget Bureau (which became the Office of Management and Budget) and the Board of Engineers for Rivers and Harbors (which is

⁷ Ibid.

⁸ Ibid., 489.

composed of two Corps of Engineers officers and five regional engineers) were the only “external” agencies charged with reviewing Corps projects. Marjorie Carr brought the agency’s lack of legitimate independent oversight to the attention of the media, identifying this problem as one of the reasons why the Corps had consistently failed to consider the impact of its projects on the environment.⁹

As the 1966 public hearing had clarified, the Corps of Engineers was unable to admit the environmental consequences of the barge canal—including its potential impact on the Floridan Aquifer—and had expressed little concern for the canal’s effects on the Ocklawaha ecosystem. The hearing also demonstrated that the Audubon Society was not the ideal organization to coordinate the Ocklawaha campaign, although it would continue to provide financial and organizational support throughout the campaign to halt construction of the barge canal and restore the Ocklawaha River. The defenders of the Ocklawaha needed to found a new, independent agency that would be dedicated exclusively to the campaign to protect the river valley from the Cross Florida Barge Canal. This new organization would continue to utilize tried and true grassroots methods such as letter writing and public education, but these methods would be supplemented by sophisticated ecological studies and federal lawsuits. Founding one central organization to direct an environmental campaign at the state and national levels would overcome the problems that the defenders of the Ocklawaha had encountered previously because they were splintered and too regional in focus. They realized that federal intervention was needed.

Marjorie Carr, David Anthony, and other Ocklawaha supporters contacted the Environmental Defense Fund (E.D.F.), which had just won a major lawsuit against the producers

⁹ January 1971 (F.D.E. Papers, Box 8), 2.

of D.D.T. Carr convinced the members of E.D.F. that they had accumulated enough scientific and economic evidence to challenge the Corps of Engineers in court for breach of public interest. E.D.F. advised the activists to form an ad hoc committee to continue their investigation of the Cross Florida Barge Canal. In July 1969, Florida Defenders of the Environment was born. Although the organization's leadership consisted of current and former Audubon Society members—including Carr (F.D.E.'s founding vice chairman and longtime president, and Alachua Audubon Society's co-president), Anthony (F.D.E.'s second president, and Alachua Audubon Society's co-president), and Bill Partington (who took leave from his position as Florida Audubon Society's assistant executive director to serve as F.D.E.'s founding chairman)—F.D.E.'s sole focus in its early years was to protect the Ocklawaha River Valley from the barge canal. Carr described the organization as a “coalition of scientists, lawyers, economists, and other specialists who volunteer their expertise to defend a quality environment in Florida.” F.D.E.'s strongest source of intellectual support stemmed from its core membership of University of Florida professors, who contributed the majority of reports to the organization's environmental impact statement for the barge canal. Carr encapsulated F.D.E.'s strategy in the Ocklawaha campaign—which she considered a successful recipe for any environmental campaign—as follows: “Solutions to environmental problems may result from the education of the general public through the press, new legislation at the state and federal levels, action by governmental agencies or through the influence of the courts. Most often a combination of methods is the most successful. Whatever the method, the essential ingredient will be a thorough and accurate knowledge both of the problem and the opponent.”¹⁰

¹⁰ Marjorie Harris Carr vitae, Box 33, Florida Defenders of the Environment Papers; Everett Caudle interview.

F.D.E.'s first task was to research the environmental and economic effects of the Cross Florida Barge Canal, which also involved getting to know as much as possible about the inner workings of the U.S. Army Corps of Engineers. At the time, the Corps—a branch of the Defense Department—was the world's largest construction organization and the biggest developer of water control structures. The Corps was composed of two hundred regular Army officers and forty thousand civil employees. Its annual expenditures exceeded a billion dollars of what Carr loved to refer to as the “taxpayers’ money.” She credited the Corps (along with the Bureau of Reclamation) with developing scores of dams and other waterways projects that appeared to serve a purpose in the nineteenth century, but which were no longer needed in the late twentieth century. By then, Carr argued, the Corps had resorted to colluding with waterways organizations such as the National Rivers and Harbors Congress (N.R.H.C.) and construction interests to undertake water-resource projects that would justify the Corps’ existence, help politicians please their constituents, and pad developers’ pockets at the expense of the environment. The N.R.H.C., an independent organization with tremendous clout in Congress, shaped most successful rivers and harbors legislation. Canal boosters including Tom Adams, Florida Senator Spessard Holland and Representative Robert Sikes served as national vice presidents of the organization, and longtime canal proponent Henry Buckman, a Jacksonville engineering consultant, served as president of the N.R.H.C. throughout much of the 1960s, helping to push barge canal appropriations through Congress. In 1953, the Hoover Commission—a nonpartisan economic study group—pointed out that N.R.H.C. members shared close connections with contractors’ lobbyists, but this alliance was not investigated further.¹¹

¹¹ Marjorie Harris Carr, review of George Laycock’s *Diligent Destroyers*, Box 33, Florida Defenders of the Environment Papers; “Tom Adams in Dual Role on Florida’s Barge Canal,” *St. Petersburg Times*, January 9, 1966.

Because Corps of Engineers projects only lived from appropriation to appropriation, F.D.E. formulated a plan that was intended to bring an end to the barge canal's Congressional funding. E.D.F. envisioned F.D.E.'s lawsuit as a "classic example of the degradation of our American environment and unjustifiable expenditure of public funds that has repeatedly occurred throughout the nation and will continue to happen until drastic and probably dramatic steps are taken to bring the whole scandalous set-up to the attention of the entire American public." By 1969, the Corps of Engineers had completed approximately one third of the barge canal. Carr hoped the F.D.E. lawsuit would teach the Corps a lesson. In search of funding for F.D.E.'s legal expenses, she wrote Roland Clement of the National Audubon Society, who helped her set up an account for donations to the Ocklawaha fund. "The mere fact of the public taking the Corps into Court for betrayal of public interest may in itself have a therapeutic effect on the Corps, the Bureau of Reclamation and similar groups," Carr wrote. "And it would certainly stimulate Congressional action necessary to prevent such enormous and arrogant squandering of public assets by governmental agencies."¹²

On September 15, 1969, E.D.F. filed suit in U.S. District court in Washington, on behalf of F.D.E. The organizations charged the Corps of Engineers with violating the constitutional rights of the American people by destroying a natural treasure, the Ocklawaha River. They further alleged that the Corps failed to report objections to the Cross Florida Barge Canal to Congress; misrepresented benefit-cost ratios; grossly underestimated maintenance costs; and failed to consider the ecological value of the loss of the Ocklawaha River when calculating the canal's benefit-cost ratio. Meanwhile, state agencies began to come to the aid of the campaign to

¹² Mrs. Archie Carr to Mr. Roland C. Clement [Vice President of Biology, National Audubon Society], March 8, 1969 (F.D.E. Papers, Box 33). For a thorough description of the appropriations process and payments for contractors, see U.S. Army Corps of Engineers, "Specifications for Job No. 8," Department of the Army (in author's private collection).

save the Ocklawaha. The Florida Department of Air and Water Pollution Control issued a report that described the canal as “the most devastating project ever undertaken in Florida.” The Florida Senate Committee on Natural Resources voted 5 – 0 for an investigation to determine whether the state should withdraw its support of the canal.¹³

F.D.E.’s legal experts—including E.D.F. on the national level and a team of professors from the University of Florida and other state schools—helped the organization make the best use of a stream of new environmental legislation that President Nixon signed into law. Although President Johnson’s Great Society programs ushered in the first wave of anti-pollution legislation in the 1960s, between 1970 and 1974, Nixon signed into law an arsenal of environmental legislation that enabled the environmental movement to mount a series of successful campaigns in that decade and beyond. In Nixon’s first years in office, Congress enacted an updated Endangered Species Conservation Act (December 1969), which increased the number of flora and fauna it protected; the National Environmental Policy Act (January 1970), which made environmental impact studies a requirement for major government projects; the Clean Air Act (1970), which improved upon the previous air-quality standards of the 1967 Air Quality Act; and the Clean Water Act (1972), which extended protection to wetlands; finally, the E.P.A. banned the use of D.D.T. within the United States, although chemical companies continued to export the pesticide to neighboring countries. Symbolizing Nixon’s commitment to the environment—at least in the first years of his administration—the President established the Environmental Protection Agency (July 1970) to coordinate and enforce the volumes of new federal policies designed to protect the environment. The new federal environmental legislation was complemented on the state level by the pioneering 1972 Land Conservation Act, which provided

¹³ “Fight that Blocked Canal Work Started in Gainesville in 1962,” *Sarasota Herald-Tribune*, January 24, 1971.

up to \$240 million in state bonds for the acquisition of large tracts of Florida real estate for preservation. Only California, New York, and Washington would enact similar legislation, making Florida one of the nation's leading states in the practice of land preservation.¹⁴

In response to *Silent Spring* and the public's increasing awareness of deteriorating environmental conditions throughout the late 1960s and early 1970s, the national conservation organizations—the Sierra Club, National Audubon Society, and the Wilderness Society, and others—struggled to adapt themselves to the new environmental age and watched their memberships double in size. Gaylord Nelson launched the first national Earth Day celebration on April 22, 1970, with an estimated twenty million Americans participating in environmental activities ranging from tree planting to public protests. The science of ecology had permeated the American consciousness, replacing the human-centered conservation ethos with an appreciation of humans' tiny part in a larger series of ecosystems that made up spaceship Earth. During Nixon's first term in office, Congress laid the institutional framework for the environmental movement, which was in full bloom at the time of F.D.E.'s founding.¹⁵

As America became more attuned to the consequences of human manipulation of the environment, the science of ecology gained more credence in the media, shaped public opinion, and informed new legislation at the local, state, and federal level. Ecology played a central role in redefining the Ocklawaha campaign, which experienced a major turning point with the March 1970 publication of Florida Defenders of the Environment's environmental impact statement.

F.D.E.'s evidence was clear: if construction of the Cross Florida Barge Canal continued, Florida

¹⁴ Jack Davis, *An Environmental Providence*, 488-504; Flippen, *Nixon and the Environment*, 1-6. Flippen contends that Nixon experimented with environmental reforms for political gain during his first term in office but abandoned them after his election to a second term. He vetoed the Clean Water Act, although Congress overrode his veto. From 1972 on, Flippen argues, Nixon became increasingly conservative and rejected environmental legislation as something that was no longer politically viable. Nonetheless, Nixon set the stage for the environmental age.

¹⁵ *Ibid.*

would experience an environmental catastrophe. The impact statement's language echoed the message put forth in *Silent Spring*: "Although man evolved as part of the natural biosphere, much of his effort has been turned toward disrupting it. So far, we have managed to survive our ecologic errors, but there are signs that we may be reaching the limits of our immunity. Such a sign is the lack of any sound assessment of the long-term values and ecologic options at stake in the Oklawaha regional ecosystem. It is the purpose of this report to give a brief account of those values and options." The impact statement examined conditions in the Ocklawaha regional ecosystem, which the report defined as "all communities within the drainage basin of the Oklawaha River," before construction of the barge canal began, the current state of the ecosystem after partial construction of the canal, and the predicted state of the ecosystem after the proposed completion of the canal. The report considered physical factors (geology, hydrology, climate, and soils) and biological systems (plants, animals, and people), in addition to probable interactions among these systems (the relationships within the Ocklawaha ecosystem).¹⁶

Carr and Partington were among the members of the board of editors who directed the environmental impact study. The majority of the study's contributors were University of Florida faculty members from a variety of relevant disciplines. The study featured extensive data on the barge canal's observed and expected impact on the Ocklawaha and on the Floridan Aquifer, including ecological, economic, and land-use studies that F.D.E. observed "should properly have been undertaken before the project was initiated." F.D.E.'s volunteer experts studied the canal from the viewpoints of ecology, hydrology, geology, economics, land-use planning, anthropology, and environmental quality. Their findings indicated that a completed Cross

¹⁶ Florida Defenders of the Environment, *Environmental Impact of the Cross-Florida Barge Canal*, 6-7.

