

FENNELL'S ORCHID JUNGLE
(Hattie-Bauer Preserve)
26715 Southwest 157 Avenue
Homestead
Miami-Dade County
Florida

HALS FL-4
FL-4

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

FIELD RECORDS

HISTORIC AMERICAN LANDSCAPES SURVEY
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

HISTORIC AMERICAN LANDSCAPES SURVEY

FENNEL ORCHID JUNGLE (HATTIE – BAUER PRESERVE)

HALS NO. FL-4

- Location: 26715 S.W. 157th Avenue (Newton Road), Homestead, Florida, 33031
Located 23.5 miles southwest of Miami and approximately 1 mile west of U.S. 1 between S.W. 264th Street and S.W. 272nd Street on Newton Road (S.W. 157 Ave.) in Dade County, Florida.
- Present Owner: Environmentally Endangered Lands EEL and the Florida Communities Trust. Maintained by Miami-Dade County Park and Recreation Department.
- Present Occupant: Vacant.
- Present Use: Nature Preserve.
- Significance: The site was one of the earliest roadside attractions in Miami-Dade County and South Florida. The site is significant in the history of botanical research in the U.S. for the propagation and popularization of Orchids.

I. Historical Information

A. Date(s) of Establishment

First as a private farm (1922) and one year later as the “Orchid Jungle” (1923) the site was first occupied by Lee Arthur (L.A.) Fennell, (Later the name of the site was changed to Fennell’s Orchid Jungle). L.A. Fennell purchased the site from Redland pioneer Harriet (Hattie) I. Bauer (1874-1961) a school teacher whose family homesteaded in the area in the early 1900’s. The property is land originally owned by Hattie Bauer who acquired it through relinquishment of 160 acres east of her parent’s property in 1906. Hattie Bauer’s property included land occupied by “Fennell’s Orchid Jungle.”

B. Landscape architect, designer, shaper, creator

The garden was shaped by four generations of Fennell family members who occupied the property in succession from 1922 until shortly after Hurricane Andrew when the property was purchased by DERM through a partnership between the Environmentally Endangered Lands (EEL) Program and the Florida Communities Trust (1998). The jungle garden is a found landscape in which significant characteristics are featured or exemplified. The simplest man-made acts were the attaching of exotic Orchids to trees, supplementing what nature provided

with native species over hundreds of years. Parallel to this was the careful clearing of a path through the "Hammock"¹ landscape to connect different natural and man-made features to create an experience that would weave together the native and the exotic in a 'jungle' experience.

Given the scarcity of Hammock landscapes, this experience was mostly unique in mainland America and represented for the visitor a sub-tropical landscape often found in Central and South America, right here on American soil. The "Orchid Jungle" was officially opened as an attraction in 1923 and except for a brief period during World War II when it closed, was continuously operating and open as an attraction garden by the Fennell family until its closing. Its name changed over time from the "Orchid Jungle" to "Fennell's Orchid Jungle."²

C. Builder, contractor, laborers, suppliers

The earliest builder of the site was L.A. Fennell who built the first structures and site features with his son Tom Fennell. The coral rock cottage and his greenhouse later known as "Grandfather's greenhouse" by successive generations of Fennell family members were the earliest structures. Early photographs also indicate that simple wood slat houses were also constructed covering raised tables supported on oolitic rock piers. (Figure 15) All of these structures were built from local materials and are consistent with other rural vernacular buildings built in the area during this time.

The L. A. Fennell cottage is nearly square in plan, is built of oolitic rock with a limited number of wood casement windows, a chimney and a "v-crimp" hipped metal roof. Its simple plan and form is well suited to the environment by not presenting large faces of wall or roof to the destructive effects of hurricane force winds, which in a category five hurricane can reach as high as 165 mph or more. Built by its owner, made of local materials, and made to withstand tropical storms it is an excellent example of its type and should be carefully preserved.

The earliest structures consisted of materials locally available such as oolitic rock and 'Dade County Pine.' 'Dade County Pine' also called 'Slash pine' and 'Caribbean pine or (*Pinus caribaea*)' has as its current scientific name *Pinus elliotti var. densa*. This species of pine was found as far north as South Carolina in low areas and is characterized as a slow growing, resinous and dense. Although difficult to mill and work the Redland area had an abundant supply of this wood up until the early 1950s when the saw mills began to close due to its absence. The heartwood of this species was prized and heavily used given its superior strength and natural resistance to termite infestation.

The site grew from three structures in its beginning in 1922 to more than twenty-five structures by 1990. Many of the later constructions were support buildings such as greenhouses, a potting shed, and a pump house and were wood frame or built of off-the-shelf materials capable of being built with local labor or by the family members themselves. Later structures built in the mid to late 1950s may have been designed by professional architects there is at least one example of this with the Dorothy B. Fennell House on the southwest edge of the property which was designed by Vladimir E. Virrick and built by Michael Dostal in 1957. One common

characteristic between all the structures on the site was their height – none of the buildings were greater than a single story. All buildings deferred to the scale, density and importance of the hammock landscape as the primary feature of the site and its organizing principle.

Chain link fencing around portions of the property may have been supplied by the Dixie Fence Co., Inc., located at 14031 South Dixie Highway, Kendall, Florida 33156. Estimates from 1972 for 8' industrial grade fencing were made by R.L Harris to fence off the plant propagation, potting and shipping areas from the northern section of the site.

D. Original and subsequent owners, occupants

The original owner and first one to modify the landscape was Lee Arthur (L.A.) Fennell. He is the first one to build on the site and begin to attach orchids to the trees and provide early trails through the site. His son Tom Fennell, (married to Dorothy B. Fennell), was the next generation to modify the site. Most correspondence that has been reviewed shows that Tom Fennel Jr. son of Tom Fennell Sr., (married to Trudy Fennell) was perhaps most involved in the development of the site and attraction through its most popular and expansive years after World War II between the 1950s and 1970s. Tom Fennell Jr. III appears through documentation to have been instrumental in running the tissue lab in the late 1970s and being the arm of the research and hybridization side of the business alongside his grandfather Tom Fennell Sr. By all estimates, it appears that the Orchid Jungle was a family run business and all family members were involved in some capacity.

Found documentation dated (1956), shows that the Fennell Orchid Company was owned by Thomas A. Fennell Jr. (49 percent) and his mother Dorothy B. Fennell (51 percent) wife of Tom Fennell Sr.

Subsequent owners are DERM's Environmentally Endangered Lands (EEL) Program, and the Florida Communities Trust (1998). The property is owned by them and maintained with assistance from Miami Dade County Park and Recreation is not currently open to the public. After removal of storm damaged structures in the late 1990s the site has been under continuous restoration to remove exotic plants either introduced or naturally occurring exotic invasive plants to preserve and restore the Hammock. At the time of this documentation the extent to which the exotics will be removed and how much of the original attraction plantings will remain, is still to be determined.

II. Periods of Development

A. Original plans and construction

Neither professionally commissioned plans nor owner produced plans for the design of the overall site and landscape have been found. At the level of the overall site, most of what has been built has been recoded in periodic surveys showing setbacks, the dimension and locations of structures, and boundary lines for the purpose of adding to the site or the acquisition of an

adjacent property. However, the Fennell's were very adept at the design and arranging of Orchid displays and site features.

Tom Fennell Jr. had training in design at the Cranbrook Academy of Art in Bloomfield Hills Michigan, and possibly designed and constructed with additional labor many of the site's features. There are a number of drawings and sketches for signage, displays and brochures that illustrate Tom Fennell Jr.'s skill and ability in color, composition and form. The regular production of Orchid show displays from the 1950s to the 1980s show that the Fennell's were leaders in the display of Orchids having both won and judged orchid competitions nationally and internationally. (Figure 16)

Changes and additions: As the Orchid Jungle evolved it added or re-built structures over time mostly to supplement the growing orchid production business. Threat of cyclical tropical storms and hurricanes must have been a constant source of concern given that greenhouse and shade house structures were not designed to withstand such storms. Even if plants survived the wreckage of a ruined greenhouse or shade house an inability to regulate light and humidity even for short periods of time after such a storm, would mean the loss of plants that took many years to grow.

