

# GET CONNECTED: re-envisioning a park's identity through an information matrix

Salt River Bay is an opportunity to explore and educate the public, visitors and scientists on the cultural, ecological and historical context that lies within the boundaries of the site. What makes the park so unique is that not only is it a national park, but it is also an educational outreach center. The Marine Research and Education Center, or MREC for short will be located on the East side of the site and will host a small campus center with labs and classrooms for a consortium of universities. Education is a powerful tool that can be not only applied in a classroom but out in the landscape as well. It does not always have to be related to school and a learning institute, rather what matters in the interaction and experience on gets in learning about something. The things that most people remember are the ones that leave and impression on them. Through information networking and downloading, not only with the MREC center become an interesting educational area, but the entire Salt River Bay, will become a database willed with ecological, archeological and historical cultural context available through a simple text or scan.

Because this national park is also playing a role as a university extension, it is important to delineate what is public and what is private, yet at the same time, allow for the knowledge and research done at Salt River Bay to be networked across the site as well as the island.

Along the main trail is where the learning experience for the park goer begins. Along the paths there will be education Launch's, or elevated trails that deviate from the main trail and bring the user to an important view or significant area that has educational material available for it. From here you can scan the signs located around the and along the launch to learn about what is going on in the view or area.

These launches will be located along the paths across the site. Also along the path will be areas to rest and break as well as areas to jump to the other side of the site. Along the trail is a canoe launch that gives the person the opportunity to explore the bay. Because the benthic landscape is so important to the site and you can't experience directly there will be education launches in the water as well, where a person can go up scan or text the number on the board to learn about what is going on beneath.

I see this educational experience on the park as very dynamic, as that as new information is obtained and research on the site, or new archeological remains are discovered, new data will be available to the park goer. This makes each trip to the park different, because the educational launches will move and change to accommodate for where the information is. Not only that but by allowing the user to take home the knowledge and information about the site through downloading on their phone, email, etc. it allows for what's happening at Salt River to be broadcasted across the world and to encourage people to revisit.

# Salt River Bay National Heritage Park

## St. Croix, US Virgin Islands

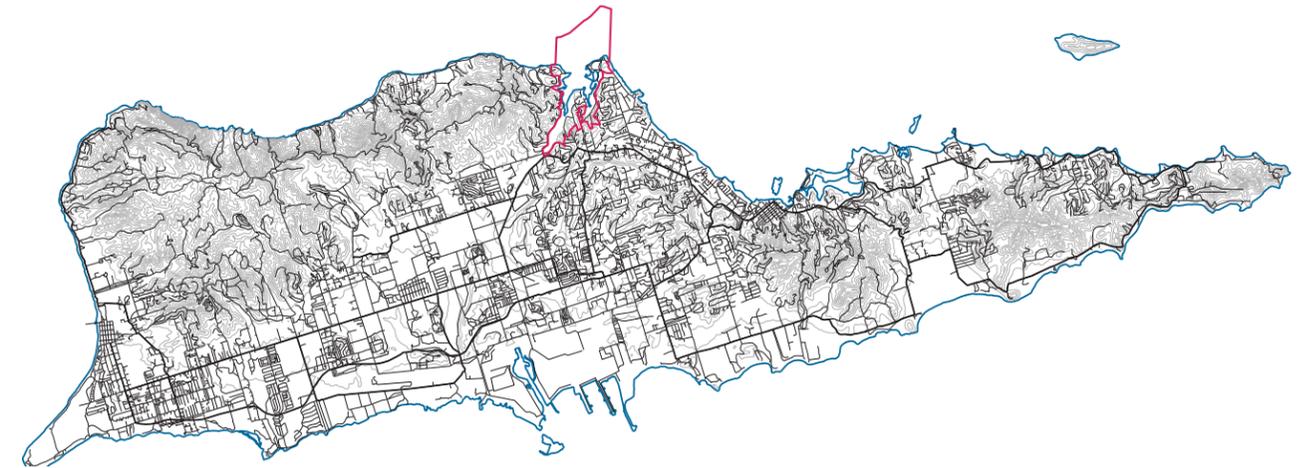
### *Place and People*

St. Croix is a multicentered island, a place rich in natural, cultural and historical resources all that date back decades before the explorations of Christopher Columbus. Prior to visiting St. Croix I had little knowledge of what the Lesser Antilles were like, let alone where they lie on a map. I knew that St. Croix was a tropical island that was one of the United States Virgin Islands, but nothing beyond that. I feel that it is important for me to address my initial thoughts of what I was anticipating the island would be like before I give

a detailed description of the people and the place.

Prior to my travels to St. Croix, I did some brief research on the island and surrounding islands. I saw pictures of a beautiful resort with palm trees that banked the beaches, overlooking a beautiful tropical ocean. There were small bungalows that sat yards away from the ocean and tiki umbrellas that shaded the clusters of lawn chairs set across the beaches. So I thought to myself that St. Croix must be just like every other resort destination;

with built up town centers that are funded by years of tourism, beaches that are flooded with hotels and resorts, and more water sport activities that one could dream of. I had been to Aruba and a few other Caribbean islands before, which I believe painted a picture in my mind of what I thought St. Croix would be like. One could say that I had a biased opinion of what was expected when arriving to the island. I had yet to experience the rich culture and historical roots that St. Croix inherited over its years of constant change.



*Panorama of Salt River National Park*

# St. Croix

## *The Place*

**“Land is the catalyst for culture”**

Dr. Edgar Lake

St. Croix is a tropical island that sits 40 miles south east of St. Thomas in the archipelago we now know as the US Virgin Islands (USVI). It is a small island that is about 28 miles long from tip to tip and at its widest point about 4 miles. It is the United States’ Eastern-most territory, and it is just above the equator, which means lots of sun and a constant breeze created from the trade winds. The island has two main towns, Christiansted and Frederiksted, which are no more than a few city blocks in size. Other than these two towns, most of the settlements are sprawled across the island, with small suburban areas. The island is flourished with changing topography and has many peaks and valleys scattered across them. I do not want to go so far as to call it a mountainous region, but at any point of the island you can look around you and you are bound to see a landscape that is higher than where you are, and its green, very green. For most of the island is a sub secondary forest.



There are few trees on the island and most of it is understory or brush. For generations the island functioned as a sugar cane factory. Every bit of the landscape was covered with plantations and fields of sugar cane, so many of the forests in St. Croix are relatively young.

Upon arrival to the island we passed through the industrial area of St. Croix. The Hovensa Refinery station is the largest industrial complex on the island. In such a