Florida Barge Canal would pollute the Floridan Aquifer and contaminate all surface water in the ecosystem, including the popular Silver Springs nature park; would require extensive additional pumping facilities to maintain canal operations during natural drought conditions; would fail to provide alleged flood control benefits; would destroy a unique natural region that supported the full spectrum of plant and animal life native to North Central Florida; and would promote the growth of masses of water weeds in the shallow Rodman and Eureka Pools. Furthermore, the report suggested that the controversy surrounding the proposed barge canal emphasized the need for long-range regional land-use planning, which had not been done in Central Florida and for which no agency then existed to direct it.¹⁷

From an economic perspective, F.D.E.'s experts determined that the discount rate used by the U.S. Army Corps of Engineers to calculate the benefit-cost ratio of the canal was unrealistic. If realistic interest rates were applied, the canal's benefit-cost ratio would no longer exceed the cost. In addition, the amount of traffic that the Corps estimated would use the canal and the freight savings per ton mile appeared to be "unjustifiably inflated." The report also challenged canal proponents' claims that the canal would enhance land values and improve recreational values in the region affected by construction. Moreover, F.D.E. pointed out an important oversight in the Corps of Engineers' benefit to cost ratio. Successful operation of the canal depended upon the completion of the Intracoastal Waterway from St. Marks southward along the northwest coast of Florida (a section of the Intracoastal Waterway known as the "missing link"). Yet the Corps had not included construction costs for the proposed waterway in its benefit to cost ratio for the barge canal. Even when considering the amount of money already invested in the barge canal project, the report suggested that an impartial economic restudy of the project

¹⁷ Florida Defenders of the Environment, "Environmental Impact of the Cross-Florida Barge Canal," iii-2.

“would result in its rejection as unsound, on a purely economic basis, without any consideration of the environmental values to be lost.”¹⁸

Although F.D.E. was adamant that there was no economic justification for the canal, its main interest resided in preserving the integrity of the unaffected areas of the Ocklawaha regional ecosystem and in restoring what had already been damaged. In a section of the report with no byline—but bearing the same writing style and some of the exact phrasing from the ecological study of the Ocklawaha River that appeared in Carr’s 1965 *Florida Naturalist* essay—F.D.E. stresses the environmental value of the Ocklawaha River. (Carr served as one of the primary editors and coordinators of the environmental impact statement.) Within an eighty-five-mile radius of Eureka on the Ocklawaha River (where two proposed reservoirs would be located), there were eight hundred seventy-five lakes, but just seven rivers. If the barge canal were completed, three of these rivers—the Ocklawaha, Withlacoochee, and St. Johns—would be modified severely or essentially destroyed. “For this loss,” the report state, “the creation of two artificial reservoirs is offered in restitution.” F.D.E. maintained that the Corps of Engineers’ claims regarding the increased recreational values that the canal would provide were greatly exaggerated.¹⁹

Archie Carr and University of Florida ecology professor Ariel Lugo argued that the Ocklawaha regional ecosystem was a reservoir of ecological stability that was “still relatively unruined by human exploitation,” which should be considered an incomparable asset, especially since the region’s natural environments were disappearing quickly.²⁰ The scientists explained that the ecosystem’s treasure trove of diverse, native flora and fauna—including the endangered

¹⁸ Florida Defenders of the Environment, “Environmental Impact of the Cross-Florida Barge Canal,” 2-3.

¹⁹ *Ibid.*, 16.

²⁰ *Ibid.*, 29, 34.

Florida Panther—was only part of its charm; what was even more valuable was the ecosystem's vast, uninterrupted size. "The Ocklawaha Ecosystem is an investment in the ecologic future of man, a big expanse of uncommitted, undisrupted biological landscape, left as a buffer against human ecological error," they concluded. "In a region that is fast becoming fit habitat only for man, and perhaps is not long destined to remain even that, such an asset is one to be treasured."

F.D.E.'s report conceded that construction of the Cross Florida Barge Canal had already altered the Ocklawaha ecosystem drastically. Nonetheless, F.D.E.'s experts—including Archie Carr—observed that much of the Ocklawaha River and its valley remained unimpaired, and if construction of the barge canal were to stop, the damaged areas would recover dramatically within ten to twenty years. F.D.E. recommended a cessation of further federal and state funding for construction of the canal and requested its deauthorization. F.D.E. suggested that the canal right-of-way along the Ocklawaha River be transferred to the United States Forest Service or another appropriate agency for recreation and other appropriate multiple-use management. F.D.E. requested that the Ocklawaha River be designated as a scenic river and be granted all the protections afforded to rivers included in the national wild and scenic rivers system. One of F.D.E.'s most adamant recommendations was that the Rodman Reservoir be drained immediately and that the river could be returned to its original free-flowing condition from Silver River to the St. Johns River. In order to prevent similar ecological mistakes in the future, the report indicated the need for the establishment of a regional environmental planning council to consider the needs of conservation, environmental protection, recreation, and development throughout the Ocklawaha regional ecosystem. Throughout the 1970s and 1980s, Marjorie Carr

organized several conferences to promote the idea of land use planning at the local and regional levels.²¹

In addition, F.D.E. recommended that benefit-cost analyses for future projects be conducted by an impartial agency, and that full consideration be given to the ecology and environmental values in the planning and evaluation of such projects. Revealing F.D.E.'s frustration with the canal's authorization, which had occurred in 1942, the report recommended that all authorized public works projects be started within five years of their authorization, and that a full restudy be required of all projects that are not completed within ten years of their original authorization date. Not surprisingly, F.D.E. also recommended that official public hearings be held near the site of the proposed public works project within a year previous to authorization and within a year previous to initial funding in order to determine if the project is in the public interest. F.D.E. suggested that public hearings were a necessity given the "rapid environmental, economic, and social changes currently being experienced in the United States."²²

On September 15, 1969, the Environmental Defense Fund filed suit in federal district court in Washington, D.C. that charged the Corps of Engineers with violating the constitutional rights of the people of the United States by destruction of natural resources. The lawsuit sought to enjoin the Corps from proceeding further with construction of the Cross Florida Barge Canal as presently planned. F.D.E.'s environmental impact statement—which was completed in March 1970—would serve as the backbone of the legal case against the Corps of Engineers. F.D.E. modeled its environmental impact statement after the Leopold report commissioned by

²¹ Ibid., 3-5.

²² Ibid.

opponents of the Miami jetport. At the time F.D.E. prepared its report, an F.D.E. poll of candidates running for office in 1970 indicated that eighty-one percent favored a moratorium or abandonment of the barge canal; only one percent favored completion of the canal as planned. In addition to having the support of most politicians running for office in 1970, F.D.E. benefited from the spat of environmental legislation Nixon signed into law at the beginning of the decade, including the National Environmental Policy Act (N.E.P.A.), which would soon require environmental impact statements for all projects receiving federal authorization or funding.²³

E.D.F. accused the Corps of Engineers of violating the Fish and Wildlife Coordination Act, Water Pollution Control Act, and Migratory Bird Act. When N.E.P.A. was signed into law in 1970, the Corps of Engineers' ignorance of the environmental impact of the barge canal strengthened F.D.E.'s case immensely. "The minute that passed we used it in our lawsuit," Carr recalled. On February 16, 1970, E.D.F. filed an amended complaint that sought to require that the Corps of Engineers comply with various federal statutes and executive orders that protect the environment. The passage of N.E.P.A. and the release of F.D.E.'s environmental impact statement prompted Secretary of the Interior Walter Hickel to order the Bureau of Sport Fisheries and Wildlife to evaluate the barge canal's impact on the environment. Hickel had been inundated with letters from Florida residents and state officials who expressed their opposition to the canal. State Representative Roger Wilson of St. Petersburg was among the officials who wrote Hickel, asking him to take action to protect Florida's natural resources from the destruction the canal was causing. "Furthermore, there also seems to be some question as to the benefit-cost ratio," Wilson added. In light of the fact that the Corps of Engineers had not

²³ "Housewife Halted Florida Barge Canal," *Bradenton Herald*, January 24, 1971; Flippen, *Nixon and the Environment*, 50-58; Florida Defenders of the Environment, *Environmental Impact of the Cross-Florida Barge Canal*.

considered the environmental impact of the canal before commencing construction, Hickel concluded that “a new appraisal of this project and its effects on the environment of northern Florida is in order.” In the interim, Hickel called for a moratorium on construction.²⁴

F.D.E. had begun courting the Nixon administration in earnest soon after the President expressed an interest in improving the quality of the American environment in his 1970 State of the Union address. On February 6, 1970, F.D.E. sent President Nixon a letter requesting a moratorium on construction of the barge canal. More than one hundred and fifty scientists and other experts signed the letter, which was forwarded to Nixon’s Council on Environmental Quality, which he had created on January 29, 1970. The letter thanked Nixon for emphasizing his concern over the “alarming degradation of natural environment in America” in his recent State of the Union address. F.D.E. requested the President’s assistance in “preventing further degenerative manipulation of one of the most valuable natural ecosystems of Florida, the Oklawaha River Valley, and in averting probable attendant changes in the quality of the subsurface water supply of Central Florida.” In addition, F.D.E. identified problems with the lengthy gap between the Cross Florida Barge Canal’s authorization in 1942 and the start of its construction, and a questionable benefit to cost ratio that had fluctuated over the years. The canal was then approximately one-third complete; only twenty-five miles of the one hundred-seven-mile-long channel of the canal had been excavated. A completed canal, F.D.E. warned, would “drastically alter ecosystems” associated with the Ocklawaha and Withlacoochee Rivers. “Moreover, excavation of the channel of the cross-state canal will be carried out in a section of the peninsula in which the great Floridan Aquifer comes closest to the ground surface,” F.D.E. advised. In addition, Central Florida’s high incidence of sink-hole formation further

²⁴ *Tampa Tribune*, February 24, 1970; “Hickel Orders Review of State Canal Impact.”

demonstrated the permeability and unstable nature of the aquifer along the canal route. F.D.E. also faulted the Corps of Engineers for using outdated construction plans that were both impractical (the locks were too small to accommodate modern barges) and failed to meet the environmental standards required by recent environmental legislation. F.D.E. informed the President that its experts were completing a study of the barge canal's effects on the Ocklawaha River ecosystem that would be similar in scope and form to the environmental impact study of the "Big Cypress Jetport" that the United States Department of the Interior prepared in September 1969. F.D.E. concluded the letter by congratulating Nixon and his administration for resolving the Miami Jetport issue and asking for his help "in avoiding a major, national ecological disaster."²⁵

The letter included the signatures of several of the nation's most important ecologists, including Eugene P. Odum (coauthor of *Fundamentals of Ecology*); Paul R. Ehrlich (author of *The Population Bomb*); Rene Dubos (author of *So Human an Animal* and winner of the 1969 Pulitzer Prize); David R. Ehrenfeld (author of *Principles of Biological Conservation*); Barry Commoner (author of *Science and Survival*); G. Evelyn Hutchinson (author of *The Enchanted Voyage* and *The Ecological Theatre and Evolutionary Plays*); Raymond F. Dasmann (author of *Different Kind of Country* and *Environmental Conservation*); Marston Bates (author of *The Prevalence of People* and *Man in Nature*); Archie Carr, who was listed as an ecologist and author; and Harvard University ecologist E. O. Wilson. The list included many members of the prestigious National Academy of Science. Approximately a quarter of the scientists hailed from the University of Florida, and nearly a third of the rest of the signatures came from professors at

