

Reviews | Buildings + Projects

Five Years After—Three New Orleans Neighborhoods

Introduction

In New Orleans, Katrina revealed deep scars caused by generations of class and race inequities. These inequities had long simmered beneath the surface and the disaster rendered an immediate, vivid, highly public portrait of this condition.¹ The flooding of 80 percent of the city revealed the poorest residents had lived for generations in many of the lowest lying neighborhoods. This was an undeniable fact—and one widely reported in the mass media. The rebuilding of New Orleans has required critical urban reconstruction strategies despite dysfunctional government at virtually all levels.² The struggle to reconstitute community has been a major theme in the post-disaster literature on forced displacement and neighborhood resettlement.³ The phenomenon of humans striving to reconnect has been well documented, post-Katrina. Reattachment to place is a key dimension of this process and remains itself deeply rooted in the city's long and fascinating history. In the disaster's aftermath, those who remain displaced, as well as returnees, long for resonant cultural, social, and spiritual connections to specific places associated with memorable past experiences.⁴

Historically, most New Orleanians do not stray far from their birthplace. Prior to Katrina, 87 percent of the city's residents were native-born. Over 240,000 persons resided in houses that sustained more than four feet of toxic floodwaters.⁵ This pattern of not straying far from one's birthplace has been a key aspect of the city's unique culture since its inception.⁶ Returning residents have demonstrated uncommon strength, resilience, and an admirable capacity to harness the power of collective civic memory. Private organizations and individual citizens have worked closely together, pooling resources to accomplish impressive rebuilding efforts.⁷ As part of this unprecedented mobilization of resources in an American city, many universities dispatched teams to inventory the damage, gut buildings, and provide design expertise. These efforts varied in their

efficacy and this point is discussed in greater detail below.

In the aftermath of the forced exodus of the city's residents, and even before Katrina's toxic floodwaters had yet to fully recede, in one neighborhood after another grassroots associations mobilized. Their charge was to take stock of the wreckage and to chart a plan of action for their own neighborhood's recovery. In all, more than forty such organizations were soon at work on the task of inventorying damaged structures and urban infrastructure. These organizations also inventoried evacuees who had or were intending to return to rebuild. Prior to Katrina, City Hall had been understaffed due to annual budget cutbacks. Post-Katrina, it became virtually incapacitated due to the sheer scope of the destruction. The city's building permit office was overwhelmed, as was its program

to assess the historic significance of damaged structures. This proved to be a particularly acute matter with respect to the city's large extant inventory of shotgun dwellings constructed in the late nineteenth and early twentieth centuries across the city's *shotgun crescent*.⁸ Thousands of shotguns have been bulldozed senselessly in Katrina's aftermath. This pattern stands as an especially sad civic spectacle of overambitious demolition fever coupled with an acute case of underappreciation of the city's once-celebrated vernacular architecture traditions. The same has occurred with the demolition of the city's most significant mid-century modernist buildings, including a number of 1950s-built schools, and the iconic but now-demolished St. Francis Cabrini Catholic Church.⁹

Against this backdrop, the present discussion explores the role of the archetypal,

1. Lakeview pre- and post-Katrina house juxtapositions. (Photo by author.)





2. Lakeview pre- and post-Katrina houses. (Photo by author.)

now-endangered shotgun dwelling, and the degree to which it is influencing the current rebuilding of three iconic, but different neighborhoods within the city. Lakeview, the Upper Ninth Ward, and the Lower Ninth Ward are compared and contrasted to one another in relation to the shotgun as an iconic building type. Architects' recent work in these three neighborhoods is discussed in relation to local vernacular precedent. This is followed by observations on learning from Katrina, particularly the earnest but at times ineffective university-based architectural initiatives that seek to directly engage communities in post-disaster contexts.

The New Orleans Shotgun: A Reaffirmation/Authenticity Dilemma

Two questions arise: first, to what extent does the archetypal shotgun dwelling and its sociocultural origins function as a departure point in the rebuilding of the city? Second, how literally are its formal attributes being incorporated into these reconstruction efforts? Theories of the origin of the shotgun dwelling are tightly interwoven within deeply rooted cultural debates on class, race, civic authority, and authenticity in New Orleans. The shotgun has been generally viewed by mainstream historians as essentially a logical architectural

response to the city's dense development patterns, limited landmass suitable for building, and correspondingly constricted urban lot dimensions. Moreover, New Orleans, as a place below sea level, has always ascribed highest land values to the highest ground. High ground has been at a premium since the city's founding. An alternative and increasingly accepted view of the archetypal shotgun is that it remains grounded inextricably within the city's substantial African-American population dating from the eighteenth century to the present. Opposing theories of the origins of this controversial dwelling type constitute the very core of the debate over which neighborhoods and buildings are to be saved and which are to be dismissed, post-Katrina. Nothing less than the survival of an entire swath of the city's venerable, well-built housing stock is at stake at this moment in the city's history.

The shotgun dwelling has had a seminal role in New Orleans's historical development since the city's founding in 1718. Known by a variety of names, the shotgun was first formally named by Fred B. Kniffen in his classic 1936 article on Louisiana house types.¹⁰ The term *folk* was employed by Kniffen to denote a long, narrow house one room in width and from one to three or more rooms deep, with a frontward facing gable and porch and/or front step. Conventional thinking

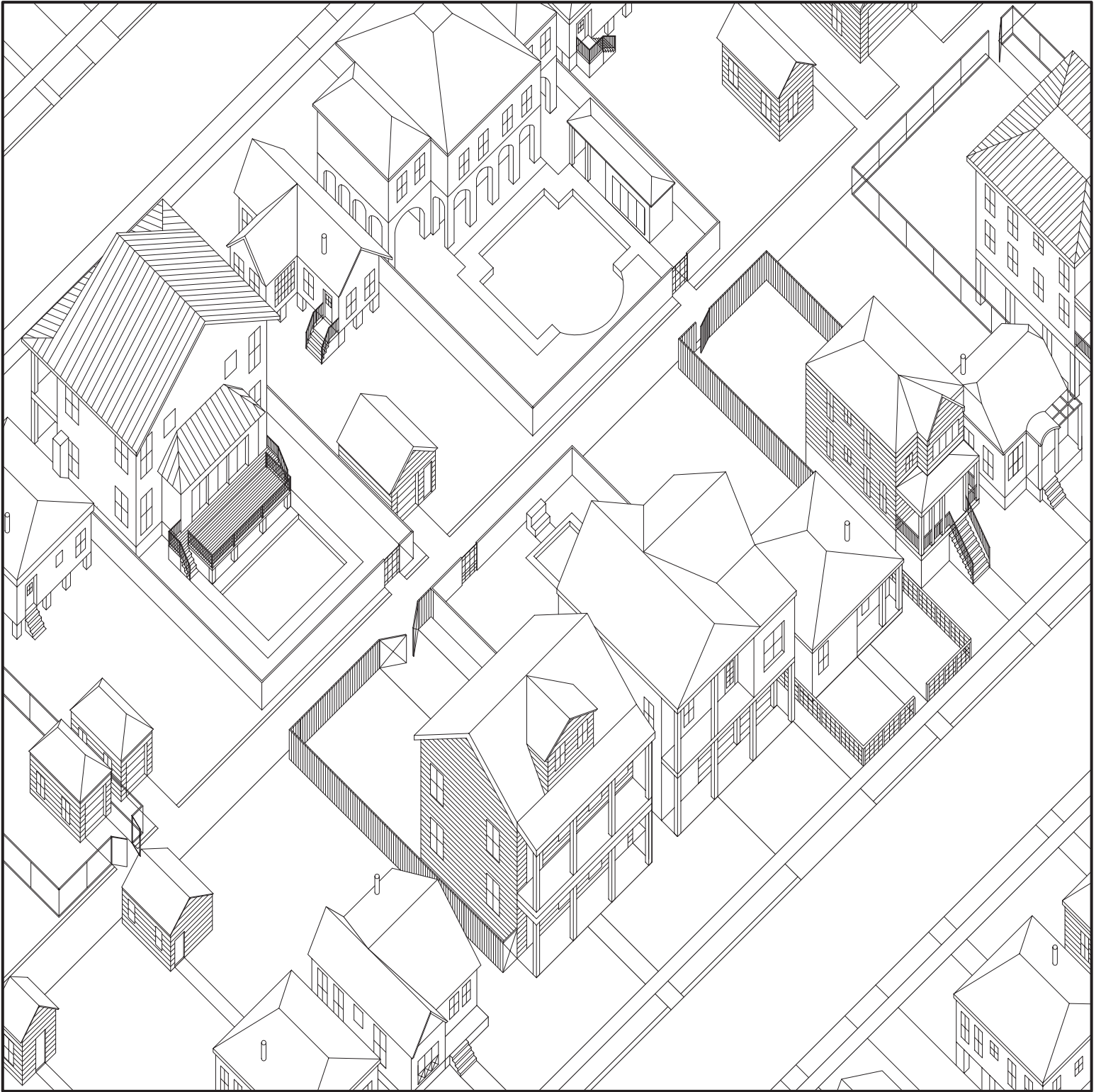
among New Orleans's preeminent mainstream architectural historians has focused on the shotgun as an American invention, originating with the expansion of the basic Creole cottage into long, narrow lots. From this perspective, it is viewed essentially as a nineteenth-century American adaptation to the city's geographic parameters and restrictions.¹¹

