A TRAC-Oxfam-SIGUS/ MIT collaboration toward ***'Sustainable Housing on the Bayous'***. This project is a part of an initiative to rebuild homes destroyed by Hurricanes Rita and Katrina on the bayous of southern Louisiana, and to protect against future hurricane challenges. A broad range of interventions are considered: rebuilding and repair, outreach and training, and regulatory processes, for the formal and informal construction sectors.

Occasional Working Papers

Design-Build Research:
VOLUNTEER VILLAGE SITE PLANNING RECOMMENDATIONS AND GARDEN TRELLIS WALKWAY PROPOSAL

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A report from the SIGUS design-build workshop 'Sweat! Design! Build! in January 2007 led by Zachary Lamb, focused on practical solutions in the hurricane prone bayou communities.

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An initiative of TRAC, OXFAM AMERICA, and SIGUS-MIT made possible with the generous support of donors throughout the United States. To contribute funds or volunteer for the construction of the Lift Houses, go to: http://www.trac4la.com/ . *For more information:* TRAC - www.trac4la.com - *pegcase@trac4la.com* | SIGUS-MIT - web.mit.edu/sigus - *sigus@mit.edu* | OXFAM AMERICA - www.oxfamamerica.org/gulfcoast - *info@oxfamamerica.org*

SITE PLANNING AND GARDEN TRELLIS WALKWAY

Recommendations for the PDA 'Good Earth Village'
Houma, Louisiana

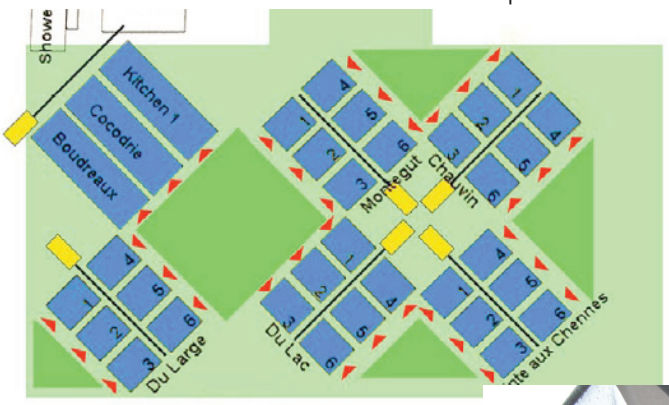
Guidelines for villages were developed around the following key considerations:

- Consider circulation for both pedestrians and vehicles
- Be aware of 'adjacencies:' noise and privacy
- Stress a sense of community

The design of a garden trellis walkway system had the following goals:

- Encourage a sense of community by creating a trellis/garden to create public space
- Provide a space for shade, seating, meeting and waiting, a space where people would want to spend time
- Use local natural materials

Site plan recommendation



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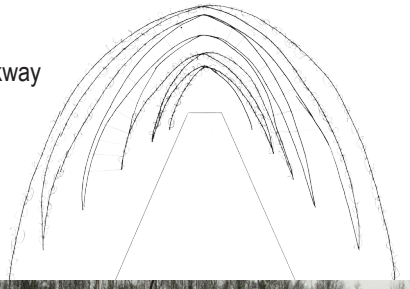
Garden Trellis Walkway



A project of the SIGUS design-build workshop 'Sweat! Design! Build!' in January 2007 focused on practical solutions in the hurricanes area of the bayou communities.

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INTRODUCTION

In the wake of hurricanes Katrina and Rita, Presbyterian Disaster Assistance (PDA) established six Volunteer Villages along the Gulf Coast (four in Mississippi and two in Louisiana) to provide housing for volunteer teams working in areas devastated by the storms. Originally, the villages were envisioned as lodging for disaster response teams, with a focus on ease of set-up/break down for advance teams of 5-7 volunteers. PDA's efforts are now being directed towards longer-term needs, moving beyond basic clean-up and rebuilding, to working with locals to restore a sense of normalcy to the region. The tent cities have become semi-permanent fixtures in their communities, and with an estimated life of at least three more years, further thought should be given to village planning considerations.