²⁵ Letter signed by one hundred and fifty scientists to President Nixon (January 27, 1970), Box 33, Florida Defenders of the Environment Papers; Florida Defenders of the Environment, "Environmental Impact of the Cross-Florida Barge Canal," 58-59.

other Florida universities and colleges. Several of the Carrs' former colleagues from the University of Florida biology department lent their support to the cause as well, including Theodore Hubbell (University of Michigan); Horton Hobbs (the Smithsonian Institution's Senior Scientist with the Department of Invertebrate Zoology); and Harley Sherman (University of Florida professor of zoology, retired).²⁶

Marjorie Carr coordinated the production of the scientists' letter. On May 1st, she solicited the support of these and other scientists in F.D.E.'s continuing campaign to save the Ocklawaha. Because she had earned a master's degree in science from the University of Florida, Carr considered herself a colleague of U.F.'s specialists in the environmental field. "In talking to my colleagues I realized that an awful lot of scientists were just as upset—or even more so—over the destruction of the environment as members of conservation organizations," she recalled. Carr addressed F.D.E.'s May 1 letter "Dear Fellow Scientist." She directed the recipients to contact Secretary Hickel and the Honorable Russel Train, Chairman of the President's Environmental Council, as soon as possible to express their expert opinion on the environmental effects of the barge canal project. Carr also informed the recipients of the letter that F.D.E. was working to add its environmental impact study to the official record of the Public Works Subcommittee of the Appropriations Committee, as part of its ongoing effort to end Congressional funding for the canal. "We are encouraged with the progress of our effort and we will press right on until we have satisfactorily resolved the problem," she concluded.²⁷

²⁶ Ibid.

²⁷ Everett Caudle interview; Marjorie Carr, Vice-Chairman of F.D.E. to "Dear Fellow Scientist" (May 1, 1970), Box 33, Florida Defenders of the Environment Papers. In the May 1 letter, Carr asked the scientists to read the recently released F.D.E. environmental impact statement and then forward their opinions to the news media, state and federal elected officials, government agencies, and the public "as soon as possible."

Science was central to F.D.E.'s legal case. The Corps of Engineers had not conducted thorough studies of Central Florida's geology or hydrology. At the time of the 1966 public hearing, a representative of the Corps of Engineers admitted to Carr that the Corps had never had a biologist on staff before. The Corps had commissioned only limited studies of the Floridan Aquifer. The barge canal's potential effects on the aquifer were not clearly understood. "They had not involved the geological survey people in the studies on the middle part of the state," Carr explained. "But in the barge canal they had something that was designed to float on the aquifer waters. And yet they had not made the studies. They did not know about the aquifer."

Nathaniel Reed, who served President Nixon as the assistant secretary of the Department of the Interior, accused canal proponents and the Corps of Engineers of gambling with Florida's environment. "Since nobody knew whether [the canal] would or wouldn't destroy the Floridan Aquifer, well, why not take the chance?" Reed mused. "The opposite side was, why take the chance? But that was the drumbeat in the 1960s. We were still growing up. We were still the land of conquest. We're going to conquer this land. And this is true not only in Florida, but right across the country."²⁸

The Floridan Aquifer is an intricate system of highly porous limestone that stores water and facilitates its movement underground. The Floridan Aquifer System, formed over millions of years as carbonate sediments were deposited and dissolved, is among the world's most productive aquifer systems. It underlies all of Florida, varying in depth from a few feet below the surface to one thousand feet underground. When the Corps of Engineers completed its plans for the barge canal, it relied upon inadequate surveys of select sections of the aquifer. Corps planners were unaware that the depth of the aquifer varied from one end of the proposed route to

²⁸ Everett Caudle interview with Marjorie Carr; interview with Nathaniel Reed, *From Waterway to Greenway*, DVD, directed by Darren Preston Lane (Gainesville, Florida: forthcoming.)

the other, and the organization failed to consider the consequences of dredging and routine barge operations along the aquifer.²⁹

By the close of 1969, construction of the Cross Florida Barge Canal had fallen seven years behind schedule. Congress had scaled back appropriations by several million dollars each year, which increased the total estimated cost of construction. In 1962, the canal was expected to cost one hundred and forty-seven million dollars to complete. Seven years later, the estimated total cost of construction had risen to one hundred and seventy-seven million dollars—a calculation that was based upon a 1977 date of completion. Any delay in construction would elevate the estimated cost of completion to two hundred million dollars when factoring in unpaid interest rates. The barge canal would cost one dollar for every ninety-two cents of estimated benefits. Canal proponents had touted the canal as a river of gold that would create new sources of industry such as docking facilities and manufacturing plants. At the same time, the Corps of Engineers inflated the recreation benefits that would originate from the industrial canal. Fishermen, recreational boaters, campers, and swimmers would have to compete with westbound barge traffic that would enter the St. Johns River at Jacksonville, travel south to Palatka, move into the twelve-foot-deep canal, pass through five locks and enter the Gulf of Mexico at the small fishing village of Yankeetown. In 1936, Congress changed the Corps of Engineers' planning formula from navigation and flood control values to the benefit to cost ratio. In calculating the barge canal's benefits to the Central Florida, the Corps of Engineers had overlooked the canal's impact on the environment and the communities that would be affected by the canal.³⁰

²⁹ Peter Alden et al, *National Audubon Society Field Guide to Florida* (New York: Alfred A. Knopf, 1998), 19; Everett Caudle interview.

³⁰ "Barge Canal: Boon or Boondoggle?" *Daytona Beach Morning Journal*, December 20, 1969.

Change proceeded rapidly after Florida Defenders of the Environment distributed its environmental impact statement on the effects of the Cross Florida Barge Canal. The report (and F.D.E.'s lobbying efforts) prompted the Florida Department of Air and Water Pollution Control to call the canal "the most devastating project ever undertaken in Florida." In June 1970, just three months after the release of F.D.E.'s environmental impact statement, Secretary Hickel responded to the report's recommendation for a moratorium on construction by asking the Corps of Engineers to halt construction for fifteen months while further study of the canal's environmental impact was completed. "We have known for a long time that if this project was ever examined closely, it would collapse," Carr said after Hickel requested a moratorium on construction. "Our opponents know it, too."³¹ F.D.E. increased pressure on the Corps of Engineers by adding allegations that the agency had not reported objections to the canal to Congress (including those voiced at the infamous 1966 public hearing) to the federal lawsuit against the Corps. The lawsuit also blamed the Corps for misrepresenting the benefit to cost ratio, grossly underestimating maintenance costs, and failing to include the environmental value of the Ocklawaha River in its calculations. The Corps failed to comply with Hickel's request for a moratorium, but on January 15, 1971, the federal court issued a temporary injunction halting certain phases of construction. After nearly a decade of painful losses, the defenders of the Ocklawaha witnessed a relatively speedy victory in federal court. It took eighteen months for F.D.E. to attain the preliminary injunction. "It ended this Corps project in mid-flight," Carr said, adding that the Corps had a difficult time believing the judgment when it was released.³²

³¹ "Professors Wage Battle to 'Kill' Barge Canal," *Sarasota Herald-Tribune*, June 10, 1970.

³² "Housewife Halted Florida Barge Canal," *Bradenton Herald*, January 24, 1971; Leslie Poole interview.

Carr and F.D.E. experienced an even greater surprise when President Nixon ordered a separate halt to the canal's construction on January 19th. Mimi Carr recalled that her mother—a staunch Democrat—was both grateful to Nixon and disappointed that the Republican president would receive credit for stopping the canal. F.D.E. continued to press its federal legal case against the Corps of Engineers after Nixon ordered a halt to the canal's construction. Nixon's Council on Environmental Quality had recommended the construction halt because of the threat the canal posed to the Ocklawaha River Valley's "unusual and unique natural beauty." The President called the Ocklawaha a natural treasure that would be destroyed if construction continued. Although fifty million dollars had been invested in the project—which was estimated to cost approximately one hundred and eighty million dollars to complete—Nixon explained that the economic return from the project's completion did not justify its cost, including the environmental costs of the canal. In calculating the economic return of the canal, Nixon contended, "the destruction of natural, ecological values was not counted as a cost, nor was a credit allowed for actions preserving the environment. The step I have taken will prevent a past mistake from causing permanent damage." He asked the Secretary of the Army to work with the Council on Environmental Quality to develop recommendations for the Ocklawaha's future. His action stunned canal proponents and energized environmentalists. Moreover, Nixon's defense of the Ocklawaha River gave the terms "environment" and "ecology" new political currency.³³

Carr commended the President for intervening on behalf of the Ocklawaha. "It was a very forthright action by the President and his Council on Environmental Quality," she remarked. "We have telegraphed our thanks on behalf of the thousands of Floridians who have been engaged for years in the battle to prevent degradation of this beautiful valley." Nixon's

³³ *Bradenton Herald*, January 24, 1971; *Philadelphia Evening Bulletin*, January 20, 1971.

decision was a crucial victory for environmentalists. For canal boosters and the Corps of Engineers, however, the construction halt represented a painful loss. Canal proponents promptly filed lawsuits alleging that the President did not have the authority to cancel a project that had received Congressional authorization and appropriations. Within days of Nixon's announcement, the White House was inundated with telegrams pleading with the President to reverse his decision. Carr was well aware that the battle for the Ocklawaha River was far from over. Although construction of the Cross Florida Barge Canal had ended, the battle for the Ocklawaha's restoration had only just begun.³⁴

Carr's reaction upon hearing that Nixon had ordered a halt to the construction of the Cross Florida Barge Canal was to push for its immediate deauthorization. "We don't want this thing to sit around for another twenty years and then be revived again," she told reporters and supporters, referring to the canal's rebirth in the 1960s, decades after its initial authorization in 1942 as a World War II defense measure.³⁵ Carr speculated that the best way to make sure that the project was halted permanently was for Florida Defenders of the Environment to continue its lawsuit against the U.S. Army Corps of Engineers in U.S. District Court in Washington. Just five days before Nixon's order, U.S. District Judge Barrington Parker suspended work on the canal by granting a preliminary injunction brought by the Environmental Defense Fund's attorneys. Parker ruled that the U.S. Army Corps of Engineers had failed to comply with the newly enacted National Environmental Policy Act. President Nixon's subsequent order to halt construction of the Cross Florida Barge Canal enraged the canal boosters who had worked for decades to gain Congressional support and funding for the canal. Seeking to nullify Florida

³⁴ *Burlington County Times*, January 20, 1971.

³⁵ "Politicians React as Canal Sinks," *St. Petersburg Times*, January 20, 1971.

Defenders of the Environment’s legal victory against the Corps of Engineers—and to challenge the President’s authority in stopping the canal—canal proponents filed several countersuits in U.S. District Court.³⁶

The Corps of Engineers’ reaction to Nixon’s halt was less than enthusiastic. The Corps’ second in command, Lieutenant Colonel John R. McDonald, informed the press that the agency would obey President Nixon’s order to halt construction. “This is a directive from the President, who is also commander in chief,” McDonald explained. “The Corps of Engineers obviously will abide by the directive. Until we receive further instructions from our Washington office, we will be unable to make any further comment on the announcement.” Canal proponents reacted to the order by questioning the President’s authority in canceling a project that was authorized by Congress. Florida Congressman Don Fuqua complained that Florida’s congressional delegation had been unable to meet with the President to press the case for the canal before Nixon made his announcement. Former Senator Spessard Holland accused Nixon of acting on bad advice. “Stopping the canal is entirely unnecessary and can be extremely expensive,” Holland contended. Former interior secretary Walter J. Hickel said he was pleased with the President’s decision. “It’s the kind of action we recommended months ago,” Hickel boasted. “This is a step in the right direction for all America.”³⁷

As congratulatory letters and telegrams arrived in droves, Carr responded with a call to action. “There is, of course, a great deal yet to be done before this Florida project can be considered closed,” she wrote the National Coalition to Save the Ocklawaha, a collection of scientific and economic experts and concerned citizens dedicated to stopping construction of the

³⁶ Marjorie Harris Carr, review of George Laycock’s *The Diligent Destroyers*, Florida Defenders of the Environment Papers, Box 33; “End of the Barge Canal,” *Time*, February 1, 1971.

