Considering Citizens in Disaster Plans, Preparedness, and Recovery: Hurricane Katrina and the Levee Breeches

An Ethnography in New Orleans

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Prologue

Long before Katrina washed ashore, New Orleans was inundated with abject poverty, high crime rates, a failing education system, and a corrupt local government, all of which bred an atmosphere of vulnerability and inability to address immediate basic human needs. Situated as the city is – below sea level, nestled between Lake Pontchatrain, the Mississippi River and Lake Borgne – New Orleans is one of the most hazard-prone and vulnerable areas in the United States. The events stemming from August 29, 2005 only reemphasized the folklore saying, which defines the character of New Orleans as the “city that care forgot.” For more than two weeks after Katrina struck 80 per cent of the city remained under water. Attendant 1,300 deaths and 350,000 displaced victims scattered throughout the United States, these factors provided a look at what the post apocalyptic urban city would resemble. One citizen (White, male, age 42) described his experience the Tuesday after Katrina:

“I was with my mother and son. The water came so fast it was impossible to get out of the house... A man in a boat was yelling for people. I told him we were in the house, he was able to break the windows and we were able to swim and leave through the window. We picked up maybe four more people who were screaming for help. I never would have believed I could see dead people just lying in the water as we passed. I didn’t understand where all this water came from. Tears were in my eyes, my mother was frozen and I tried to cover my son’s eyes. I just kept telling him to hold on to me tight.”

And on the Wednesday after Katrina hit another citizen (African-American, female, age 33) recalled:

“I knew the world was coming to an end... It was me, my husband and daughter. Water was up to my neck. My husband had my lil girl on his shoulders and we were just holding on to a tree. The water was flowing so hard, it was gushing and gushing. I just prayed for it all to happen quickly if we were going to die”.

Varied media accounts brought the entire world inside one of the United States’ worst social disasters. Besides delivering ‘news’ of the events to the general public, the media also became the government’s main resource in acquiring crucial information. As CNN reporter Soledad O’Brien made known, FEMA Director, Michael Brown was unaware of thousands of New Orleans residents in need of response efforts not only at the Superdome but also at the New Orleans Convention Center. As structural and system failures transpired it became evident that responsive action was in the hands of unprotected and neglected citizens rather than in the hands of trained disaster responders.

1 In 2001, Federal Emergency Management Authority reported the three most likely catastrophic disasters that could happen in the United States: a terrorist attack in New York, a strong earthquake in San Francisco, and a hurricane in New Orleans.

2 Soledad O’Brien, CNN NEWS, September 4, 2006
Introduction

There are a number of factors contributing to the initial and continuing disastrous developments resulting from Hurricane Katrina. Many of these factors stem from disengaging and denying community involvement in conceptualizing risk management schema. While urbanization, environmental and economic theories tend to dominate and outline policy and planning efforts they alone cannot investigate and determine a city’s vulnerability and resilience.1 Adger et al suggest, “social-ecological resilience of tsunami or hurricane and typhoon affected regions involves many elements and actions and each of these involves human agency.”2 By emphasizing a socio-cultural approach this case study attempts to understand and identify supplementary variables affecting the relationship between natural and human-made disaster, preparedness, private and public vulnerability, and responsive management.

The contribution of racial and class divisions as causal factors shaping vulnerability and loss to Hurricane Katrina in New Orleans have been well documented3. There has been less attention on the reasons why people chose to remain in the city during a mandatory evacuation. A broader misconception assumes that prediction and preparation for the hurricane also includes citizens preparing for the breaching of the levees. However, many residents anticipate damage from the hurricane but do not foresee large proportions of flooding due to breaching of the levees.

Before Hurricane Katrina, a training exercise built around a Mock Hurricane Pam6 revealed concern over the social causes of vulnerability in the city. Ivor van Heerden, Deputy Director of the Louisiana State University Hurricane Center reported in an interview ten months before Katrina, “A slow-moving Category 3 hurricane, or larger, will flood the city. There will be between 17 and 20 feet of standing water, and New Orleans as we know it will no longer exist.”7 Despite many reports and studies emphasizing the vulnerability of New Orleans, during Katrina a number of unanticipated factors further complicated evacuation, relief and recovery efforts. Besides considerable structural damage, the failure of adequate and timely government response compounded by a breakdown in local communication systems created the conditions for a breakdown in law-and-order and a climate of fear and rumour.

