

An aerial photograph of a tropical town. A paved road with a white crosswalk runs diagonally from the bottom left towards the center. To the right of the road is a large, rectangular, light-brown pond or reservoir. The surrounding area is filled with lush green trees, including many palm trees, and various buildings with different roof colors (red, grey, blue). In the background, more buildings and a church with a tall steeple are visible.

SAFE DESIGN PROJECT

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Cultural Design Research

Location(s): **Sierra Leone, Africa**
Bo Campus
And **Moyamba**

Design basis: Sierra Leone's design traditions reflect a blend of indigenous cultures, environmental adaptation, craftsmanship, and influences from neighboring West African societies. The country's architecture, interiors, and water-based livelihoods have evolved around tropical climate conditions, local materials, and community-centered living.

Interior Design Traditions in Sierra Leone

- **Natural Materials and Craftsmanship, heavily used**

Traditional Sierra Leonean interiors rely heavily on locally sourced materials: **Examples,** Timber from tropical forests, Bamboo and raffia palm, Woven reeds and grasses, Clay/mud plaster, Stone in some regions.

Design Elements/ Sierra Leone

Sustainable Design

- Aquaculture environments often emphasize
- Water conservation
- Natural ventilation
- Passive cooling strategies

Forms & Inspiration

- Curved forms reminiscent of fishing nets
- Layered textures inspired by woven traps and baskets
- Wave-like ceiling details

Design Characteristics

- Open-air structures that maximize ventilation
- Elevated buildings to accommodate flooding and coastal conditions
- Shaded gathering spaces
- Strong indoor-outdoor connections
- Use of weather-resistant local materials

Applying Research to Design

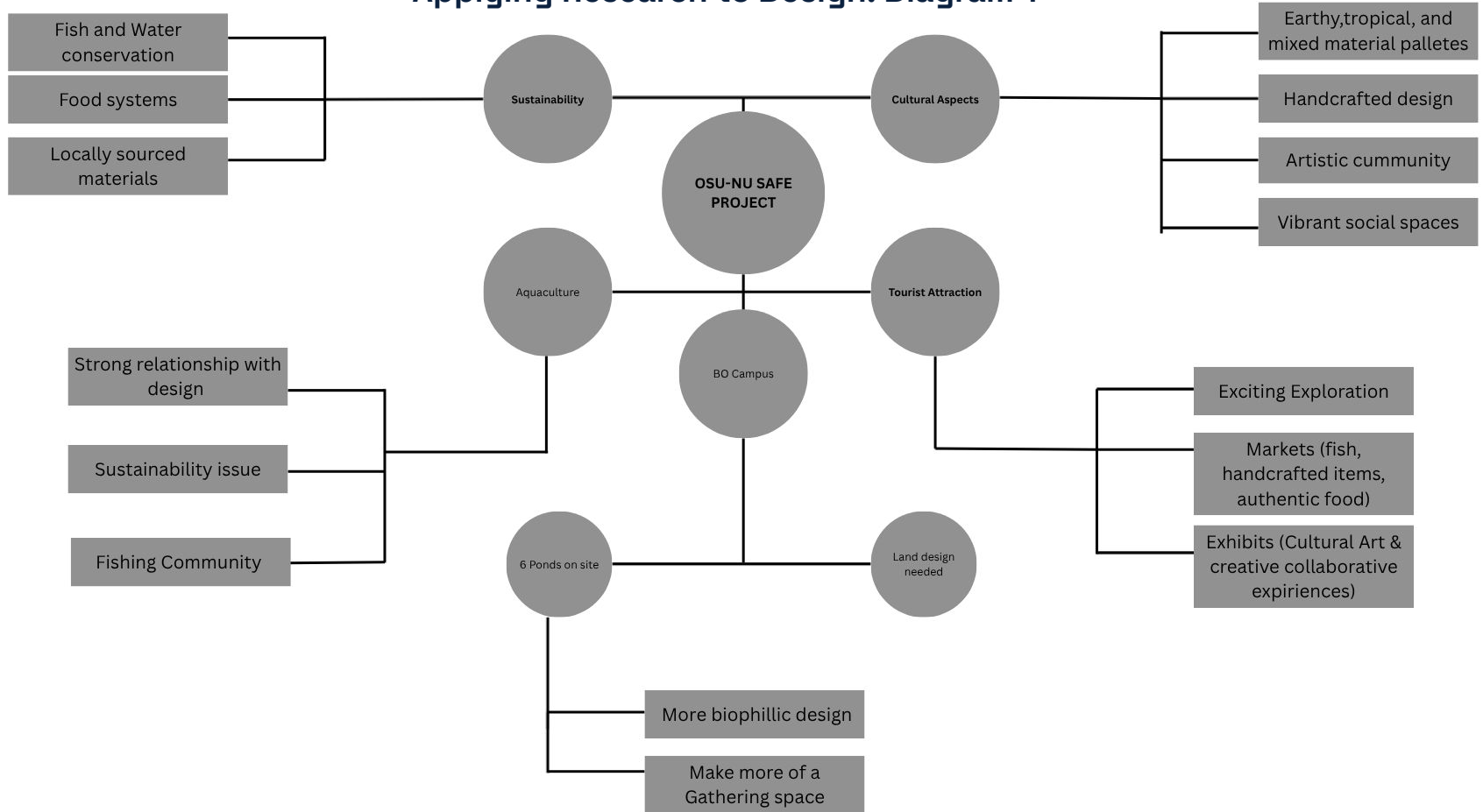
Color Palettes in this region consists of Warm browns, Clay reds, Ochres, Deep greens, Black accents, Natural wood tone.

Coastal Color palettes included below:



SIERRA LEONE - NATURAL & CULTURAL PALETTE

Applying Research to Design: Diagram 1





(Current state of ponds)



Fish Sustainability Approaches:

Pond and Tank management

Fertilization: Adding organic or inorganic fertilizers can boost natural food sources like plankton [Food and Agriculture Organization](#).

Liming: Adjusting pH to the optimal range (6.5–8.5) supports fish health [Food and Agriculture Organization](#).

Aeration: Using cascades, aerators, or mechanical devices ensures sufficient dissolved oxygen (above 5 mg/L) [Food and Agriculture Organization](#).

Water Quality Monitoring: Regularly check temperature, pH, ammonia, and turbidity to prevent stress and disease [biologyinsights.com](#)+1.

Biophilic design: Surrounding the water can increase the fish food supply, meaning the fish population can increase as well as the biophilic aesthetics added to.

Pond & Tank Design



The tourist attraction design expands the market from sport fishers to families and general tourists. Includes a walkable waterfront district built around a marina where fishing boats, restaurants, and shops all connect becoming the central hub of the fishing tourism region.



Key Design Elements:

- Adventure & Recreation Park
- Restaurants & River Design
- Fish Market + Culinary Tourism Center



Tourist Attraction/ Water Front Design

Furniture, Fixtures, & Equipment Board

Welcoming Signage



Woven, handmade.

Cultural Art



Attracting Spaces



Cultural Motifs