³⁷ “Politicians React as Canal Sinks,” *St. Petersburg Times*, January 20, 1971.

Cross Florida Barge Canal. She highlighted the items that required immediate attention, including restoration of the Ocklawaha River Valley; taking the required measures to include the river in the national system of Wild and Scenic Rivers; developing a comprehensive land-use plan for the Ocklawaha Regional Ecosystem; and determining the environmental impact of other water resource projects on the Ocklawaha. Carr encouraged her supporters to act upon the environmental mandate presented by the barge canal victory. “Everyone engaged in the effort to save the Ocklawaha has realized the broader implications of this fight,” she wrote. “The effort truly stands as a classic example of concerned citizens’ determination to defend the natural environment from needless destruction. President Nixon has made a dramatic and positive response. We urge you to take the initiative in encouraging an overwhelming public response so that Mr. Nixon will know, beyond a shadow of a doubt, that he has public support when he defends the environment.”³⁸

F.D.E. had established two major legal precedents. First, the Court ruled against the Corps of Engineers’ claim that it had sovereign immunity in relation to projects authorized by Congress. Second, F.D.E. had shattered the notion that a Corps of Engineers project could not be stopped once it was under way. F.D.E. member Herbert Kale II commended Carr for her fortitude during the fight to stop construction of the canal, a battle he had believed to be futile. “Please allow me to eat humble pie,” Kale implored her, “with all the others who thought that trying to stop the Cross Florida Barge Canal was akin to one of Don Quixote’s impossible dreams.” Although Carr would have been the last one to claim credit for F.D.E.’s victory, her unwavering dedication to the cause had produced a momentous victory for environmentalists. “Even though some of us continued to write impossible letters, give impossible talks, and attend

³⁸ Marjorie Harris Carr to the National Coalition to Save the Ocklawaha, February 1, 1971, Florida Defenders of the Environment Papers, Box 8.

impossible hearings we never really felt that our time was not being wasted, that our efforts couldn't even put a dent in the economic armor of the canal's proponents," Kale admitted.³⁹

While Carr's supporters showered her with thanks, irate barge canal proponents flooded the President with telegrams and letters asking him to reverse his decision. Carr directed F.D.E.'s supporters to send telegraphs and letters thanking Nixon for his action, in addition to thanking state politicians for their support of the construction freeze.⁴⁰ U.S. Representative Don Fuqua reiterated his support for the canal to F.D.E., claiming that the Corps had already demonstrated that the canal posed no threat to the environment. "The U.S. Army Corps of Engineers has had the responsibility for the construction of this waterway and exhaustive studies have shown that the construction would not present any irrevocable disturbances to the surrounding area," Fuqua stated. "I have called on the Secretary of the Interior to conduct additional studies into the ecological effects of this construction and I regret that these studies were not undertaken before the President issued his termination orders."⁴¹

One month after Nixon halted construction of the canal, Florida Governor Reubin Askew observed that the dream of the canal project was over. "If it's not completely dead," he told reporters, "it's in the last stages of gasp." He insisted that the President's decision on the canal was final, and Florida needed to address the problem of dealing with the completed sections of the canal and tying up loose ends. "The state cannot finance it alone," he concluded. "I don't think Congress is going to beat the President on this, and after all the ecology facts are in Florida might not want it anyway." The governor agreed with longtime canal proponent Tom Adams

³⁹ Herbert W. Kale II to Marjorie Carr (February 5, 1971), F.D.E. papers, University of Florida Department of Special Collections, P. K. Yonge Library, Box 33.

⁴⁰ John B. Funderburg, Trustee, Florida Defenders of the Environment, to supporters, January 25, 1971 (F.D.E. Papers, Box 33).

⁴¹ Don Fuqua, M.C. to Mrs. Helen Strathearn, January 19, 1971 (F.D.E. Papers, Box 8).

that Nixon's decision to kill the canal was purely political, but he did not support Adams's suggestion that the State of Florida or the Florida Canal Authority challenge the President in court. Askew conceded that a growing segment of Florida's population had expressed dissatisfaction with the barge canal and cautioned against proceeding with the project "without the support of the people."⁴²

Many members of Congress proved to be reluctant to let go of the canal project. Seventy-three million dollars had already been expended on the canal project when it was halted in 1971. The canal was approximately thirty-five percent complete. More than a year after construction of the canal had stopped the existing barge canal structures remained in place. Rodman Dam still blocked sixteen miles of the Ocklawaha River (see Figures 7-7 through 7-10). Never connected to the incomplete barge canal, Eureka Dam and Lock looked out of place in the landlocked valley.⁴³ Although F.D.E.'s scientists were confident that the basin under Rodman Reservoir could be replanted and a developing forest would be present within twenty-five to thirty years, the approximately ten-thousand-acre Rodman Reservoir and Dam remained in place.⁴⁴ None of the steps Carr recommended in her letter to the National Coalition to Save the Ocklawaha had been accomplished. She expressed her frustration to the President. "It is springtime in Florida and another growing season has started," she wrote. "When will restoration begin in the Oklawaha River Valley?" Carr forwarded copies of the letter to the Florida's Department of Pollution Control, the United States Forest Service, The United States Department of the Interior, the Environmental Protection Agency, the Florida section of the Society of American Foresters, the National Audubon Society, and a host of other national and

⁴² "Barge Canal Issue 'Dead,'" *St. Petersburg Times*, February 27, 1971.

⁴³ *Time*, February 1, 1971.

⁴⁴ "Canal Forest Areas Return to Wild Asked," *Times Daily*, January 20, 1971.

statewide environmental organizations, signaling that the campaign to restore the Ocklawaha River Valley required immediate assistance.⁴⁵

Their efforts soon resulted in a federal court order to lower the Rodman Reservoir by five feet in order to save a significant number of trees at the edge of the reservoir. “It’s quite a major victory,” said Carr, who became F.D.E.’s president in 1972. “It’s long overdue and could be the first big step into restoration of the area.”⁴⁶ Yet after U.S. District Judge Harvey Johnsen’s previous order to lower the water level by five feet, which reduced Rodman Reservoir from 10,000 acres to 4,300 acres until December 1, 1972, F.D.E. found itself back in federal court that fall. The Corps of Engineers wanted to return Rodman’s water level to its previous depth of eighteen feet. Using the media as a public education tool, Carr explained that raising the water level that much would put the lives of approximately 25,000 hardwood trees and six to seven hundred acres of land back in jeopardy. F.D.E. struggled to achieve incremental drawdowns of the reservoir until it was finally drained completely, but this still has not happened.⁴⁷

In the spring of 1972, while the battle over the Rodman water level waged on, canal boosters sought to revive the canal by any means necessary. Proponents distributed pro-canal bumper stickers in Washington, D.C. before a House Appropriations Committee vote on a \$300,000 appropriation for another study of the canal’s effects on the environment. Boosters contended that the canal would divert water southward from the Ocklawaha and Withlacoochee Rivers, which would help the Everglades. F.D.E.’s scientists countered that a completed barge canal would not alter the northward and northeastward flows of the respective rivers. The real

⁴⁵ Marjorie Harris Carr to President Richard M. Nixon, March 9, 1972, Florida Defenders of the Environment Papers, Box 8.

⁴⁶ “Lake Oklawaha Ordered Lowered,” *Lakeland Ledger*, July 25, 1972.

⁴⁷ “Barge Canal Still Gasping,” *The Evening Independent*, October 14, 1972.

purpose of the study was to keep the canal project alive with a fresh injection of federal study funds. The bumper stickers, which were produced by the Jacksonville Chamber of Commerce, said “Save the Everglades—complete the Cross-Florida Canal.” Carr was outraged at canal proponents’ blatant attempt to secure new funding for the project by conflating it with the popular movement to save the Everglades. “Saving the Everglades has become a national battle cry,” she said. “It’s an unfair tactic. They wouldn’t dare distribute those stickers in Florida. But in Washington, they might actually mislead a Congressman into thinking the Everglades would benefit.” Congressmen supporting the new canal study included Don Fuqua, Robert Sikes, Bill Chappell, and Charles Bennett. Carr criticized Fuqua for joining his three Florida colleagues—who had been some of the barge canal’s staunchest supporters—in the request for a new canal appropriation. “He has twenty-six counties in his district,” she said, “and only Putnam County is pressing him. He can’t say he is doing what the vast majority of constituents want. The day of rubber stamping every project of the vested interests is past. That’s not what Florida wants.”⁴⁸

While Carr formulated F.D.E.’s plans for deauthorization and restoration, canal proponents were confident that the court would rule in their favor. The Corps of Engineers conducted its own environmental impact statement so that the canal project would be in compliance with N.E.P.A. The restudy was completed in February 1977. Contrary to initial expectations, the results prompted the Chief of Engineers to recommend against completion of the barge canal, “in view of its marginal economic justification and potential adverse environmental impacts.” This was exactly what F.D.E. had argued for years. Carr and her allies were elated when President Jimmy Carter requested that Congress officially deauthorize of the Cross Florida Barge Canal. Carter also recommended extending the borders of the Ocala

⁴⁸ “Cross-Florida Barge Canal ‘Revived’ in Washington,” *Sarasota Herald-Tribune*, May 3, 1972.

National Forest in order to protect the Ocklawaha River in the future and urged Congress to consider how to dispose of canal lands and structures. Most importantly, he called for the restoration of the Ocklawaha River and suggested that the river be designated as a Wild and Scenic River. The Secretaries of Agriculture and Army, the Department of the Interior, the Environmental Protection Agency, and the Governor and Cabinet of Florida responded to the President on January 27, 1978. They estimated that the cost (at January 1979 price levels) of enacting the President's proposals for restoring the Ocklawaha River and disposing of canal lands and facilities would be \$30,138,000.00. In contrast, they predicted that the cost of completing the canal would be \$366,800,000.00.⁴⁹

Although Nixon's involvement in the barge canal dispute appeared at first to have resolved the canal issue at the start of the 1970s, by the decade's close, almost no progress had been made toward the river's restoration. Although President Carter had called for the deauthorization of the barge canal and the restoration of the Ocklawaha, Congress took no action on either matter. "We find ourselves in the very peculiar position of having won our fight but not our prime objective," Carr lamented. "An impressive array of elected officials vigorously recommend deauthorization of the canal project, including the Florida Legislature, Governor Graham, the Florida Cabinet, Senators Chiles and Stone, you [Fuqua] and twelve other Florida Representatives, and President Carter. And yet because Mr. Chappell and Mr. Bennett, representing a small group of vested interests in Jacksonville, oppose the legislation, the bill to legally terminate the canal project is stalled."⁵⁰

⁴⁹ Michael Blumenfeld, Assistant Secretary of the Army (Civil Works), and Bob Bergland, Secretary, Department of the Army, to Honorable Walter F. Mondale, President of the Senate, and Honorable Tip O'Neill, Speaker of the House of Representatives, April 11, 1979 (F.D.E. Papers, Box 8).