In groundbreaking research on the origins of the shotgun house, John Michael Vlach traced the New Orleans shotgun to Haiti and to the Yorba culture of southwest Africa.¹² Many hundreds of shotguns were built on Louisiana's plantations on parcels that were sufficiently wide to allow for lateral dwelling footprints. Similarly, the earliest shotguns on the fringes of the Creole Faubourgs (suburbs) in New Orleans were not confined to narrow lots. In both Haiti and Cuba, the freestanding, shotgun house form predates densely occupied villages and towns.¹³

In his examination of the endangered status of the shotgun, post-Katrina, Jay D. Edwards recently reaffirmed Vlach's contention that the archetypal Louisiana shotgun originated outside the United States. Its origins were closely derived from rural Haitian folk cottages called *ti-kay* in central Hispaniola. Its genesis was rooted in a colonial fusion of the indigenous Arawak house of West African dimensions and proportions, to be reinterpreted later through the lens of French building technologies and European material systems and protocols. Over 12,000 refugees from the Haitian Revolution (1791–1803) had arrived in New Orleans by 1809. Haitian builders who immigrated at this time rapidly reconstituted the house form and it flourished from 1810 to 1840.¹⁴

Shotgun houses were abundant in Haiti as evident in paintings and engravings of this period. It was the prevalent dwelling type in the capital of Port-au-Prince and in the northwestern colonial city of Gonaïves. In Haiti, slaves built a small rectangular form with a gabled entrance, called a *caille*. In

3. Axonometric: Katrina McMansions, Lakeview (partial view). (Drawing by author.)





4. Late nineteenth century shotguns, Bayou St. John Neighborhood. (Photo by author.)



5. Shotgun side/rear profile, Bayou St. John Neighborhood, depicting telescopic kitchens, narrowly proportioned yards, and storage sheds in a city where basements are not possible. (Photo by author.)

Port-au-Prince it was similar in silhouette, in plan, and in its fenestration, including two full-length openings on the front facade, each shielded by tall, louvered, operable shutters. One of these openings

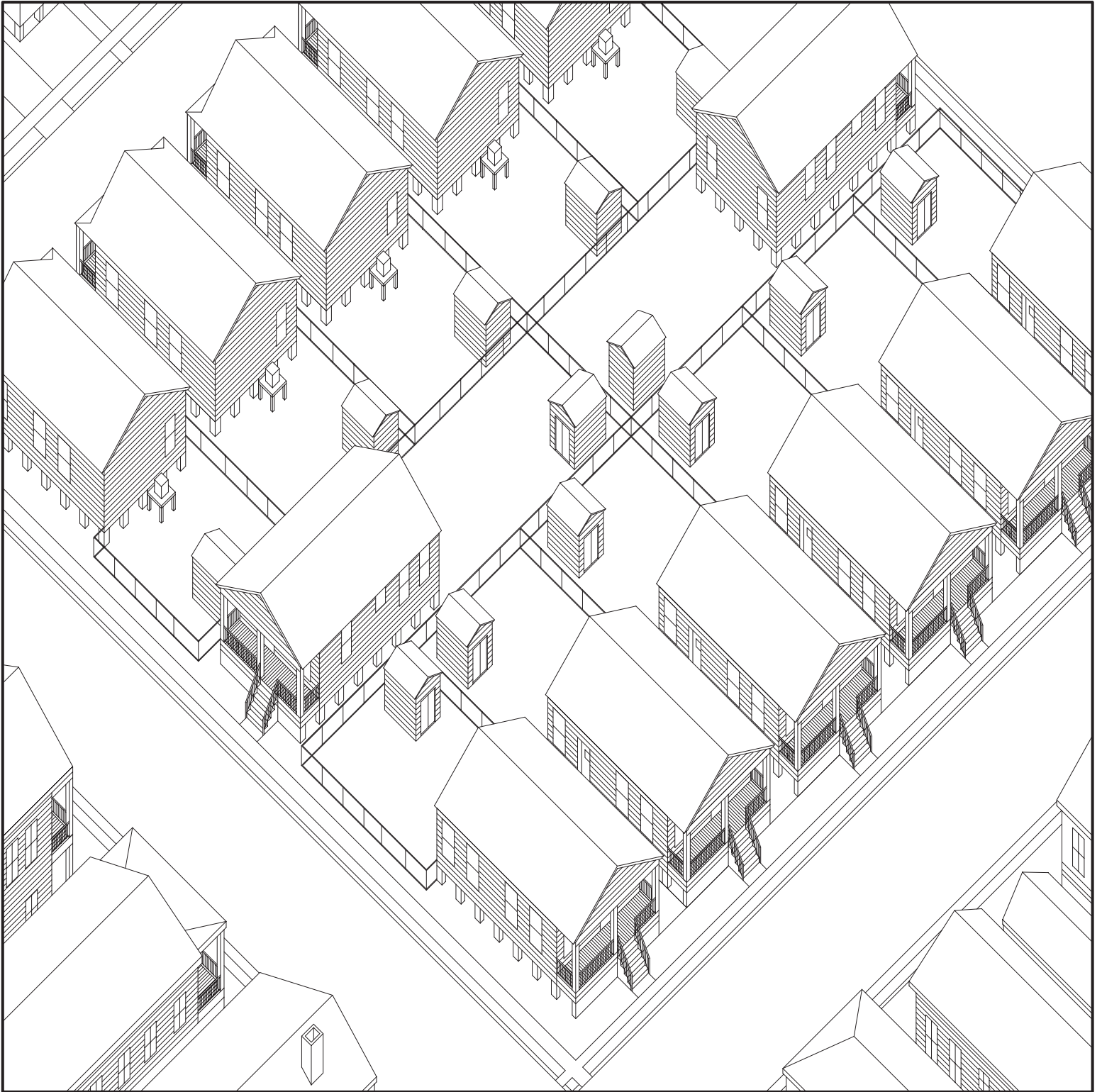
functioned as the door. Even when glass panes were installed (as was the case later in New Orleans), the pattern of two tall, evenly spaced apertures remained unmistakable. Their high ceilings, for

natural ventilation, were also copied in New Orleans for form as well as function since both places experience high heat and humidity during much of the year.¹⁵ Shotguns were built in urban Haiti, in Cuba, then in New Orleans and rural Louisiana, and throughout the American South well into the twentieth century.

