

DEMOLITION OF HISTORIC BUILDINGS ON THE MISSISSIPPI GULF COAST
IN THE WAKE OF HURRICANE KATRINA

by

GWEN K. JONES

(Under the Direction of Wayde Brown)

ABSTRACT

This thesis examines the circumstances under which historic architectural resources were demolished in the aftermath of Hurricane Katrina on the Mississippi Gulf Coast. A brief history of three hurricane-related natural disasters in the United States addresses the political, economic, and social impacts post-disaster. Three case studies provide scenarios in which preservationists successfully, and unsuccessfully, collaborated in the aftermath of Hurricane Katrina to protect historic architectural resources on the Mississippi Gulf Coast. An analysis of factors that led to demolitions, the roles played by different levels of government and preservationists, and strategies that worked and did not work to prevent demolitions are also presented.

INDEX WORDS: Historic preservation, Hurricane Katrina, Mississippi Gulf Coast, Demolition of historic architectural resources, Scenic Drive Historic District, Gulfport-Harrison County Public Library, East Ward School

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DEDICATION

This thesis is dedicated to my mother and father. Without your love and encouragement, I would still be in kindergarten.

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CHAPTER 1

INTRODUCTION

Tempus Edax, Homo Edacior: Time is a devourer, man, more so.¹

In 1831, the French author, Victor Hugo, coined the above Latin aphorism and translated it to mean “time is blind, but man is stupid” for use in his book, *Notre Dame de Paris (The Hunchback of Notre Dame)*. Hugo was expressing his sorrow and indignation at the “numberless degradations and mutilations,” which the hands of Time and of man had inflicted upon the venerable cathedral of Notre Dame de Paris. In his book, Hugo concluded that Time had been more forgiving than man: “Time has given to the church, perhaps, yet more than he has taken from it; for it is he who has spread over its face that dark-gray tint of centuries which makes of the old age of architectural monuments their season of beauty.”² What happens, however, when a catastrophic event of Nature, instead of man or Time, inflicts upon a landscape destruction of such magnitude that Man’s option to degrade or mutilate an historic edifice is replaced with pressures to demolish? The role of historic preservation, in this sense, is crucial to prevent communities and government, rightly focused on survival and recovery after disaster, from making decisions to destroy the record of culture found in the historic built environment.

Leading up to the publication of Victor Hugo’s novel, the National Assembly of France decided, “the sacred principles of liberty and equality no longer permit the

¹ Victor Hugo, *Notre Dame de Paris*, Book Three, Chapter 1, Notre Dame, The Free Library, <http://hugo.thefreelibrary.com/Notre-Dame-de-Paris/3-1> (accessed April 11, 2011).

² Victor Hugo, *The Hunchback of Notre-Dame* (New York: Dodd, Mead, 1947), 155, quoted in Amanda Kolson Hurley and Tricia Vita, “Smashers: the Highs and Lows of the Wrecking Trade,” *Preservation* (November/December 2005): 60.

monuments raised to pride, prejudice and tyranny to be left before the people's eyes." During the French Revolution, 1789 to 1799, destruction and vandalism of buildings was supported by legal orders. Thousands of historic structures were needlessly demolished, and destruction continued well into the 1800s. After the revolution, possessions of the church and the king were, fortunately, considered national property and the nation had the responsibility for its care and protection. The French government became aware that this responsibility could only be fulfilled through a unified effort by both the National Assembly and the leadership of municipalities. By the 1830s, a movement for the restoration of medieval buildings had come into fruition, and by 1844 a *Comite d'instruction publique* was firmly established and charged with the responsibility for the protection of monuments. Viollet-le-Duc restored Notre Dame combining historical fact with creative modification, but his general adherence to the medieval Gothic style of the building, as it was originally built, satisfied the cultural and aesthetic values of Second Empire France. Furthermore, considerable legislative effort had been directed toward the establishment of a system of conservation and protection of historic resources, along with compilation of inventories of cultural property.³

The cultural landscape of the Mississippi Gulf Coast region of the United States was permanently changed by Hurricane Katrina. One third of the state's individually listed buildings were located on the coast and it is believed that approximately ninety percent of those were obliterated. Thousands more unlisted and undocumented resources were destroyed or severely damaged.⁴ A second, man-made disaster followed, much like that in France during the Revolution. After Katrina, thousands of historic structures were categorically dismissed as being beyond repair, unworthy of rehabilitation or restoration, or unimportant to the recovery and anticipated

³ Jukka Jokilehto, *A History of Architectural Conservation*, Butterworth-Heinemann: Boston, 1999, 70.

⁴ Salvatore Deluca, "The 50 Percent Solution," *Preservation* (January/February 2006), 14.

redevelopment of the region. Much of the historic built environment that remained after the hurricane, therefore, was needlessly demolished in the weeks and months following the storm. Unnecessary demolition of homes, rental properties, businesses, and public buildings exacerbated the problem of bringing back to the region the tens of thousands of people who were forced to evacuate, which prolonged suffering and greatly extended the period of recovery. Along with this grand upheaval came an alteration of the built environment so profound that it changed the ways in which individuals interacted with each other and their surroundings, while creating an entirely new reality for those living in the aftermath. As these demolitions continued, the result was a gradual fading of the region's historic fabric, a loss that has proven to be a great impediment to recovery and socio-economic progress.



Figure 1. Historic home in Biloxi after Hurricane Katrina. Sign reads "DO NOT BULLDOZE."
Courtesy: Brendan Holder.

In the United States, communities affected by natural disaster usually recover in similar ways. An economy might be affected by loss of homes and businesses and by a dispersed population, but as reconstruction begins, a majority of the population returns, and new residents settle in, bringing order and a revitalization of community. Recovery from Hurricane Katrina, however, has not followed the usual paths of economic and cultural development, largely because the sheer magnitude of the event was unprecedented, but also because the trauma suffered was profound. In 2008, three years after Hurricane Katrina, most of the population that contributed to the Gulf Coast region's world-renowned culture remained dispersed.⁵ Without jobs, community, and housing it is likely that many found it easier to begin again in a different place and escape the entire ordeal.

Under these circumstances, retention of the historic built environment becomes not only a way to preserve the cultural assets of the region, but also to provide for a social and economic recovery that is meaningful and efficient. Since passage of the National Historic Preservation Act (NHPA) in 1966, preservationists have relied on the different levels of government and the collective knowledge of many disparate fields to protect the built heritage after disaster. Non-profit and non-governmental organizations, planning professionals, architects, lawyers, geographers, ecologists, structural engineers, and historians, among others, are all important contributors. Successful collaboration among these groups is crucial, and in many cases prevents demolition of historic resources, while greatly increasing a community's ability to recover quickly and efficiently. As the activities after Hurricane Katrina illustrate, however, more basic social and political issues surrounding preservation and redevelopment have not been addressed. The link between cultural issues and public policy became strikingly clear, and traditional approaches to preservation were often found to be inefficient. The clash

⁵ Adam Nossiter, "New Orleans of future may stay half its old size," *New York Times*, January 21, 2008.

of interests between politicians and government, developers, corporations, foundations, and other collaborators, produced severe discord. Between the chaos of the aftermath, concern for public safety, and competition for new investment opportunities, retention of damaged historic architectural resources became extremely difficult.

Recent natural disasters have demonstrated improved collaboration between the fields of disaster management and historic preservation to protect historic resources post-disaster. After Katrina, however, the failure of government response at all levels was unprecedented. Help from the Federal Emergency Management Agency (FEMA) arrived days and, in some cases, weeks after the needs of survivors had peaked, which greatly reduced the options and ability of those in service to protect historic resources in the aftermath. Local preservation leaders, for example, did not have adequate means to act after the storm. The large degree to which historic preservation values would be neglected in the long-term, however, could not be anticipated. Lessons learned by federal, state, and local entities in the wake of immense hurricanes such as Camille in 1969, Hugo in 1989, and Andrew in 1992, did not seem to be considered in the wake of Hurricane Katrina. Unnecessary destruction and deterioration of the historic built environment continued as if most had learned nothing. The profound effect the storm had on the unique sense of place is exacerbated by the loss of these structures and continues to contribute greatly to a dispersed population.

In the aftermath of a storm as momentous as Hurricane Katrina, an understanding of what actually affects a community's capacity to consider historic preservation, follow policy, and retain buildings during the recovery period, must be understood. The storm created an invaluable learning tool and an opportunity for significant change. Since Katrina, the goal of preservationists has been to identify challenges and develop processes that will generate solutions in responding to extensive historic architectural resource issues after disaster occurs. The ability to

collaborate after such a multifaceted event as Katrina should not elude preservationists again, and this thesis may provide a better understanding of the delicate interface between cultural issues and public policy that will improve how the United States deals with historic resources after disaster.

Specifically, this thesis will identify the ways in which historic architectural resources were lost in the weeks and months following Hurricane Katrina, what factors contributed to these losses, and what strategies to protect historic architectural resources were successful. The history of hurricane-related natural disasters is discussed in Chapter Two with an emphasis on the political, economic, and social importance of preserving historic resources during recovery. Specific cases in which collaboration between those involved in the recovery process greatly evolved, or was improved, will include the Great Galveston Hurricane of 1900, the Great Hurricane of 1938, and Hurricane Floyd in 1999. Chapter Three examines specific scenarios in which grass roots groups, government agencies, and non-profit and non-governmental organizations in Mississippi collaborated in the aftermath of Katrina to save historic architectural resources, or destroy them. Historic preservation policy and conditions of vulnerability will be discussed within each of these scenarios. Chapter Four analyzes factors that led to demolition of historic architectural resources, the roles played by different levels of government, which strategies worked to prevent demolition in the aftermath, and which did not. Extensive interviews undertaken during site visits to the Mississippi Gulf Coast region will be used to elaborate. Addressing the original thesis question, Chapter Five draws conclusions about the most effective ways to protect and retain historic architectural resources in the wake of natural disaster, and what changes could be made to retain the historic fabric of cities in the aftermath of future disasters in the United States.

CHAPTER 2

NATURAL DISASTER: A CONTEXT

Demolition of historic architectural resources in the aftermath of Hurricane Katrina was a man-made disaster that had a direct relationship to the slow and difficult socio-economic recovery of the Mississippi Gulf Coast, and loss of much of the historic built environment will continue for many years to have a profound effect on survivors' sense of place. This kind of loss is emphasized when compared to the effects of natural disasters of the past. In October of 1985, for example, a tropical depression stalled over Puerto Rico creating torrential floods along the island's southern coast. A landslide ravaged a populated area northwest of the city of Ponce leaving 170 dead and \$125 million in damages.⁶ Social scientists who examined the effects of these floods found that many victims tended to distort the memory of the disaster, especially the magnitude of the event's impact and their reaction to it over time. Survivors could not accept the idea that a natural disaster could render themselves and their community completely helpless. They wanted to continue any evasive, yet functional, psychological response they could muster for as long as possible.⁷ The trauma and destruction caused by Hurricane Katrina was exponential to that caused by the disaster in Puerto Rico, yet the human reaction to the disaster was generally the same. Survivors wanted to forget about what happened, clear the landscape of destruction and debris, and get on with their lives, but this natural tendency contributed greatly to the glacial pace of recovery and the arduous task of rebuilding what was needlessly demolished.

⁶ Robert A. Case, "Annual Summary: Atlantic Hurricane Season of 1985," *Monthly Weather Review*, 114 (July 1986): 1400-1401. http://www.aoml.noaa.gov/general/lib/lib1/nh_clib/mwreviews/1985.pdf (accessed April 5, 2011).

⁷ G. Canino, *et al.*, "The Impact of Disaster on mental Health: Prospective and Retrospective Analyses," *International Journal of Mental Health*, 19 (1): 57.

It is important to note that, although the magnitude of Hurricane Katrina was unprecedented in the United States, societies elsewhere have endured similar catastrophes, and used the experience as an instrument of progress. This resilience is shown all over the world where most disaster sites have remained populated throughout time.⁸ As Vale and Campanella wrote in their book, *The Resilient City*, “Although cities have been destroyed throughout history— sacked, shaken, burned, bombed, flooded, starved, irradiated, and poisoned—they have, in almost every case, risen again like the mythic phoenix.”⁹ Archaeologists recently revealed that about seventeen years before the city of Pompeii was destroyed by Mount Vesuvius, structures were being restored in the aftermath of several earthquakes.¹⁰ Over 1500 years went by before the remains of Pompeii were discovered, but the ash that covered the city generated a rich black soil perfect for cultivation. Tops of buildings and occasional statuary hidden in the earth often impeded the work of farmers, and local builders used stones and bricks found at the site.

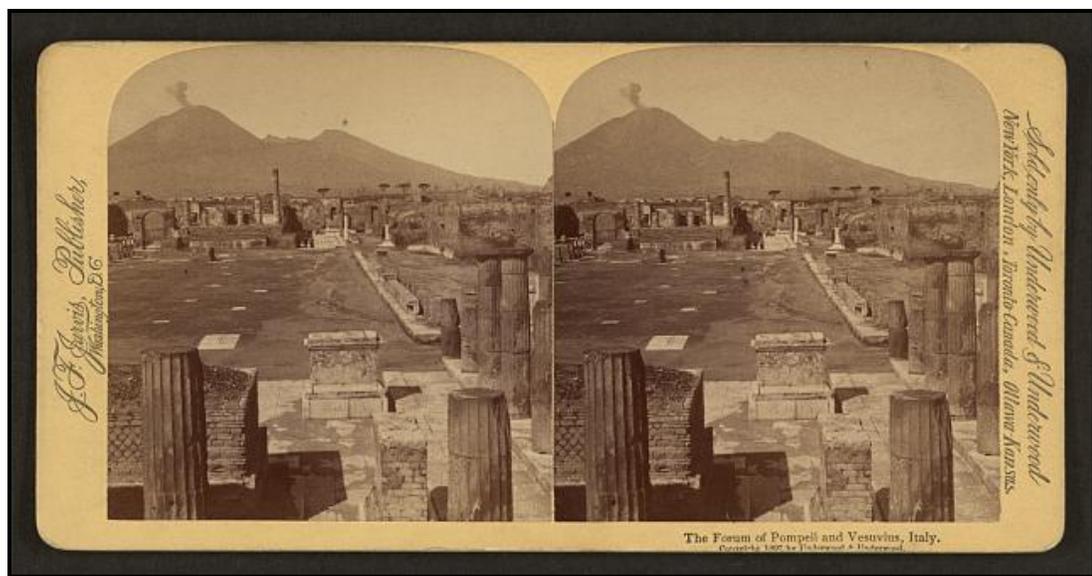


Figure 2. Stereograph photo card showing the ancient city of Pompeii. Source: Library of Congress.

⁸ Lawrence J. Vale and Thomas J. Campanella, *The Resilient City: How Modern Cities Recover from Disaster* (Oxford: Oxford University Press, Inc., 2005), 28.

⁹ *Ibid.*, 3.

¹⁰ Current Archaeology, “Visiting Pompeii,” <http://www.archaeology.co.uk/cwa-2/world-features/visiting-pompeii.htm> (accessed April 3, 2011).

After the Spanish viceroyalty of Naples was established in 1504, larger settlements were established¹¹ and areas surrounding Pompeii continue to be populated to this day, despite Mount Vesuvius looming nearby.¹² The same is true of the Mississippi Gulf Coast; despite Katrina's magnitude, and the slow recovery process, the people and the culture remain.

Thus, whether a disaster is natural, man-made, or both, the importance of retaining as much of the historic architectural fabric of a region in the aftermath should not be understated, especially considering the knowledge we have today of use and maintenance of historic materials, and how to plan for the management and treatment of historic buildings. The historic built environment provides knowledge of the past for public benefit, and its protection after disaster reduces costs associated with replacement of existing urban amenities like town halls, schools, churches, and fire stations. Further, buildings such as concert halls, museums, libraries, and theatres that are part of a cultural infrastructure play a role in the local economy and are an essential component of the local tourism industry. Individually significant buildings, as well as historic districts, can protect property values, preserve indigenous character, and maintain and support urban design standards. They help to guide orderly growth and redevelopment after disaster, while decreasing the overall cost of reconstruction. Lastly, historic buildings that provide housing for businesses and employees after disaster are invaluable.¹³

Donavan Rypkema, a preservationist who has lectured widely on the economics of historic preservation noted that, along with preserving a sense of place, preservation of historic architectural resources encourages a sense of evolution, identity, ownership,

¹¹ Colin Amery and Brian Curran Jr., *The Lost World of Pompeii* (London, England: Frances Lincoln Ltd. in association with the World Monuments Fund, 2002), 30-31.

¹² Roxanna McDonald, *Introduction to Natural and Man-Made Disasters and Their Effects on Buildings* (Oxford, UK: Architectural Press, 2003), 1.

¹³ Angela R. Tweedy, "Beyond Disaster Response: Public Policy Challenge of the New Millennium," *CRM* 23 (June 2000): 6.

and community. He argues,

A sense of place is the idea that a community is neither ‘anyplace’ nor ‘no place’ but ‘someplace,’ unduplicated anywhere. A sense of identity is accomplished when a community wants to be a valuable place by identifying its attributes that add to its differentiation from anywhere else. A sense of ownership is complete when there is a feeling of an individual stake arising from that particular place and fellow citizens. Lastly, a sense of community is produced when residents acknowledge the obligations to and interconnectedness with the other residents of that place.¹⁴

In any community, these values are important, but after a disaster like Katrina, they take on a special significance and become crucial to the ongoing vitality of a place. Because of the social, economic, and physical impacts to the surrounding landscape in a disaster, communities rely on their historic built environment to reinforce a connection with their community and offer some comfort in the face of their losses. Unnecessary loss of any component, no matter how small or seemingly insignificant, has a negative effect that causes emotional distress and pain.¹⁵



Figure 3. St. Michael's Catholic Church in Biloxi after Hurricane Katrina. *Courtesy:* Brendan Holder.

¹⁴ Donovan Rypkema, "Historic Preservation and Economic Development in the 21st Century" (lecture, Yunnan Province, China, September 1999).

¹⁵ H. John Heinz III Center for Science, Economics, and the Environment, *Human Links to Coastal Disasters* (Washington, D.C.: The Heinz Center and NOAA, 2002), 10-11.

The following histories illustrate some of the social, political, and economic issues surrounding redevelopment in the aftermath of natural disaster in the United States. They provide a perspective from which issues related to demolition on the Mississippi Gulf Coast after Hurricane Katrina might be understood.

The Great Galveston Hurricane of 1900

The Great Galveston Hurricane was the deadliest natural disaster ever to strike the United States. Because more than a century has passed since it occurred, there is a vast array of information about the storm and the ability of humankind to endure disaster and rebuild. An account of the aftermath, recovery, and Galveston's subsequent transformation, is important to an understanding of how crisis can promote growth and progress, new levels of consciousness, and new attitudes toward the protection of cultural resources.

Galveston is an island city located just off the southeast coast of Texas. In September of 1900 it was struck by one of the deadliest and most destructive hurricanes in the history of the United States, and residents had little or no warning of the impending disaster. Isaac Cline, meteorologist and overseer of the U.S. Weather Bureau in Galveston, had written an article in the Galveston Daily News in 1891 in which he gave his official opinion that a hurricane would never do serious harm to Galveston and called the notion "a crazy idea." Although many residents had called for the construction of a seawall to protect the city, Cline's statement helped to prevent its construction.¹⁶

Out

of a population of approximately thirty-seven thousand, approximately eight thousand

¹⁶ Erik Larson, *Isaac's Storm: A Man, a Time, and the Deadliest Hurricane in History* (New York: Crown Publishers, 1999), 53-57.

died and approximately four thousand--nearly two thirds--of the city's buildings were obliterated.¹⁷ Houses floated off their foundations and collapsed, or were crushed by masses of debris and winds of 120 miles per hour. The tidal surge of 15 feet took with it about fifteen hundred acres of shoreline that physically changed the geography of the island. The financial cost of the storm was about \$700 million by today's standards.¹⁸

The development of Galveston as a major United States city helps explain the reaction and management of recovery in the aftermath of the hurricane. After Texas won independence from Mexico in 1836, Galveston developed quickly as the only deep-water port between New Orleans and Tampico, Mexico. A group of entrepreneurs capitalized on the port's steady flow of ships and goods and formed the Galveston City Company to sell land lots. By the end of 1838 over sixty families had settled in the city and almost a



Figure 4. House wrecked after floating off its foundation. *Source:* Galveston Historical Society.

¹⁷ *Ibid.*, 296. Cline lost his wife in the hurricane, and afterward moved to New Orleans with his two young daughters where he worked as chief forecaster of the New Orleans Weather Bureau and dedicated himself to the development of early warning systems.

¹⁸ Patricia Bellis Bixel and Elizabeth Hayes Turner, *Galveston and the 1900 Storm: Catastrophe and Catalyst* (Austin: University of Texas Press, 2000), 28.

hundred buildings had been built. A traditional mayor and city council structure of government was adopted during this time, which one historian recently characterized as being grossly inefficient and causing political infighting.¹⁹ Soon after the first commercial wharves were constructed in 1854, some business leaders with ownership in the Galveston City Company broke away to form the Galveston Wharf Company, a semi-public investment.²⁰

Eventually the port would supply the western United States with essential goods that helped spur the development of the entire nation. In 1860, however, seven of the ten existing wharves under company ownership began to fall apart with disputes over land ownership around the port that became quite fierce. Power and ownership wars between private investors and the city came to a head in 1869 when a court decree gave the city one third of the Galveston Wharf Company's stock and three seats on its board

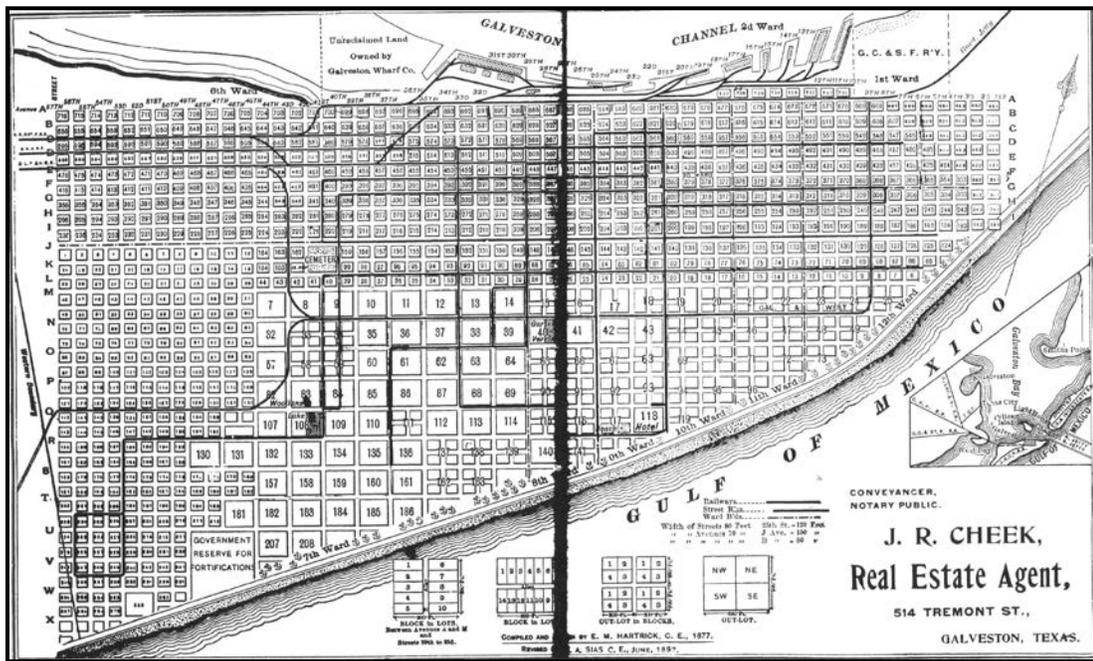


Figure 5. Plan for Galveston made in 1900, before the hurricane. *Source:* Galveston Historical Society.

¹⁹ *Ibid.*, 34.

²⁰ *Ibid.*, 47.

of directors. Although contentious, the new arrangement allowed wealth to spread quickly and by the time of the hurricane, more millionaires lived in Galveston than any other city in the United States. This wealth helped the developing island become the first city in the state to build its own post office, opera house, hospital, country club and many other public buildings. The architecture reflected the arrival and departure of ships and passengers from all over the world, and citizens benefitted from a technologically advanced public infrastructure that included telegraphs, telephones, and electric-powered houses, streetlights, and trolleys. By the time the hurricane hit in 1900, leadership in government no longer suffered from the infighting that threatened upheaval in the 1860s, and the city's well planned and executed development had revived and reinforced a profound sense of community.²¹



Figure 6. Debris piles amassed after the hurricane. *Source:* Galveston Historical Society.

²¹ Jodi Wright-Gidley and Jennifer Marines, *Galveston: A City on Stilts* (Arcadia Publishing: Charleston, 2008), 11 and 23.

As in the aftermath of Hurricane Katrina, those who survived the Great Galveston Hurricane were faced with the choice to endure the wrecked environment and join in the struggle to rebuild, or flee. Fortunately, city leaders, business owners, and residents were committed to rebuild their city. Lessons learned in the process changed how America dealt with disaster relief and showcased advances in modern technology. With unprecedented and widespread death and destruction caused by the hurricane, however, city leaders were forced to make decisions about recovery and reconstruction that changed the social, political, and economic structure of the city that had been painstakingly built during the late 1800s.

The fledgling Progressive Movement, which emphasized reform through governmental action as an alternative to the traditional conservative response to social and economic issues, was influential in the reshaping of local government to deal with the aftermath of the hurricane.²² Within days of the storm, it became obvious to some local residents inspired by the Movement, that the mayor and city council form of government would not be strong enough to stand up to the challenge. A “Central Relief Committee” was formed that originally consisted of eight civic leaders, and later five, who were all prominent businessmen with knowledge and skills helpful to the recovery process.²³ Patricia Bixel and Elizabeth Turner in their book, *Galveston and the 1900 Storm*, noted that the commission’s response to the catastrophe resulted in a radical effort to reinvent local government and put the city on a firmer, more businesslike footing. Individual commissioners were assigned responsibility for each aspect of recovery such as public works, finance, or public safety. The committee effectively enabled the city to cope with the overwhelming debt incurred as a result of the storm,

²² Patricia Bellis Bixel and Elizabeth Hayes Turner, *Galveston and the 1900 Storm: Catastrophe and Catalyst* (Austin: University of Texas Press, 2000), xi.