⁵⁰ Marjorie H. Carr, President to The Honorable Don Fuqua, October 19, 1979 (F.D.E. Papers, Box 8).

Unless the barge canal was deauthorized at the federal and state levels, it could be restored to active status with ease. “Today the canal project is alive and only needs appropriation of construction funds to continue on its destructive path,” Carr complained to Fuqua. “And we citizens are in the anomalous position of having won every battle but not succeeded in saving the Oklawaha and Withlacoochee Rivers, ensuring the protection of the central Floridan Aquifer, and preventing a great waste of taxpayers’ dollars. The canal project is in limbo and as long as it remains in this state of suspended animation, sixteen miles of the Oklawaha River remain flooded, the lower Withlacoochee’s flow is reduced to a damaging level, nearly a million dollars a year are spent maintaining the canal structures, and thousands of acres of right-of-way lands are tied up that might be used for public and/or private ventures.”⁵¹

Throughout the 1970s, Congress and the Florida Legislature considered legislation calling for the deauthorization and restoration of the Ocklawaha River and the incessant requests of a small but vocal group of barge canal supporters. In 1974, Carr advised the Florida Senate’s Committee on Natural Resources and Conservation to issue a favorable report on a deauthorization bill, citing the Florida Canal Authority’s “lack of responsiveness to the citizens of Florida” because the agency “still envisages its promotion of the canal as an ongoing project.” She reminded the committee that the Florida Cabinet had suspended its support for the canal project in 1972, pending the completion of an updated environmental impact study. Although the Cabinet had rescinded its support for any future canal plans that passed through the Ocklawaha River Valley, the Canal Authority’s plans continued to include the Ocklawaha.⁵²

⁵¹ Ibid.

⁵² “Senators Back Measure to Kill Canal Authority,” *Sarasota Herald-Tribune*, May 14, 1974.

Carr was certain that the barge canal was dead when a 1976 study indicated that the completion of the Cross Florida Barge Canal would have little impact on industrial growth in the region. “I would think it would remove the last bit of genuine support for the canal,” she said, adding that many “very reasonable people” had supported the canal on the assumption that it would stimulate industrial development and boost Florida’s economy (although F.D.E. had long maintained that the opposite was true). Carr thought that support for the barge canal would wane upon the release of the independent study, conducted by the Cambridge, Massachusetts firm Meta Systems, Inc., as part of the court-ordered \$1.8 million study on the environmental and economic impact of the canal. After ruling that President Nixon had overstepped his authority in halting the canal, a federal judge ordered the studies to serve as a guide for Congress in determining whether the canal should be completed or terminated. According to the economic study, which was financed by the Environmental Protection Agency, the canal would be located too far from major markets to withstand competition from established industrial centers. Moreover, there were not enough raw materials in the canal area to sustain substantial economic growth in Central Florida.⁵³

Meta Systems’ findings failed to kill boosters’ dream of a completed canal. Carr argued that a completed canal would only benefit a small group of Jacksonville businessmen at the expense of the public good. “The Florida public is very concerned about the wasteful and destructive project,” she told the press, stressing that it was unlikely that the Corps would be able to justify the revival of the project. “The evidence is so overwhelming that it seems to us there isn’t any way they can come out saying the project isn’t an economic loser.” Carr continued to push for the Ocklawaha’s restoration. “This area, even though damaged in small areas, can be

⁵³ “Barge Canal Report Hailed by Environmental Leader,” *Sarasota Herald-Tribune*, March 16, 1976.

restored and be a very valuable and productive area for all Floridians,” she insisted. Carr attempted to persuade Floridians that restoration would be more profitable than completing the canal. “Economically, there will be more jobs in restoration than there would be in construction of the canal,” she explained. “Also, there will be more long-term economic gains from recreation in the [restored river] than there would have been from a canal.”⁵⁴

Carr likened the continuing battle for deauthorization and restoration to the Energizer bunny. “It’s like that pink rabbit,” she reflected. “It keeps going and going.” Carr kept up the fight, unwilling to take no for an answer. She believed that the outcome of the battle for the Ocklawaha would be indicative of the success of environmental struggles around the globe. “This is really symptomatic of any other conservation problem,” she purported. “The way the Ocklawaha goes is the way the world goes.”⁵⁵

In the 1980s, canal backers continued to stall deauthorization in the hope that the political climate would eventually shift in favor of the completion of the barge canal. U.S. Senator Paula Hawkins supported a canal restudy championed by Bill Chappell and Charles Bennett. The proposed \$450,000 restudy would reexamine the canal’s economic benefits. Chappell claimed that the economic restudy would be valuable “even if you wanted to blow [the barge canal] up like Mrs. Carr wants to do.” Carr called the proposed restudy a “slice of pork” and laid much of the blame for delaying deauthorization upon Chappell. She claimed that the new study was “a waste of money and could be completed with a pocket calculator or a piece of paper and a pencil.” Carr accused Hawkins of contributing to the delay by failing to clarify her position on the canal. She contended that Hawkins only supported environmental issues only if they

⁵⁴ “Canal Opponents to Fight Corps,” *Palm Beach Post*, December 5, 1976.

⁵⁵ “The Family Carr,” *Gainesville Sun*, December 6, 1993.

benefited her politically.⁵⁶ Carr also opposed Hawkins' plan to preserve the canal right-of-way for recreational use without deauthorizing the canal, leaving open the possibility that the canal project could be revived at any time in the future. She called Hawkins's plan "frivolous, ridiculous, and nonsensical," adding, "the only reason not to deauthorize the canal is to build it." Hawkins's stance on deauthorization of the Cross Florida Barge Canal became a campaign issue in 1986, when she lost her bid for reelection to the Senate to former Governor Bob Graham.⁵⁷

Carr placed longtime canal booster Bill Chappell between a rock and a hard place when she crafted a measure to use a section of canal right-of-way as the site of a national veterans cemetery. In order for the barge canal lands to be used for the cemetery, the canal project would have to be deauthorized. F.D.E.'s proposal outraged Chappell, who had fought for years to establish a national veterans cemetery at a different location near the Withlacoochee River.⁵⁸ The proposed thirty-million-dollar Florida National Cemetery would accommodate nearly three hundred thousand grave sites. Carr hoped that the cemetery proposal would finally lead to the canal's deauthorization. "The state can't wait any longer," she said. "It's got to use these resources."⁵⁹ Chappell mobilized veterans groups behind his original plan for a cemetery near the Withlacoochee, capitalizing upon veterans' concerns that the politics of deauthorization might jeopardize the new national veterans cemetery. With close to one and a half million veterans living in Florida, the state's three national veterans cemeteries were unable to

⁵⁶ "New Funding for Barge Canal Tucked Into Bill," *Ocala Star-Banner*, August 18, 1982; "Group Criticizes Hawkins' Environmental Record," *Ocala Star-Banner*, October 17, 1986; "Graham for U.S. Senate," *Orlando Sentinel* October 5, 1986; "Graham Welcomes Hawkins' Attack on Environment," *Gainesville Sun*, February 2, 1986; "Paula Hawkins Rebuked Over Remarks about Cross-Florida Barge Canal Land," *Lakeland Ledger*, August 3, 1984.

⁵⁷ "Hawkins Aides Unveil Barge Canal Proposal," *Lakeland Ledger*, August 4, 1984.

⁵⁸ "New Move Putting Chappell in a Spot on U.S. Cemetery," *Sarasota Herald-Tribune*, September 7, 1979.

⁵⁹ "Groups Want Barge Canal Land for New VA Cemetery," *St. Petersburg Times*, January 10, 1983.

accommodate the growing number of World War II veterans who had retired to the state. In 1988 the new cemetery was dedicated in Bushnell, close to the Withlacoochee River.⁶⁰

In the end, it was better for the Ocklawaha that the cemetery was located elsewhere. When deauthorization finally occurred, none of the former canal lands were sacrificed to development. Carr learned to use the media to educate the public and to shame politicians into doing the right thing for the environment. “People at every level were intimidated by her,” Carr’s former public relations consultant David Godfrey recalled, “because she could put their name in the papers the next day.”⁶¹ State Senator Dempsey Barron, who had repeatedly blocked F.D.E.’s efforts to deauthorize the barge canal, told Carr in 1980 that there was no “real public support for your point of view.”⁶² After their confrontation, Carr returned to her Tallahassee office and made five phone calls. The following day five major Florida newspapers published editorials calling for deauthorization of the barge canal. “We had been sending these papers information right along and keeping them up with developments,” Carr explained. “So all I had to do was call the editors and let them know the current state of the bill.”⁶³ A state legislator once claimed that Carr’s mere presence at the Florida State Capitol persuaded legislators to take action on the barge canal issue. “All you have to do is walk the halls,” the legislator told Carr. “You

⁶⁰ “Nation’s Newest Veterans Cemetery in Bushnell,” *Ocala Star-Banner*, March 1, 1988; “Veterans React to Cemetery Location: Spokesmen Say Sumter Site is Best,” *Ocala Star-Banner*, August 10, 1983; “VA Looks for Site for New Veterans Cemetery in Florida,” *St. Petersburg Times*, June 7, 1982.

⁶¹ Author’s interview with David Godfrey, who is now the executive director of the Caribbean Conservation Corporation.

⁶² Frank Graham, Jr., “What Matters Most: The Many Worlds of Archie and Marjorie Carr,” *Audubon* (March 1982): 93.

⁶³ Graham, Jr., “What Matters Most,” 94.

don't have to say a word. Just be seen there, and every legislator who sees you will say to himself, 'Oh, yes. The Barge Canal.'"⁶⁴

Despite Carr's influence in Tallahassee, a handful of powerful state politicians had succeeded in protecting the interests of a relatively small number of Floridians who wanted to resurrect the canal. These politicians—including Barron, Bennett, Chappell, and State Senator George Kirkpatrick—managed to railroad F.D.E.'s numerous attempts to deauthorize the canal. "Well, we almost won," Carr wrote F.D.E. members after another failed attempt at deauthorization in the fall of 1978. "But since we didn't we will have to start all over again with the new 96th Congress when it convenes on January 15, 1979." Year after year, Carr was unwilling to accept defeat in F.D.E.'s quest to restore the Ocklawaha River. She urged F.D.E.'s members to assist the campaign by writing or telephoning their Congressmen and persuading them to support deauthorization.⁶⁵ F.D.E.'s grassroots strategy eventually paid off. U.S. Senators Bob Graham and Lawton Chiles sponsored deauthorization legislation with the assistance of Carr and Jack Kaufmann, who made specific recommendations for the initial drafts of the deauthorization legislation.⁶⁶

On October 27, 1990, Senate Bill 2740 deauthorized the canal at the federal level. President George H. W. Bush, wishing to be remembered as an environmental President, signed the bill into law on November 28, 1990. On January 22, 1991, the Governor and Cabinet of the State of Florida signed a resolution agreeing to the terms of federal deauthorization, an act that

⁶⁴ Graham Jr., "What Matters Most," 93.

⁶⁵ Marjorie H. Carr, President to F.D.E. members, November 1, 1978 (F.D.E. Papers, Box 8).