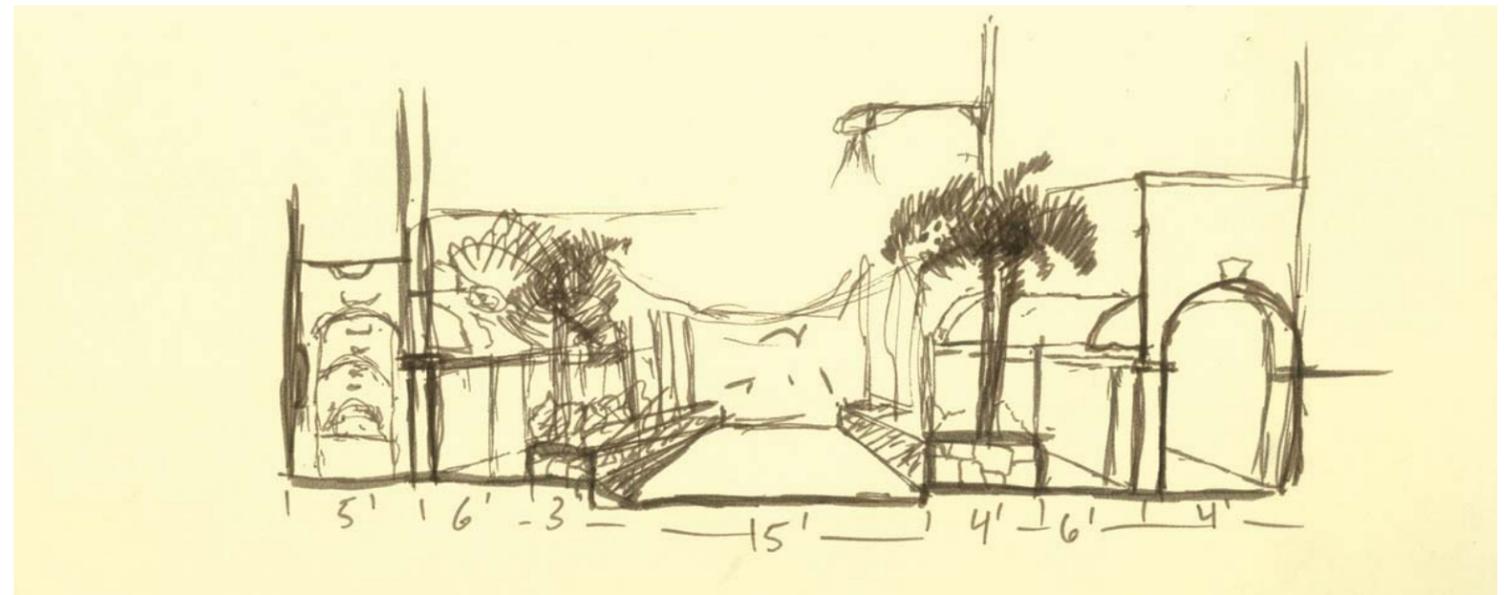
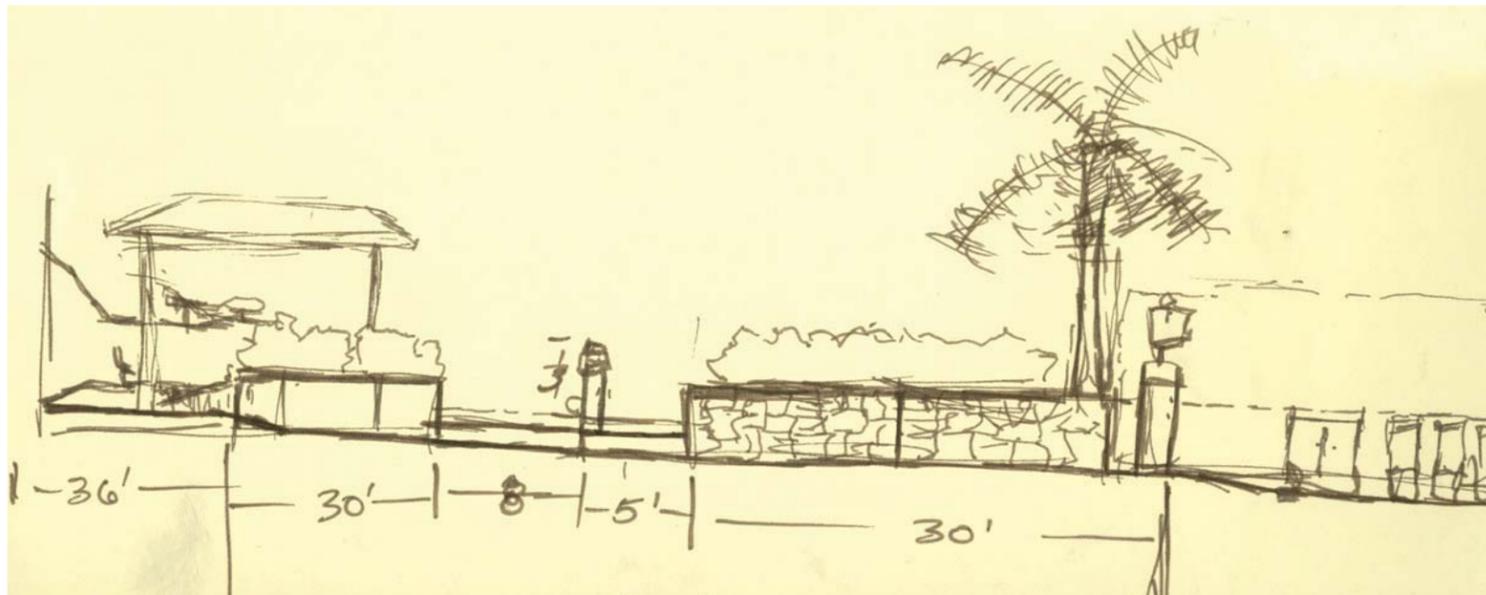


picturesque landscape these large smoke stacks and extensive grid of factories do not fit into St. Croix’s sense of place. Although the refinery is the largest contributor to St. Croix’s economy, one must ask themselves how this is contributing to the pollution of not only the landscape, but the succeeding coral reefs as well. Second to that and sitting just east is the Cruzan Rum refinery. One of the starkest sights when first arriving to the island was the large mounds of red



*View of St. Croix Coast Line*

aggregate. The aggregate is the remains of mining and processing aluminum. It now sits stagnant in the landscape and pollutes the ground as well as the view shed of St. Croix. There were initial attempt to turn the clay like substance into brick but this failed due to its inability to be molded.



***“Place is latitudinal and longitudinal within the map of a person’s life. It is temporal and spatial, personal and political. A layered location replete with human histories and memories, place has width as well as depth. It is about connections, what surrounds it, what formed it, what happened there, what will happen there.”***

Lucy Lippard

We arrived at our hotel, the Arawak Inn at Salt River, which in the States would be classified as an upscale motel, and had the first view of our site at Salt River Bay. The hotel was owned and operated by Jennifer and Lionel Jackson. One major difference in culture on St. Croix is the sense of belonging that radiates from all people on the island. The hotel wasn’t your typical hotel. Breakfast was cooked and served by the owners who also lived in the lower half of the inn. Cold drinks and alcoholic beverages were offered on an honor system, if you take a drink put a dollar in the bowl. This was not just the scene at the hotel, but everywhere you went on the island people would greet you as if they knew you since infancy. From here, we made our first visit to the site, The Salt River Bay National Park.

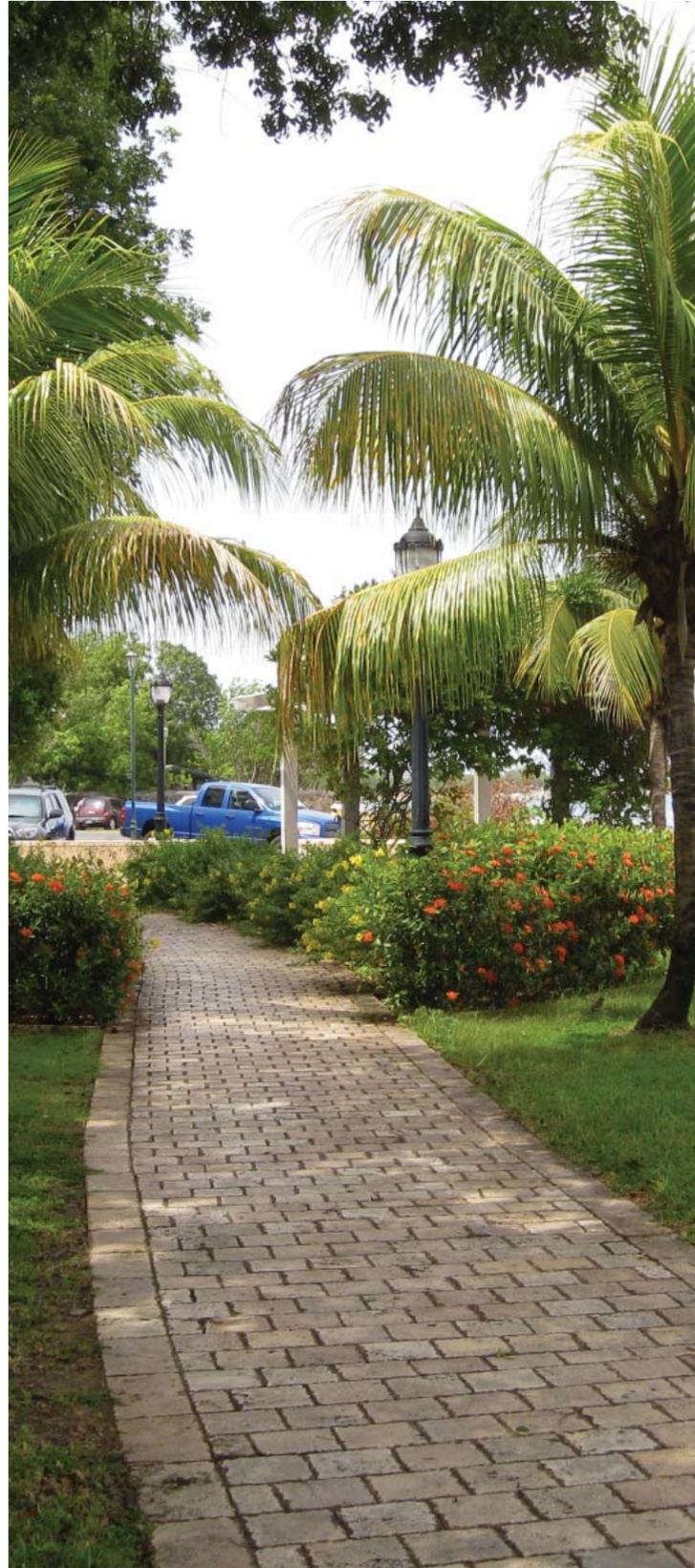
Getting to the site posed an additional problem for both the island and the park.