²³ *Ibid.*, 90.

and was later established as the official form of government, the commission form.²⁴ After its constitutionality was tested and confirmed, the city commission form of leadership quickly became popular across the state of Texas and spread to other parts of the United States. For this reason, it is sometimes known as the Galveston Plan or the Texas Idea.²⁵

Storm recovery and reconstruction also created new opportunities for business. While government leadership adapted innovatively in the aftermath, engineers came up with highly creative and ambitious plans that would thwart widespread destruction from future disasters in order to retain the city's economic position. To minimize exposure to the forces of the gulf, large sections of the city were raised by employing many of the thousands left jobless by the disaster. The process took about six years while hundreds of homes were raised on stilts and workers pumped a sand slurry under them. Galveston Bay provided dredge material that was forced by steam through large pipes to stations throughout the city where the material accumulated. At this point the slurry was forced, again, by steam through smaller pipes that distributed the mix down the streets and avenues as workers monitored the process. At the same time, an enormous seawall was built to limit flooding and a new concrete bridge was constructed to link the island to the mainland as a reliable route for evacuation. These unprecedented efforts required monumental administrative effort and great community support and determination, and the work employed hundreds of men and saved Galveston from economic ruin and preserved many of its cultural resources.²⁶

Lessons learned in the process of recovery and reconstruction gave rise to social change as well. Clara Barton, founder of the Red Cross, came to Galveston immediately

²⁴ Ibid., x.

²⁵ Texas State Historical Association, "Commission Form of City Government," *The Handbook of Texas Online*. <http://www.tshaonline.org/handbook/online/articles/moc01> (accessed April 11, 2011).

²⁶ Patricia Bellis Bixel and Elizabeth Hayes Turner, *Galveston and the 1900 Storm: Catastrophe and Catalyst* (Austin: University of Texas Press, 2000), xi and 106.

after the storm, and her presence inspired formation of the Women's Health Protective Association. The group first helped with the enormous and horrific task of collecting and burning, or burying bodies, and sanitizing the city. The group gained prominence and practical organizational experience by conducting a pure food and milk campaign and

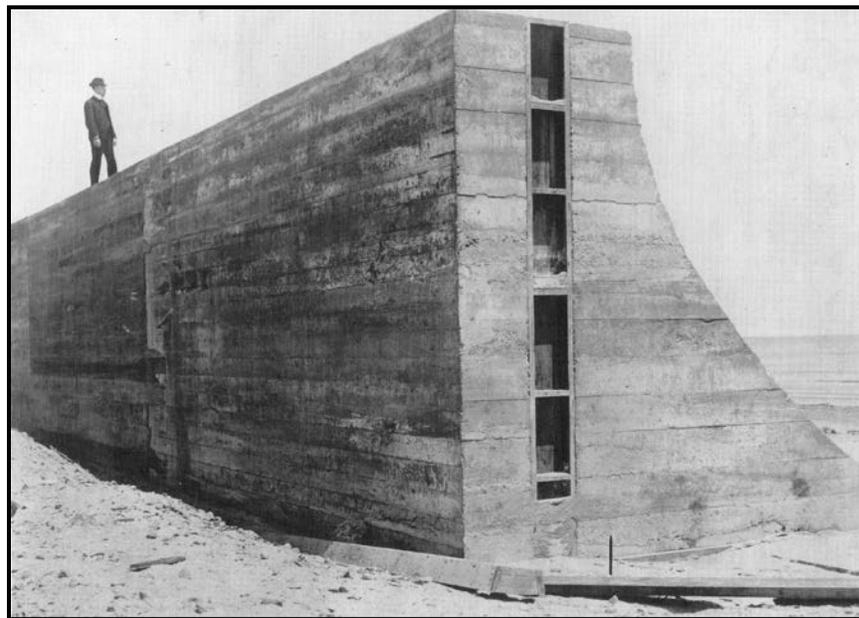


Figure 7. Top, Sand slurry being pumped under a structure as part of the grade raising; bottom, Sea wall under construction. *Source:* Galveston Historical Society.

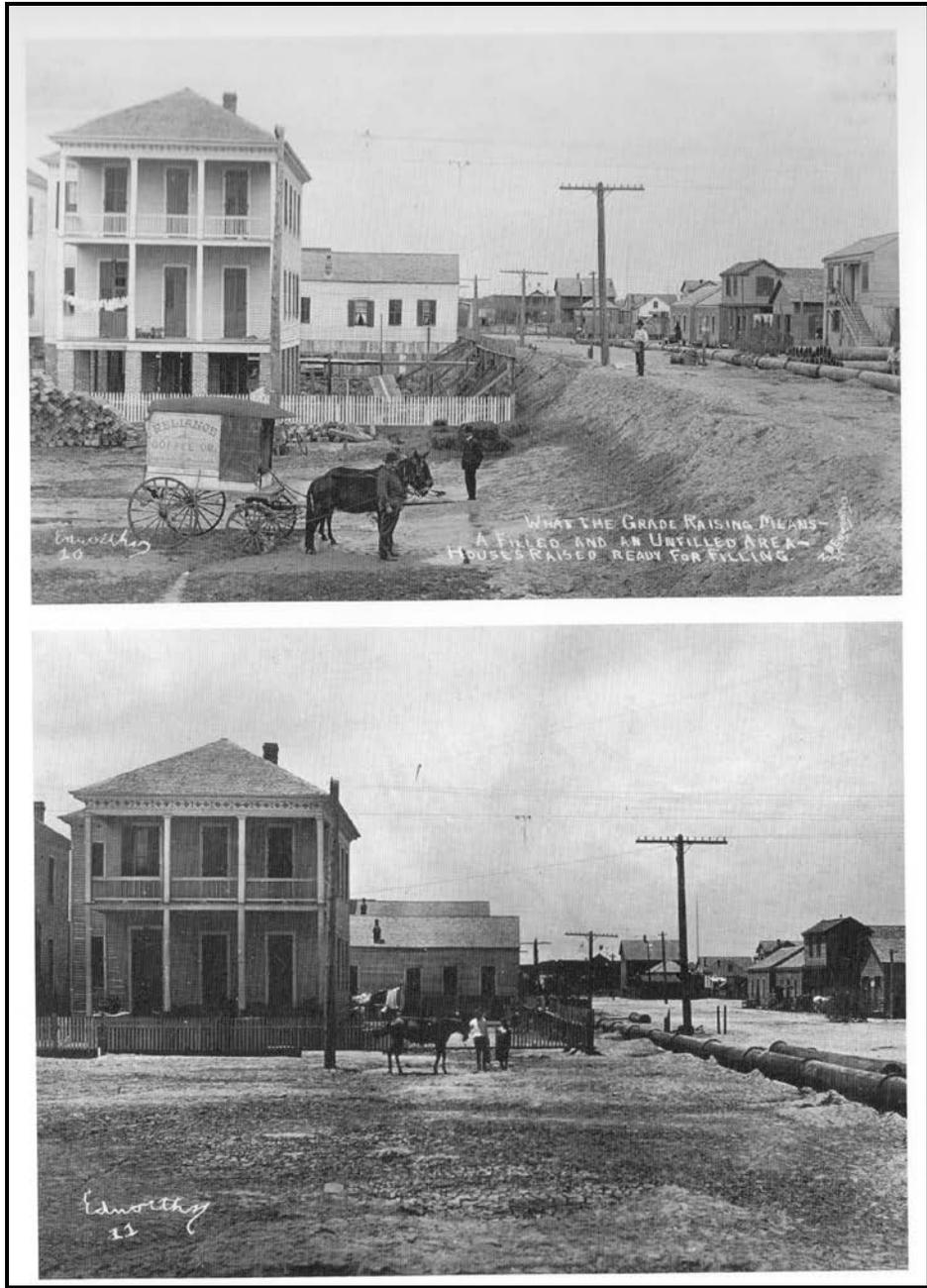


Figure 8. Top, During the grade raising; bottom, Same house and street after. Source: Galveston Historical Society.

helping to revegetate the island. They gained political authority by petitioning and lobbying for political actions, including adoption of the city commission form of local government. By 1912, these women along with others in the community assumed a more militant stance toward suffrage and organized the Galveston Equal Suffrage Association that helped lead the way for the Women's Suffrage Movement.²⁷

Conversely, change carried some major negative consequences. The commission form of government meant more efficient operation of local administrations but it also caused a loss of influence by large portions of the white working class and eventually led Galveston leaders to force sanctions of the Jim Crow South on the city's black population.²⁸ Also, while the sea wall and grade-raising have protected the island over many years, the construction and design of it is flawed at some points, causing erosion that slowly washes away the beaches. Constant maintenance to both the wall and the beaches is expensive yet must be done to keep the tourist industry alive.²⁹

Much of Galveston's modern economy is centered in the tourism, health care, shipping and financial industries. Galveston is home to six historic districts containing one of the largest historically significant collections of nineteenth-century buildings with over 60 structures listed in the National Register of Historic Places. Many buildings survived the 1900 hurricane and the Galveston Historical Foundation commemorates their contribution to the historic character of Galveston neighborhoods. Their "1900 Storm Survivor Plaque" program began in 2000 at the 100th anniversary of the storm, and was still popular in 2008 when Hurricane Ike flooded the 1861 Custom House housing the Galveston Historical Foundation headquarters in which the plaques were stored.³⁰

²⁷ *Ibid.*, x.

²⁸ *Ibid.*, 86.

²⁹ *Ibid.*, 85.

³⁰ Matt Farragher, "Galveston Historical Foundation Renews '1900 Storm Survivor Plaque' Program," Galveston Historical Foundation, <http://www.galvestonhistory.org/1900PlaqueRenewal.asp> (accessed April 11, 2011).

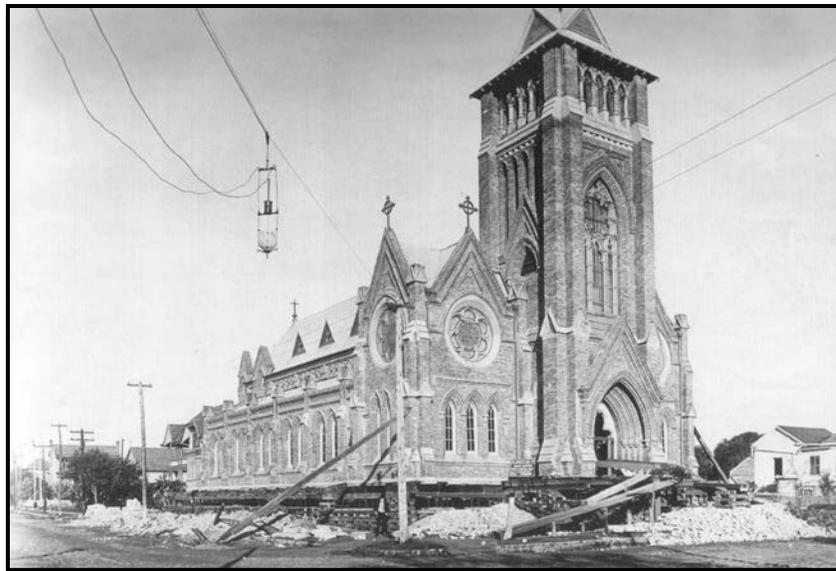


Figure 9. Top, Damaged church after the hurricane; bottom, Same church restored after the hurricane, and being prepared for grade raising. Church services continued during the process. *Source:* Galveston Historical Society.

Hurricane Ike, one of the worst hurricanes to affect Galveston since the 1900 storm, made landfall³¹ on Galveston Island on September 13, 2008. The storm caused approximately \$24.9 billion in damages in Texas, Louisiana, and Arkansas, making it the

³¹ Landfall is the point at which the center of the hurricane crosses the coastline.

third costliest Atlantic hurricane of all time. Hurricane Andrew of 1992 is the second costliest and Hurricane Katrina is the first. The Bolivar Peninsula, located directly northeast of Galveston Island, bore the brunt of the storm, which razed nearly every building. Almost every structure on parts of the Bolivar Peninsula was razed from its foundation due to the surge and waves. Galveston, however, was largely protected by its seawall and much of the city was spared direct impact. Unfortunately, the storm surge rose above the sea wall on the north side of the island near Galveston Bay.³² In an article posted on the National Trust for Historic Preservation's website, both the NTHP and the Galveston Historical Foundation seemed positive about recovering flooded historic architectural resources.³³ Ten feet of water flooded Galveston's historic



Figure 10. Downtown Galveston a few hours before Hurricane Ike. *Source:* UPI.

downtown and seriously damaged 1,500 of the approximately 7,000 historic properties. The Balinese Room where Sinatra and the Marx Brothers performed, for example, was

³² NOAA, "Tropical Cyclone Report: Hurricane Ike," http://www.nhc.noaa.gov/pdf/TCR-AL092008_Ike_3May10.pdf (accessed April 3, 2001).

³³ Margaret Foster, "Galveston After Hurricane Ike," National Trust for Historic Preservation, <http://www.preservationnation.org/magazine/2008/todays-news/galveston-ike.html> (accessed April 11, 2011).

destroyed, but Bishop's Palace (1889), and St. Joseph's Church (1857), sustained only minor flooding and a few broken windows. Although one National Historic Landmark district was inundated with five feet of water, several others fared well.³⁴

The Great Hurricane of 1938

The Great Galveston Hurricane was the deadliest hurricane ever to strike the United States, but the Great Hurricane of 1938 was the strongest and most destructive to hit the northeastern region of the United States in the past two centuries. An extremely fast-moving storm, it is often referred to as the "Long Island Express." Because it affected all the states of New England, it is sometimes called the "1938 Great New England Hurricane," however, areas across the states of Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, Maine, and lower portions of Canada were all affected. Wind gusts measuring over 120 mph were recorded at the top of the Empire State Building in New York City, and strong winds in excess of 90 mph continued as the storm moved north-northeast affecting portions of Quebec. The hurricane dissipated greatly, however, before doing major damage to the Canadian province. The coastlines of Long Island, Rhode Island, and Massachusetts have several inlets created by the storm and new islands formed from some of the barrier islands are still visible.³⁵

As with any widespread disaster, reports of damage to buildings and infrastructure varied from agency to agency, and an accurate number of lives and property lost will probably never be known.³⁶ The Red Cross estimated 500 people killed, and 1,800 injured. At least 25,000 automobiles were ruined and nearly 2,600

³⁴ National Trust for Historic Preservation, "Galveston After Hurricane Ike," Today's News, September 16, 2008, <http://www.preservationnation.org/magazine/2008/todays-news/galveston-ike.html> (accessed April 3, 2011).

³⁵ Aram Goudsouzian, *The Hurricane of 1938* (Beverly, Mass: Commonwealth Editions, 2004), 68.

³⁶ This fact is common to all natural disasters discussed herein. Where possible, the most accurate statistics have been used, but almost none are consistent from any reliable agency to another.

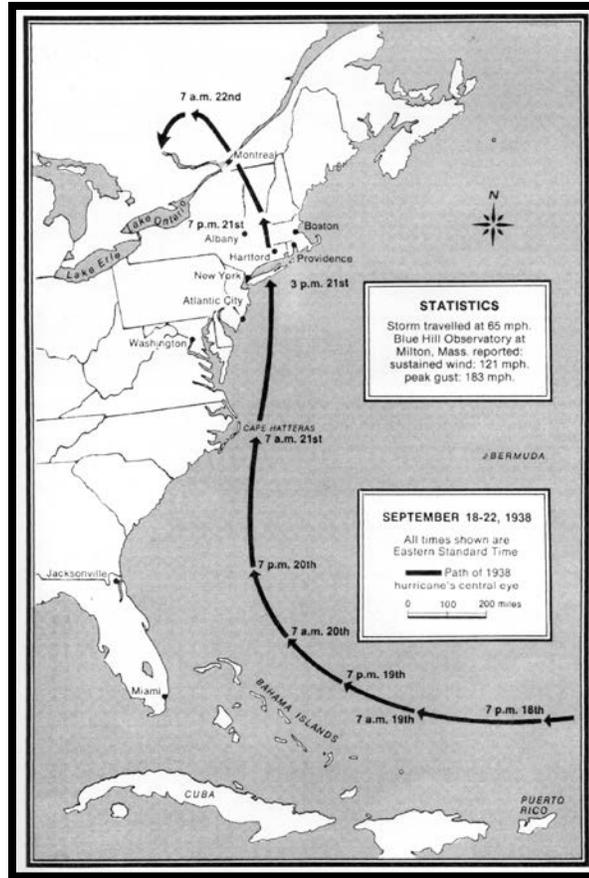


Figure 11. Storm path of the Great 1938 Hurricane. Source: NOAA.

boats and yachts sank as a result of the storm.³⁷ The regional power companies collectively estimated that 10,000 miles of electric and telephone wires came down in the storm,³⁸ and the Northeastern Timber Salvage Administration reported about 275 million trees uprooted.³⁹ Trains across the region were derailed and major railway lines were unserviceable as railway bridges and stations were washed away in many locations.⁴⁰ The Red Cross's estimate of buildings completely destroyed included 7,000 coastal cottages, 2,000 homes, and 2,400 barns. About 200,000 other buildings were badly damaged bringing total property losses to over \$400 million, at least \$5 billion by today's

³⁷ E. E. Minsinger, ed. *The 1938 Hurricane: an Historical and Pictorial Summary* (East Milton, MA: Blue Hill Observatory, 1988), 24.

³⁸ Patricia Grossi, *The 1938 Great New England Hurricane: Looking to the Past to Understand Today's Risk* (Neward, CA: Risk Management Solutions, Inc., 2008), 4.

³⁹ *Ibid.*, 7.

⁴⁰ University of Connecticut, Thomas J. Dodd Research Center, "About the New Haven Railroad," Railroad History Archive. <http://railroads.uconn.edu/nhrr.htm> (accessed April 15, 2011).

standards. One account of the storm by a Mr. Charles F. Brooks placed the number of buildings destroyed at 19,000 by water, wind, or fire, including permanent and summer homes.⁴¹



Figure 12. Building on Long Island damaged by hurricane. *Source:* Library of Congress.

Severe losses occurred near the coastlines of Long Island in New York, Rhode Island, and Connecticut where entire beachfront communities vanished. Storm surges over seventeen feet submerged blocks of buildings in historic villages such as Old Saybrook and Lyme, two of the earliest settlements in the United States. Several small beach and barrier island communities on eastern Long Island and along the Rhode Island coast never fully recovered from the storm. Along Connecticut's southern coastline, water swept across the tidal flats where historic houses floated off their foundations. Approximately 200 homes on Fire Island in New York, and over 150 homes

⁴¹ Patricia Grossi, *The 1938 Great New England Hurricane: Looking to the Past to Understand Today's Risk* (Neward, CA: Risk Management Solutions, Inc., 2008), 4.



Figure 13. Sliver of Fire Island left after the hurricane. Only three structures are visible. *Source:* NOAA.

along the beaches of the Westhampton section of Long Island, completely disappeared. Other cultural resources also were not spared. Historically significant ships preserved in situ were smashed to pieces, and “Old Ironsides,” a navy vessel used in the War of 1812, was torn from its moorings in Boston Navy Yard. Near Holyoke, Massachusetts, driving rain dislodged slabs of sandstone in which dinosaur tracks had been preserved, and the wind felled trees that were planted by Daniel Webster at Dartmouth College.⁴²

Recovery from the 1938 hurricane was affected by two major events that caused great turmoil for the United States and the world: the Great Depression and World War II. In response to the profound suffering and hardship caused by the Great Depression, then Republican President Herbert Hoover created the Reconstruction Finance Corporation (RFC) in 1932 as a federal lending program for all businesses large and small. Hoover, however, had a long-standing opposition to government spending on projects that might compete with private business and rejected the notion that federal

⁴² William E. Leuchtenburg, *The FDR Years: On Roosevelt and His Legacy* (Columbia University Press: New York, 2001), 201.

government should set up relief programs. Instead, he encouraged charities and local governments to help the poor and the unemployed in order to keep federal powers at a minimum. Charities and local governments, however, were also in dire financial straits making this standard means of recovery impractical during the period.⁴³

When Franklin Delano Roosevelt (FDR) was elected president in 1933, he continued the efforts of the RFC, but other reform-minded ideas that had long been circulating within the Democratic party were also put into use. By 1936, the federal government spent billions of dollars on unemployment relief programs, payments to small farmers, and massive public works projects, not only to restore the economy, but to restore the dignity and spirit of the American people. Major reforms to benefit factory workers, the poor, the elderly, as well as the environment, were also introduced.

Roosevelt's opponents believed he had built a socialist welfare state and had ruined the tradition of individual competition, but as people suffered, the idea of leaving the masses to fend for themselves was rejected by the majority of Americans.⁴⁴

By 1937, as World War II was looming, America began to suffer a temporary reversal in economic reform as a result of cuts in government spending and a tightening of the money supply. A recession within the Great Depression caused unemployment to rise from 14.3% in 1937 to 19% in 1938. The attention of the United States and the world was quickly turned, however, to concerns that America, Great Britain, France, and other countries would soon need to ally against Fascism. The day after the Great Hurricane of 1938, major powers of Europe began negotiation of the Munich Agreement. American media was focused primarily on this event, and little attention was paid to the approaching natural disaster. Afterward, it was more than a week before news of the

⁴³ Stanley Schultz, *The Great Depression: A Primary Source History* (Milwaukee: Gareth Stevens Publishing, 2006), 4-6.

⁴⁴ *Ibid.*, 6.

hurricane reached the rest of the world.⁴⁵

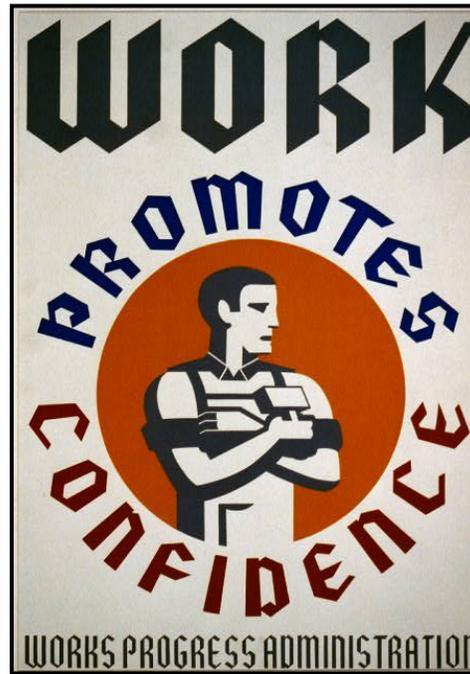


Figure 14. Recruitment poster created by artists of the Works Progress Administration. *Source:* Library of Congress.

During the 1930s, the challenges of the Great Depression and World War II forced a redefinition of American politics and changed the role of federal government during crisis, but the way in which state governments dealt with disaster became a topic of great debate. In relation to the Great Hurricane of 1938, for example, the legislatures and executive offices of Massachusetts, Connecticut, and Rhode Island, had long been dominated by the Republican Party and built on a foundation of fiscal conservatism. With the rise in immigration during the late nineteenth and early twentieth centuries, however, expansion of the country and population shifts from rural settings to urban centers created new challenges and increased risks. With the crisis of the Depression and the election of FDR, the Democratic party began to ascend, and the responsibilities of federal government began to expand to help citizens in times of hardship.⁴⁶ The idea

⁴⁵ William E. Leuchtenburg, *The FDR Years: On Roosevelt and His Legacy* (Columbia University Press: New York, 2001), 209.

that local charities, non-profits, and non-governmental organizations would manage the process of disaster recovery, as had been the case in Galveston at the turn of the century, began to fade, and the formal involvement and role of the federal government began to move from reactionary to proactive. This was a direct threat to states' rights and the powers of local governments, but it was necessary in times of catastrophic disaster when private means, and state and local government intervention, were not enough.

An example of this expansion of central governmental responsibility came in 1936 when the Connecticut and Thames Rivers flooded and residents of the Connecticut River Valley suffered enormous loss. Cities like Hartford, Middletown, Portland, and Norwich were inundated with water that knocked out bridges, started electrical fires, and left twenty-four dead and 77,000 homeless. The public demanded effective flood control that would improve assistance after normal flooding, and guarantee that widespread destruction would be prevented after unusually rainy seasons.⁴⁷ Congress responded to the disaster by enacting the Flood Control Act of 1936, but the act required states to pay part of the cost of reservoirs and other flood control mechanisms. This meant that the states would need to engage in interstate compacts to determine how costs would be allocated along the lengths of rivers and their tributaries. Successful collaboration, however, was stymied by Vermont because the state did not want to lose arable valleys to reservoirs, the only benefit of which would be to communities downstream. In 1938 Congress modified the 1936 act by authorizing the federal government to pay for all, not part, of reservoir construction. This gave federal government the right to take lands for such purposes without the consent of the states, but it also gave the region the ability to live and farm without the threat of major destruction.⁴⁸

⁴⁶ Stanley Schultz, *The Great Depression: A Primary Source History* (Milwaukee: Gareth Stevens Publishing, 2006), 70.

⁴⁷ Aram Goudsouzian, *The Hurricane of 1938* (Beverly, Mass: Commonwealth Editions, 2004), 76.

⁴⁸ *Ibid.*, 23.

The Flood Control Act of 1936 was one of several pieces of national legislation relating to emergency management in the United States. The first was the Congressional Fire Disaster Act of 1803, passed when a fire devastated Portsmouth, New Hampshire.⁴⁹ Its passage made resources from the federal government available to the



Figure 15. Band shell in Bushnell Park in 1936 after the Connecticut and Thames Rivers flooded. Hartford, Connecticut. *Source:* NOAA.

state and local government to assist in the recovery of the city. Until the Disaster Relief Act of 1950, ad hoc legislation was passed more than 125 times in response to hurricanes, earthquakes, floods and other natural disasters. Flood control by the Corps of Engineers was initiated in 1917 with the first Flood Control Act, but Congress remained reluctant to fully engage in the battle of states' rights to develop hydroelectric power and build necessary reservoirs until the Great Flood of 1927. That flood displaced more than 700,000 people in seven states and caused the economy to decline to a point

⁴⁹ Federal Emergency Management Agency, "FEMA History," <http://www.fema.gov/about/history.shtm> (accessed April, 11, 2011).

that affected the entire nation. The flood set a new precedent for the degree to which federal government would be involved in the aftermath of such a disaster. With the New Deal, a series of flood control acts were passed that authorized civil engineering projects such as dams, levees, and dikes to be carried out by the United States Army Corps of Engineers, and dictated that federal investigations and improvements to waterways for flood control would be under authority of the War Department (Department of Defense). The act required that the economic benefits had to exceed the costs, and state government and local interests had to allocate funds for reservoir construction.⁵⁰

The benefits of flood control legislation in New England, however, came too late to help those affected by the 1938 hurricane. After the hurricane, local governments were able to secure some forces for the immediate rescue effort, but the Depression and the recent recession left them with little means for recovery in the long-term. Without the intervention of federal government, it is likely that recovery from the hurricane would have extended through the 1940s. Fortunately, the federal government was able to answer the demand for money and manpower on a huge scale by employing millions of workers in a variety of public works projects through such New Deal agencies as the Works Progress Administration (WPA), the Farm Security Administration (FSA), the Civilian Conservation Corps (CCC), and the United States Housing Authority (USHA), which eventually became the Department of Housing and Urban Development (HUD). By September 23rd, two days after the storm, the WPA had thousands of men clearing streets and saving flood-threatened areas in Connecticut and Massachusetts. These workers stayed employed by the government and helped in the long-term recovery effort along with the Red Cross, which distributed \$1.6 million in aid. Together, their massive rehabilitation effort included repairing and rebuilding homes, roads, and bridges, as well

⁵⁰ Joseph L. Arnold, *The Evolution of the 1936 Flood Control Act* (Washington, D.C.: U.S. Government Printing Office, 1988), 20.

as repairing and replacing the equipment for small fishermen, and restoring the fields of small farmers, among many other things.⁵¹

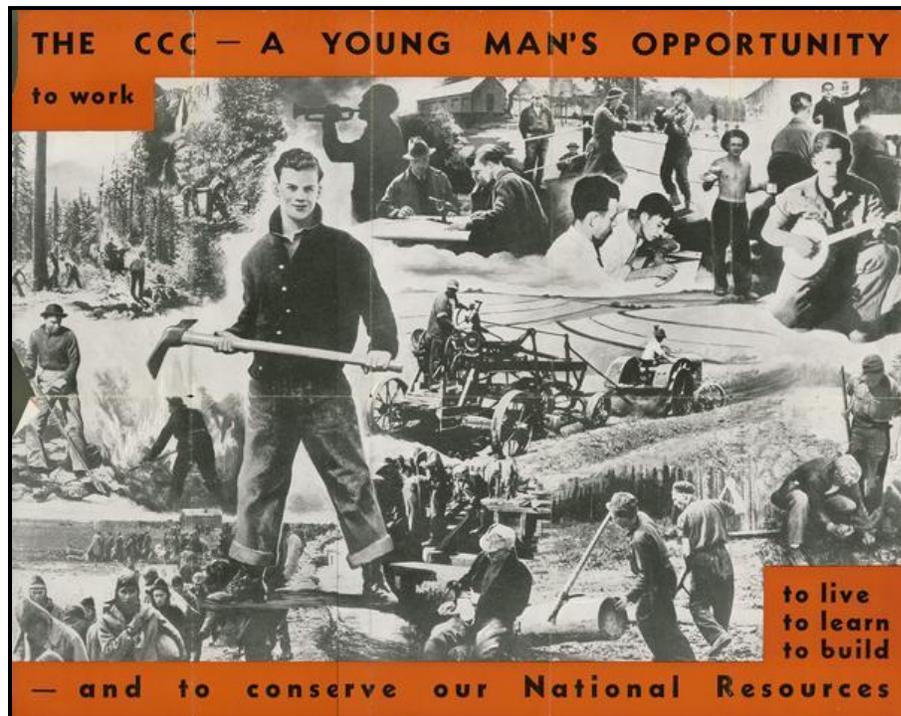


Figure 16. Civilian Conservation Corps (CCC) recruitment poster. *Source:* Library of Congress.