The Good Earth Village in Houma, Louisiana will serve as a basis for recommendations for 1) developing guidelines for future village set-up and 2) improving existing village configurations.

The first section in this report address how the current Good Earth Village configuration could be changed to increase usable open space and create more communal areas. In our brainstorming process, we took the primary village components (see building blocks on following page) and rearranged them with the following series of considerations in mind.

In a second section the construction of a walkway trellis is detailed. It adds an element of greenery to the village and seeks to add to the sense of community by creating a destination for meeting or hanging out on one of the central walkways.

Currently, the Good Earth Village is working with the Elks to construct a permanent building near the vehicular entrance to the village. The dining pavilion will move into the new space, which will also house the kitchen and indoor bathrooms. As a result of this new structure, several changes will occur in the village.

1. The current dining pavilion will transition into being a storage tent and auxiliary meeting space.
2. The office will move into the outdoor kitchen shed, the old office may be transferred to another village.
3. All but four of the 'Porta-potties' will be removed.
4. The new, smaller footprint occupied by the remaining 'Port-a-potties' will result in the shortening of the vehicular road and the addition of public open space.
5. In addition, the new building will most likely become the new focal point of the village, creating a gateway that is currently missing.

The Good Earth Village will continue to evolve in both its mission and physical form. As these changes occur, facilitating connections between volunteers and the local community will continue to be at the heart of PDA's purpose. Thoughtfulness and consideration of the physical layout of the village can help to bring volunteers together and enhance their experience on an aesthetic and spiritual level.

VOLUNTEER VILLAGE SITE PLANNING RECOMMENDATIONS

Considerations/Guidelines for Site

The focus is on three key areas:

• Circulation

o Pedestrian: Think about the access to community amenities such as the dining pavilion, and high frequency pathways, such as those between the pods, the bathroom facilities and the sinks.

o Vehicular: Minimize vehicular roads. The dumpster and the 'Porta-potties' need to be located near vehicular roads to be serviced. Careful placement of these components will reduce the space allocated for vehicular traffic, increasing usable open space.

• Adjacencies

o Noise: Be aware of components that are noise-generators, such as the dining pavilion and kitchen, and do not place them next to noise-sensitive components, such as the pods. Use passive uses like storage tents to buffer between these conflicting uses.

o Privacy: Place amenities that require a higher level of privacy, such as the showers, away from the village center and highly trafficked pathways.

• Sense of community:

Carve out spaces, large and small, formal and informal, where people can congregate.