With winding narrow roads that constantly change in elevation, getting around in St. Croix can be a daunting task. A simple four-mile drive across the island can turn into a daylong adventure if you are not careful. Most of the roads are paved but do not have sidewalks and are just wide enough to squeeze two cars by. There is no room for walking or biking on almost all of the roads, which makes it unsafe to travel without a car (not to mention they drive on the left side of



the road). In addition, the absence of public transportation makes it extremely difficult to navigate through the island without a car. The gridded road system within the cities are similar to typical urban streets in the states, but because this is a tourist destination there are more street tree plantings and curb appeal. Streets in Christiansted are lined with planters and often end at a plaza. Most of the city is laid out on a haphazard grid with narrow one way streets. Another important

aspect is the sidewalks which are mostly covered with building overhangs or building facades. This is to help people deal with the sun and heat experienced in St. Croix.



# Salt River Bay National Heritage Site

***“The deep contours of this culture are of deep memory”***

*Dr. Edgar Lake*

*View of Site From NPS Visitors Center*



Salt River Bay lies in the center of the northern coast of the island. It is surrounded on three sides by suburban developments that bank the hills, one of which is Judith Fancy, the only gated community on the island. From the bay you can see one of St. Croix’s most valuable ecological preserves, Buck Island, which lies several miles off the north east coast of the island. To the west is Cane Bay. The site sits in the finger of the surrounding hills and from most of the surrounding roads and homes you can see framed views of the site. It is home to upland estuaries, coral reefs and mangroves that border the entire site. Unfortunately due to, Hurricane Hugo as well as poor planning in the previous years of ownership, many of the mangroves have been destroyed and are only in their

primitive age. Most of the coastal beaches consist of loose rock, washed up coral and pebble like sand. Only near the resorts do you find your typical beach white sand.

In the late 1960, land had been purchased by a private sector on the east side of Salt River Bay, with intentions to build a mega resort. Major changes to the ecology and shoreline of the bay had been implemented and a concrete structure was erected on the shoreline. A large existing lagoon was dredged and sculpted to accommodate beach front condos with boat slips. In addition another man made lagoon was created a few yards north as well. After funds ran dry the project was abandoned and the landscape was scared with concrete footings and structures.

*Sign for Visitors Center Near Road*



*View of West Shore of Site*



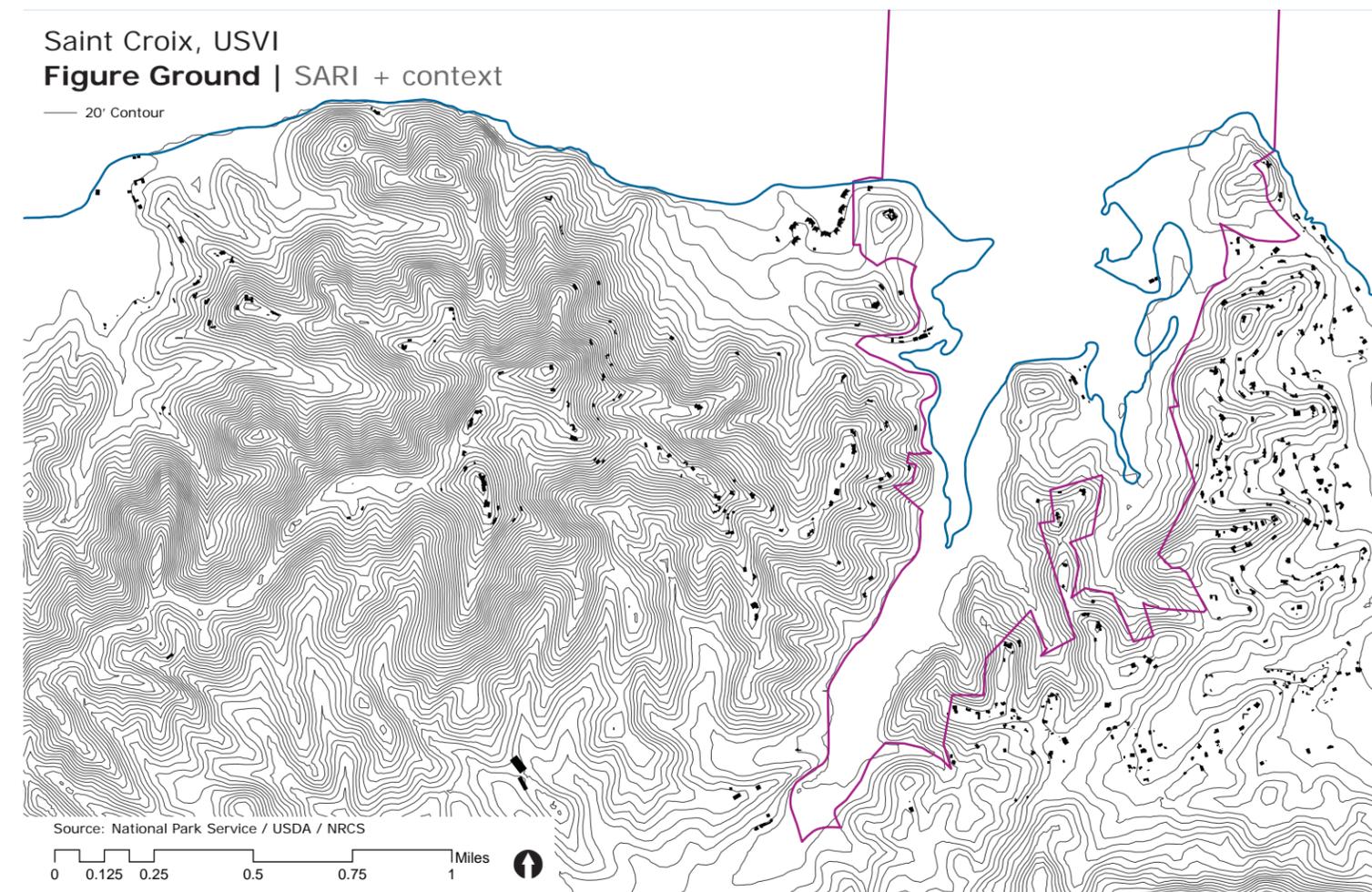


Sketch of Wooden Umbrella

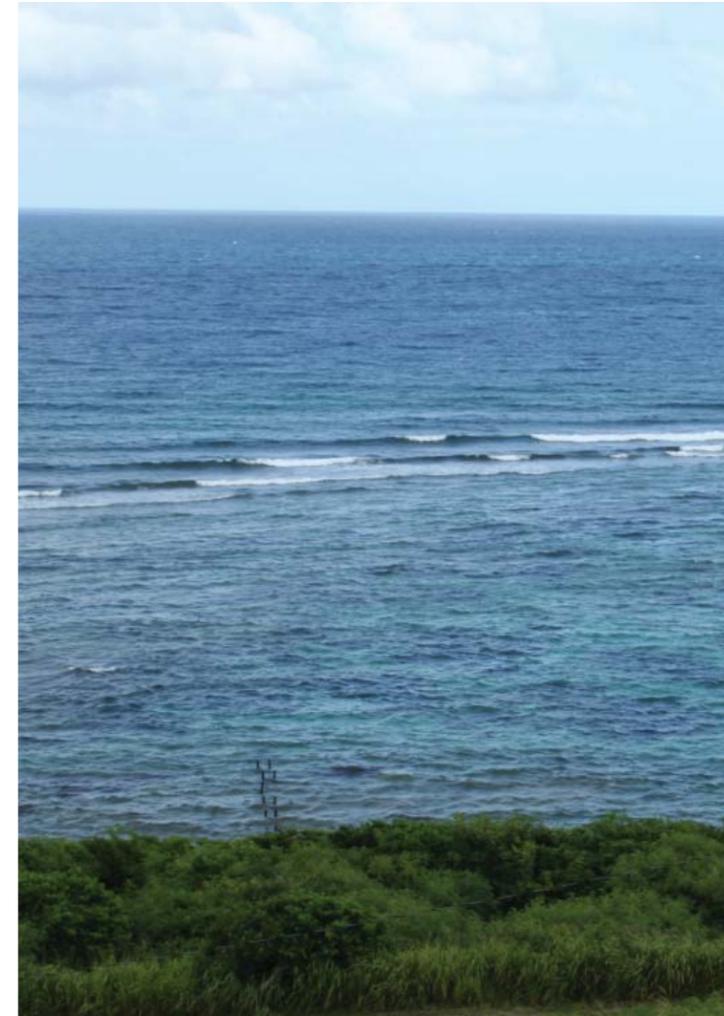
As mentioned before the poor planning on this site and lack of environmental knowledge led to degradation of wildlife in an around the site. The NPS later purchased the land and in conjunction with the US Virgin Island National Guard, the building was demolished and the site has begun to return to its natural state. The man made lagoons have begun to naturally succeed with help from the NPS the ecologically significant mangroves have begun to be restored. Most of the concrete



