

The Fifth Catastrophe

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"Together, the united forces of our communication and transportation systems are dynamic elements in the very name we bear -- United States. Without them, we would be a mere alliance of many separate parts."

-- President Dwight D. Eisenhower,
February 22, 1955

Much has been written about the state of post-Katrina, post-Rita New Orleans. What we know now is that the larger Gulf catastrophe is a collision of at least four disasters. The first was the storms themselves and the initial destruction from weather extremes. The second was the day-later disaster of failed levees and flood walls that ultimately caused the most extensive property damage and the first of the human losses. The third disaster was the slow-motion, inept emergency response by local, state, and Federal governments. As the FEMA trailers are now being tested for toxic emissions, the third disaster is still in progress. The fourth disaster, the divided city, began long before the landing of Katrina and Rita but became a critical part of the catastrophe scenario as the inequities of New Orleans were exacerbated by the disproportionate degree of destruction and loss borne by poor, mostly African-American residents. At the time of evacuation, the population of New Orleans was divided into those who left the city, and those who stayed behind. Of those who stayed behind, it is estimated 150,000 were car-less, and thousands more immobilized by age, illness, or incarceration.¹ Those who did evacuate left almost exclusively in private automobiles, primarily packed onto I-10 west towards Houston. The mobilized population joined the legacy of Eisenhower's National System of Interstate and Defense Highways, built on the premise that catastrophe - evacuation, war, mass migration - unites us socially, symbolically and po-

litically, and that infrastructure serves to reify that unification. Those trapped in the city faced a much different reality, one where infrastructure served at best as neutral, regularly as an adversary, and in some cases as a physical and symbolic void. Infrastructure, I will argue here, serves a much greater role in the disaster and recovery narrative of cities than its initial one as facilitator of emergency rescue and response. Ideally it is part of the recovery narrative, at a minimum a symbol of restoration and reconnection, more powerfully a symbol of transformation and reinvention. In this fuller role, infrastructure has the opportunity to link the state and the people through built form, to mediate between the distant and often capitalist framework of top down scenarios with the everyday urbanism of the city's local inhabitants. I would argue also, in a case such as New Orleans, the lack of the very foundational reconstruction that infrastructure represents has perpetuated the lack of a recovery narrative, keeping those left behind literally and symbolically immobilized, thus constituting a fifth catastrophe.

According to Kevin Rozario's essay in *The Resilient City*, there exists historically a post-disaster set of narratives that serve to translate tragic realities into optimistic vehicles for progress through the creation of a collective 'narrative imagination'. Stories, he claims, help us "make sense of the chaos and flux of experience, to make life meaningful and purposeful, to cope with adversity, and to learn how to feel and act in the world." These narratives serve to perpetuate the mythology of infinite resilience, propelling a kind of patriotic boosterism that supports a uniquely American unsinkable spirit of renewal.²

Post-Katrina New Orleans, though spotted with individual stories of hope, lacks even the most timid

version of a collective recovery narrative. In Rozario's description, the meaningful narrative requires what Aristotle called the *peripeteia*, "the turning point or reversal that moves a story forward...Without [a *peripeteia*], we have stasis. We have no story. This is significant. The configurations of narrative tend to pull disaster toward the middle of a story, encoding it as a principle of transformation."³ The first question might be then - *Where are we in the story of New Orleans' recovery?* At what point does Hurricane Katrina land in the narrative? According to Haas and Bosden, the four phases of reconstruction after disaster are the following: "1) Emergency responses; 2) Restoration of the restorable 3) Reconstruction of the destroyed for functional replacement; and 4) Reconstruction for commemoration, betterment and development."⁴ Each phase lasts roughly ten times as long as the phase before, all of which rely on such widely variable factors as degree of destruction, resource availability, preparedness, and leadership.⁵ At the time of this writing, more than three years have passed since Hurricanes Katrina and Rita hit the Gulf coast. It is safe to say that the emergency response in New Orleans has effectively ceased (phase 1) and the restoration of the restorable has begun. Yet this second phase has, at best, stalled.