An ethnography of disaster

This essay employs an ethnographic approach to uncover the routine ways in which disaster is understood and experienced as part of people’s lives. This approach highlights the roles emotion (or affect) and memory (both collective and individual) play in shaping the decision-making processes used by people during this disaster. The essay reports on research conducted by the author beginning with the third week after Katrina, interviewing several people who decided to remain in the city during the hurricane. During the first twelve months

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1 See Mitchell, 1999; Pelling, 2003; Allenby and Fink, 2005
3 See for Example Cutter, 2005; Mulcahy, 2005; Smith, 2006
4 In July 2004, 250 emergency preparedness officials created a mock exercise to establish and develop preparedness and response efforts in order to address catastrophic conditions.
6 See FEMA, 2004; McQuaid and Schleifstein, 2002
post-disaster, sixteen trips were made to communities of Katrina victims,\(^9\) (11 to New Orleans, three to Atlanta, Georgia and two to Houston, Texas). These visits included interviews with victims to discuss life after Katrina. Information was gathered through structured interviews, casual conversations and participant observation at airports, restaurants, town hall meetings, civic meetings, churches, homes, trailers, city hall, among other locations frequented by the Hurricane victims in their daily lives, as well as through media accounts (including local news, CNN and MSNBC – regular sources of news and information for these victims).

Drawing attention to three critical junctures in the history of Katrina: mandatory evacuation, the breeching of the levees, and returning or (re)creating home, this study asks: How does upholding socio-cultural norms and values effect people’s response to disaster? Furthermore, does collective action (e.g. through town hall meetings, civic neighborhood meetings) and participation in social practices with shared meanings (e.g. through attending Mardi Gras, a Jazz Festival, or a Saints Football Game) contribute to the building of resiliency and empower and include citizens in repopulating and rebuilding efforts in New Orleans?

Max Weber asserts that social action involves the attachment of subjective meaning to behavior, and that this meaning is a product of social context.\(^10\) He delineates four social contexts for types of social action: action that is based on past empirical experience, values derived from ethical, religious or aesthetic positions, emotionally driven action and action undertaken as a result of habit or culture.

In the face of Katrina, residents’ actions were influenced by each of these social contexts, often in overlapping and reinforcing ways. People had to reconcile potential action based on received empirical evidence, emotional reactions and habitual behavior. This broad understanding of the pressures shaping decisions foster clearer understanding of why people might act in ways that from the outside appear irrational. There were rationales to people’s decisions: for some there would be too much traffic to bother evacuating; others felt pressure to protect their property; still more believed the Superdome to be safe, and/or that it would be too much trouble to leave and return, among other reasons.

The following discussion presents the views of those caught up in Hurricane Katrina. Evidence is organized around three themes and three moments in the history of the disaster. First, vulnerability, and flexibility, are investigated through the lens of mandatory evacuation. Second, contingency is examined by looking at the lack of preparedness for the breeching of the levees. Third, the roles of emotion, affect and memory are examined through victim’s accounts of decisions to return and/or (re)create home in New Orleans.

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\(^9\) Use of the term victim is utilized due to the strong indication from many respondents who believe they remain neglected and misinformed by the government.

Vulnerability, Flexibility and Contingency

The Exodus: Understanding Departure and Mandatory Evacuation in New Orleans

Ordinarily when New Orleans residents hear that there will be flooding; they expect two to four feet of water covering no more than 30 per cent of the city. The water quickly recedes and the city bounces back to business as usual. On Friday, August 26th the National Hurricane Center categorized Hurricane Katrina as category five\textsuperscript{11} with a high per cent chance that it was heading towards New Orleans. For the majority of New Orleans residents this warning became the defining moment, offering the first line of defense to protect and secure property, family, and self. According to the 2005 Louisiana Hurricane Impact Atlas, by Sunday evening approximately 1 million people had evacuated the greater New Orleans area. But despite the success of \textit{Contraflow} evacuation, approximately 150,000 people, mostly poor and disabled, were unable to evacuate the city.\textsuperscript{12} Although, there is some understanding that lack of economic resources and no access to a vehicle prevents leaving (see Figures 1 and 2). For many the tendency to remain in the city to “ride it out” is a popular reaction and has proved to be the wiser choice for many years as New Orleans has remained untouched during previous hurricane seasons. An additional alternative to leaving the city is to make accommodations to stay in one of the many hotels in the Central Business District as one resident (African-American, male, age 36) revealed:

“It’s easy to go and stay in the hotel. I made reservations that Friday night to get there on Sunday. That’s what we have been doing for years. You feel safe; you know the hotels have generators, food, and drinks. I park the car high up. The hotels become crowded, but we make the best of it. I sat in traffic leaving the city one time and promised I would never do it again. Having a couple of drinks at the hotel was just always the easiest thing to do; you don’t think the whole city will flood like it did. When the water started coming, I was told to go to the Superdome\textsuperscript{13} and that was just like hell in there.”

Another resident (African-American, female, age 63) expressed:

“When I saw the National weather report and it turned into a hurricane five, I didn’t have to wait for the mandatory evacuation. I knew we had to leave as soon as possible. I have a daughter in Atlanta so I had a place to go, but even if I had no place to go, I would go and get a hotel, but I was leaving. I remember walking through the flood from Betsy\textsuperscript{14} and just this past season Cindy\textsuperscript{15} had my electricity out for two days.”

And still, a white female (age 42) offers:

“On Friday, when I knew the hurricane was coming I called my mother and immediately wanted to leave. She wanted to stay so she could be close to her dog. Against my better judgment and not wanting to get in an argument – I just agreed and told her she still would have to come to my house, which is located in the mid-

\textsuperscript{11} Saffir-Simpson Hurricane Intensity Scale - 155 mph Wind Speed
\textsuperscript{12} 2005 LA Geographic Information Center (LAGIC) – http://lagic.lsu.edu.
\textsuperscript{13} The New Orleans Superdome is a large multipurpose exhibition structure, not originally designed for shelter during a storm. First used in 1998 for Hurricane Georges as a center of refuge is was also used in 2004 during Hurricane Ivan.
\textsuperscript{14} Hurricane flooded large parts of the city in 1965 and was responsible for 75 deaths and US$1 billion in damage.
\textsuperscript{15} Hurricane Cindy occurred July 2005, originally measured as a tropical storm but post storm analysis confirmed the upgrade to a Hurricane. Cindy caused flooding and a severe blackout in New Orleans which encouraged the population to evacuate when Hurricane Katrina approached. See Stewart, 2006
city area. On Sunday, when Mayor Nagin issued the mandatory evacuation, I still knew we should leave but it was too late and traffic would be too hard to get out. I had never been to the Superdome, but knew we waited too long to leave, most of my neighbors were gone. The neighborhood was empty. We decided to go to the Superdome at the last minute because there was nobody around. It was an eerie feeling. I knew we made the wrong decision but now we had to make the best of it and unfortunately the Superdome was all that was left.”

Finally, as discussed with one New Orleans resident, merely leaving at the advice of the local weatherman, Bob Breck:

“The day before my mom and other friends were calling telling me they were leaving, trying to get me to leave, but I just felt like staying, I did not feel like driving and sitting in the car for hours, I had enough food for a couple of days and was willing to wait it out. I woke up Sunday morning and I saw Bob Breck, our weatherman wearing jeans and he said that he was not going to give us a report on the hurricane, but if we could leave we should leave right now. When I saw that, I knew it was going to be bad, worst than I thought. I packed a few things and was on my way out.”

As these cases show, decisions about leaving are not simply determined by access to a vehicle. Past experiences, particularly of difficult evacuations and confidence in the security of home discouraged evacuation. These examples bear witness that more than knowledge of a category five hurricane and enacting the mandatory evacuation, individuals’ experience of past events and evacuations strongly shapes evacuation decisions.

Prepared for Hurricane Katrina - Unprepared for Levee Breeches

As public agencies fail to understand all contributing factors in disaster scenarios, it becomes increasingly difficult for citizens to look to them for complete and accurate information. When examining vulnerability patterns, Hurricane Katrina revealed vulnerability must be considered at the public level as well as the private level.