Edwards defines the New Orleans shotgun as having either a hip or gable roof. Its narrow front typically faces a street, path, or waterway such as a drainage canal or bayou. The roof ridge always runs perpendicular to the front of the building. The porch may be either inset under the main roof, or attached directly to the façade. A shotgun may or may not be elevated on piers of cypress blocks, or built atop a chain wall configuration.¹⁶ Later urban adaptations in New Orleans included camelback shotguns, double shotguns, and side-porch shotguns.

While mainstream architectural historians credit African Americans as the primary labor source behind the vast majority of Southern mansions—they were known to have worked as carpenters and masons in cities and towns all across the South—there never were black people credited with building common houses of *their own* design. As an example of Afro-American folk architecture, the ubiquitous shotgun has only relatively recently been shown to possess a long history, closely interwoven with the black experience in New Orleans. The degree to which the shotgun is (or is not) influencing the rebuilding of New Orleans' neighborhoods therefore provides critical insight into persistent racial, class-based, and political realities. The shotgun dwelling first endured stigmatization as an "architecture of defiance" at the time of its initial importation to New Orleans by free men of color.¹⁷ Vlach argues that "Africans in Haiti did not drift aimlessly in a sea of alien experiences. Their response was to make sense of their new environment by transforming it so that it resembled a familiar pattern . . . the shotgun house form is the result of this mental transposition . . . (it) is an example of Afro-American architecture."¹⁸

6. Axonometric: Musicians Village, Upper Ninth Ward (partial view). (Drawing by author.)



The question now begs serious attention in the rebuilding of the city—to what extent was this venerable shotgun tradition being honored in New Orleans’ twenty-first century reconstruction? In Katrina’s aftermath, in both rebuilt and newly developed dwelling types, the architecture now varied significantly, even drastically in some cases across neighborhoods. Their finished first floor elevations also varied dramatically in some neighborhoods with a new or newly raised existing house often dwarfing its next-door neighbor. This was especially the case across the severest parts of the flood’s strike zone, spanning nearly ten miles from east to west. What follows is a tale of three iconic neighborhoods in continued recovery at the five-year mark.

Three Iconic Neighborhoods

Lakeview is, in effect, an in-town bedroom community. To its inhabitants, it personifies the American Dream. It hugs the Lake Pontchartrain shoreline to the north, spans from the (infamous) 17th Street Canal on its western edge to City Park on its east. Its south edge borders sections of the Carrollton and Mid-City neighborhoods. This entire area was once a mixture of open water and swamp. A 1927 seawall and landfill project along the lakeshore added 2,000 acres of new buildable land and this section eventually became Lakeview (and the adjacent Gentilly section of the city). After WWII, residential growth exploded. By the mid-1960s Lakeview was nearly built out. Prior to Katrina Lakeview was considered among the most desirable places to live in the city, was home to nearly 26,000 residents, and experienced among the lowest crime rates in the city. In point of fact, the majority of building permits issued in the entire city during the first three full calendar years (2006–2009) after Katrina were for properties in Lakeview.

One of the city’s two severest levee failures occurred at the 17th Street Canal in Lakeview. Subsequently, most of Lakeview sustained ten to fourteen feet of flooding with stagnant water sitting

in ruined homes for up to three weeks.¹⁹ Lakeview’s determination to rebuild stemmed from the earliest days after the flood as a sheer testament to the collective human willpower associated with place reattachment, fueled autonomously and with little governmental intervention. Many structures were repaired *in situ* while others immediately next door or down the same block were newly raised on pilots as high as twelve feet above the street. As mentioned, this could create a jarring, even surreal, visual effect.²⁰

The earliest dwellings in Lakeview, built before WWII, were one-level single and double shotguns of wood frame siding. Later, one-level bungalows and cottages became the norm. This was followed by hundreds of ranches built in the 1950s and 1960s. These latter dwellings were nearly all built slab on grade, directly on a concrete pad at street elevation in what amounted to perhaps the most colossal example of topographic-civic amnesia in American urban history. The earlier shotguns, bungalows, and cottages were typically built on brick or CMU piers approximately two to three feet above street elevation. In Katrina’s aftermath, a new dwelling type emerged. It is a quixotic blend of the McMansion crossed with the new reality of living below sea level in an era of climate change and urban land subsidence. The *Katrina Mansion* may at first glance appear as no more than a generic McMansion. Upon closer scrutiny, it expresses far more. Homeowners on street after street tore down their old bungalows and cottages and built new houses elevated as high as twelve feet above street level. These residences typically contain two or three levels of living space. The space below is devoted to a garage or carport, storage space, and/or a semi-enclosed patio. The juxtaposition of old and new dwelling, side by side, is visually striking (Figures 1 and 2). These Katrina Mansions stand proud, almost defiantly, as socioeconomic status symbols, triumphant trophy houses that reflect their owners’ determination, while casting long shadows on their diminutive brethren.

Hundreds of houses expressive of Lakeview’s dominant post-war domestic vernacular have been expeditiously torn down, leaving only the lonely remnants of slabs and sidewalks. High houses and “low houses” now line street after street in an A/B A/B pattern, cheek by jowl, punctuated by open overgrown slab lots awaiting a future house that may never come. Some homeowners opt to tear down the low house next door to theirs to build a double-lot high house in its place. Others, unable to afford a total rebuild or the elevation of their existing house, opt to renovate in place. An overview of one street illustrates this pattern of redevelopment, with (high) Katrina Mansions often appearing to crowd out older (low) houses, a subset of which remain ungutted and therefore unoccupied five years after the flood (Figure 3). Many well-built bungalows were abandoned and eventually lost. Not surprisingly, most Katrina Mansions are builder houses with little or no direct involvement by architects who have been relegated to the sidelines with little to do but criticize the lack of design guidelines driving the new builder-dominated construction amid the wreckage. The debate over the “anything goes” scale and style of these new houses has been reported in the local media yet has received virtually no national attention.²¹

Lakeview residents continue to return to revive their community from its near-death experience. Its emerging big house/small house streetscape dichotomy is part of a new normality. An unsettling inconsistency has been the result: a given block has a smattering of occupied residences amid a sea of abandoned dwellings and residual slab lots.²² The collective commitment to its reaffirmation is impressive. However, the archetypal vernacular of the Lakeview low cottage and bungalow, and its architectural derivatives, has for the most part been entirely dismissed as obsolescent and irrelevant.

The Upper Ninth Ward consists of the economically disadvantaged neighborhoods

downriver from the Tremé, Faubourg Marigny, and Bywater neighborhoods. It is on the *upriver* side of the Industrial Canal and adjacent to the higher ground nearest to the Mississippi River. The Industrial Canal separates the Upper Ninth from the Lower Ninth. The Upper Ninth experienced significant flooding from Katrina, and it has also been stymied by dysfunctional governmental efforts at all levels, compounded by the fact that thousands of residents did not return to rebuild. This was because the vast majority of damaged dwellings had been renter occupied. Residents were unable to mount an effective grassroots campaign, in sharp contrast to Lakeview. After Katrina, the local chapter of Habitat for Humanity shifted its focus to the construction of houses in the most severely flooded neighborhoods. Habitat was authorized to embark on a large-scale redevelopment of a section of the Upper Ninth that had suffered from decades of blight, chronic disinvestment, political indifference, and class-based inequalities.

