Basin street is the street
Where all the white and the black folk meet
Down in New Orleans, the land of dreams
You never know how much it seems
Not just how much it really means
I’m glad to be, yessirree, in the land of reverie
I can’t lose my basin street blues

--Spencer Williams Basin Street Blues 1928
Environmental Justice and New Orleans
Basin Street Blues

- Subtitle of Craig Colten’s 2002 paper in *Journal of Historical Geography*
- Based at LSU, Baton Rouge
- Katrina evacuation made Baton Rouge the largest city in Louisiana by Sep 2005
Colten

• One of several active environmental historians in the US
  – Chronicled the historic dump sites of Illinois
  – Told the story of the filling of the Chicago waterfront
  – Has written the Environmental History of New Orleans
Basin Street

- Symbolic centre of Black New Orleans
Figure 1. New Orleans built-up area and environmental conditions, c. 1906.
Colten’s paper

• Drainage work in New Orleans happens in the context of
  – Progressive Era
  – Jim Crow/Racism

• Issue of environmental justice/equity
Environmental Equity

• a.k.a. Environmental Justice
• Concerned with the social & racial equity of environmental policy
  – “environmental racism”
• Colten addresses it as a major priority in his paper.
Jim Crow/Racism

- government-sanctioned racial oppression and segregation in the United States 1890-1950
- Well after the US Civil War
  - Racist Whites reacted to the ending of slavery by finding other ways to segregate/oppress Blacks
  - Segregated public facilities, schooling, voting
• Durham NC 1940
• Leland MS 1937
Progressive Era

- Urban reform
  - Governance, policing, anti-corruption
  - City planning, beautification
  - Public health, education
- Conservation movement
- Regulation of monopolies, robber-baron capitalism
- Assertive US foreign policy
ANTI-IMPERIALISM

ANTI-TRUSTS

THE VERDICT: MR. BRYAN, ISN'T THAT A HEALTHY TREE TO GET YOUR MAIN PLANK FROM?
Colten’s argument

- New Orleans a racially segregated city in 1890
- Did drainage change the pattern?
  - Drainage allowed the city to expand
  - Low-lying areas, once drained, became Black neighbourhoods, whites on higher ground
Figure 1. New Orleans built-up area and environmental conditions, c. 1906.
Figure 2. New Orleans drainage system installation, 1910–1940. Source: New Orleans Sewerage and Water Board, Semi-Annual Reports, 1910–1940.
Figure 3. African-American population in New Orleans, 1900. Source: US Census.
Figure 5. African-American population in New Orleans, 1920. Source: US Census.
Figure 7. African-American population in New Orleans, 1930. Source: US Census.
Colten’s argument

• Was the US Army Corps of Engineers drainage “racist”?
• No, Progressive Era drainage was equitable, but Jim Crow policy in housing market caused segregation
• The racial divisions (and environmental injustice) of New Orleans was not caused by the US Army Corps of Engineers
New Orleans c. 2002

- Racially divided city
  - Long and painful heritage of racial division, inequity
- Poor black neighbourhoods tended to be in the most flood-labile & vulnerable zones
- Inadequate disaster preparation, emergency planning
- A city vulnerable to flood catastrophe
The Disaster: A Worst-Case Scenario

COMPUTER MODELS by researchers at Louisiana State University predict that the counterclockwise winds of a slow-moving, Category 4 hurricane (characterized by winds of up to 155 mph with storm surges) crossing the Gulf of Mexico from the southwest would drive a sea surge 30 miles inland, right to New Orleans’s back door. Surging water would also fill Lake Pontchartrain, which would then overflow its western bank and pour into the city. At the height of the flood, the downtown would be under more than 20 feet of water only about 33 hours after the first storm winds touched the southern barrier islands.
NO MARGIN OF ERROR

LSU scientists took projected tracks of Hurricane Katrina on Saturday evening and produced a frightening scenario: A wall of water surging in from all sides pushing up against the urban levees. Wave action is seen topping levees in Kenner, eastern New Orleans, and along the Mississippi River-Gulf Outlet.

3 SLIDELL SOAKED
Large parts of Slidell could be inundated by 10-11 foot storm surge.

4 PUMPED-UP LAKE
Easterly winds in advance of the storm could pump water from Lake Borgne and from Barataria and Chandeleur sounds into Lake Pontchartrain, raising the lake’s level by 10 feet.