The city's recovery statistics are mixed.⁶ As of April 2008, New Orleans' population had reached 71.5% of its pre-Katrina numbers with a much slower rate of growth in 2008 than for the same quarter in 2007.⁷ This could indicate that the city is nearing the end of its repopulation phase, for good or bad. Some of the more disturbing statistics regard infrastructure. The Regional Transit Authority lost two out of three of its maintenance facilities, 30 of its 66 streetcars, and 197 out of 372 buses. Over two years later, the city has only restored 48% of public transit routes and the operation of 19% of its buses.⁸

Interstate 10, though is a different story. The twin span bridge over Lake Ponchartrain was impassable after the storm surge literally lifted each of the low-lying sections of approach from their supports, then dropped them into the water. The repair of the bridge cost \$31 million, which included a \$1.1 million bonus for the contractors who completed phase 1 of construction 16 days ahead of schedule. Only a month and a half after the initial damage, the full length of I-10 west was open to traffic. A

trucker interviewed by the New York Times called the speedy repairs "between exceptional and heroic."⁹ Though the rapid repair was a functional success, serving practical transportation purposes, it hardly served as inspiration for recovery. Its location outside of New Orleans proper, connecting the city to parishes further east, and its mere reconstruction rather than reinvention did little to influence optimism at the core.

Were New Orleans to be in phase three of disaster recovery, there would be sufficient housing, support facilities and employment to support a population returning to pre-catastrophe levels; social and economic activities would have fully rebounded.¹⁰ From the top down, progress in this phase is negligible; from the bottom up, it is active and energized, but unable to match the scale of need evident in the city. In housing alone, nearly 275,000 residents of New Orleans were left homeless after the combined destruction of Katrina and Rita.¹¹ Architecture faculty and students, activist organizations, Habitat for Humanity, and the Brad Pitt sponsored 'Make it Right' initiative are among those attacking the housing problem on a case by case basis. Though these grassroots projects are hot spots of storytelling hope on the larger lacking narrative, they are still too small and too slow to be clearly heard in this largely vacant field of recovery.

I would argue that the significance of the fourth disaster - the divided city of mobile and immobile - combined with the much greater than expected continuation of the third disaster - the failures of the state - place the origins of the Gulf catastrophe in total much before the fall of 2005. Taking that larger picture into account means a simple replacement of conditions to pre-Katrina levels would keep New Orleans' impoverished population in their pre-existing state of emergency - a version of perpetual immobility. A transformation narrative of grand scale provided by the Gulf disaster must include a reconsideration of the socially and spatially produced injustices inherent in the relationship between state and citizen, between top down and bottom up solutions. One place the mediation of that relationship is found - and has the potential to be reimagined - is in the production and reproduction of infrastructure. A visionary system of publicly generated and neighborhood supported projects could serve the role of *peripeteia* and begin the turn towards real recovery. The lack of an infrastructural

vision perpetuates a lack of commitment and vision at the most basic level of city survival.

Looking specifically at the infrastructural disaster/recovery of New Orleans, we must look at the divided city where infrastructure served - or ceased to serve - three very different roles: the functional, the formal, and the symbolic. *Functional failures* of great duration or scale make both daily life and larger life patterns impossible. The failure of the levees, the collapse of I-10, the lack of transportation for car-less evacuees all constitute functional failures of infrastructure at the scale of catastrophe. Infrastructure's most basic function - distribution and flow - is severed. *Formal failures* are those that disrupt our physical understanding of the city; they are losses of order and structure rather than operation. For example, the city grid orients us, provides us with a sense of scale, rhythm, and hierarchy. With the complete submersion of the road grid in New Orleans, the scale of blocks, hierarchy of streets, and boundaries of wards were obliterated. Though formal losses may disrupt both everyday rituals and larger life patterns, they also eliminate our means of orientation. *Symbolic failures* of infrastructure may have both functional and formal attributes, but mean something larger than the two combined. Symbolic failures disrupt our philosophical understanding of the city. The collapse of the I-10 bridge over Lake Pontchartrain interrupted traffic and exposed an unexpected engineering failure, but it symbolically isolated the city from the larger network of the nation. The levee breaches, the evacuation failures, the highway submergence, and the shelter disasters together symbolically represented a kind of abandonment on the part of the state in upholding its responsibility for producing and maintaining - at minimum - a livable, if not equitable, city.

In a recovery narrative, the replacement of damaged infrastructure - particularly conduits for mobility - is the very first layer of rejuvenation. Functionally, formally, and symbolically, the recovering city inspires belief while at the most basic level providing the groundwork for daily life functions to occur. The more quickly the disruption is mended, the more quickly confidence in the state is returned and the more quickly the city can move past survival towards reinvention.

The new subway station at the World Trade Center site is one example of infrastructural architecture

helping to generate an optimistic recovery narrative. The city of New York spent \$323 million to build the first of three temporary PATH stations and will ultimately spend \$2 billion to construct the Calatrava-designed transit hub that will replace the previously underground, largely invisible version that sat below the towers. Function will most certainly exceed pre-disaster levels, as will its formal service as a node and landmark in the city. The role of the symbolic, though, is equally undeniable. Both the temporary and final designs incorporate concepts of light and flight, specific references to emergence, regrowth, and inspiration. The rebuilt station fulfills the rights of the people to mobility as a civic project, to collectivity as well as individuality, and encourages the shared spirit of renewal.