⁶⁶ Marjorie H. Carr, Co-Chairman and John H. Kaufmann, Co-Chairman to Senator Bob Graham, March 21, 1990 (F.D.E. Papers, Box 8); See Senator Bob Graham's revised draft of an amendment to the Water Resources Development Act of 1986, which would provide for deauthorization of the Cross Florida Barge Canal, plus the fax cover sheet that accompanied the draft, which was faxed to Carr in March 1990 (F.D.E. Papers, Box 8).

officially deauthorized the Cross Florida Barge Canal. The Florida Legislature had previously enacted a deauthorization bill that conformed to a bill passed simultaneously in the U.S. Senate, but the state deauthorization could not go into effect until the canal was deauthorized at the federal level. On the date of the canal's deauthorization, the lands that had formerly been set aside as canal right-of-way became the Cross Florida Greenway, a 107-mile nature park.⁶⁷

Carr never imagined that it would take two decades to deauthorize the Cross Florida Barge Canal. "Bill Partington, who was our president back in 1971, told me at the time, 'You know, now we have another twenty-year fight ahead of us,'" Carr recalled. "And I said, 'Bill, you're crazy.' But he was right."⁶⁸ Throughout the endless fight for deauthorization and restoration, Carr remained supportive of her children's dreams and goals. Although Mimi describes her parents as driven almost to the point of obsession, they were as devoted to their children as they were to conservation and environmental activism. "They're such well-adjusted people, my parents, and they enjoyed life so much," Mimi reflected. "They were fun to be around....My parents were my best friends." The Carr children said that their mother never let her environmental activism make her a distant or preoccupied mother.⁶⁹

For thirty-five years, Marjorie Carr led the fight to save and restore the Ocklawaha River. An effort that started at a small meeting of Audubon Society members in 1962 culminated in a successful environmental battle with national ramifications for the local, state, and federal politicians; the U.S. Army Corps of Engineers; and developers across the country. Carr attributed her success to her grassroots organization's ability to harness the power of the

⁶⁷ Senator Bob Graham, "Florida Wins Environmental Victories," December 1990 communication to Graham's constituents (F.D.E. Papers, Box 8.)

⁶⁸ "Managing Growth in State Leads Environmentalist's Concerns," *Gainesville Sun*, December 11, 1988.

⁶⁹ "The Family Carr," *Gainesville Sun*, December 6, 1993.

democratic process. “We had gained the attention of the decision makers,” she explained. “I think elected officials listen to the public, if the public speaks loudly. Furthermore, the results of not doing what’s right for the environment are dreadful, and they will happen fairly quickly. And the rascals will get turned out if they are perceived as neglecting the environment.”⁷⁰

As the battle for deauthorization came to a close in the late 1980s, Carr remained optimistic about the future of Florida’s environment. “I think we are at a watershed time,” she surmised. “One reason I’m encouraged is that I do believe that the economic well-being of the state is tied to its environmental well being. I think the big businesses realize if you don’t have a good environment here in Florida, then businesses will go down the drain. When more people realize that, you will have the business community coming in right behind the environmentalists to work on behalf of the environment.” Referring to the practice of condemning land for the construction of an Interstate highway, Carr asked, “If they can condemn land for a road, why can’t we condemn land for conservation? Our society has already accepted condemnation of land in the public good. I think we just have to define what is the public good.”

Marjorie Carr and Florida Defenders of the Environment convinced the public and politicians that unchecked growth and development in environmentally sensitive areas was not in the public good. Using scientific and economic facts as weapons, they defeated the Cross Florida Barge Canal. To Carr, F.D.E.’s success was indicative of the power of the democratic process. “In the environmental effort,” Carr said at an environmental conference in Key West, “I am constantly made aware of the advantages of a democracy.” Her speech touted the benefits of an involved, educated, and outspoken public to the environmental movement. Environmental progress, Carr argued, is most likely to occur when the citizenry accepts the responsibility of

⁷⁰ “Managing Growth in State Leads Environmentalist’s Concerns,” *Gainesville Sun*, December 11, 1988.

stewardship and when a democratic government responds to the public's requests. "I think that's why the U.S. is extraordinary in the field of the environment," she maintained, "and where Florida is a leader, too."⁷¹

The strategies F.D.E. employed in its struggle to save the Ocklawaha River Valley served as a guide for other environmental battles across the nation. Environmental groups adapted F.D.E.'s environmental impact statement to suit the requirements of their own projects for years to come. Carr's resolve inspired other environmentalists to persevere in their own seemingly unwinnable campaigns. Environmental organizations from other states sought her expert counsel in their respective battles with nuclear power plants, phosphate mines, industrial pollution, river restoration, and other complex environmental issues. She served on the boards of state and local land planning councils, state and national environmental organizations, cooperative efforts between environmentalists and businesses, and environmental education foundations. Carr was a firm believer in the power of cooperation between government, industry, and the citizenry. Unlike the confrontational activists of later environmental groups such as Earth First!, Carr and F.D.E. promoted civil dialogue. Although she did not live to see the Ocklawaha River run free, Marjorie Carr remained optimistic that in the end, the people of Florida would do what was right for the environment.

⁷¹ Speech by Marjorie Carr about responsible industry and protecting the [Florida] Keys, "A Tale of Two Women: Marjory Stoneman Douglas and Marjorie Carr," Video transcript, Everglades Digital Library Collection (Florida International University, 1985). <http://everglades.fiu.edu/two/index.htm> (accessed November 25, 2007).

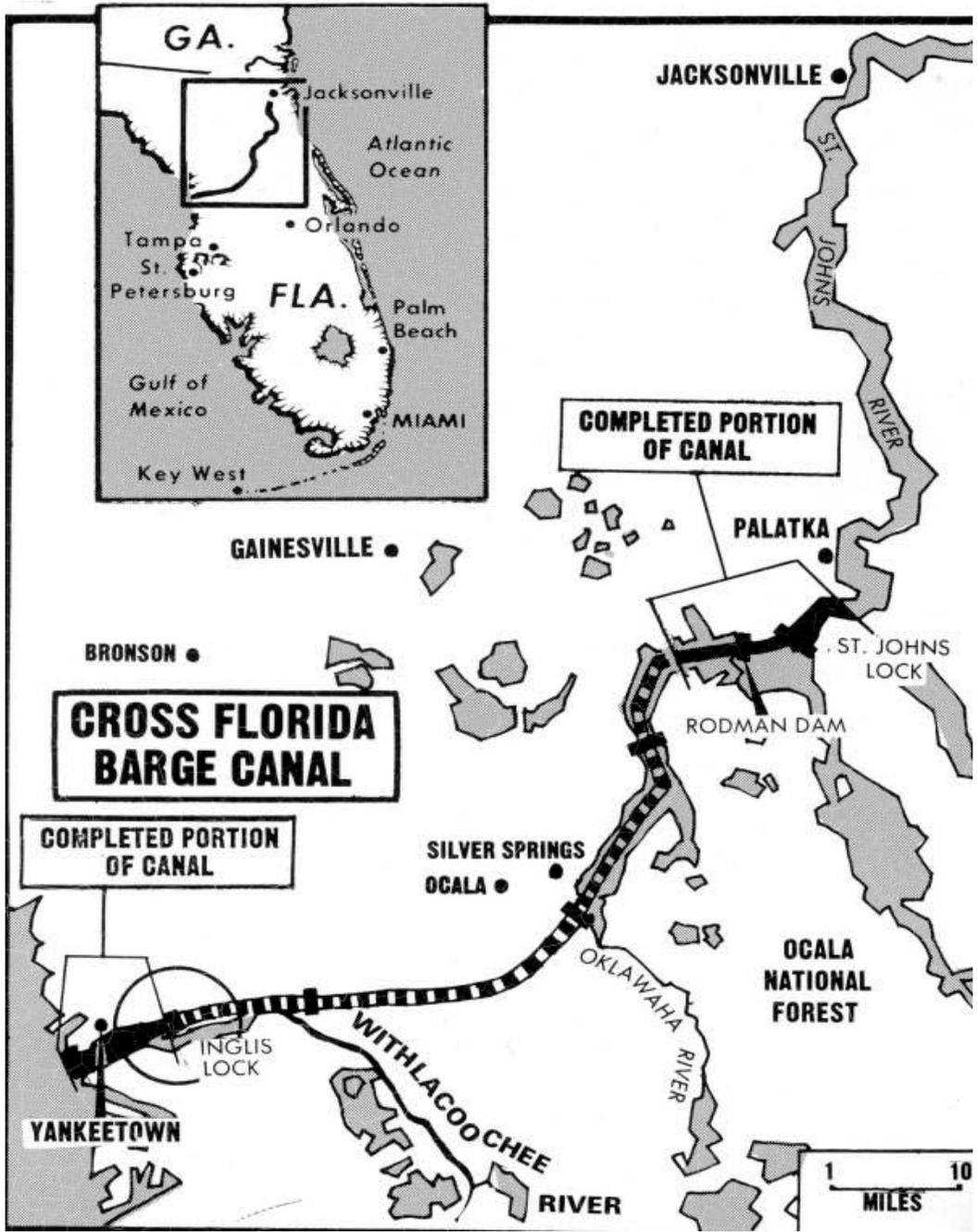


Figure 7-1. A detail of the completed sections of the Cross Florida Barge Canal. Courtesy of the Florida State Archives.



Figure 7-2. A completed section of the Cross Florida Barge Canal near Palatka on Florida's eastern coast. Photo by Peggy Macdonald



Figure 7-3. A view of the U.S. 19 bridge over the Cross Florida Barge Canal at Inglis, near the Gulf of Mexico. Photo by Peggy Macdonald.



Figure 7-4. The Marjorie Harris Carr Cross Florida Greenway is an uninterrupted wilderness corridor located on the lands formerly designated as barge canal right-of-way. The state protects all flora and fauna in the greenway. Photo by Peggy Macdonald.



Figure 7-5. Marjorie and Archie Carr each won the New York Zoological Society's Gold Medal for achievement in biological conservation in 1978; in 1988 the society made her a Scientific Fellow. Courtesy of Mimi Carr.



Figure 7-6. Rodman (now George Kirkpatrick) Dam and Reservoir continues to interrupt the natural flow of the Ocklawaha River. Photo by Peggy Macdonald.



Figure 7-7. Trees killed when Rodman Reservoir flooded the Ocklawaha River Valley in 1968 still drift toward Rodman Dam. Photo by Peggy Macdonald.



Figure 7-8. Anglers fish near Rodman Dam; the Ocklawaha River is seen in the distance. Photo by Peggy Macdonald.



Figure 7-9. A great egret hunts along the banks of the Ocklawaha River near Rodman Dam. The egret competes with anglers (pictured above) for fish that pass through the dam. Photo by Peggy Macdonald.