In conclusion, residents of New England had little or no warning of the 1938 hurricane, as was the case in Galveston at the turn of the century. They were surprised by its force and unprepared for the destruction and tragedy that followed.⁵² The help of federal government was crucial to recovery of the hurricane-affected region, but not all local and state politicians embraced the idea of large-scale federal intervention, as exhibited by the struggle to enact flood control measures in the years leading up to the hurricane. Also, previous disasters in American history had spurred large private relief efforts that helped preserve the powers delegated to state and local government and keep out federal involvement. The Relief and Aid Society, a private organization, had

⁵¹ Aram Goudsouzian. *The Hurricane of 1938* (Beverly, Mass.: Commonwealth Editions, 2004), 68.

⁵² Patricia Grossi, *The 1938 Great New England Hurricane: Looking to the Past to Understand Today's Risk* (Neward, CA: Risk Management Solutions, Inc., 2008), 7.

overseen relief for the victims of the Great Chicago Fire. Newspaper publisher William Randolph Hearst, among others, had organized immense fund-raising drives for victims of the Galveston Hurricane and the San Francisco Earthquake. Though the Red Cross organized a charitable campaign for the 1938 hurricane victims, New Deal organizations supplied the overwhelming bulk of funds for relief and recovery. That the government, rather than private citizens, rebuilt New England and Long Island spoke not only to the economic hardships of the Depression, but also to the transformation of American political culture and the ways in which disaster would be dealt with in coming years.⁵³

Hurricane Floyd and Princeville, North Carolina, 1999

Between September 14th and 17th, 1999, Hurricane Floyd affected large areas of the East Coast from Florida to New England. The catastrophe caused between \$4.5 and \$6 billion in damage and there were at least 56 deaths. Nearly 3 million people evacuated coastal areas in Florida, Georgia, and the Carolinas. About 20 inches of rain accumulated across inland portions of eastern North Carolina and southeastern Virginia, a landscape already saturated by Hurricane Fran, which had passed through only a few weeks prior.⁵⁴ This torrential rain caused unprecedented flooding of major rivers that did not fully recede until late October. Nearly every river basin in the eastern part of North Carolina exceeded 500-year flood levels.⁵⁵ Afterward, newspaper and television reporters documented the people and places affected, and President Clinton flew to the region to survey the damage. As the floodwaters receded over the weeks following the storm, however, attention from media and government also receded.⁵⁶

Flooding caused by Hurricane Floyd particularly affected Princeville, North

⁵³ Aram Goudsouzian. *The Hurricane of 1938* (Beverly, Mass.: Commonwealth Editions, 2004), 69.

⁵⁴ Anna Griffin and David Perlmutter, "It Could Have Been Worse, But More Flooding Expected; Victims watch and wait after storm," *The Charlotte Observer*, October 22, 1999.

⁵⁵ Richard J. Pasch and Todd B. Kimberlain and Stacy R. Stewart, "Preliminary Report: Hurricane Floyd, 7-17 September, 1999," National Hurricane Center, <http://www.nhc.noaa.gov/1999floyd.html> (accessed April 11, 2011).

⁵⁶ Emily Yellin, "Town with Fabled Past Facing Uncertain Future," *New York Times*, November 11, 1999.

Carolina. The town is located at a bend in the Tar River in the east central portion of the state, about 75 miles east of Raleigh, and about 130 miles from the North Carolina coastline. The land on which Princeville is situated was a snake-infested, mosquito-

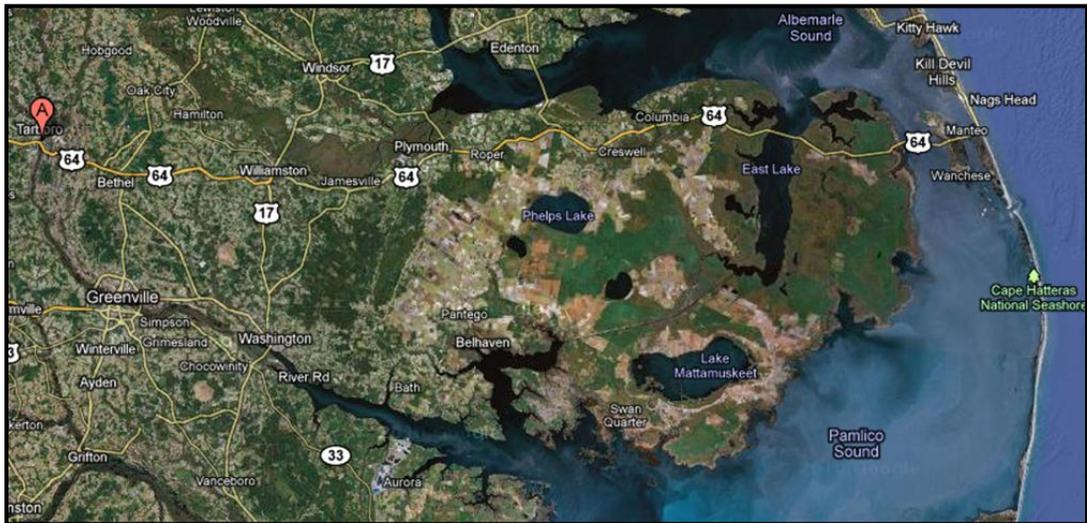


Figure 17. Location of Princeville, North Carolina in relation to the Tar River and the North Carolina coastline. *Source:* Google Maps.

ridden swamp in a flood plain when it was sold by whites to former slaves at the end of the Civil War. The founders were left to face the kind of challenge that defines community, and in 1885, the town did so by becoming the first in the United States to be chartered and governed solely by African Americans. Unfortunately, few of the town's approximately 1,100 original structures survive from its early days, but wood-frame homes and brick commercial buildings survive from the early 1900s. Highly significant buildings still standing include a Rosenwald School (currently the Town Hall), and a Mount Zion Primitive Baptist church, both of which are resources distinctive of African-American culture in the United States. Pride of ownership, shared cultural values, and economic challenges have kept descendants of the original founders in Princeville, and today there are more than 2,000 residents.⁵⁷

⁵⁷ Ted Rose, "What Happened to Our Town," *Preservation* (July/Aug 2000): 31.



Figure 18. Top, Rosenwald School / Town Hall restored after Hurricane Floyd. Bottom, Mount Zion Primitive Baptist Church restored. *Courtesy: Watson Brown.*

In 1965, the U.S. Army Corps of Engineers built a two mile-long earthen dike to protect Princeville from the river, but its height was only four feet above the highest flood

of 1919. The Corps reasoned that a flood above that level would only occur once every 300 years. After Hurricane Floyd, however, the river crested at 53 feet above sea level and the dike was breached. All of Princeville flooded and historic architectural resources received the same type of damage from surging water and torpedoed debris as those near the coastline, except Princeville remained under 14 feet of water for several weeks. Torrents floated houses off their foundations tangling them in telephone wires and placing them on top of cars or in other strange places, and FEMA estimated that about



Figure 19. Flooded street in Princeville after Hurricane Floyd. *Source:* FEMA.

600 buildings were damaged beyond repair. Residences and businesses that lacked adequate flood insurance, which could have provided quick financial compensation, were left to deteriorate. Residents had no choice but to rely on government, the generosity of outside volunteer groups, non-governmental organizations, and

themselves.⁵⁸

Some business owners were eligible to apply for loans from the Small Business Administration (SBA) to help with recovery after the disaster, but other types of financial relief were difficult to obtain. This was partly due to a lack of planning at the state and local levels, but mostly due to a mishandling of the situation by FEMA. By 1999, the year Hurricane Floyd struck the east coast and caused Princeville to flood, intervention by state and federal government in such enormous disasters was generally accepted, but only when absolutely necessary. The responsibilities of state and federal emergency management agencies, however, were different from what had originally been intended. Throughout the 1960s and 1970s, several major disasters, such as Hurricane Camille and the San Fernando Earthquake, raised the issue of disaster preparedness and mitigation, and brought about increased legislation. The National Flood Insurance Act was passed in 1968 and provided flood insurance for residences in communities that adopted and enforced an ordinance outlining minimal floodplain management standards. The Disaster Relief Act, passed in 1974, established the process of Presidential disaster declarations that set up a hierarchy of procedure from local, to state, to federal government. In the aftermath of disaster, local governments could request aid from the state when resources became overwhelmed or depleted. The state, in turn, could ask for help from the federal government when it, too, reached an unacceptable point of vulnerability. Emergency and disaster mitigation activities, however, were spread among more than 100 federal agencies, many of which paralleled programs and policies already in place at the state and local levels.⁵⁹

To reduce bureaucracy, the National Governor's Association urged President Carter to centralize federal emergency functions, and in 1979, Carter signed an

⁵⁸ Ibid., 32.

⁵⁹ Federal Emergency Management Agency, "FEMA History," <http://www.fema.gov/about/history.shtm> (accessed April, 11, 2011).

executive order that created the Federal Emergency Management Agency (FEMA). Along with this consolidation, FEMA assumed the civil defense responsibilities of the Defense Department's Defense Civil Preparedness Agency (CDPA). During the 1980s, few major disasters occurred, and under Presidents Reagan and Bush (Senior), FEMA began to face scandal as an agency that was administered by appointees with no experience in disaster management and as an agency that wasted money without innovation. After the devastation wrought by Hurricane Andrew in 1992, President Clinton appointed James L. Witt, a leader with real experience in emergency management, to head FEMA. He initiated sweeping reforms that streamlined disaster relief and recovery, and placed new emphasis on preparedness, mitigation, and the ability of the agency to work well with communities.⁶⁰

After Hurricane Floyd, FEMA provided to residents of Princeville emergency housing in an area near the county jail that was later called "FEMA-ville," a disparaging term that alluded to the circumstances FEMA created for many families who moved in but found it difficult to regain the financial independence needed to move out. Each family received a few thousand dollars on which to survive in the immediate aftermath, but the only real help from the government came in the form of real estate buyouts. This was common practice after disasters in towns that did not participate in the National Flood Insurance Program, which only insures residents and business owners in communities that adopt and enforce a floodplain management ordinance. In Princeville's case, FEMA would buy property at market value, the buildings would be demolished and cleared away, and the land would be deeded back to the town, but a majority would have to agree to the buyout and the land could never be built upon again. If the town refused the buyout, no money from FEMA would be provided and the town would have

⁶⁰ Ibid.



Figure 20. A trailer park (a.k.a. “FEMA-ville”) set up by FEMA in the aftermath of Hurricane Floyd. Source: FEMA.

to seek funding from other government agencies and private sources in order to rebuild. The United States Geological Survey reported that the flood was well in excess of a 500-year event and, therefore, the U.S. Army Corps of Engineers could not rule against rebuilding the dike. One FEMA official compared protecting the town from the river to protecting against meteors. Moreover, if the dike were built, it would provide enough protection to negate the flood-plain status of the town and make residents eligible to participate in the National Flood Insurance Program. At that time, however, the mayor estimated the cost to rebuild at an unobtainable \$80 million.⁶¹

Thus began a struggle between those who wanted to save their land and preserve the legacy of their ancestors and those who wanted to take the money and leave Princeville and the whole ordeal behind. When the controversy began, only ninety-two people in Princeville had signed up for the buyout. One resident, a lawyer and former Princeville mayor, would not consider leaving because his great-grandmother

⁶¹ Ibid., 36.

was a slave and one of the first residents. He was quoted in the New York Times after the disaster as saying, “When our ancestors built this town, they were seen as uppity blacks, with the audacity to talk about incorporating their own town. That is a hell of a legacy. The deeper the roots the harder the fight, and the more resistance you’re going to get to taking the town from us.” Three months later one hundred people had signed up to accept FEMA’s buyout offer, but the town board decided to rebuild the dike without a public hearing, effectively rejecting the buy out on behalf of everyone and leaving many disenfranchised by their own government.⁶²

Volunteer groups began arriving in Princeville about six months later and, working without competency or oversight, short cuts were taken that made buildings vulnerable to electrical fires and structural weaknesses. In addition, bad contractors were beginning to prey on uninformed home owners and, without proper planning of any kind, residents built foundations and moved new trailer homes into areas better suited for other purposes. A general moratorium on all moving and construction had to be made while local government regained control of the recovery process. Then, because of the historical significance of Princeville and the publicized debate with FEMA over the buyouts, the White House announced the formation of the President's Council on the Future of Princeville, which eventually became a source of funding for a Florida non-profit group hired by FEMA to develop a recovery plan. Partners in Community Building had helped devastated communities after Hurricane Andrew (1992) in 1993. For Princeville, they focused on heritage tourism as a path to self-sufficiency and built upon plans made by the historical society just two weeks prior to the flood. In the plan that emerged, the Rosenwald School was rehabilitated and is now used again as the town hall and as a museum celebrating the history of Princeville.⁶³

⁶² Emily Yellin, “Town with Fabled Past Facing Uncertain Future,” *New York Times*, November 11, 1999.

⁶³ Ted Rose, “What Happened to Our Town,” *Preservation*, (July/Aug 2000): 97.

For Princeville, the appointment of James L. Witt as new head of FEMA in 1992 meant that the rescue mission, and mitigation in the aftermath would be well coordinated. Real consideration of historic resources by government, however, was made difficult by the issue of flood insurance. As a poor community, the people of Princeville could not risk losing their property to flooding, but as a significant and rare African-American community, Princeville could not risk losing their heritage to the bulldozer. The regulatory responsibility of the United States Army Corps of Engineers is, generally, that they balance the benefits, or “historic values,” of a proposed project against its foreseeable detriments. Therefore, while FEMA continues to urge abandonment of the floodplain for areas where property can be insured, the United States Army Corps of Engineers builds levees that encourage floodplain development.⁶⁴



Figure 21. Home in Princeville damaged by Hurricane Floyd. *Source:* FEMA.

⁶⁴ *Ibid.*, 98.

After Hurricane Floyd, Princeville did not have the assistance of wealthy residents, nor the administrative organization needed to begin a recovery process on their own. The town had always been poor, rural, and isolated, and in the mid-1990s, local government was temporarily taken over by the state in order to re-establish the city's finances and prevent a taxpayer revolt. The unfortunate experience of being at the mercy of governmental agencies established a sense helplessness among residences, only to be repeated in the aftermath of Hurricane Floyd on a much larger scale. Working against residents was also the fact that the Tar River had flooded and ruined Princeville six times in the town's first 80 years, and would likely ruin it again.⁶⁵ Despite all of this, plus the strife caused by FEMA's buy-out option, local government made the decision to preserve the town because of its historic significance. After that decision was made, and some time had passed, residents were generally happy with the decision.⁶⁶

The issues involved in the disaster and recovery of Princeville after Hurricane Floyd, as well as the ways in which the city was forced to deal with the issues, were very different from those of Galveston in 1900 and New England in 1938. After the hurricane in Galveston, there was no expectation that the federal government would step in to help with rescue, relief, and recovery. Although the federal government did provide some funding and regular Army troops to augment the Texas militia, the idea of federal, or even state, government coming in to control the decisions of local government was not an accepted practice. The difficulties caused by immense loss of life, property, and maritime investment, however, could not have been overcome without the reorganization of local government, help from the American Red Cross, and initiation of the Women's Health Protective Association. Further, building of the sea wall and elevation of the city would not have been possible without the financial assistance of private citizens across

⁶⁵ Ibid., 31.

⁶⁶ Ibid., 37.

the country. After the 1938 hurricane, the situation was different. The Great Flood of 1927 and the Flood Control Acts extending from 1917 set precedence for federal involvement after disaster, though states were still reluctant to cede the power needed to initiate and carry through with the process of intervention. The Great Depression, however, changed the way Americans thought about hardship and, fortunately, Roosevelt's New Deal programs had created a ready workforce able to begin the work of recovery.

CHAPTER 3

HURRICANES OF THE MISSISSIPPI GULF COAST, 1699-2005

Though the culture of the Mississippi Gulf Coast region is different in many ways from the rest of the state, the same variety of socio-economic problems has affected the area throughout its history. These problems have been exacerbated throughout the second half of the twentieth century and into the twenty-first century as millions, or billions, of dollars in damage is left in the wake of hurricanes. Since the first Native Americans were attracted to the region over 4,000 years ago, violent weather has been a danger to man and a hindrance to development and progress. The effect on the built environment has been substantial, but the region has coped with repeated loss and continual recovery throughout the centuries. Though each year historic buildings are lost or damaged, many have been retained. These buildings represent a wide variety of styles and periods of growth, but, more importantly, they represent a culture that is valued, respected, and worth preserving, despite a catastrophic event such as Hurricane Katrina.⁶⁷

At the end of the most recent glacial period, the southernmost extent of the Laurentide Ice Sheet began to recede and slowly deposit hundreds of feet of rich sediment that created the flat and fertile landscape of the Lower Mississippi River Valley and the Gulf of Mexico. Over time, the nutrient-rich floodwaters of the Mississippi River flowed into the Gulf to form the “bird foot” sub-delta and wetlands below New Orleans, while bays, estuaries, and coastal marshes were formed by other important rivers to the east along the Mississippi Coast. The Mississippi Sound, running east-west from

⁶⁷ Westley F. Busbee, Jr., *Mississippi: A History* (Wheeling, Illinois: Harlan Davidson, Inc., 2005), 12.

Dauphin Island and Mobile Bay in Alabama, to Waveland, Mississippi, merges with Lake Borgne and Lake Pontchartrain above New Orleans. It is a natural lagoon with an average depth of about ten feet, but it has been dredged in some areas to maintain north-south ship channels and accommodate deep-water ports at Gulfport and Pascagoula, Mississippi. Strong currents and wave action built a chain of barrier islands twelve miles offshore and, as part of the Gulf Islands National Seashore, they separate and protect the Mississippi Sound from the Gulf of Mexico.⁶⁸

European development of the Mississippi Gulf Coast began soon after 1492, when Columbus informed Spain of the existence of the West Indies (Caribbean). Soon after, the Spanish overran the islands and converted them into bases for assault on the New World. Ponce de Leon sailed from Puerto Rico in 1513 and claimed for Spain what he thought was another island of the West Indies. He named it "Florida" and then discovered it was part of the North American continent. His claim was extended to southern portions of Alabama, Mississippi, and Louisiana, and six years later, the Spanish began a naval expedition that officially charted the Mississippi Sound and the mouth of the Mississippi River. For one and one half centuries, the Spanish abandoned their exploration of the area to concentrate on more easily attained gains in Latin America. By the 1670s, westward-moving English settlers from the Atlantic seaboard colonies were infiltrating Spanish Florida, while the French, operating out of Canada, were probing southward down the Mississippi River. The French gained control over the Spanish and English in a downriver battle from Canada to the Gulf that split Spanish Florida in half.⁶⁹

The sailing party of Sieur de La Salle, Henri de Tonti, and Rene Robert Cavelier reached the mouth of the Mississippi River in 1682 and claimed for Louis XIV all the

⁶⁸ Charles Sullivan and Murella Hebert Powell, *The Mississippi Gulf Coast: Portrait of a People* (Sun Valley: American Historical Press, 1999), 9.

⁶⁹ *Ibid.*, 10.

coastal lands between the Mobile River and the River of Palms in Mexico and all interior lands between the Rockies and the Appalachians. The territory was named Louisiana in honor of King Louis XIV. Two years later, La Salle brought shiploads of soldiers and colonists under royal orders to fortify the mouth of the Mississippi River against the Spanish and English. When the expedition missed the swampy river mouth, it landed on the Texas coast where it is hypothesized that the disheartened crew turned mutinous and murdered La Salle. Henri de Tonti, whom La Salle had left behind in 1682 to hold Fort St. Louis on the Illinois River, attempted to rendezvous with La Salle down river. Not knowing his captain had been murdered, Tonti left a letter for La Salle in the hands of an Indian chief and returned upriver to Canada. After finally learning of La Salle's death, Tonti and other prominent Canadians continued LaSalle's mission and solicited the king

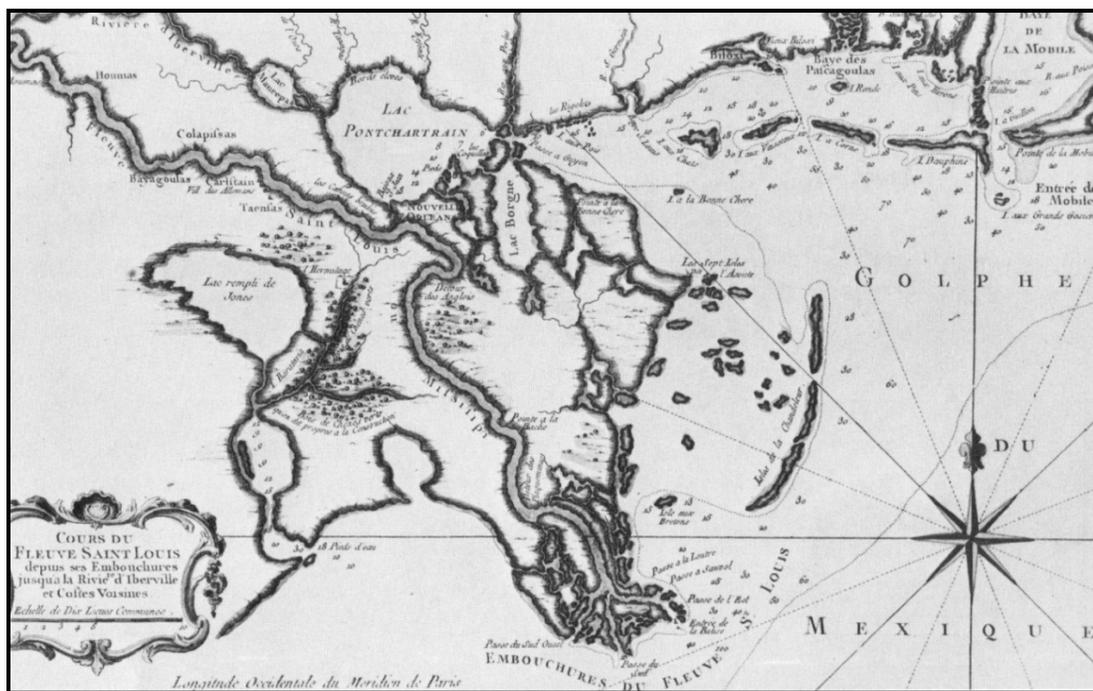


Figure 22. French map of Gulf of Mexico region in 1718. Source: MDAH.

for money to make another attempt to establish fortifications at the mouth of the Mississippi River. The plan to protect French claims to Louisiana was still of great

importance to France, but all plans were thwarted when Louis XIV declared war in Europe in 1688.⁷⁰

Between 1688 and 1763, Mississippi remained part of the French colony of Louisiana. After La Salle was unable to establish a settlement, and Henri de Tonti was assigned to other duties as a high military commander, Louis the XIV sent Pierre Le Moyne d'Iberville, and his brother Jean-Baptist Le Moyne d'Bienville to try again to rediscover the mouth of the Mississippi River, select a good site that could be defended with few men, and block entry to the river by other nations. Their purpose was the same as La Salle's: to lay the foundations of a French colony along the Gulf Coast and secure for France the ability to claim the interior of the continent. They brought with them several skilled men, such as Joseph Simon de La Pointe, Guillaume de Lisle and others, who documented and mapped the Mississippi coastal region more precisely than the Spaniards and built houses and forts.⁷¹ As he approached the Florida panhandle in 1699 and made their way across the Gulf, D'Iberville took note of the many barrier islands and searched for a strategic position to build a fort. D'Iberville and his crew, however, were soon caught in a massive storm that drove their ships into the "bird foot" sub-delta of the Mississippi River.⁷² Disoriented and confused, the French explorers sailed up the Mississippi River not knowing they had found what they sought until they met the Indian chief with whom Tonti had left his letter to La Salle in 1682.⁷³

Having achieved the first goal of the expedition, the French returned to the Mississippi Sound and dropped anchor directly south of Biloxi and Gulfport at Ship Island, the most important island in the development of the Mississippi Gulf Coast. They built a temporary fort on Biloxi Bay so that neither the Spanish at Pensacola, nor the

⁷⁰ Ibid., 11.

⁷¹ Dictionary of Canadian Biography Online, "Le Moyne d'Iberville," <http://www.biographi.ca/009004-119.01-e.php?Biold=35062> (accessed March 22, 2011).

⁷² Westley F. Busbee, Jr., *Mississippi: A History* (Wheeling, Illinois: Harlan Davidson, Inc., 2005), 33.

⁷³ Charles Sullivan and Murella Hebert Powell, *The Mississippi Gulf Coast: Portrait of a People* (Sun Valley, California: American Historical Press, 1999), 11.