As problems of saving victims or restoring order came to characterize the unfolding events of Hurricane Katrina, Government and public agencies ceased addressing and meeting basic human needs of residents in the Superdome and Convention Center to employ tactical response to civil unrest, further thwarting and prolonging safety and security measures designed to protect and assist citizens. As one citizen (White, male, age 62) explained:

“Of this whole frightening catastrophe, The NOPD and the military soldiers had me more afraid than anything. I was in a boat trying to help people to the foot of the bridge, when someone said ‘DON’T MOVE’ they pointed their rifles at me and asked what was I doing in New Orleans and told me I had to immediately leave the city. I just went home and sat by the door with my wife and my guns. I never would have stayed if I knew that water would get that high all over the city.”

Similarly, another resident (African-American, male age 42) tells:

“The police and the military were ready to kill anybody. I lost count how many times they stopped and aimed a gun at me. I rescued people for three days and was bringing them to Jones School where we had made some sort of rescue shelter, we called ourselves Soul Patrol, then we would bring them to the I-10 (the interstate) and hopefully a helicopter would get them from there. At night that’s where I would go and stay because the only lights were the stars. There was no
safe place it was total darkness and water everywhere throughout the city. The
government or nobody was there to help, I didn’t have water for four days and all
I could do was to keep trying to help people during the day.”

Trying to understand clearly how and what caused the levees to breach in their precise
locations has proved to be an arduous task. While there are many theories, ranging from faulty
designs to poor maintenance, many local residents feel it was not by chance, but a plan
designed to protect the city’s most vital area, the historic French Quarter. As noted by one
resident (African-American, male, age 55) that remained in the city:

“This was not the first time they had to flood parts of the city to save the French
Quarter. After the hurricane passed it was quiet, it was going to be a nice day,
hot- I knew it had passed us up. About thirty minutes later I heard a loud loud
boom and then within five to ten minutes another one, like it was loudest gunshot
ever. Water started coming and when I say coming it was moving. I knew I had to
get out the house. I just left with nothing but my wallet, I walked through the
water with my hands in the air holding my wallet high, and I didn’t want to lose
my money. The entire city was flooded; everywhere I looked water, high water... I
walked probably 15 – 20 miles till I got Uptown. The water was not that high. A
white lady was driving by and saw me. She offered me a ride and I was able to
get to Baton Rouge with her.”

However peculiar this urban myth is, it may in part be considered important and constituted
by the unforgotten legend in which the levees were destroyed in the 9th Ward during
Hurricane Betsy in 1965 to save the French Quarter.16

While there was no thorough and systematic investigation that the explosion occurred, many
residents of New Orleans hold these hypotheses as “articles of faith”17 when considering the
failures of the levee system. As spoken by one New Orleans resident (female, white, age 38):

“The news keeps showing how the levees were breeched in the 9th ward, the levees
also breeched in Gentilly, and by Lakeview. There was five major levee breaks,
that all contributed to the flooding of the city. My house was a block away from
the break on Robert E. Lee and the Corps of Engineers just completed fixing or
repairing those levees about a year before Katrina. I just can’t believe how they
broke. I think I was too comfortable with believing they would hold up. Everybody
was, that’s why some people chose to stay. There is no way we can ever be
compensated for what we lost and no one is held accountable and we will never
know what really happened.”

The failures of the levees have been largely attributed to systematic and long-term failures by
government to maintain these defences. The majority of government reports pre-Katrina state
the levee system was in danger of overtopping in storm surges over 5 meters. More
specifically, the report after mock Hurricane Pam stated, “flood waters would surge over
levees, creating catastrophic mass casualty/mass evacuation and leaving drainage pumps
crippled for up to six months.”18 The breeching of levees was not, however, predicted.

In the event, it was an inadequate levee system used as a barricade from Lake Ponchartrain
and not the Mississippi River that contributed to the severe flooding of 80 per cent of the city,

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16 During Hurricane Betsy 200,000 were fed by the Red Cross and temporary housing was established in tent cities.
17 Marc Morial, “When the Levees Broke” HBO Documentary, 2006
Cherthoff put it: “There would be overflow from the levee, maybe a small break in the levee. The collapse of a significant portion of the levee leading to the very fast flooding of the city was not envisioned... They [planners] were confronted with a second wave that they did not have built into the plan, but using the tools they had we have to move forward and adapt.”