has been recycled and is being used to stabilize the construction roads around the Salt River Site. On the west side of the site a new NPS visitors center has been built and will be used as a resource center for the National park. Because the park surrounds the bay, it becomes difficult to get from one side to the other. Until recently, the only formal entrance into the park was through the gated community of Judith Fancy. The NPS has plans in place to re-use and upgrade



the construction road that led to the failed development on the east side of the site. It will become the entry drive to the Marine Research and Education center (MREC) which will be located on the east side of the bay. With all this said there is still a disconnect between the East and West side of the park. Creating a functional and efficient circulation system both in the park and on the island will play a crucial role in the design of the park.



One of the most important aspects of both St. Croix and the National park is its rich history and archeology. Originally inhabited by the Taino Indians, St. Croix was the second landing spot for Christopher Columbus in 1493. The site is believed to be the first place that Columbus stopped and his first hostile encounter with the natives. Due to the constant change of hands between the Dutch, French, Spanish and United States, Salt River and St. Croix are rich not only with

Amerindian but also pre and post slavery artifacts as well. Much of the archeology is scattered around the island and it is said "you can dig anywhere on Salt River and come up with remains". Walking along the edges of the site you are taken back in time through the layers of archeology remains that have been eroded away from the ocean. In 1923 the only known Native American Ball Court in the Lesser Antilles was excavated. The ball court was surrounded by large with etching

to depict the edge. The remains are now held in a museum in the Netherlands. The site is now littered with trash and a large sign was erected to denote where the ball court once was. In addition to the ball court Salt River has one of the few remaining earthwork forts in the entire western hemisphere. The ecology of the site also plays a major role when considering design. Located just north of the equator the climate is dry and arid along the coast with a constant breeze

generated from the trade winds. Sub-tropical dry forest scatters the inner highlands of the island. Sea spray from the ocean is a major consideration when designing both landscape and built form. The salt can corrode and destroy homes along the coast and most of the built forms are composed of concrete walls and roofs. Not to mention the ever-threatening hurricanes that pass through the island on a regular basis. Mangroves are very important to the ecology



of the landscape. They serve as large marine estuaries for much of the marine and coastal life. The coral reefs might be the most sacred yet endangered ecological function on the island. Due to over fishing, climate change and pollution many of the coral reefs have been bleached or destroyed.

# St. Croix

## *The People*



It is not only important to address the rich culture and history of the landscape in St. Croix but the people as well. The deep-rooted history of the people on St. Croix dates back close to 2000 years ago when the Taino Indians inhabited the area. They were a sophisticated culture that had advanced technologies in pottery, stone too and other ancient artifacts. With extensive trade routes along Lesser Antilles they were able to sustain their population up until the landing of Columbus. They lived in large circular villages that were bordered with their houses. They were hut like structure built from the native palm trees on the island. In the center of the village was their ball court and sacred land where they buried the dead and had ceremonial dances. Outside of the village they buried their trash in what are called middens. They grew tobacco cotton and the calorie rich cassava. They hunted small animals and lived a peaceful life with the land. By the late 1550's the Taino Indians were exterminated by the arrival of the Spanish. Following the extermination there was a period of about 100 years where St. Croix was sparsely inhabited until the arrival of the Dutch in 1647. They set up small colonies along the edge of what is now known as Christiansted. They built a wattle and daub style of house, which consisted

of mud and sticks. From here ownership of St. Croix changed hands several times until it was finally purchased by the United States. During that time, the landscape was described as torturous. Sugar Plantations led to a major slave trade on the island. Many African Americans were bought, traded and worked on St. Croix, many of them finding it their final resting ground. Many of the slaves would try to escape only to find themselves committing suicide off the steep jagged cliffs. These roots hold a sentimental value to the people of St. Croix, for most of the population on the island is African American.

The stakeholders of Salt River Bay consist of the National Park Service and the U.S. Virgin Islands Government. The Park Service owns the majority of the property and is managed by Joel Tutein, the parks superintendent and Zandy Hill Star chief of resource management on St. Croix. It was clear that after talking to the park service that they have a vision of turning Salt River into a typical National Park. They are very interested in representing the park in an Amerindian style, as well as accommodating for the Marine Research and Education Center. They had a strong interest in preserving the land and the history that was embedded in Salt River Bay. Zandy Hill Star



had mentioned many times that their vision for the park is to return it to a pre-Columbian state. After meeting with Meredith Hardy, the archeologist for the site, it was clear to see why they had such interest in returning it to the pre-Columbian era. It was also evident in the discussions with Zandy that the National Park service was not interested in any modernization of the site. Stated on the NPS website, their mission is to “preserving local history, celebrating local heritage, and

creating close to home opportunities for kids and families to get outside, be active, and have fun.” It was interesting to see how naïve the park service was to accommodating the local needs of the people within the park, even though their mission clearly states celebrating local heritage. There are many long-standing traditions that happen on this park, such as the Easter Camping. The locals come out for a weeklong camping trip. They sleep and celebrate on the beach,

with campfires and tents. The Park Service found great problems with this and put a permanent band on the Easter Camping without a permit. It was striking to see how they took a local tradition of the people and turned it around on them. This began to show me that the NPS on the Salt River Site was more concerned with tradition and preserving the land for visitors rather than locals. On the other hand without the people in the NPS Salt River would not be in the state it is today.

They have made great effort to restore the natural habitat and re-vegetate the coast with mangroves. They also have preserved and restored buck island, which is one of St. Croix’s most valuable ecological Sites.

Prior to meeting with the locals and getting to know more of their culture and history, I had imagined that they approved of what the NPS was doing for Salt River Bay. Little did I know how naive I was to the fact that they didn't. The locals seemed to have a different view on what the NPS was doing. They did not want another historical park that favored the Amerindian culture. From their point of view they felt as though their heritage and history was being left out. In downtown Frederiksted there was once a large parking lot where all the locals could come to shop and enjoy downtown. After the acquisition of the lot by the NPS it was turned into a large green space. The local took offence to this action because they no longer had a place to park. They felt as though they were being driven out by the park service to give way for tourism. In response they lobbied to have a large statue placed in the center of the park. It is the NPS policies that no statue figure of a person with a face can be on display in a National Park. They were proud of the accomplishment and felt as though they were getting back at the park service. At one of the meetings regarding the National Park Service a local planner Lionel Jackson expressed his thoughts towards the NPS and stated that they destroyed the town of Frederiksted by removing the

parking lot and caused great economic decline to business's in the local area.

Although the people of St. Croix are hostile towards the National Park Service, I was taken back by their hospitality. They were extremely pleasant people and you could not go anywhere with out someone saying hello or good morning. Because it is such a small island, everyone knows everyone and word get around fast. The locals are always willing to help you and willing to talk about their culture and history. Eating at a local restaurant called the Chicken Shack, it was clear how friendly everyone was. Casual conversation seemed more important to them then eating lunch. Our driver for the week, Joseph Ames was our personal tour guide who knew all the local places to eat and see. He took us to many restaurants that they typical tourist would eat at. As after spending a night in downtown Christiansted I was able to experience the local youth as well. Sitting on a curb sketching out street sections, there wasn't a group of kids who passed by and didn't ask what we were doing. Being that we did not look like locals they approach us to ask what we were up to. They were very interested in our project and wanted to know more about it. This was very



striking to me, coming from a culture where you walk down a street and see nothing but the tops of people's heads. Not only were they interested in our project but they also wanted to know how we like St. Croix as an island. They were flourished with questions and had no problem talking to a stranger.