Figure 23. Reenactment of d'Iberville landing at Fort Maurepas in 1699. *Courtesy*. 1699 Historical Society.

British along the north Atlantic coast could take the region. Soon after the fort was built, d'Iberville sailed for France, leaving behind a garrison of eighty-one men and his brother Bienville. Three years later, after the outbreak of the War of the Spanish Succession, only 20 men had eluded starvation and survived the harsh environment. With the help of the Biloxi and Pascagoula Indians, these men joined reinforcements on Dauphine Island, south of Mobile, to defend the area from Spanish troops in Florida. The French were forced to move the fort at Biloxi to a more defensible, inland position on Mobile Bay, and Dauphine Island became the French army's first line of defense.⁷⁴

In 1717, a massive hurricane was recorded off the Mississippi and Alabama coasts that split Dauphin Island in two, and left Mobile in shambles. Jean-Baptiste Le Moyne Bienville was ordered to select a new capital and port of entry for French Louisiana. He chose a crescent-shaped bend in the Mississippi River just northwest of

⁷⁴ Westley F. Busbee, Jr., *Mississippi: A History* (Wheeling, Illinois: Harlan Davidson, Inc., 2005), 34

the “bird foot” sub-delta area that he and his brother were driven into by the storm of 1699. Bienville called the settlement New Orleans and a log village was soon built. Protected from foul weather and enemies by thick wetlands, the site was considered ideal. Several bayous flowed into Lake Pontchartrain to the north and out to the Mississippi Sound, making it easy for small boats to travel east to trade with the Biloxi and Pascagoula Indians, as well as with other French settlers. Large vessels carrying colonists and goods could dock close to New Orleans, or travel as far as 100 miles north up the Mississippi River to escape the full force of hurricane winds.⁷⁵



Figure 24. Site of Fort Maurepas. Source: MDAH.

⁷⁵ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press), 2009, 4.

The French government, however, disagreed with Bienville's choice to situate the French capital in swampland and vetoed his selection. He was ordered to leave a portion of his command in New Orleans and build a new fort and French capital where present-day Biloxi is situated and where the first temporary French fort was built and found to be in a most vulnerable location. Between 1719 and 1721, thousands of colonists arrived at Ship Island harbor and dispatched to posts and settlements throughout French Louisiana. Many joined small groups who settled in areas along the Pascagoula River and westward to the Bay of St. Louis. Hurricanes and other disasters, however, deluged the area during this time. Ships containing barrels of food stuffs were destroyed, livestock were drowned, and warehouses full of goods were smashed, stunting population growth and discouraging potential settlers from France. Bienville was finally able to convince the French government to allow a permanent move to New Orleans, and with the failure of the settlement at Biloxi Bay, the Mississippi Gulf Coast would never again figure as prominently in French plans for development of the region.⁷⁶

From 1722 to 1763, at least ten more major hurricanes caused population loss and destruction to buildings and crops throughout the region. Yet France continued to develop New Orleans, and Spain and Britain continued their efforts to occupy the region. In 1740, two consecutive hurricanes eroded half of what remained of Dauphine Island, wreaked havoc among the settlers in Pascagoula and Mobile, and drowned hundreds of cattle. Mobile was almost completely destroyed, but New Orleans fared well and was able to send supplies to sustain the colonists and troops. Then, in 1746, another hurricane nearly destroyed all rice, corn, and other food crops across the entire region, from Mobile to New Orleans. Famine was avoided with the help of local Indians and French settlements in present-day Illinois, who exported flour and other goods to the

⁷⁶ Walter G. Howell, "The French Period, 1699-1763," in vol. 1 of *A History of Mississippi*, ed. Richard Aubrey McLemore, (Jackson: University & College Press of Mississippi, 1973), 134.

region.⁷⁷

By 1763, the French had been forced to ally with Spain in order to survive the Seven Years War. After France was defeated, the Treaty of Paris was signed and Louisiana was divided between the British and Spanish. Spain received all French holdings west of the Mississippi River, and Great Britain received everything east of the river, including the Mississippi Gulf Coast. One year prior to this secession, a fierce hurricane thwarted French plans to fortify New Orleans as a proper base for assault on British West Florida. In the wake of the storm, it was found that most of the village of New Orleans had been lost along with acres of crops and numerous French gunboats. It is possible that, if this hurricane had not occurred, the French could have defended their capital. Nevertheless, France had accepted its loss by this time, especially considering the economic damages the empire had suffered over the many years of failure to colonize the region. Unlike the French experience, few hurricanes hindered progress during the Spanish period of control, but in 1772, the Bernard Romans Hurricane killed hundreds of settlers when winds pushed flood waters into all the bays and streams from Pensacola and Mobile to New Orleans.⁷⁸ In 1783, at the end of the American Revolution, Spain lost Louisiana to the Sovereignty of the United States and by the time of the Louisiana Purchase in 1803, both the French and Spanish eras in Mississippi history were over.⁷⁹

Though fraught with turmoil, struggle, and failure, much of which was caused by the harsh environment, settlement of the Mississippi Gulf Coast by both France and Spain is important in the history of the region. When France became the first European

⁷⁷ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 4.

⁷⁸ This hurricane was named by historians after Bernard Romans, an explorer in the service of the British king who inspected the Mississippi Coast from 1771 to 1773. His is the best-known eyewitness account of the storm. Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 5.

⁷⁹ Walter G. Howell, "The French Period, 1699-1763," in vol. 1 of *A History of Mississippi*, ed. Richard Aubrey McLemore, (Jackson: University & College Press of Mississippi, 1973), 123.

country to make a serious attempt to colonize the region and secure a claim to the interior of the continent, they began an international power struggle that would shape the development of Mississippi and the entire Gulf South. By engaging in politics and trade with American Indians, the French also sought to establish a profitable economy and a strong military presence. For over a century, negotiations between the native peoples and European immigrants were conducted by the French and the institution of slavery was strengthened. Their influence shaped the agricultural and social development of Mississippi, which defined most of the early history of the state and formed a fundamental part of its cultural heritage.⁸⁰

By 1819, the Mississippi Gulf Coast was developing rapidly. New Orleans and Mobile had become metropolitan areas and the advent of steam power and the steamboat allowed both rich and poor city dwellers an affordable, year round means of travel into and out of the area to vacation and escape the threat of yellow fever. Between 1819 and 1821, however, three hurricanes swept through the region destroying, sinking, and beaching many ships, while driving others deep into the inland pine forests. It was reported that parts of beach houses were found in large expanses of flattened pines over six miles from the shore. Then, a period of thirty years passed with no hurricane activity of great consequence. Harbors across the coast were improved and Mobile Bay was dredged to allow seagoing ships near the city. Steamboats continued to transport freight and passengers regularly from New Orleans to Mobile, spurring further growth of extant villages and helping to establish new ones. Gambling became popular, and a workforce that catered to the hospitality and commercial seafood industries began to grow. Bay St. Louis, Pass Christian, Mississippi City, Biloxi, Ocean Springs, and Pascagoula came to be known for their resort spas with curative waters and were nicknamed the *Six*

⁸⁰ J. Michael Bunn and Clay Williams, "A Failed Enterprise: The French Colonial Period in Mississippi," Mississippi History Now, Articles, <http://mshistory.k12.ms.us/articles/35/french-colonial-period-in-mississippi> (accessed April 10, 2011).

*Sisters, or daughter cities, of New Orleans.*⁸¹

Beginning in the 1830s, Pass Christian became the first of the Six Sisters to become established as a thriving resort community, partly because it was closest in proximity to New Orleans and partly because it was already recognized as a popular vacation spot for wealthy cotton and sugar cane planters. These planters were the first to build private cottages and second home villas that fronted the beach along a four-mile beach trail. In 1831, the Pass Christian Hotel was one of the first of several luxury hotels to be similarly situated along the coastline. Coast historian, Charles Sullivan, said, "Antebellum Pass Christian was not a town that possessed a hotel but rather, a hotel that possessed a town." The town was promoted as the best "watering hole" on the "lake", indicating the Mississippi Sound as an extension of Lake Pontchartrain.⁸² By the 1840s, the industries of commercial fishing, boatbuilding, and lumbering developed and continued into the 20th century to be the three major economic engines of the region, along with tourism and hospitality, although the lumber industry would cease to exist in the 1920s when the pine forests were depleted.⁸³

During the 1850s, tourism grew and the building of cottages and hotels along the waterfront became more popular. The May to November tourist season, which coincided with the hurricane season, brought thousands of people from a wide range of economic backgrounds to the area to vacation.⁸⁴ In 1852, the Great Mobile Hurricane destroyed houses and wharves in the Pascagoula area, drowned at least three people, and cut a gash through Ship Island three quarters of a mile wide. With the exception of this storm, the 1830s, 1840s, and 1850s was a time of reprieve from catastrophic disaster in which

⁸¹ Charles Sullivan and Murella Hebert Powell, *The Mississippi Gulf Coast: Portrait of a People* (Sun Valley, California: American Historical Press, 1999), 41.

⁸² Dan Ellis, "A History of Pass Christian," [photocopy], MDAH, Historic Preservation Division, Charlotte Capers reading room, Statewide Inventory Files: Pass Christian, Harrison County.

⁸³ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 13.

⁸⁴ Jerry Kinser, *The Coast of Mississippi: Its Past and Progress* (Baton Rouge: Moran Publishing Co., 1982), 39.

was fairly mild. Because it came only two weeks after the second hurricane, however, it undermined much of the building reinforcement construction that was underway. The Waveland area received the full force of the storm leaving all ninety-seven of the town's wharves destroyed and 300 cattle drowned on nearby Cat Island.⁸⁸ The *New York Times* called the loss of buildings, machinery, and crops from the three hurricanes "deplorable," and went on to describe great losses to the sugar cane and cotton industries.⁸⁹ The idea of new and improved building codes was discussed by lawmakers around this time, but more than thirty years would pass before progress toward code enforcement and disaster preparedness would lead to significant action.⁹⁰

As the coast recovered from the three hurricanes of 1860, the Civil War began. Development along the Mississippi Gulf Coast, however, did not come to a complete standstill as it did in other parts of the state and throughout the Confederacy. It took another three to four months for vacationers to evacuate, and many summer homeowners stayed over the duration of the war because no region in Mississippi was safer.⁹¹ Offshore fishing boats continued to trade with ships harbored at Ship Island while also supplying food, water, newspapers, mail, and other goods to troops, and residents of the coast. The reprieve from disastrous weather events in the 1850s had given the United States War Department opportunity in 1859 to begin construction of Fort Massachusetts on Ship Island. Plans to build masonry fortifications for coastal defense began after the War of 1812, and the island was a strategic location from which to defend the Gulf Coast and New Orleans. Though the fort was unfinished when the Civil War began and Abraham Lincoln ordered a blockade of the Southern coastline, Mississippi militiamen and Confederate troops used it as a shield to exchange cannon

⁸⁸ *Ibid.*, 26.

⁸⁹ "The Last Storm at New-Orleans," *New York Times*, October 12, 1860, [http://proxy-remote.galib.uga.edu:80/log in?url=http://search.proquest.com.proxy-remote.galib.uga.edu/docview/91535284?accountid=14537](http://proxy-remote.galib.uga.edu:80/log%20in?url=http://search.proquest.com.proxy-remote.galib.uga.edu/docview/91535284?accountid=14537) (accessed April 10, 2011).

⁹⁰ Charles Sullivan and Murella Hebert Powell, *The Mississippi Gulf Coast: Portrait of a People* (Sun Valley, California: American Historical Press, 1999), 76.

⁹¹ *Ibid.*, 78.

fire with the Union.⁹² As Ship Island was eventually overthrown by the Federals, development along the coast began to languish and train service delivered fewer passengers and more war supplies.⁹³



Figure 26. Fort Massachusetts on Ship Island. Source: Cooper Post Card Collection, MDAH.

By the end of 1861, Biloxi had been captured and secured by the Federals, and in April of 1862, New Orleans was also forced to surrender. At this point, many Mississippi regiments began to flee via the New Orleans & Great Northern Railroad to take refuge in northern parts of the state. Most coast inhabitants joined the soldiers leaving only a few dozen families remaining in each of the Six Sisters.⁹⁴ Between 1861 and 1893, several small hurricanes made landfall along the Mississippi Gulf Coast, but damage was again isolated to the wharves, boats, and beachfront structures.⁹⁵

Commerce and industry was far more seriously hampered by the Civil War, from which recovery was very slow until the development of a railroad system between Mobile

⁹² National Park Service, Gulf Islands National Sea Shore, "Fort Massachusetts," National Park Service, <http://www.nps.gov/guis/historyculture/fort-massachusetts.htm> (accessed January 11, 2010).

⁹³ *Ibid.*, 82.

⁹⁴ *Ibid.*, 88.

⁹⁵ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 27.

and New Orleans. Tracks were laid by late 1869 and large contracts for bridge timbers and crossties revived dormant lumber mills along the coast. Gigantic railroad bridges spanned Pascagoula Bay, Biloxi Bay, the Bay of St. Louis, the Rigolets, and Chef Menteur Pass. Each of the Six Sisters, as well as other points along the rail line, soon had new depots, which became points of development for other small towns. Because the distance between Mobile and New Orleans could be traveled for half the price and in one-third the time, trains replaced steamboats as the popular means of conveyance. Residents in surrounding cities could enjoy a weekend excursion to any place in the region, or they could commute daily for jobs and other opportunities.⁹⁶

The New Orleans and Mobile division of the Louisville and Nashville Railroad (L&N) also made possible the arrival of goods and services from all over the nation as



Figure 27. Mexican Gulf Hotel in Pass Christian, built 1883. *Source:* Cooper Postcard Collection, MDAH.

railroads expanded, which changed the lives of coastal inhabitants in many ways. residents of northern and mid-western states escaped the harsh winter months by

⁹⁶ Jerry Kinser, *The Coast of Mississippi: Its Past and Progress* (Baton Rouge: Moran Publishing Co., 1982), 91

coming to the coast, and hotels began to remain open all year, creating a second vacation season that bolstered the coast economy. By 1883, many grand hotels had been built such as the Mexican Gulf Hotel in Pass Christian, which was one of the first to cater primarily to the “snowbirds” from the north. The railways also supported prospering farmers as a conveyor of foodstuffs. Vegetables, fruit, and pecans became the first crops to be exported from the region, and, together with truck farming, new towns such as Long Beach between Pass Christian and Gulfport, began to grow. More importantly, the railroad, together with technological advances in canning and the production of artificial ice, created a bigger and better seafood industry that made Biloxi the most advanced city on the Mississippi Gulf Coast. By 1893, Biloxi had a horse-drawn street railway, a telephone exchange, and outdoor electric lights in the business district.⁹⁷

Near the end of September of the same year, heavy winds were observed in the northwest Caribbean Sea that quickly moved northwest into the Gulf of Mexico. By October 2, the storm developed into what is now known as the Great October Storm of 1893. It moved over southeast Louisiana and into the Mississippi Gulf Coast region as a Category 4 hurricane that killed an estimated 2000 people and caused about \$102.6 million in damages by today’s standards. Because the hurricane killed over 700 people and destroyed the village of Cheniere Caminada in Louisiana, it is often referred to as the 1893 Cheniere Caminada Hurricane.⁹⁸ On October 5, 1893, the New York Times described the destruction in Louisiana as catastrophic. “Only here and there stood a house. Everywhere there were merely foundations to mark where houses had stood. Trees lay flat upon the ground and ruined chimneys suggested stories of stricken hearths. Furniture, bedding, clothing, stoves, and kitchen utensils were scattered in confusion wherever one might look, and everywhere were the ghastly faces of the

⁹⁷ Ibid., 28.

⁹⁸ Christine Gibson, "Our 10 Greatest Natural Disasters," *American Heritage* (August/September 2006), <http://www.americanheritage.com/articles/web/20060905-natural-disasters.shtml> (accessed April 11, 2011).

victims who had met death in the sweeping torrent.” The article went on to say that all the bridges on the Mississippi Gulf Coast were damaged by the storm and the bridge at Bay St. Louis was nearly destroyed.⁹⁹

After the storm damaged every Mississippi Coast town from the far western end of the coast to Gautier near the eastern end, it gained momentum and hit Pascagoula and Moss Point near the Alabama line at approximately 100 mph. Four churches in Pascagoula were destroyed, three miles of the L&N Railroad between Pascagoula and Gautier was destroyed, including a large bridge over the Pascagoula River, and wind and water disabled every Moss Point sawmill, except one. Afterward, wharves, bathhouses, and most boats were destroyed, along with virgin forests and 50 to 200 feet of shoreline. Destroyed telegraph lines and railroad bridges made communication with other cities impossible, thereby preventing news of the enormity of the disaster. Hundreds of Biloxians gathered after the storm to pray for safe passage of a schooner sent by a wealthy seafood family to search the marshes and islands for survivors. None were found, but those aboard reported the marshes filled with the dead and putrefying bodies of hundreds of humans and animals of every variety.¹⁰⁰

Nine days after the hurricane, the mayor of Biloxi chaired a public meeting in the city’s opera house that was attended by nearly every resident. A newspaper-oriented *Appeal to the Public*, called for monetary aid for the single purpose of "placing deserving boatmen on proper footing to earn a living for their families." According to the appeal, the city had sustained damage in excess of \$300,000, which included 100 large fishing boats either destroyed or heavily damaged. The appeal further stated that short-term relief in the form of food and clothing could be provided on the local level, but that only revitalization of the fishing industry through outside aid could alleviate the far-reaching

⁹⁹ "Swept by an Ocean Wave," *New York Times*, October 5, 1893, <http://proxy-remote.galib.uga.edu:80/login?url=http://search.proquest.com.proxy-remote.galib.uga.edu/docview/95030079?accountid=14537> (accessed April 11, 2011).

¹⁰⁰ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 34.

economic impact of the storm. On October 16th, the Citizens Central Relief Committee of New Orleans responded to Biloxi's appeal by stating "... [the] question of state lines cuts no figure in this emergency, " and the group offered an initial aid package of several thousand dollars with the promise of more to follow. Despite the good intentions, this amounted to only a small fraction of what was needed.¹⁰¹

Although the United States Weather Service existed for 23 years before the October Storm of 1893, the people of the Mississippi Gulf Coast received no official warning, and in the wake of the hurricane, no agency of national, state or local government existed in Mississippi to aid victims with disaster relief. The New Orleans office of the twelve-year-old American Red Cross offered clothing to victims and volunteers willing to deliver reinforcements, but they were unprepared to handle a large disaster. As in 1860, the October Storm of 1893 proved again the need for building codes, early warning systems from the United States Weather Service, pre-disaster planning, and rapid rescue procedures. Charles Sullivan states in his book, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction*, that "The dawning recognition of these facts lagged far behind the implementation of programs designed to protect a growing population that lived on an increasingly built-up coastline at the mercy of future hurricanes." The Mississippi Gulf Coast developed more rapidly during the nineteenth century than planning strategies could evolve and adapt to changing needs, but after the 1893 hurricane, local, state and national agencies became more involved in an effort to improve methods for obtaining massive post-disaster aid from both public and private sources.¹⁰²

A prominent railroad executive speaking in 1896 prophesied, "There will not be a vacant lot where it is possible to build between New Orleans and Mobile." The same

¹⁰¹ Ibid., 36.

¹⁰² Ibid., 36.

year, oil and rail magnate Joseph T. Jones (also mentioned in Chapter Three in reference to the Gulfport-Harrison County Public Library) completed his plan to connect the tiny village of Gulfport to Hattiesburg, about seventy miles north of the coast, with the construction of the Gulf and Ship Island Railroad (G&SI). The new line infiltrated the thick timberlands of north Harrison County and connected with the trans-coastal L&N Railroad. Sawmills and turpentine stills began business along the length of the G&SI around which villages and towns developed. At Hattiesburg, the G&SI joined the New Orleans and Northeastern Railroad (NO&NE). These three railroads and their feeder lines helped make possible an enormous lumber boom in Mississippi, and after



Figure 28. The L&N Railroad bridge across the Bay of St. Louis leading to the City of Bay St. Louis. *Source:* Cooper Post Card Collection, MDAH.

Captain Jones dredged a 24-foot-deep, 300-foot-wide channel from the railhead to Ship Island, Gulfport became a major city in the ongoing development of the lumber trade.¹⁰³

As the new millennium began, Biloxi continued to be a city of innovation, and other coastal towns followed its lead. Before 1915, power lines, telephone wires, electric

¹⁰³ *Ibid.*, 37.

street railways, and eventually, automobiles, became common across the coast. As the seafood, lumbering, turpentine, and tourism industries grew, and the population rose, hurricanes caused more deaths, more destruction, and heavier economic losses. From 1900 to 1916, hurricane activity prompted city and industry leaders to initiate projects that would protect the coast from such losses and ensure continued development and prosperity.¹⁰⁴ After a hurricane destroyed multiple large seafood companies in 1906, a citizens' committee was organized to petition the Biloxi City Council for a bulkhead that would protect property along the Biloxi beachfront. It was proposed that property owners and the city would share equally in the cost to build a seawall and fortify and extend an existing road that connected Biloxi to Pass Christian and continued as a sandy trace from Bay St. Louis to Pearlington.¹⁰⁵ Having spent nearly \$15,000 repairing the road since 1893, only to see it washed away in every succeeding storm, the council agreed. Property owners, however, would be required to deed their sections of the road to the city, and many refused.¹⁰⁶ fortify

In 1908, state and local governments joined with private citizens in Jackson and Harrison counties to fund upgrades along the coastline roadway. Crews built up the existing road that connected Biloxi to Pass Christian with a thick layer of seashells, and constructed bridges from Biloxi to the Bay of St. Louis. Across the bay, the City of Bay St. Louis in Hancock County had constructed a wood seawall to protect the marinas. Cities east of the bay began to follow Biloxi in the campaign to build a permanent, engineered seawall, and beachfront property owners were faced again with the idea of deeding the road to their respective governments. A hurricane in 1909 destroyed more hotels and other amenities along the water than in years past, but worse, the Associated Press claimed the entire city of Biloxi was under six feet of water. Similar headlines

¹⁰⁴ Ibid., 43.

¹⁰⁵ Charles L. Sullivan, "Good Roads: Building the 'Old Spanish Trail,'" Mississippi History Now, <http://mshistory.k12Ms.us/articles/22/building-the-Old-Spanish-Trail> (accessed April 23, 2011).

¹⁰⁶ Ibid., 45-47

appeared in newspapers across the nation resulting in the worst winter tourist season the region would experience until after Hurricane Katrina. In addition to loss of tourism revenue, the turpentine and pecan businesses reported 40 to 50 percent of crops destroyed causing circumstances on the Mississippi Gulf Coast to reach a tipping point. Construction of an improved road along the water could not exist without a seawall to protect it, but before real action was taken, another seven years would pass.¹⁰⁷

When, in 1916, the coast was devastated by another severe hurricane, a large group of residents, city and county leaders, and engineers met at the Harrison County Courthouse to finally hear ideas for an improved shoreline highway and seawall. After much debate, the courthouse assembly unanimously agreed that the Board of Supervisors of Harrison County should begin to issue road bonds for the purpose of constructing permanent main highways north and south, and east and west through Harrison County, along with a proper seawall to protect them. The publicity regarding this movement inspired similar activity in Jackson County and helped solidify plans for a permanent wall to replace the wood one in Hancock County.¹⁰⁸ Consensus was found, and residents were willing to deed their land to the cities, but the projects were delayed again; this time by World War I. The real estate and tourism boom of the 1920s, however, revived plans. By 1921, the shell road that connected the coastal cities was being paved in Jackson County and, by 1924, all three coastal counties had agreed to construct a permanent seawall. In 1926, construction of U.S. Highway Route 90 running parallel to the old shell road along the coastline began. In 1928, a 24-mile-long seawall was dedicated in Harrison County, and Jackson and Hancock Counties began construction on separate sea walls. By 1930, all sea walls were in place, the old shell road was paved and fortified, and automobile and train bridges spanned every river and

¹⁰⁷ Ibid., 54-55.

¹⁰⁸ Ibid., 60.



Figure 29. The sea wall in Pass Christian. *Source:* Cooper Postcard Collection, MDAH.

bay, making travel between Mobile and New Orleans possible without the use of ferries.¹⁰⁹

The Great Depression affected residents of the coast as it did the entire nation, but, fortunately, no hurricanes of great consequence exacerbated the economic situation. With the outbreak of World War II, South Mississippi and the Gulf Coast region became part of America's military-industrial complex. Buildings and airfields were constructed that stationed the military while they were in training, and shipyards were retooled for manufacture of war vessels.¹¹⁰ After the war, much of the infrastructure built to accommodate the goals of the military was left in place, and bases remained in operation for continued training and other purposes. By the end of World War II, the Mississippi coastline had been changed significantly and plans were underway to build U.S. Highway 90, the nation's first four-lane coastal superhighway from Florida to

¹⁰⁹ *Ibid.*, 61.

¹¹⁰ *Ibid.*, 63.

Texas.¹¹¹ Restaurants, motels, and other businesses catering to tourists in automobiles, resulted in long strips of densely-packed commercial outlets from Pascagoula to Bay St. Louis.

In 1947, the coast was struck by the worst hurricane since 1916. The National Oceanic and Atmospheric Administration reported 940 buildings destroyed along the Mississippi Gulf Coast, 8,519 damaged, and approximately \$29 million in total damages.¹¹² Eighty-five percent of beachfront homes in Pass Christian and Long Beach were damaged or destroyed, and whole blocks of houses and commercial buildings were ruined in Bay St. Louis when an 1,800-foot section of the seawall collapsed. Buildings at the Merchant Marine Academy at the mouth of the Bay of St. Louis were not destroyed, but the storm surge gutted them causing approximately \$300,000 in damage. A Pass Christian seafood company building situated on the site of one destroyed by the 1916 hurricane, disappeared, and Gulfport lost four seafood factories. Long sections of the L&N Railroad bridge over the Bay of St. Louis fell, and two 40-foot spans of the U.S. 90 automobile bridge dropped into the bay. As the bridges collapsed, they took with them the attached telephone, telegraph, and electric lines.¹¹³

Despite the devastation, technological advances and improvements to infrastructure made recovery a much simpler task. The 23-year-old Mississippi Power Company reacted quickly to restore power to some areas on the evening of the storm, and with the aid of 150 Alabama Power workers and upstate teams, electricity to approximately 100,000 customers was restored within 48 hours, and within one week, 80 percent of homes and businesses from Pascagoula to Bay St. Louis had power. Communication had also improved. Ham operators immediately sent out messages, and

¹¹¹ "U.S. Highway 90 History: From 'Old Spanish Trail' to Modern Mississippi Highway," Mississippi Department of Transportation, http://www.mdothwy90.com/documents/US_90_Project_History.pdf (accessed April 13, 2011).

¹¹² Ralph Sanders, "The Hurricane of September 19, 1947 in Mississippi and Louisiana," NOAA Central Library and the Climate Database Modernization Program, National Climate Data Center, (January 1950), <http://docs.lib.noaa.gov/rescue/hurricanes/Qc9452h89h81947.pdf> (accessed April 11, 2011).