The Habitat project consisted of the construction of seventy-two single-family shotgun-inspired dwellings in a foursquare block section. Named Musicians Village, this enclave was inspired in part by the surrounding densely sited rows of nineteenth century Victorian shotguns (Figure 4). The houses include rear yards with storage sheds, allowing for future backside extensions of the dwelling as occurred in other long-established sections of the city, including the Mid-City neighborhood of Bayou St. John (Figure 5). The stripped-down, raised, prototype Habitat-New Orleans shotgun was replicated with minor variations, that is, exterior hues, rooflines, and placement of the front door (Figure 6). This reinterpretation of the archetypal shotgun adhered to its traditional thirty-foot wide lot dimensions. Dwellings were built side by side in a dense pattern. Lots are shallower compared to their precursors. Front porches, bright hues, wood frame construction and siding, characteristic



7. Streetscape, Musicians Village, Upper Ninth Ward. (Photo by author.)



8. Katrina's wrath, Lower Ninth Ward. (Photo by Alexander Verderber.)

gabled roofs, and an elevation of nearly four feet above the street set them apart from most existing houses in the surrounding neighborhood. The width between dwellings is six feet, and no garages, carports, or side drives were provided,

not unlike the city's pre-auto age shotguns (Figure 7).

Musicians Village, therefore, resembles the traditional streetscapes of the city's shotgun crescent. As in Lakeview, no architects were directly

involved in the design of any of the houses in Musicians Village.²³ Habitat unselfconsciously adopted, then adapted, the ubiquitous vernacular of the shotgun house form, replicating it with relatively minor variations, at least exteriorly. The most notable modification consisted of relocating the “back door” from its traditional location at the rear to a mid-board side location. In the fall of 2009, the final house (number 72) was completed on the initial eight-acre parcel. Occupants are generally supportive of their dwellings’ appearance, form, exterior space, and siting. This acceptance is likely attributable to the high familiarity quotient of the neo-shotgun Habitat houses.

In the Lower Ninth Ward, the most devastated section of the city, 4,000 homes were destroyed and 1,000 residents lost their lives. Up to twelve feet of floodwater raged through the neighborhood while family members watched helplessly as loved ones were swept away. The Lower Ninth received the lions share of mainstream media coverage in Katrina’s aftermath, as one of the city’s poorest neighborhoods lay filled with unimaginable debris fields, mangled shotgun dwellings, and mud-filled cars flipped and turned beneath, within, and on top of the twisted remains (Figure 8). The devastation the neighborhood sustained occurred because of the abject failure of the Industrial Canal’s poorly constructed federal floodwalls, combined with the failure of the MR-GO (Mississippi River–Gulf Outlet) manmade canal (sealed off at its easternmost end in late 2009). In the weeks and months after the storm, Lower Ninth residents were the last who were allowed to return, and then only to “look and leave,” unable to retrieve any personal belongings.

The Lower Ninth was settled from the late nineteenth century to the 1950s, and consisted largely of modest shotguns of various types—singles, doubles, camelbacks, and side-porch variants. Nearly all possessed the iconic front porches and gabled roofs. Katrina’s tidal surge swept nearly every house off its foundation, some more than two blocks from their lots, even

dwellings built on masonry piers two to three feet above street level.²⁴ No one was left untouched by the devastation. Few residents of the neighborhood had flood or homeowners insurance, as most were renters. Among the homeowners, families had lived there for decades and it was not uncommon for a house to be passed on from one generation to the next. With virtually every resident in exile following Katrina, next to no rebuilding activity occurred in the Lower Ninth in the first two years. Insurers were loath to underwrite policies, its church and community organizations were defunct, and the neighborhood had to overcome the stigma attached to its having been targeted in the January 2006 BNOB (Bring New Orleans Back) plan for transformation into a no-build wetlands zone. There appeared little hope for its revival.

When actor Brad Pitt toured the neighborhood two years after the disaster, this once-vibrant place was still eerily silent, as much of the neighborhood had been razed. It had been completely failed by government, unable to advance. After meeting with community groups and displaced families, Pitt pledged to commission signature architects to rebuild the Lower Ninth back “better” than its neglected condition pre-Katrina. His vision for rebirth consisted of the construction of 150 new single-family, green, affordable, safe, high-quality dwellings in the portion of the neighborhood nearest the levee breach. A new entity, the *Make it Right Foundation* (MIR), was launched in December 2007 with the Pink Project—a unique hybrid of art, architecture, and media designed to heighten awareness of the plight of New Orleans, to raise money to construct new houses, and to commemorate the nearly 1,000 lives lost in Katrina in the Lower Ninth alone. Pitt collaborated with the firm GRAFT on the installation of the 150 pink *art houses*. These artifacts were at first positioned randomly on their “sites.” As donations arrived to sponsor the cost of an actual dwelling, a skewed symbolic house was “righted” on its lot. The Pink

Project raised \$12 million and was pivotal in attracting global media attention to the challenges and possibilities of rebuilding the Lower Ninth.²⁵

The core team, including William McDonough + Partners, Cherokee Gives Back Foundation, GRAFT, and the New Orleans-based staff of MIR, works in tandem with leaders of local, not-for-profit organizations and has expanded to include national and international architectural firms. Local design firms include Billes Architects, Eskew Dumez Ripple, Concordia, and Trahan Architects. National firms include BNIM, Kieran Timberlake, Bild Design, Morphosis, Pugh + Scarpa, and Gehry Partners. International firms include Adjaye Architects (London), Atelier Hitoshi Abe (Tokyo), Constructs (Accra, Ghana), GRAFT (Berlin), MVRDV (Rotterdam), and Shigeru Ban Architects (Tokyo). Each firm has designed one (or more) homes. The New Orleans firm John C. Williams Architects functions (at this writing) as Executive Architect for the project, and is responsible for construction documents, construction oversight, and quality control.²⁶

Each MIR house is conceived as a case study. The inventory of sixteen completed case study houses (as of early 2010) included eight LEED Platinum certified homes in a city that has strived to become greener post-Katrina but has made little overall progress in this regard due to lack of private-sector investment, a disproportionate percentage of uninformed clients, and/or disinterested end-user constituencies, that is, renters with little long-term stake in the neighborhood.²⁷ In 2008, it was anticipated that by the end of 2010, one hundred Lower Ninth families would return as homeowners, but the global recession adversely effected MIR fundraising efforts. The neo-shotgun case study house by Morphosis features a contiguous frame, or chassis, capable of elevating-floating in the event of rising floodwaters²⁸ (Figure 9). The neo-shotgun by Trahan Architects features a wind-twisted roof-trellis element appearing to have violently crashed into

the earth (Figure 10). The raised house designed by Adjaye Architects is a particularly sharp departure from the modest shotguns that once lined the streets of the Lower Ninth pre-Katrina (Figure 11). In totality, the emerging Lower Ninth is an ensemble of iconic case study houses built despite the fact that only a small percentage (19 percent) of Lower Ninth residents had been able to actually return by the end of 2009.²⁹

Many residents of the MIR houses have expressed some difficulty in relating to their new house. Some have stated that they would have preferred for their new house to look more like their “old” house. This familiarity bias on the part of returnees presumably is grounded in a wish for things to return to how they were before August 2005.³⁰ Additionally, a number of returnees have not adjusted very well to the public spotlight. This is largely because so many outsiders, including media representatives and journalists, now pass through their neighborhood daily, especially on weekends. This new-found attention includes large tour buses. By comparison, relatively few tour buses are descending on either Lakeview or Musicians Village. This calls into question the net effect versus initial intent of the MIR project. The MIR’s agenda has been largely driven by two seemingly conflicting fundamental objectives: first, to provide Sustainable Architecture (with a capital S and A) as the operative vehicle for physical reconstruction, and second, for this operative vehicle to facilitate the mass reinstatement of long-displaced residents to their former neighborhood. The net effect, when intent and outcome are considered as one, is what might best be referred to as “boutique compassionism.” While the MIR project undeniably expresses a deeply grounded concern for social re-engagement, it also boldly, and at least equally, operates as a purveyor of a clear-cut, top-down—some would say *elitist*—environmental and esthetic agenda.