In addition to learning about local culture we were also awarded the opportunity to go kayaking with a local school group called

NERM. Not only did this give me a new perspective of our site but it also gave me a chance to learn about this kids. Khalifa, the boy I was paired up with was a young energetic kid. He was very interested in the environment and the island. He told me about the local life and places that he hangs out at. For most of the kids this was the first time out on a Kayak and you could tell they were having a blast. He was eager to tell me about his life and plans for the future. I found

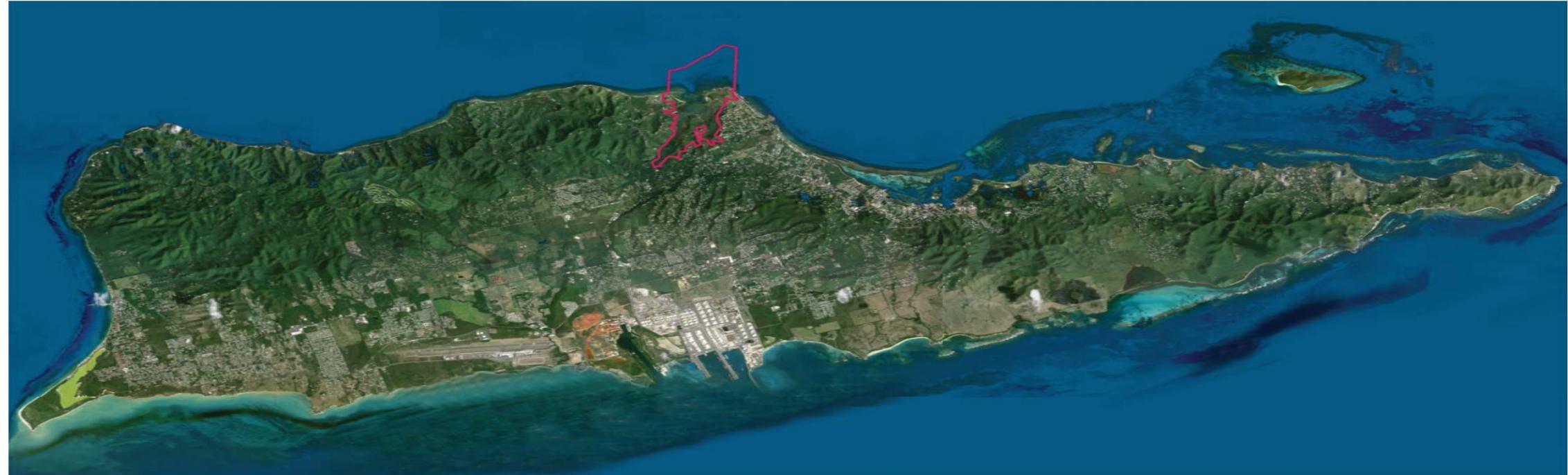


it interesting that he wanted to leave the island and join the coast guard. He also had told me that it was his first time on Salt River. This was interesting to me because it further my conclusion that there is not enough local awareness of the site, which is one thing I will be exploring in my design. As we were out on the ocean our tour guide brought us to one of the lagoon where we were able to see bio luminesce. As we were paddling in on our long adventure Khalifa thanked me for

taking him out on the kayak and told me how much fun he had. Being able to see a smile on the kids face at the end of the day was rewarding, but what was most rewarding was when he came up to me to teach me the local handshake. I took this as a sign of acceptance, and it has left a lasting impression on me. I will never forget the handshake and I will never forget my time on the kayak with Khalifa.



# Design Considerations



There are many considerations that need to be accounted for when designing the Salt River Bay Ecological Preserve. As designers it is our responsibility to fuse the two very different views on what the park should become; NPS vs. The locals. The lack of connection between the site and the surrounding cities in the island also needs to be addressed. It is important to not only get tourist to the site, but the locals as well. Intergrading a new circulation system for the site will help to

alleviate the lack of connection between the island and site. In addition I plan to focus on not only the past history of the site, but the current issues that face St. Croix. In addition to this it is important to teach the locals about the NPS and help them understand that they are there to do good and not bad, even if they don't see the immediate effects. As in one of the first National Parks lands outside of the United States was donated by a poor African American to help preserve the land

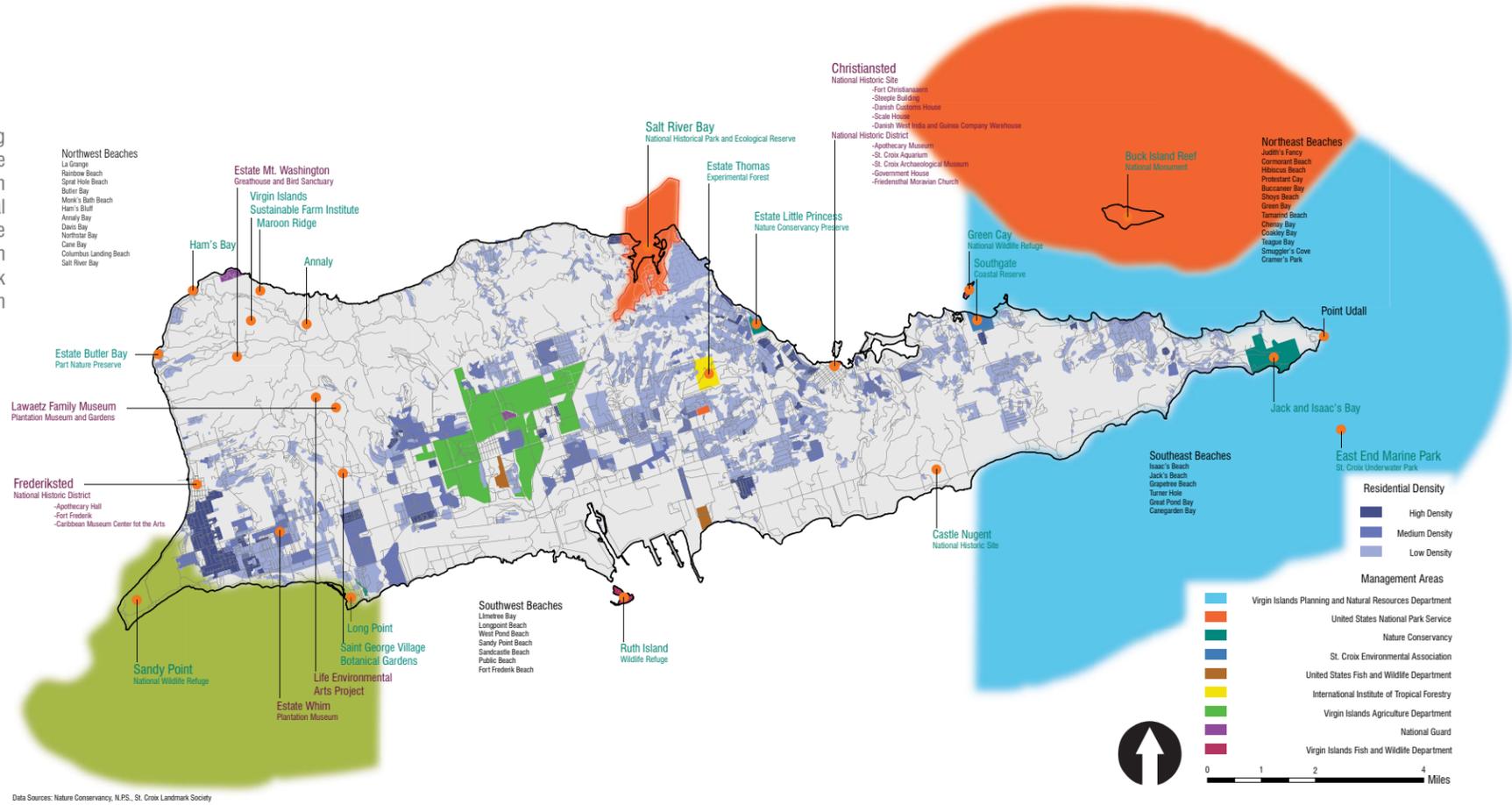
and prevent future development, I feel that it is important to relate this to the situation in St. Croix. Salt River Park can serve as a mediator between the locals and the National Park Service. I will take what I have learned from the locals and what I feel they need and mesh it together with what the National Park Service wants, in a sense a hybrid between the two major stakeholders for the park. Lastly understanding that the park must be a sustainable site is very important. In

conclusion by connecting the locals to the NPS on both a physical, economical, and cultural level will help to restore the relationship and create a park that not only satisfies the NPS but the locals of St. Croix as well.