While, Ivor van Heerden, the Hurricane Center’s deputy director stated, “the real scandal of Katrina is the ‘catastrophic structural failure’ of barriers that should have handled the hurricane with relative ease. We are absolutely convinced that those floodwalls were never overtopped.” Analysis of the levee breaches without regard to decline in governmental funding and poor structural design offers an incomplete picture of the probable consequence of factors in shaping the vulnerability of the city’s infrastructure and community. The decline in government spending can be traced back to the 1990s when Congress refused to fund an upgrade of the levee system requested by the Army Corps of Engineers.

Emotion, Affect, and Memory (as knowledge)

New Orleans in Diaspora: A Culture Returning and (Re)creating Home

Whether trying to remember or forget, residents of New Orleans continue to cope with great moments of uncertainty. As the impact of the levee breaches and apathetic response from all levels of government brought into being the sudden rupture from home and all that is familiar, the New Orleans community persists in seeking innovative tactics to return home and find home elsewhere. Seeing that residents remain plagued with no definitive plan from city and state government, nor direct consistent assistance from the federal government, they have assembled and created networks and communities committed to returning home and rebuilding. New Orleans is a city and community whose identity is framed by shared custom and tradition.

An African American, female (age 57) waiting for the possibility to return commented:

“I know the city will never be the same. But this all I know. I can’t wait to get out of Dallas. Those people are tired of helping us. I was able to gut out my house in the East but who knows when they’re going to put on electricity. All my clothes were destroyed. The only thing I am bringing back is plenty of Red Beans. I got two suitcases full. Everybody told me: Bring back red beans! Bring back red beans!”

Bearing in mind the rebuilding efforts of New Orleans, is it smart and safe to rebuild the city considering it is six feet below sea level and surrounded by water on three sides? Without adequate technological intervention and government funding the wetlands continue to erode, levee structures remain weak, and the city remains vulnerable to more human-made and natural disasters. Nonetheless, since the onset of this catastrophe, community groups and neighborhoods are participating in rebuilding and reconstruction efforts determining their own immediate and long-standing opportunities. For example, residents of the Ninth Ward took

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20 Glasser and Grunwald, 2005
21 See Blumenthal, 2005. In 2004, the Bush administration cut funding requested by the New Orleans district of the U.S. Army Corps of Engineers for holding back the waters of Lake Pontchartrain by more than 80 per cent.
22 See Warner, 2006
23 Red Beans are a New Orleans Food dish symbolic to New Orleans Culture.
24 McQuaid and Marshall, 2005
the initiative and collectively orchestrated a demonstration that halted demolition and bulldozing of their property.

One Ninth Ward Resident (African-American female, age 72) said:

“I don’t care if the government don’t give me a dime to help me rebuild, I got this property from my parents, I lived here my whole life, raised six kids here and I am going to die right here, they can bury me right by mama and daddy in the graveyard five blocks away. I’m staying in a hotel in Metarie now, just waiting for the city to get the electricity on in this area (the Ninth Ward), I’m on the list for my FEMA trailer, so I’ll be in good shape with or without help but I ain’t waiting on nobody to ask if I can live on my property. I know this looks real bad but we gonna make them do right by us. We can’t let them destroy a whole city.”

While a resident from the Lakeview area of New Orleans, (white, male, 46) said:

“I don’t really know when it’s going to be a good time to move back. We have a trailer coming, my wife and kids want to be back, but are the levees ever going to be safe and right. My kids’ school is open and I think it would be good for them to see their old friends and teachers, if they’re there – you know, good for their morale but how do you know? You can’t trust the federal government to bring a bottle of water so how can I think they will appropriately fund the city to help build and protect our houses again, the insurance company is taking forever, trying to decide if it is wind damage, flood damage – I really can’t see that it matters, the dam levees breached and no one was ready for that. America has never seen a disaster like this; you just can’t use old policies and standards to compensate us. The government needs to do everything in their power to get us back to where we were. Congress keeps allotting more money but where is it going? If it wasn’t for the information that I get from our (Lakeview) civic association we would be lost. My wife is helping with trying to get Congress to come and take a look at this mess, they all need to come and see this, that’s the only way they will ever know what we are going through down here.”

