



a collaboration designed by
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SCAD Design for Sustainability
M.A. Final Project
Fall 2011

DESIGNability

an education co-op

2011-2012

Universally Designed Apprenticeship

The Place Based Learning Advantage

DESIGNability emphasizes learning through participation with projects focused on sustainable solutions. Youth of special populations will experience a hands-on approach during the design and build of each project, while creating a larger pattern of solutions for the complex environmental challenges we face.

By identifying the needs of Savannah's community as potential DESIGNability projects, service learning participation is also expanded for the students. This community involvement and collaboration also immerses each student within their local heritage and cultural landscapes.

On-site work hours can range per project based week, however federal rules recommend apprentices complete at least 144 hours of related instruction per calendar year.

Agriculture

Seed, create and harvest.
Nutrition, slow food and market produce.

Construction

Reclaim, educate and hands on.
Restore, environmental and build.

Artisan

Design, dream and possibilities.
Empowerment, re-use and creation.

[re-Framing] CONSTRUCTION

The building environment has become an important addition to our natural habitat. As humans, we spend around 80% of our time within these structures and yet we commonly construct those environments by using finite resources and toxic finishes. As our human population increases, so will the demand for these spaces. This is where a change construction practices is needed to secure our healthy survival. It has the possibilities to create sustainable shelters, an industry of employment and efficient use of our natural resources.

The construction industry is a valuable career opportunity for those of the disabled population. Low labor task jobs, carpentry, building retrofitting, construction efficiency and reclamation of materials are entities of the emerging green industry that will only continue to grow. The training of a work force should be implemented with the current youth population to ensure a meaningful and healthy lifestyle change.

[re-Framing] ARTISAN

The industry of Artisan can range from crafts, furniture, tools, products, art, clothing and even the act of preparing food. It is a limitless field of creativity influenced by one's heritage and sense of place. For many, it is representative of a location's culture and items created can become a symbolic representation.

Savannah has a unique population of artists and craftsmen that have become a great source for training opportunities. A new apprenticeship focused on sustainable materials found within the local environment while coupling with practices of trade revival, has the opportunity for job creation in an emerging field of that will encourage heritage and resource conservation simultaneously.



The Savannah High School Greenhouse

What they are up to?

Savannah High School incorporates agriculture within the special education curriculum at their school. The current job coach, Willie Mobley, educates the students in simple farming techniques that will grow produce and landscaping plant life. He has been facilitating this program for the last two years and sees great potential to expand the farming project within an urban context for exposure, community involvement, new training opportunities and additional participation with multiple education programs.

Apprenticeship Outline

- The calendar school year reflects seasonal produce production.
- Continual educational opportunities are available with maintaining: farm grounds, compost bin, manure supply, irrigation system and harvest of ripened produce.
- The Forsyth Farmer's Market and additional retail opportunities will expose student's to the prosperous side of agriculture for education programs.



[re-Framing] AGRICULTURE

Savannah has a long history of local agriculture production, but just as other crafts or slow trades began to fade as market demands increased, so did the farming industry. Our fast paced lives and emerging food technologies enabled a disconnect to occur between human and food. However, current trends, arising health concerns and nutrition awareness have become the vehicle of change for dormant agriculture re-sourcing.

Which leads to the ultimate question of How? How will we innovate past techniques to meet the high demand of future needs for healthy, sustainable farming options?

Through open collaboration, community re-sourcing and participatory design techniques, these wicked problems can be identified and solved through sustainable patterns.



Projects Completed Fall 2011 [AGRICULTURE] [CONSTRUCTION] [ARTISAN]

Pilot Program

During the months of August - November 2011, the pilot program for DESIGNability has been underway. This trial period has proved successful in meaningful hands-on skill based practices and exposure to resource efficiency. The collaborative environment enables creative solution thinking and diverse opportunity.

Partnerships

We would like to thank the following schools, businesses and mentors that have created positive partnerships:

- **Schools:**

- Savannah High School
- Coastal Georgia Comp Academy

- **Educators:**

- Willie Mobley
- Jillianne Banks
- Melinda Miller
- Robin Nixon

- **Businesses:**

- Southern Pine Company
- RK Construction
- Wooden Sheep

- **Mentors:**

- Eric Hallworth: Wooden Sheep
- Joel Cothran: Artist
- Danya Ahmed: Graduate Student
- Meagan Hodge: Designer

Completed Projects

- **Urban Gardening**

Site reclamation at The Old Star Laundry location included material reclamation, recycling of wood, brick and concrete debris. Students were involved in valuable material assessment and the installation of our "bathtub greens", the first phase of the urban garden on site.