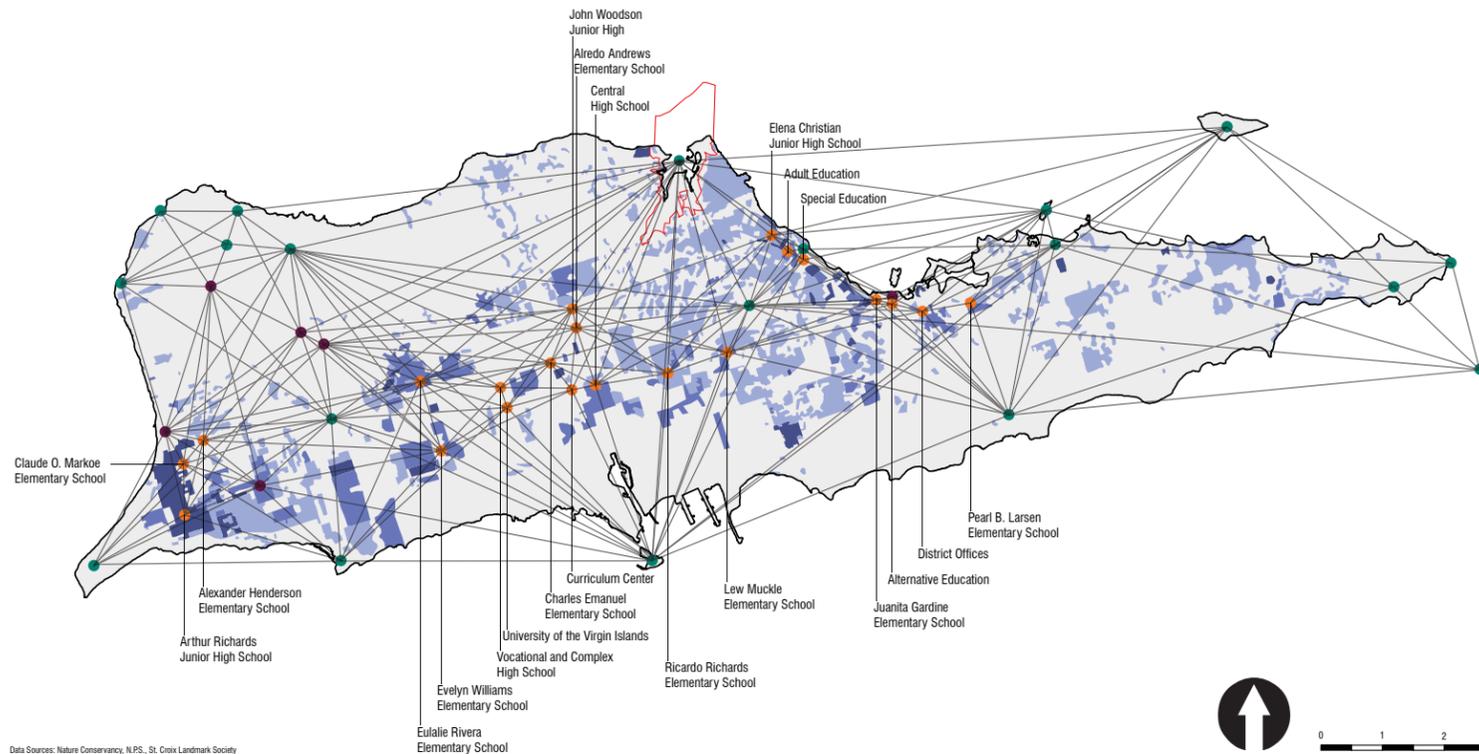
# Community Outreach

## Connecting St. Croix Beyond the Salt River Bay Boundaries

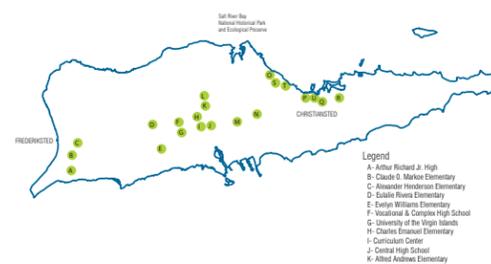
Extending the boundaries of the information network created at Salt River bay will establish a strong outreach program with the primary education in St. Croix. It will also establish an easy way for the different parks and areas of interest around St. Croix to share data as well as link visitors up with all the information they need to experience St. Croix. The visitor students and locals will have real time data streaming to them about the latest news on tourism, history, ecology, and marine science. The sari pad will also allow the park officials and business owners to share information and create a network within itself. Student organizations such as NERM will be encouraged to link into the system to learn about the latest in science related news. For other students the network can serve to inform them about events and programs being held around the island.



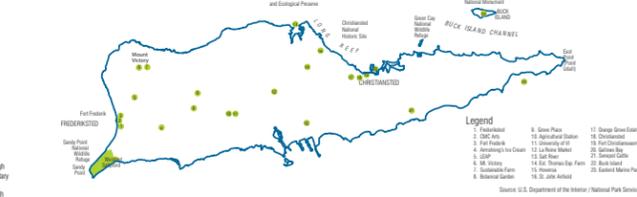
## Public Schools Networking and Information Sharing Connections



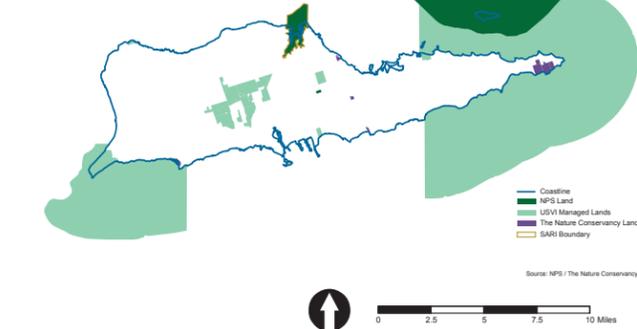
Saint Croix, USVI  
Education Outreach Program



