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manifesto

I view architecture as a framework to intensify a site, creating a more integrated solution for people and a meaning of place that has not existed before, unique to each of its social, cultural, and geographical conditions. Architecture is dynamic; it provides an aperture through which we view the overlap of emotional, psychological, physical, and sublime experiences of space.
**Project Description**

**My project will be about:**

Education & Research Center in the Outer Banks, NC.

**My project will be about:**

Creating an integrated solution for education and research, while investigating a culturally and ecologically charged hybrid project typology.

**My project will be developed because:**

Recent litigation related to offshore oil drilling has threatened North Carolina’s beautiful shoreline and biodiversity. Furthermore, the Outer Banks have seen a drop in tourism over the past few seasons. With a research and education center, regional alternatives to environmentally costly drilling can be developed, while culturally providing a destination that celebrates and elucidates the fragility and splendor of the OBX.

**Project Goals**

1. Celebrate and preserve biodiversity.
2. Encourage regional alternatives for energy in lieu of environmentally costly drilling.
3. Promote community participation in education and research opportunities.
4. Provide a beautiful node for enhanced seasonal tourism.
5. Investigate the relationship of culture and ecology through a hybrid project typology.
6. Sensibly respond to social, cultural, and physical contexts.

**Project Principles**

I. Sustainability
   Improving productivity of design and construction, enhance affordability and quality, and doing so in an ethical and aesthetically moving manner sensitive to contexts.

II. Community
   Outreach, accessibility, involvement, ownership.

III. Integration
   Strategize to achieve high performance, low energy consumption, and cost-effectiveness through ground-up consideration of program, siting, design, materials, systems, and products; collaboration.

**Project Stakeholders**

A. Researchers
B. Residents of OBX
C. Vacationers, Tourists
**parameters**

**research**
- reception: 200 sf
- computer rooms: 200 sf
- studio area: 600 sf
- indoor lab area: 900 sf
- research landscape: TBD

**education**
- teaching classrooms: 500 sf ea
- multimedia room: 1000 sf
- interactive exhibition spaces: TBD

**recreation**
- indoor fitness center: 3000 sf
- outdoor rec space: TBD

**office**
- reception: 200 sf
- administration offices (6): 150 sf each
- conference rooms: 800 sf
- kitchen/café: 500 sf
- storage: 200 sf

**miscellaneous**
- restrooms: 300 sf each
- storage: 10% of total
- outdoor space: TBD
- mechanical: % of total
- parking: % of total
- circulation: TBD

**desired qualities**

**social**

tactically adjust the site’s historic fill and preserve this area for public use by proposing a vibrant new node for community participation.

**structural**
sensibly meet the ground, through investigation and revision of historically significant structural strategies in this environmentally fluid context.

**aesthetic**

begins with an effort to achieve fitness between two entities: the form in question and its context. The form is the solution to the problem; the context defines the problem.

**performance**
define the qualitative and quantitative measures of sustainability and the data needed to implement and assess these measures for energy consciousness from project inception.

**collage**

the combination or collection of various things; a method that leads to a composition; the act of assembling various materials resulting in a cohesive whole that creates new, interpretive meaning through its connections between parts; a superimposition of layers.

**place**
develop the intersection of an architectural intervention with its surroundings, strengthening both.
jockey’s ridge

Jockey’s Ridge is the tallest active sand dune system in the Eastern United States, and the most striking of the remaining dunes on the Outer Banks. Shifting winds are constantly reshaping the dunes. Jockey’s Ridge encompasses three distinct ecological environments: Dunes, Maritime Thicket, and the Roanoke Sound Estuary. The site provides an ecologically and recreationally rich space for conducting research, and engaging the community.

the dunes

The dunes consist of three peaks and are an example of a Medano, shifting sand that lacks vegetation. No plants or animals make their home on the dune due to the harsh conditions here.

The area around the base of the dunes hosts a variety of grasses and small plants. One such plant is the American Beach Grass which anchors itself in the sand with help from its 40-foot long root system. The grasses create habitats for small animals and insects. Heavy rains sometimes create temporary pools around the base of the dunes, providing wildlife with fresh water.

maritime thicket

The maritime thicket of live oaks, persimmons, red cedar, wax myrtle, bayberry, sweet gum, red oaks, and pines grows best in areas protected by the large dune. The height of the dune provides protection from both wind and salt blown off the ocean. The effects of the wind and salt stunts the growth of trees, causing them to look like shrubs. Larger animals such as foxes, deer, and raccoon find protection in this environment.

roanoke sound estuary

The Roanoke Sound Estuary is a rich habitat for a variety of plant, animal and bird life. Cattails, sawgrass, giant cordgrass and black needlerush provide habitats for many waterfowl and serve as fish nurseries. The sound is also home to the Blue Crab, an important commercial fisheries industry in North Carolina.
Selection Criteria

- Cultural/ecological (hybrid) intensity remediation
- Positioned for community involvement
- Sited for minimal energy footprint
- Research opportunities

Recreation Opportunities

- Sand boarding
- Hand gliding
- Kite flying
- Kayaking
- Windsurfing
- Hiking

Site History

Scientists believe that the barrier islands of the Outer Banks were remnants of the last Ice Age, which ended approximately 12,000 years ago. They have also concluded that Jockey's Ridge itself came into being about 7,000 years ago. Through a process known as saltation, the sand was eventually blown onto the area now known as Jockey's Ridge where something caused it to begin building the dune system. At one time, the dunes of the Outer Banks extended all the way to the southern end of Virginia. Many mariners used the ridge as a landmark in navigation of the area for coastal exploration in the 16th century.
education
structure
research
circulation