The site went through a regular cycle of hurricanes that damaged or destroyed fragile greenhouse and shade house structures. These include hurricanes in 1926, 1929, 1960, and the most devastating for Homestead and South Dade County, Hurricane Andrew on August 24, 1992.

One documented storm in 1960, Hurricane Betsy, did extensive damage to the hammock landscape. A hand written inventory of the damage, supplemented with photographs for insurance purposes, revealed losses the hammock sustained. Tom Fennell Jr.'s notes showed a loss of 343 Orchids valued between \$5.00 - \$225.00, and numerous trees of various caliper including: "ninety-three small trees (below 8" caliper), seventeen medium trees (9-14" caliper), one large tree 15" (or) higher in caliper."

Even a destructive event was turned into something positive, and was commemorated as a historical event. One of the recovered placards from the site chronicled the event of Hurricane Donna on September 09, 1960. It reads: "*... That tornado uprooted 14 Live Oaks and the Orchids clinging to them- all growth you see here has occurred since then. Fast growing trees like Gumbo limbo, the Paradise tree, and Strangler fig have filled in quickly. The Aroids have thrived in the extra light and created this very lush area so typical of the tropical rain forest you might see in Colombia and Panama.*"

After Hurricane Andrew many shade houses were heavily damaged and eventually removed. Seven years later the Miami-Dade county applied for a permit to demolish and remove a number of structures from the site, they include: the CBS pump house 375 square feet, three greenhouses located close to the northwest corner of the property; greenhouse "A" of 15,000 sq. ft. and greenhouse "B" of 13,200 sq. ft. and greenhouse "C" of 11,000 sq. ft.; also an

aluminum shed of 480 sq. ft.; a 1 ½ story wood frame cottage of 900 sq. ft.; an entrance wing 4,200 sq. ft. and a “snow fence” installation of 750 sq. ft.

Other architectural additions occurred in the 1950s and 1960s. The original oolitic rock cottage received a concrete block addition to its south façade that in essence doubled the square footage of the original structure. The new addition featured deeper overhangs, a gable end, and fixed windows made of corrugated glass salvaged from Richmond Naval Airbase. Adding to existing structures was common practice in rural architecture but given the hipped roof and superior materials of the original cottage, the new addition is out of scale and character with the original.

III. Historical Context

The site is important in its interpretation of an American tropical vernacular landscape and the popularization and democratizing of Orchids in America.

A. Land

In the middle to late 1800s early Florida literature featured propaganda of the health benefits of our climate, warm tropical breezes and almost limitless sunshine as cures for a variety of ailments and afflictions. This literature encouraged the southern migration of settlers looking for available land for agriculture and relief from the ailments plaguing congested towns and cities to the north that lacked the fresh air and sunshine found so abundantly in the south.

After the great freezes affecting the northern and middle parts of the state in the late 1800s, the popular press identified Miami and the agriculture land to its south; ‘Redland’ as free from the perils of killing frosts that wiped out the citrus industry in the late 1800s. Standard Oil executive Henry Flagler upon hearing this news looked to the south to build hotels in Palm Beach and Miami and with them the railroad - to insure Miami would have a steady stream of winter tourists to this new region.

New settlers to the region often had the choice of two types of landscape; Pineland or Hammock. Pineland was plentiful and although difficult to clear provided lumber for building and with the later introduction of the rock plow good land for agriculture. Hammock or raised land often provided better, richer soil, deposited by years of leaf litter from the dense hardwood trees that littered their sites. Hammock land was however more expensive being more scarce and given the difficulty of clearing any trees for growing for they were home to *Quercus virginiana* or Live Oak known to be heavy, dense and difficult to remove.

Hammock land was beginning to be preserved in its natural site privately just prior to L. A. Fennell's purchase of his site. Both James Deering recognized the unique qualities of this type of landscape as early as 1912 when he purchased fifty acres of land along Biscayne Bay from Mary Brickell for his winter estate ‘Vizcaya.’ His brother Charles Deering, purchased even more acreage of Hammock land along Biscayne Bay near the town of Cutler for his estate.

At a municipal level the City of Miami purchased a five acre tract of land from Mary Brickell in 1924 for \$12,500 to set it aside as a Jungle park. This hammock land later was named after its most staunch advocate and advisor, Charles Torrey Simpson and was called thereafter "Simpson Park." A little over three acres was added to the original parcel by a second purchase in 1940 bringing the size of the protected land to eight and three tenths acres.³

Charles Torrey Simpson wrote "Ornamental Gardening in Florida" in 1916. In his book Simpson outlines the virtues of our native landscape with suggestions for their cultivation. Hammock landscapes are given careful description and attention as to their stewardship. Self published; Simpson's book was an essential text for anyone working in this new tropical landscape. Paul Chalfin, James Deering's chief designer for Vizcaya had a copy when developing its gardens with Diego Suarez. Simpson's dedication to Charles Deering after the title page of this book shows his influence on his brother's estate to the south.

Fennell's Orchid Jungle is a built application of the principles that Simpson set out in his book. Some passages appear as if they were written to guide the development of the site. In his chapter "Orchids" Simpson states: *I would advise every one who has hammock and cultivates ornamental plants to try at least a few Orchids. One can start with the Cattleyas, Dendrobium, Epidendrum or Laelias; the cheaper plants are as good as any. Do not put them too high on the trees as it will be difficult to water and attend to them and much of the fine effect of the flower is lost if they are out of reach. If one can have a background of thick foliage so much the better.* Later he tells us why attaching them to trees is important: *"It is only when seen growing on the trees in tropical or semi tropical forests that they really look natural (orchids), for there they fully harmonize with the magnificent tangled growth, the confusion of struggling lianas and the veritable air gardens of wild Tillandsias and other epiphytes which sometimes load down the limbs to the breaking point."* The reference to air gardens also refers to another naturalist on Florida's west coast, Henry Nehrling who advocated Live Oaks, a tree found in hammock sites, as ideal sites to create "aerial gardens."

At the end of Simpson's chapter on Orchids he etches the most memorable image of why orchids in the shade of a hammock have such presence and attraction: *"It is in such environment alone that one can appreciate their weird and almost unearthly grotesqueness and beauty; it is there that their brilliant and fantastic blossoms shine out almost like stars in the darkness."*

B. Early Orchid Production

Lee Arthur Fennell started growing and collecting orchids in Cynthiana Kentucky during the late 1880s. By 1890 Lee collected and imported orchids from Mexico and Colombia expanding his cut orchid flower business into one of the largest in the Midwest. Orchids were the flower of choice for corsages at this time. In 1919 he moved to Lexington Kentucky to larger greenhouses and an expanded business. After visiting Florida in 1922 for health reasons he decided to purchase Hammock land in South Dade County to be able to grow orchids in their natural state. After attaching orchids to trees and cutting paths through his native hammock he built a small greenhouse and slat house to begin orchid production. The beauty of

the site soon caught the interest of local inhabitants who after seeing the site encouraged others to see it as well. Pressing interest in the garden inspired the idea of the attraction and the site was officially opened in 1923. (Figure 13)

C. Agriculture

The site sits in an important agriculture district called "Redland." Redland is an area bounded by Coral Reef Road 13 miles south of Miami and extends south to Florida City, the southern most city before the Florida Keys. Originally the area included all the land between the Everglades to the West and Biscayne Bay to the east and the communities lining the railroad; Peters, Goulds, Princeton, Naranja, Homestead and Florida City. The Name "Redland" comes from the color of the soil made of oolitic rock with high concentrations of clay containing iron oxides giving the rocky soil its red color.