CHAPTER 8 CONCLUSION

The creation of a new, national environmental infrastructure contributed to the development of an environmental ethos in the late twentieth century. Still, Marjorie Harris Carr believed that local citizen action was the key to environmental stewardship. In 1970, she reflected upon the role environmentalists had played in defending the environment from unregulated development. “Although the last few years have seen the adoption of a growing amount of legislation designed to curb the mindless destruction of the land, the time has grown so late,” she cautioned. “So little is left and destructive forces have become so strong, that if the remaining American landscapes are to be saved, it will only be because groups of conservationists—the ‘little-old-ladies-in-tennis-shoes’—have learned to take prompt and effective action.” Lack of citizen support for the barge canal was a key factor in the eventual cancellation of the project.¹

In an article published two weeks after the unprecedented Florida Defenders of the Environment victory over the U.S. Army Corps of Engineers, *Time* magazine observed that the demise of the Cross Florida Barge Canal was indicative of the increasing role ecology was beginning to play in national politics. President Richard Nixon’s order to halt construction of the barge canal “encouraged conservationists who hope that the Corps of Engineers will shift its focus from building ecologically questionable canals and dams to more desperately needed projects,” such as new sewage systems and water treatment plants, *Time* reported. At the beginning of the Ocklawaha campaign, most news publications supported the barge canal project. F.D.E.’s lawsuit against the Corps of Engineers—supplemented by its path breaking

¹ Marjorie Harris Carr, review of George Laycock’s *The Diligent Destroyers*, Florida Defenders of the Environment Papers, Box 33.

environmental impact statement—had transformed the media’s interpretation of the barge canal debate into a battle between sound environmental practices and “ecologically questionable canals and dams.” The media had become more critical of Corps of Engineers pork projects that satisfied shipping interests, construction interests, and the needs of others who would exploit the earth for profit. However, Congressmen continued to court Corps projects that would direct money and jobs to their districts, and the Corps remained the nation’s leading director of waterways projects.²

Although environmental concerns were the driving force behind the demise of the barge canal, F.D.E.’s economic argument set an important national precedent for other public works projects. “It is the first real confirmation that the ‘benefit-cost ratio philosophy’ has been challenged,” University of Florida professor of engineering Olle I. Elgerd noted. “It could conceivably have as a result that the whole value system which in the past has laid at the base of all hydro projects will come up for review on a national scale. In this respect the victory on Oklawaha could be as fundamental in the annals of conservation as was Carson’s work for turning the pesticide tide.” For decades the Corps of Engineers had relied upon the benefit to cost ratio to justify its manipulation of the land. After F.D.E.’s victory over the Corps of Engineers, federal agencies would be required to consider the environmental impact of proposed project when deciding if it was in the public’s best interest. Moreover, F.D.E. revealed that the Corps was guilty of exaggerating the economic benefits of the canal project in order to receive Congressional funding.³

² *Time*, February 1, 1971.

³ Olle I. Elgerd to Marjorie Harris Carr, January 26, 1971, Florida Defenders of the Environment Papers, Box 8.

At the time of F.D.E.'s victory over the Corps of Engineers, environmental law was still in its infancy. The Miami jetport case was the first environmental lawsuit in Florida. The only environmental laws in existence in 1970 were anti-pollution and anti-dumping laws; no laws were designed specifically to protect the environment, according to David Gluckman, who filed the first environmental lawsuits on behalf of the Sierra Club in Florida in the late 1960s. In 1970, only five national environmental cases served as precedents for environmental litigation. "It was the beginning of the movement," Gluckman contended.⁴ F.D.E.'s lawsuit against the Corps of Engineers resulted in the termination of one of the nation's largest public works projects. "You have to remember, the Cross Florida Barge Canal was the biggest deal since the digging of the Panama Canal," Nathaniel Reed explained. "Marjorie was eventually able to prove that, economically, the barge canal was nineteenth-century thinking."⁵

Unlike much of the United States, Florida escaped the process of industrialization in the nineteenth century. In many respects, Florida—especially Central Florida—was lost in time. Hot, humid, and undeveloped, inland Florida was inhospitable to tourists and new residents alike. With the advent of air conditioning and a massive influx of new residents after World War II, this would all change. Veterans who had trained in Florida returned to the state to start a new life after the war. Florida was transformed from the smallest state in the South (and one of the poorest) before the war, to the fourth largest state in the nation by the century's close. In the absence of any significant efforts to develop regional land planning, developers' plans received little scrutiny.⁶

⁴ Author's interview with David Gluckman (January 21, 2009).

⁵ "Sand In Her Shoes, River In Her Blood," *St. Petersburg Times*, November 18, 1996.

⁶ Buddy MacKay with Rick Edmonds, *How Florida Happened: The Political Education of Buddy MacKay* (Gainesville: University Press of Florida, 2010), xi-xv; and Mormino, *Land of Sunshine, State of Dreams*.

In the postwar era, the proposed barge canal generated debate over the best use of Florida's rivers. Although state leaders had championed the Cross Florida Barge Canal as a means to achieve economic growth, an increasingly vocal group of Floridians contested the state's dominant discourse of industrialization and promoted a competing discourse grounded in ecology. While canal proponents viewed the Ocklawaha, St. Johns, and Withlacoochee Rivers as transportation routes that should be utilized to facilitate commerce in Central Florida, Carr and her colleagues argued that rivers—particularly the undisturbed Ocklawaha River—were central to the health of their respective ecosystems, and that industry threatened the stability of these ecosystems.

Carr succeeded in translating the complex new language of ecology to the masses. She harnessed the power of the media, which initially supported construction of the barge canal as a means to foster economic growth in Central Florida, to inform the public about the importance of preserving the integrity of the Ocklawaha Regional Ecosystem. After suffering a crushing defeat at the 1966 public hearing in the state's capital, Carr transformed a local campaign to reroute the barge canal around the Ocklawaha River Valley to a national effort to prevent the U.S. Army Corps of Engineers and similar federal agencies from completing pork barrel projects planned without considering their effects on the environment. Florida Defenders of the Environment's environmental impact statement challenged the conservation ethos of federal agencies that manipulated natural resources for profit and furthered the nation's transition to an environmental awareness grounded in the science of ecology.

Once construction of the Cross Florida Barge Canal was halted, when the official court-ordered economic and environmental impact studies had been completed, and even after the Corps of Engineers recommended against completing the canal, proponents continued to sponsor

legislation authorizing expensive economic restudies designed to keep the dream of the canal alive until the political climate shifted in favor of finishing the partially constructed canal, until the barge canal project was finally deauthorized nearly half a century after its initial authorization during World War II.

Carr's opposition to the barge canal stemmed from a personal connection to the natural beauty of North Central Florida, which was her home for sixty years. Whenever she left home, she traveled along U.S. Highway 441. Heading north, she passed through Paynes Prairie on the way to Gainesville, taking in changing scenery that included prehistoric animals such as alligators, when heavy rains flooded the prairie, and an assortment of native and migratory birds (sandhill cranes, egrets, ibises, and hawks soaring above the prairie in search of food). Even if there was not enough time to stop the car and listen to the frogs singing in the tall grasses or the clicking of cicadas in the trees, a short drive through the prairie was enough to recharge Carr's soul and remind her what she was fighting for. In 1964, when Interstate 75 replaced these sounds with the roar of thousands of automobiles cutting through her own backyard, she became determined to stand up for the North Central Florida environment.

Carr's strong sense of place kept her involved in science, conservation, and environmental activism in spite of the powerful institutional barriers that had prevented her from maintaining a formal career in zoology. Her affiliation with the University of Florida, where she was both an alumna of the school's graduate program in zoology and an associate of the Florida Museum of Natural History, and her status as the wife of one of the world's leading turtle experts and a pioneer in the field of conservation biology, provided her with the resources she would draw upon over the course of a nearly forty-year career in conservation and environmental activism that ultimately preserved not only the Ocklawaha River, but also much of what remains

of the North Central Florida landscape. Although Archie Carr lent whatever support he could to his wife's conservation and environmental activities, he was preoccupied with his own research and conservation agenda. Archie credited his wife with being "the militant one" whose optimism, dedication, and persistence were responsible for preserving and restoring Paynes Prairie and Lake Alice; for stopping the University of Florida from building a four-lane throughway and two-thousand-car parking garage that would have destroyed the lake; for preventing the construction of a Jacksonville to Tampa turnpike that would have further damaged Paynes Prairie, disrupted the rural charm of historic Micanopy, and damaged other environmentally sensitive lands in Central Florida; and saving the Ocklawaha River. Marjorie Carr contributed to the awakening of Florida's environmental consciousness by making ecology accessible to the citizenry, and she inspired citizens across the nation to use the activist science of ecology to improve the environment in their own communities, at the local level, by gathering relevant scientific and economic information and using the media to convey that information to the public and politicians.

Carr's approach to environmental activism was cutting edge. Beginning with her 1965 *Florida Naturalist* essay, she conveyed a complex ecological message in plain words that anyone could understand, elucidating the threat that ill-conceived development posed to Florida's fragile ecosystems. Carr understood the ecological ramifications of the Corps of Engineers' proposal to build a canal along the Ocklawaha River, including the damage it would cause to the Floridan Aquifer. Moreover, she felt a personal connection to the river, which she had known since she was a young scientist. She was outraged that the river would be sacrificed in the name of (dubious) economic progress. "It's the same outrage one feels upon hearing that a man took a

hammer and wrecked the Pieta,” Carr explained. “It should be saved because it is a beautiful, unique river.”⁷

In the absence of a scholarly biography of Marjorie Carr, her importance to the national environmental movement of the late twentieth century is at risk of being forgotten. Many of the key players in the environmental revolution have died or retired. Indeed, Carr’s name is slipping from the minds of some of the politicians with whom she worked closely. This problem might have been exacerbated by her choice to play the part of the housewife. Carr projected the image of domesticity by emphasizing her status as Archie’s wife, referring to herself as “Mrs. Carr” in her dealings with the media and politicians. Bob Graham, Florida’s former governor and a retired U.S. Senator, worked closely with Carr on legislation to deauthorize the barge canal and other environmental issues. Yet he did not immediately recognize her name in a 2005 interview. After being reminded of Carr’s efforts to stop construction of the Cross Florida Barge Canal, Graham still could not recall who she was. Upon hearing that she was the wife of Archie Carr, however, Graham responded animatedly, “Ohhh...*Mrs. Carr!*”⁸

Although Marjorie Carr’s name is still remembered among Florida’s older generation of environmentalists, Carr—and the Ocklawaha River itself—are not familiar to Florida’s younger generations of environmentalists. Moreover, Carr’s leadership of the campaign to save the Ocklawaha River is seldom addressed in national histories of the environmental movement, although her campaign served as a model for other environmental campaigns across the nation.

Carr attempted to branch out in new directions in the 1980s and 1990s, but F.D.E.’s efforts to deauthorize the Cross Florida Barge Canal and restore the Ocklawaha River Valley

⁷ “Focus on Housewife Who Roared,” *Christian Science Monitor*, July 20, 1973.

⁸ Author’s 2005 interview with Senator Bob Graham at the launching ceremony for the Bob Graham Center for Public Service, now located in Pugh Hall at the University of Florida.

continued to demand most of her time. F.D.E.'s membership had expanded from fewer than four hundred members at the start of the Ocklawaha campaign to approximately 2,000 members, with Carr still at the helm of the organization of volunteer experts.⁹ In addition to leading the Ocklawaha campaign, Carr and F.D.E. directed efforts to manage growth in Florida and worked to restore and preserve threatened wetlands and rivers, including the Apalachicola, Suwannee, Wekiva, and St. Johns, which—like the Ocklawaha—was in need of restoration. She envisioned F.D.E. taking a leading role in the drive to preserve as much as possible of what remained of natural Florida. “To keep samples of our original landscapes here in Florida, whether in hammocks, coastlines, scrubs, wetlands or swamps...that’s a worthwhile goal,” Carr maintained. She looked forward to the day when Florida would restore the Kissimmee River, Lake Okeechobee, and the Everglades.¹⁰

Carr emphasized the importance of maintaining close relationships with government and industry in order to craft responsible solutions for the environment. This was the primary motivation behind F.D.E.'s establishment of the Environmental Service Center in Tallahassee, where F.D.E. could monitor legislation and involve its coalition of volunteer specialists in solving any problems that might arise. Instead of antagonizing developers and industrialists, Carr partnered with them where appropriate to further her environmental goals. Because a strong economy in Florida depends upon a healthy environment and sustainable development, she was confident that businesses would make decisions that were in the best interests of the environment. Carr believed that citizens, government, and industry should work together to protect Florida's future. For example, she suggested that the Florida Chamber of Commerce, the

⁹ “Conservationists Oppose Highway,” *Miami News*, November 25, 1988.

¹⁰ “Managing Growth in State Leads Environmentalist’s Concerns,” *Gainesville Sun*, December 11, 1988.