¹¹³ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 71.



Figure 30. Houses in Bay St. Louis during unnamed 1947 Hurricane. *Source:* Hancock County Historical Society.

within two days Western Union had dispatched 12,000 telegrams via automobile to Hattiesburg for transmission. Within three days, aid had arrived from across the country and within another week 75 percent of phones were operational. Most service organizations in place in 1947 had not existed at the time of the 1916 hurricane and, still, in 1947, all were separate and autonomous. Because of the new military presence on the coast, however, groups reacted to the 1947 hurricane with great speed and unity. The Naval Reserve, Mississippi National Guard, Salvation Army, Coast Guard, Merchant Marine cadets, Red Cross, Boy Scouts, and local police and firefighters in every Coast town banded together. The 1916 hurricane had reinforced the idea that only unified action could protect residents and property, and the hurricane of 1947 demonstrated to a new generation the need for such unity.¹¹⁴

Another significant hurricane would not affect the Mississippi Gulf Coast region until 1965, when Hurricane Betsy made landfall.¹¹⁵ The storm was the costliest in United

¹¹⁴ *Ibid.*, 73.

¹¹⁵ For many years, most hurricanes in the West Indies were named after the saint's day on which they occurred. During

States history up to that time, causing approximately \$1.4 billion in losses and prompting the governor of Mississippi to declare a state of disaster. This qualified individuals and businesses for Small Business Administration loans and made money available to public works agencies from the state Office of Emergency Planning. Coast counties suffered great losses to crops of corn and sorghum, but lesser damage to pecan and tung orchards. Business and homeowners who lost property to flooding had to absorb total losses after Betsy because, after the 1947 hurricane, private property insurance companies had begun to write policies for wind damage only.¹¹⁶ Afterward, it was found that some damage to homes and much of the damage to businesses could have been avoided if the building codes adopted after the 1947 hurricane had been strictly enforced. Following the storm, the acting president of the Harrison County Board of Supervisors directed the board attorney and the county engineer to "determine illegal structures which have been damaged so that steps can be taken to prevent their rebuilding."¹¹⁷

By the 1960s, civil organizations were stronger and more organized than ever. The Harrison County Civil Defense Council was founded in 1956 and, in the early 1960s, it became part of The American Civil Defense Association (TACDA) as a non-governmental organization with the aim of educating citizens about the possibility of nuclear war and encouraging personal preparedness in the event of any emergency or disaster.¹¹⁸ Offices in Biloxi and Gulfport were run by the husband-and-wife team of Wade and Julia Guice who brought together various local emergency offices to work in a

World War II, use of women's names became widespread among military forecasters. In 1953, Atlantic tropical storms were called by given names from lists created by the National Hurricane Center. Originally, only women's names were used, but, in 1978, men's names were alternated with women's. An international committee of the World Meteorological Organization now maintains and updates the list. Further information can be found here: NOAA, <http://www.nhc.noaa.gov/aboutnam.es.shtml> (accessed April 9, 2011).

¹¹⁶ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 88.

¹¹⁷ *Ibid.*, 89.

¹¹⁸ The American Civil Defense Association, "The History of The American Civil Defense Association," <http://www.tacda.org/index.php/about-the-american-civil-defense-association/> (accessed April 9, 2011).

more unified manner with national support agencies such as the American Red Cross, the Salvation Army, and various military installations. Since preparedness education was well-funded by TACDA, the Guices were able to make great strides in educating the public on disaster preparedness, evacuation, and recovery in the aftermath. After Hurricane Betsy, in 1965, Wade Guice remarked that the hurricane had been an “excellent training device.” He pointed out deficiencies to correct and made more local government agencies ready to make policy decisions in the midst of future disasters.¹¹⁹

In 1969, Hurricane Camille struck the Mississippi Gulf Coast and became the most powerful tropical cyclone to strike the United States during the twentieth century. After passing near southeastern Louisiana and New Orleans, it made landfall near Bay St. Louis and Pass Christian with wind gusts estimated at 200 mph, and a tidal surge of 35 feet. The storm caused 172 deaths in Mississippi, and property damage exceeded \$8.8 billion.¹²⁰ Coast residents often compare Katrina’s wrath to that of Camille’s, even though Katrina caused much more devastation than Camille. Wade Guice remarked, “I think our people have been so severely damaged in Hurricane Camille that it will take several generations for a sense of complacency to develop.”¹²¹ Both hurricanes reached the same westerly section of the Mississippi Gulf Coast around Waveland, Bay St. Louis, and Pass Christian with similar destructive effects. Camille intensified more rapidly than Katrina, and unlike Katrina, maintained status as a Category 5 until landfall.¹²² Even after Katrina, damage associated with Hurricane Camille such as the vacant lots, slabs, and steps and driveways leading to nowhere, is still visible. After Camille, police were given the authority by the Mississippi Emergency Management Act (MEMA) to declare a state

¹¹⁹ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 71.

¹²⁰ National Hurricane Center, “Costliest U.S. Hurricanes 1900-2004,” NOAA, <http://www.nhc.noaa.gov/pastcost2.shtml?> (accessed April 11, 2011).

¹²¹ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 71.

¹²² National Hurricane Center, “Hurricane History,” NOAA/National Weather Service, <http://www.nhc.noaa.gov/HAW2/english/history.shtml#camille> (accessed April 11, 2011).

of emergency and force uncooperative residents and visitors to evacuate.¹²³

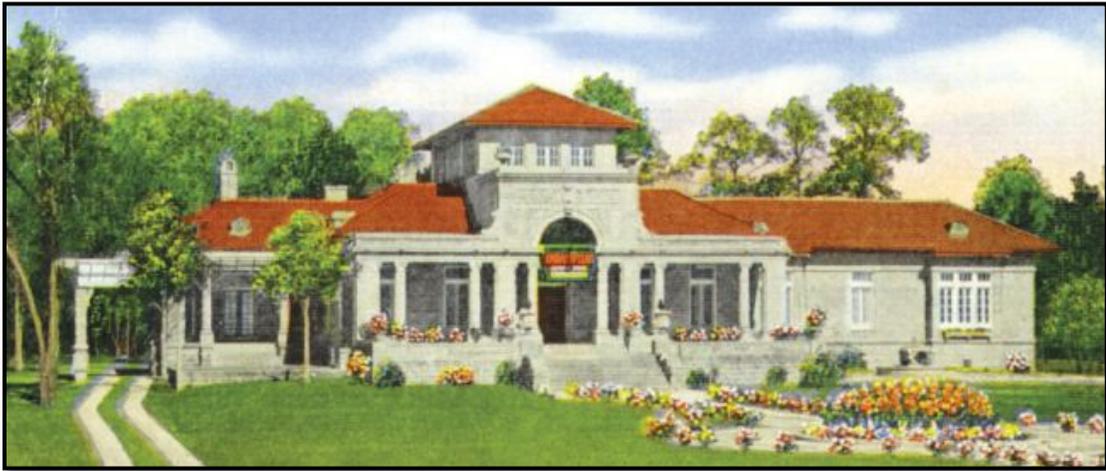


Figure 31. Top, Embassy Club, Gulfport, Mississippi, before Hurricane Camille. *Source:* MDAH; bottom, Embassy Club after. *Courtesy:* Family of Chauncey Hinman.

After Camille, several Gulf Coast communities embarked on Urban Renewal campaigns. Biloxi spent \$22 million on its downtown revitalization efforts, trying to boost economic development. The Fall of Saigon brought Vietnamese refugees to the region who entered the stagnant seafood business, and made it economically viable for a new

¹²³ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 74.

generation. To enhance tourism, the Mississippi Gulf Coast Coliseum and Convention Center opened in 1976, advertising the Gulf Coast with a new image. Ideals of the historic preservation movement were incorporated into city planning efforts and became important to the development of communities during this time as other forms of commercial expansion were initiated. Regardless of these efforts, by the 1980s the economy of the Coast was floundering.¹²⁴

Spurred by the realization that a hurricane of Camille's magnitude was possible on the Mississippi Gulf Coast, various local governments adopted and enforced stringent building codes.¹²⁵ As a result, in 1979, when Hurricane Frederic struck the coast, fewer



Figure 32. Home in Biloxi damaged by Hurricane Frederic in 1979. *Source:* MDAH.

buildings suffered total destruction, but monetary losses were still great. By this time, the plethora of disaster services offered by various state and federal agencies had been combined under the aegis of FEMA, but FEMA itself was not organized to handle its new

¹²⁴ Denise von Herrmann, *Resorting to Casinos: The Mississippi Gambling Industry*, (Jackson, MS: University Press of Mississippi, 2006), 23.

¹²⁵ *Ibid.*, 122.

authority. Frederic, though far less powerful, was three times larger than Camille and caused damages estimated at \$6.2 billion by today's standards, making it the costliest hurricane in American history to that time.¹²⁶ Afterward, FEMA disbursed \$344 million to residents, which was more monetary aid paid by a government entity after any disaster in United States history. FEMA's mission, however, included delivery of services offered by TACDA, the American Red Cross, the Salvation Army, and other groups, but their ability to organize on that level was practically non-existent.¹²⁷

For six years after Hurricane Frederic, the Mississippi Gulf Coast suffered no hurricanes, but in 1985, four hurricanes made landfall. The second, Hurricane Elena, prompted a mandatory evacuation. Although the tourism industry would suffer, a mass exodus was made in preparation for the storm, but the hurricane changed course and the warning was lifted. Evacuees returned home, unpacked, took boards off windows, and settled back into their daily routines. The Tourism Commission tried to lure visitors back for the Labor Day weekend and reinstate canceled hotel reservations, but two days later, Hurricane Elena headed back toward Mississippi, and again, a mass evacuation was enforced. On Labor Day, Pascagoula and Moss Point were hit hard, and then the eye of the storm moved over the length of the coast. Wind direction prevented a high storm surge, but tornadoes caused widespread damage,¹²⁸ and President Reagan declared the coast a national disaster area.¹²⁹ Fortunately, the death toll was low, but the insured monetary loss exceeded \$352 million, and the full cost is estimated to be \$6.29 billion by today's standards.¹³⁰ Farms recovering from Frederic lay prostrate again and timber and soybean growers lost millions of dollars. Loss to individuals, other industries,

¹²⁶ National Hurricane Center, "Costliest U.S. Hurricanes 1900-2004 (adjusted)," NOAA, <http://www.aoml.noaa.gov/hrd/landsea/deadly/index.html> (accessed April 25, 2011).

¹²⁷ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction*, (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 123.

¹²⁸ Peter R. Sparks, *Hurricane Elena, Gulf Coast, August 29-September 2, 1985* (Washington, D.C.: National Academy Press, 1991), <http://www.netlibrary.com/urlapi.asp?action=summary&v=1&bookid=14324> (accessed 11 April 2011).

¹²⁹ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 133.

and local governments because of the evacuations was also large. Hurricanes Juan and Kate followed Hurricane Elena. Juan caused seven deaths in Mississippi and created \$3.1 billion in damages by today's standards, but Kate changed direction at the last minute and hit Alabama and Florida, and then moved up the east coast. Still, Kate caused great stress for hurricane-weary Mississippians, many of whom sacrificed time and money to prepare for the storm.¹³¹

For thirteen years, the Mississippi Gulf Coast did not experience another hurricane.¹³² In the meantime, casino gaming became an industry, and legalized gambling began to transform the politics, culture, and people of Mississippi. During the late 1980s and early 1990s, the state had historically high levels of unemployment. Whether gambling was legal or not, it had been a large part of the coastal economy since the 1890s and had drawn tourists from all parts of the nation. In 1987, one casino claimed that the waters of the Mississippi Sound were "international" waters, not subject to the jurisdiction of the State of Mississippi. Lawmakers opposed the idea and a lawsuit ensued, but in 1989 the Mississippi Legislature authorized gambling in state waters, adding that vessels must be "en route" to international waters, and promising the "Christian-Right" that casinos would be temporary; to bolster the economy. Legal boat casinos that could cater to all the tourists' needs became overwhelmingly successful, but they left bankrupt many small, on-shore clubs, restaurants, and hotels with illegal slot machines and backroom tables. By 1993, the legislature passed the Gaming Control Act, authorizing casino ship owners to offer casino gaming on permanent barges.¹³³ Gambling brought badly needed tax dollars into state and local governments by creating a magnet for tourists, generating a construction boom, boosting retail and food and

¹³⁰ National Hurricane Center, "Costliest U.S. Hurricanes 1900-2004 (adjusted)," NOAA/National Weather Service, <http://www.aoml.noaa.gov/hrd/Landsea/deadly/index.html> (accessed April 25, 2011).

¹³¹ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 133.

¹³² *Ibid.*, 134.

¹³³ Denise von Herrmann, *Resorting to Casinos: The Mississippi Gambling Industry*, (Jackson, MS: University Press of Mississippi, 2006), 4-6.

beverage sales, and making the hospitality industry more successful than it had ever been.¹³⁴

The United States Census shows that between 1990 and 2000, more than 67,000 people, pursuing jobs and other opportunities, moved to the three coastal counties and those adjacent to the north. The population of the three coastal counties became double that at the time of Camille, without the inclusion of tourists, gamblers, or any other type of visitor.¹³⁵ High-rise hotels and giant casinos floating on barges began to dominate the beachfront horizon, which had previously been characterized by rambling homes, family restaurants, souvenir shops, and the sails of schooners in the Sound. These mammoth floating establishments were known to be of great danger because they could not be controlled, even during light storms.¹³⁶ To prevent barges from killing people and destroying property by coming on shore during a hurricane, Wade Guice presented a vulnerability analysis to the Mississippi Gaming Commission. He and his colleagues estimated that a barge could withstand 155-mph wind and a fifteen-foot storm surge, if it is moored, and that wind velocity and storm surge exceeding these numbers would break up a barge before it could skid across the land as a solid mass. Guice demanded that moorings constructed to hold barges in place and asked that, ultimately, casinos be land-based to prevent the danger altogether.¹³⁷

When Hurricane Georges struck in 1998, its highest wind speed on shore reached 105 mph with a storm surge of thirteen feet. Nine of the eleven coast casinos endured Georges with minimal damage and, in the aftermath, all ship casinos were converted to barge casinos.¹³⁸ Guice was successful in getting them to moor their barges, but the opposition to land-based casinos on the part of anti-gambling forces kept

¹³⁴ Ibid., 5.

¹³⁵ U.S. Census Bureau, "Decennial Programs," http://factfinder.census.gov/servlet/DatasetMainPageServlet?_ds_name=DEC_1990_STF1_&_program=DEC&_lang=en (accessed April 11, 2011).

¹³⁶ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 135.

¹³⁷ Ibid., 137.

¹³⁸ Ibid., 139.

casinos on water, despite the danger. By 2004, the gaming industry accounted for ten percent of the state's budget and was the main economic engine driving the coastal economy.¹³⁹ Despite this growth, no new northbound highway had been added and only one four-lane U.S. highway led north as an evacuation route. Hank Turk, then leader of the Jackson County unit of the American Civil Defense Association, said, "If a storm were to hit tomorrow and 10,000 people were to lose their lives because Highway 15 [north-bound] wasn't done, it would get some attention." Then he finished, "But as long as you don't have a storm, disaster mitigation doesn't take place."¹⁴⁰

During Hurricane Katrina, the Grand Casino in Biloxi broke from its moorings, slid sideways across U.S. highway 90, and landed on top of two highly significant historic architectural resources the National Register-listed Tullis-Toledano House, and the



Figure 33. Grant Casino in Biloxi after Hurricane Katrina. It broke free of its moorings and landed on top of the National Register-listed Tullis-Toledano House. *Source:* FEMA.

¹³⁹ Michael Nelson and John Lyman Mason, "The Politics of Gambling in the South," *Political Science Quarterly* 118 (4) (2004 2003): 651, *Academic Search Complete*, EBSCOhost, (accessed April 25, 2011).

¹⁴⁰ Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 136.

Crawford House, a Mississippi Landmark. It also destroyed a portion of the Ohr-O'Keefe Museum that was under construction after a design by Frank Gehry. The President Casino barge also broke loose and headed toward Beauvoir, the National Historic Landmark home of Jefferson Davis, President of the Confederacy. The casino missed the landmark, but dumped coins and poker chips marked "President Casino" along the property line as it continued west. Governor Barbour urged the legislature to pass a law allowing casinos to build on land within 800 feet of the waterfront, and in early October of 2005, the law was passed. Casino operators believed this would speed the rebuilding process because investors and insurers would be more likely to lend their support, but time has yet to show this theory to be true.¹⁴¹

Katrina obliterated 90 percent of the structures facing the water along the entire length of the coast from Louisiana to the Alabama line. Eighty to ninety percent of Bay St. Louis and Pass Christian was destroyed and, in Waveland, the storm surge destroyed every house within three miles of the shoreline. At Henderson Point, a low-lying peninsula west of Pass Christian near the mouth of the Bay of St. Louis, the storm surge swept away approximately 515 of 530 homes. Rain fell at the rate of about one inch per hour for nine hours and, as water flooded out of the estuaries and bayous, it flowed south toward the gulf to meet the storm surge.¹⁴² This effect could be seen clearly in Biloxi, where afterward, a resident was quoted as saying, "I never thought I'd see the day you could stand on Howard Avenue and see both the beach and Back Bay at the same time."¹⁴³

¹⁴¹ Public Broadcasting System, "Mississippi Approves Onshore Gambling as Biloxi Looks to Rebuild," PBS Newshour, Rebuilding The Gulf Coast, http://www.pbs.org/newshour/local/gulfcoast/background/rebuilding_biloxi.html (accessed April 11, 2011).

¹⁴² Charles Sullivan, *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction* (Gulfport: Mississippi Gulf Coast Community College Press, 2009), 150.

¹⁴³ Mark Washburn, "10th in a Series: Portraits of Katrina / Bob Loomis," *Sun-Herald*, September 13, 2005.

CHAPTER 4

POST-HURRICANE KATRINA PERSPECTIVES

In the chaos and confusion of the days and weeks following Hurricane Katrina, consideration of the historic built environment, and actions taken to preserve it, varied among residents, non-profit organizations, and government at all levels. Survival of historic buildings depended on organizational and financial support and the determination of local residents, community leaders, government, and volunteers. The following three case studies illustrate some of the major circumstances under which historic buildings on the Mississippi Gulf Coast were demolished, or nearly demolished, in the post-disaster environment of the storm, as well as the issues surrounding their fate from the perspective of those involved.

A successful collaboration between a private homeowner, the State Historic Preservation Office, and the Mississippi Heritage Trust is illustrated in the study of 513 East Scenic Drive in Pass Christian, Mississippi. Issues associated with the Federal Emergency Management Agency's debris removal program, and the impact it had on both inventoried and non-inventoried resources, are presented through this study as well. The battle to preserve and rehabilitate the Gulfport-Harrison County Public Library, a work of the recent past and a prominent public building in Gulfport, Mississippi, represents how the historic built environment was often affected by tenuous, post-disaster relationships between local government, state agencies, FEMA, and local residents. The unintentional consequences for historic buildings caused by pressure from the Mississippi Governor's office to meet certain standards of progress and

recovery are also illustrated by this study as well. Loss of the historic East Ward School in Gulfport, illustrates the effects of unrealistic real estate speculation on historic buildings in the aftermath of the storm, and shows how such losses affected the cohesive nature of an eligible National Register historic district. Use of federal monies to pay for demolitions and the voidance of preservationist input in the public process of consultation is also addressed in relation to the struggle to bring housing and jobs back to the region.

513 East Scenic Drive, Pass Christian

The Scenic Drive National Register Historic District (NRHD) in Pass Christian, Mississippi, contained several historic homes that were completely destroyed by Katrina. Some that remained, such as 513 East Scenic Drive, narrowly escaped demolition in the aftermath under circumstances created by FEMA, among other factors.¹⁴⁴ Pass Christian is located approximately ten miles east of Waveland, where the eye of Hurricane Katrina passed, and the Scenic Drive NRHD is situated on a ridge overlooking Beach Boulevard and the Mississippi Sound. Beginning in the 1830s, Pass Christian was the first of the Six Sisters cities on the coast to become established as a thriving and affluent resort community. This was partially due to its close proximity to New Orleans and partially because the landscape was long known among wealthy cotton and sugar cane planters from all over the region for its beauty and ideal setting.¹⁴⁵ These planters built private cottages and second home villas that reflected a mix of English, French, Spanish, and Caribbean adaptations. Homes were large, formal, and elaborate, yet vernacular and pragmatic with large, inset galleries that provided wide views of the Gulf and space to receive and entertain guests. Double-leaf doors and full-height

¹⁴⁴ Ibid., 7.

¹⁴⁵ Dan Ellis, "A History of Pass Christian," [photocopy], MDAH, Historic Preservation Division, Charlotte Capers reading room, Statewide Inventory Files: Pass Christian, Harrison County.

windows allowed Gulf breezes to penetrate and circulate, and many homes were raised to allow for the occasional inundation of water.¹⁴⁶

Although ravaged by Hurricane Camille in 1969, approximately 130 commercial and residential buildings survived and remained eligible for the National Register of Historic Places as a district, and in 1977 the area was listed as a significant ensemble of southern vernacular Mississippi Gulf Coast architecture. Included as contributing resources were seventeen antebellum and Greek Revival cottages, numerous Colonial Revival and Bungalow style homes, the downtown area (including several commercial and government buildings), an industrial area, a park, and a church with a rectory and school.¹⁴⁷ Additionally, the landscape in and around the district, along with the entire Mississippi Gulf Coast, was designated a National Heritage Area by the National Park Service in 2004.¹⁴⁸

Preservation of 513 East Scenic Drive illustrates a successful collaboration between a private homeowner, the community of Pass Christian, the Mississippi Heritage Trust, and the Mississippi Department of Archives and History to preserve an important piece of a significant district in the immediate aftermath of Katrina. As an unaltered symbol of the community's most prosperous era, the two-story, frame, chalet-type bungalow, built by local architect Frank Whitmann, reflects the picturesque eclecticism typical of the late nineteenth and early twentieth centuries on the Mississippi Gulf Coast.¹⁴⁹ In the days following Katrina, Mary Helen Schaeffer and her husband, owners of the house, returned from a vacation to find that the storm surge had eroded the ground under the southeast corner of the house, and the footings had been dragged

¹⁴⁶ Mary McCahon, "Scenic Drive Historic District," National Register of Historic Places, in the NPS Focus database, <http://pdfhost.focus.nps.gov/docs/NRHP/Text/79001309.pdf> (accessed April 29, 2011).

¹⁴⁵ Ibid.

¹⁴⁸ National Park Service, "Mississippi Gulf Coast National Heritage Area," National Park Service, <http://www.nps.gov/history/heritageareas/areas/miss.htm> (accessed April 29, 2011).

¹⁴⁹ Mary McCahon, "Scenic Drive Historic District," National Register of Historic Places, in the NPS Focus database, <http://pdfhost.focus.nps.gov/docs/NRHP/Text/79001309.pdf> (accessed April 29, 2011).

out to sea when the water subsided. The Schaeffers' "favorite room in the house," the front porch, collapsed, and the front wall of the house was sheared off and blown away. Very little of the artwork, furniture, photographs and other treasures that Schaeffer and her husband had collected over two decades remained, although some of it was later spotted in a large debris pile blocks away.¹⁵⁰

Despite outside pressures to demolish, the Schaeffers were able to stabilize and rehabilitate their historic home. Within hours of realizing the extent of the damage, Mrs. Schaeffer hastily tried to acquire a contractor to stabilize the house, but many local contractors had fled the disaster-stricken region, and the few that remained were working continuously on a multitude of other projects. Schaeffer was able to procure the services of a contractor from Mobile, Alabama, with enough experience to stabilize her home properly, but at that time, the National Guard could allow only residents and business owners into the area. Although Schaeffer pleaded with officials, she was unable to get permission for the non-local contractor to enter the disaster zone. One official replied unsympathetically to her pleas by saying "Well, my house is already gone." Schaeffer took a risk and proceeded to meet the contractor outside the disaster zone, away from National Guardsmen. She drove the contractor, and his truck, to her home using her federally issued resident's pass and said later that her actions that day were what ultimately saved the house.¹⁵¹

Assistance to preserve 513 East Scenic Drive came by notice in a plastic bag tacked to the front door of the house while Schaeffer was searching for a contractor. It contained a simple plan for emergency stabilization, contact information of the Mississippi Heritage Trust and the Mississippi Department of Archives and History, and other helpful information. As part of a tremendous salvage and recovery mission, the

¹⁵⁰ Renee Peck, "Pass Christian, Mississippi, Rebounds At Last," NOLA.com, http://blog.nola.com/reneepeck/2008/05/pas_s_christian_mississippi_reb.html (accessed April 29, 2011).

¹⁵¹ Alan Huffman, "Mississippi Yearning," *Preservation* (September/October 2007): 33.

Mississippi Heritage Trust and the Mississippi Department of Archives and History organized and assembled volunteer teams of archivists, museum curators, structural engineers, architects, and architectural historians that were on the coast soon after



Figure 34. 513 East Scenic Drive. *Source:* National Register of Historic Places.

Hurricane Katrina passed through the region. Their mission was to assess damage to historic resources, dispel misinformation, and prevent unnecessary demolition of historic architectural resources. Their work required professionals from all over the country who put their own work aside to volunteer hours of travel and labor that demanded both physical and emotional endurance. Without their sacrifice, hundreds of resources like 513 East Scenic Drive, and other less prominent buildings, would not have been saved.¹⁵²

The non-profit status of the Mississippi Heritage Trust gave the organization the

¹⁵² Mississippi Heritage Trust, "Hurricane Katrina: Impact on Mississippi's Historic Structures," <http://www.mississippiheritage.com/HurricaneKatrina.html>, (accessed April 11, 2011).

ability to accomplish this mission quickly and efficiently, without the hassle of excessive bureaucratic procedure. They applied for and received funding quickly with the help of the National Trust for Historic Preservation and the Association for Preservation Technology, and a recovery fund for preservation-related work was created. Public meetings, workshops, outreach programs, availability of on-site volunteer support, among many other items, were begun and a field office in Biloxi was secured as a meeting point. Christened "Preservation House," the field house, a historic structure, remained largely intact after Katrina despite being located in one of the hardest hit areas of the downtown. It provided sleeping and eating quarters, as well as office space for all organizations and volunteers who came to help with the assessment and preservation of historic properties.¹⁵³

Although emergency stabilization was completed by the contractor from Mobile, the message tacked to the Schaeffers front door offered contact information that kept them in close touch with the Mississippi Heritage Trust and the Mississippi Department of Archives and History throughout the process of rehabilitation. 513 East Scenic Drive became one of the first projects of the Mississippi Heritage Trust's *Pilot Stabilization Program*. Through this program, volunteers held public meetings to demonstrate to owners of historic buildings that stabilization and rehabilitation, rather than demolition, was both physically and economically feasible, despite circumstances. The program received funding from the American Express Foundation, the National Trust for Historic Preservation, Johnson & Johnson, and the World Monuments Fund. Other funded projects were begun as well. Donation of paint by the National Trust for Historic Preservation and Valspar, a paint manufacturing company, allowed the Mississippi Heritage Trust to begin the *Good Neighbor Paint Project* in which volunteers brought

¹⁵³ Mississippi Heritage Trust, "Hurricane Katrina: Impact on Mississippi's Historic Structures," <http://www.mississippiheritage.com/HurricaneKatrina.html>, (accessed April 11, 2011).

rehabilitation projects to completion to display further the successful process of stabilization and rehabilitation for the public.¹⁵⁴

Without the assistance of the Mississippi Heritage Trust, the Mississippi Department of Archives and History, the volunteers, and other organizations, demolition of 513 East Scenic Drive by FEMA was imminent. While the volunteers were struggling to salvage structures and retain any historic fabric possible, the efforts by FEMA to remove hazardous debris worked in direct opposition to the volunteers' goals. The agency contracted with the United States Army Corps of Engineers to rate the structural integrity of historic buildings based on the *Rapid Building and Site Condition Assessment* system. Developed by the National Park Service's National Center for Preservation Technology and Training as a tool intended to help preserve cultural heritage at risk under such conditions,¹⁵⁵ the system was made simpler and more efficient for untrained



Figure 35. President of the Mississippi Heritage Trust assessing damage to historic buildings after Hurricane Katrina. *Source:* Mississippi Heritage Trust.

