

11.945 Spring 2006
Katrina Practicum

Session 5: Dan Etheridge, Environmental History

Professional Background:

- Coastal environmental management
- Working in the Mississippi Delta for 4 years
- Interested in the convergence of social problems with environmental issues
- From Australia

Tulane City Center:

- A new center that developed out of the School of Architecture
- It acts as the community outreach arm of the design school
- It is coordinating rebuilding efforts all over the city
 - o Linking people with energy and resources to community partners

Environmental History of New Orleans

- The city is in the middle of the Mississippi Delta
 - o The land is some of the youngest on the continent (about 5-6000 years old)
 - o Developed through the Mississippi River depositing sediment at its mouth
 - Is built with a little bit of almost every part of the country
- Water is the dominant landscape feature
 - o The landscape is marked by its ephemeral nature
 - o Geologically, the area changes very quickly
 - o Mississippi River changes course every 7-900 years
 - Channels take over the main river
- The city flooded twice in the first year it was built
 - o It is built on natural levees
 - They form when the river tops its banks and deposits sediment, which builds up over time
 - o Tremé is located just off the natural levee
- The city has been confined to the river-front for most of its history
 - o The “back of town” ran the entire length of city relative to the river
 - Characterized by marshy lands
 - Primarily African American neighborhoods
 - The only land available to African Americans because of racist land restrictions through banks and lenders, etc.
 - Barry, John. *Rising Tide: The Great Mississippi Flood of 1927 and How It Changed America*. New York, NY: Simon and Schuster, 1997. ISBN: 0684810468.
 - This book captures the way that social issues have always impacted the environmental conditions of different areas of the city of New Orleans.

- In the 1920s, a Tulane engineer invented the pumping system that is used today.
 - o Drained swamps up to the lake (estuary)
 - They were at that time at or a couple of inches above sea level
 - o Built levees around the system, drained the water out of the area and out of the soils
 - This immediately resulted in sinkage and the city starting to go below sea level
 - o Built the levee out into the lake
 - Took sediment from the lake and created infill
 - o Pumps thousands of gallons of water out of the city on a dry day. It is not possible to live in the city without the pumping system.
 - It failed with the storm. The larger failure was the drainage canals that caused the flooding and the prolonged flood.
- Architecture as surrogate topography: newer houses are all built below sea level.
 - o Older buildings built on the only available land.
 - The most famous building stock is near the river on relatively high ground
 - o Lakeside subdivisions formed because of redlining in the 1950s. Site of internal white flight.
 - o Lower Ninth Ward expanding for returning servicemen as well.
 - o Newer housing types less appropriate – closer to the ground
- New Orleans has the fastest eroding shoreline in the country
 - o The hurricane is a manifestation of the long-term environmental problem.
 - o The levees that stopped the river from flooding caused massive wetland loss.
 - o Oil and gas exploration in early years: wetland based.
 - Dredged thousands of miles of canals to move equipment.
 - They were never required to backfill or use something that was already built.
 - o For every 2.7 miles of marsh, you create enough friction on the storm surge to stop it a foot. What was once 60-70 miles of marshland is now open water.
 - The habitat that existed in the Gulf 60 years ago would have reduced the intensity of the storm surge significantly.
 - o Levees and drainage canals were never subjected to forces greater than what they were designed to handle.
- Mississippi River Gulf Outlet and Industrial Canal
 - o Shipping channel dredged in the 1950s and 1960s by Army Corps of Engineers for New Orleans to cut 30-40 miles off the distance to come up the river.
 - Took away the unknown element of the mouth of the river and sandbars.
 - Cut up through the marshes directly to the port.

- Designed to be a width of 500 ft. and dredged to the depth of 36 ft.
 - Dredged to 40 ft.
 - Caused banks to start collapsing.
- It is now 2000 ft. wide.
- It was never used at the estimated rate and has been declining.
- It channels storm surge directly into the city.
- 1965 Hurricane Betsy, Industrial Canal levee broke and flooded the Lower Ninth Ward.
 - The levee broke in the same place during this hurricane.
- There has been a move to close the MRGO, but the Port of New Orleans is very powerful.
- Now there is pretty uniform support for closing it.
 - What that means is debatable.
 - There is a project to expand the lock system of the Industrial Canal, which would expose the Lower Ninth Ward to more water and more industrial traffic.
- People talk about the Industrial Canal levee being dynamited.
 - Though it may not be true, it is a reasonable assumption to make given the history of the area (levees were dynamited during other floods)
 - The effect of policy over time is the same as dynamite.
 - The government spends \$16-18 Million a year maintaining the shipping channel
 - No one was held accountable for barges being safely moored out of harm's way
 - Value judgments hidden in policy decisions over many years resulted in the damage and destruction
 - During the storm, there were three levee breaks in the drainage canals.
 - Industrial Canal failure was the most violent – it washed away the neighborhoods
 - In other areas where levees broke, houses look fine, but they were sitting in toxic flood waters for about 3 weeks.