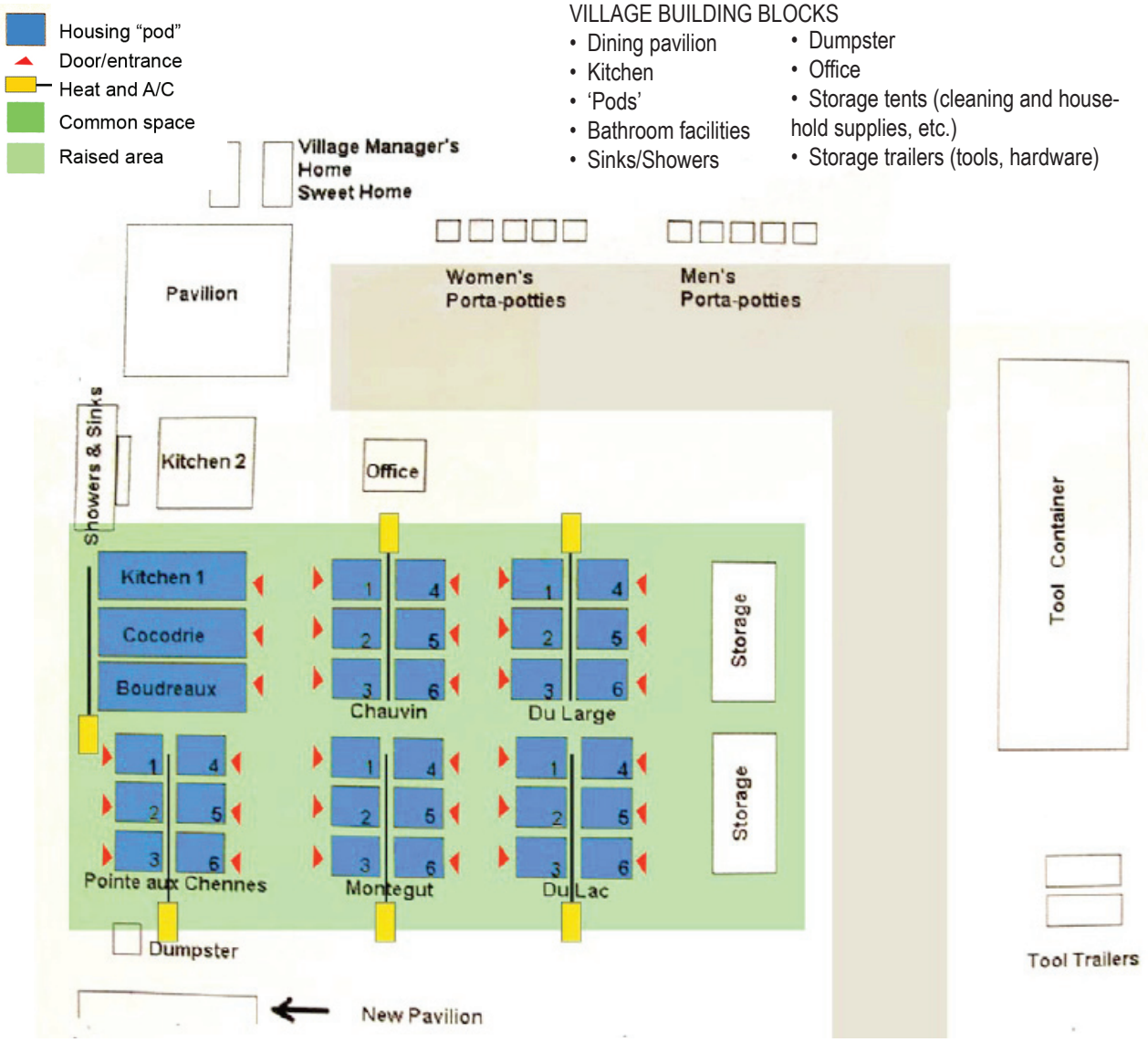
The Existing Site Layout

The form of the Good Earth Village, and presumably the other PDA villages along the Gulf Coast, consists of a basic arrangement of housing "pod" clusters. Each cluster includes six pods, arranged in two rows with heat and air conditioning ducts running down the middle between rows. The fronts of the pods face out, and raised wooden walkways connect the doors. The clusters are arranged in rows in a simple grid, which is constrained overall by a limited area of dry raised land. Within a few feet of the housing area's perimeter, the lower ground is frequently flooded and muddy, and is not suitable for pods.

Even with the confined raised area and basic cluster concept taken as starting points, a variety of pod cluster arrangements are possible. One significant shortcoming of the existing layout is the lack of any significant common outdoor space, with the heart of the camp filled by pods and walkways. Arranging the clusters in more creative ways could provide much-desired common areas and garden space, as well as a more varied and comfortable Village plan.