Originally covering 225 square miles, the land is known as winter bread basket for the US, and is home to some of the largest farms producing tropical fruits and vegetables. Annual agricultural products include; limes, avocados, mangos, lychee, mamey, and other ornamentals grown no where else in on the mainland in such quantity.

In the 1940s the local Chamber of Commerce identified the region as "The Sun Porch of the Nation." "Our summers are not hot. By no means as hot as northern summers," Redland requires; "No tossing and turning until daylight." ... "We live in a large air-conditioned by nature...tropical garden."⁴

Fennell's Orchid Jungle was both tourist attraction and Orchid nursery.(Figure 12) Being in an agricultural district the site benefited from and assisted in providing the infrastructure for large scale Orchid production. In addition to the international sale and distribution of orchids, the Fennell's also manufactured, patented and sold plant food and pesticides nationally and internationally. Brochures advertised "Fenorco Plant Food," (4-7-11) to promote "strong growth and abundant flowers." "Fenorco Spray" was a miticide advertised to control; "Aphids, Mealy Bug, White fly, Red Spider, most mites, Thrips, Scale, Roaches, Grasshoppers, Caterpillars, Snails and Slugs."⁵ These products broadened the visibility and impact the Orchid Jungle had at an international level. Fenorco Spray like orchid seeds were sold and distributed to other orchid dealers nationally and internationally.

Given that the Fennell's had thousands of square feet of greenhouses they also grew and sold plants other than orchids many of which were featured in the garden such as staghorn ferns and bromeliads. If orchids were too costly or difficult to maintain one could take home a bromeliad that contained a great deal of color and required little care by comparison.

In addition to the sale of orchids and orchid products the Fennell's were involved with research and education on orchid propagation, history, hybridization and in general orchid culture. Tom Fennell Jr.'s membership in and leadership and activism in many related agricultural organizations⁶ make him an important pioneer in the historic development of the community of Redland and many dimensions of this nationally important agricultural community.

D. Popularizing Orchid Culture

Orchid culture reached the mainstream with the movie "Adaptation" with stars Chris Cooper, Meryl Streep and Nicholas Cage in 2002. The movie, based loosely on the book "The Orchid Thief" by New York columnist Susan Orlean, chronicled the dramatic difficulties the Nicolas Cage, playing two brothers, experiences in writing. "The Orchid Thief" was considered the summer's hottest reading in 1994 and the movie was even more successful, garnering numerous awards including an Oscar for "Best Actor in a Supporting Role" for Chris Cooper in his portrayal of the colorful John Laroche, the book's primary subject. The Fennell's and the Orchid Jungle appear in Orlean's book to help contextualize the world of orchid growers, collectors, and enthusiasts for the reader. The book and movie assisted in giving us a glimpse into the obsessive, competitive and paradoxical world of Orchid collecting that drives what in other contexts would be sane people to do insane things; such as wading through snake and alligator infested water at night to acquire a rare orchid. The success of the book and movie illustrated how significant growing and collecting rare and exotic Orchids had become in mainstream culture.

The history of Fennell's Orchid Jungle has played a significant part in popularizing and democratizing orchids and orchid culture in America. Its impact in other countries is no doubt equally formidable but has yet to be fully researched or presented.

IV. Physical Information

The site as documented is 13.58 acre property consisting of open land and dense native Hammock. The property is enclosed by a wire and wood perimeter fence that follows the rough perimeter of the property. This fence has portions missing and in need of repair. Along the Hammock's southern edge, falling trees have knocked down portions of a chain link fence.

Entrance to the jungle trail is from the west and marked by the remains of a triangular (in plan and elevation); oolitic rock pylon that once supported the metal Orchid Jungle sign. The pylon still stands adjacent to 157th Avenue/ Newton Road dividing a linear parking area parallel to the road and partially screened by a row of alternating Live Oak trees and Sabal Palms. (Figure 1)

From the parking area one would have passed through the entrance building into the ticket and gift shop. (Figure 2) From here one enters the Hammock landscape along a crushed rock path leading to a wood billboard that once supported a map locating the place of origin of different orchids. (Figure 3) This garden feature is a short distance from the Vanda House. In the Vanda House one would have seen a theater of Orchids displayed on stepped concrete shelves that flank both sides of the path and protected by a translucent corrugated fiberglass roof. (Figure 4) Today the building is empty of orchids and is open to the sky except for a few vines and native plants that have invaded the space and found their way onto the roof structure.

Upon exiting the Vanda House one begins to traverse the largest stretch of the jungle trail. On this trail one would begin to see orchids attached to large Hammock trees such as Live Oak,

Strangler fig and Gumbo Limbo. The first trail feature one would have witnessed was a beam of light let into the hammock canopy to illuminate a sun dial. (Figure 5.) In addition to telling time, this feature helps explain the importance that light or its absence plays in the formation of the hammock ecosystem. Past this feature is a relatively straight walk to a bend in the trail that almost doubles back on itself to the next feature know as the "Vista of the Seven Oaks." In this location one would have found a collection of orchids attached to the large Live Oaks growing in close proximity to each other. The largest Oak in the group is "Grandfather's Oak" as it was affectionately referred to by Fennell family members, in memory of L.A. Fennell. This oak is believed to be over 500 years old.

Just short of "Grandfather's Oak" is the Bromeliad circle where one would find a short looping path that encircles a collection of Bromeliads. (Figure 6) Metal signs mounted on galvanized pipes along the path identify Soapberry and other native Hammock plants and trees flanking the trail edge.

From here the path meanders over the jungle trail's first major water feature: a long thin pond that passes below the trail called the "Snake Pond." (Figures 7,8,&9.) The shallow pond is lined with oolitic rock edging and was festooned with a rock outcropping within the water that held a display of plants. Just pass this feature is a placard identified site called: "L.A. Fennell's Favorite Spot." At this location we are mid-point between the Vanda House and Lab and about half way around the jungle trail. "L.A. Fennell's favorite Spot," marks an emblematic view over the ever-present pitted oolitic rock ground, a rough floor for a forest of Hammock trees.

The next section of trail passes through the densest portion of the Hammock identified on the trail map as the 'Rainforest Area.' This part of the trail features a large collection of introduced exotic vines still present today. Just pass this section of the trail is our next feature the "Sink Hole." The "Sink Hole," "Solution hole", or "Banana Hole" as it is variously known, is surrounded by galvanized metal railing and is more than 9.5 feet deep, and 12' across with sheer oolitic rock walls. (Figure 10) The site once contained standing water, a waterfall and was rimmed with orchids and ferns. Today the hole is dry but contains a collection of State listed threatened and endangered ferns.

Just past this site one arrives at an elevated bend in the trail that gives us a vista into the hammock toward the lab. At this point we are at the highest point on the trail once marked by a placard identifying it as "Mount Dade" and approximately 18' above sea level. (Figure 11)

From here we would have a few steps to the lab building where one could "view our modern plant tissue culture laboratory," and then into two covered shade structures, the second display area the "Orchid Gallery" and then finally the "Phalaenopsis Display Gallery." The last display area brings us back to the gift shop/entrance building and our exit.

A. Landscape Character and Description Summary

This landscape is historically important in its mixture of the stewardship of a found natural Hammock site and its modification over time to accommodate the propagation, education and

selling of orchids and orchid products. Private interests and passions becoming public attractions have a long history in the development of Florida. Historically the four public jungle gardens that evolved from Hammock sites are: the Orchid Jungle/Fennell's Orchid Jungle (1923), Simpson Park (1924) in the City of Miami, The Monkey Jungle (1933) in South Dade, and the Parrot Jungle (1936) in South Miami. Additionally private estates such as James Deering's Vizcaya (1918), the Commodore Monroe's Barnacle (1890s) and the Charles Deering Estate (1896, 1900, & 1923) then in the town of Cutler all contain preserved Hammocks. All of these are found jungle landscapes (hardwood Hammocks) later became public parks. Early "Jungle" attraction sites were often family run and their long stewardship under private ownership as public attractions meant that most of these would, like the private estates, be preserved from development and destruction.