In effect, its broader aspirations appear to exist in an anti-vernacular parallel reality that is more

than slightly disconnected from both the daily lives of the returnees and also from their familiar but now lost urban vernacular environment. It is as if a sustainable, signature architectural enclave is now being built to inform the previously *unenlightened* masses. The inherent irony lurking within this avowedly anti-government, yet itself somewhat bureaucratic, private-sector implementation apparatus is that every MIR house is a one-off proposition, like a band in which every musician is soloing simultaneously (Figure 12). In retrospect, the most obvious alternative strategy (and probably a more cost-effective one overall) would have been to adopt an industrialized housing paradigm whereby each house stands as a quasi-individualized variant developed out of a core set (kit) of components. In this manner, many more families would have perhaps been able to return, faster. As it is, conceptually and on the ground, it remains a highly curious blend of top-down central planning fused with a veneer of grassroots determinism and obliquely engaged social intentions. This begs the question of whether an alternative, more factory-based, industrialized planning strategy would have produced far more houses far more quickly, and done so without a concomitant loss of quality or architectural authenticity. This latter point in particular calls into question the role of indigenous vernacular precedents. Moreover, would such a strategy by default have resulted in architecture of less quality, less sustainability, or less social engagement?

In modernism, there is a long tradition of architect-designed case study housing for mass implementation. This includes Le Corbusier’s International Style *Quartiers Modernes Fruges*, a community of fifty-one houses built at Pessac, France in the 1920s under the sponsorship of the wealthy French Industrialist Henry Fruges. His intent was to create a laboratory of new domestic, structural, and esthetic ideas/ideals.³¹ Frank Lloyd Wright’s Usonian Houses initiative, beginning in 1936 with the Jacobs House in Madison, Wisconsin,



9. Morphosis, *Make it Right* house, Lower Ninth Ward. (Photo by author.)

resulted in a group of approximately fifty middle-income family dwellings. The Usonian house was a small, single-story, unornamented structure without a garage. It had an L-configuration wrapping around a small garden patio, built with locally available materials, with a flat roof and large cantilevered overhangs for passive solar heating and natural ventilation, with clerestory windows and radiant floor heating.³² The factory-built *Copper Houses* were developed by Walter Gropius and Konrad Wachsmann in the 1930s in an effort to mass-produce industrialized houses with “custom” features for installation in Germany and in Palestine. This promising factory-built mass housing initiative was prematurely halted after Hitler came to power in 1933.³³ The MIR project merits consideration and comparison to these precedents. In the case of Pessac, occupants made many modifications over subsequent decades. Will this same personalization process occur with the MIR houses? One presumes so. In the case of the Usonian case study houses, Wright had a uniform initial vision for the parameters of this house type. However, at times he capitulated to the wishes of his client in terms of the dwellings’ composition, its internal layout, and in some cases even its exterior appearance. As for the Copper Houses, in contrast, the intent from the



10. Trahan Architects. *Make it Right* house, Lower Ninth Ward. (Photo by author.)



11. Adjaye Architects, *Make it Right* house, Lower Ninth Ward. (Photo by author.)

outset was for the occupant/end user to serve as the client in terms of being able to select from multiple floor plan options.

The MIR strategy, as a one-off initiative, is perhaps somewhat more closely aligned with the

well-known Case Study houses built in Southern California between 1945 and 1966. Thirty-six experimental prototypes were designed, with the majority built. Unlike the MIR mission, the Case Study houses had no overt racial desegregationist

social agenda, nor were they interested in engagement with the marginalized elements of society. (Indeed, their social agenda was concerned only with the promotion of a new informal middle class lifestyle.)³⁴ Rather, they were a series of now classic buildings, including the work of Charles Eames, Craig Ellwood, Richard Neutra, and Eero Saarinen, showcasing new products, new assembly systems, and new domestic arrangements.

It is ironic that the MIR houses conform to the shotgun-proportioned lots of the Lower Nine yet weave few other direct references to the vernacular heritage expressed in the archetypal New Orleans shotgun. Most do in fact have a front porch, yet their compositions are often iconoclastic, raised high on pilotis, wood-clad but with perforated, at times strikingly distorted silhouettes. This pattern can be construed as, at worst, a dilemma, and at the very least, as an architectural disconnect. This is particularly the case in light of the strong African, Haitian, and African-American roots of the shotgun. The MIR initiative aspires, rather, to a broadly defined, somewhat curious fit—a visibly idiosyncratic design statement, with sustainability, that is, *greenness*, synthesized with only oblique references to the authentic African-American legacy associated with the archetypal shotgun. In instances where this loose cross-referencing is at its most obscure, there is a real risk in the net collective outcome being viewed by the community, collectively, as an architectural *circus*.

An uncomfortable truth: it might have been more prudent for Brad Pitt and his MIR project to rebuild in another part of the city, on higher ground, in a neighborhood with available land that did not flood, such as in New Orleans' Central City. This neighborhood is adjacent to the central business district and nearly all of it remained dry in Katrina's aftermath. Due to decades of suburban flight, crime, and chronic disinvestment, as many as 50 percent of the lots in this neighborhood were already vacant by August of 2005. Many of these open parcels are larger than the tight lots in the

Lower Ninth and carry fewer restrictions with respect to the potential to assemble larger parcels for redevelopment, for multi-family dwellings or otherwise.³⁵ Frank Gehry (with Robert Tannen) has elected to focus on such higher ground sites and has put forth a “Shotgun House” to be fabricated for replication in the Tremé neighborhood.³⁶ The one-house-at-a-time strategy of the MIR Foundation, coupled with the global economic downturn, virtually ensures it will take years to assemble a critical mass of returnees to the Lower Ninth. Regardless, the Make it Right Foundation has given hope to a once-abandoned community. This investment in the Lower Ninth is in many ways a bold American testament to the power of a singular vision for renewal and rebirth.

