

Celebrate the Water

From the Headwaters to the Delta: The Dutch return to New Orleans.

By Ruth Eckdish Knack, AICP

In

March of last year, a group of water experts from the Netherlands—planners, landscape architects, and engineers—arrived in New Orleans to study the city's post-Katrina water defenses. Last October, a slightly larger group returned, this time to further define the problem and to offer solutions in a "Dutch Dialogues II" workshop. "Instead of considering water as your enemy," they said, "look at it as an opportunity for new investment and new amenities."

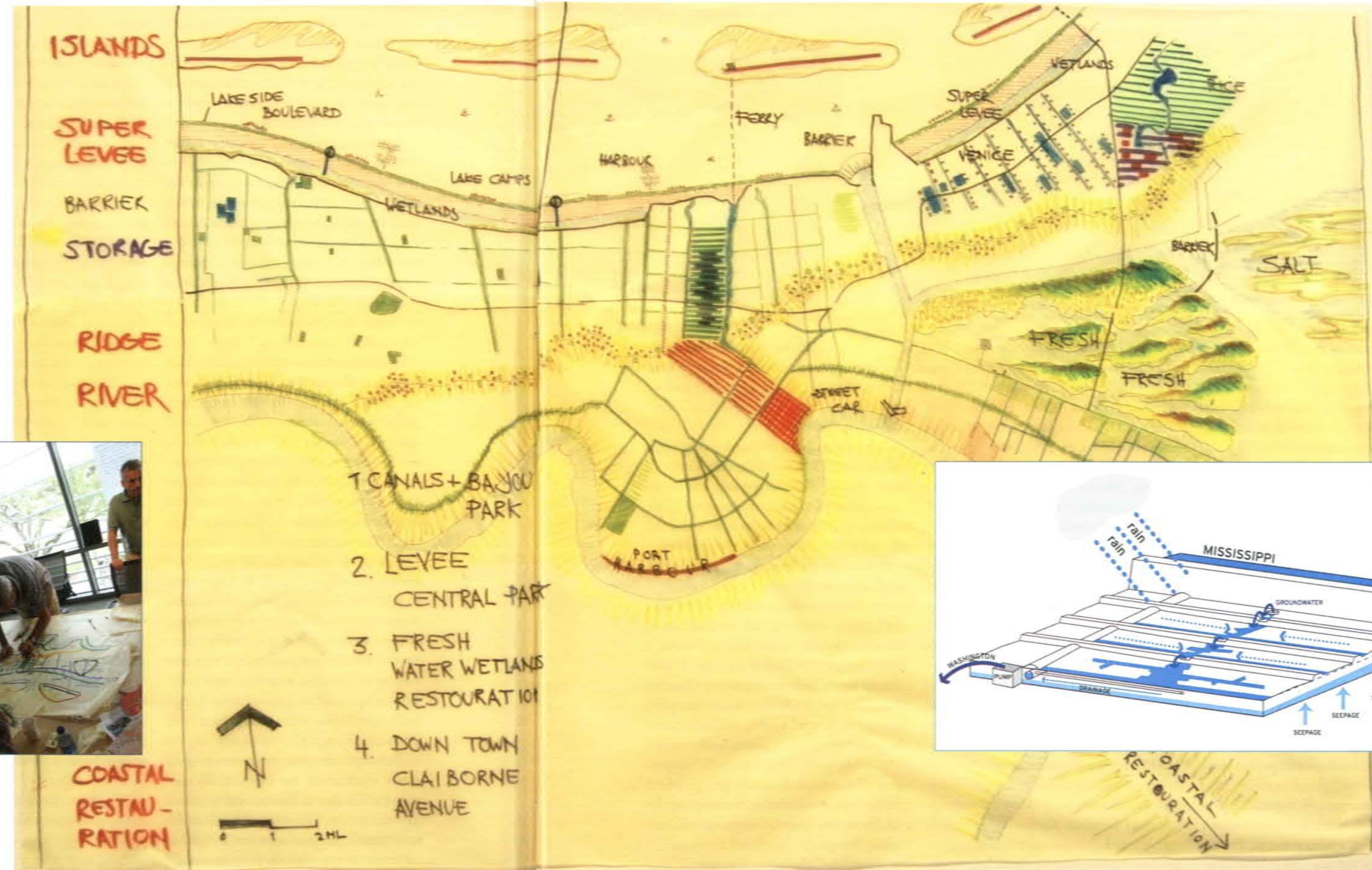
Han Meyer, a professor at the Technical University in Delft, stressed that there was no single Dutch solution to New Orleans's water problems. He noted that shortly after he returned home last March, a fire destroyed the campus building housing the urban design faculty. "Now we are partners in disaster," he said, adding that a competition for a new building was already under way.