¹⁵⁴ U.S. Congress. House. *Historic Preservation Vs. Katrina: What Role Should Federal, State, and Local Governments Play in Preserving Historic Properties Affected by This Catastrophic Storm?: Hearing Before the Subcommittee on Federalism and the Census of the Committee on Government Reform*, 109th Cong., 1st sess., 2005, 24.

¹⁵⁵ National Center for Preservation Technology & Training, "Damage Assessment Tools," <http://ncptt.nps.gov/2006/damage-assessment-tools/> (accessed April 11, 2011).

reconnaissance teams, as well as federal and city employees, who had minimal knowledge of preservation technology. Their assessments, or “red-tagging” of buildings, were based on methods that failed to adequately take preservation of the historic built environment into account, and were not reviewed by trained historic preservation professionals, or planning and code enforcement officials. Essentially, because FEMA funded these assessments through the Federal government, they frequently became the only evidence by which safety and inhabitability of buildings was determined, and were often the legal determinate for demolition in the weeks and months following the storm.

After the hurricane there was an estimated 23 million cubic yards of debris to be collected from 14 counties. This amount was unprecedented and assigned by FEMA to the U.S. Army Corps of Engineers, which worked with federal, state, and municipal authorities to remove the debris. The project was designed to ensure emergency access



Figure 36. Large section of a historic home mixed up with all manner of debris following Hurricane Katrina. *Courtesy.* Brendan Holder.

to public roads, clear public property, and mitigate safety hazards on the ground. Corps workers were dispatched only to those counties that requested federal assistance; other counties in the affected area chose to use local resources for debris removal.¹⁵⁶ During this time, well intentioned, yet overzealous volunteers, such as firefighters and retired military personnel were allowed to enter restricted zones to aid in the clearing of debris with no guidance or supervision by federal, state, or local officials. As a result, some historic buildings were never assessed and were demolished based simply on appearing to be unsalvageable. Large fragments of historic structures were also cleared away, making reconstructions difficult or, in some cases, impossible.¹⁵⁷ When buildings were bulldozed because of mold, decay, irreparable structural failings, or without reason, panic and frustration grew quickly among preservationists.

As the first few weeks passed after the storm and some residents returned to take stock and investigate their damaged homes, FEMA initiated a public assistance grant program to continue the process of debris removal. FEMA realized the task of debris removal was more than they, alone, could handle and, therefore, a public assistance grant program was initiated and advertised through the media. Communities could use their own employees for debris removal, but because the grant money came from the federal government, right-of-entry onto private property was required from owners to do the work. Otherwise, FEMA could, legally, only remove debris that floated or blew onto the public right of way. Buildings that floated off their foundations and landed in roads, on top of cars, or tangled in utility wires were simply demolished and hauled away. If a building was abandoned before Katrina, or if ownership was questionable, demolition was more likely.

For some residents unable to return for weeks or even months after the

¹⁵⁶ Trimbath, Karen. Hurricane Debris Cleanup in Mississippi Deemed 'Unprecedented.' *Civil Engineering*. November 2005., pg.24-25

¹⁵⁷ Kim O'Connell, "Into the Breach," *Preservation* (January/February 2006): 6-8.

hurricane, the public assistance grant was an attractive alternative to paying thousands of dollars to a contractor after the grant application deadline.¹⁵⁸ At that time, most residents were fighting just to find family members and shelter; or they had evacuated and could not yet return. Ken P'Pool, director of the Mississippi Department of Archives and History Gulf Coast Field Office, called the situation "tragic," stating that "their [historic home owners'] backs were to the wall and they felt like FEMA was standing outside their house with the bulldozer engine running and if they didn't turn in a right-of-entry to let them take the house down, they would be subject immediately to penalties." This kind of fear combined with general confusion over the permitting process, overwhelmed city personnel. FEMA's inability to convey information quickly and accurately created confusion, and the short deadline for receiving grant applications exacerbated the situation.¹⁵⁹

According to the debris removal plan of the City of Biloxi, the decision to remove debris from private property was based on whether the debris constituted a threat to public safety or public health. If a property owner could afford to have debris removed from his or her property and monitor the process, the city would still be authorized to determine whether any plan conceived to do so would be acceptable and this took time that no one had. By the time they were able to get things back into some sense of normalcy, the deadline would be passed and the money to demolish would no longer be available. Other FEMA grants offered to home and business owners whose properties could be rehabilitated were usually not enough to make the most damaged structures habitable. Insurance policies made up the difference in certain cases, but homeowners without insurance often saw demolition as the most economic solution.¹⁶⁰ Many houses sustained enough damage to qualify the owners for FEMA's maximum aid payout of

¹⁵⁸ Federal Emergency Management Agency, "Policies and Fact Sheet," Resources for Debris Removal and Demolition Operations, FEMA, http://www.fema.gov/government/grant/pa/debris_main.shtm (accessed May 12, 2011).

¹⁵⁹ Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

¹⁶⁰ Salvatore Deluca, "The 50 Percent Solution," *Preservation* (January/February 2006): 14.

\$26,000, but 50 percent of a structure had to be damaged for the money to be granted. Insurance sometimes made up the difference, but for many, especially the owners of uninsured structures, demolition often seemed like the wisest move.

On June 15, 2006, Congress passed Public Law 109-234, appropriating \$43 million from the Historic Preservation Fund to the SHPOs in Alabama, Louisiana, and Mississippi for relief from hurricanes Katrina and Rita.¹⁶¹ Preservation House, the office set up in Biloxi by the Mississippi Heritage Trust, became the Mississippi Gulf Coast field office of the Mississippi Department of Archives and History. Director, Ken P'Pool established the Hurricane Relief Grant Program for Historic Preservation and, for the first round of applications, the office managed \$26 million in grants for the preparation of building documents and construction oversight to repair roofs, rebuild foundations, and replace missing components. Hundreds of historic structures not eligible for other types of government assistance were saved from demolition through the program, and any property that received the maximum grant was automatically designated a Mississippi Landmark, which ensured legally binding covenants that mandate architecturally and historically correct renovations, and prohibit demolitions. As of this writing, the office is administering a third round of grants and their rehabilitations continue to influence the architecture of new construction.¹⁶²

One year after Katrina, FEMA estimated that 99 percent of land-based debris had been removed through contracting with the U.S. Army Corps of Engineers.¹⁶³ Governor Haley Barbour, however, requested and received a six-month extension for debris removal in Hancock, Harrison, and Jackson counties, the three counties most affected by Katrina's wind and storm surge. Extensions were still being requested and

¹⁶¹ National Park Service, "Hurricane Disaster Relief Grants," http://www.nps.gov/hps/hpg/hurricanerelief/program_details.html (accessed June 10, 2011).

¹⁶² Mississippi Department of Archives and History, "\$26M Grant Program for hurricane-Damaged Historic Properties," MDAH, <http://mdah.state.ms.us/admin/news/grants.html#hurr-rel-grant> (accessed March 23, 2011).

¹⁶³ FEMA, "Debris Removal Deadline Extended Six Months in Certain Cases," <http://www.fema.gov/news/newsrelease.fema?id=29180> (accessed March 14, 2011).

granted three years after the storm while public assistance grants for demolitions continued.¹⁶⁴ Eventually, Mrs. Schaeffer and her husband were able to finish rehabilitation of their home through the Hurricane Relief Grant Program for Historic Preservation and by obtaining a Small Business Administration loan. The Schaeffers used all of their home insurance and spent a lot of their retirement money to finish the house. Today the historic house stands as a symbol of hope to residents of Pass Christian and the entire Mississippi Gulf Coast that in the most dire situations, preservation of the built environment is possible.

The Gulfport-Harrison County Public Library

In the aftermath of Hurricane Katrina, residents of the Mississippi Gulf Coast mourned the scattered remnants of beloved eighteenth-, nineteenth-, and early twentieth-century buildings as they were piled into huge mounds of debris along the streets and in empty lots. All along the 90-plus-mile Mississippi Gulf Coast, fragments of high style and vernacular buildings were scattered across the landscape. The work of skilled craftsmen that included hand-hewn beams, cypress flooring, ornately carved capitals, and irreplaceable ornament, was scraped up and carried off in dump trucks along with smashed cars, twisted trees, and animal carcasses.¹⁶⁵

In many cases residents and local governments worked together to encourage and finance the preservation and rehabilitation of what remained, but conservation of historic buildings from the recent past proved a more difficult challenge. Although modern architecture is appreciated by many along the Mississippi Gulf Coast, buildings constructed in the region during the eighteenth-, nineteenth-, and early twentieth-century tend to embody the archetypal forms and styles of the Mississippi Gulf Coast and reflect

¹⁶⁴ Jim Lewis, "Battle for Biloxi," *New York Times*, May 21, 2006.

¹⁶⁵ Alan Huffman, "Mississippi's Morning After," *Preservation* (January/February 2006): 28.

the culture and tradition of the deep south. The question of what would become of the Gulfport-Harrison County Public Library, a historic resource of the recent past, developed into one of the most controversial preservation issues in the aftermath of the storm. Residents fought surprisingly hard against local politics and bureaucratic red tape to save the building, while local government scrambled to make a decision about what to do with the building under pressures from the governor's office to rebuild as quickly as possible. Issues raised by the age of the building, however, combined with others related to flood-elevation requirements, cost of insurance, and the inability of government and interested parties to negotiate a plan, revealed the inadequacies of a system designed to preserve historic resources.

In July of 1965, construction began on a new public library in Gulfport, Mississippi. A local architect, Charles L. Proffer, designed the building and sited it prominently on Beach Boulevard overlooking a large, grassy public space from which the Port of Gulfport and the Mississippi Sound could be enjoyed. Among the sprawling live oaks, a statue of Captain Joseph T. Jones, Civil War veteran and oil tycoon who helped fund construction of the Gulfport Harbor in 1901, faced out toward the water. The architect's intention was to create an easily accessible building in a style not completely southern, nor regional, nor contemporary. He said, "we wanted to make a building to inspire all of the arts."¹⁶⁶ After spending five years learning about the fundamentals of library science and visiting libraries in various parts of the country for inspiration, a two story building in the New Formalism style was designed with fluted white columns supporting a flat roof. The exterior walls were of gray glass and exposed quartz aggregate panels with floor to ceiling plate glass windows. A bridged walk that led up to the main entrance spanned modernistic koi ponds. The interior had sculptured walls, flowing lines, and open spaces that were light and airy. The county and city together

¹⁶⁶ Richard Glazier, "New Library Opened to the Public," *Biloxi-Gulfport Daily Herald*, July 13, 1966.



Figure 37. Gulfport-Harrison County Public Library, main facade. *Source:* MDAH.

were able to fund the project with bonds totaling about \$892 thousand, and in November of 1966, a dedication ceremony was held in appreciation of the new building. More than a library, the building was deemed a cultural center “to raise its patrons to a greater enjoyment of and fulfillment from the knowledge of the ages.”¹⁶⁷

In August of 1967, thirteen months after the library opened, the building was nearly destroyed by Hurricane Camille. Many of the large plate glass windows shattered on both floors allowing wind and salt water to blow straight through the interior causing extensive damage. Furniture, art pieces, books, and other materials were strewn over several blocks and later it was approximated that at least 45,000 volumes were lost.¹⁶⁸ Four years after Camille, the library board announced to the city that emergency repairs and restoration had been botched after they hired the original architect to oversee

¹⁶⁷ Ibid.

¹⁶⁸ http://www.harrison.lib.ms.us/history/history_hurricane_damage-1969.htm



Figure 38. Top, Gulfport-Harrison County Public Library, main interior stair; bottom, interior after Hurricane Camille. *Source:* MDAH.

repairs. Windows leaked, fixtures had not been repaired properly, and furnishings had not been fixed or replaced. Finally, insurance records were found and most building repairs were properly made by other contractors. The Office of Emergency Preparedness and Harrison County paid the balance on repairs to complete the building and make it functional and safe for public use. The library endured several more hurricanes leading up to the 2005 hurricane season, but Katrina's storm surge blasted through the entire building inflicting more damage than any other storm. The building sat vacant and devastated as the Coast began to recover in the aftermath of the storm.

By March of 2007, the City of Gulfport announced plans to redevelop the port, including the area around the library and Jones Park. To bring back the region's shipping, tourism, and seafood industries, all of which have long been an important part of the nation's economy, the Harrison County Board of Supervisors wanted to tear down the damaged library leaving the land open to new development. The general consensus was that the storm-ravaged library was, along with other blown out buildings, slowing recovery and impeding the standard of progress set by the Governor's office. John Kelly, chief administrator for the City of Gulfport, said in one of many meetings concerning the library, "Every day this building is allowed to stand, it slows the recovery of the city. And I think our citizens are ready for the city to be rebuilt."¹⁶⁹ Pressure to redevelop the entire Mississippi Gulf Coast at a fast rate came directly from Governor Haley Barbour's Commission on Recovery and Renewal, and land adjacent to the port was considered exceedingly valuable. The location of the library and Jones Park along Highway 90/ Beach Boulevard is one of the first public spaces visible on the approach from Biloxi to downtown Gulfport and the port. Local government believed that any business, government or otherwise, would benefit greatly by being located on the prime parcel,

¹⁶⁹ Steve Phillips, "Gulfport Library Debate Drags On," *Sun-Herald*, January 15, 2009.

and would pay millions of dollars to build there.¹⁷⁰

A decision to clear the land became imminent after FEMA announced new coast-wide flood-elevation requirements that would restrict library operations to the second floor of the building. FEMA offered the city up to \$6 million for the land and other costs associated with relocation, suggesting that two new libraries be constructed, one downtown farther inland from the original and another in the northern-most part of the city. Their offer did not include rehabilitation of the old library because, as they argued, the new flood elevation requirements would make the cost exorbitant.¹⁷¹ The city agreed, adding that, if rehabilitated, insurance would be difficult to obtain and the price unreasonable.¹⁷² From the beginning, designers understood FEMA's intention to introduce new building regulations that would change drastically the way in which houses could be built. Areas that were not expected to flood after Katrina did flood, and areas expected to flood, did not. Based on this, regulations within the National Flood Insurance Program were changed and new flood zone requirements were developed. This meant that new construction would have to follow FEMA's elevation guidelines in order to participate in the National Flood Insurance Program.¹⁷³

Coast residents became highly involved in the struggle to save the library in early 2008 when the city council approved plans to demolish the library and go along with FEMA's suggestions for two new libraries. Soon after the city's decision, a grassroots citizens' activist group called "We the People to Save the Gulfport Library" was formed to fight for preservation of the building. The group felt that, because few historic buildings had survived Katrina, and fewer were being saved in the aftermath, to tear down one

¹⁷⁰ Ryan Lafontaine, "Big plans for Jones Park," *Sun-Herald*, March 29, 2007.

¹⁷¹ Lisa Bradley, interview by author, Gulfport, Mississippi, December 2, 2010.

¹⁷² American Libraries, "Post-Katrina Preservationists Fight On in Gulfport," American Library Association, <http://www.ala.org/ala/online/currentnews/newsarchive/2008/april2008/gulfport.cfm> (accessed April 13, 2011).

¹⁷³ Alan Huffman, "Mississippi Yearning," *Preservation* (September/October 2007): 31.

more showed irresponsibility in leadership.¹⁷⁴ Making matters complicated, an issue of ownership arose. Because federal regulations stipulate that the same entity own both a building and the land it occupies to qualify for FEMA aid, the Gulfport City Council decided to cede ownership of the building to Harrison County. After accepting this plan, the county ceded ownership back to the City of Gulfport to avoid getting involved in the controversy. The city owned the library building, but the county owned the land, which was deeded in perpetuity to the county by descendants of Captain Joseph T. Jones, whose statue still stood on the site.

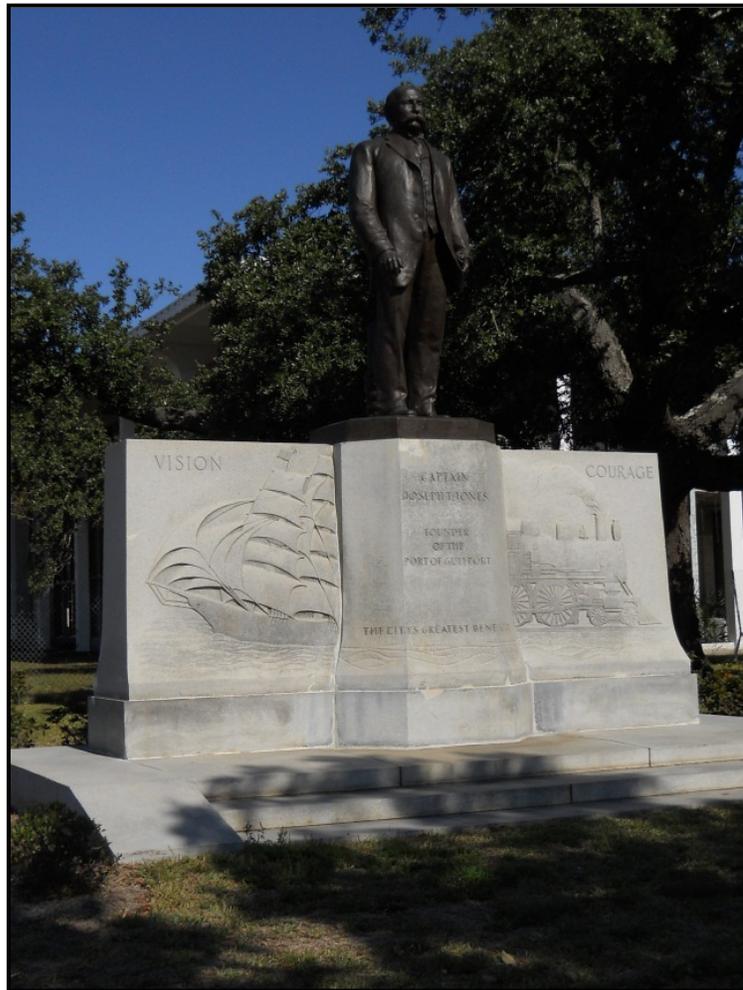


Figure 39. Statue of Captain Joseph T. Jones outside Gulfport-Harrison County Public Library.
Photo by author.

¹⁷⁴ Krystal Allen, "More Residents Gather to Protest Demolition of Gulfport Library," WLOX.com, Raycom Media, <http://www.wlox.com/global/story.asp?s=7952007> (Accessed April 23, 2011).

The descendants specified that the land must stay within the public realm and were adamant that, if demolished, the old library must be replaced with a new one on the same site. The plan to build two new libraries and leave the land available to developers was unacceptable. Patricia Spinks, who represented "We the People" said, "This dedicated land is set aside for a specific purpose," and "It's our personal and legal property. All of the people have a right to this historic space." Gulfport resident Rosemary Finley said, "By ignoring the original wishes of the Jones family and their heirs, you are putting all of the land in Jones Park in jeopardy. This is the only city in our region that has this much waterfront and green space freely available to all citizens right in the middle of the city."

As the city struggled with how to treat the building, the conflict between residents and those involved at the local, state, and federal level deepened.¹⁷⁵ "We the People," therefore, began to work with the Mississippi Department of Archives and History to designate the building a Mississippi Landmark under the state's historic preservation act, the Mississippi Antiquities Law. Passed in 1970 and amended in 1983, the law is similar to the National Historic Preservation Act in that a process of review is required for public construction or improvement to be made to buildings that have reached Landmark status. Like Section 106 of the National Historic Preservation Act, this review process is a way to ensure that the state's historic architecture is preserved. The Board of Trustees of the Mississippi Department of Archives and History and the department's Permit Committee work together to review eligibility of properties, inform owners and the public of possible designations, and take formal action to apply Mississippi Landmark status. Buildings designated are then recorded in the deed records of the appropriate county's Chancery Clerk office as a perpetual preservation easement, and the Permit Committee

¹⁷⁵ American Libraries, "Post-Katrina Preservationists Fight On in Gulfport," American Library Association, <http://www.ala.org/ala/online/currentnews/newsarchive/2008/april2008/gulfport.cfm> (accessed April 13, 2011).

at the Mississippi Department of Archives and History reviews future changes to Landmark buildings.¹⁷⁶

Between May and October 2008, the Gulfport City Council debated and finally voted in favor of supporting the landmark designation. They wrote a letter of support to the Mississippi Department of Archives and History, but Mayor Brent Warr vetoed the decision. The mayor wrote his own letter to the Mississippi Department of Archives and History in which he stated “had the city known the state was going to consider landmark status for the old library building, Gulfport ‘would have taken alternative routes for this property’.” Then, the city council overturned their decision to block demolition and wrote a new letter to the state asking that landmark status be denied. Angered by the mayor’s veto, Council members who had voted in favor of landmark status, along with members of “We the People” petitioned City Hall for a copy of the letter the mayor had written to the state as the debate became more heated. The Board of Trustees at the Mississippi Department of Archives and History decided unanimously to grant landmark status for the library, making demolition by the city or county illegal without proper review. In response, Patsy Spinks of “We the People” said, “These historical designations and the support of so many of the citizens of Harrison County, the true owners of this library, the citizens, should stand alone as reason enough to repair and restore this beautiful building.”¹⁷⁷

Up to this point, FEMA had stayed relatively quiet about the entire situation, but realizing that things were quickly getting out of control, the agency decided to ask the Keeper of the National Register for a final determination of eligibility. The library was found eligible as a significant resource of the recent past; not yet fifty years old.¹⁷⁸ This

¹⁷⁶ Mississippi Department of Archives and History, “Antiquities Law: Frequently Asked Questions,” <http://mdah.state.ms.us/hpres/antiqlawfaq.php> (accessed March 21, 2011).

¹⁷⁷ Steve Phillips, “Gulfport Library Debate Drags On,” *Sun-Herald*, January 15, 2009.

¹⁷⁸ *Ibid.*



Figure 40. *Top*, Gulfport-Harrison County Public Library in December 2010; *bottom*, two story lobby in December 2010. *Photos by author.*

action led the Board of Trustees to defer future reviews to FEMA, essentially taking the decision of whether or not to demolish the library away from city, county, and state government. FEMA became solely responsible for review of any changes to the building under Section 106 of the National Historic Preservation Act, including demolition.¹⁷⁹

Unlike the review process for Mississippi Landmarks, the purpose of Section 106 is to balance historic preservation concerns with the needs of federal undertakings, identify potential conflicts between their undertakings and historic preservation, and resolve any conflicts in the public interest. Although the city and county retained the right to review and comment on demolition as part of the Section 106 process, ultimately they, too, deferred to FEMA.

Concerned parties were invited to participate in public meetings to discuss proposals for adaptive use of the library as an alternative to demolition, but a final consensus about what should become of the building has never been reached. The City of Gulfport, Harrison County, "We the People," the Library Commission, and the Gulfport Main Street Association, as well as representatives from state and federal preservation offices, attended meetings in which compromise was nearly reached. An angry exchange, however, between the County and members of "We the People" erupted after one such meeting creating more tension and widening the gap between understanding and resolution. Members of the Historic Preservation division of the Mississippi Department of Archives and History stood behind those who wanted to preserve the library, regardless of the decision by the Board of Trustees to stay out of the debate. Finally, Harrison County and the City of Gulfport gave groups interested in restoring the library over a year to present proposals, including funding sources, and a memorandum of understanding was created stipulating that any use of the property be public.

¹⁷⁹ WLOX, "Gulfport Library Declared a Mississippi Landmark," WLOX.com, Raycom Media, <http://www.wlox.com/Global/story.asp?s=9195455> (Accessed April 23, 2011).

Today, the Gulfport-Harrison County Public Library is in nearly the same condition it was after Hurricane Katrina, and a creative solution for repair and reuse of the building and the public space is yet to be found. The building is abandoned, the first floor level is blown out with the interior open to the elements, and temporary stabilization timbers are placed at weak points throughout the structure. The tenuous, post-disaster relationship between local government, state agencies, FEMA, and local residents created an atmosphere of discord. Then, when the Section 106 process failed in its purpose to encourage community participation to gain consensus and resolution, FEMA continued to offer public funding for demolition of the library, despite its designation as a Mississippi Landmark. The added pressure from the Mississippi Governor's office to meet certain standards of progress and recovery contributed to the stalemate, the unintentional consequences of which will be felt throughout the area until resolution is found. In late 2010, Tulane University inquired about the site in hopes of rehabilitating the library as part of the university's expansion into Mississippi. The city informed Tulane officials of the controversy surrounding development of site and the stipulations of the memorandum of understanding.¹⁸⁰ As of this writing, no further news of Tulane's intention is known, and no other ideas or offers have been announced. Demolition funds offered by FEMA will expire in August 2011 as the County continues to wait for a buyer.¹⁸¹

The East Ward School, Gulfport

The damage inflicted on the built environment of Mississippi by Hurricane Katrina was widespread, and in 2006 it was estimated that the storm destroyed or damaged nearly 60 percent of the housing in the three coastal counties. The idea of building back

¹⁸⁰ Steve Phillips, "Tulane University Looks for Coast Expansion Site," *Sun-Herald*, December 6, 2010.

¹⁸¹ Elizabeth Vowell, "Future of Gulfport's old library on hold," <http://www.wlox.com/story/14503253/future-of-gulfports-old-library-on-hold> (accessed June 3, 2011).

bigger and better was a theme that dominated politicized talk of recovery, but with much of the housing stock destroyed by the storm, or demolished unnecessarily in the days and weeks following the storm, many ideas could not come to fruition in a reasonable amount of time. Reconstruction of residential, commercial, and public structures is an essential part of recovery and usually requires the largest amount of resources. Without housing, disaster survivors could not return to the area to help with rebuilding, commerce remained stalled, and social networks dispersed.¹⁸² Demolition of the historic East Ward School in Gulfport illustrates the effects of unrealistic real estate speculation on historic buildings and the cohesive urban character of Mississippi Gulf Coast neighborhoods in the aftermath of the storm, and explains one way in which opportunity to bring back housing and jobs was lost.