Work of the City Center

Just before the storm, Mr. Etheridge was working at The Center for Bioenvironmental Research at Tulane. That center was having trouble getting word out about the troubling situation with the hurricane season approaching. It started a partnership with the School of Architecture. They wanted to come up with radical drawings about what the environment would look like. After the hurricane, this went from a theoretical to a practical exercise. They took the support they had gotten before the storm to put on a conference called "Re-inhabiting New Orleans." 120 people attended: 80 residents and a number of architects, planners, environmental experts.

Principles:

- Provide residents with same level of technical expertise as is available to the policy makers so they could understand the flood of information they were receiving.
- Give community groups access to the same skill-sets to enable them to participate in the policy dialogue.
- Strengthen existing relationships between community groups and residents and create new ones.

Projects:

- Tulane Architecture Urban Build Program
 - o Partner: Neighborhood Housing Services
 - o Activities:
 - 2 studios running simultaneously
 - 1. design-build program: students will design and build one house, which must meet the residents' requirements in order to make it replicable in the neighborhood.
 - 2. urban-design level studio looking at the neighborhood scale.
- Design-build Consortium of Schools
 - o Formed out of the conference
 - o Coordinating the work of a number of schools in town.
 - o Projects:
 - University of Kansas
 - Partner: Front Porch Community Center (a new group formed after the storm)
 - Location: one part of the 7th ward
 - Activities:
 - o Design and build a community center (Front Porch Community Center) to respond to immediate needs.
 - o Schools has provided notice boards to help community communicate.
 - o Working on first phase of the building.
 - Successes:
 - o Very flexible.
 - o Professors have committed to at least 2 years working on the project.
 - o They have been very clear about the scale of services they can provide.
 - People are not getting their hopes up.
 - In this project, it is exactly what the neighborhood wants. Want to make sure it is moving laterally
 - Kansas State

- Partner: Project Locus (non-profit design build)
- Location: Lower-Ninth Ward
- Activities:
 - Rebuilding the House of Dance and Feathers, a museum run by Ronald Lewis.
 - It is a museum of Mardi Gras Indian and Social and Pleasure Club culture.
 - It is an African American cultural institution in the city.
 - Ron is a Big Chief and founder of a social club. He is founder of the Transit workers Union in New Orleans and a wonderful resource to that neighborhood.
 - One of his favorite refrains: The city judges the success of Mardi Gras by how much trash it picks up. In his neighborhood, piles of debris and trash in the street are indicators of success and moving forward.
 - He is coordinating one-week projects for help: students gutting houses.
 - Common Ground in tent city is sending student-teams through Ronald to get people's houses gutted.

Larger Planning Context

Four-month neighborhood planning process:

- Process of establishing neighborhood viability.
 - 50% + 1 is minimum commitment to return to neighborhood.
 - The neighborhood must be contiguous with 2 other neighborhoods that are coming back.
 - There is no articulation for the process of what happens after a neighborhood passes the test.
- There were a lot of predominantly white/middle class neighborhoods that were destroyed as well.
- There is such a real-estate crunch right now, a desire for high-land.
 - The 7th ward is being renamed "New Marigney"; a sign of gentrification.
 - The African Americans and working class people who lived there before the storm will likely be pushed out.
 - The Tremé area is in the same situation. There will be a neighborhood there, but will the community be the same?

Response:

- The City Center is working with Ronald to help people prove their viability and get over those hurdles and meet those indicators, take some steps to recreate pre-storm conditions.
- The 7th ward is aware of the threats facing them.
 - o They want access to home ownership counseling.
 - o Want to claim the space in their neighborhood.

Schools

The School Board has yet to have a larger strategic vision for what it is going to do. There is a piecemeal project for chartering the schools.

- How do you use education leaders on the ground to rebuild the education system?
- Many of the educators we have reached out to have lost their jobs and lost their homes, and they are often consumed by other issues
- In the 7th ward, a number of people working on the project were teachers and they want to use the Front Porch project to reactivate the school (it is located across the street from the neighborhood school).