This workshop also had a larger mission, said David Waggoner, the local architect who was largely responsible for organizing the event. And that is to integrate water management into the broader urban fabric. "Many different disciplines are involved in what we now call delta urbanism," he said, referring to urban planning and urban design, landscape architecture, hydraulic engineering, and others. "How can we combine them in such a way that they contribute to the quality of the urban environment?"

Scale was another issue for the workshop participants. APA executive director and CEO Paul Farmer, FAICP, called on



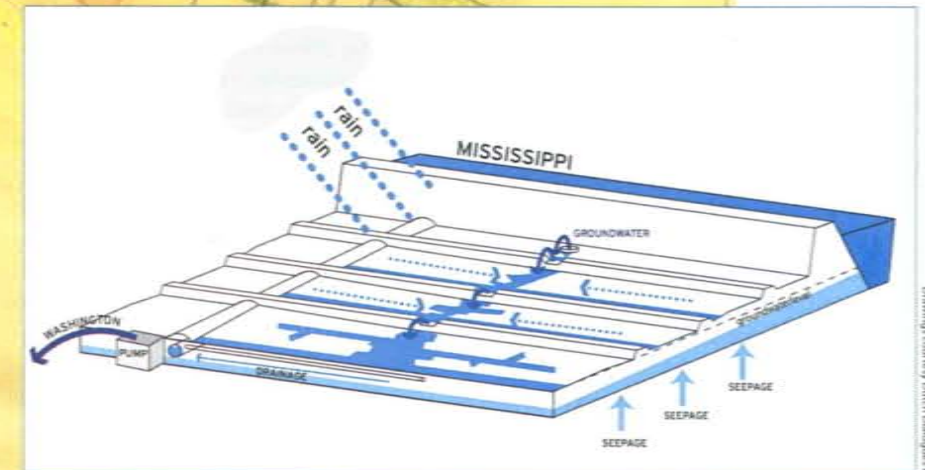
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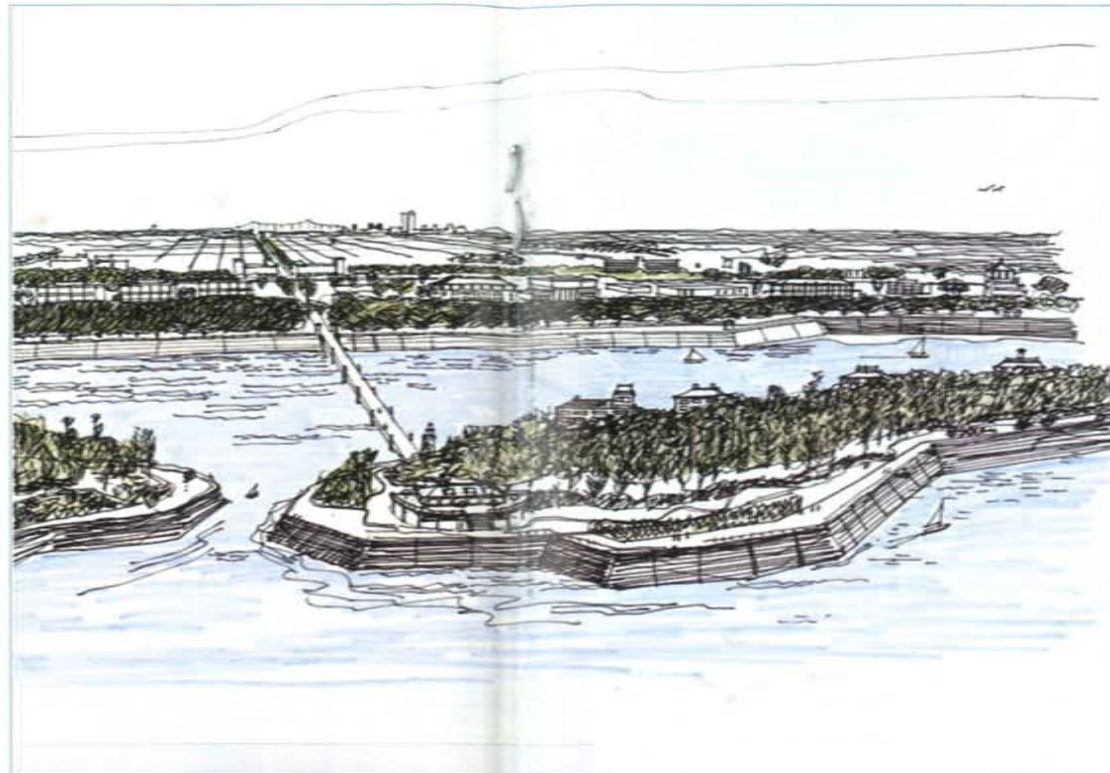
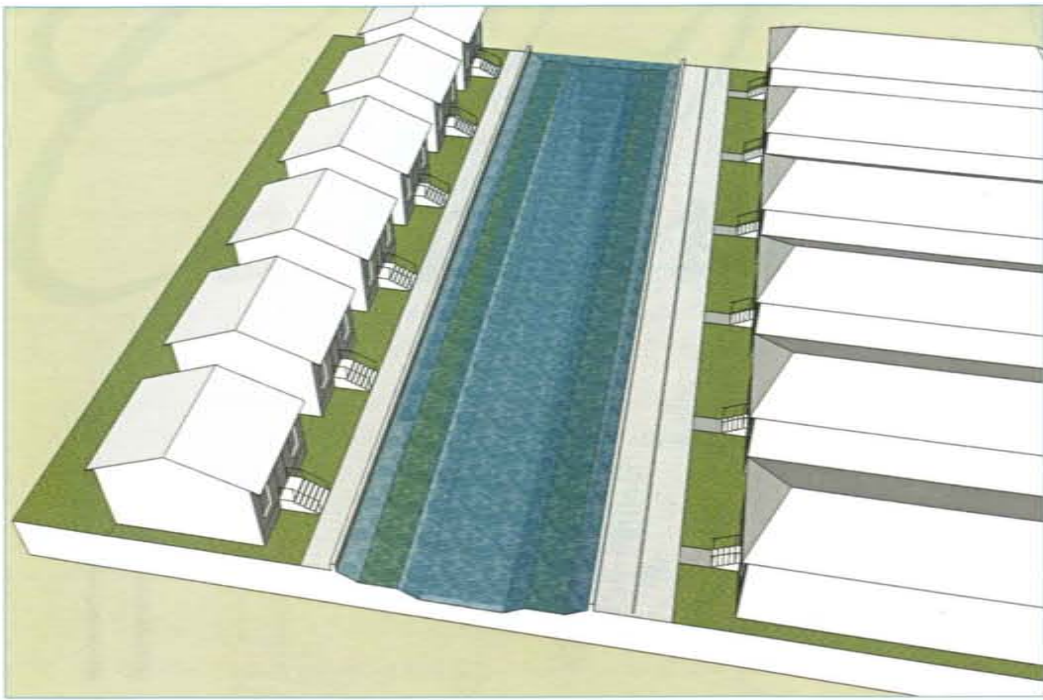
"Draw more, talk less," said Dutch landscape architect Stephan Slabbers.

