Academic Project Sample

Comprehensive Studio:
New Orleans Dance Academy
4

Disaster Relief Shelter
10

(H₂O)lygrove Learning Garden
14

Architectural and Figure Drawing
18

email: djshepard.6h@gmail.com
phone: 571.730.7150
website: www.dorothyshepard.com
Inspired by the dance choreography of William Forsythe, the New Orleans Dance Academy creates a spectator experience of compression/expansion, push/pull to focus emphasis on performance spaces. For dancers, the building establishes a sense of repetition, as the backbone for practice, through the five tower studios. The public facade responds to both the historical context of the Warehouse District and the dynamic activity within.

Building systems consist of a steel post-and-beam structure, decentralized outdoor air mechanical system, green roofs with water collection, and solar thermal water heating. The alternating solid metal and mesh facade panels, resolve the need for blocking and filtering solar radiation, while allowing cross ventilation. Requirements for ADA accessibility and life safety are also addressed in the building design.
TYPE OF PROJECT:
Academic
Individual
Studio Wayne Troyer
Spring 2013

LOCATION:
Warehouse District,
New Orleans, LA

SITE CONTEXT:
Located near the French Quarter, the Warehouse District has recently experienced significant amounts of rehabilitation of the former industrial sites for programs such as multi-family housing and commerce.
HVAC: DOAS and Solar Thermal

**Return Air**
Recycled by Air Handler
Exhausted through vertical chase

**Air Handlers**
Decentralized per level and zones
VAV boxes control temp locally
CO2 monitors control air flow

Environmental Design and Thermal Comfort

SOLAR THERMAL
is utilized in the blank party wall facade to heat water used in dressing rooms and the cafe kitchen.

SOLAR HEAT GAIN
is mitigated by a layering of solid and mesh panels on the facades of the tower, allowing a large degree of daylighting and views out.

RAINWATER MANAGEMENT
is provided by intensive green roofs on 60% of the building’s roof planes.

FRESH COOL AIR
is ducted to the center of the studios in the area of highest activity.

WARM AIR
is drawn through the studio via cross ventilation to create a warmer temperature in areas of inactivity.
Studio reCOVER endeavored to design and build a prototype 12’x24’ disaster relief shelter that is both socially and environmentally conscious. The structure is a modular kit of parts requiring few tools for assembly. The roof is designed to shade from the sun & utilize prevailing winds to reduce solar heat gain. Clerestory windows are installed in certain wall panels to create air flow through the interior space.

The wall system is based on a flexible plug and play concept which employs a standard 4’x8’ wall panel as well as “programmed panels” designated for amenities (i.e. storage, sleeping, water, electricity). As part of a four-person team, I helped design the “programmed panels” and subsequently built a storage and a window panel for the full scale model of the shelter.
TYPE OF PROJECT:
Academic
Collaborative
Studio Anselmo Canfora
Spring 2009

LOCATION:
Pearlington, Mississippi

SITE CONTEXT:
The Gulf Coast is humid, hot, and prone to natural disaster.
Our scheme re-imagines the existing vacant land of the green line as an interactive and didactic experience using the scale of the shotgun typology as a base point. The linear site is a learning journey focused on issues of water management at the level of the individual residential unit. As visitors pass through the green line, resting points are found, each with a teaching point designed to emulate an aspect of the shotgun home and serve as a demonstration for ways in which these principles can be mimicked. In the center of this experience, the “ghosted” image of a shotgun structure serves as an outdoor classroom space to host educational tour groups, as well as a flexible event space.
TYPE OF PROJECT:
Academic
Collaborative
Studio Judith Kinnard
Fall 2012

LOCATION:
Hollygrove Neighborhood, New Orleans, LA

SITE CONTEXT:
The Hollygrove Greenline was formerly a railroad track that cut diagonally through blocks in the neighborhood. All of the tracks have been removed and the land has been planted with grass.
Entrance on Leonidas St

Visitors are first introduced to the concept of a rain garden. Bioswales on both sides of the site are used to move water to the rain garden, which is planted with native wetland species. Visitors learn about techniques for water collection and irrigation in the tree farm. Saplings will be grown on the site and transplanted strategically around the city to address a need for shade.

Outdoor Classroom and Event Pavilion

A demonstration wall illustrates how landscape techniques can protect the home from water. Adjacent is the “deconstructed shotgun”, which serves as a classroom and event space. The back wall has been replaced with a perforated green trellis that will provide shade in the summer and allow views into the bioswale below.
Demonstration Garden and Playspace

The path continues across the street to a small park and urban farm, intended for use by the immediate community.
The images in the left column represent on-site sketch work from the Syracuse University 3 Cities Studio, which is an architecture study abroad in Italy, England, and the Netherlands. The images in the right column represent work from a free hand drawing course focusing on representation of the human form.

On the following page are process hand sketches and a sketch overlay generated during the Carrollton River Center project at Tulane University.
Type of Project: Academic Independent Drawing Courses Summer 2008, Fall 2008, and Fall 2013

Location: Italy, UVA Architecture, and Tulane Architecture