Department of Natural Resources, and local and state departments of tourism assume a leading role in teaching new residents and tourists about the environment by using the media to coordinate a public education program. Florida's long-standing debate over economic growth versus environmental stewardship continues in the twenty-first century.¹¹

Marjorie and Archie Carr's relationship began and ended with science. As they aged, they were too immersed in their careers to consider retirement. "They were for most of their lives rather happy people, I believe," Mimi observed. "Towards the end of their lives they were very driven." While Carr continued to lead Florida Defenders of the Environment's drive to deauthorize the canal, Archie remained immersed in his sea turtle research. In the mid 1980s, he was diagnosed with stomach cancer. "I don't think he had any inkling the cancer was coming on," Mimi reflected. Archie had a fear of doctors, which might have been caused by the traumatic development of osteomyelitis in his youth. By the time doctors discovered Archie's stomach cancer, it was too late to put up much of a fight. Archie died at home in Micanopy on May 21, 1987. Soon after Archie's death, Carr's health began to deteriorate. "Mother was, of course, just slowly destroying herself with the smoking," Mimi recalled.¹²

Carr developed emphysema, a smoking-induced disease that results in irreversible damage to the lungs. The disease progresses slowly, culminating in what is commonly referred to as end stage emphysema, in which only thirty percent of the patient's lungs are still able to function and the risk of contracting lung infections such as pneumonia and bronchitis is

¹¹ "A Tale of Two Women: Marjory Stoneman Douglas and Marjorie Carr," Video transcript, Everglades Digital Library Collection (Florida International University, 1985). <http://everglades.fiu.edu/two/index.htm> (accessed November 25, 2007).

¹² Author's interview with Mimi Carr (July 8, 2006).

elevated.¹³ Emphysema reduced Carr’s mobility rapidly. In the early 1990s, she moved from the family farm in Micanopy to a Gainesville duplex developed by Rodman Reservoir proponent George Kirkpatrick. Mimi left behind an acting career in Oregon and moved in with her mother, who was on oxygen and required full-time care. Carr continued to campaign on behalf of the Ocklawaha from home, remaining optimistic that she would live to see its restoration.

Buddy MacKay, who worked to dismantle the barge canal project as a Congressman and state lawmaker, described the death of the canal as “one of the real happy endings in the entire American environmental movement.” He was instrumental in urging the Florida Legislature to name the Cross Florida Greenway after Marjorie Carr.¹⁴ Although she was honored by this gesture, Carr would have been more pleased if the Legislature had resolved to restore the Ocklawaha River. Restoration remained plagued by problems of financing and contesting visions of the Ocklawaha’s future. Estimates of the total cost of removing the existing barge canal structures—including Rodman Dam and Reservoir—and restoring the river to its natural course varied wildly, but with a likely price tag in the millions of dollars, the expense was too great for private charities and environmental organizations to cover without government assistance. Not only was restoration expensive, it was controversial as well. Bill Chappell and George Kirkpatrick prevented the passage of deauthorization and restoration legislation at the federal and state levels year after year, touting the reservoir’s benefits as a bass fishery. Carr claimed that very few people opposed the Ocklawaha’s restoration, but those who did were “obsessed” with maintaining Rodman Reservoir. She further maintained that bass anglers who opposed restoration “ought to be ashamed of themselves.” Restoring the Ocklawaha would not

¹³ “Life Expectancy with End Stage Emphysema,” <http://www.babyboomercaretaker.com/funeral/life-expectancy/Life-Expectancy-With-End-Stage-Emphysema.html> (accessed January 4, 2010).

¹⁴ “Park Should be Named for Carr, Says Chiles,” *Gainesville Sun*, March 2, 1994.

detract from local fishing, Carr argued, since nearby Lake George provided excellent fishing and recreation opportunities in a more natural setting than the artificial Rodman impoundment, which was expensive to maintain.¹⁵

In the final years of her life, Carr was tethered to an oxygen tank. The emphysema restricted her travel and sapped her energy. Nonetheless, she remained the symbolic leader of F.D.E.'s fight for restoration of the Ocklawaha, lobbying over the phone and through letters to politicians, including Senator Bob Graham, who made house calls to discuss proposed legislation. In order to continue her work as F.D.E.'s president emeritus, Carr converted her bedroom into a working office with a desk, filing cabinet, and telephone. "The centers of power are only a phone call away," she maintained.¹⁶ She continued to harness the powerful tool of the media, contributing fact-filled commentaries to Florida newspapers. In November 1996 Carr was inducted into the Florida Women's Hall of Fame, but she was too ill to attend the ceremony. Shortly afterward she endured a month-long hospitalization for respiratory distress. Upon her release, Carr gradually resumed her efforts to remove Rodman Dam and secure restoration.¹⁷

Carr remained steadfast in her belief that there was still time to save the Ocklawaha River. She envisioned a time after the dam was breached and the reservoir was drained, when the springs underneath the flooded section of the river would help it resume its original course, the forested valley would return to its former glory, the Ocklawaha's water quality would improve, and the water creatures that were unable to pass through the dam (and often died

¹⁵ "A Restoration Effort: Activist Recalls Fight to Let the River Run," *Gainesville Sun*, June 13, 1997.

¹⁶ "A Tale of Two Women: Marjory Stoneman Douglas and Marjorie Carr," Video transcript, Everglades Digital Library Collection (Florida International University, 1985). <http://everglades.fiu.edu/two/index.htm> (accessed November 25, 2007).

¹⁷ *Ibid.*; author's interview with David Godfrey (December 19, 2008); author's interview with Mimi Carr (July 8, 2006).

trying) would resume their normal migration along the river. “Once the dam is gone,” Carr predicted, “the manatees will be able to come up there during the winter. What a sight that will be. How lovely that will be.”¹⁸

Tragically, it was a vision that Carr would never see come to fruition. On October 10, 1997, after living with end stage emphysema for two years, she lost her battle with the disease. Carr died at age eighty-two without having the chance to see her beloved river run free. Each of her five children remained involved in conservation and environmental activism after their parents’ death. Mimi supplemented a professional acting career with documentary projects and public appearances for F.D.E. Longtime F.D.E. activist Joe Little has observed that engaging Mimi in a conversation is like talking with her mother. Chuck followed in his parents’ footsteps closely. Like his mother, he earned a bachelor of science degree at Florida State University and a master of science degree at the University of Florida. He completed a doctorate in estuarine ecology at the University of Michigan. Chuck became a regional coordinator for the Wildlife Conservation Society and directed conservation projects in Central America and the Caribbean. Steve worked to restore the sturgeon, a primitive and highly endangered fish, to the Suwannee River. Tom produced aerial surveys of mega fauna—including native species such as manatees and sea turtles—for several national and international organizations. David served as F.D.E.’s research director in the 1980s and worked as the executive director of the Caribbean Conservation Corporation before embarking upon other conservation activities. In 1999, he founded the Conservation Trust for Florida, a non-profit land trust modeled after F.D.E. and

¹⁸ *Gainesville Sun*, June 13, 1997.

dedicated to the preservation of the state's rural landscapes. All of the Carr children still reside in Alachua County.¹⁹

In 1998, the Florida Legislature dedicated the former canal right-of-way to Carr, renaming it the Marjorie Harris Carr Cross Florida Greenway. Stretching from the Gulf Coast to the Atlantic, the greenway's uninterrupted span of habitat supports a diverse assortment of native flora and fauna and provides Floridians and tourists with a variety of recreational opportunities. Yet the Ocklawaha River remains blocked by Rodman Dam, which was renamed the George Kirkpatrick Dam to honor its greatest supporter. The dam costs between \$150,000 and \$500,000 annually to maintain. Florida Defenders of the Environment and other environmental organizations continue the campaign for restoration, with no end in sight. In the absence of Marjorie Carr's leadership, the battle for restoration continues while the Ocklawaha River Valley holds its breath.²⁰

¹⁹ "The Family Carr," *Gainesville Sun*, December 6, 1993; speech by Marjorie Carr about responsible industry and protecting the [Florida] Keys, "A Tale of Two Women: Marjory Stoneman Douglas and Marjorie Carr," Video transcript, Everglades Digital Library Collection (Florida International University, 1985); <http://everglades.fiu.edu/two/index.htm> (accessed November 25, 2007).

²⁰ Author's interview with Mimi Carr (July 8, 2006); Florida Defenders of the Environment staff, "Conservationists File Notice of Intent to Sue for Enforcement of Endangered Species Act in the Maintenance of Rodman Reservoir," *The Monitor* 23 (2005), 3.

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BIOGRAPHICAL SKETCH

Peggy Macdonald is a fourth-generation Floridian. Her grandfather, William D. Macdonald, taught law at the University of Florida at the same time that Archie Fairly Carr, Jr. taught biology. Born and raised in Gainesville, she and her siblings used to walk around the University of Florida campus with their grandfather, taking in the beauty of Lake Alice. She spent many summers at her grandparents' Daytona Beach condominium, the first high-rise building constructed on the beach (in 1969). She has witnessed the erosion of Daytona Beach, which is now lined with an unbroken succession of condominiums. The sand dunes have disappeared. The beach is many feet lower than it used to be, and each summer the tides come closer and closer to the condominiums. The beach erosion intensified during the active 2004 hurricane season, when high winds and torrential rains from Hurricanes Charley, Frances, and Jeanne damaged the Central Florida landscape. Although Archie Carr's influence is still palpable at Daytona and other Florida beaches through a conservation program that encourages the dimming of lights during turtle nesting season, cars are still permitted to drive and park along Daytona Beach in the daytime.

Macdonald was awakened to the state, national, and global environmental crisis as a teenager, when she enrolled in Steven Stark's summer courses in ecology and marine biology at Gainesville High School. She graduated from Hollins University, a women's college in Roanoke, Virginia, in 1993. She majored in communication studies and came close to completing a second major in theatre. Mimi Carr directed her in August Strindberg's *The Stronger* at the Acrostown Repertory Theatre in Gainesville. Rehearsals were sometimes held at the Florida Defenders of the Environment office and at Marjorie Harris Carr's home. Mimi Carr had returned to Florida to take care of her mother, leaving behind a successful career as a

Shakespearean actor on the West Coast. Macdonald had the privilege of meeting Marjorie Carr in her home.

Macdonald entered the graduate program in history in 2002 and passed her preliminary qualifying examination in 2003, receiving a rare pass with distinction on the early American history segment. She received a master's in history in 2004. Her advisor, Dr. Louise Newman; Dr. Sheryl Kroen, professor of European history; and Dr. Angel Kwolek-Folland, Associate Provost and professor of United States history, provided her with a solid foundation in the history of women and gender. Dr. Jack Davis introduced her to environmental history. Dr. Robert Hatch dared all of his students to approach history from a different perspective, one that might involve seeing a bird when everyone else is certain it is a rabbit.

Macdonald was admitted to candidacy in March 2006. She received the Daniel J. Koles Award for the most outstanding performance on the qualifying examination in a year in which sixteen students completed their examinations. In April 2007 she was selected as an O. Ruth McQuown scholar. This scholarship is awarded annually to a select number of advanced female doctoral students in the humanities. Macdonald received the highest level award (\$9,000), which supplemented one year of doctoral research. In April 2009 she received the Samuel Proctor Award for the best scholarly writing in Florida or Southern history at the University of Florida. She has presented her work at meetings of the American Society for Environmental History, Florida Historical Society, and Florida Consortium for Women and Gender Studies. She was interviewed by Bill Dudley for a program that was aired on public radio stations across Florida and is available on the Florida Humanities Council's website, www.flahum.org. Cambridge Scholars Press published her work on Carr in *Many Floridas: Women Envisioning Change*. Macdonald graduated with a doctorate in history in May 2010.