In some cases, local government, residents, and business owners believed that their property held greater monetary value after the storm than before, despite the fact that large areas were open to development, leaving little competition for construction bids. The issue brought about starkly competing visions across the Mississippi Gulf Coast region. On one side were those who believed that visually commanding properties along the water could anchor mixed-use developments compatible with, or that incorporated, existing historic buildings. On the other side were those who believed in creating a clean slate for whatever big development might come along, whether new construction reflected the historic culture or not. This argument was bolstered by a new state law allowing casinos to move from dockside to the mainland. Damage to the floating structures greatly affected the casino industry, which makes up about one third of the state's revenue. An unmoored casino barge, however, also flattened the 1856 Tullis-Toledano Manor in Biloxi, and the law raised concerns that casinos would overrun

¹⁸² Kevin F. McCarthy and Mark Hanson, *Post-Katrina Recovery of the Housing Market Along the Mississippi Gulf Coast*. (Santa Monica, California: Rand Gulf States Policy Institute, 2008).

the mainland.

Plans by developers for the construction of high-rise condominiums and commercial buildings like casino complexes and fast-food restaurants created strong financial incentive to demolish buildings, rezone large areas, and sell off land near the beachfront along U.S. Highway 90. It is theorized that developers who had been eyeing property along the coast for a long time saw an opportunity. Those developers who had the ear of local officials, persuaded those officials to work their ideas into local disaster responses which were then conveyed to FEMA as a vision for recovery.¹⁸³ Additionally, costly and prohibitive insurance policies were preventing many individual property owners from rebuilding, a problem that large-scale developers could overcome by absorbing the cost to adapt.¹⁸⁴ In Gulfport, a lack of preservation leadership and absence of a preservation-minded vision made all of these issues more difficult. While local government justified the decision to demolish historic structures with the idea that new development would stimulate the recovery process, they may have created a false sense of financial security among residents who, in turn, supported demolitions. In the case of the East Ward School, local government stood behind the school board's decision to demolish the property, but new development never came.

As one of several new schools commissioned by the Gulfport Department of Education School Board of Trustees in the 1920s, the East Ward School met the demands of a rapidly growing city population when built, and was prominently situated east of the downtown center on a parcel fronting the Mississippi Sound.¹⁸⁵ The school acted as a transition between residential and commercial areas and was locally significant as an important community fixture from 1921 until 1997. Typical of school

¹⁸³ Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

¹⁸⁴ Alan Huffman "Mississippi Yearning." *Preservation* (September/October 2007): 33.

¹⁸⁵ Nationwide Infrastructure Support Technical Assistance Consultants, *East Ward School: History and Building Documentation* (Gaithersburg, MD: URS Corporation, 2007), 1.

construction in Mississippi during the 1920s, the school incorporated elements of the Colonial Revival style,¹⁸⁶ with paired wood brackets, decorative diamond motifs in the brickwork, twelve-over-two-light windows, and narrow sidelights flanking the entrance.



Figure 41. East Ward School after Hurricane Katrina. *Source:* MDAH.

Together these elements helped the building blend contextually with the neighborhood and the city. An eclectic combination of Craftsman and Prairie elements shown in the horizontal massing, wide, low hip roof with projecting eaves, and band windows on the second-story level, however, made the building unique. Several additions were made to the school after its construction, and in 1997, it was adapted by the Gulfport School District for use as a computer technology hub and community education center.¹⁸⁷

Heavily damaged by the high winds and storm surge of Hurricane Katrina, the East Ward School was one of few buildings that remained extant within the city blocks that face directly onto the Gulf for miles in either direction. The storm surge gutted

¹⁸⁶ Jennifer V. Opager Baughn, "The L-Plan School Building Type in Mississippi, 1935-1961" (paper delivered at the Vernacular Architecture Forum Annual Conference, Savannah, Georgia, March 2007).

¹⁸⁷ E.L. Malvaney [pseud.], "Lost to Katrina (etc.): East Ward School (1921-2008)," Preservation in Mississippi blog, entry posted August 26, 2009, <http://misspreservation.com/2009/08/26/lost-to-katrina-etc-east-ward-school/> (accessed April 19, 2011).

portions of the building closest to the water, compromising the interior structure of the original portion of the school and demolishing the southernmost rooms of a 1936 addition, but the second floor of the building remained intact. Structural engineers recommended shoring and major roof repair to protect the school until the School Board could make a decision about its future, but little was done in the aftermath of the hurricane. Water infiltration accelerated deterioration of the interior of the original portion of the school while the building sat vacant. The remainder of the building was cluttered with debris deposited in the storm surge, which was not removed until demolition. Windows were broken and doors were missing throughout the building, which allowed some portions to dry out, but active mold growth could be found in nearly every room.¹⁸⁸

Less than three months after Katrina, the School Board announced that advertising would begin for bids to build a new, state-of-the-art school in a different location. Those who lived in the Second Street neighborhood in which the historic East Ward School was located, as well as residents of Soria City, a historically African-American neighborhood situated to the north, did not receive this news well.¹⁸⁹ Though repair and reuse of the East Ward School was viable, the Superintendent of Schools told the press, “We think it is unwise to spend taxpayer dollars to restore it. This [advertising for bids] helps us move the functions of the East Ward School to other property.” In response, the Gulfport chapter of the NAACP became the first community group to hold a town hall meeting to discuss the sale of the school. While many were pleased by the idea of a new school, the consensus was that the old school should be kept and, if no means could be found to rehabilitate it, a new school should be located on the same lot and house the same community programs, in addition to serving as a school.¹⁹⁰

¹⁸⁸ Nationwide Infrastructure Support Technical Assistance Consultants, *East Ward School: History and Building Documentation* (Gaithersburg, MD: URS Corporation, 2007), 11-12.

¹⁸⁹ Melissa M. Scallan, “Meeting Called on Schools’ Sale,” *Sun-Herald*, November 11, 2005.

¹⁹⁰ Melissa M. Scallan, “Residents Air Views on Sales,” *Sun-Herald*, November 16, 2005.



Figure 42. East Ward School after Hurricane Katrina. *Source:* MDAH.

Other neighborhood groups wanted to agree with the compromise discussed at the town hall meeting, but added that no new building should be allowed that could possibly change the character of the neighborhood. The Second Street neighborhood, like several neighborhoods along the Gulf Coast prior to Hurricane Katrina, held enough historic significance to be nominated as National Register historic district. After Katrina the neighborhood was severely damaged, but it still held enough integrity to be eligible for listing in the National Register of Historic Places according to the Mississippi Department of Archives and History. The Department, along with the Mississippi Heritage Trust and FEMA, agreed there were areas that were “potentially eligible” for listing in the National Register of Historic Places as historic districts, and that special consideration should be given to these areas as recovery progressed. The East Ward

School was an important piece that contributed to the cohesive ensemble of buildings and made the Second Street neighborhood unique within the city.¹⁹¹

The School Board solicited and received preliminary reports from a City of Gulfport structural engineer stating that the East Ward School was not structurally sound, information the city could use later as leverage in the debate over rehabilitation. Several engineers with FEMA, however, said the opposite, adding that the agency would help pay the cost for stabilization and a roof covering until a more-detailed inspection could be done. At this time, the Mississippi Department of Archives and History made it clear that the school was individually eligible for the National Register of Historic Places under several criteria, and that the Mississippi Antiquities Act would require the School Board to get a permit to change the building in any way, including demolition. The department added that more time for input from neighborhood residents could create a beneficial outcome for all parties.¹⁹²

Despite the damage inflicted by Katrina and the city's overall reluctance to preserve the East Ward School, FEMA agreed in early 2006 to assess the eligibility of the East Ward School for listing in the National Register of Historic Places. In agreement with the Mississippi Department of Archives and History, FEMA reported that it was eligible under Criterion A as a physical representative of educational development in Gulfport during the twentieth century, and Criterion C as a rare example of the Prairie style in Mississippi. Additional research revealed that the school was significant as the first documented school design of Shaw and Woleben, a Gulfport engineering and architectural design firm prolific in the Gulf Coast region and influential in the development of Gulfport during the first half of the twentieth century. The firm designed

¹⁹¹ Ibid.

¹⁹² Melissa M. Scallan, "School May be a Keeper – Early 20th-Century Building is Rarity," *Sun-Herald*, December 10, 2005.

the Beach Boulevard Sea Wall, the largest reinforced concrete structure in the country at the time of its completion in 1926 and a major tourist attraction.¹⁹³

In the meantime, the City of Gulfport received offers from investors interested in buying the property and restoring the building, but while FEMA delayed the process of stabilization and roofing, the building continued to deteriorate and eventually these offers were rescinded. Regardless of FEMA's analysis of the building as a resource eligible for the National Register of Historic Places, their findings did not seem to affect the School



Figure 43. Foundations on empty lots along the waterfront near the site of the demolished East Ward School. *Photos by author.*

¹⁹³ Nationwide Infrastructure Support Technical Assistance Consultants, *East Ward School: History and Building Documentation* (Gaithersburg, MD: URS Corporation, 2007), 10.

Board's decision about what to do, and the process of sifting through red tape and getting other important work done to save the building became more complex as time passed. By the end of 2006, other viable offers and ideas were proposed, but the School Board was anxious to get the land cleared and available for new development, and refused to accept any. As a result, by April 2007, the Mississippi Department of Archives and History decided to back out of the situation.¹⁹⁴ As Jennifer Baughn and Ken P'Pool of the department pointed out, at the time there was about sixty miles of mostly vacant land for sale surrounding the property. Any person with any knowledge of real estate would know that the amount of money the School Board hoped to get for the East Ward School property was ludicrous when, in either direction down the waterfront, there were vacant lots and hundreds of "for sale" signs.¹⁹⁵

By May of 2007, the Gulfport School District had submitted an application to receive demolition funding under FEMA's Public Assistance Program. In accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, FEMA was required to review the environmental effects of the demolition prior to making a funding decision. FEMA agreed with the Mississippi Department of Archives and History that the building was eligible for listing in the National Register of Historic Places and that demolition would have an adverse effect. Nonetheless, they entered into a Memorandum of Agreement with the Advisory Council on Historic Preservation, the Mississippi Emergency Management Agency, and the Gulfport School District for the recordation of the East Ward School prior to its demolition. FEMA reasoned that the School District utilized space at multiple schools within the district for its technology hubs and community education centers, and therefore operated less efficiently and at a reduced capacity, and that demolition would allow the School District to restore its infrastructure

¹⁹⁴ Melissa M. Scallan, "Heading to Demolition – East Ward School Set to be Torn Down," *Sun-Herald*, April 16, 2007.

¹⁹⁵ Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

and operations to pre-disaster conditions.¹⁹⁶ By this time, local residents were too busy with their own rebuilding to devote the time and energy needed to save the East Ward School. The building was demolished soon after.

In summer of 2009, the superintendent of schools told a reporter that the School Board wanted to build something non-commercial on the vacant site and that a search was underway to find a design that would fit into the Second Street neighborhood. A School District representative said there were a limited number of rental homes in the area, and that school leaders were considering building single-family housing on the vacant property as an incentive to bring new teachers into the city. A proposed design included eighteen energy-efficient cottages and a small apartment building with a \$2 million grant from the United States Department of Energy. This information, however, was not conveyed to the public in a reasonable amount of time and rumors that the cottages would be similar to Mississippi Emergency Management Agency cottages began. These temporary shotgun-style houses were designed to provide much needed affordable housing to residents of the Mississippi Gulf Coast, but local governments reacted negatively. According to one City Councilperson in Bay St. Louis, “the Mississippi Cottage is a trailer – except that instead of coming in through the side, you come in through the front... We don’t want the stigma of these homes in our community.”¹⁹⁷ Further, residents widely believed that the School District should not be in the business of leasing housing property.

A public meeting was finally held to dispel rumors about the proposal, but school board leaders and consultants could not answer the most fundamental questions about the project, such as the number of homes to be built and the cost of insurance. The superintendent said, “Losing the school to begin with was a tough decision on what we

¹⁹⁶ Nationwide Infrastructure Support Technical Assistance Consultants, *Environmental Assessment, East Ward Technology Center Relocation, Harrison County, Mississippi* (Gaithersburg, MD: URS Corporation, 2007), 3.

¹⁹⁷ Jenny Jarvie, “Post-Katrina Cottages Get A Luke Warm Welcome,” *L.A. Times*, December 16, 2007.

should do. And then, once again, it's tough because you're very much aware of history, generations of Gulfportians, and making sure we don't do something that folks are totally unhappy with."¹⁹⁸ A petition against the new proposal was quickly composed. A ward council member said, "I support school leaders in their endeavors. However, I represent my constituents in the area and I think that the proposed development will change the character of the neighborhood." Ben Stone, a Gulfport resident and attorney, said, "Certainly they have to make money and I'm for them doing that. I can't see them getting into the rental business. It's not in keeping with what they are here to do."¹⁹⁹ Unable to satisfy the public and coveting the belief that a more lucrative deal would come along, the school board turned down the offer to bring much-needed housing to the area.²⁰⁰

Damage to the East Ward School was similar to that of the Waveland School in Waveland, Mississippi, which stood at the epicenter of the storm. Like the East Ward School, the Waveland School was built in the early 1920s and the two schools shared some of the same qualities of design, workmanship, and structural solidity. When Katrina struck, renovation of the school for use as a civic center was nearly complete. After Katrina, the mayor of Waveland said, "It's the only historic building that was left standing in the city of Waveland, if you can call it left standing. It was pretty gutted and beat-up. There was over 12 feet of water in this building."²⁰¹ An entire wing of the building collapsed and partially blew away, whole windows along with their frames were gone, and there was major roof failure. The Waveland School, however, re-opened in May of 2009 completely restored to its original 1920s condition. Governor Barbour commended leadership in Waveland by saying, "We all know how much of Waveland was totally

¹⁹⁸ Trang Pham-Bui, "Gulfport Superintendent Shares Innovative Idea to Develop Old School Site," WLOX.com, Raycom Media, <http://www.wlox.com/Global/story.asp?S=10773132> (accessed April 19, 2011).

¹⁹⁹ Elise Roberts, "Superintendent Details Plans for School Site," WLOX.com, Raycom Media, <http://www.wlox.com/Globa/Story.asp?S=10938887> (Accessed April 20, 2011).

²⁰⁰ Melissa M. Scallan, "East Ward School Land Won't Have rental Homes," *Sun-Herald*, August 25, 2009.

²⁰¹ Sun-Herald, "Waveland Opens New Civic Center," *Sun-Herald*, May 8, 2009.



Figure 44. *Top*, Waveland School after Hurricane Katrina; *bottom*, after rehabilitation. *Source*: MDAH.

destroyed by Katrina. Preserving one of Waveland's few remaining links to its past – and doing it in a way that promotes Waveland's identity and brings its citizens closer together – makes a great civic project. It's yet another success story for Mississippi's overall Katrina recovery." Waveland seized the opportunity to make their most historic civic landmark a recognized symbol of survival and recovery, while the school board and

superintendent of Gulfport decided to venture their history in hopes of financial gain.²⁰²

Today, the lot on which the East Ward School once stood is vacant, and there is no current news of offers for development of the site.



Figure 45. Site of East Ward School after demolition, December 2010. *Photo by author.*

²⁰² E.L. Malvaney [pseud.], "Lost to Katrina (etc.): East Ward School (1921-2008)," Preservation in Mississippi blog, entry posted August 26, 2009, <http://misspreservation.com/2009/08/26/lost-to-katrina-etc-east-ward-school/> (accessed April 19, 2011).

CHAPTER 5

ANALYSIS OF POST-DISASTER DEMOLITIONS

Catastrophic natural disasters on the scale of Hurricane Katrina are rare, and recovery is often made difficult by social, economic, and political changes that transpire in the aftermath. These changes added to the challenge of protecting historic architectural resources on the Mississippi Gulf Coast in the aftermath of Hurricane Katrina, resulting in widespread demolitions. The enormity of the storm, and the unique set of values held by each community concerning treatment of historic architectural resources, made the problems associated with post-disaster demolition vast and complicated. With these demolitions, however, the connection between space, place, and landscape was profoundly affected.²⁰³



Figure 46. Long Beach, Mississippi after the eye of Hurricane Katrina passed over the community. *Courtesy: Brendan Holder.*

Factors that Led to Demolition

Several factors contributed to widespread demolition of historic architectural resources. From a broad perspective, the most blatant and far-reaching was the failure of government at all levels to respond quickly and in accordance with local, state, and

²⁰³ Stephen Verderber, "The *Un*building of Historic Neighbourhoods in Post-Katrina New Orleans," *Journal of Urban Design* 14 (August 2009): 271.

federal laws. The sheer magnitude of the hurricane, however, hampered whatever disaster planning and policy was in place at the local and state level to minimize loss of life and property in the aftermath. When resources at the local and state levels were exhausted, however, reinforcement from federal government was delayed. The merging of FEMA with the Department of Homeland Security in 2003 shifted the attention of the agency from natural disaster to terrorist attack response. This is cited throughout scholarly publications as the general cause of FEMA's disorganized response to the worst natural disaster in United States history, which caused prolonged chaos, confusion, and suffering, and worse, increased the number of lives lost.²⁰⁴ Without strong leadership and resources from leaders at the national level, organization of a preservation effort in the immediate aftermath of the storm was nearly impossible. Despite the billions of dollars, countless hours, and political and emotional capital spent prior to the hurricane, it was clear that the importance of protecting cultural resources as symbols of identity and assets to recovery and socio-economic progress continued to be undervalued and misunderstood by the federal government.²⁰⁵

Other, more preservation-specific, factors that contributed to the demolition of historic architectural resources in the aftermath of Hurricane Katrina were also present. After the search and rescue period, when salvage and recovery of property could begin, there was a substantial delay in the process to allow removal of debris. During this lag time, the National Guard could not allow residents into unsafe disaster zones to stabilize structures. As weeks went by, buildings that could not be accessed for stabilization were lost and a general urgency began to build among leaders to eliminate damaged

²⁰⁴ Linda S. Greene, "Governmental Liability for the Katrina Failure," in *Hurricane Katrina: America's Unnatural Disaster* by Jeremy I. Levitt and Matthew C. Whitaker, (Lincoln: University of Nebraska Press, 2009), 208; Christopher Cooper and Robert Block, *Disaster: Hurricane Katrina and the Failure of Homeland Security* (New York: Times Books Henry Holt and Company, 2006), xiii-xiv; United States Senate, *Hurricane Katrina: A Nation Still Unprepared : Special Report of the Committee on Homeland Security and Governmental Affairs, United States Senate, Together with Additional Views* (Washington: U.S. G.P.O., 2006), 167.

²⁰⁵ Angela R. Tweedy, "Beyond Disaster Response: Public Policy Challenge of the New Millennium," *CRM* 23 (June 2000): 9.

buildings and avoid threats to public safety. Residents and local governments saw demolition as a logical step in the process of restoring safety, order, and economic stability. When government employees were finally allowed to begin clean-up, demolition companies and developers were ready and the rush to tear down structures was initiated.²⁰⁶ Advocates for the preservation of historic buildings, such as historic preservation commission members, were displaced from the region during this time and, upon their return, many were occupied with personal needs and the welfare of family and neighbors. Overwhelmed community leaders, along with other essential decision makers, were engaged in the basic organization of emergency response long after debris removal began. Others were in no position to advocate for preservation given the unfolding calamity.²⁰⁷

As weeks passed and the debris removal process continued, FEMA held responsibility for much of the decision-making, delegation of debris removal to city governments, and treatment of historic resources. Under provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act), FEMA was not required to perform environmental review of demolition projects as required by the National Environmental Policy Act of 1969 (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). Exempted from NEPA's requirements are emergency response actions that include providing essential relief to victims and implementing protective measures necessary to reduce immediate threats to life, property, and public health and safety, including demolition of historic buildings. (NEPA's environmental review requirements may however, be applicable to long term recovery projects, such as the modification, mitigation, or expansion of existing structures or the relocation of certain structures located in a floodplain.) As a result of the exemption, the agency had

²⁰⁶ Karen Trimbath, "Hurricane Debris Cleanup in Mississippi Deemed 'Unprecedented'," *Civil Engineering* (November 2005): 24.

²⁰⁷ Associated Press, "Katrina at a Glance," *Mobile Register*, August 31, 2005.

the power to make broad decisions on behalf of residents while widely overlooking the unique preservation needs of communities and the value of preserving historic buildings.²⁰⁸

Because FEMA was not required to comply with Section 106 of the National Historic Preservation Act immediately following Katrina, qualified surveyors with knowledge of architectural history and proper methods of survey and assessment, were not required. Any person willing to volunteer could be assigned to the task of assessing damage to historic buildings, and no review of their work was undertaken before many demolitions of historic buildings occurred. As a result, many residents returned to their community to find that structures on their private property had been demolished. FEMA volunteers cited vague and somewhat arbitrary factors such as dereliction, vandalism, neglect, and even blight, as justification for these demolitions. Buildings that were looted of ornamentation and fixtures, or partially damaged by fire, were also demolished. Preservation volunteers working with the Mississippi Department of Archives and History and with the Mississippi Heritage Trust noticed that much of their time was spent training and helping FEMA employees and volunteers to properly review the condition and integrity of historic buildings. As time passed, however, new volunteers from all over the country replaced those who were recently trained. The Mississippi Department of Archives and History pressured FEMA to comply with Section 106, but many buildings were lost before FEMA agreed.²⁰⁹

When enforced, the Section 106 review process slowed down the pace at which demolitions occurred, but the process did not protect buildings because of factors related to the enormity of the Hurricane Katrina and the amount of destruction. FEMA's goal in the process was to comply with the law, but whether buildings were preserved or

²⁰⁸ Linda Luther, *Implementing the National Environmental Policy Act (NEPA) for Disaster Response, Recovery, and Mitigation Projects* (Washington, D.C.: LOC Congressional Research Service, 2011), 2.

²⁰⁹ Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

destroyed was not a concern the agency was equipped to deal with at the time. When Section 106 reviews were conducted, the process did not ensure that a building would be treated in accordance with the review. Further, the process of review was not streamlined and review at the state level was hampered by inadequate funding that would have allowed the State Historic Preservation Office to hire qualified reviewers while also working with building owners in the field. Grants offered to property owners who could hire their own demolition team, and cities that were offered reimbursement for the cost to demolish public buildings, also were not required to comply with Section 106 until it was too late. For residents who were unsure about how to proceed after the storm, the offer of a grant to demolish made recovery seem easier and gave a sense that demolition was the right thing to do. In addition, FEMA continually set arbitrary and short deadlines for accepting the grant money, which put pressure on historic property owners to allow bulldozers onto their property.²¹⁰

Another factor that contributed to widespread demolition of historic architectural resources was the inflexibility of the National Flood Insurance Program. From the beginning stages of recovery, residents understood FEMA's intention to introduce new building regulations that would drastically change the way in which houses could be built. Areas that were not expected to flood after Katrina did flood, and areas expected to flood, did not. Based on this, regulations within the National Flood Insurance Program were changed and new flood zone requirements were developed. For the built environment, this meant that new construction would have to follow FEMA's elevation guidelines in order to receive flood insurance from the federal government. Many residents faced with financial problems after Katrina were particularly challenged in meeting the new requirements. Moss Point, for example, is one of the poorest communities on the Mississippi Gulf Coast and much of the damage there was caused

²¹⁰ Ibid.

by overflow of surrounding lakes and streams, and not the storm surge.²¹¹ This uncertainty increased incentives to demolish buildings and sell property to real estate developers, while decreasing incentives for residents to protect and rehabilitate historic properties.

Roles of Preservation Leadership

In addition to the factors listed above, other overarching political and economic influences contributed to demolitions, including the delineation of the roles within the preservation leadership framework and the quality of leadership therein. In interviews with some of the central leaders in preservation in the state of Mississippi, there was strong agreement that these two factors had a profound effect on how historic architectural resources were treated after Katrina.²¹² At the local level, communities in which there was a strong grass-roots initiative to persuade civic leaders to consider historic preservation, fewer buildings were demolished because that leadership knew how to work with the public. The same was true of communities with a solid historic preservation ordinance and a historic preservation commission committed to commanding a strong presence within the community. Many of these communities had joined in partnership with the state and federal government to participate in the Certified Local Government Program through the National Park Service. Other communities, such as Moss Point and Gautier, were in the process of becoming CLGs when Katrina bore down on the region.

Success depended, however, on existing levels of public trust in government both before and after the storm, and the presence of a compelling incentive to protect and preserve historic architectural resources was needed within civic leadership to

²¹¹ Alan Huffman, "Mississippi Yearning," *Preservation* (September/October 2007): 31.

²¹² Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

encourage these relationships.²¹³ Some communities followed their preservation ordinances and procedures as closely as possible and tried diligently to work with federal and state agencies to conduct proper reviews under the unusual circumstances. Other communities, however, did not have a framework for administrative integrity in historic preservation and took advantage of the disaster situation by relaxing the enforcement of some rules and reinforcing others.²¹⁴ This is illustrated in the case of the East Ward School in Gulfport, in which the decision-making process became disorganized and the value of rehabilitation and reuse of the building was diminished and unclear when the school board decided they could get a lot of money for the land. Allowing outside influence of commercial entities to sway fundamental decision-making against preservation was detrimental.

At the state level, strong leadership and solid relationships with preservation advocates throughout the country gave the Mississippi Department of Archives and History the ability to organize quickly. By working in tandem with the Mississippi Heritage Trust and other non-governmental and private organizations to properly assess damage to historic buildings, funding for stabilization projects was secured quickly and the assessments provided evidence to Congress of the need for massive post-disaster preservation funding. The testimonies of preservation leaders from the state, along with the lobbying efforts of the Mississippi Heritage Trust, changed the way Congress thought about historic preservation after natural disaster. The House of Representatives recognized the need for federal, state, and local governments to coordinate their response in historic preservation relief efforts. It was suggested that if Congress were to support disaster preparedness programs through the SHPOs, response to future

²¹³ Mark J. Schuster, *Preserving the Built Heritage: Tools for Implementation* (Hanover, NH: University Press of New England, 1997), ix.

²¹⁴ Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

disasters could be much better.²¹⁵

Though the Stafford Act greatly hindered their effort to work with FEMA to save historic architectural resources in the immediate aftermath of the storm, the Mississippi Department of Archives and History worked diligently to assure owners of damaged historic buildings that their property could be rehabilitated, despite pressure by FEMA to demolish. Further, the constant presence of the department on the coast, and their follow-through in the long-term, created awareness that historic preservation after disaster was possible.²¹⁶ The successful rehabilitation of Mary Helen Schaeffer's home at 513 East Scenic Drive in Pass Christian is one result of solid preservation leadership at the state level.