Learning from Katrina

For architects as well as architectural educators, a number of lessons are to be learned from the Katrina experience. Dozens of schools of architecture became actively engaged in projects in New Orleans and along the Gulf Coast between 2005 and 2010, and a subset of these efforts is ongoing at this writing. While space precludes a detailed assessment here of the many valuable stand-alone projects that occurred, in retrospect it is clear that two types of initiatives emerged—those that viewed the ruined city as a laboratory for the testing of theory and ideology, and those that viewed the city first and foremost as a place to apply existing pragmatic knowledge to assist victims as quickly as possible. Responding institutions were of two types—*first*, that is, *rapid* responder institutions, and *second* responder institutions. First responders included the Tulane URBAN/Build Program, which has completed five houses at this writing, and the CITY Build Consortium of Schools of Architecture, the University of Virginia, and the reconstruction of the House of Dance and Feathers Mardi Gras Indian Museum in the Lower Ninth, by Project Locus with Kansas State University students.³⁷

The work of second responder schools included the Dry-in House (Clemson University) and an exhibit organized by the University of Texas at Austin for the Venice Biennale in 2006. Post-Katrina, an entire literature of university-based interventions has arisen and this body of critical architectural knowledge is in need of distillation for any and all lessons applicable, including pitfalls and opportunities that can be carried into future university-based responses to disasters, globally. Otherwise, the risk is real that identical mistakes will be needlessly repeated. The experience of Katrina has shown that the efficacy of any university-based initiative hinges on its ability to sustain itself across time—this requires consistent logistical support, the sheer passion of the participants, and the determination to set up and follow through in the field, even when facing serious odds of failure. One bothersome issue centers on what may be the questionable marketing aims of the sponsoring organization: is the initiative in the disaster zone more about institutional self-aggrandizement or about healing the real wounds of the residents of the disaster zone, be it in New Orleans or elsewhere? It is therefore essential that such potentially corrosive and hidden agendas are fully revealed *a priori* in an atmosphere of open, unfettered transparency.

Summary

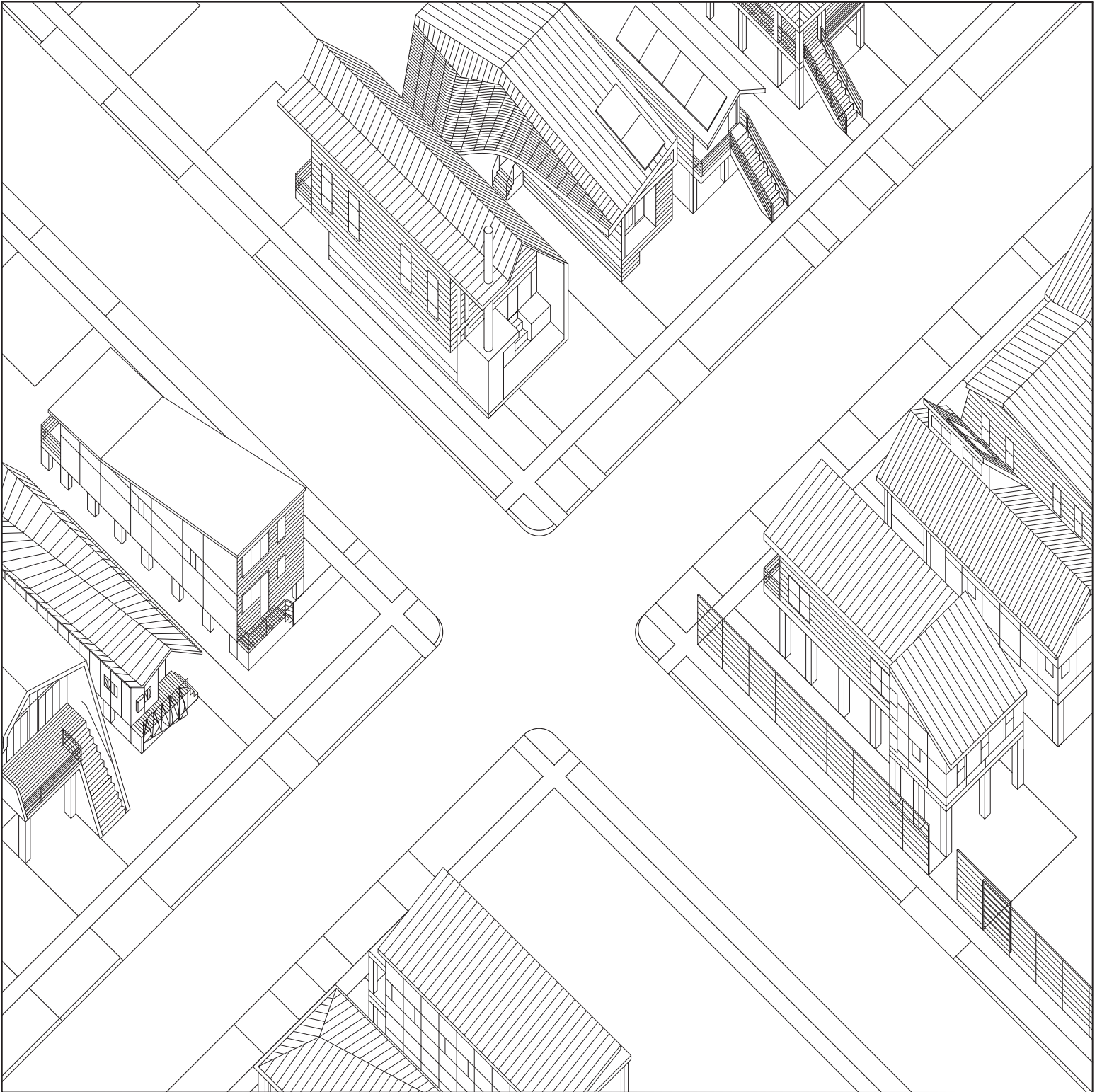
Five years on, the task of rebuilding New Orleans remains daunting. Much has been written since the events of August 2005. Hurricane Katrina would forever transform the city’s urban landscape although the disaster would not diminish the spirit or resolute conviction of its loyal citizens. For those who returned to rebuild, the process has been fraught with setbacks and obstacles, particularly those whose homes and businesses were destroyed in a place—much of it below sea level—with a still-inadequate federal flood protection system.³⁸ In some quarters, a gravitational pull exists to return to traditional, culturally authentic building styles

post-Katrina. The new (and newly) elevated houses in neighborhoods across the city, it is hoped, represent an effort to rebuild smarter, better. However, this process needs to take cognizance of culturally embedded—including spiritual—determinants. It is a search arising from within the vortex of the catastrophe itself. In a complex and at times deeply contradictory manifold of concerns, is a generic Katrina Mansion any less an authentic expression than a signature-architect designed Make it Right house?

The sections of Orleans Parish most severely flooded were also areas with the highest percentage of African-American residents. These remain the areas with the lowest percentages of recovery and of returned families. As many as 95,000 residents continue to live outside the city. A widespread belief persists among the city’s poor that they disproportionately bore the brunt of Katrina and its aftermath. It has been observed that Katrina has been perhaps the largest forced urban renewal project that Black America has ever experienced.³⁹

The architectural origins of the ubiquitous New Orleans shotgun are directly traceable to Port-au-Prince. At the same time, it is tragic that both cities were struck by natural disasters within a five-year period in the first decade of the twenty-first century. It is hoped that the mistakes made in Katrina’s aftermath, as the city continues to recover, will not be repeated in Haiti in the aftermath of the devastating earthquake of 2010. Lessons learned must become integral in the rebuilding of Haiti, and this equally pertains to university-based architectural assistance. This particularly applies to housing, clinics, schools, healthcare centers, hospitals, libraries, and other civic places. In New Orleans as well as in Haiti, the fate of thousands of vernacular dwellings is in the hands of dispassionate local review boards and recovery agency bureaucracies. Equally so, the fate of historic archetypes and iconic neighborhoods rests as much on popular misperceptions of their merit. The U.S. federal government, through FEMA, has been

12. Axonometric: Lower Ninth Ward *Make it Right* enclave (partial view). (Drawing by author.)



responsible for the destruction of thousands of salvageable historic dwellings in New Orleans. This occurred because of a 100 percent FEMA disbursement policy to the city that fully underwrote demolitions up to January 2009. As the city raced against the deadline, countless senseless demolitions occurred across New Orleans.⁴⁰

Nothing about New Orleans' recovery has been easy.