This drawing wraps up the regional group's proposals.

The cascade diagram (below) illustrates a proposal for the Uptown neighborhood.



Design courtesy Dutch Dialogues II



All three teams offered suggestions for stormwater storage—sometimes in the street. Right: architect Mac Ball's on-the-spot drawing of an island in Lake Pontchartrain, this one reached by a bridge rather than a ferry.

the group to work in three different scales: regional, mid-sized area, and a smaller group of neighborhoods. He noted that the area devastated by hurricanes Katrina and Rita was the size of the United Kingdom, making it essential to think big. But the problems that remain affect specific parts of the city in different ways—hence, the need to fine-tune the approach.

Big picture

The Dutch slogan is “safety and value from the water,” said Piet Dircke, a leader of the regional team. “Our goal in New Orleans is to come up with creative ideas for protecting the city—while at the same time adding to the quality of life.” Dircke is a civil engineering consultant who has worked with the U.S. Army Corps of Engineers.

This team took a systems approach, breaking into smaller groups to study drainage patterns, water storage that would take advantage of the area’s abundant underused land and green space, and ways to make better use of the canals, many of which are now covered over. (“Being Dutch, we love canals, but we had trouble finding them here,” said Dircke.)

In line with their big-picture view, the team also considered economic issues, in-

cluding the potential for new jobs. The basic assumption was that climate change and sea level rise were a given. “There’s no doubt about this in Holland,” said Dircke. Thus, the area needs multiple lines of defense.

Some of the recommendations were general: Make New Orleans sustainable environmentally, economically, and culturally. Make visible connections to the Mississippi River and Lake Pontchartrain. Seek ways to make the region resilient.

Others were more specific: Build several islands in the lake to dissipate wave energy and a “superlevee” to eliminate the risk of overtopping during floods. Add new canals and create new wetlands to lessen the need for high floodwalls (as Holland has been able to do). Combine functions, adding water-storing green roofs to higher density housing, for instance.

The superlevee and the islands, reachable by ferry, are also an example of multiple functions, said Dutch landscape architect Stephan Slabbers. “They protect the city but also give you more recreational space, and the superlevee could have a beautiful boulevard lined with housing, hotels, and restaurants.”

Questioned about local acceptance of higher density housing and islands in

the lake, Slabbers responded, “We simply want to encourage the city to take big and robust steps.”

Greening Gentilly

Tulane geographer Richard Campanella noted that Gentilly Ridge, the strip of high ground that cuts through the medium-scale study area, was once part of the Mississippi River system. It was drained in the 1800s, leaving the ridge about a meter above sea level—a big deal in this part of the world.

As Dutch landscape architect Robbert de Koning observed, the area known as Gentilly lacks a center. But it does have room for potential water storage—lots of empty lots where residents were flooded out. So why not lower the water table, add some “green” canals, and look for ad hoc storage sites in parks, golf courses, and backyards? That was one suggestion of the Gentilly study group, which broke into three teams, focusing on the lakefront, the internal water system, and urban design.

First, the lakefront. The group took note of such assets as the area’s many universities and its historic neighborhoods, including Pontchartrain Park, a groundbreaking African American enclave. As for

the lake itself, the group recognized the need for a flood barrier, which could serve a dual purpose as an amenity—a beach like the Lido in Venice, for instance (although that city is hardly a model of flood protection). Just as important, to prevent everyday basement flooding, is stormwater storage. The group proposed using the entire area as a reservoir, making better use of the existing canals (stocking them with fish to deal with the mosquitoes), and enhancing the drainage system.