VILLAGE BUILDING BLOCKS

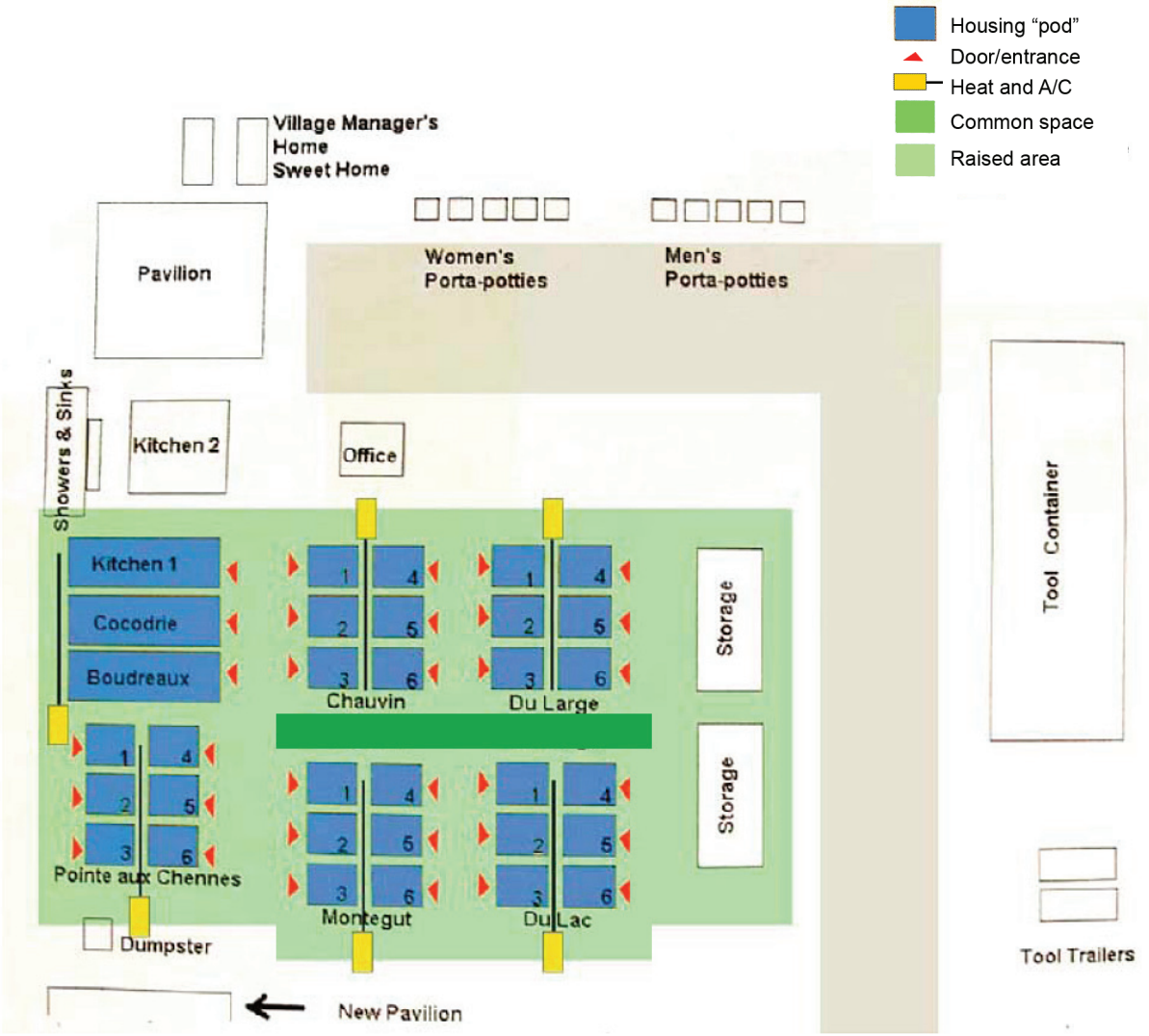
- Dining pavilion
- Kitchen
- 'Pods'
- Bathroom facilities
- Sinks/Showers
- Dumpster
- Office
- Storage tents (cleaning and household supplies, etc.)
- Storage trailers (tools, hardware)



Existing Good Earth Village Plan

A Simple Modification of the Plan

A intermediate modification that could be easily undertaken is shown below. The walkway between the Chauvin and DuLarge pods and the Montegut and DuLac pods is widened to create a grander pathway and a village center. The construction of a simple structure (see Walkway Trellis, following) could help to demarcate the space as a meeting point or create a place to hang out, shaded from the elements. The opening up of the space and a greater definition of the area would both contribute to a greater sense of community.