Though there are monumental factors working against the New Orleans recovery, this fifth disaster is perpetuated by a cycle of hesitant, unimaginative inaction reinforced with a much louder narrative of doubt and distrust. For every month the recovery fails to materialize at a large enough scale to be publicly visible, the narrative of ineptitude and intentional resistance is reinforced. New Orleans' legacy of rowdiness (from the bottom up) and corruption (from the top down) is further perpetuating the symbolic catastrophe. A genuine lack of trust is buoyed by mythologies of impenetrable elitism, unfixable fraud, and profound vice; true or false, these attributes have stolen the city's narrative. Discriminatory allegations - that the residents of New Orleans are not savvy or sophisticated enough to develop a recovery scenario, or that, even worse, they are undeserving of such efficiency and optimism - have helped turn the disaster narrative into one of perpetual pessimism, possibly immanent collapse.¹²

Interstate 10 is emblematic of the New Orleans problems. Though use of contraflow during the evacuation allowed nearly a million people to leave the area over the course of the days leading up to the hurricane, the going was slow and traffic often stopped. As already mentioned, 150,000 residents were excluded from that evacuation, bringing to attention the centuries-old divided city. The collapse of the eastbound I-10 bridge from the city simultaneously eliminated the route as an evacuation option and undermined trust in the national network as a symbol. Among those who did not evacuate by car, crowds of people tried to walk out of town

on the highways, only to be met in the center of the city with large low-lying areas of the road already submerged and impassable. On the other side of the Superdome, hopeful evacuees waited on the highway for buses that took days to materialize.

I-10 began to serve as the last resort of public space - emergency hospitals and makeshift morgues. The collective images of I-10 from 2005 are not of a completed bridge but an I-10 in the inner city under water, choking the battered island of the abandoned population stuck at the Louisiana Superdome. Or even worse, the image of dead bodies washed into the columns of the roadway or laid on the road's shoulder. I-10 continues today to serve as a public space of desperation, sheltering a large homeless encampment estimated to shelter 200 people and growing.¹³ Rather than serving as the reification of Eisenhower's grand readiness, national unity, and government responsibility that we then fill with our own everyday urbanism, I-10 today hovers in New Orleans as a reminder and memorial rather than a symbol of fortitude and success.

In response to the desperately under-served population throughout the city, Mayor Ray Nagin suggested this past summer that one-way bus tickets out of town might be a viable solution.¹⁴ Though he claims he was joking, this seems to be one of the two emerging narratives. The first is the elimination narrative, the 'better off elsewhere' idea that encourages refugees of the post-hurricane diaspora to stay where they landed and struggling residents to consider relocation. This "option" is bolstered by tremendous local inflation, difficult rebuilding processes, and the aforementioned gaps in even the most basic infrastructure. The second narrative has been referred to as the double Donalds - Donald Trump and Donald Duck.¹⁵ This is the disaster capitalism complex discussed by Naomi Klein in *The Shock Doctrine*. In this scenario, the 'opportunity' of the catastrophe is the final burial of the welfare state and the tabula rasa that allows for the birth of the neoliberal city.

Rather than seeing the seeds of social and cultural value that existed in the complexity of the historical city, this reframing sees the city as a set of purely economic relationships. In that light, the first scenario is socially discriminatory, but economically practical. In the neoliberal city, the poor are a deficit. Shrinking the impoverished population in-



creases the city's 'net worth' while also allowing for newly vacant spots to be filled by richer, typically whiter inhabitants. The second scenario - privatization, gentrification, consumerization - also sees little value in the character and culture of the historical city other than as fodder for theming and packaging. Seeing like a state in New Orleans means a blatant disregard for a place where much of what has historically been valued - music, diversity, creativity, fun, family, local culture, experimentation, a kind of living outside the boundaries of conservative America - is hard to package in ways other than the most temporary and touristic.