The jungle trail was a didactic landscape that mixed the native and exotic and became a model for many garden enthusiasts learning about how to design and display exotic ornamental plants in a native landscape. With the introduction of the completed lab building in March of 1977 the science of Orchid production became accessible to the public, although the Fennell's had been working with embryo orchid cultures since 1927 and meristem cultures since 1967. The Lab displayed through glass windows, the various stages of orchid development making the process of Orchid hybridization and tissue culture production an attraction highlight. In this way the Fennell's took the technical processes of tissue culture relegated to specialized articles and journals and made it at least visually accessible. This no doubt brought the idea of modern plant production to the public, while also increasing appreciation for the length of time and science involved in their production, (some orchids could take fifteen years to go from seed to blossom). As far back as the late 1930s one learns that the "Fennell Orchid Jungle" as it was listed in the 1939 WPA guide, was featuring the science of orchid propagation as part of the attraction experience.

Listed in the guide as just south of the town of Princeton "at the junction of Newton Road" is "Fennel(s) Orchid Jungle." The description informs us the site was open daily during winter with an admission price of 25 cents. The entry also lists a short description of the science involved in orchid propagation:

*"New varieties are developed here by cross-pollination. The seeds, about 1,000,000 to the pod, are so minute that a podful can be held in a teaspoon. The seeds are planted in a bell-shaped container on a layer of specially prepared jelly, which supplies food for their initial growth. Sterilized to exclude fungus growths that might destroy the seeds, the container is placed in a glass incubator. One year after planting, the tender shoots are but a fraction of an inch high. They are then transplanted to pots filled with fiber. By the fifth year, perhaps one in twenty will blossom. Some do not bloom until the tenth year, a few not until the fifteenth."*⁷

The display houses that followed, offering orchids for sale, benefited from visitors increased appreciation for the difficulty and time involved in their production. The Jungle also offered products for home production of orchids, encouraging the do-it-yourself approach, which popularized orchids particularly during the late 1940s and early 1950s.

The landscape is important in documenting the role tourism played in the development of south Florida and the education and assimilation of its new inhabitants. The garden also connected immigrant populations to their homeland. Here on American soil one could find plants grown in Colombia, Panama, Thailand and from many tropical regions from around the world. The diversity of a growing Pan American culture of South Florida between the 1940s – 1960s was celebrated by gardens such as the Orchid Jungle and the Redland Fruit and Spice Park (1940s) that featured plants from around the world.

B. Character Defining Features -Natural Features

1. Topography

The topography to the site is rocky but subtle with changes in vertical elevation modest over large distances. The highest natural site elevation was named by its owner's 'Mount Dade' and identified by placard along the jungle trail immediately preceding the tissue lab building. 'Mount Dade,' (18' above sea level), although nothing of significance to northern visitors is high ground in a landscape that is mostly at or below sea level.

The ground floor beneath the tree canopy of the hammock is a varied landscape of pitted exposed limestone called 'oolite.' The 'oolite' is varied and is marked by "solution holes" also called "sink holes" or "Banana Holes," that vary in size from a few inches across and several feet deep to the largest solution hole and site feature which is over 10' in diameter and over 9' deep. These features were made by the corrosive effects of carbonic acid in water that dissolves the rock causing it to fall.⁸ The Homestead area contains underground passages of water finding their way from the Everglades through the landscape to the bay. Naturalist Charles Torrey Simpson called these depressions "Fern Pools," because of what would grow naturally along their banks.

Today the hammock floor is made up of this rough pitted topography which is crisscrossed by buttressing roots of trees that seek these soil rich holes for nutrients to insure growth and stabilization. Florida naturalist Charles Torrey Simpson writing about Lower Florida in 1932 credits these "limestone sinks" as originators of hammock landscapes.⁹

The site is basically high ground and is south of one of the original 'finger prairies' known as "Gossmann's Prairie" that was later canalized to prevent flooding of the area and assist in irrigation and control of mosquitoes.

2. Vegetation

Site vegetation contrasts greatly in type of vegetation and density of planting. On the north end of the site, hammock land that formerly covered much of the site was cleared to provide open land for the construction of shade houses and for the propagation of orchids. This was also selectively done within the hammock for the construction of support buildings and smaller scale shade houses.

The vegetation around the original cottage is a mixture of the remnants of a small native hammock and exotic plants such as the *Delonix regia*/ Royal Poinciana that added color and shade to the cottage setting protecting it from summer sun and humidity. To the immediate east of the cottage the enclosed landscape is a mixture of hammock trees such as Live Oak and Gumbo Limbo with some exotic species. A line of Gumbo Limbos to the south of the cottage is a growing fence line and appears to have originated as trees that have taken root through their original containers. Along the west side of the cottage one finds a collection of different trees most of which appear to have been naturalized over the past few years from wind born seeds and bird droppings.

The hammock by contrast is a darker and cooler place and originally consisted almost exclusively of native vegetation of hard wood trees, epiphytic plants and naturalized vascular plants typical of upland hammock sites. L.A. Fennell and subsequent generations of Fennell family members added orchids and other plant material to the hammock, to enhance its jungle-like character. Exotic understory plants such as aroids and climbing vines were added to fill in what naturally exists as a primarily open understory in mature hammocks. These 'improvements' enhanced the jungle character of the site for the owner's personal pleasure and visitor experience when the site became an 'attraction garden.' The high wind from cyclical tropical storms and hurricanes typically toppled trees in hammock sites, opening holes in the tree canopy allowing light to penetrate to the hammock floor activating long dormant seed beds and encouraging new native growth to race to the top of the canopy to fill in the gap. Cutting off available light his new growth would eventually thin out the understory as the hammock matured completing the cycle. When later storms did strike, the new hammock understory plantings thrived in the new light filled environment and quickly densified the jungle habitat.

Today the hammock site contains important plant material that is listed as state endangered, threatened, or commercially exploited species along with naturalized exotics. The broad list of vascular plants the site is currently home to a mixture of native and introduced exotic plants. An inventory of vascular plants was made by Miami Dade County Chief Naturalist Roger Hammer in 1998. A few of the over 200 species of plants are listed below.

Metopium toxiferum or poisonwood was once a common tree in lower Florida but do to loss of hardwood hammocks has become a threatened tree. As early as 1932 Charles Torrey Simpson wrote about their disappearance in "Florida Wild Life." Simpson stated: "*Metopium, the poison tree, was very common and attained to large size in places in Lower Florida. But most of the big ones were overthrown during the great devastation (1926 hurricane) and smaller ones were much broken. Today in certain of our hammocks it is rather a rare tree and we can easily imagine conditions so adverse that it might be exterminated in our territory.*"¹⁰ This tree is found throughout the site and is in abundance along fence lines at the north and west perimeter of the property.

More emblematic of high hammock sites are trees found in abundance at the Orchid Jungle such as *Coccoloba diversifolia* / pigeon-plum, *Sideroxylon silcifolium* / willow bustic, *Exothea paniculata* / inkwood, *Ficus aurea* /strangler fig, *Ficus citrifolia* / shortleaf fig, *Quercus virginiana* / live oak, *Ocotea coriacea* / lancewood and *Bursera simaruba* /gumbo limbo to

name a few. Although many of these species are common to hammock sites in other parts of Dade County their size, disposition, and juxtaposition on this site makes them notable. One site feature identified as "Grandfather's Oak," named in connection with L.A. Fennell is scientifically identified as *Quercus virginiana* / live oak and is a giant specimen size tree believed to be over 500 years old.

The site contains in its numerous "sink holes" or "solution holes" rare or endangered native ferns and fern allies growing off oolitic rock surfaces. Many of these plants are listed as state endangered or threatened plants. Some of these plants are found no where else in North America. *Campyloneurum latum*, *Cpyloneurum phyllitidis* /strap fern, *Adiantum tenerum* / maidenhair fern, *Tectaria fimbriata* / lest halberd fern, *Tectaria heracleifolia* / broad halberd fern *Thelypteris reptans* /creeping star-hair fern, are all State listed species.