Saint Croix, USVI  
Cultural Outreach Program



Saint Croix, USVI  
Land Ownership / Outreach Opportunity

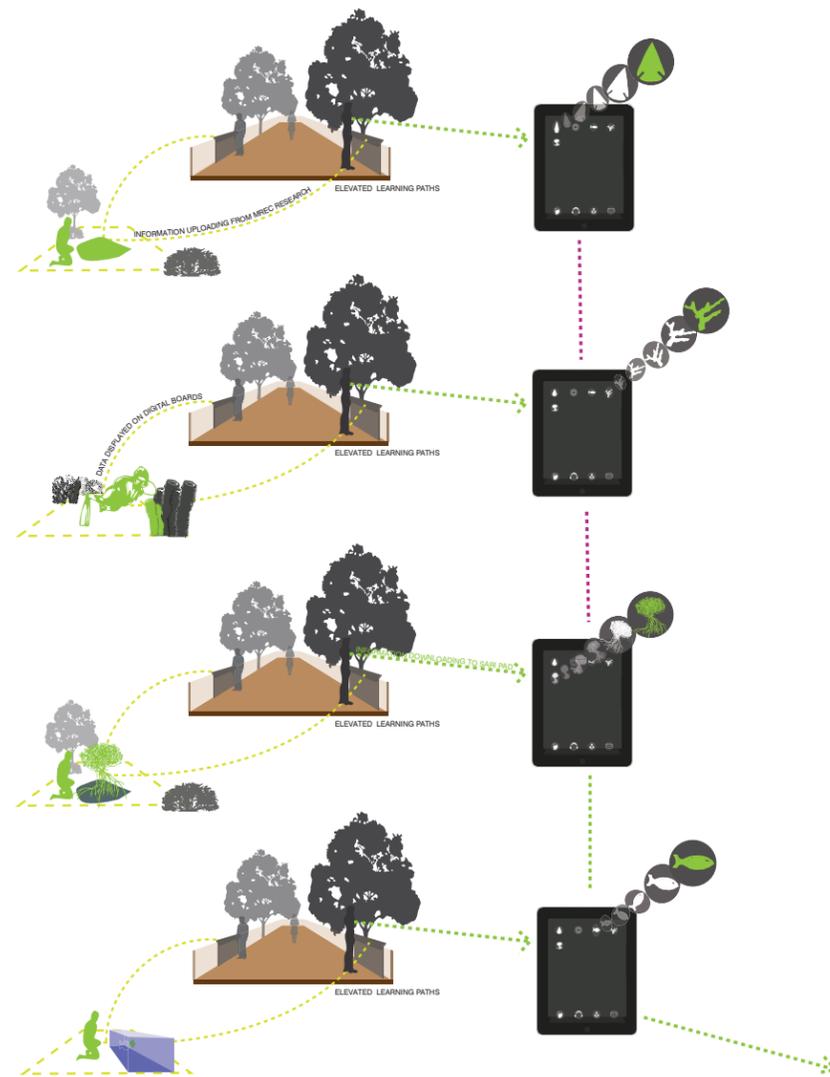


# Research, Inform & Experience

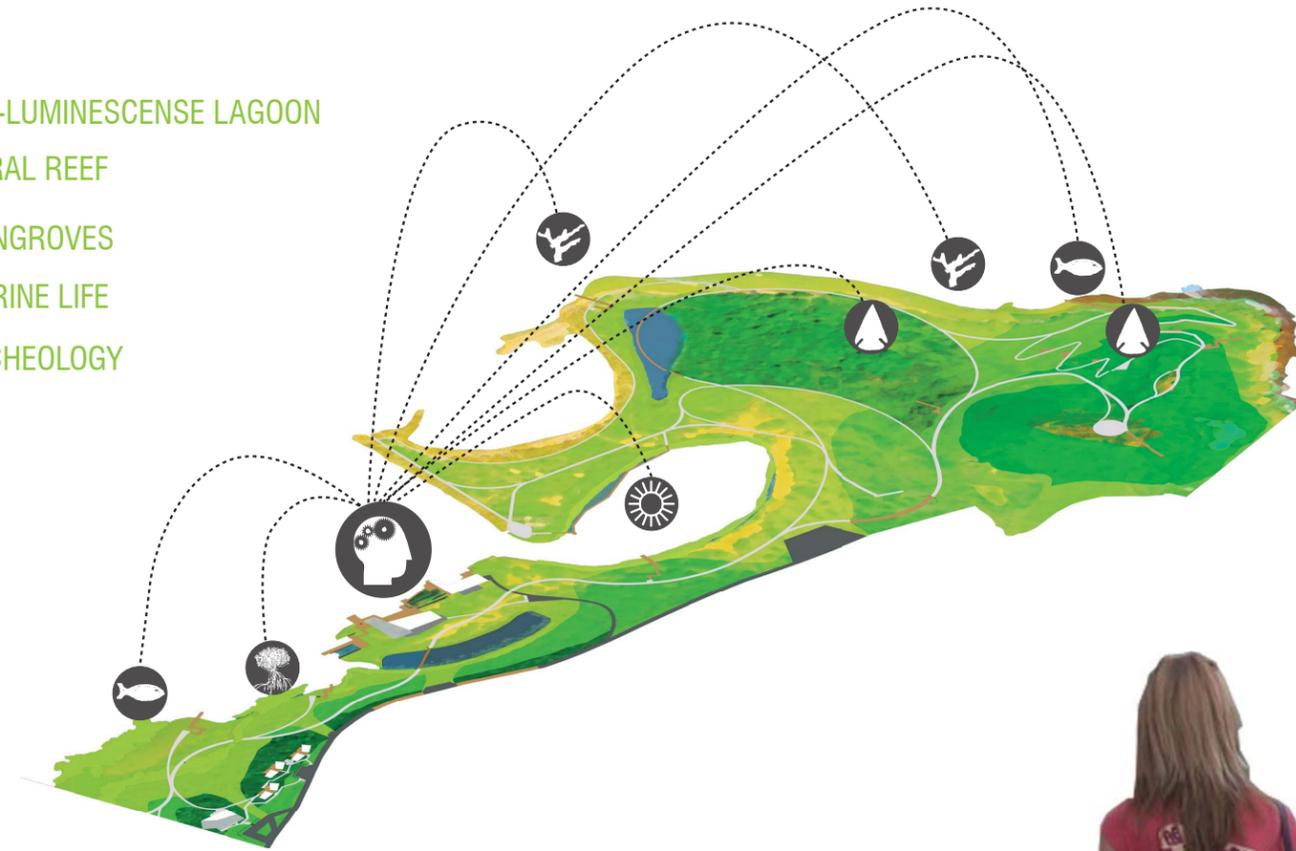
## The "SARI Pad" - Linking Visitors to the Research

Through collaboration with the marine research education center located on the salt river bay, park visitors will not only be experiencing a unique cultural environment, rich in historical context, but have access to the research and new information obtained by the students, professors and scientists that are working on the site. With the use of a "SARI pad"- a handheld device that allows the user to "connect" up with the information matrix- visitors will be able to download information images and videos of what's happening on the land and in the water while walking through the park. They will have direct access to the ecological, archeological and marine research with a simple tap of a button.

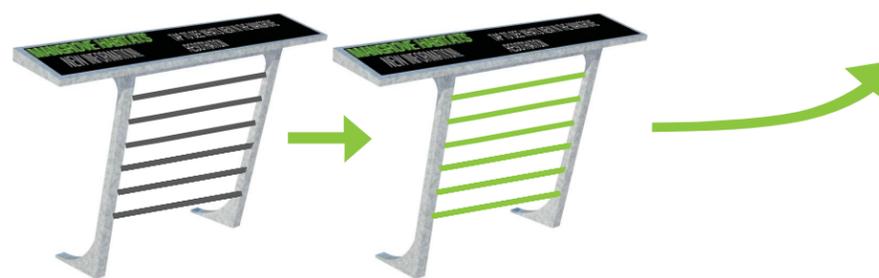
### How it Works...