In Louisiana, FEMA's emergency housing program proved to be a failure, even though 49,000 travel trailers had been installed by the summer of 2006.⁴¹ The Road Home program, initiated by the Louisiana Recovery Authority, disbursed more than \$2 billion in aid for \$150,000 federal grants for the rebuilding of structures damaged or completely destroyed. The results to date have been mixed at best.⁴² The city's healthcare infrastructure has also struggled to recover.⁴³ Prior to Katrina, race and class-based inequalities in the city's built landscape were largely hidden just beneath the surface.⁴⁴ Katrina exposed these inequalities as open wounds for the entire world to see. Despite all the external aid, there are no policy levers that consistently correlate to outcomes—rebuilt neighborhoods. Nor are there consistently proven methods to reduce governmental and private philanthropic dysfunctionality.⁴⁵ The greatest degree of success thus far in New Orleans centers on NGO organizations that sponsor *semi-autonomous microprojects* such as those discussed above. In the case of Lakeview, it has been an up-by-the-bootstraps effort fueled by the personal resources of comparatively higher income homeowners. There remains, however, some resentment on the part of Lakeview residents, and antipathy toward those who have had the keys to new houses placed in their hands in the Upper and Lower Ninth Wards, their pre-occupancy sweat equity contributions notwithstanding.⁴⁶

In New Orleans, as in Port-au-Prince, the thorny issue of culture remains at the core of future efforts to reduce poverty through the provision of

affordable housing. Both places have historically suffered from a complex web of progress-resistant cultural influences. This tends to be manifest in the perpetuation of certain religious beliefs, fractured family structures, social mistrust, and above all a deep mistrust of elected officials.⁴⁷ In New Orleans's case, mistrust has centered on flood *un*protection dating from the catastrophic flood of 1927 when the levees in lower Plaquemines Parish were dynamited to spare the city of New Orleans from flooding.⁴⁸ Contemporary expressions of the archetypal shotgun remain as iconic, enduring examples of the cultural heritage of African-Americans, paralleled by equally strong black traditions in music, art, oral literature, cuisine, and dance forms. These accomplishments must remain at the core of the significant rebuilding which continues, day by day, block by block, in one neighborhood after another in a fiercely proud, determined, extraordinary American city.

Acknowledgment

Annette Himelick provided key assistance in the preparation of this manuscript.

Notes

1. Stephen Verderber, *Delirious New Orleans: Manifesto for an Extraordinary American City* (Austin, TX: University of Texas Press, 2009).
2. These agencies include the Federal Emergency Management Agency (FEMA), the Department of Housing and Urban Development, the Louisiana Recovery Authority, the Office of Management and Recovery of the City of New Orleans, and the New Orleans Redevelopment Authority.
3. Charles Voorhees, John Vick, and Douglas Perkins, "Come Hell and High Water: The Intersection of Hurricane Katrina, the New Media, Race, and Poverty," *Journal of Community and Applied Social Psychology* 17, no. 6 (2007): 415–29.
4. Roberta Brandes Gratz, "From Hell to High Water," *New York Times* (February 22, 2006), B-14.
5. Richard Campanella, *Geographies of New Orleans: Urban Fabrics Before the Storm* (Lafayette, LA: Center for Louisiana Studies, 2006); *Action Plan for New Orleans: The New American City*. New Orleans: Bring New Orleans Back Commission. Office of the Mayor, City of New Orleans. Final Report Submitted by Wallace Roberts and Todd, Master Planners, Philadelphia (January 2006).
6. Pierce F. Lewis, *New Orleans: The Making of an Urban Landscape* (Charlottesville, VA: University of Virginia Press, 2003); Craig E. Colten,

An Unnatural Metropolis: Wrestling New Orleans From Nature (Baton Rouge, LA: Louisiana State University Press, 2006).

7. This includes the National Football League, which provided funding (with FEMA funding) to restore the Louisiana Superdome after it was heavily damaged in Katrina. The New Orleans Saints returned to play their first home game in September 2006.
8. This consists of the Lower and Upper Ninth Ward, Gentilly, Mid-City, Carrollton, Hollygrove, and older sections of Lakeview, neighborhoods comprised mostly of shotgun dwellings and derivatives thereof. Thousands of houses in these areas sustained flooding above their roof eaves.
9. Stephen Verderber, "The Unbuilding of Historic Neighborhoods in Post-Katrina New Orleans," *Journal of Urban Design* 14, no. 3 (2009): 257–77.
10. Fred B. Kniffen, "Louisiana House Types," *Annals of the Association of American Geographers* 26, no. 2 (1936): 179–93.
11. Sam Wilson Jr. et al., *New Orleans Architecture: The Creole Faubourgs* (Metairie, LA: Pelican Press, 1984).
12. John Michael Vlach, *Sources of the Shotgun House: African and Caribbean Antecedents*, Ph.D. Dissertation (vol. 2), Indiana University, Bloomington, IN, 1975. Also see John Michael Vlach "The Shotgun House: An African Architectural Legacy," in Dell Upton and John Michael Vlach, eds., *Common Places: Readings in American Vernacular Architecture* (Athens, GA: University of Georgia Press, 1986), pp. 58–78.
13. Vlach expanded this argument in his edited collection *The Afro-American Tradition in Decorative Arts*, chapt. 8, "Architecture" (Athens, GA: University of Georgia Press, 1990), pp. 128–29.
14. Jay D. Edwards "Shotgun—The Most Contested House in America," *Buildings & Landscapes* 16, no. 1 (2009): 62–96.
15. These included roughly equal proportions of colonial French, African slaves, and *affranchis* (free people of color). This latter, largely mulatto population had risen to some stature in Saint-Dominique.
16. J. D. Edwards, "Shotgun—The Most Contested House in America," 67.
17. Sibyl Moholy-Nagy, *Native Genius in Anonymous Architecture* (New York: Horizon Press, 1957), p. 120; Alfred Metraux, "L'habitation paysanné en Haïti," *Bulletin de la société neuchâteloise de géographie* 5, no. 1 (1949): 3–14. This source provided a survey of Haitian house types.
18. J. M. Vlach, "The Shotgun House: An African Architectural Legacy," p. 76.
19. New Orleans Redevelopment Authority. *Community Profile: District 5—Lakeview* (September 2007), http://www.noraworks.org/district_5.htm (accessed September 28, 2008).
20. Early returnees to Lakeview were seen as civic pioneers. Some property owners would begin to rebuild, and then abruptly halt due to problems with insurers and unscrupulous contractors as construction costs skyrocketed in Katrina's aftermath. Some raised their houses with their own personal savings, with FEMA reimbursing them later to the amount of up to \$30,000 per dwelling. However, across the city, house elevation costs escalated to over \$100,000 by 2009.