5 GOING ASHORE
As Katrina moves inland and the winds come from the north, the high Lake Pontchartrain waters could stream across St. Charles Parish and turn east along Airline Highway into Kenner.

6 OVER THE TOP
Waves equal to half the surge height or more would top the surge water and could overtоп levees on the south shore of Lake Pontchartrain and around Chalmette.

7 THE BETSY SCENARIO
Hurricane force winds are projected to top levees in eastern New Orleans, pushing water into the 9th Ward, the Michoud area and even into Mid-City.

8 FIRST TO GO
Unprotected areas in Plaquemines Parish could flood that Monday.

Source: Data from LSU Hurricane Center
Red border represents approximate areas of flooding.
Border is not exact and is for illustration purposes only.

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A young man walks through chest deep flood water after looting a grocery store in New Orleans on Tuesday, Aug. 30, 2005. Flood waters continue to rise in New Orleans after Hurricane Katrina did extensive damage when it hit.

Two residents wade through chest-deep water after finding bread and soda from a local grocery store after Hurricane Katrina came through the area in New Orleans, Louisiana. (AP/Getty Images/Chris Graythen)
Katrina Disaster

• Natural forces
  – But human mismanagement of Mississippi delta

• Large scale challenge of disaster
  – But incompetence, underfunding, confusion

• Socially divided city
  – Race, class, poverty, social inequalities

• Colten’s 2002 paper handles many of the same questions
Katrina Disaster

• By 2005 the Bush administration had removed most of the experienced FEMA officials
  – Budget cuts
  – Replacing Democrats with Republicans
Katrina Disaster

• Evacuation order given, but assumed people will evacuate themselves
  – Poor, racialized communities lack access to transport
  – School buses abandoned unused to the floods.
Katrina Disaster

• Much of the Louisiana National Guard had been deployed to Iraq
• Poor and inefficient deployment of federal troops to the disaster area.
Katrina Disaster

- Levees were upgraded after a 1967 hurricane
  - But upgrade was incomplete, thanks to budget cuts
- Some levees failed despite the upgrade.
- Katrina killed roughly 2000 people, mostly poor and black
Katrina Disaster

• The French Quarter was quickly back in business as party central
  – Elevated above the floods
  – Re-opening is commercially worthwhile

• Many of the poor black neighbourhoods of New Orleans slow to be rebuilt.
  – Environmental injustice?
A contrasting example

• Another (somewhat) racially-segregated city with a serious flood risk
  – Winnipeg

• Faces major difficulties
  – Difficult to evacuate (where would they go?)
  – Rivers face alteration

• Major advantage
  – There’s plenty of warning when Winnipeg floods
Winnipeg Floods

- 1950 flood zone
• 1950 Hudson’s Bay Co prepares
• 1979 flood zone
• 1979 and 1997
Grand Forks ND
Spring 1997

• Floods in US headwaters of Red River system
  – Overwhelms the limited flood defences of several US towns and cities
Winnipeg

- Ice often blocks the outlet of the Red north of Winnipeg
- Winnipeg has a flood barrage, but a large flood can outflank it
- Difficult to evacuate Winnipeg
- Winnipeg urgently needs to extend its flood defences
  - By 50 km in 14 days
• 1997 Southern Manitoba
• “the Red sea”
• Niverville MB
• Building the Brunkild-Z dike
Building the Brunkild-Z
• Busses positioned to act as wave baffles
24,000 people evacuated from the city.

EVERY CITY SHOULD HAVE THIS

FLOODWAY GATES

TOWN OF BRUNKILD (Z-DIKE)

this graphic courtesy by The Tortured Artist.
1997 Floods
Floodway Gate
Winnipeg Floodway Gate
- March 1997
- Pre flood
April 21 during flood
• May 1 after flood
• 1997 Floods pass Winnipeg
Canada-US Border at Pembina
Abandoned MB Farm
Letellier MB
Emerson MB
Morris MB

• Becomes an island
The Isle of Morris
Redsman MB
Rosenort MB
St Jean Baptiste MB
St Agathe MB loses its battle
Winnipeg Speedway
Winnipeg Flood Barrier
Inside the city at peak
Winnipeg
1970s
Winnipeg

- Canada managed to protect Winnipeg from the 1997 floods
  - Adequate preparation and advance warning
- New Orleans was virtually destroyed by Katrina
  - Inadequate preparation, disaster management
  - Not much advance warning with hurricanes
Environmental Injustice

• With preparation and planning racially divided cities can still cope with floods.

• Disaster is likely to add to racial injustice