- BIO-LUMINESCENCE LAGOON
- CORAL REEF
- MANGROVES
- MARINE LIFE
- ARCHEOLOGY

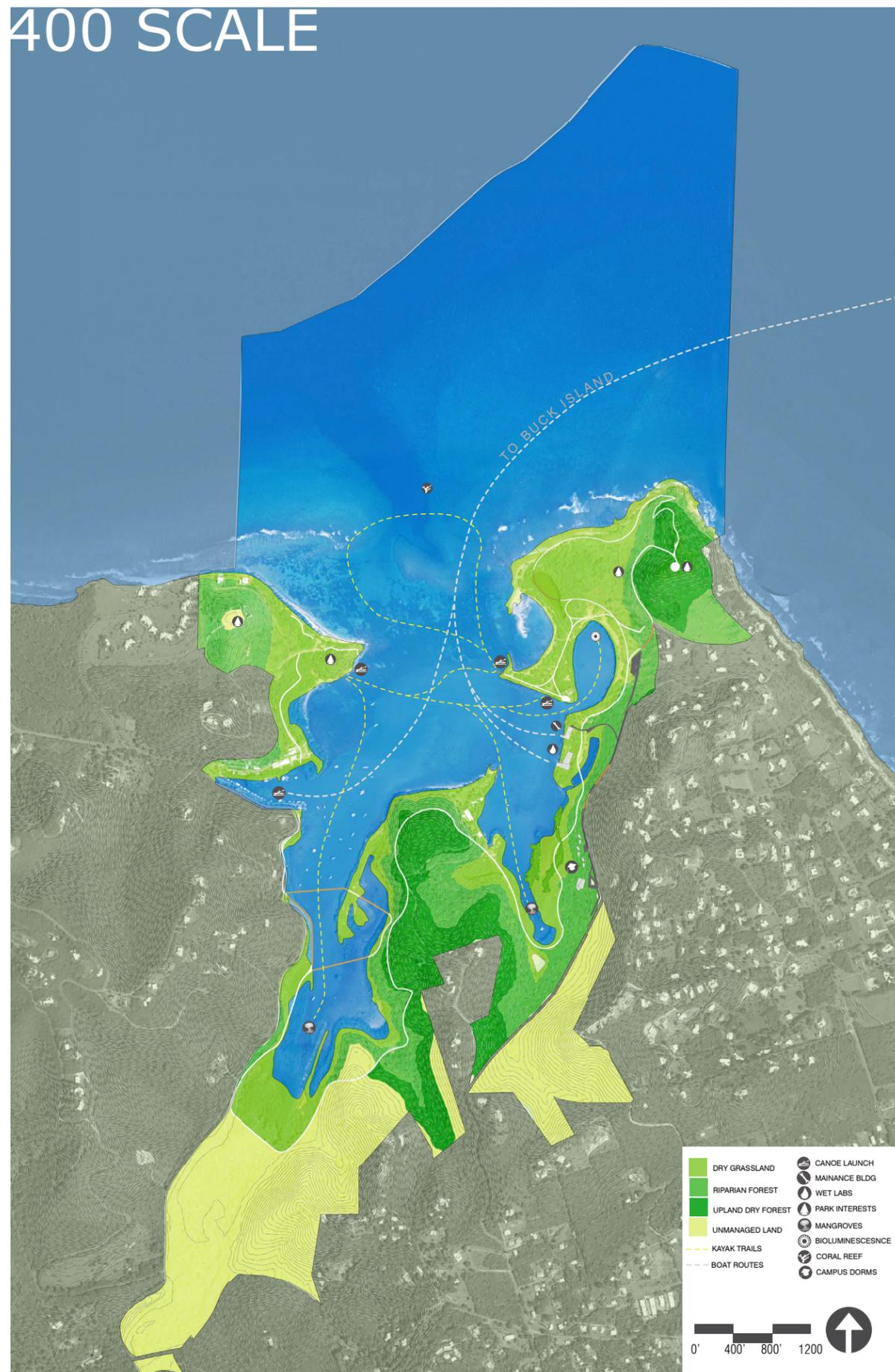


When new information is available, the LED lights will shade to green to alert the visitors



After downloading the information on the elevated learning paths the visitor can walk and gain knowledge about the site and what is happening at Salt River Bay National Historical Park and Ecological Preserve.

# 400 SCALE

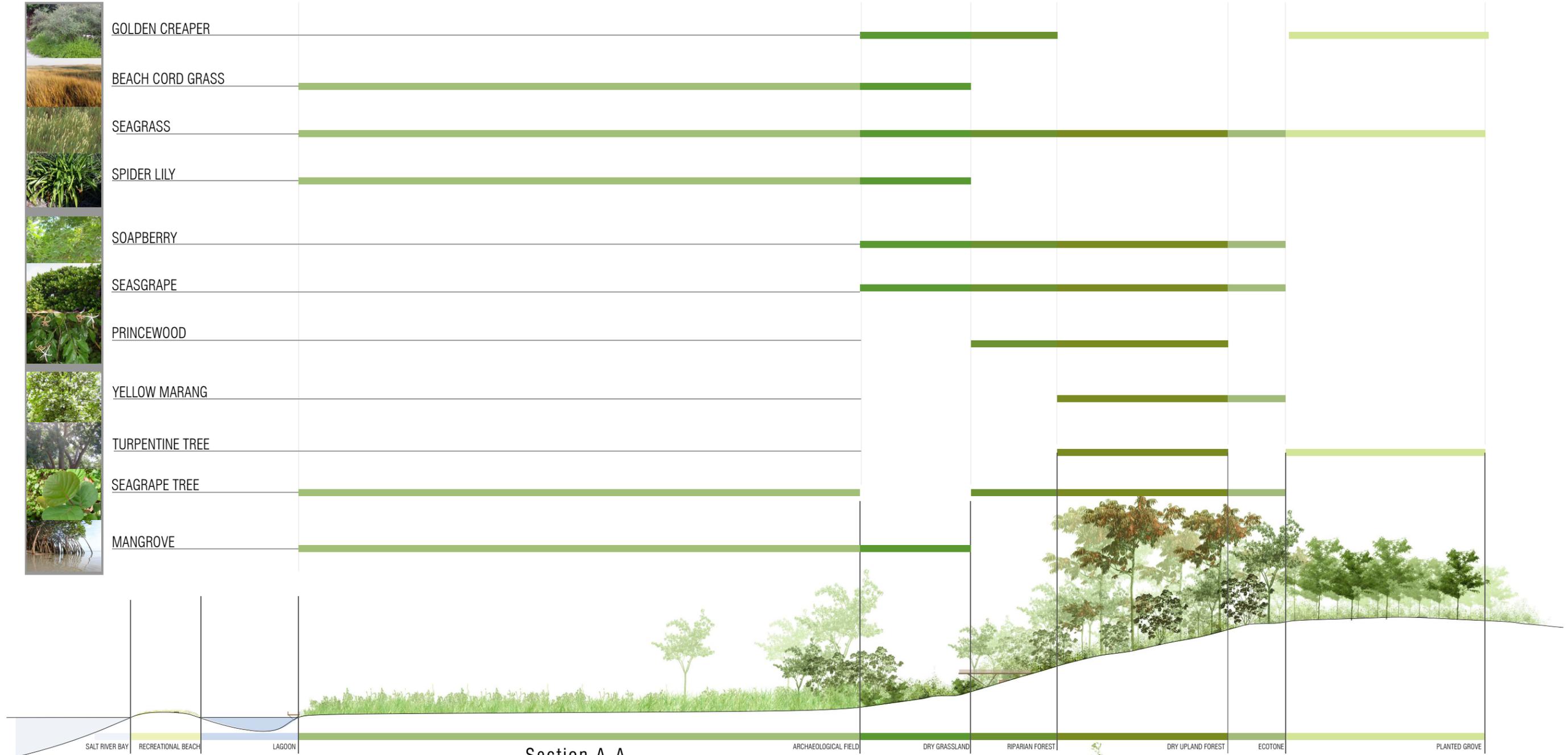


# 120 SCALE

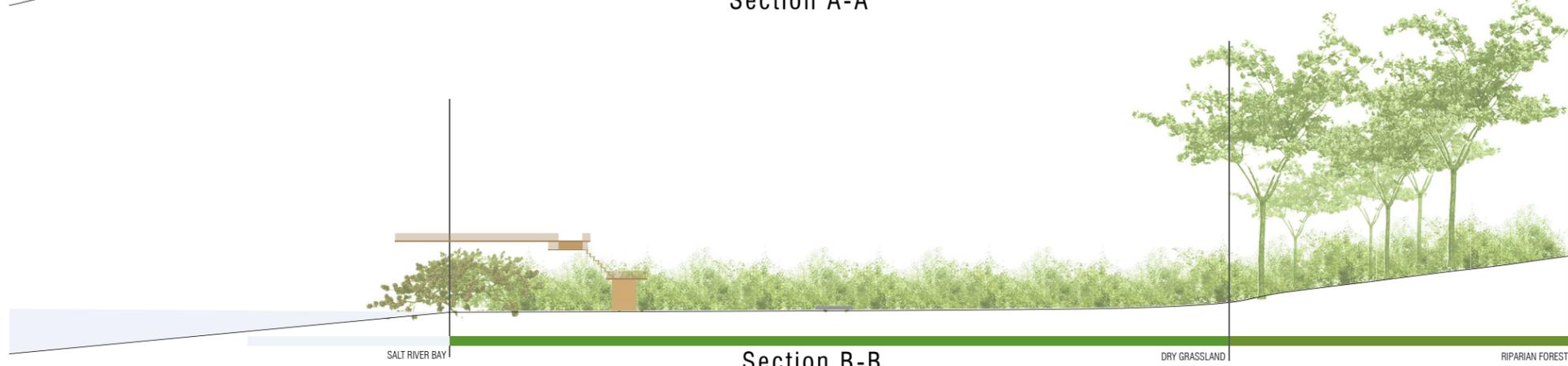




GOLDEN CREEPER  
 BEACH CORD GRASS  
 SEAGRASS  
 SPIDER LILY  
 SOAPBERRY  
 SEASGRAPE  
 PRINCEWOOD  
 YELLOW MARANG  
 TURPENTINE TREE  
 SEAGRAPE TREE  
 MANGROVE



Section A-A



Section B-B

## Eco-Zones

By creating distinct Eco-Zones the visitors can understand the importance of a diverse ecosystem. With the use of the "SARI Pad" visitors can learn and interact with the different zones and learn how they are benefiting the park.