The long lines on the city map, formed by the canals and the major streets, drew the eye of the Dutch planners. They immediately saw the possibility of using Elysian Fields Avenue to connect the lakefront to the French Quarter and the Mississippi. That led to ideas for enhancements: Put a canal in the middle. Plant thousands of oak trees along the sides. (“They are icons of the city,” said de Koning.) Add a new streetcar line, to run from the river to the lake. A long-defunct rail line once used the same route to bring visitors to a lakefront amusement park.

Ton Schaap, urban planner for the city of Amsterdam, saw another purpose in this connection: Linking Gentilly to the older parts of the city, particularly the French Quarter, would encourage residents of

neighborhoods near the lake to accept somewhat higher density. He noted that the blocks in Gentilly were generally the same size as blocks in the French Quarter, but the Gentilly blocks had half as many houses, many of them empty. One suggestion: Allow home owners to sell a side lot for another house, thus very gradually intensifying the neighborhoods.

Focus on Uptown

The specific problem in Uptown and Central City, the area studied by the third group, is excess rainwater. And since that’s a citywide problem, said Han Meyer, “we tried to find a principle that could be applied all over.”

The low-lying section known as the Hoffman Triangle includes a historic pumping station. “It’s a monument of hydrological engineering,” said Meyer, “but it’s not capable of managing stormwater.” Flooding is a problem because the neighborhood is a collecting site for rainwater. But if it is drained, there’s a danger of subsidence. “We need a different type of water management system here,” he said.

The group’s answer: Make the water visible. It proposed a system of cascades that would allow the water to flow from one step to another, ending in a court-

yard, a yard, or a canal. Daniel Goedbloed, a landscape architect for the city of Rotterdam, suggested that rain gardens might become an integral part of the urban fabric. “The idea is to prevent flooding by slowing down the water as it cascades,” he said.

What now?

There was a positive buzz in the air at the final presentation of Dutch Dialogues II, although everyone involved stressed that these were suggestions, not marching orders. “With people all over the world moving into river deltas every day, New Orleans could become a case study of how to create a sustainable city,” said APA’s Paul Farmer.

But there’s work to do, including convincing the Corps of Engineers of the wisdom of some of the more far-out ideas and finding the money to carry them out. On the local level, there’s the task of incorporating the proposals into the new master plan. New Orleans architect Ray Manning, AIA, who’s part of the master planning team, was hopeful. “In the last couple of days,” he said, “we’ve seen some incredible concepts.”

Ruth Knack is the executive editor of *Planning*.

RESOURCES

MORE FROM APA For an account of the first workshop, see “In the Same Boat” in the August-September 2008 issue of *Planning*. There will be sessions on delta urbanism at the 2009 National Planning Conference in Minneapolis in April and a special focus on the topic in 2010 at the New Orleans conference.

DELTA DEFENSE The Netherlands Delta Commission recently released a new Delta Plan that recognizes the need for even stronger defenses in light of global warming and sea level rise. The plan’s 12 recommendations include a superlevee. Louisiana Sen. Mary Landrieu noted at Dutch Dialogues II, “The Dutch live with water in a much more integrated fashion than we do in the U.S.”

HISTORY “At least 300 years of history and geography led up to our present dilemma,” said Tulane University geographer Richard Campanella at the workshop. Campanella’s most recent book is *Bienville’s Dilemma: A Historical Geography of New Orleans*.

MASTER PLAN Shortly after the workshop, the New Orleans city council passed an ordinance declaring that the city’s master plan will have the force of law.

THE BASICS According to Allison Plyer, co-director of the Greater New Orleans Community Data Center (www.gnocdc.org), 44 percent of all addresses in Gentilly are vacant, although New Orleans has regained some of its population in the last year. The city is at 87 percent of pre-Katrina job levels. Those figures and many others are in the latest edition of *The New Orleans Index*.