Naturalized exotic species are also notable. The site contains a variety of species from the Arum Family including *Anthurium hookeri*/bird's nest anthurium, *Philodendron mello-barretoanum*/spiny philodendron, *Scindapsis aureaus*/ivy arum and *Monstera deliciosa*/ceriman. Of particular note is the large felled specimen of *Cola cordifolia*/kola nut of the Chocolate Family near the Vanda House.

During the attraction's height of operation the site boasted to have morethan 8,000 different orchids in its collection "from all corners of the world."¹¹

3. Water

Natural water features are the many solution holes found on the site that during the rainy season may have once held water although there is currently no evidence of any natural standing bodies of water. Man-made features consist of empty remnants of past design features spaced along the jungle trail such as the entry pond at the trail beginning, the 'snake ponds' toward the middle of the trail and the large pond between the office and lab near the end of the trail. The 'Snake Pond' was lined with a thin shell of wire and gunite to keep water from seeping into the porous oolitic limestone floor. The large pond appears to be fed by past waterlines and may have had an impervious plastic liner to retain water. Additional water features would also have existed as waterfalls or gently dripping fountains that would help add humidity and cooler temperatures to scenic points inside the Vanda House and along the trail such as the solution hole. Both of these sites retain calcified water deposits forming stalactite like formations.

C. Design Features

1. Circulation

Within the Hammock the site is traversed by a system of winding rock trails dotted with small pipe mounted placards identifying key site features or historic facts. This trail makes a large loop through the Hammock providing access to most of the site's natural and man-made features while passing through plant houses at the beginning and end of the trail.

The trails are made of gravel and pea rock poured onto the trail to fill the irregular pitted oolitic rock floor and bridge the buttressing roots. This practical technique of construction allowed for leveling of the trail and in certain locations made the trail more visible against the surrounding landscape. Without this path the ground plane would have been difficult if not impossible to navigate given the deep solution holes and tangle of buttressing roots that cover the landscape. The pea rock trail is bordered by oolitic rock edging of various sizes that helps to contain the loose rock, define the edge of the path and at times direct the visitor to a site feature that may require closer inspection such as orchids attached to Live Oaks, a solution hole or contemplative pond.

The path originates at the entrance building and immediately forks right and left around a small entrance pond. The path to the right takes the visitor on the hammock trail the one to the left takes the visitor to the office. The path winds its way to a map featuring orchids of the world showing where different orchids would naturally be found. From this point one passes through the Vanda House and sees a wonderful display of orchids set on stepped concrete shelves from here one enters the hammock trail. The circulation is one in which one first reads about orchids, sees them up close then goes into the hammock to identify and find them in their natural setting. The route concludes with the path passing by the lab, an open pond and then into the display house and sales area.

The path is approximately 5' – 7' wide and appears to be almost exclusively a pedestrian path. The site appears to have no hard surfaces except at the entry building where there are concrete pavers in the ticket and sales area. Evidence of another system of circulation exists in the west edge of the hammock near the entry building but heavy undergrowth would need to be cleared away to allow for adequate documentation of these additional features.

The hammock trail follows recommendations set out by Charles Torrey Simpson in his book on ornamental gardening in which he tells us how to create a path through the hammock by not remove anything of significance – the more irregular the better, creating trails into the hammock without providing views out of it, and creating trails that provide extended views that look into the hammock to make one feel the site is larger than it really is.

On the mostly open and level northern portion of the site early aerial photos and surveys reveals that there were access roads for trucks and vehicles to load and unload equipment and supplies needed for the propagation, potting, packing and shipping of orchids. The hard oolitic rock ground made the site easily accessibility allowing for the erection of potting sheds and greenhouses on most areas on the open site.

2. Views and Vistas

The jungle garden is a rich array of vistas constructed to create interest and excitement along the trail. There were a number of spots along the trail pointed out in the early handout maps

such as: the "Vista of the seven oaks," "L.A. Fennell's favorite spot," the "Rainforest Area" and the "Snake ponds," that attest to site's natural and man-made site features important to the jungle trail experience. The trail and site once exhibited strong contrasts of light and color. Visitor's could look up into the trees to see the many orchids residing there or down into the ground of a solution hole and see ferns, Bromeliads, festooning oolitic rock walls reaching for pools of water and dripping fountains. The range of visual and olfactory experience possible with a site section so diverse in vegetation was unique in a landscape historically dominated by pineland and characterized as flat and monotonous.

3. Water

The land in South Dade lay between two important aquatic landscapes: a slow moving sheet of freshwater, that historically overflowed the southern rim of Lake Okeechobee and eventually emptied into the Florida Bay known as the Everglades and a shallow bay of blue-green salt-water, protected by an eastern chain of islands, called Biscayne Bay. These features would become Everglades National Park and Biscayne National Park respectively. Between these nationally protected bodies of water runs a long peninsula of higher ground running north to south crossed by a series of low areas running east/west known as 'finger prairies.' The 'finger prairies' allowed freshwater from the higher elevation of the Everglades to find its way to Biscayne Bay. The finger prairies were frequently traversed by indigenous populations as a way to make seasonal migrations between the Everglades and Biscayne Bay. An early map of 1912 shows this peninsular high ground between the these two bodies of water as 160 acre homesteads periodically traversed by 'finger prairies'. One of these finger prairies; "Gossman's prairie" named after one of the early settler's in the Redland area, lay just to the north of Fennell's property.

Fresh water was historically found in fresh water springs, low lying areas or deep areas known as 'solution holes' such as the one located on the property. The solution holes range in size from small nearly round holes a few feet deep, to a large hole nearly 10' deep and 15' across. Archeological reports have shown that indigenous populations stored shell dippers in solution holes on the site for the purpose of scooping up water from these solution holes centuries ago.

In the early 1900s fresh water was supplied by wells drilled into the limestone rock called 'oolite.' Fresh water was found in wells as shallow as 30 feet and electric pumps brought the water to the surface in 1940s. Initially L.A. Fennell would have a hand pump to a pipe drilled well near the cottage until the arrival of electricity and mechanical pumps could be installed. In the 1940s electricity fed from the west edge of the property ran irrigation pumps to supply water to the greenhouses and hammock landscape. Today the site contains the remains of an extensive network of above ground galvanized and plastic pipes once used to maintain the mixture of native and exotic plants in the jungle, shade houses and aerial gardens of orchids attached to trees. The proliferation of exotic lower story plants concealed these above ground pipes. The rough oolitic rock ground would have required considerable expense and effort to conceal the irrigation system. Running these pipes above the ground helped to preserve the natural rough texture of this disappearing and unique ground plane defined by oolitic rock solution holes, endangered native mosses, ferns and a network of buttressing roots.

Additionally there are a number of small water features that were part of the jungle garden such as the small heart shaped pond at the entrance to the jungle path and the 'snake' ponds located toward the middle of the jungle trail, flanking both sides of the path. These ponds appear to have been made from digging shallow areas in the oolitic rock and then lining them with wire fabric to form a substructure for cement basins to keep water from flowing through the porous limestone ground.

4. Buildings and Structures

The site has buildings and structures from every stage of the site's inhabitation and development. The buildings are simple and at times inventive, mixing an awareness of the unique landscape they inhabit while accommodating utilitarian programs.

The L. A. Fennell cottage (1920s) is nearly square in plan, is built of oolitic rock with a limited number of wood casement windows, a chimney and a "v-crimp" hipped metal roof. Its simple plan and form is well suited to the environment by not presenting large faces of wall or roof to the destructive effects of hurricane force winds, which in a category 5 hurricane can reach as high as 165 mph or more. Built by its owner, made of local materials, and made to withstand tropical storms it is an excellent example of its type and should be carefully preserved.