Essentially, there was no preservation leadership on the Mississippi Gulf Coast at the federal level in the immediate aftermath of Katrina. The Stafford Act negated the need, and FEMA's debris removal grant program provided a disincentive to preserve historic architectural resources, with no alternative.²¹⁷ In 2003, the basic goals of FEMA were to coordinate response, help victims with immediate recovery needs, help prepare for disaster, reduce future risk, administer the National Flood Insurance Program, and reduce losses due to fire.²¹⁸ These goals focus more on mitigation than response, and each goal requires extensive coordination among federal, state, and local governments. For owners of non-historic buildings, little paperwork was needed to receive a demolition grant and get the process started. After the Section 106 Process was enforced, owners of historic architectural resources were required to follow a complex bureaucratic process to receive money to demolish. If the Stafford Act allowed FEMA to offer owners of historic buildings the ability to use the money for stabilization, it is possible that

²¹⁵ U.S. Congress. House. *Historic Preservation Vs. Katrina: What Role Should Federal, State, and Local Governments Play in Preserving Historic Properties Affected by This Catastrophic Storm?: Hearing Before the Subcommittee on Federalism and the Census of the Committee on Government Reform*, 109th Cong., 1st sess., 2005.

²¹⁶ Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

²¹⁷ *Ibid.*

²¹⁸ Federal Emergency Management Agency, "This is FEMA: A Look at the Federal Government's Primary Disaster Response and Recovery Resource," FEMA, <http://www.fema.gov/txt/library/thisisfema.txt> (accessed June 10, 2010).

residents more often would have chosen to rehabilitate.²¹⁹ The situation created in Gulfport by the controversy over the Gulfport-Harrison County Public Library could have been resolved if FEMA were allowed to offer the demolition grant as incentive to repair the building. Instead, the building sits vacant as the city awaits the unlikely prospect that a private entity will buy the property and pay the cost for adaptive use.

²¹⁹ Ken P'Pool, Jennifer Baughn, and David Preziosi, interview by author, Jackson, MS, November 1, 2010.

CHAPTER 6

CONCLUSION

In the event of any major catastrophe, whether man-made or natural, there will always be reason to believe that leadership was poorly prepared to protect people and the environment.²²⁰ Further, natural disasters like Hurricane Katrina that result in massive destruction and disorder will always be beyond the capacity of conventional measures and human capacity for understanding and coping. When social, political, and economic order is disrupted over a long period of time, previously held notions of what should be expected of recovery do not translate into an orderly and steady rate of recovery.²²¹ After Katrina, all of the essential functions of living were put on hold indefinitely, not only because housing and infrastructure was gone, but also because survivors needed time to realize the enormity and devastation of the storm. Some communities had become unrecognizable and landscapes once familiar were replaced with scenes of wreckage and chaos. Both relief workers and residents relied upon photographs taken prior to the hurricane to assist with reorientation because large portions of the built environment had disappeared. This instantaneous loss created unavoidable hardship and unhappiness in the short- and long-term. Suffering, however, was prolonged by unnecessary demolition of historic architectural resources that would have aided in reorientation and recovery.²²²

²²⁰ Roxanna McDonald, *Introduction to Natural and Man-Made Disasters and Their Effects on Buildings* (Oxford, UK: Architectural Press, 2003), 7.

²²¹ H. Ogasawara, "Living With Natural Disasters: Narratives of the Great Kanto and the Great Hanshin Earthquake," (PhD diss., Northwestern University, 1999), 172.

²²² Steven Feld and Keith H. Basso, *Senses of Place* (Santa Fe: School of American Research Press, 1996), 4-5.

Strategies of Success and Points of Failure

Time has removed us from the stun of Hurricane Katrina and given new perspective from which to understand and improve our response to such events. For those involved in historic preservation there is now prime opportunity to identify strategies that were successful to protect historic resources as communities began to rebuild, and those that were unsuccessful. It is difficult, however, to quantify the degree of success or failure to preserve the historic built environment after Katrina because the enormity of the storm alone brought unique challenges and tested the different policies and action plans already in place, and the amount of damage to the historic built environment was not something for which preservation leaders could be prepared. In this sense, success in cultural recovery must be measured over time in terms of the overall physical rehabilitation of the historic fabric of the Mississippi Gulf Coast region.²²³

Major strategies that were successful in preventing demolition of historic architectural resources, however, included the following:

- Amassing of volunteers by state preservation leaders to quickly to assess damage.
- The ability of non-governmental organizations to quickly receive and disburse money to communities without bureaucracy.
- Lobbying at the national level for massive preservation funding.
- The constant presence of state historic preservation leaders in the region.
- Quality of leadership and adherence to historic preservation laws.

Major points of failure that led to demolition of historic architectural resources included the following:

- Failure of government at all levels to respond quickly to the disaster.

²²³ Sarah M. Thorp, "Integrating Historic Preservation and Disaster management" (master's thesis, University of Pennsylvania, 2006), 19.

- Untrained volunteers and FEMA's unmitigated debris removal grant program.
- Weaknesses in the Stafford Act that relieved FEMA of Section 106 review requirements; disregard of original intent Section 106.
- Poor leadership and no administration of historic preservation programs at the local level; lack of vision and preservation laws.
- Absence of a unified, coast-wide, public-private partnership in historic preservation established prior to the disaster.

Resolving issues such as these, and improving the ability of all involved to work closely together to salvage and protect historic architectural resources during the precarious and unpredictable aftermath of disaster, is crucial in the long-term recovery of places affected by natural disaster.

Richard Moe, President of the National Trust for Historic Preservation said, "The goal of recovery should be to allow displaced people to come home to communities that are healthy, vibrant, familiar places in which to live and work" and "In pursuit of this goal, we [NTHP] must help the Gulf Coast build its future without destroying the things that make it special."²²⁴ After Hurricane Katrina, however, it was revealed that federal laws and procedures in place to protect populations after disaster, created an atmosphere in which historic architectural resources could be demolished wholesale leaving historic homeowners with a sense of helplessness. It is, therefore, important that preservationists understand in their pursuit to preserve in the aftermath of disaster that the mission of FEMA is to protect life first and property after. With their long history of ineffective consideration of the historic built environment, and their current focus on homeland security, expectation that the agency will adequately protect historic

²²⁴ Richard Moe, "Saving the Heritage of the Gulf Coast: Preservation as a Key to Hurricane Recovery," *Forum News* (January/February 2006): 1.

architectural resources after any disaster in the near future is diminished. Conversely, neither state or local governments can solve the problems associated with demolition after a catastrophic disaster in isolation. Assistance that is well-coordinated between local, state, and national entities is crucial, and public input is essential. Politicians, public servants, corporations, non-profit agencies, grassroots organizations, and citizens must all be involved in the protection of historic architectural resources during the recovery process, but they all must also be involved in the reformation of policy that can more sensitively deal with the historic built environment after disaster.

Preparing for Future Disaster

Emergency management that integrates historic preservation into a disaster preparedness and response plan can be one way to motivate leaders to make useful changes. These plans generally consist of three interconnected phases – risk assessment, mitigation planning, and planning for response and recovery. For historic architectural resources, the risk assessment phase would include completion or updating of comprehensive surveys that can be integrated with emergency planning efforts, databases, and mapping platforms. It is important to know which properties are listed, or eligible for listing, on the National Register, and a proper survey of historic buildings will provide photographic documentation of existing conditions that provides baseline documentation for assessing damage after disaster. The mitigation phase is intended to reduce the potential risk of damage from disaster and can, therefore, take several forms. FEMA mitigated damage to the built environment after Katrina by redrawing their National Flood Insurance flood plain maps and then offering grants to home owners to elevate their structures. Projects, however, which required Section 106 review and adherence to the Secretary of the Interior's Standards for rehabilitation, placed an extra burden on historic homeowners and that acted as a disincentive to preserve. State

Historic Preservation Offices, historic district commissions, and local preservation organizations should offer to work with the emergency managers responsible for developing comprehensive mitigation plans.

The response and recovery phase of emergency management offers little guidance to local governments in planning for impacts to historic architectural resources. FEMA's debris removal program was that agency's plan for recovery,²²⁵ but the Mississippi Heritage Trust and the Mississippi Department of Archives and History worked on their own to enlist volunteers to assess damages, plan for financial assistance, and make emergency repairs to as many resources as possible. Using what these groups learned in the process, preservationists in Mississippi can play an active role in developing or modifying emergency plans by identifying historic resources that may require special attention in emergencies and by recommending procedures that can help prevent further damage during response and recovery efforts. To do this, the following recommendations can be used by local governments:

- Develop a training course that addresses the planning, response, and recovery needs of historic resources for emergency management planners and first responders, and recruit and train local residents to serve on local damage assessment teams.
- Develop a local post-disaster demolition permitting process that encourages a preservation ethic and allows for the evaluation of damaged resources by historic preservation experts.
- Encourage the state to perform regulatory reviews and to adopt rules and procedures for post-disaster review and permitting before FEMA takes this responsibility.

²²⁵ Preserve America, "Preparing to Preserve: An Action Plan to Integrate Historic Preservation into Tribal, State, and Local Emergency Management Plans," Heritage Preservation, <http://www.heritagepreservation.org/PreparingtoPreserve.html> (accessed November 12, 2010).

- Develop salvage protocols for historic resources and work to have them included in state and federal emergency response plans.
- Propose that a qualified preservation professional take part in deliberations with state and federal officials regarding post-disaster recovery activities.
- Build relationships between the historic preservation community and emergency management officials and first responders.
- Develop a cost-benefit formula that can be used to determine the economic value of historic resources and the economic impact to the community of their loss.

A community with a strong plan for emergency management is essential, and integration of this plan with the ideals of historic preservation is needed, but in the end, a useful plan that is successful in both the reality of the aftermath and in the long-term recovery of a place depends greatly on the strength of local leadership. A unified local preservation administration, well-cultivated relationships with preservation leaders and policy makers throughout the state and the nation, and strong community awareness that long-term recovery must include preservation of the historic built environment are also factors that lead to success in preservation after disaster. Since Katrina, much of the historic landscape of the Mississippi Gulf Coast has been replaced by empty lots and new construction that is inferior, both in quality and aesthetics. The loss of home, community, and overall security common to natural disaster is magnified by this discontinuity.²²⁶ The challenge remains to ensure that nothing further is lost and to continue to guide rebuilding to honor the architectural legacy of the region. The effort will continue to be undercut by both residents and local leaders who think the only practical

²²⁶ DeMond Shondell Miller, and Jason David Rivera, *Hurricane Katrina and the Redefinition of Landscape* (Lanham, MD: Lexington Books, 2008),92.

solution is to reconstruct from scratch, but with what has been learned, change can be implemented.²²⁷

²²⁷ Mississippi Yearning, *Preservation Magazine*, July/Aug 2000, 31.

WORKS CITED

- Allen, Krystal. "More Residents Gather to Protest Demolition of Gulfport Library," WLOX.com, Raycom Media, <http://www.wlox.com/global/story.asp?s=7952007> (Accessed April 23, 2011).
- American Civil Defense Association. "About the American Civil Defense Association." American Civil Defense Association. <http://www.tacda.org/index.php/about-the-american-civil-defense-association/> (accessed April 9, 2011).
- American Libraries. "Post-Katrina Preservationists Fight On in Gulfport." American Library Association. <http://www.ala.org/ala/online/currentnews/newsarchive/2008/april2008/gulfport.cfm> (accessed April 13, 2011).
- Amery, Colin and Brian Curran Jr. *The Lost World of Pompeii*. London, England: Frances Lincoln Ltd. in association with the World Monuments Fund, 2002.
- Arnold, Joseph L. *The Evolution of the 1936 Flood Control Act*. Washington, D.C.: U.S. Government Printing Office, 1988.
- Baughn, Jennifer V. Opager. "The L-Plan School Building Type in Mississippi, 1935-1961." Paper delivered at the Vernacular Architecture Forum Annual Conference, Savannah, Georgia. March 2007.
- Bixel, Patricia Bellis and Elizabeth Hayes Turner. *Galveston and the 1900 Storm: Catastrophe and Catalyst*. Austin: University of Texas Press, 2000.
- Bradley, Lisa. Interview by author. Gulfport, Mississippi. December 2, 2010.
- Bunn, J. Michael and Clay Williams. "A Failed Enterprise: The French Colonial Period in Mississippi." Mississippi History Now. Articles. <http://mshistory.k12.ms.us/articles/35/french-colonial-period-in-mississippi> (accessed April 10, 2011).
- Busbee, Jr., Westley F. *Mississippi: A History*. Wheeling, Illinois: Harlan Davidson, Inc., 2005.
- Campanella, Richard. *The Geographies of New Orleans: Urban Fabrics Before the Storm*. Lafayette, LA: Center for Louisiana Studies, 2006.
- Canino, G., M. Bravo, M. Rubio-Stipek, and M. Woodbury. "The Impact of Disaster on mental Health: Prospective and Retrospective Analyses." *International Journal of Mental Health* 19 (1): 51-69.
- Case, Robert A. "Annual Summary: Atlantic Hurricane Season of 1985." *Monthly Weather Review* 114 (July 1986): 1400-1401. NOAA. <http://www.aoml.noaa.gov/general/lib/lib1/nhclib/mwreviews/1985.pdf> (accessed April 5, 2011).

- Cooper, Christopher and Robert Block. *Disaster: Hurricane Katrina and the Failure of Homeland Security*. New York: Times Books Henry Holt and Company, 2006.
- Deluca, Salvatore. "The 50 Percent Solution." *Preservation* (January/February 2006): 14-15.
- Dictionary of Canadian Biography Online. "Le Moyne d'Iberville." Dictionary of Canadian Biography Online <http://www.biographica/009004-119.01-e.php?Biold=35062> (accessed March 22, 2011).
- Ellis, Dan. "A History of Pass Christian." [photocopy] MDAH, Historic Preservation Division, Charlotte Capers reading room, Statewide Inventory Files: Pass Christian, Harrison County.
- Farragher, Matt. "Galveston Historical Foundation Renews '1900 Storm Survivor Plaque' Program." Galveston Historical Foundation. <http://www.galvestonhistory.org/1900PlaqueRenewal.asp> (accessed April 11, 2011).
- Federal Emergency Management Agency. "Debris Removal Deadline Extended Six Months in Certain Cases." FEMA. <http://www.fema.gov/news/newsrelease.fema?id=29180> (accessed March 14, 2011).
- "FEMA History." FEMA. <http://www.fema.gov/about/history.shtm> (accessed April, 11, 2011).
- "Policies and Fact Sheet." Resources for Debris Removal and Demolition Operations. FEMA. http://www.fema.gov/government/grant/pa/debris_main.shtm (accessed May 12, 2011).
- "This is FEMA: A Look at the Federal Government's Primary Disaster Response and Recovery Resource." FEMA. <http://www.fema.gov/txt/library/thisisfema.txt> (accessed June 10, 2010).
- Feld, Steven and Keith H. Basso. *Senses of Place*. Santa Fe: School of American Research Press, 1996.
- Foster, Margaret. "Galveston After Hurricane Ike." National Trust for Historic Preservation. <http://www.preservationnation.org/magazine/2008/todays-news/galveston-ike.html> (accessed April 11, 2011).
- Gibson, Christine. "Our 10 Greatest Natural Disasters." *American Heritage* (August/September 2006). American Heritage Publishing Company. <http://www.americanheritage.com/articles/web/20060905-natural-disasters.shtml> (accessed April 11, 2011).
- Goudsouzian, Aram. *The Hurricane of 1938*. Beverly, Mass.: Commonwealth Editions, 2004.
- Grossi, Patricia. *The 1938 Great New England Hurricane: Looking to the Past to Understand Today's Risk*. Neward, CA: Risk Management Solutions, Inc, 2008.

- Howell, Walter G. "The French Period, 1699-1763." Vol. 1 of *A History of Mississippi*, edited by Richard Aubrey McLemore. Jackson, Mississippi: University & College Press of Mississippi, 1973.
- Huffman, Alan. "Mississippi Yearning." *Preservation* (September/October 2007): 30-37.
- Huffman, Alan. "Mississippi's Morning After." *Preservation* (January/February 2006): 27-31.
- Hugo, Victor. *The Hunchback of Notre-Dame*. New York: Dodd, Mead, 1947.
- Hurley, Amanda Kolson and Tricia Vita. "Smashers: The Highs and Lows of the Wrecking Trade." *Preservation* (November/December 2005): 60.
- ICOMOS. "Blue Shield: Preparedness and Emergency Response." UNESCO. http://www.icomos.org/blue_shield/ (accessed May 21, 2011).
- Jokilehto, Jukka. *A History of Architectural Conservation*. Boston: Butterworth Heinemann, 1999.
- Kinser, Jerry. *The Coast of Mississippi: Its Past and Progress*. Baton Rouge: Moran Publishing Co., 1982.
- Larson, Erik. *Isaac's Storm: A Man, a Time, and the Deadliest Hurricane in History*. New York: Crown Publishers, 1999.
- Leuchtenburg, William E. *The FDR Years: On Roosevelt and His Legacy*. New York: Columbia University Press, 2001.
- Levitt, Jeremy I., and Matthew C. Whitaker. *Hurricane Katrina: America's Unnatural Disaster*. Lincoln: University of Nebraska Press, 2009.
- McCahon, Mary. "Scenic Drive Historic District," National Register of Historic Places, in the NPS Focus database. <http://pdfhost.focus.nps.gov/docs/NRHP/Text/79001309.pdf> (accessed April 29, 2011).
- McDonald, Roxanna. *Introduction to Natural and Man-Made Disasters and Their Effects on Buildings*. Oxford, UK: Architectural Press, 2003.
- Miller, DeMond Shondell, and Jason David Rivera. *Hurricane Katrina and the Redefinition of Landscape*. Lanham, MD: Lexington Books, 2008.
- Miller, Kay. Interview by author. Biloxi, Mississippi. December 2, 2010.
- Minsinger, E. E., ed. *The 1938 Hurricane: an Historical and Pictorial Summary*. East Milton, MA: Blue Hill Observatory, 1988.
- Mississippi Department of Archives and History. "\$26M Grant Program for Hurricane-Damaged Historic Properties." MDAH. <http://mdah.state.ms.us/admin/news/grants.html#hurr-rel-grant> (accessed March 23, 2011).

- Mississippi Department of Archives and History. "Antiquities Law: Frequently Asked Questions." MDAH. <http://mdah.state.ms.us/hpres/antiqlawfaq.php> (accessed March 21, 2011).
- Mississippi Department of Transportation. "U.S. Highway 90 History: From 'Old Spanish Trail' to Modern Mississippi Highway." MDOT. http://www.mdothwy90.com/documents/US90_Project_History.pdf (accessed April 13, 2011).
- Mississippi Heritage Trust. "Hurricane Katrina: Impact on Mississippi's Historic Structures." MHT. <http://www.mississippiheritage.com/HurricaneKatrina.html> (accessed April 11, 2011).
- Moe, Richard. "Rebuilding Right." *Preservation* (November/December 2005): 7.
- . "Saving the Heritage of the Gulf Coast: Preservation as a Key to Hurricane Recovery." *Forum News* (January/February 2006): 1-2.
- National Center for Preservation Technology & Training. "Damage Assessment Tools." NCPPTT. <http://ncptt.nps.gov/2006/damage-assessment-tools/> (accessed April 11, 2011).
- National Hurricane Center. "Costliest U.S. Hurricanes 1900-2004." NOAA. <http://www.nhc.noaa.gov/pastcost2.shtml?> (accessed April 11, 2011).
- . "Hurricane History." NOAA. <http://www.nhc.noaa.gov/HAW2/english/history.shtml#camille> (accessed April 11, 2011).
- National Park Service. "Fort Massachusetts." NPS. <http://www.nps.gov/guis/historyculture/fort-massachusetts.htm> (accessed January 11, 2010).
- . "Hurricane Disaster Relief Grants." NPS. http://www.nps.gov/hps/hpg/hurricanerelief/program_details.html (accessed June 10, 2011).
- . "Mississippi Gulf Coast National Heritage Area." NPS. <http://www.nps.gov/history/heritageareas/areas/miss.htm> (accessed April 29, 2011).
- National Trust for Historic Preservation. "Galveston After Hurricane Ike." NTHP. <http://www.preservationnation.org/magazine/2008/todays-news/galveston-ike.html> (accessed April 3, 2011).
- Nelson, Michael and John Lyman Mason. "The Politics of Gambling in the South." *Political Science Quarterly* 118, no. 4 (2004 2003): 645-669. *Academic Search Complete*, EBSCOhost (accessed April 11, 2011).
- National Oceanic and Atmospheric Administration. "Tropical Cyclone Report: Hurricane Ike." NOAA. http://www.nhc.noaa.gov/pdf/TCR-AL092008_Ike_3May10.pdf (accessed April 3, 2001).
- O'Connell, Kim. "Into the Breach." *Preservation* (January/February 2006): 6-11.

- Ogasawara, H. "Living with Natural Disasters: Narratives of the Great Kanto and the Great Hanshin Earthquakes." PhD diss., Northwestern University, 1999.
- Pasch, Richard J. and Todd B. Kimberlain and Stacy R. Stewart. "Preliminary Report: Hurricane Floyd, 7-17 September, 1999." National Hurricane Center. <http://www.nhc.noaa.gov/1999floyd.html> (accessed April 11, 2011).
- Peck, Renee. "Pass Christian, Mississippi, Rebounds At Last." NOLA.com. http://blog.nola.com/reneepeck/2008/05/pass_christian_mississippi_reb.html (accessed April 29, 2011).
- P'pool, Ken and Jennifer Baughn and David Preziosi. Interview by author. Jackson, Mississippi. November 1, 2010.
- Preserve America. "Preparing to Preserve: An Action Plan to Integrate Historic Preservation into Tribal, State, and Local Emergency Management Plans." Heritage Preservation. <http://www.heritagepreservation.org/PreparingtoPreserve.html> (accessed November 12, 2010).
- Public Broadcasting System. "Mississippi Approves Onshore Gambling as Biloxi Looks to Rebuild." PBS Newshour. Rebuilding The Gulf Coast. PBS. http://www.pbs.org/newshour/local/gulfcoast/background/rebuilding_biloxi.html (accessed April 11, 2011).
- Roberts, Elise. "Superintendent Details Plans for School Site." WLOX.com. Raycom Media. <http://www.wlox.com/Global/story.asp?S=10938887> (accessed April 20, 2011).
- Rose, Ted. "What Happened to Our Town." *Preservation* (July/Aug 2000): 31-37 and 97.
- Rypkema, Donovan. "Historic Preservation and Economic Development in the 21st Century." Lecture, Leadership Conference on Conservancy and Development, Yunnan Province, China, September 1999.
- Sanders, Ralph. "The Hurricane of September 19, 1947 in Mississippi and Louisiana." NOAA Central Library and the Climate Database Modernization Program. National Climate Data Center. (January 1950). <http://docs.lib.noaa.gov/rescue/hurricanes/Qc9452h89h81947.pdf> (accessed April 11, 2011).
- Schultz, Stanley. *The Great Depression: A Primary Source History*. Milwaukee, WI: Gareth Stevens Publishing, 2006.
- Schuster, Mark J. *Preserving the Built heritage: Tools for Implementation*. Hanover, NH: University Press of New England, 1997.
- Sparks, Peter R. *Hurricane Elena, Gulf Coast: August 29-September 2, 1985*. Washington, D.C.: National Academy Press, 1991. *Netlibrary* (accessed 11 April 2011).
- Sullivan, Charles L. "Good Roads: Building the 'Old Spanish Trail'." Mississippi History Now. <http://mshistory.k12Ms.us/articles/22/building-the-Old-Spanish-Trail>

(accessed April 23, 2011).

- . *Hurricanes of the Mississippi Gulf Coast: Three Centuries of Destruction*. Perkinston, MS: Mississippi Gulf Coast Community College Press, 2009.
- . and Murella Hebert Powell. *The Mississippi Gulf Coast: Portrait of a People*. Sun Valley, CA: American Historical Press, 1999.
- Texas State Historical Association. "Commission Form of City Government." The Handbook of Texas Online. <http://www.tshaonline.org/handbook/online/articles/moc01> (accessed April 4, 2011).
- Thorp, Sarah M. "Integrating Historic Preservation and Disaster management." Master's thesis, University of Pennsylvania, 2006.
- Pham-Bui, Trang. "Gulfport Superintendent Shares Innovative Idea to Develop Old School Site." WLOX.com, Raycom Media. <http://www.wlox.com/Global/story.asp?S=10773132> (accessed April 19, 2011).
- Trimboth, Karen. "Hurricane Debris Cleanup in Mississippi Deemed 'Unprecedented'." *Civil Engineering* (November 2005): 24-25.
- Tweedy, Angela R. "Beyond Disaster Response: Public Policy Challenge of the New Millennium." *CRM 23* (June 2000): 6-10.
- U.S. Census Bureau. "Decennial Programs." U.S. Department of Commerce. http://factfinder.census.gov/servlet/DatasetMainPageServlet?_ds_name=DEC_1990_STF1_&_program=DEC&_lang=en (accessed April 11, 2011).
- U.S. Congress. House. *Historic Preservation Vs. Katrina: What Role Should Federal, State, and Local Governments Play in Preserving Historic Properties Affected by This Catastrophic Storm?: Hearing Before the Subcommittee on Federalism and the Census of the Committee on Government Reform*. 109th Cong., 1st sess., 2005. H. Doc. 109-110. U.S. Government Printing Office Access. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_househearings&docid=f:25541.pdf (access April 7, 2011).
- U.S. Department Homeland Security. *Federal Response to Hurricane Katrina: Lessons Learned*, by Frances Fragos Townsend. Open-file report. Washington, D.C., 2006. <http://library.stmarytx.edu/acadlib/edocs/katrinawh.pdf> (accessed May 14, 2010)
- U.S. Senate. *Hurricane Katrina: A Nation Still Unprepared : Special Report of the Committee on Homeland Security and Governmental Affairs, United States Senate, Together with Additional Views*. Washington: U.S. G.P.O., 2006.
- University of Connecticut, Thomas J. Dodd Research Center, "About the New Haven Railroad," Railroad History Archive. <http://railroads.uconn.edu/nhrr.htm> (accessed April 15, 2011).

Vale, Lawrence J. and Thomas J. Campanella. *The Resilient City: How Modern Cities Recover from Disaster*. Oxford: Oxford University Press, Inc., 2005.

Verderber, Stephen. "The *Unbuilding* of Historic Neighbourhoods in Post-Katrina New Orleans." *Journal of Urban Design* 14, no. 3 (August 2009): 257-277.

Von Herrmann, Denise. *Resorting to Casinos: The Mississippi Gambling Industry*. Jackson, MS: University Press of Mississippi, 2006.

Vowell, Elizabeth. "Future of Gulfport's old library on hold." WLOX.com, Raycom Media. <http://www.wlox.com/story/14503253/future-of-gulfports-old-library-on-hold> (accessed June 3, 2011).

WLOX. "Gulfport Library Declared a Mississippi Landmark." WLOX.com, Raycom Media. <http://www.wlox.com/Global/story.asp?s=9195455> (accessed April 23, 2011).

Wright-Gidley, Jodi and Jennifer Marines. *Galveston: A City on Stilts*. Charleston, SC: Arcadia Publishing, 2008.