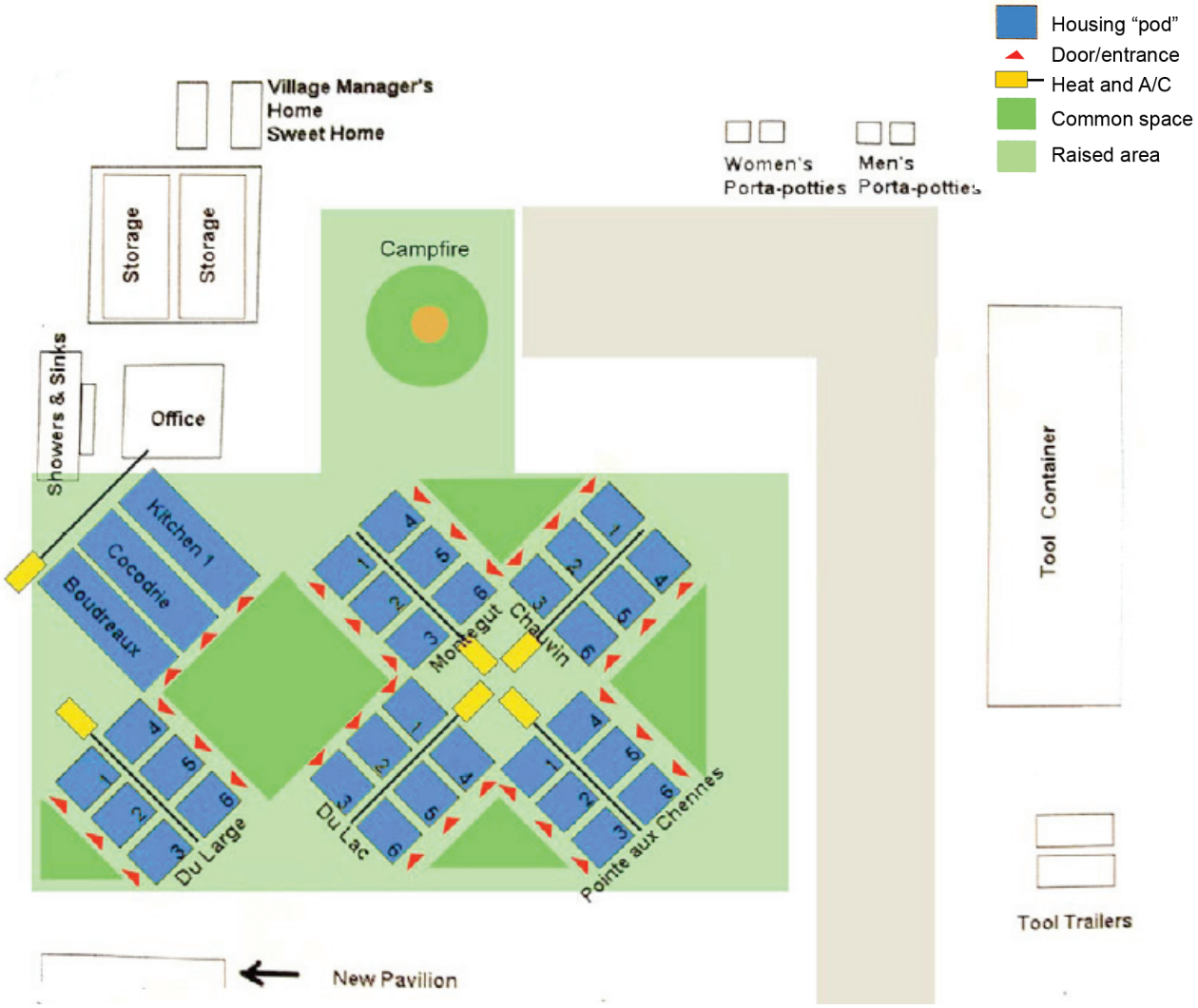


Proposed Good Earth Village - 1

A more ambitious modification of the plan

Another more ambitious example is shown in the diagram below, in which the clusters and pod entrances create a series of smaller common areas. This arrangement relieves the barracks-like feeling of the current Village, and provides opportunities for a variety of spaces in the same area. Such a layout would allow different volunteer groups within the camp to use the space in unique ways, and offers practical advantages such as the consolidation and screening of the heat and air conditioning units. This proposed plan incorporates PDA's future plans for the village, detailed at the end of this report.

The Good Earth Village itself is already established, and will probably not be significantly altered or expanded in its remaining period of operation. However, PDA will likely build other volunteer villages in the coming years, and these recommendations could be used to inform those camp designs.

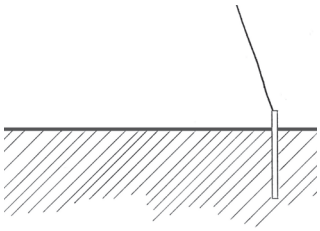


Proposed Good Earth Village - 2

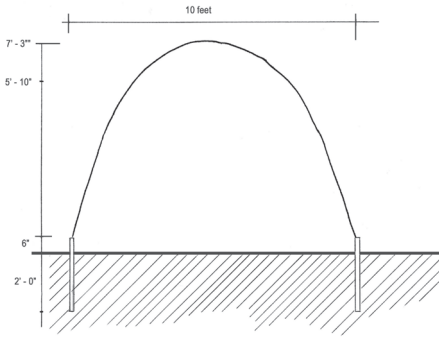
THE GARDEN TRELLIS WALKWAY

Introduction