The first greenhouse (1920s) measures 33'-6" x 19'-0" and is identified on brochure drawings as "Grandfather's greenhouse." The building consists of a low (4'-2" high) un-coursed, oolitic rock rubble exterior walls, with a smooth interior concrete finish that supports a wood framed greenhouse structure containing a glass dormer and glass shingles secured by wood mullions that run from ridge to sill. At the bottom of this wall are rectangular openings framed with wood and covered with metal screen to allow cooler air to enter. The gable ends of the structure and the dormer include out swinging hopper type windows that can be hooked open for ventilation. This structure appears also to have been built by L.A. Fennell and like the cottage was built from local materials some of which like the stone could come directly from the site. The building currently contains hot-dip galvanized expanded metal greenhouse benching along its walls and down its center. The center run of benching includes stepped shelves to take advantage of the increased room under the roof ridge. The wood roof framing is partially supported by galvanized metal piping running down the center of the space. The building's entrance is up against the Vanda House sitting just a few feet away. This building is exceptional and one of the last of its kind to survive for so long.

Indicated in early photographs and in close proximity to this structure was once a wood slat house built above metal and oolitic rock tables. The early slat house is no longer in existence but a number of the oolitic rock piers and tables remain just north of the Vanda House.

The Entrance building is most likely built between the 1940s or 1950s and is a one story gable roof structure made of concrete block and wood frame construction. The building has oolitic rock piers flanking the ends of its front façade facing 157th avenue/ Newton Road. The front

façade is asymmetrical with a large upward swinging metal door protecting the entry passage. The entry building housed offices, restrooms, ticket booth, and a large sales/display area.

The Vanda House (1950s or 1960s) is a one story, 2340 square foot, 45' x 52' building constructed at ground level of walls of concrete block and stucco and a roof of galvanized pipe supporting fiberglass panels and plastic sheeting. The interior walls feature cantilevered blocks to hold orchids along with large oolitic rock planters at either end for plant display and water features.¹² The top of the wall and center ground, supports a braced lightweight steel pipe frame clad with translucent fiberglass reinforced plastic panels called 'Filon Panels.'¹³ The galvanized steel pipes form the framing for a roof that was to support translucent material such as lightweight plastic essential for maintaining the plants below. The roof of the Vanda House and some of the supporting structure for "Grandfathers greenhouse" is made of off-the-shelf greenhouse pipe sections. Catalogues found filed in the office indicate a number of companies that might have been sources for these greenhouse parts.¹⁴

The one story 1400 square foot Lab building was begun in 1976 and finished in March of 1977 as a completely controlled environment for tissue culture and hybridizing orchids with a program of research and production. The interior contained separate rooms for formula preparation, sterilization, a general laboratory and two sterile transfer rooms. There was also a separate flask room with a capacity for 11,000 quart bottles. The facility was under the direction of Thomas Fennell Jr. III who had graduated from the University of Hawaii with a Bachelor of Science Degree and who had also spent four years working with his grandfather Thomas Fennell Sr. The building is a long wood frame, slab-on-grade building with metal gabled roof. The building was sited to be part of the jungle trail experience and has an open wood loggia facing east into the hammock trail to protect the expansive glass windows that allow the visitor to view into the lab interior. Given the historic significance of the Fennell's tissue culture research, and propagation methods this building should be restored and used to help describe and interpret the site.

The Office building is a one story wood frame building with large areas of wire corrugated glass. The corrugated glass is used horizontally as windows and parts of the wall allowing for a great deal of light in what might otherwise be a very dark landscape. The structure feature board and batten construction, large overhangs, brackets and divided-lite double doors. Later concrete block additions to the oolitic rock cottage also featured windows of fixed corrugated glass believed salvaged from the Richmond Naval Airbase.

Dorothy B. Fennell's House built on the southwest edge of the site is a one story concrete block and stucco building built in 1957. The building was designed by Vladimir E. Virrick AIA and built by Michael Dostal.

Other structures shade house structures present in 1975 but now gone include; the Gallery 40' x 100' (4000 sq. ft.), Phalaenopsis House 40' x 20' and 120' x 17' (2840 sq. ft.), Vanda Shade House 85' x 90' (7650 sq. ft.), Seedling House 75' x 100' (7500 sq. ft.), Main Growing House 90' x 220' (19,800 sq. ft.), and open areas: Vanda Beds 60' x 100' (6000 sq. ft.) an Tree area behind the rock house 100' x 100' (10,000 sq. ft.).

5. Small Scale Elements

Signage was a very important part of the attraction garden for without it few tourists would have found their way to the site. Given that the site was located in a rural farming community well west of US 1, good signage was essential to the economic viability of the site as an attraction. Tom Fennell Jr. spent many hours designing, building, acquiring permits and maintaining his signs from destruction. There were a number of signs along US 1 directing tourists to the site such as: on the east side of US 1, 1000' south of Epmore Drive, on the west side of US 1, 750' North of Epmore Drive, and on US 1 on the west side corner of Epmore Drive.

There was also signage on 216 St. and SW 157th Avenue and the Southeast corner of 134th St. and SW 87th Avenue. Tom Fennell also paid for advertising along the Florida Interstate highway system, local publications and a variety of advertising venues to get the word out about the jungle.

Still preserved by the county is the original metal orchid sign that was mounted on a triangular (in plan and elevation) oolitic rock pylon at the jungle's entrance. This sign is currently in storage in the Dorothy B. Fennell house to the southwest edge of the property.

These importance and proliferation of roadside signs, underscore the importance of automobile tourism in the mid-twentieth century in the American landscape. These signs were the primary advertisement and the least expensive way of advertising the presence of a roadside attraction.

6. Archeological Sites

The site has a prehistoric archeological site characterized by a cache of Busycon shell ladles found in the 1980s in one of the solution holes but its exact location was lost after Hurricane Andrew (1992). There is also the belief that there are other unknown sites within the parcel. This site, like neighboring hammock sites; the Monkey Jungle, and Castellow Hammock, contains a large solution hole that most likely contains fossilized remains of prehistoric animals as have been found on adjacent sites in the vicinity.

V. Sources of Information

A. Drawings, Plans

1914 - "The Redland District, Dade County Florida. Compiled for W.D. Horne by R. L. Bow C. E. July, 1914. (True Copy by American blueprint Co., March 29, 1977.) Map shows the original property boundaries of homesteads from the turn of the century such as the Hattie Bauer property that was later to become the Orchid jungle. (Authors Archive)

1957 - Blueprint copy of specifications for the residence of Mrs. Dorothy B. Fennell. Specifications list the architect as Vladimir E. Virrick, AIA and the builder as Michael Dostal.

The specifications list that the house was constructed in 120 days at the total cost of \$27,538.44, (DERM Archive.)

Survey of June 19. Spot survey for Fennell Orchid Co. showing northwest corner of property as 673.35' from the center line Bauer Drive locating Parcel "A" of 2.0 acres showing the garage 20' - 6" x 22' - 6", one story natural stone structure 26' along west edge (north edge not given) and a one story wood frame addition 25' x 22' (later to be replaced with a concrete block addition). Survey most likely drawn by Wm. S. Connole & Assoc. Land Surveyors, Homestead Florida.

B. Historic Views, Photographs

A small collection of black and white, color photographs and transparencies is archived at the Department of Environmental Resource Management (DERM) and is the primary source of information about the early character of the garden. The earliest small format black and white photographs are identified as being made by Edith A. Watson. These photographs appear to be from the late 1920s or early 1930s and show L. A. Fennell on the site, in his greenhouse and under wood slat sheds.

Color photographs and transparencies appear to be from the 1950s and 1960s showing the garden documented as a roadside attraction.

DERM is also in possession of a number of black and white picture wallets that document orchids from different orchid shows. And a large collection of color slides of orchids most likely for promotion and lecture purposes.

C. Interviews

Tom Fennell Jr. III, April 2009

Jane Griffin Dozier, January 2009

VI. Bibliography

A. Primary Sources

Blackwell, Harriet. "Florida's Tropical Plant Clinic," *Miami Daily News Sunday Magazine*, June 8, 1947.