Oddly enough, it seems that the total lack of response from the state in any formal and efficient way combined with frustration over a narrative that puts the city at the verge of collapse might have left a wide enough opportunistic moment for the grassroots organizations to dive into the gap and begin to claim some territory at the planning table. This 'insurgent planning', though not particularly well-covered by the national media, seems fairly widespread and prolific. The Neighborhoods Planning Network draws some 255 neighborhood

groups and numerous non-profits, church groups, and universities to their weekly meetings. In some cases neighborhood organizations have hired professional planners to assist their grassroots efforts; in others the 'viability' challenge initiated in the second attempted master plan had already generated some productive neighborhood studies. Irazabal and Neville compare this surge of citizenry to its third world equivalent where a 1999 earthquake in Golcuk, Turkey and two consecutive earthquakes in Mexico City in 1985 energized a movement of civilian recovery efforts in place of a corrupt or missing government that mobilized supplies from medical care to housing reconstruction, on occasion even altering the long-term relationship between community groups, citizens, and the role of the state.¹⁶

In New Orleans, this activism has resulted in at least one major political change - a constitutional amendment that consolidates the pre-existing twelve levee boards into two, one for each side of the Mississippi, to more effectively manage the operations and maintenance of flood control systems. In another case, resident activists broke into the barricaded St Bernard Housing project and cleaned and painted in an effort to take back condemned yet viable housing for a city that desperately needs it. The disgust and distrust of the state position is driving both the desire for action and the fear that either nothing will happen soon enough or that what will happen will be a sixth disaster. Though faith in and commitment to grassroots movements is growing, there are limitations to the scale at which they can and should accomplish. Infrastructure, as one example, is typically a common good that needs monetary support and coordination at the scale of the city.¹⁷

Since the completion of the initial emergency response phase, there have been attempts by varying government agencies to create planning documents to guide the recovery. The first of those was ESF-14, a plan produced by FEMA in April 2006 and subsequently ignored. The second plan initiated by Mayor Nagin and ironically called *Bring New Orleans Back* (BNOB), concluded that much of the low-lying space of the city should not be redeveloped but should instead be transformed into park land and serve as emergency flood plains if and when the next big flood occurs.¹⁸ This plan suggested an immediate moratorium on building permits and

put the responsibility on residents to prove the 'viability' of their neighborhood to avoid imminent demolition and acquisition for redevelopment. In the election year of its release, Mayor Nagin was quick to distance himself from this shrinking city plan and instead began the mantra to "rebuild all of New Orleans." *The New Orleans Neighborhood Rebuilding Plan*, known commonly as the Lambert plan, was the third effort at creating a viable planning document for recovery in New Orleans, but also failed due to its lack of a comprehensive and fully inclusive vision.¹⁹

Learning from the failures of its three predecessors, the fourth version, the *Unified New Orleans Plan* (UNOP), is based on the right to return for all citizens and the right to recovery for all parts of the city. This plan spells out three possible scenarios for recovery: re-pair, re-habilitate, and re-vision. Re-pair assumes rebuilding to the level of replacement; re-habilitate assumes re-pair plus needed improvements in infrastructure; re-vision requires more state, Federal, and private funding, and in addition to added infrastructure repair and rehabilitation, also emphasizes raising the level of health care and schools to greater than pre-Katrina levels. The UNOP estimates ten years for full recovery.

Along with general road repairs, increased diversity in transit options, and an evaluation of the "two-tiered" evacuation plan, one of the UNOP's infrastructural recommendations is for the city to consider the removal of the elevated portion of I-10 over Claiborne Avenue. What might happen, then, to an infrastructure subtracted, a promise of democratic, nation-scale mobility gone invisible? In precedents like Boston's Big Dig, the logistical nightmare has only partially resulted in functional successes and on the whole still struggles with a symbolic image of corruption, over-expenditure, and faulty workmanship. New Orleans, where the population has declined steadily since the 1960s, and where the hurricanes intensified that population loss, could justify dismantling one form of transportation for the sake of a more diverse vision supporting a more fully mobilized population. The returning of Claiborne Avenue to the city, a popular pedestrian artery prior to the original construction of I-10 in the 1960s, could serve not only as an effort in revitalization, but also a stitch between the areas of the city now separated by the scale and structure of the highway.

The combination of increased flexibility and greater linkages of movement at the street scale, and the re-envisioning of I-10 as the regional and national link of its historical intentions could serve a functional, formal, and symbolic role in New Orleans' recovery narrative. In addition to reknitting the city center, allowing a hole to become a social and cultural (rather than a capitalist and consumerist) catalyst, the necessity for reconstructing the link between the city grid and the new I-10 would give New Orleans an opportunity to rethink the spatial, formal, and symbolic role of speed, mobility, access and diversity in the reading of the city. This disaster *opportunity* is to reconceive infrastructure that not only efficiently and beautifully links the city to the region and the region to the nation, but that also symbolizes a reinvented, reimagined public sphere. This new design that recognizes the necessity for both collective and individual narratives of resilience, for healing the relationships between citizens and their state, for monument and memory, and for equity, reimagines infrastructure as part of the social, spatial and political production of the city where everyone is mobile, and no one is left behind.