- **Farm Table**

3' x 7' table was designed and built using simple construction, reclaimed heart pine, dumpster lumber and a sustainable wax finish

- **Emergent Structures**

Collaboration with Joel Cothran and student, Justin Frazier, for a paid commission to trim and cut reclaimed lumber for an outdoor Pergola classroom

- **The Butcher Gallery**

Wooden Sheep's custom design of a clever cutting board allowed students to gain experience in material preparation and assembly (glue and clamp).



Images on page clockwise from top left: Savannah High students Josh, Justin and David prep the site; Bath Tub Greens; Above ground bamboo woven planter involving Bamboo Gardens and designer Danya Ahmed; "Before" of garden area; "After" bath tub greens; ; Final boards during dry time; Cutting board assembly; Denailed material for cutting board project



Images on page clockwise from top left: Savannah High student Justin Frazier and Eric Hallworth reviewing reclaimed material; Joel Cothran and Justin Frazier shown prepping reclaimed pine for Emergent Structures; Finished cut project for Emergent Structures; Completed Farm table; Student Justin Frazier applying Brimwax coating on farm table; Eric Hallworth demonstrating precise cutting techniques for farm table legs; Student Justin Frazier and Eric Hallworth use nail gun for simple construction of Farm table frame



What are they up to?

Southern Pine Company is a wholesale wood manufacturing company focusing on the reclamation of historical and valuable construction material. Items, otherwise deemed as waste, go through a reclamation process to prepare them for a new life. By focusing on a material's full life cycle, maximum potential is gained by re-using the items in a cyclical system.

- Stock Materials range from old growth heart pine, river recovered lumber, architectural salvaged barn wood, window sash, mantel adornment, stone, Savannah grey brick, iron work. etc.
- Un-salvageable wood items can be processed through a grinder resulting in a mulch product for production of biomass by a local

- company
- Brick and concrete remnants can also be used as aggregate material for new concrete installations

Apprenticeship Opportunity

- Job opportunity for the disabled population range from low labor reclamation techniques to final material installation
- This is a great opportunity for the youth of Chatham county to have a hands-on experience with adaptive reuse of local historical materials and become educated on the importance of resource efficiency and environmental stewardship



RK Construction & Development

What are they up to?

Revitalization of the built environment enabled this company to restore, salvage and save buildings from demolition over the last 20 years. RK Construction has come full circle within the Historic Preservation industry of Savannah and now expose sustainable building techniques to all clients.

- Projects range from residential homes, commercial retail spaces, municipal buildings and educational facilities. Their experience in reclamation and building, with deconstruction at the heart of the design, is an invaluable asset to the youth of Chatham County.

Apprenticeship Opportunity

- Special education youth involved in this apprenticeship will gain work based experience within the production shop as well as on present job sites.
- Skill based experience includes:
 - Material assessment
 - Carpentry and construction
 - Material toxicity awareness
 - Reclamation techniques
 - Job site etiquette
 - Trade skill knowledge



What are they up to?

Located at the heart of Savannah's Downtown Design District, The Wooden Sheep is a company committed to promoting sustainability for life. Using the 3 essentials for eco-friendly living: re-using materials, using only environmentally conscious materials, and translating these ideals into every day life, Architecture Masters and owners, Eric Hallworth and Ben Mattern, have been able to create an entirely handcrafted atmosphere.

- The retail gallery located in downtown

Savannah, exposes local work produced by artists, creatives and collaborators that share passions for adaptively reusing materials to produce a high end product. The space also serves as a collaborative think tank to share ideas, experiences and materials.

- Their production shop is located in Eastside Savannah within an urban neighborhood at the Old Star Laundry site. Within their space, lives a library of material for repurposing as well as experimental craft tools, machinery and products. As a new business, Wooden Sheep remains open to collaboration and the exchange of knowledge to increase exposure amongst multiple markets.

Apprenticeship Opportunity

- Part owner, Eric Hallworth and Artist, Joel Cothran have been acting as mentors for the trial phases of the apprenticeship.



Identifying Partnerships: growing community

- **S.U.G.A: Savannah Urban Garden Alliance: www.sugacentral.org**
SUGA is cultivating a gardening movement in Savannah communities through outreach and education. Through their urban locations, they expose neighborhoods to sustainable agriculture techniques.
- **Healthy Savannah: www.healthysavannah.org**
Increase community opportunities and access to activities that encourage a healthy lifestyle. Health related activities like gardening, nutrition and cooking are promoted through their programs.
- **Harambee House: theharambeehouse.com**
Is a non-profit organization taking action on arising concerns of health, poverty and education. The Harambee Farms project is a farming initiative transforming urban space into productive gardens.
- **SoGreen Network: www.sogreennetwork.org**
A local grass-roots non-profit that focusing on agriculture and forestry and the role that under-served farmers and landowner in these industries play in creating a green agenda specifically in the Southeast.