"Dade County Orchids to be Shipped North," *Miami Herald*. December 18, 1929, pg. 1&5.

Fennell, T. A. Jr. Orchids for home and Garden, Rinehart & Company, Inc. New York, 1956.

Kirkland, Mary. "Orchid Jungle Filled with history of Fennell Family." *South-Dade Newsleader*. January 7, 1971.

Fennell's Orchid Jungle – A Little Bit of History. Homestead, Florida: published by the Fennell Orchid Company, 1984.

The Joys of Orchids, Fennell's Orchid Jungle, Thomas and Dorothy Fennell, 1984.

Hammer, Roger. Checklist of Vascular Plants, Hattie Bauer Hammock (Orchid Jungle) 26715 SW 157 Avenue, Homestead, Miami-Dade County, Florida, June 1989, Emended August 1998.

Ferrer, Ricardo S. Orchid Jungle Designation Report, 26715 S.W. 157 Avenue, Miami-Dade County Historic Preservation board December 1998, Revised January, 1999.

Carr, Bob. Archaeological Site Form, Florida Master Site File, Site #8 DA 6463, Field Date 85, form date 6/10/98, Historic Preservation Officer for Miami- Dade County: Bob Carr.

Taylor, Jean. Villages of South Dade. St. Petersburg, Florida; Byron Kennedy co., no date.

B. Secondary Sources

Orlean, Susan. The Orchid Thief, Ballantine Publications, 1994.

Simpson, Charles Torrey, In Lower Florida Wilds: A Naturalist's Observations on the Life, Physical Geography, and Geology of the more tropical part of the State, New York, Putnam, 1929, 196.

Simpson, Charles Torrey, Florida Wild Life, New York, Macmillan, 1 932, 153.

C. Sources not yet investigated:

More interviews with orchid growers in the area would expand our understanding of the context of the site and also offer more insight into how the site evolved. A local newspaper company; the *South-Dade NewsLeader* has a collection of past newspapers dating back to the origins of the attraction. The lack of an index or structured system to review this material makes a comprehensive review time consuming.

VII. Supplemental Material

Fennell's Orchid Jungle Chronology by Rocco Ceo.

1914 Aug. 06 "Miss Hattie Bauer." Homestead Enterprise, August 6, 1914.

1922 Land sold by Hattie Bauer to Lee Arthur (L.A.) Fennell and family including his wife and son Tom A. Fennell (Sr.) (wife Dorothy) on 26715 S.W. 157 Avenue, Naranja (Later Homestead) FL 33031, 13.97 Acres.

1923 Orchid Jungle officially opens.

- 1926** *Sept.* Hurricane devastates South Florida with winds in excess of 150 mph.
- 1927** Thomas A. Fennell Jr. born in Homestead (c.1927-1998)
Wife: Trudy H. Fennell
- 1929** *Oct. 3* Hurricane in South Dade County, winds between 115 mph and 125 mph. The Homestead Leader, October 3, 1929, Vol. VII-No. 32.
- Dec. 18* "Dade County Orchids to be Shipped North," Miami Herald, December 18, 1929, pg. 1 & 5.
- 1940** L.A. Fennell passes away.
- 1942-45** Orchid Jungle closes for three years during World War II. Letter to Rolfe Mickler Asst. State highway Engineer from Tom Fennell Jr. February 21, 1966.
- 1951** *Nov. 23* "12 Million Told of Orchid Jungle in Reader's Digest Reprint from SEP." The Redland District, November 23, 1951.
- 1953** Approximate date of the Time Lapse Film made by Tom Fennell Jr. "Fennell's Time Lapse Film of Orchid Development." Nine Hundred Feet of Film taken, and over five years in the making. Orchids in order of appearance: C.Gaskelliana, V. Gilbert Triboulet, Lc. Kencolor, Lc. Black Hawk x Lc. Waubesa, C. Pittiana.
- 1954** *Dec. 12* Miami Daily News article, "Officers of the Tropical Florida Attractions Inc." Officers include: Thomas A. Fennell; Orchid Jungle - First President, George Stacy; Musa Isle- Second Vice President, Joe Dumond; Monkey Jungle- Treasurer, P.F. McKenney; Theater of the Sea - Vice President, Julius Levin; Coral Castle - Secretary, Alton Freeman, and Miami Rare Bird Farm.
- 1956** Orchids for Home and Garden, published by T.A. Fennell. Jr., Rinehart & Company, Inc. New York, 1956.
- Sept. 17* - Company owned by Thomas A Fennell Jr. (49%) and his mother Dorothy B. Fennell (51%) wife of Tomas A. Fennell Sr. Thomas A. and Trudy Fennell's three children: Thomas Fennell III, Anita Marie, and Trudy Lynn.
- Sept. 30* - Survey drawing executed by William S. Connole Reg. Surveyor #1019 State of Florida of Wm. S. Connole - Land Surveyors of 38 N.W. 8th St. Homestead Fl. Spot survey of: The West 315 ft. of N1/2 of NW ¼ of SW ¼ of NW ¼ of Sec. 33-56-39, Dade County Fla. The drawing shows the house and garage for Dorothy B. Fennell and lists the house as (under construction).
- 1958** *May 9* - Letter to Precision Film Laboratories, Inc. 21 West 46 Street New York 36, New York for a price quote on creating a copy of Fennell's Orchid Flower Development Time Lapse Film.

- 1959** Sign permit for sign located on the east side of US1 1000 ft. north of Epmore Drive. Sign is 12' x 40' (480 sq. ft.) sign frame by George E. Walton Structural Engineer, drawing 59/758 dated 3/16/1959.
- Jun. 19 - Survey drawing executed of Parcel 'A' of the front NW corner of Newton Road and 673.35' south of Bauer Drive. The drawing indicates the property showing the original stone house 26' x 26', the wood frame addition to the south of the stone house 25' x 22' and garage 20' x 22'-6". The drawing is labeled Job #70617 for the Fennell Orchid Co. Newton Road, Homestead, Fla.
- 1960** Hurricane Betsy, Damage to the Jungle is catalogued by T.A. Fennell, Losses include: Orchids: 343 - \$5 orchids, 128 - \$16.00 orchids, thirty-eight specimen orchids valued between \$25.00 - \$200.00 , Trees: ninety-three - small, below 8" cal., seventeen - medium 9" - 14" cal., one - large 15" and higher cal. Report includes black and white photos of damage to the garden.
- Sep. 09 - Hurricane Donna touches down in Orchid Jungle. "...That tornado uprooted 14 Live Oaks and the Orchids clinging to them all growth you see here has occurred since then. Fast growing trees like Gumbo Limbo, the paradise tree, and the strangler fig have filled in quickly. The Aroids have thrived in the extra light and created this very lush area so typical of the tropical rain forest you might see in Colombia and Panama." Quote taken from sign salvaged from the Orchid Jungle. DERM Archives
- 1961** Hattie Bauer passes away. (Ca.1874-1961)
- 1963** Fennell's Orchid News (newsletter). Homestead, Florida: Fennell Orchid Company, 1963.
- 1968** Aerial Photograph of the Orchid Jungle, Dade County Photographic Prints. HMSF. Documental plan of Orchid Jungle site by Architects Filer & Hammond PA, 250 Catalonia Avenue Suite 805, Coral Gables, FL 33134. Orig. 24" x 36", Scale: 1"=40'
- Thomas A. Fennell Sr. develops an orchid hybrid the *Dendrobium Dorothy Fennell* named after his wife. The hybrid took 11 years to mature and bloomed 1,016 flowers at one time. From: "Fennell's Orchid Jungle – A Little Bit of History (1984)
- 1971** Jan. 07 - "*Orchid Jungle Filled with History of Fennell Family,*" by Mary Kirkland, published in the South-Dade Newsleader.
- 1974** Nov. 3 - -*The Plant People,*" by Rob Elder, The Miami Herald. Article mentioning Tom Fennell.
- 1976** Dec. 6 - Letter to Mr. Miyamoto in Oahu from T. A. Fennell. "We are in the process of building a new enclosed 1200 sq. ft. laboratory which should be finished this spring."