In an attempt to create a sense of community in the Good Earth Village, we came up with the idea of creating a garden/ trellis area as a public space. A garden/trellis area would create a public space that allows for shade, seating, meeting and waiting – essentially a place for people to convene or relax, out of the sun, that would also add to the aesthetic quality of the village. We mapped out a structure, that when covered with climbing vines, would create a shaded tunnel where plants, flowers, and other objects could line the walkway to create a space in which people would want to spend time.



Perspective View

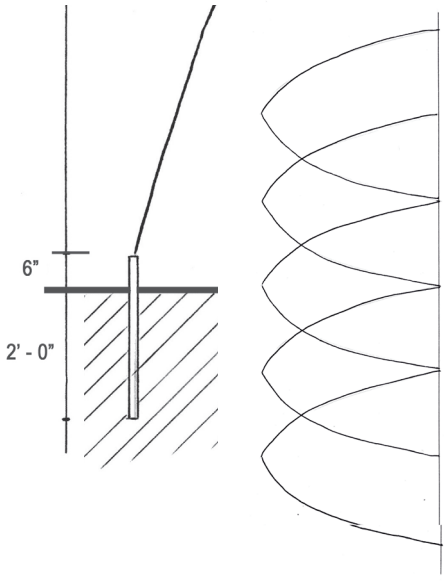


Elevation

Process

To create our garden/trellis area, we first mapped out the tunnel like structure we wanted to create. We deduced that three main sections, 7 feet long and 10 feet wide would create the most usable space. The PVC pipe was cut into 2.5' lengths and hammered into the ground every place an arch would touch the ground. We drove the pipes into the ground 2' leaving 6" above ground to attach the conduit arch to. We made sure to remove the dirt from the pipe as we drove it into the ground to allow space for the pipe. The PVC conduit was slotted together to form the arches (each arch being 2.5 lengths of PVC conduit). The arches were slotted into the pipe in the ground and attached to the pipe with 2 zip ties. Lastly, the arches were zip tied together at the peak (7'3" from the ground) as well as where they crossed at the side of the structure (5'10" from the ground).