So, as asked in the beginning: *Where are we now in the story of New Orleans' recovery?* In the combined five catastrophes, we know the timeline of the total scenario is much greater than the

three years since the landings of Katrina and Rita. Though the UNOP estimates ten years to recovery, others speculate it is twice that. According to Haas and Bosden's reconstruction timeline, it could be as much as a century before the city reaches full recovery. In this multi-disaster scenario, full-recovery includes not just reconstruction to pre-Katrina levels, but repair of the relationship between state and citizen and elimination of the dichotomy between mobile and immobile. What I have argued here is that these all remain stalled in the absence of a collective recovery narrative, and that the re-consideration of the functional, formal, and symbolic roles of infrastructure - as both a necessary and meaningful part of public space - is not only the most optimistic source for healing the chasm of trust, but also a promising way New Orleans could serve as a model for infrastructural reinvention in the rest of the country. If I-10 is emblematic of the problems of New Orleans then it must, to spark the unsinkable spirit of renewal so desperately needed, now become emblematic of the solutions.

ENDNOTES

1. Eliza Johnston Eliza and Brendan Nee. (2006) "A Methodology for Modeling Evacuation in New Orleans," www.bnee.com, University of Berkeley, Department of City and Regional Planning.
2. Kevin Rozario. (2005). "Making Progress: Disaster Narratives and the Art of Optimism in Modern America," *The Resilient City: How Modern Cities recover from Disaster*, L. J. Vale and T. J. Campanella, eds. New York: Oxford University Press, (27-54).
3. Ibid.
4. Lawrence J. Vale and Thomas J. Campanella, eds. (2005) "Conclusion," *Resilient City: How Modern Cities Recover from Disaster*. New York: Oxford University Press. (335-355).
5. Vale, 2005.
6. In other statistics, unemployment is so low that employers who do return are having difficulty finding viable employees to fill job vacancies; parents who return are finding it difficult to take jobs due to a lack of available child care. One of the most interesting methods of tracking population (and the only right to access explicitly accorded in the US constitution) is the delivery of mail. Mail statistics show that nearly half of New Orleans' population lives in the areas of the city that received no flood damage at all, up from 37% pre-Katrina. Mail delivery is also used to track the Katrina diaspora, showing through forwarding information and zip codes how the original population has spread across the US. Like the road system, mail - transportation and communication - is another nation-scale infrastructure.

7. Amy Liu, Amy and Allison Plyer. (2007) "A Review of Key Indicators of Recovery Two Years After Katrina" *The New Orleans Index*, The Brookings Institution Metropolitan Policy Program.
8. Liu, 2007.
9. Jonathan Schwartz. "I-10, Another Victim of the Storm, Enjoys a Quick Rebirth" *The New York Times*, January 3, 2006.
10. Vale, 2005.
11. Joshua Kent. (2006) *2005 Louisiana Hurricane Impact Atlas*, Louisiana Graphic Information Center. www.lagic.lsu.edu.
12. A disturbing comparison of the WTC site with New Orleans occurs in the article cited here where questions are raised regarding the perception of New Orleans inhabitants as 'undeserving' or 'unsophisticated' enough to qualify for a response equal to that at Ground Zero. See "Review Roundtable: Is New Orleans a Resilient City?", *Journal of the American Planning Association*, 72:2, (2006) 245-257.
13. According to a survey conducted by Unity, a homeless advocacy group in New Orleans, at least a quarter of that population is considered tri-morbid - a dire combination of mental illness, substance abuse, and medical problems.
14. Shaila Dewan. "Resources Scarce, Homelessness Persists in New Orleans," *The New York Times*, May 28, 2008.
15. Clara Irazabal and Jason Neville. (2007) "Neighborhoods in the Lead: Grassroots Planning for Social Transformation in Post-Katrina New Orleans?" *Planning, Practice, and Research*. 22:2. 131-153.
16. Ibid.
17. Ibid.
18. The return of the low lands to their historical ecological state is widely believed to be an environmentally conscientious idea. Technically, we are biding our time battling the forces of the Mississippi and the Gulf together over fluctuating wetlands that for millennia before the human occupation ebbed and flowed with great variation. Many ecologists claim that the earlier settlements of the Gulf were protected by these undeveloped wetlands that at that time could buffer the city from the surge. However, now that that land has been occupied for generations mostly by the lower income, African American inhabitants of New Orleans, the expropriation of that territory by the city becomes politically and socially charged.
19. Jedidiah Horne and Brendan Nee. (2006) "An Overview of Post-Katrina Planning in New Orleans", unpublished, available at nolaplans.com/research.