Another resident from New Orleans East (African-American, male age 69) unsure of returning said:

“Well me and my wife were about to retire. We mostly have been back during the holidays. We made sure not to miss Mardi Gras. My children went back to go to the Saints game. I think for the next three years it is going to be a lot of being in two places for a lot people. When you have a place to come and stay, you can come and get things done to start your rebuilding or trying to find a new place. It’s going to be different here, and I think whoever wants to come back within the next three years we’ll have the possibility, black, white, poor or rich. They will come back. This is a day-to-day thing still. You are told something new everyday, I just found out from the Recovery Home Program we are not getting our money all at once but we have to get paid annually for three years. They try to discourage you with all kinds of ways of making it difficult that’s why people still do not know what they are doing... I check with my High School Alumni Association for everything since the beginning of the storm, I know some people are still scared of the air down here and want to wait a lil while longer before officially returning.”

Clearly, strong community involvement, informal interaction and intervention is playing a critical role in shaping and directing future plans for New Orleans citizens considering return.
Reconstructing the city’s social as well as its physical fabric requires efforts to preserve cultural heritage, strengthen local government and infrastructure and support local community efforts that are aimed at protecting the city and its citizens. As the report presented to the Mayor by The Cultural Committee states: “Culture can and should serve as the catalyst to rebuild New Orleans. Culture will bring back the City we love, and culture will stimulate our economic revival.”

Social networks and community groups are active in the dissemination and receipt of essential information; serving as outlets to discuss and emotionally manage frustration, anger, and sadness. They prevent social isolation and can also develop strategic plans and arrangements for successful return. These factors present unique indicators of resilience, stemming from membership of local community, extended family and neighborhood networks.

A recent survey released by the Louisiana Recovery Authority indicated the New Orleans overnight population is at 187,525. Just recently 4,000 residents of the 9th ward have use of electricity and potable water. Furthermore within the past year New Orleans has continued to successfully host the city’s most important traditional heritage events. With Mardi Gras, The Jazz Festival and the re-opening of the Superdome for the New Orleans Saints football team providing symbols of cultural recovery and resilience, citizens are continuously encouraged to return home.

**Conclusion**

While this study is ongoing, the results thus far have several practice and policy implications. Pursuit of this ethnographic fieldwork and qualitative analysis taps into data frequently overlooked in traditional disaster literature and research.

First, these results suggest disasters cannot be assessed as isolated events. It is critically important to understand the socio-historical development contexts that shape community and individual disaster preparedness and response. For example, the evacuation procedure proved to be a traumatic and daunting experience, leading to missed opportunities and putting people at risk.

Second, in this case, neglect of structural barriers (levees), which were believed and assumed to be sufficient to protect the city, led to a misplaced trust and unforeseen risk. On the one hand, there are questions of decreased funding that obviously lead to poor maintenance, but more salient is the possibility of poor design construction led and managed by the United States Government and Corps of Engineers. These factors must be assessed in order to maintain proper management and effective, honest communication between government agencies and citizens.

Third, any approach to developing policy to assist individuals and communities in disaster preparedness must view them as active participants. People are understood here not simply as ‘users’ and ‘consumers’ of infrastructure, but as constitutive of infrastructure. Seeing pre- and post-Katrina New Orleans residents as integral to the emergent infrastructure, allows us to understand the

“...diffuse but no less concrete ways in which diverse urban actors are assembled and act...a micropolitics of alignment, interdependency, and exuberance...practice of being attuned to faint signals, flashes of important

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26 Louisiana Recovery Authority, 2006
27 See, for example MaliqSimone, 2004
creativity in otherwise desperate manoeuvres, small eruptions in the social fabric which provide new texture, small but important platforms from which to access new views.”  

Through the lens of New Orleans Diaspora, this study has utilized individual narratives as the medium to capture and express the “lived and shared experience” of many New Orleans residents who continue to cope despite being deceived by the government, discriminated against, degraded, humiliated, and simply abandoned. This approach has utility for all disaster events and offers a way for a more holistic conceptualization of individual decisions during disaster.

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