Once the structure was assembled, we began thinking about ornamentation. We learned it would take 2 to 3 years for climbing vines to completely cover the structure so temporary ornamentation was deemed necessary. To allow for a shaded area while waiting for the vines to grow, we attached fabric between two arches. The fabric spans the arch and provides not only shade, but protection from the rain. In an attempt to tie the manmade materials to nature, we then wove a series of sticks and branches between two more arches.



Top View

Side View

Driving the PVC pipe into the ground

Testing the first arch for vertical clearance

Assembling the arches

Attaching the PVC pipe and conduit together with zip ties

Beginning stages of ornamentation

Detail of arch base with zip tie attachment of PVC pieces and wood ornamentation

Assembly of fabric ornamentation

Detail of completed ornamentation

Fixing fabric to frame

Future Steps

To continue to improve the garden/trellis area, there are many things that could be added to the structure. The issue of seating could be addressed through purchasing chairs and benches or creating a type of seat comprised of similar materials. Also, the addition of planters for flowers and the climbing vines to grow in would add to the area. Ideally, the planters would be old bathtubs, sinks and boats. The aesthetic of the Louisiana bayou is a very eclectic compilation of found objects and hand made art, bits and pieces of local flair. The idea would be that the garden/trellis could be added to by whoever is able to find something beautiful.

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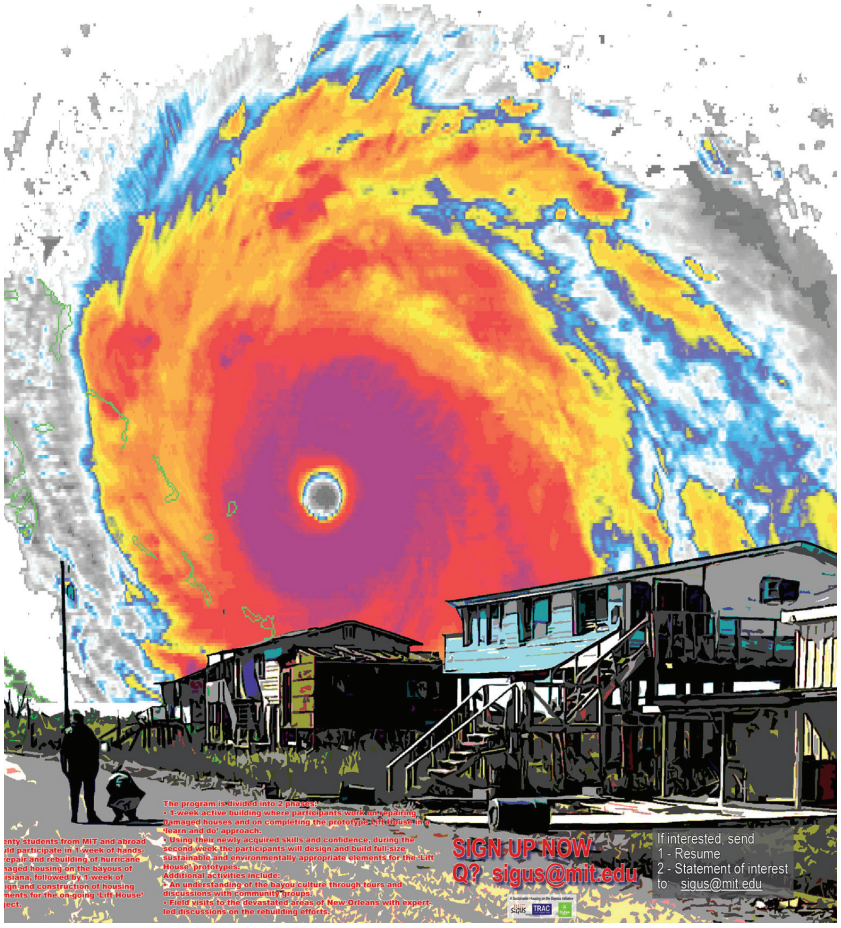

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