21. Stephanie Bruno, "Homes Rebuilt in Flood-Struck Lakeview Display Gutsy Individuality," *Times-Picayune*, <http://www.nola.com> (accessed July 6, 2009). This article included an online gallery of seven recently built homes in Lakeview, accompanied by local architects' critiques by Ginette Bone, Robert Cangelosi, and Wayne Troyer. Seven types/styles were identified: Bungalow, Chateausque, Contemporary Cube, Beach House, Renovation in-Place, Farmhouse, and Plantation House. Each house was depicted individually, however, overlooking big house/small house dichotomies.
22. Dennis Persica, "In New Orleans, Jack O' Lantern Development Has Arrived," *Times-Picayune* (October 25, 2009), <http://www.nola.com> (accessed 27 October 2009). In speaking with returnees, I was struck with their intact memories of who lived in every house on a given block, as they often paused, speaking in halting tones about non-returnee neighbors who once resided where a slab now exists.
23. Anon., "New Orleans' Musician Village: Overview," <http://www.nolamusiciansvilage.org/about/> (accessed February 8, 2010). In fact, the director of the New Orleans chapter of Habitat for Humanity, Jim Pate, told me "We have no time for architects. They just get in the way." Musicians apply for a low-interest loan over twenty years. The average monthly mortgage payment is \$550.00. Unfortunately, many musician-applicants have had difficulty qualifying for credit, as they typically receive cash payments for performing. The co-founders of the project, musicians Harry Connick Jr. and Branford Marsalis, did not advocate for the involvement of architects.
24. Most remaining structures—homes, businesses, churches, and schools alike—later were demolished by the U.S. Army Corps of Engineers.
25. Michele Bonino, "New Orleans: 2010—Reconstruction After Katrina," in Marco Brizzi and Paola Giaconia, eds., *Visions: Catalogue of the BEYOND MEDIA International Festival for Architecture and Media* (Florence, Italy: University of Florence, 2009), pp. 212–15.
26. Ibid. Also David Sokol, "Brad Pitt's 'Make it Right' Unveils New Designs," *Architectural Record*, <http://www.architecturalrecord.com.html> (accessed July 7, 2009).
27. The U.S. Green Building Council has referred to the MIR initiative as the "largest, greenest development of single-family homes in America." Also see Anna Hartnell, "New Orleans' Green Dilemma," *Guardian*, <http://www.guardian.co.uk/commentisfree/cifamerica/2009/aug/29/hurricane-katrina-new-orleans-green.html> (accessed September 16, 2009).
28. Doug MacCash, "Brad Pitt's Architect Thom Mayne Designs Floating House in New Orleans," *Times-Picayune*, http://www.nola.com/arts/index.ssf/2009/10/world_famous_architect_thom_ma.html (accessed October 7, 2009).
29. In contrast, 119 federally funded 'Katrina Cottages' had been completed in Louisiana by the end of 2009. Marianne Cusato designed this house, with co-sponsorship from the Congress for the New Urbanism; Bill Barrow, "119 'Katrina Cottages' Completed in Louisiana," *Times-Picayune* (December 9, 2009), <http://www.nola.com> (accessed 22 December 2009).
30. Jeff Glor, "Superstar Helps House Katrina Victims," *CBS News* (December 11, 2009), <http://www.cbsnews.com> (accessed 12 December 2009).
31. Ada Lousie Huxtable, "Le Corbusier's Housing Project—Flexible Enough to Endure," *New York Times* (March 15, 1981), B-24.
32. John Sergeant, *Frank Lloyd Wright's Usonian Houses: Design for Moderate Cost One-Family Homes* (New York: Watson-Guptill, 1984).
33. Gilbert Herbert, *Dream of the Factory-Made House: Walter Gropius and Konrad Wachsmann* (Cambridge, MA: MIT Press, 1984).
34. Elizabeth A. T. Smith, ed., *Blueprints for Modern Living: History and Legacy of the Case Study Houses* (Cambridge, MA: MIT Press, with The Museum of Contemporary Art, Los Angeles, 1998).
35. This fact was demonstrated by a proposal to build an Albertson's market in Central City, in the late 1990s. Twenty-eight parcels were acquired for the market, and twelve houses, mostly historic shotguns, were relocated within the neighborhood. The project died in 2001 and this large parcel sits undeveloped at this writing.
36. Shawn Kennedy, "Gehry and Tannen Design Shotgun House for New Orleans," *Architectural Record* (July 2009), <http://www.archrecord.com> (accessed 1 August 2009).
37. CITYbuild Consortium of Schools, *Groundwork: 2006 Review* (New Orleans, LA: Tulane University School of Architecture, 2007); Betsy Roettger, ed., *Building After Katrina: Visions for the Gulf Coast* (Charlottesville, VA: University of Virginia School of Architecture, 2006); and Yael Allweil, "The House of Dance and Feathers Mardi Gras Indian Museum," *Places* 19, no. 3 (2007): 77–82.
38. Shiela Grissett and Mark Schleifstein, "100 Year Flood Protection Not Enough for New Orleans, New Report Says," *Times-Picayune*, <http://www.nola.com> (accessed April 24, 2009). Also see Mike Longman and Jarrett Murphy, "Shifting Winds: A Smaller New Orleans Faces the Future," *City Limits: 1095 Days After Hurricane Katrina, New Orleans is Coming Back. But What Kind of City Will Emerge From the Rubble?* 4 (August 2008): 5–26. In Lakeview as well as in the Upper and Lower Ninth, place re-attachment is forcibly reinterpreted daily.
39. Peter Drier, "Katrina and Power in America," *Urban Affairs Review* 41, no. 4 (2006): 1022; Becky Bohrer, "N.O.'s Racial Political Balance May be Shifting," *Times-Picayune* (November 15, 2007), A7.
40. S. Verderber, *Delirious New Orleans* (2009). See Chapter 6: "Lessons from Katrina for 21st Century America." Also Nicolai Ouroussoff, "A Few Triumphs Pierce the Clouds of a Bleak Time," *New York Times* (December 17, 2009), <http://www.nytimes.com/2009/12/20/arts/design/20ouroussoff.html> (accessed December 20, 2009).
41. Stephen Verderber, "Emergency Housing in the Aftermath of Hurricane Katrina: An Assessment of the FEMA Travel Trailer Program," *Journal of Housing and the Built Environment* 23, no. 4 (2008): 277–92.
42. The Road Home program was funded by the U.S. federal government through its Community Development Block Grant program. Some neighborhoods have experienced greater success than others in translating rebuilding grants into rebuilt neighborhoods. With 122,000 homes flooded in Orleans Parish in Katrina's aftermath, the immediate objective of the Louisiana Recovery Authority was to get people back into their neighborhoods. However, no guidelines guided the rebuilt dwelling type, its height, or aesthetic appearance. Confusion reigned.
43. Stephen Verderber, *Innovations in Hospital Architecture* (London: Routledge, 2010). See Chapter 5: "The Evolving Role of Memory, Place, and Sustainability," 159–79. Also see Stephen Verderber "Evidence-based Design for Healthcare in Post-Katrina New Orleans: Current Dilemmas," *Health Environments Research & Design Journal* 1, no. 2 (2008): 71–79.
44. Anon., "Editorial: New Orleans' Other Winner," *Los Angeles Times* (February 9, 2010), <http://www.latimes.com/news/opinion/editorials/la-ed-neworleans9-2010Feb090,459>, accessed March 11, 2010.
45. Jessica Cohen and William Easterly, eds., *What Works in Development: Thinking Big and Thinking Small* (Washington, DC: Brookings Institution Press, 2009).
46. A far higher percentage of Lakeview residents had insurance coverage at the time of the 2005 flood. This issue remains a cultural and demographic schism within the city.
47. Lawrence E. Harrison, *The Central Liberal Truth: How Politics Can Change a Culture and Save It From Itself* (London and New York: Oxford University Press, 2006).
48. John Barry, *Rising Tide: The Great Mississippi Flood of 1927 and How it Changed America* (New York: Simon & Schuster, 1998).