He also mentions his father had a serious coronary attack 17 days ago and just got out of intensive care.

- 1984** Fennell's Orchid Jungle — A Little Bit of History. Homestead, Florida: published by Fennell Orchid Company.

The Joys of Orchids. Fennell's Orchid Jungle. Thomas and Dorothy Fennell, published 1984.

- 1985** Archaeological Site Form recorded for Hattie Bauer Hammock/Orchid Jungle. Recorder: John Ricisak, Dade County Historic Preservation Division. Tom Fennell Jr. reportedly found a cache of *Busycon* shell "Dippers" in a shallow solution hole in the hammock. At that time they were observed by the county archeologist Robert Carr and left in place. *Found in a letter dated 6.10.98 titled Dade County Site Summary, DERM archive.*

- 1992** Hurricane Andrew hits on August 24. Orchid Jungle sustains extensive damage. Orchid Jungle closes.

- 1993** Oct. 29 - Orchid Jungle reopens and hosts the First Annual Arts and Crafts Festival.

- 1998** Jan. 9 - Letter to Joe Maguire from Roger Hammer about Hammer's meeting with Tom Fennell prior to acquisition of the property. Fennell moved some plants to his home site. "These included gardenias, sago palms, crotons, philodendrons, and other non-native landscape material."RH

May Letter to Emilie Young from All Wild of the Florida Communities Trust, May 18, 1998, Florida Communities Trust approves option agreement for the purchase of the Orchid Jungle

Dec. - Miami-Dade County Historic Preservation Board Designation Report, Prepared by Ricardo Ferrer Sr.

- 1999** Jan. 20 - Orchid Jungle designated as a historic site by Miami-Dade County, resolution passed unanimously.

Jul. 29 - Request for Certificate of Appropriateness to demolish the "packing and potting house", Building 13 adjoining the Lab approved by historic preservation officer Rick Ferrer and Christopher Eck. Owner of the site Miami-Dade County Park and Recreation Dept.

Nov. 8 - Demolition and removal of structures begins for the following buildings: 1.) CBS Pump house & wood roof 375 sq. ft., 2.) greenhouse "A" 15,000 sq. ft., 3.) greenhouse "B" 13,200 sq. ft., 4.) Aluminum Shed 480 sq. ft., 5.) frame 1/ ½ story cottage 900 sq. ft. 6.) greenhouse "C" 11, 000 sq. ft., 7.) entrance wing 4,200 sq. ft., 8.)

snow fence installation 750 sq. ft., 9.) (unrelated) 10.) clear & grub approx. 5.5 acres. Demolition work done by Leonardo Fulgugira Avatar, Inc. 6955 NW 52nd Street #109-B Miami FL 33166. Work approved by Dan Crawford of Metro-Dade County Parks Public Works Supervisor II on Nov. 1, 1999. Total cost of work \$90,334.

Dec. 8 - Demolition work completed.

2009 Jan. 24 - HALS work initiated to document Fennell's Orchid Jungle, Work completed May 6, 2009.

VIII. Project Information

The University of Miami, School of Architecture documentation team was lead by Professor Rocco Ceo who served as the documentation coordinator for the Historic American Landscapes Survey for Florida or HALS/FL, and historian for the project. The University of Miami, School of Architecture student documentation team was: Angela Ayuso, Lacey Block, Lisa Blacklidge, Angela Diaz, Peter Miller, Christopher Rodriguez, and Nicole St.Germain. This team was responsible for field notes final drawings and preliminary research for the project.

Permission to work on the site and access to the site was given by Miami-Dade County Parks and Recreation Department or (MDCPD), and the Department of Environmental Resource Management (DERM). The following individuals were instrumental in assisting with this effort: Howard Gregg, Assistant Director of MDCPD; Maria Nardi, Chief of Planning and Research MDCPD; Joe Maguire, Natural Areas Manager; Jane Griffin Dozier, Environmental Resource Project Supervisor for Natural Areas Management Natural Areas; Alice Warren, Ph.D, ISA certified arborist with Natural Areas Management who providing permits to work on the site. At the Department of Environmental Resource Management (DERM) Tiffany Smith was instrumental in providing accessing to important primary source research material.

University of Miami Richter Library, Terri J. Robar, Special Formats Librarian, assisted in locating USGS maps that helped to establish site development. At the National Park Service U.S. Department of the Interior: Paul D. Dolinsky, Chief of Historic American Building survey HABS/HAER/HALS Division assisted with project coordination.

¹ "Hammock" is believed to be a term of Indian origin meaning high ground. Ecologically a hammock denotes a dense growth of mostly broad leaved shrubs and trees occupying high ground. The high ground gave this landscape natural protection from prairie fires that would otherwise have transformed it into a pine island. The broad leaf trees naturally occurring on these sites deposit a thick layer of humus that encourages tree growth. Generally scarce and filled with heavy dense vegetation these sites were sought after by early settlers given their natural protection from fire, beauty of their vegetation, and superior soil conditions. They are also believed to originate around sink holes that provides the water and soil that encourages the growth of broad leaf trees.

² The change of name from Orchid Jungle to Fennell's Orchid Jungle I thought was initially inspired by the need to distinguish this attraction from competition from others who featured orchids on their attraction sites, but I believe after looking at the promotional literature that it is reconnecting to the company name started by L.A. Fennell in Cynthiana Kentucky called the Fennell Orchid Co.

³ Blackwell, Harriet. "Florida's Tropical Plant Clinic," Miami Daily News Sunday Magazine, June 8, 1947.

⁴ Redland Festival Program, February 1948.

⁵ Letter from T.A. Fennell to Mr. E.W. Marcellus of Lucas & Hunt Florists, St. Louis Mo. July 1, 1960.

⁶ Tom Fennell Jr. was a member of a number of organizations, such as: the American Orchid Society, American Anthurium Society Inc. (1970s), International Aroid Society Inc. (1970s), American Hemerocallis Society (1970s), and local organizations such as the Dade County Agri-Council Inc (Board of Directors 1980-81), Greater Homestead/Florida City Chamber of Commerce (1987), the Association of Avocado & Lime Growers, Inc., and the Florida Mango Forum (1981). The dates of memberships and level of involvement is verified by documentation but is not exhaustive or comprehensive. The number of years may be longer and level of involvement sometimes greater.

⁷ Florida, A Guide to the Southernmost State, compiled and written by the Federal Writer's Project of the Work Projects Administration for the State of Florida, New York, 1939, 325.

⁸ Simpson, Charles Torrey. Ornamental Gardening in Florida, Little River, Florida, 1916, 75.

⁹ Simpson, Charles Torrey. In Lower Florida Wilds. New York, Putnam, 1929, 196.

¹⁰ Simpson, Charles Torrey. Florida Wild Life, New York, Macmillan, 1932, 153.

¹¹ "Welcome To Fennell's Orchid Jungle" –one page brochure of the jungle.

¹² The gardens at Vizcaya were completed in 1923. One of the exterior garden rooms was the Secret Garden near the villa which featured sconce like projections on the surface of the exterior walls, open to the sky, to support orchids. Salt air from the Bay, lack of appropriate shade and humidity, made their survival difficult and the practice of displaying orchids was eventually abandoned.

¹³ Filon Panels are fiberglass reinforced plastic panels manufactured by FILON a division of 'Sohio' Chemical Company out of Hawthorne California.

¹⁴ Letter W.D. Palmer to Mr. Fennell September 8, 1967. The letter is from the National Greenhouse Co. in Pana, Illinois. The letter is a response to an inquiry from Mr. Fennell about gas powered Hot Air Heating Equipment for greenhouses. The company was also a national supplier of off-the-shelf greenhouses and greenhouse equipment.